NOVEMBER 2020

Market perspectives

Vanguard's monthly economic and market update

KEY TAKEAWAYS:

- In the U.S. expect a full-year 2020 GDP contraction of around –4% and 2021 GDP growth around 4%.
- China is on course to have fully recovered from the COVID-19 pandemic by year's end.
- Inflation may experience some volatility in the near-to-medium term as a resumption in economic activity across sectors pushes prices higher.
- We continue to see the U.S. unemployment rate in a range of 7% to 9% by year's end.

Asset-class return outlooks

Our ten-year, annualized, nominal return projections, as of June 30, 2020, are shown below. 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	**3.9%–5.9%**	17.9%
U.S. value	**5.0%–7.0%**	19.9%
U.S. growth	**1.6%–3.6%**	19.5%
U.S. large-cap	**3.7%–5.7%**	19.4%
U.S. small-cap	**4.0%–6.0%**	23.5%
U.S. real estate investment trusts	**3.4%–5.4%**	19.9%
Global equities ex-U.S. (unhedged)	**7.4%–9.4%**	18.6%
U.S. inflation	**0.5%–1.5%**	2.4%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds	**0.7%–1.7%**	4.0%
U.S. Treasury bonds	**0.3%–1.3%**	4.2%
U.S. credit bonds	**1.4%–2.4%**	5.7%
U.S. high-yield corporate bonds	**3.2%–4.2%**	10.7%
U.S. Treasury inflation-protected securities	**0.4%–1.4%**	6.4%
U.S. cash	**0.5%–1.5%**	0.9%
Global bonds ex-U.S. (hedged)	**0.5%–1.5%**	2.5%
Emerging market sovereign	**3.1%–4.1%**	11.1%

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 June 30, 2020. Results from the model may vary with each use and over time. For more information, see page 4.

Source: Vanguard Investment Strategy Group.

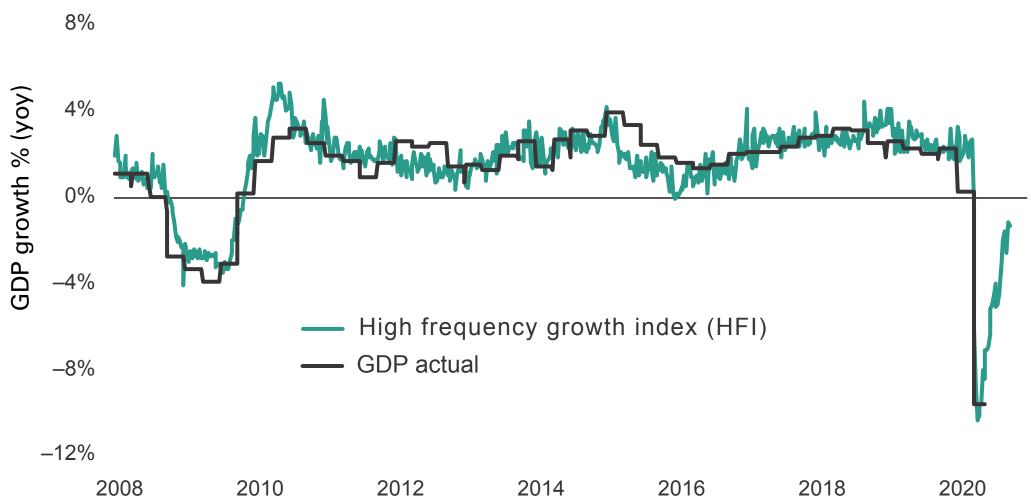
Region-by-region outlook

China leads the way on growth, while the U.S. will need more time

United States. Vanguard expects the first estimate of third-quarter GDP, to be released Thursday, October 29, to show a recovery well under way. We foresee reported third-quarter growth around 22%, and fourth-quarter growth in the neighborhood of 7%.

- Our outlook assumes an additional $1 trillion in COVID-related fiscal support in the fourth quarter. Should no fiscal support be forthcoming, we'd foresee revising down slightly our growth expectations for the fourth quarter and perhaps the first half of 2021.
- We continue to foresee a full-year 2020 GDP contraction of around –4% and 2021 GDP growth around 4%. We continue to anticipate a challenge in getting back to a pre-pandemic growth trajectory owing to some permanent losses of jobs and businesses and consumer reluctance in some face-to-face sectors.
- Absent a widely accessible and administered vaccine or treatments that could moderate those effects, we see at least a 24-month period to reach a pre-COVID trajectory of activity.

Vanguard High Frequency Index versus U.S. GDP growth



Sources: Vanguard and Refinitive, as of October 2, 2020.

Notes: High frequency activity measure uses weekly data to estimate current activity on a more timely basis than traditional economic releases. Series included: Weekly raw steel production, weekly energy consumption (motor vehicle, jet fuel, diesel), weekly continuing unemployment claims, weekly retail sales, and bi-weekly consumer sentiment.

China. With a still-robust export sector and a quicker-than-expected resumption in domestic activity, the economy in China is on course to have fully recovered from the COVID-19 pandemic by year's end, Vanguard believes.

- We've become more optimistic about China's third-quarter GDP growth, which we foresee around 5.5% to 6.0%, higher than the 5.2% consensus of economists surveyed by Bloomberg. Vanguard continues to foresee China's full-year GDP growth in a range of 1.0% to 3.0%.
- The coronavirus affected China first among the world's largest economies, and China dealt with the economic fallout first. So when the worst of the outbreak was over, China's exporters were able to take global market share.
- Vanguard foresees China's economy reaching its pre-pandemic trajectory before the end of 2020, a full year or more before other major economies reach the same milestone.
- In the longer term, Vanguard sees room for both caution and optimism about China. Challenges include an aging population, a fading catch-up effect as the country becomes wealthier, and an external environment that may look less kindly on globalization. Reasons for optimism include the vast domestic market and a growing educated workforce.

Region-by-region outlook *(continued)*

Euro area. Rising cases of COVID-19 in the euro area have led to tactical, localized restrictions on activity. We foresee only modest overall fourth-quarter growth, with contraction likely in face-to-face sectors such as leisure, hospitality, and tourism, while recovery is likely to continue in sectors such as agriculture, manufacturing, and construction.

- We expect the pace of recovery to differ by geography as well, with Germany and Italy likely to fare better than Spain and France, the latter two for which virus transmission has been higher lately and the services sector contributes more to the economies.
- Vanguard continues to foresee full-year 2020 GDP contraction in a range of –8% to –10%.

Emerging markets. Vanguard foresees emerging markets contracting by around –3% for 2020.

- The outlook for Latin America, under assault from COVID-19, is particularly pessimistic.
- Emerging markets will be watching developments in U.S.-China relations, which have implications for supply chains and trade-related growth.

Monetary policy to remain loose

Fed maintains current target range

Federal Reserve. The Fed said it expects to maintain the current target range of 0%–0.25% until it assesses that inflation "is on track to moderately exceed 2% for some time."

- U.S. Federal Open Market Committee (FOMC) members broadly expect the Fed will keep the current federal funds target rate at today's level through 2023, even as they expect inflation to then finally reach 2%.

European Central Bank. The ECB said it would keep its main rates at their current level or take them still lower until it sees the inflation outlook "robustly converge to a level sufficiently close to, but below, 2%."

China. With China's better-than-expected recovery to date from the pandemic, the People's Bank of China has little reason to add fuel to the economic tank, Vanguard believes. China's quicker recovery relative to other major economies gives policymakers an opportunity to wait and see what might be required next.

- We expect any moves to be targeted, aimed at sectors where recovery has been slower than in other sectors, rather than broad stimulus measures.

Don't rule out some volatility

Expect U.S. inflation to be below 2% by the end of 2021

Vanguard expects some volatility in U.S. inflation in the near-to-medium term as a resumption in economic activity across sectors pushes prices higher, perhaps above 2%, momentarily, in the first half of 2021.

- We expect such a firming trend to be short-lived and foresee inflation below 2% by the end of 2021, though virus-related supply shocks, fiscal support and/or monetary stimulus, and willingness by the Federal Reserve to tolerate above-target inflation may serve as potential spurs to higher prices.

Unemployment rate improves

Slower pace for job gains

The unemployment rate in the United States fell to 7.9% in September, its fifth straight month of decline, but also the third straight month of a slowing in the pace of job gains, and the fewest gains since the job market's recovery began in May. Vanguard expects a continued slowing in the pace of recovery in the medium term.

- The potential for increases in virus transmission and any resulting targeted disruptions to economic activity could create volatility in jobs numbers in the months ahead.
- We continue to see the U.S. unemployment rate in a range of 7% to 9% by year's end.

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.

Vanguard Investments Hong Kong Limited
48/F, The Center
99 Queen's Road Central, Hong Kong
Phone: 3409 8333
Email: sales@vanguard.com.hk

Connect with Vanguard® > vanguard.com.hk

The contents of this document and any attachments/links contained in this document are for general information only and are not advice. The information does not take into account your specific investment objectives, financial situation and individual needs and is not designed as a substitute for professional advice. You should seek independent professional advice regarding the suitability of an investment product, taking into account your specific investment objectives, financial situation and individual needs before making an investment.

The contents of this document and any attachments/links contained in this document have been prepared in good faith. Please note that the information may have become outdated since its publication, and any information sourced from third parties is not necessarily endorsed by The Vanguard Group, Inc., and all of its subsidiaries and affiliates (collectively, the "Vanguard Entities").

This document contains links to materials which may have been prepared in the United States and which may have been commissioned by the Vanguard Entities. They are for your information and reference only and they may not represent our views. The materials may include incidental references to products issued by the Vanguard Entities.

The information contained in this document does not constitute an offer or solicitation and may not be treated as an offer or solicitation in any jurisdiction where such an offer or solicitation is against the law, or to anyone to whom it is unlawful to make such an offer or solicitation, or if the person making the offer or solicitation is not qualified to do so. The Vanguard Entities may be unable to facilitate investment for you in any products which may be offered by the Vanguard Group, Inc.

No part of this document or any attachments/links contained in this document may be reproduced in any form, or referred to in any other publication, without express written consent from the Vanguard Entities. Any attachments and any information in the links contained in this document may not be detached from this document and/or be separately made available for distribution.

This document is being made available in Hong Kong by Vanguard Investments Hong Kong Limited (CE No.: AYT820) ("Vanguard Hong Kong"). Vanguard Hong Kong is licensed with the Securities and Futures Commission ("SFC"). The contents of this document have not been reviewed by the Securities and Futures Commission in Hong Kong. Investment involves risk. Past performance is not indicative of future results. Investors are advised to consider their own investment objectives and circumstances. If you are in any doubt, you should seek professional advice.

In China, the information contained in this document does not constitute a public offer of any investment products in the People's Republic of China (the "PRC").

No Vanguard fund is being offered or sold directly or indirectly in the PRC to the PRC public. Further, no legal or natural persons of the PRC may directly or indirectly purchase any of Vanguard funds or any beneficial interest therein without obtaining all prior governmental approvals that are required by the PRC (which includes conducting due approval or registration or filing formalities under the PRC laws), whether statutorily or otherwise. Persons who come into possession of this document are required by the issuer to observe these restrictions.

In Taiwan, Vanguard funds are not registered and may not be sold, issued or offered. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of any Vanguard funds in Taiwan.

The Vanguard Entities do not make any representation with respect to the eligibility of any recipients of this document to acquire the shares or units of any Vanguard financial and investment products therein under the laws of Korea, including but without limitation the Foreign Exchange Transaction Act and Regulations thereunder. The shares or units of any Vanguard financial and investment products have not been registered under the Financial Investment Services and Capital Markets Act of Korea, and none of the shares and units of any Vanguard financial and investment products may be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to applicable laws and regulations of Korea.

In Singapore: This document has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares may not be circulated or distributed, nor may shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor pursuant to Section 304 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA") or (ii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

In Brunei: This document relates to a private collective investment scheme under the Securities Markets Order, 2013 and the regulations thereunder ("Order"). This document is intended for distribution only to specific classes of investors as specified in the Order and must not, therefore, be delivered to, or relied on by, a retail client. The Autoriti Monetari Brunei Darussalam ("Authority") is not responsible for reviewing or verifying any prospectus or other documents in connection with this collective investment scheme. The Authority has not approved this document or any other associated documents nor taken any steps to verify the information set out in this document and has no responsibility for it. The units to which this document relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the units offered should conduct their own due diligence on the units.

In Malaysia: No action has been, or will be, taken to comply with Malaysian laws for making available, offering for subscription or purchase, or issuing any invitation to subscribe for or purchase or sale of the shares/units in Malaysia or to persons in Malaysia as the shares/units are not intended by the issuer to be made available, or made the subject of any offer or invitation to subscribe or purchase, in Malaysia. Neither this document nor any document or other material in connection with the shares/units should be distributed, caused to be distributed or circulated in Malaysia. No person should make available or make any invitation or offer or invitation to sell or purchase the shares/units in Malaysia unless such person takes the necessary action to comply with Malaysian laws.

In the Philippines: The securities being offered or sold herein have not been registered with the Securities and Exchange Commission under the Securities Regulation Code of the Philippines ("Code"). Any future offer or sale thereof is subject to registration requirements under the Code unless such offer or sale qualifies as an exempt transaction.

In Thailand: The document has not been approved by the Securities and Exchange Commission which takes no responsibility for its contents. No offer to the public to purchase the Shares/Units referred in the document will be made in Thailand and this document is intended to be read by the addressee only and must not be passed to, issued to, or shown to the public generally.

In Indonesia: This document does not constitute an offer to sell nor a solicitation to buy securities in Indonesia.

FAVEMOBF_HK_112020