

Market & Economic Review

A Quarterly Publication

Current Perspectives

1st Quarter 2022

The following market update was provided by Vanguard Investment Strategy Group and is forwarded by Independent Wealth Management.

Vanguard Market Perspectives Key Takeaways

- Vanguard 2022 U.S. growth outlook remains unchanged at 3.5% even as Russia's invasion of Ukraine has injected substantial uncertainty into the economy and markets.
- In the Euro area, higher energy prices are expected to shave up to a percentage point from Vanguard's previously anticipated 3.5% growth outlook for 2022.
- The Fed signaled additional rate hikes ahead.
 Higher oil prices have increased upside risks to inflation and downside risk to growth.

1Q22 Benchmark Returns			
Equities	1Q	2022	
S&P 500 Total Return Index	-4.6%	-4.6%	
Russell Index 1000 w/Dividend	-5.1%	-5.1%	
Russell Index 2000 w/Dividend	-7.5%	-7.5%	
Russell Index 3000 w/Dividend	-5.3%	-5.3%	
MSCI Developed EAFE (USD)	-5.8%	-5.8%	
MSCI Emerging Markets (USD)	-7.3%	-7.3%	
Alternatives			
Credit Suisse Hedge Fund Index	-0.3%	-0.3%	
DJ Wilshire Global REIT Index	-4.3%	-4.3%	
iShares S&P US Pref Stock Index	-7.5%	-7.5%	
S&P GSSI Natural Resources Index	29.4%	29.4%	
Barclays High Yield Bond Index	-4.8%	-4.8%	
Fixed Income			
90 Day Treasury Bill	0.1%	0.1%	
Barclays Muni Bond Index	-6.2%	-6.2%	
Barclays Aggregate Bond Index	-5.9%	-5.9%	
Barclays Global Bond Index	-6.5%	-6.5%	

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Market perspectives

Vanguard's monthly economic and market update

KEY HIGHLIGHTS

- Our 2022 U.S. growth outlook remains unchanged at 3.5% even as Russia's invasion of Ukraine has injected substantial uncertainty into the economy and markets.
- In the Euro area, higher energy prices are expected to shave up to a percentage point from our previously anticipated 3.5% growth outlook for 2022.
- The Fed signaled additional rate hikes ahead. Higher oil prices have increased upside risks to inflation and downside risks to growth.

Asset-class return outlooks

Our 10-year, annualized, nominal return projections are shown below. The shaded figures marked with an asterisk (*) reflect a February 28, 2022, running of the Vanguard Capital Markets Model® (VCMM) for broad equity and fixed income asset classes only. Outlooks for the remaining sub-asset classes reflect a December 31, 2021, running of the VCMM. 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*	2.8%-4.8%	16.8%
Global equities ex-U.S. (unhedged)*	5.7%-7.7%	18.4%
U.S. value	2.8%-4.8%	19.0%
U.S. growth	-1.2%-0.8%	17.5%
U.S. large-cap	1.9%-3.9%	16.3%
U.S. small-cap	2.3%-4.3%	22.2%
U.S. real estate investment trusts	1.8%-3.8%	19.2%
Global ex-U.S. developed markets equities (unhedged)	5.1%-7.1%	16.3%
Emerging markets equities (unhedged)	4.3%-6.3%	26.8%

FIXED INCOME	RETURN PROJECTION	MEDIAN VOLATILITY
U.S. aggregate bonds*	1.9%-2.9%	4.6%
U.S. Treasury bonds*	1.6%-2.6%	4.8%
U.S. credit bonds*	2.4%-3.4%	5.8%
U.S. cash*	1.5%-2.5%	1.1%
Global bonds ex-U.S. (hedged)*	1.8%-2.8%	3.9%
U.S. high-yield corporate bonds	2.3%-3.3%	10.3%
U.S. Treasury Inflation- Protected Securities	1.2%-2.2%	4.6%
Emerging markets sovereign bonds	2.5%-3.5%	10.5%
U.S. inflation	1.6%-2.6%	2.3%

Data as of February 28, 2022. Data as of December 31, 2021.

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 February 28, 2022, and December 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.



Russia's invasion of Ukraine has injected substantial uncertainty into the economy and markets

United States

Vanguard continues to foresee GDP growth around 3.5% in the United States in 2022, though oil prices and geopolitical risks from the Ukraine crisis bear watching.

- We currently see less risk from events in Ukraine to the U.S. economy than to that of the euro area, though the risk of recession would increase if financial conditions tightened significantly and oil prices settled into a \$130 to \$150 range.
- GDP increased at an annual rate of 7.0% in the fourth quarter, up from 2.3% third-quarter growth, according to the second estimate from the Bureau of Economic Analysis.
- For all of 2021, real GDP grew by 5.7%, compared with a contraction of 3.4% in 2020, when the pandemic set in.

Euro area

We have updated our outlook for 2022 economic growth in the euro area. Vanguard expects factors led primarily by higher energy prices to shave up to a percentage point from our previously anticipated 3.5% growth outlook. (Other factors include diminished consumer and business confidence and tighter financial conditions.)

- Energy price impacts are likely to be greater in the euro area, which derives 40% of its natural gas and 25% of its crude oil from Russia, than in the United Kingdom and the United States.
- The further downgrade to our growth view comes even as the COVID-19 situation improves, with daily cases, hospitalizations, and deaths declining.
- For the fourth quarter, GDP grew by 0.3% on a seasonally adjusted basis compared with the third quarter.

China

The National Bureau of Statistics in China released stronger-than-expected economic data on March 15, but the numbers don't capture significant headwinds that have since developed in what was always going to be a challenging year.

- The increase in COVID-19 cases has led to shutdowns beginning the week of March 14.
- China set an official 2022 growth target "around 5.5%" at the early-March National People's Congress, its lowest growth target ever.
- Vanguard maintains its forecast for growth around 5%, which in our view is the minimum that policymakers will accept.
- We believe economic spillovers from the war in Ukraine will shave 50 basis points off China's growth in our base case scenario, and that stimulus will be introduced as necessary.

Emerging markets

Direct economic spillovers from the war in Ukraine are largely limited to Central Europe and Eastern Europe and are not a major threat to emerging markets broadly.

- Persistently higher prices for both energy and non-energy commodities add to inflation, leading to more restrictive monetary policy and slowing growth.
- We continue to foresee growth around 5.5% for all of 2022 for emerging markets, though we emphasize now that risks are clearly skewed to the downside.



Unemployment expected to fall even further

The United States added jobs at a strong pace in February, and the unemployment rate fell to its lowest since before the COVID-19 pandemic.

- The Bureau of Labor Statistics reported that 678,000 jobs were created in February, more than 50% above the consensus expectation.
- Vanguard expects the unemployment rate to fall to its 3.5% prepandemic level in the second quarter and even further by year-end.

BUREAU OF LABOR STATISTICS

678,000 jobs created in February 2022

more than 50% above consensus expectation



Rising energy prices likely to generate higher consumer price inflation

Scenarios provide a glimpse of what may come next

The Consumer Price Index in the United States climbed by 7.9% in February compared with a year earlier—the highest increase in the gauge since January 1982.

- Vanguard expects core Personal Consumption Expenditures Price Index (PCE), which excludes volatile food and energy prices, to fall back toward 3% by the end of 2022.
- Our upside scenario of core PCE remaining above 4% at year's end would become more likely with continued geopolitical tensions and elevated oil prices.
- At a time when much remains in flux, the table below puts forth our views for a range of oil price and financial conditions scenarios.

CONSUMER PRICE INDEX

17.9%

highest increase since January 1982

As oil prices rise and conditions tighten, global growth slows and inflation accelerates

	Baseline	Scenario 1	Scenario 2	Scenario 3
Crude oil price (per barrel)	\$85–\$95	\$95–\$105	\$105–\$130	\$130-\$170
Financial conditions	Accommodative	Limited tightening	Moderate tightening	Significant tightening
2022 GDP growth	Well above trend	Above trend	Below trend	Recession
2022 average consumer price inflation	4%–5%	5%–6%	6%-8%	8%–10%
Vanguard assessment of scenario likelihood	10%	35%	35%	20%

Notes: The table presents just two of the most important factors Vanguard considers related to war in Ukraine—oil prices and financial conditions—and illustrates their expected impact on growth and inflation under four distinct scenarios. Other variables, not depicted, also factor into the analysis. The probabilities shown are as of the date of the analysis and are subject to change.

Sources: Vanguard analysis, as of March 10, 2022.



The Fed signals additional rate hikes ahead

The fallout from higher oil prices remains a concern

The Federal Reserve raised the target range for its federal funds rate by 25 basis points, to a range of 0.25% to 0.50%, on March 16.

- Higher oil prices stemming from Russia's invasion of Ukraine have increased upside risks to inflation and downside risks to growth.
- The Fed sent a clear signal that controlling inflation means a 2022 of regular rate hikes.
- The Fed is poised to announce the start of a reduction in its bond holdings as soon as its May 4 policy-setting meeting.

THE FEDERAL RESERVE

raised target range for federal funds rate

125 basis points

to a range of 0.25–0.50% on March 16

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.

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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