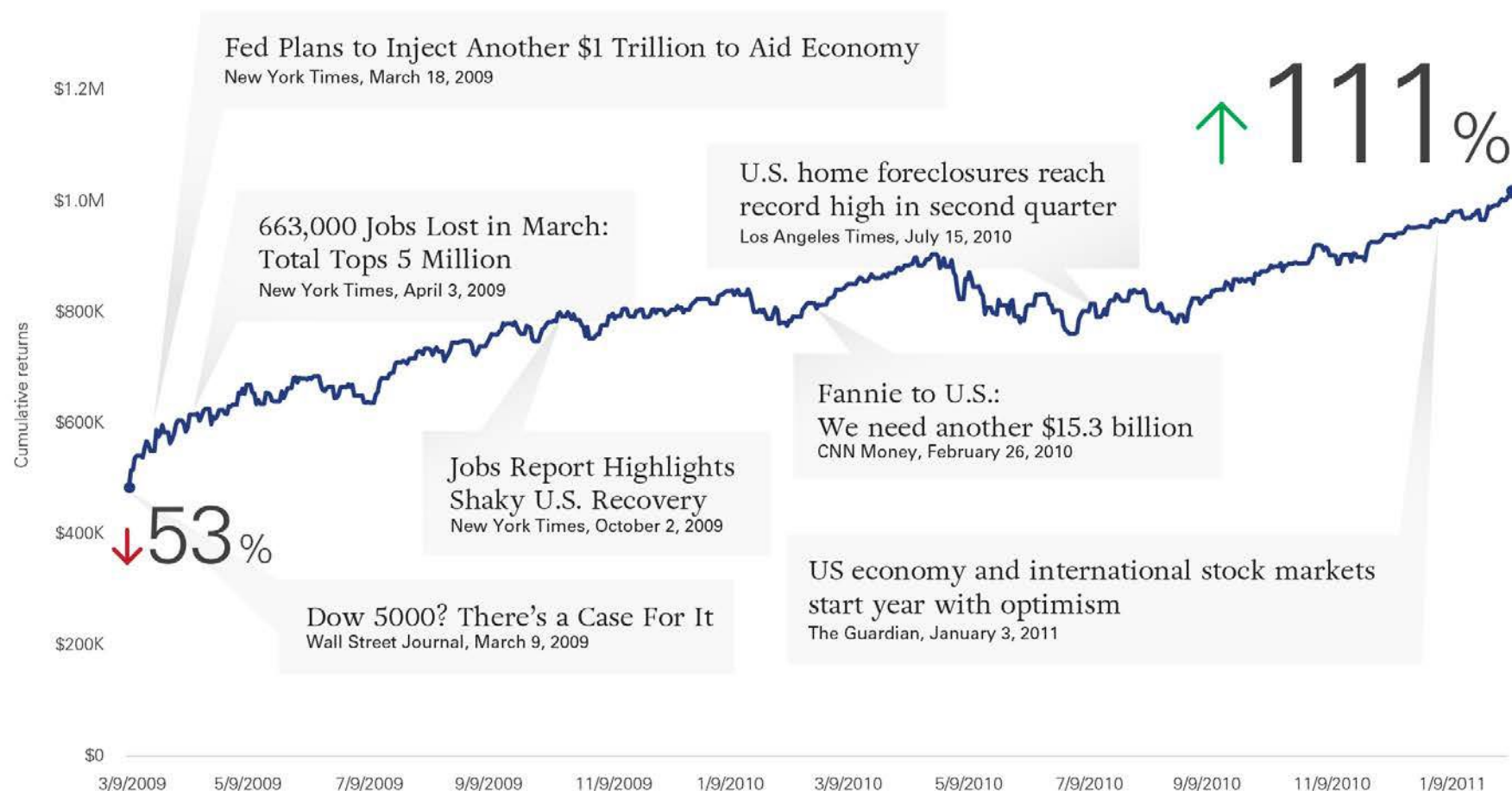


Landmark Wealth Management

Vanguard®

Don't rely on headlines for an “all-clear” to invest

Hypothetical \$1 million investment in Standard & Poor's 500 index at pre-crisis peak, from market bottom in 2009 to breakeven in 2011

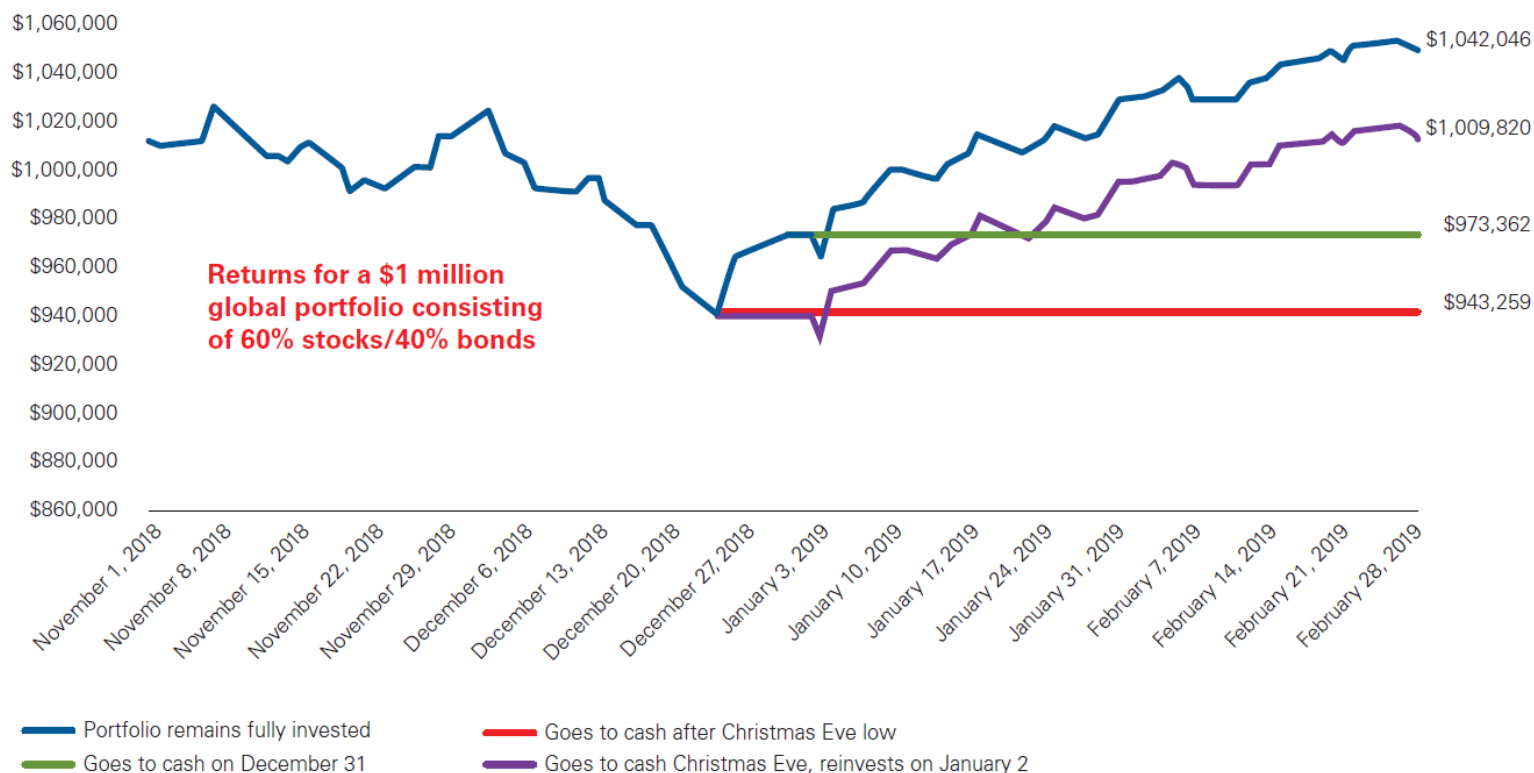


Sources: Vanguard. Andrews, Edmund L., 2009. Fed Plans to Inject Another \$1 Trillion to Aid the Economy. *The New York Times* (March 18). Accessed March 24, 2020, at <https://www.nytimes.com/2009/03/19/business/economy/19fed.html>. Goodman, Peter S., 2009. Jobs Report Highlights Shaky U.S. Recovery. *The New York Times* (October 2). Accessed March 24, 2020, at <https://www.nytimes.com/2009/10/03/business/economy/03jobs.html>. Goodman, Peter S. and Jack Healy, 2009. 663,000 Jobs Lost in March; Total Tops 5 Million. *The New York Times* (April 3). Accessed March 24, 2020, at <https://www.nytimes.com/2009/04/04/business/economy/04jobs.html>. Lazo, Alejandro, 2010. U.S. home foreclosures reach record high in second quarter. *Los Angeles Times* (July 15). Accessed March 24, 2020, at <https://www.latimes.com/archives/la-xpm-2010-jul-15-la-fi-foreclosures-20100715-story.html>. Lobb, Annelena, 2009. Dow 5,000? There's a Case for It. *The Wall Street Journal* (March 9). Accessed March 24, 2020, at <https://www.wsj.com/articles/SB123654810850564723>. Luhby, Tami, 2010. Fannie to U.S.: We need another \$15.3 billion. *CNN Money* (February 26, 2010). Accessed March 24, 2020, at https://money.cnn.com/2010/02/26/news/companies/Fannie_mae_results. Milmo, Dan, 2011. US economy and international stock markets start year with optimism. *The Guardian* (January 3). Accessed March 24, 2020, at <https://www.theguardian.com/business/2011/jan/04/us-economy-buoys-international-markets>.

Past performance is not a guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot directly invest in an index.

And recent history tells the same stay-the-course tale

Staying the course can pay off; abandoning course can be costly



The global stock market drop in late 2018 offered a lesson in investor behavior (November 2018 through February 2019)

Sources: Vanguard calculations, based on data from FactSet, as of February 28, 2019.

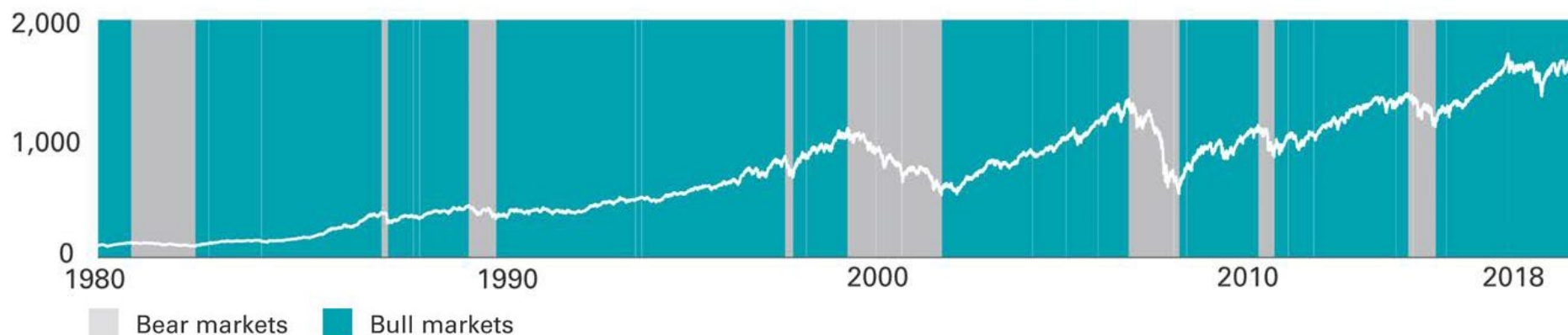
Notes: U.S. stocks represented by CRSP US Total Market Index. U.S. bonds represented by Bloomberg Barclays U.S. Aggregate Float Adjusted Index. Global stocks represented by FTSE Global All Cap ex US Index. Global bonds represented by Bloomberg Barclays Aggregate ex-USD Float Adjusted RIC Capped Index.

Past performance is not a guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot directly invest in an index.

Downturns aren't rare events: Typical investors, in all markets, will endure many of them during their lifetime

Global stock prices

January 1, 1980, to December 31, 2019



**One attention-grabbing
downturn every two years**

13 corrections
Decline of 10% or more

8 bear markets
Decline of 20% or more, at least two months long

Sources: Vanguard analysis based on the MSCI World Index from January 1, 1980, through December 31, 1987, and the MSCI AC World Index thereafter. Both indexes are denominated in U.S. dollars. Our count of corrections excludes those that turn into a bear market. We count corrections that occur after a bear market has recovered from its trough even if stock prices haven't yet reached their previous peak. Past performance is not a guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot directly invest in an index.

More consistency through balance

Annual returns by asset class, from the highest to the lowest, 1997-2019

'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	Avg.
U.S. equities 31.29%	U.S. equities 23.43%	EM equities 60.88%	Comm. 31.84%	REITs 12.65%	Comm. 25.91%	EM equities 58.81%	REITs 30.85%	EM equities 32.85%	REITs 35.22%	EM equities 39.39%	U.S. bonds 5.24%	EM equities 78.51%	REITs 28.48%	REITs 8.69%	EM equities 18.22%	U.S. equities 33.51%	REITs 30.38%	REITs 2.52%	U.S. equities 12.68%	EM equities 31.06%	Cash 1.86%	U.S. equities 30.84%	REITs 9.37%
REITs 31.29%	60/40 16.22%	Global stocks 29.27%	REITs 26.38%	U.S. bonds 8.44%	Global bonds 16.53%	Global stocks 40.41%	EM equities 26.68%	Comm. 21.36%	EM equities 29.93%	Comm. 16.23%	Global bonds 4.79%	Global stocks 40.44%	EM equities 18.88%	U.S. bonds 7.92%	REITs 17.77%	Global stocks 15.76%	U.S. equities 12.58%	U.S. bonds 0.44%	EM equities 11.77%	Global stocks 27.41%	U.S. bonds -0.08%	REITs 25.84%	U.S. equities 8.77%
60/40 14.17%	Global stocks 15.43%	Comm. 24.35%	U.S. bonds 11.63%	Cash 4.09%	U.S. bonds 10.26%	REITs 35.92%	Global stocks 20.93%	Global stocks 15.78%	Global stocks 26.93%	Global stocks 15.85%	Cash 1.80%	REITs 29.15%	U.S. equities 17.28%	Global bonds 5.51%	Global stocks 17.04%	60/40 15.02%	U.S. bonds 5.85%	U.S. equities 0.40%	Comm. 11.40%	U.S. equities 21.19%	Global bonds -1.58%	Global stocks 21.80%	60/40 6.91%
U.S. bonds 9.65%	Global bonds 13.71%	U.S. equities 23.56%	Cash 5.96%	Global bonds 1.57%	REITs 3.61%	U.S. equities 31.64%	U.S. equities 12.62%	REITs 11.96%	U.S. equities 15.72%	Global bonds 9.48%	60/40 -22.22%	U.S. equities 28.76%	Comm. 16.83%	U.S. equities 1.08%	U.S. equities 16.44%	REITs 2.47%	60/40 5.42%	Cash 0.03%	REITs 8.60%	60/40 16.16%	REITs -4.57%	EM equities 20.40%	EM equities 6.30%
Cash 5.24%	U.S. bonds 8.69%	60/40 14.66%	Global bonds 3.18%	EM equities -2.80%	Cash 1.70%	Comm. 23.93%	60/40 11.90%	60/40 6.12%	60/40 14.13%	60/40 8.91%	Comm. -35.65%	60/40 22.55%	60/40 11.18%	Cash 0.08%	60/40 11.77%	Cash 0.05%	EM equities 1.24%	60/40 -1.18%	60/40 6.72%	Global bonds 7.84%	U.S. equities -5.17%	60/40 19.68%	U.S. bonds 5.13%
Global bonds 3.79%	Cash 5.05%	Cash 4.74%	60/40 -4.07%	60/40 -6.14%	60/40 -6.33%	60/40 23.74%	Global bonds 9.27%	U.S. equities 6.08%	Global bonds 6.64%	U.S. bonds 6.97%	U.S. equities -37.04%	Comm. 18.91%	Global stocks 10.69%	60/40 -0.17%	Global bonds 4.59%	U.S. bonds -1.97%	Global bonds 0.56%	Global bonds -3.51%	Global stocks 4.73%	REITs 5.07%	60/40 -5.58%	U.S. bonds 8.87%	Global stocks 5.02%
Global stocks -1.07%	REITs -16.50%	U.S. bonds -0.82%	U.S. equities -10.89%	U.S. equities -10.97%	EM equities -7.04%	Global bonds 12.51%	Comm. 9.15%	Cash 3.00%	Cash 4.76%	U.S. equities 5.59%	REITs -37.17%	Global bonds 6.93%	U.S. bonds 6.58%	Comm. -13.32%	U.S. bonds 4.32%	Global bonds -2.27%	Cash 0.03%	Global stocks -4.29%	U.S. bonds 2.75%	U.S. bonds 3.63%	Comm. -12.99%	Global bonds 7.19%	Global bonds 4.36%
Comm. -3.39%	EM equities -18.39%	REITs -4.43%	Global stocks -15.76%	Comm. -19.51%	Global stocks -15.29%	U.S. bonds 4.10%	U.S. bonds 4.34%	U.S. bonds 2.43%	U.S. bonds 4.33%	Cash 4.74%	Global stocks -45.52%	U.S. bonds 5.93%	Global bonds 4.57%	Global stocks -14.31%	Cash 0.07%	EM equities -4.28%	Global bonds -3.39%	EM equities -15.40%	Global bonds 2.14%	Cash 0.84%	Global stocks -14.61%	Comm. 5.44%	Cash 2.12%
EM equities -16.36%	Comm. -27.03%	Global bonds -5.17%	EM equities -27.94%	Global stocks -19.77%	U.S. equities -20.86%	Cash 1.07%	Cash 1.24%	Global bonds -4.49%	Comm. 2.07%	REITs -16.40%	EM equities -53.33%	Cash 0.16%	Cash 0.13%	EM equities -18.42%	Comm. -1.06%	Comm. -9.52%	Comm. -17.02%	Comm. -24.70%	Cash 0.27%	Comm. 0.75%	EM equities -14.76%	Cash 2.25%	Comm. 0.08%

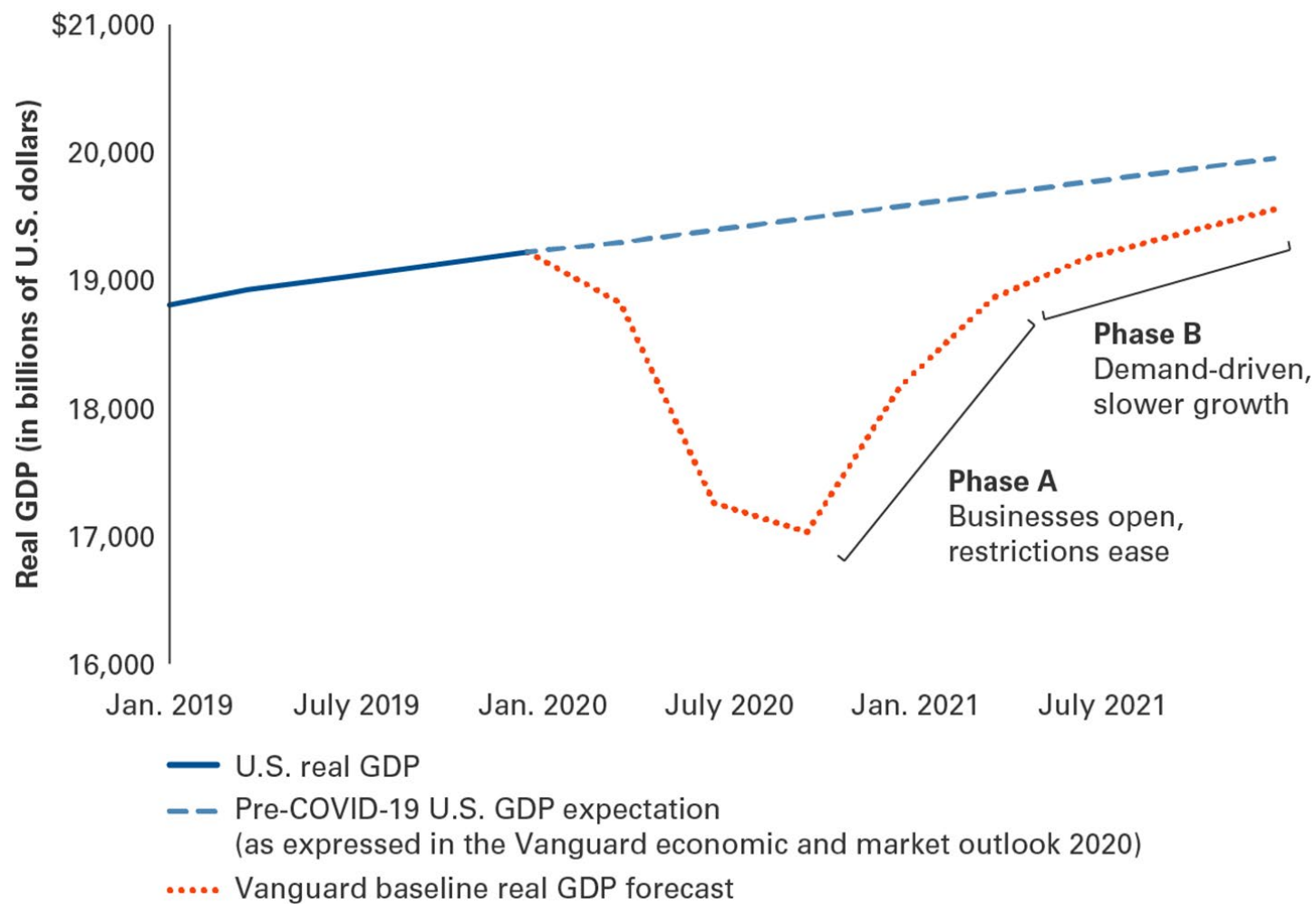
■ U.S. equities
■ 60% equities/40% bonds
■ Cash investments
■ Global stocks
■ Global bonds
■ REITs
■ Emerging markets equities
■ U.S. bonds
■ Commodities

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Vanguard, as of December 31, 2019.

Note: Cash is represented by the FTSE 3-Month U.S. Treasury Bill Index. REITs are represented by the MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009, and MSCI US REIT Index thereafter. U.S. equity is represented by the Dow Jones Wilshire 5000 Index through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter. Emerging markets equity is represented by Select Emerging Markets Index through August 23, 2006; MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; FTSE Emerging Markets All Cap China A Transition Index through September 18, 2016; and FTSE Emerging Markets All Cap China A Inclusion Index thereafter. U.S. fixed income represented by Bloomberg Barclays U.S. Aggregate Bond Index through December 31, 2009, and Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter. Global fixed income represented by Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index (USD Hedged). Global equity is represented by the Total International Composite Index through August 31, 2006; MSCI EAFE + Emerging Markets Index through December 15, 2010; MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Commodities are represented by the Bloomberg Commodity Index. Composite 60/40 portfolio's equity allocation consists of 60% U.S.-domiciled stocks and 40% non-U.S. domiciled stocks; bond allocation consists of 70% U.S.-domiciled bonds and 30% non-U.S. domiciled bonds.

A recovery in phases



Sources: U.S. Bureau of Economic Analysis and Vanguard forecasts.

Global scenario estimates

	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	●	●	●	●
Supply chain disruption	●	●	●	●
Financial markets	●	●	●	●
Face-to-face sectors	●	●	●	●
Factory shutdowns	●	●	●	●
<div> ● Sector unaffected ● Minimally impacted ● Moderately impacted ● Significantly impacted ● Extensively impacted </div>				

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

Important information

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

Diversification does not ensure a profit or protect against a loss.

Please remember that all investments involve some risk. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

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.

Stocks or bonds of companies based in emerging markets are subject to national and regional political and economic risks and to the risk of currency fluctuations. These risks are especially high in emerging markets.

The Dow Jones Wilshire 5000 Index is a product of S&P Dow Jones Indices LLC, a division of S&P Global, or its affiliates (“SPDJI”), and has been licensed for use by Vanguard. Standard & Poor’s®, and S&P® are registered trademarks of Standard & Poor’s Financial Services LLC, a division of S&P Global (“S&P”); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC (“Dow Jones”); and these trademarks have been licensed for use by SPDJI and sublicensed for certain purposes by Vanguard. Vanguard products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the Dow Jones Wilshire 5000 Index.

Center for Research in Security Prices, LLC (CRSP®) and its third-party suppliers have exclusive proprietary rights in the CRSP® Index Data, which has been licensed for use by Vanguard but is and shall remain valuable intellectual property owned by, and/or licensed to, CRSP®. The Vanguard Funds are not sponsored, endorsed, sold or promoted by CRSP®, The University of Chicago, or The University of Chicago Booth School of Business and neither CRSP®, The University of Chicago, or The University of Chicago Booth School of Business, make any representation regarding the advisability of investing in the Vanguard Funds.

Important information

BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. BARCLAYS® is a trademark and service mark of Barclays Bank Plc, used under license. Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL") (collectively, "Bloomberg"), or Bloomberg's licensors own all proprietary rights in the Bloomberg Barclays Indices.

The products are not sponsored, endorsed, issued, sold or promoted by "Bloomberg or Barclays". Bloomberg and Barclays make no representation or warranty, express or implied, to the owners or purchasers of the products or any member of the public regarding the advisability of investing in securities generally or in the products particularly or the ability of the Bloomberg Barclays Indices to track general bond market performance. Neither Bloomberg nor Barclays has passed on the legality or suitability of the products with respect to any person or entity. Bloomberg's only relationship to Vanguard and the products are the licensing of the Bloomberg Barclays Indices which are determined, composed and calculated by BISL without regard to Vanguard or the products or any owners or purchasers of the products. Bloomberg has no obligation to take the needs of the products or the owners of the products into consideration in determining, composing or calculating the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays is responsible for and has not participated in the determination of the timing of, prices at, or quantities of the products to be issued. Neither Bloomberg nor Barclays has any obligation or liability in connection with the administration, marketing or trading of the products.

London Stock Exchange Group companies include FTSE International Limited ("FTSE"), Frank Russell Company ("Russell"), MTS Next Limited ("MTS"), and FTSE TMX Global Debt Capital Markets Inc. ("FTSE TMX"). All rights reserved. "FTSE®", "Russell®", "MTS®", "FTSE TMX®" and "FTSE Russell" and other service marks and trademarks related to the FTSE or Russell indexes are trademarks of the London Stock Exchange Group companies and are used by FTSE, MTS, FTSE TMX and Russell under license. All information is provided for information purposes only. No responsibility or liability can be accepted by the London Stock Exchange Group companies nor its licensors for any errors or for any loss from use of this publication. Neither the London Stock Exchange Group companies nor any of its licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE Indexes or the fitness or suitability of the Indexes for any particular purpose to which they might be put.

© 2020 The Vanguard Group, Inc. All rights reserved.