Vanguard

MAY 2020

Market perspectives

Vanguard's monthly economic and market update

KEY TAKEAWAYS:

- The global recession will be short, with growth turning positive in the second half.
- Developed economies will not return to normal until later in 2021.
- Labor markets in face-to-face sectors such as leisure and hospitality will be hit hardest.
- Expect the U.S. to lift shelter-in-place measures and most extreme social distancing by June 30.

Asset-class return outlooks

Recent market performance has moderately raised portfolio expected returns. Our *preliminary* 10-year annualized nominal return projections, as of March 31, 2020:

EQUITIES	FIXED INCOME	
U.S. equities **4.8%–7.8%**	U.S. bonds **1.0%–2.0%**	Global bonds ex-U.S. (hedged) **0.6%–1.6%**
Global equities ex-U.S. (unhedged) **8.3%–11.3%**	U.S. Treasury bonds **0.4%–1.4%**	U.S. cash **0.6%–1.6%**

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, 2020. Results from the model may vary with each use and over time. For more information, **see page 4.**

Source: Vanguard Investment Strategy Group.

Coronavirus outlook: A few bright spots

Countries battling the pandemic look ahead

Several countries recently among the world's hardest hit by the COVID-19 pandemic are beginning to talk about how and when they might start to reopen their economies.

- Renewed containment efforts in countries including Japan and Singapore, which had experienced early success in containing the coronavirus through vigorous testing and tracking, remind us that the battle isn't easily won, and may not be over until a vaccine is developed or broad populations achieve immunity.
- The strength of eventual recovery will depend in large part on the duration of required containment measures, the depth and breadth of unemployment, and the extent to which consumers overcome lingering fear of resuming normal activities.
- It will be crucial to avert a second wave of infection and associated renewed containment efforts that could carry long beyond the second quarter.

Economic growth plummets

Expect the sharpest global recession in recent history

Growth in the United States and Europe is expected to contract in the second quarter at the steepest pace since at least the 1930s.

- We continue to anticipate that the global recession will be short, however, with global growth turning positive in the second half of 2020.
- We expect the recovery will be "U-shaped" in that it will be at least the end of 2021 before economic activity returns to its pre-COVID-19 level.
- We expect recovery to proceed in two stages, as we're beginning to see in China: a bounce-back in growth as supply constraints recede, but a longer wait for demand to strengthen.
- Vanguard believes that monetary policy responses taken globally in recent weeks have largely helped keep markets functioning in the face of dislocations related to the COVID-19 pandemic and efforts to contain it.

Global scenario estimates and transmission channel impact

	Scenario 1	**Scenario 2** (Base Case)	**Scenario 3**	**Scenario 4**
	Minimal outside China	Shelter in place and social distancing measures lifted by June	Shelter in place and social distancing measures lifted by September	Shelter in place and social distancing measures continue through 2020
Probability	**0%**	**60%**	**30%**	**10%**
Export demand shock	Minimally impacted	Moderately impacted	Significantly impacted	Extensively impacted
Supply chain disruption	Moderately impacted	Moderately impacted	Significantly impacted	Extensively impacted
Financial markets	Minimally impacted	Significantly impacted	Significantly impacted	Extensively impacted
Face-to-face sectors	Sector unaffected	Significantly impacted	Significantly impacted	Extensively impacted
Factory shutdowns	Sector unaffected	Moderately impacted	Significantly impacted	Extensively impacted

● Sector unaffected ● Minimally impacted ● Moderately impacted ● Significantly impacted ● Extensively impacted

In Vanguard's base case, our 2020 growth estimate for the world is –2%.

Source: Vanguard Investment Strategy Group.

Will stimulus measures be sufficient?

The key question remains if they will be enough to bind employees to their jobs and keep solvency measures for households and businesses high.

When will the global economy reopen?

We expect a gradual and rolling reopening of global supply commencing in the May timeframe as regions move beyond peak infections.

How important is a healthcare solution?

The speed and shape of a demand rebound is critically tied to the degree of confidence in future healthcare solutions.

Region by region outlook

China and developed economies are on different paths

Although we see China's economy returning to normal by the end of the year (assuming no significant second wave of infection), we believe it will take three or four additional quarters before developed markets' economies return to normal, likely toward the end of 2021.

United States. Vanguard believes that GDP in the United States could contract at a significantly greater degree in the second quarter than it did at the worst point of the global financial crisis, with the extent and timing of recovery dependent on when containment efforts can be rolled back.

- It will take time for activity to return to normal as consumers come to terms with their fears about re-engaging with important face-to-face sectors of the economy.
- In our current base case scenario, the U.S. lifts shelter-in-place measures and most extreme social distancing by June 30.
- The **U.S. Federal Reserve** has taken steps to support the flow of credit to the economy, making loans available to assist households and employers of all sizes, and bolster the ability of state and local governments to deliver critical services during the coronavirus pandemic.
- We believe that the unprecedented response by the Federal Reserve and Congress will help stave off worse outcomes.
- Small business with little ability to work from home represent over 50% of industry employment, so fiscal policy providing small-business loans and expanded unemployment insurance is essential.
- If there is mass unemployment coming out of the downturn, growth impacts are likely to persist for longer.
- While we expect the April unemployment rate to rise significantly from 4.4% in March, it may overstate the rate in its historical context because the CARES Act allows some previously ineligible self-employed workers to file for unemployment insurance.
- Valuations remain below fair value estimates for U.S. equities, and the long-term picture has brightened for them.

China. Although the worst of the coronavirus-related economic effects may now be in China's past, we expect normalization to be slow.

- China's GDP declined by 6.8% in the first quarter of 2020 compared with the year-earlier quarter, the first such economic contraction since China began reporting quarterly GDP figures in 1992.
- We expect that weak global demand and slower-than-expected normalization in domestic service industries will prohibit a strong bounce-back in growth in the second and third quarters.
- China's first-quarter GDP numbers also shouldn't be viewed as a harbinger for second-quarter GDP data in other countries, given vast differences in economic structures and epidemiology.

Euro area. Evidence that the virus outbreak has peaked in Italy, Spain, and Germany is leading to expectations that lockdowns within the euro area will begin to gradually be lifted this month.

- Vanguard's view that the economy can start to rebound in the third and fourth quarters as lockdowns are removed is tempered by the risk of a second wave of infection that could necessitate containment measures to be reinstated. The assessment is similar for the U.K.

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.

Investment Products: Not FDIC Insured | No Bank Guarantee | May Lose Value

FAVEMOBF 052020