



WEALTH
MANAGEMENT

Q1

Quarterly Market Review

First Quarter 2021

The American Jobs Plan

On March 31st, President Biden introduced the first of two infrastructure plans as part of his Build Back Better initiative, the American Jobs Plan. The second plan, the American Families Plan, has not yet been finally proposed. The American Jobs Plan totals approximately \$2.3 trillion and is summed up as an investment program in infrastructure and green energy with the intent to boost job creation, strengthen the manufacturing sector, and drive innovation.

First, it isn't clear whether it will pass as proposed, with even some democrats threatening to block passage of the bill if the SALT deductions (the ability to deduct state and local taxes) are not reinstated due to the tax hikes. However, assuming the plan as proposed is passed, let's break it down to determine the plan's potential impact:

- \$621 billion for infrastructure, transportation and electric vehicles aimed at strengthening the manufacturing and communications sectors in the United States.
- \$561 billion for green housing, schools, power, and water upgrades
- \$480 billion for subsidies to the manufacturing sector and Research & Development
- \$400 billion for elder and disability care
- \$200 billion for broadband and job training

To pay for the plan, the proposal calls for a corporate tax hike over 15 years and other modifications to the tax code. The spirit and intent of the plan appears well intended and the US needs to further invest in its infrastructure. However, the following are a few issues with the plan as proposed:

- The plan includes almost 40% of *subsidies* to local corporations and the public sector, which is generally less productive and efficient. In essence it includes a massive transfer of wealth from productive and tax paying sectors to subsidize government spending.
- The subsidies to the manufacturing sector and for R&D are likely to be counterproductive and could even be a net loss given that the plan aims to fund the program with larger tax increases. It is worth noting that the European Union median unemployment rates have not fallen significantly considering the intense investment. In the US however, green energy and technology jobs thrived due to *tax incentives*. Although other factors do come into play, such as Europe's labor rigidity, a conclusion can be made that jobs rise faster and stay longer when policy is driven toward tax incentives vs subsidies.
- The Biden administration also states that the plan is revenue neutral. However, as has been pointed out by other commentators, it includes wildly optimistic estimates of net revenues. There is also a mismatch in terms of when spending will occur and time frame when total revenues will be generated.
- The biggest issue we see is that the government is not even starting to address the deficits and debt overhang that are being built up from the past and present spending. There are Democrats who believe that deficits don't matter because the deficits can be financed at

all-time low costs and supported by the Federal Reserve. But if that was true, why not just “print” money and eliminate taxes altogether?

- Ultimately deficits and the total debt overhang do matter. Per a study included by Hoisington Management, in 1995 the US economy was 4% greater than the Euro Area, but 98% larger than Japan. In 2020, the US economy was 34% and 200% larger, respectively, than the Euro Area and Japan reflecting the much larger debt overhang respectively. Ultimately, debt funded spending leads to slower economic growth and disinflation over time.
- Finally, as stated by David Rosenberg (Chief Economist & Strategist at Rosenberg Research and Associates, Inc) “*Few countries have deficit-financed more government expenditures than Japan. Two decades later – great infrastructure but an economy mired in a debt-deflation trap*”.

Investing in the current environment in a reasonable and prudent way is exceedingly difficult right now given the significant disconnect between fundamentals and valuations. Until the disconnect is reduced by improving fundamentals, it is vitally important to take the long view and invest appropriately with a view to your long-term objectives.

If you have questions regarding your financial situation and want an advisor that will work with you to review your total financial situation and objectives, please feel free to give us a call at 858-350-1365.

All sources, noted links, press releases and other materials presented or released to the financial community through the CSJ Capital Commentary, to the best of the firm’s knowledge are timely and accurate when issued. However, the passage of time can render information stale, and viewers should not rely on the continued accuracy of any such material beyond the date of issuance. CSJ Capital does not endorse nor affirm the information is true or correct and is not responsible for updating any information contained in any such material. You should carefully check the dates of issuance when reviewing the material contained in the Commentary. Clicking on the provided Sources links redirects you to another site not affiliated with CSJ Capital.

The opinions and guidance expressed in the CSJ Commentary are solely those of the author. Referenced quotes, cited Information and links to third party information are provided for educational purposes only and is not a solicitation.

Quarterly Market Review

First Quarter 2021

This report features world capital market performance and a timeline of events for the past quarter. It begins with a global overview, then features the returns of stock and bond asset classes in the US and international markets.

The report also illustrates the impact of globally diversified portfolios and features a quarterly topic.

Overview:

Market Summary

World Stock Market Performance

World Asset Classes

US Stocks

International Developed Stocks

Emerging Markets Stocks

Select Market Performance

Select Currency Performance
vs. US Dollar

Real Estate Investment Trusts (REITs)

Commodities

Fixed Income







Global Fixed Income

Impact of Diversification

YOLO, Meme, and EMH: What's Your
Investment Style?

Quarterly Market Summary



















Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1Q 2021	STOCKS				BONDS	
	6.35%	4.04%	2.29%	6.22%	-3.37%	-1.90%
						
Since Jan. 2001						
Avg. Quarterly Return	2.4%	1.6%	3.0%	2.5%	1.1%	1.1%
Best Quarter	22.0% 2020 Q2	25.9% 2009 Q2	34.7% 2009 Q2	32.3% 2009 Q3	4.6% 2001 Q3	4.6% 2008 Q4
Worst Quarter	-22.8% 2008 Q4	-23.3% 2020 Q1	-27.6% 2008 Q4	-36.1% 2008 Q4	-3.4% 2021 Q1	-2.7% 2015 Q2

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg Barclays US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2021, all rights reserved. Bloomberg Barclays data provided by Bloomberg.

Long-Term Market Summary

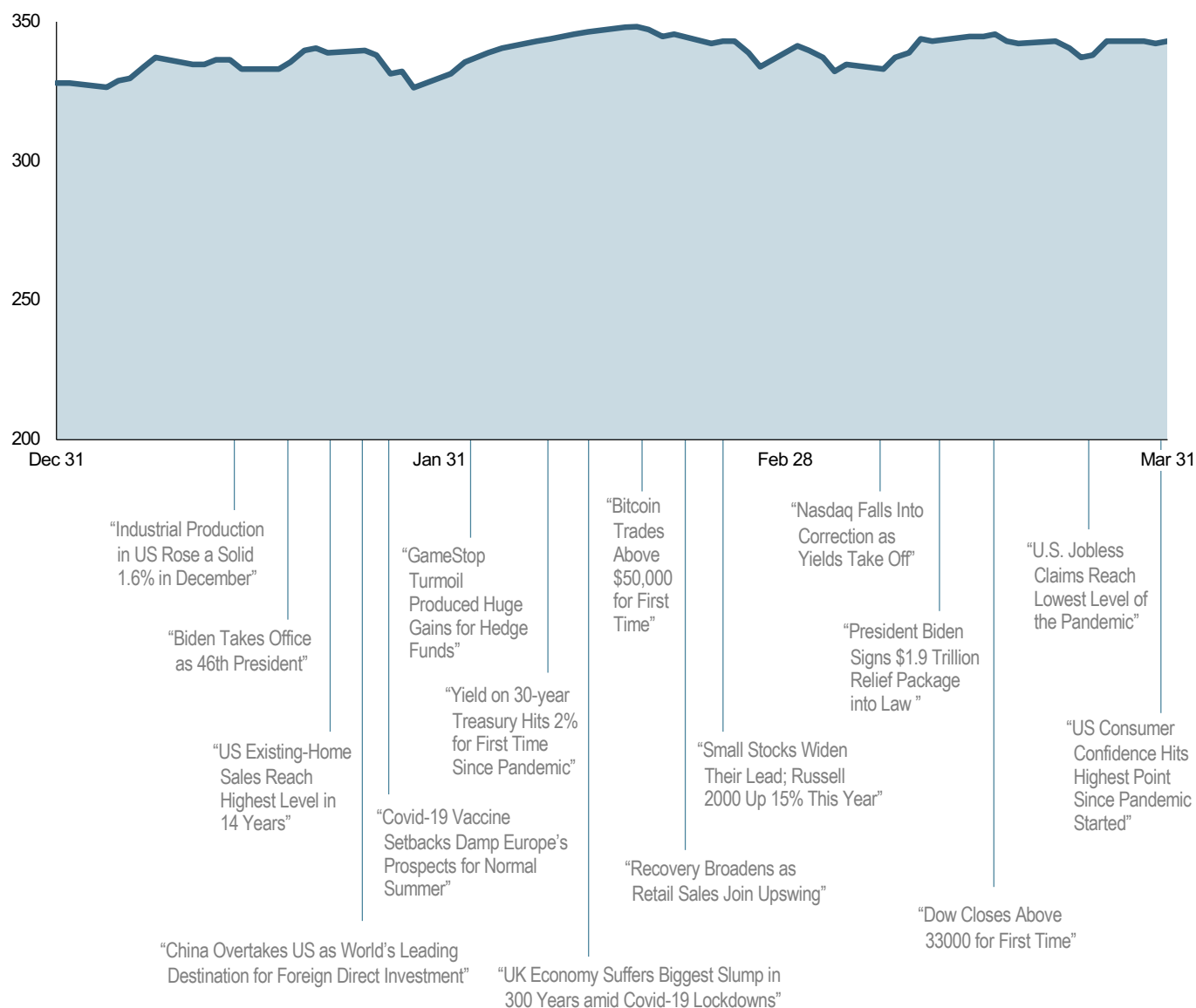
Index Returns as of March 31, 2021

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1 Year	STOCKS				BONDS	
	62.53%	45.86%	58.39%	36.05%	0.71%	1.45%
						
5 Years						
	16.64%	8.92%	12.07%	3.52%	3.10%	3.28%
						
10 Years						
	13.79%	5.21%	3.65%	6.23%	3.44%	4.22%
						

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg Barclays US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2021, all rights reserved. Bloomberg Barclays data provided by Bloomberg.

World Stock Market Performance

MSCI All Country World Index with selected headlines from Q1 2021

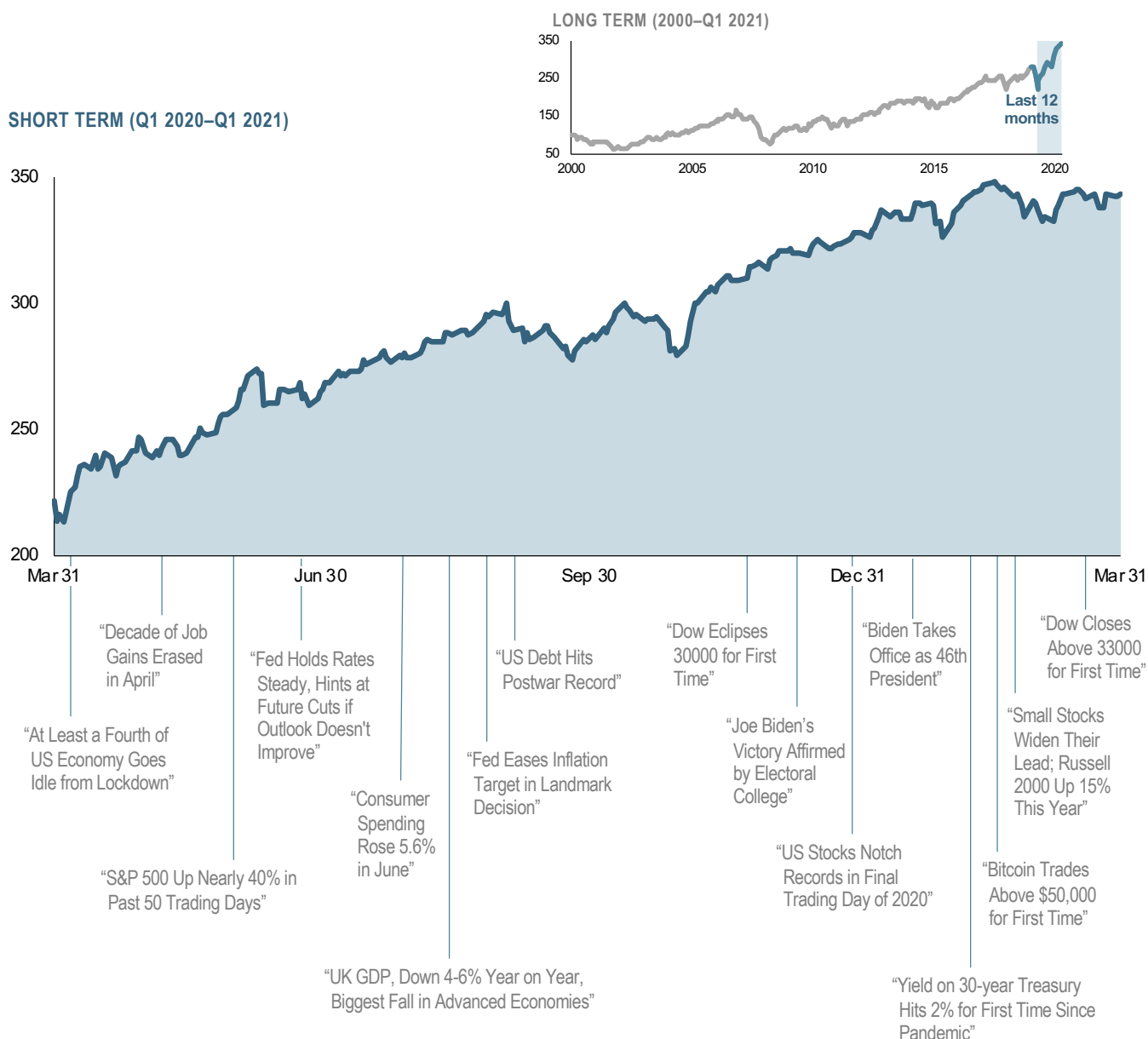


These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2021, all rights reserved.
 It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

World Stock Market Performance

MSCI All Country World Index with selected headlines from past 12 months



These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2021, all rights reserved.

It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

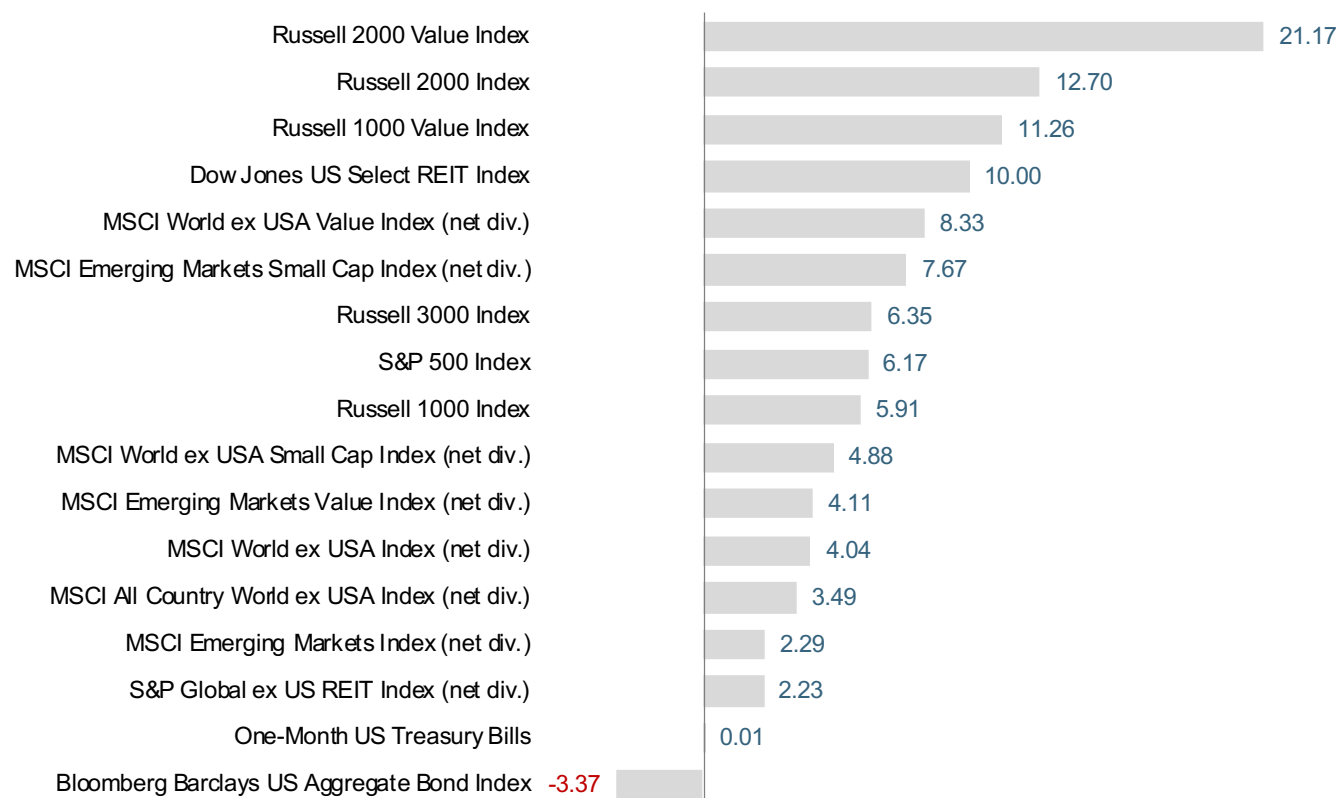
World Asset Classes

First Quarter 2021 Index Returns (%)

Equity markets around the globe posted positive returns in the first quarter. Looking at broad market indices, US and non-US developed markets outperformed emerging markets.

Value outperformed growth across regions. Small caps outperformed large caps across regions as well.

REIT indices outperformed equity market indices in the US and underperformed in non-US developed markets.



Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. The S&P data is provided by Standard & Poor's Index Services Group. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2021, all rights reserved. Dow Jones data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Bloomberg Barclays data provided by Bloomberg. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld).

US Stocks

First Quarter 2021 Index Returns

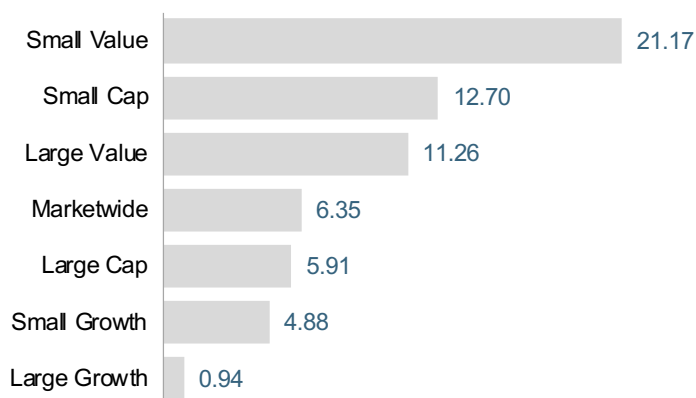
The US equity market posted positive returns for the quarter and outperformed non-US developed markets and emerging markets.

Value outperformed growth across large and small cap stocks.

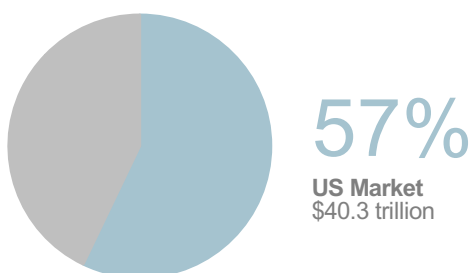
Small caps outperformed large caps.

REIT indices outperformed equity market indices.

Ranked Returns (%)



World Market Capitalization—US



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Small Value	21.17	97.05	11.57	13.56	10.06
Small Cap	12.70	94.85	14.76	16.35	11.68
Large Value	11.26	56.09	10.96	11.74	10.99
Marketwide	6.35	62.53	17.12	16.64	13.79
Large Cap	5.91	60.59	17.31	16.66	13.97
Small Growth	4.88	90.20	17.16	18.61	13.02
Large Growth	0.94	62.74	22.80	21.05	16.63

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Marketwide (Russell 3000 Index), Large Cap (Russell 1000 Index), Large Cap Value (Russell 1000 Value Index), Large Cap Growth (Russell 1000 Growth Index), Small Cap (Russell 2000 Index), Small Cap Value (Russell 2000 Value Index), and Small Cap Growth (Russell 2000 Growth Index). World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. Russell 3000 Index is used as the proxy for the US market. Dow Jones US Select REIT Index used as proxy for the US REIT market. Frank Russell Company is source and owner of trademarks, service marks, and copyrights related to Russell Indexes. MSCI data © MSCI 2021, all rights reserved.

International Developed Stocks

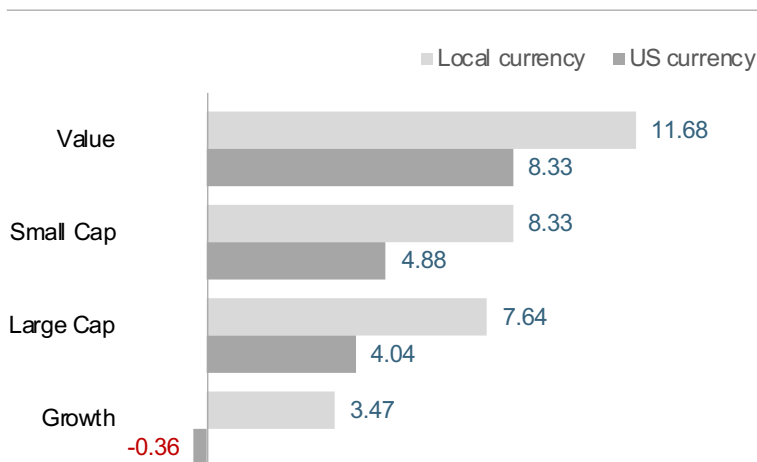
First Quarter 2021 Index Returns

Developed markets outside the US posted positive returns for the quarter, underperforming US equities but outperforming emerging markets.

Value outperformed growth.

Small caps outperformed large caps.

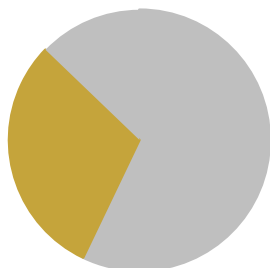
Ranked Returns (%)



World Market Capitalization— International Developed

30%

International
Developed Market
\$21.2 trillion



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Value	8.33	47.17	2.25	6.81	3.54
Small Cap	4.88	65.17	6.89	10.55	7.14
Large Cap	4.04	45.86	6.34	8.92	5.21
Growth	-0.36	43.55	10.02	10.72	6.69

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI World ex USA Index), Small Cap (MSCI World ex USA Small Cap Index), Value (MSCI World ex USA Value Index), and Growth (MSCI World ex USA Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI World ex USA IMI Index is used as the proxy for the International Developed market. MSCI data © MSCI 2021, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Emerging Markets Stocks

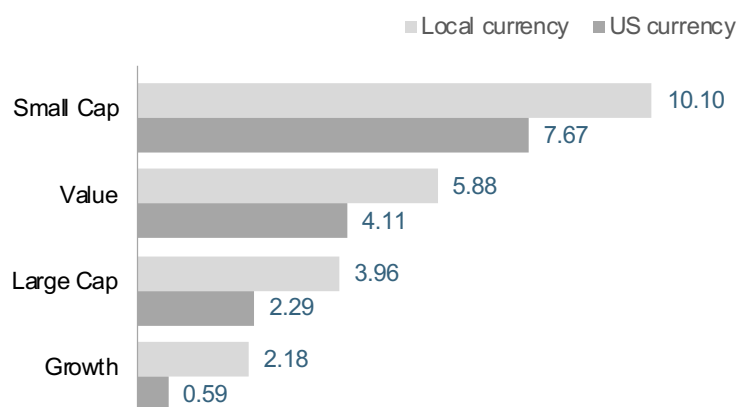
First Quarter 2021 Index Returns

Emerging markets posted positive returns for the quarter, underperforming the US and developed ex US equity markets.

Value outperformed growth.

Small caps outperformed large caps.

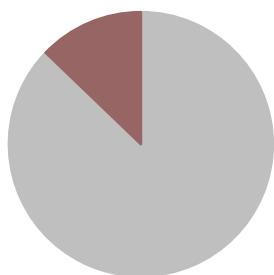
Ranked Returns (%)



World Market Capitalization— Emerging Markets

13%

Emerging
Markets
\$9.0 trillion



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Small Cap	7.67	87.13	5.19	9.59	3.33
Value	4.11	52.53	2.60	8.42	1.03
Large Cap	2.29	58.39	6.48	12.07	3.65
Growth	0.59	63.78	10.10	15.53	6.15

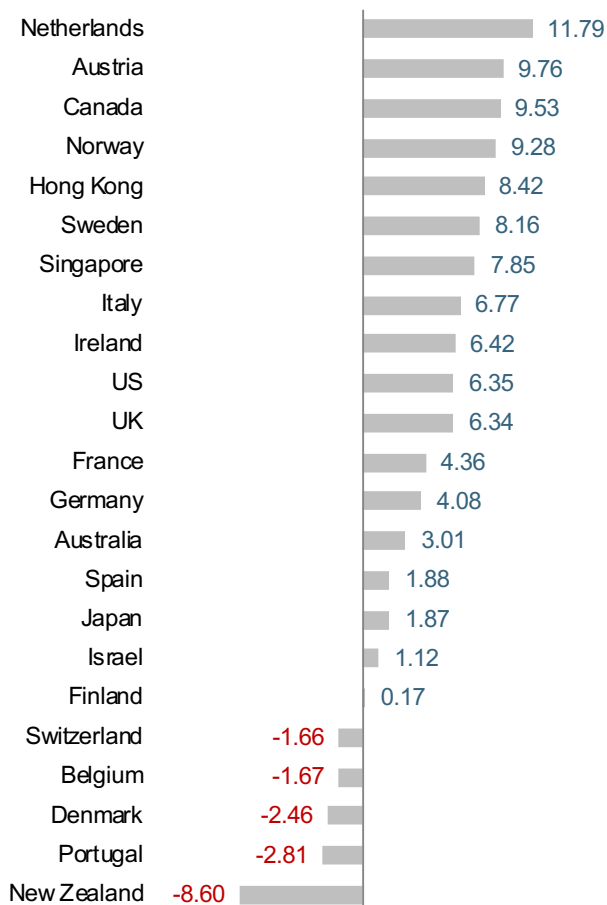
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small Cap (MSCI Emerging Markets Small Cap Index), Value (MSCI Emerging Markets Value Index), and Growth (MSCI Emerging Markets Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI Emerging Markets IMI Index used as the proxy for the emerging market portion of the market. MSCI data © MSCI 2021, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Select Market Performance

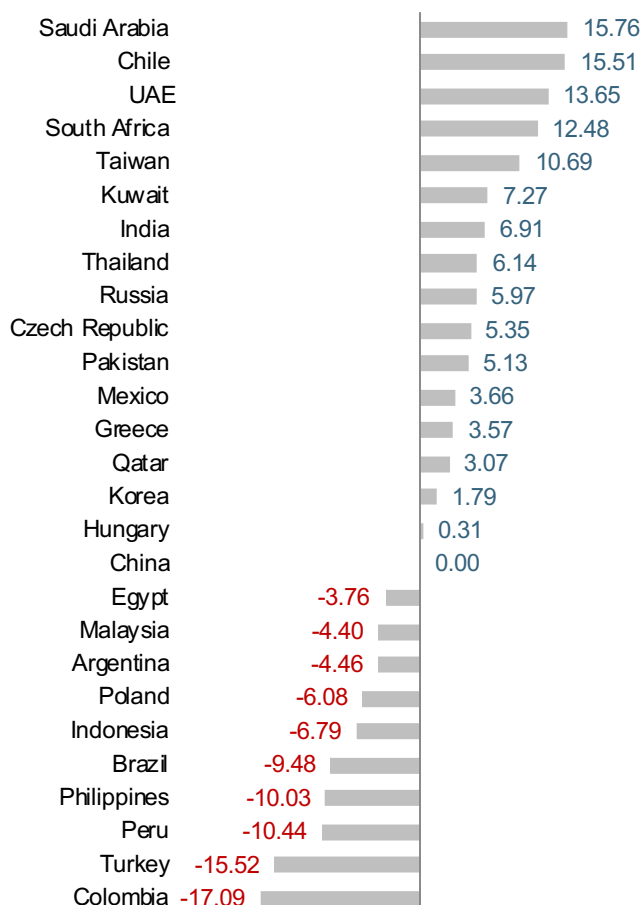
First Quarter 2021 Index Returns

In US dollar terms, the Netherlands and Austria recorded the highest country performance in developed markets, while New Zealand and Portugal posted the lowest returns for the quarter. In emerging markets, Saudi Arabia and Chile recorded the highest country performance, while Colombia and Turkey posted the lowest performance.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



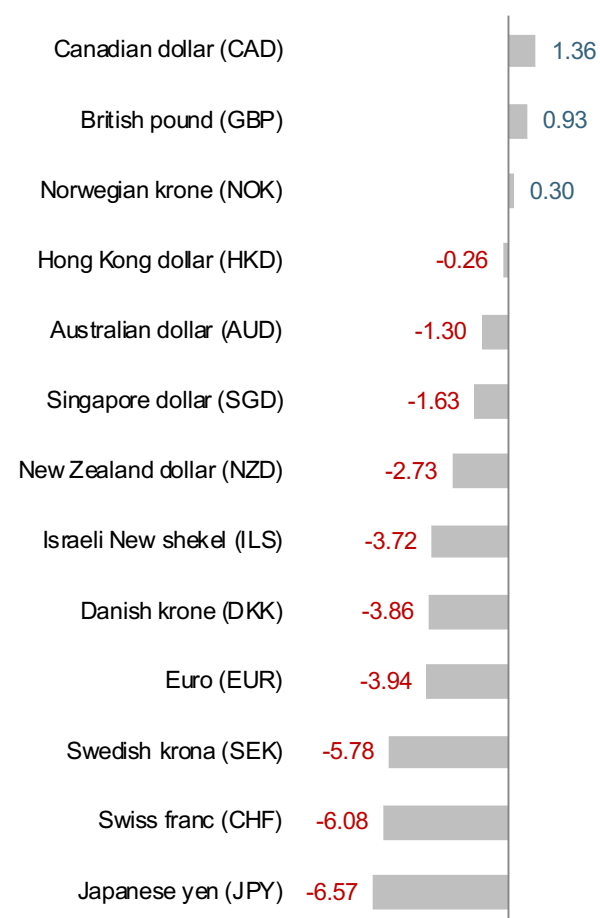
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. MSCI Index returns are in USD net of dividend withholding taxes. Country returns are the country component indices of the MSCI All Country World ex USA IMI for all countries except the United States, where the Russell 3000 index is used instead. Frank Russell Company is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. MSCI data © MSCI 2021, all rights reserved. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results.

Select Currency Performance vs. US Dollar

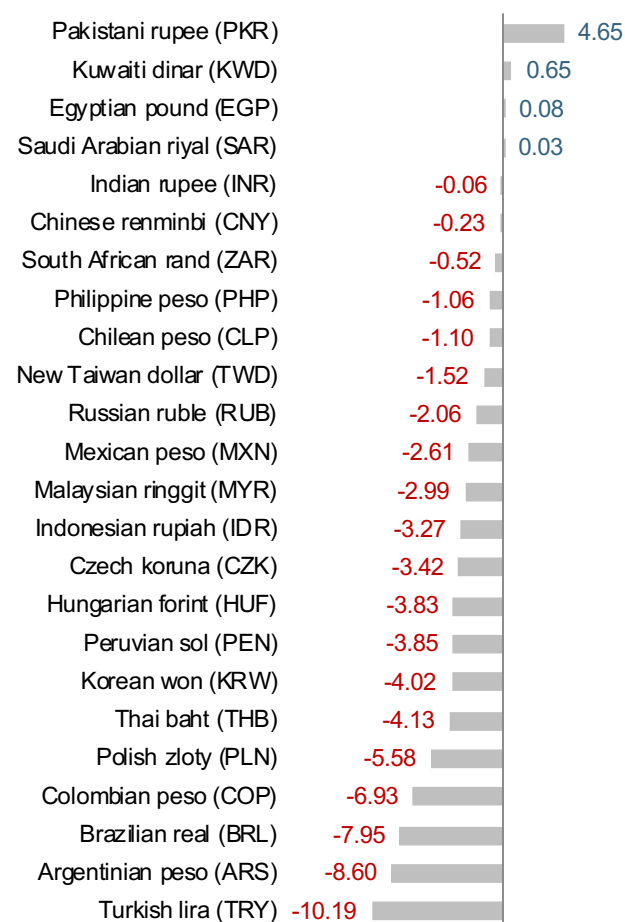
First Quarter 2021

In developed markets, most currencies depreciated versus the US dollar, except the Canadian dollar, British pound, and Norwegian krone. In emerging markets, most currencies depreciated versus the US dollar, but some, notably the Pakistani rupee, appreciated.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio.

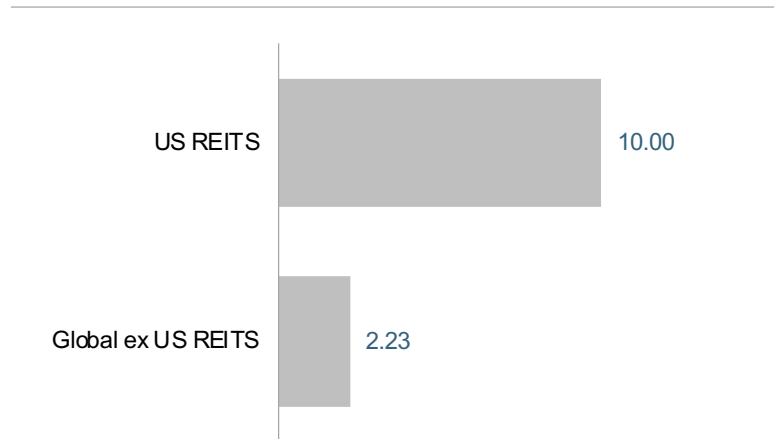
MSCI data © MSCI 2021, all rights reserved.

Real Estate Investment Trusts (REITs)

First Quarter 2021 Index Returns

US real estate investment trusts outperformed non-US REITs during the quarter.

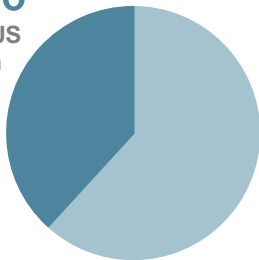
Ranked Returns (%)



Total Value of REIT Stocks

38%

World ex US
\$523 billion
278 REITs
(25 other countries)



62%

US
\$845 billion
114 REITs

Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
US REITS	10.00	36.66	7.55	3.94	7.89
Global ex US REITS	2.23	36.18	2.12	2.92	4.74

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Number of REIT stocks and total value based on the two indices. All index returns are net of withholding tax on dividends. Total value of REIT stocks represented by Dow Jones US Select REIT Index and the S&P Global ex US REIT Index. Dow Jones US Select REIT Index used as proxy for the US market, and S&P Global ex US REIT Index used as proxy for the World ex US market. Dow Jones and S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Commodities

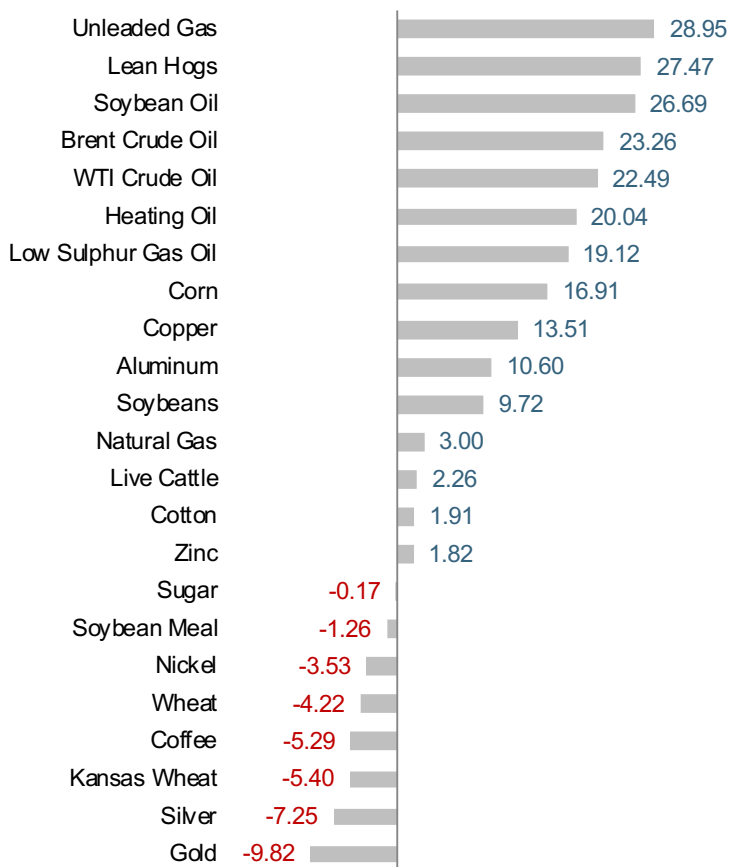
First Quarter 2021 Index Returns

The Bloomberg Commodity Index Total Return returned 6.92% for the first quarter of 2021.

Unleaded Gas and Lean Hogs were the best performers, returning 28.95% and 27.47%, respectively.

Gold and Silver were the worst performers, declining 9.82% and 7.25%, respectively.

Ranked Returns (%)



Period Returns (%)

* Annualized

Asset Class	QTR	1 Year	3 Years*	5 Years*	10 Years*
Commodities	6.92	35.04	-0.20	2.31	-6.28

Past performance is not a guarantee of future results. Index is not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Commodities returns represent the return of the Bloomberg Commodity Total Return Index. Individual commodities are sub-index values of the Bloomberg Commodity Total Return Index. Data provided by Bloomberg.

Fixed Income

First Quarter 2021 Index Returns

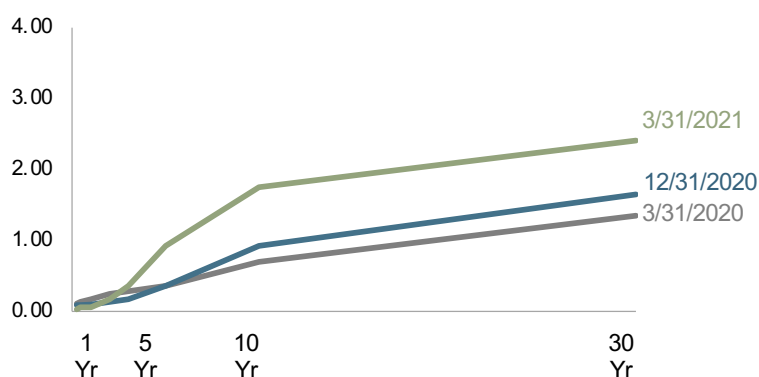
Interest rates generally increased in the US Treasury fixed income market during the first quarter. The yield on the 5-Year US Treasury note rose 56 basis points (bps), ending at 0.95%. The yield on the 10-Year T-note increased 81 bps to 1.74%. The 30-Year Treasury bond yield increased 75 bps to 2.39%.

On the short end of the curve, the 1-Month US Treasury bill yield decreased 3 bps to 0.05%, and the 1-Year T-bill yield fell 5 bps to 0.08%. The yield on the 2-Year US Treasury note climbed 6 bps to end at 0.15%.

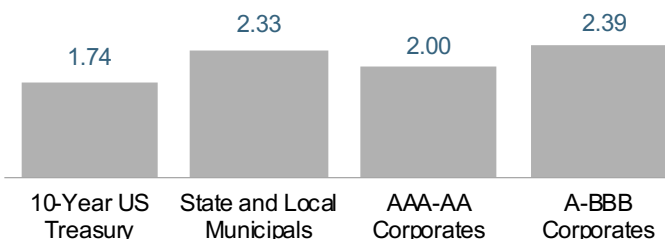
In terms of total returns, short-term corporate bonds declined 0.59%. Intermediate-term corporate bonds declined 2.19%.

The total return for short-term municipal bonds was flat, while intermediate-term municipal bonds lost 0.52%. Revenue bonds outperformed general obligation bonds.

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

Asset Class	QTR	1 Year	*Annualized		
			3 Years*	5 Years*	10 Years*
Bloomberg Barclays US High Yield Corporate Bond Index	0.85	23.72	6.84	8.06	6.48
ICE BofA 1-Year US Treasury Note Index	0.07	0.17	2.14	1.52	0.92
ICE BofA US 3-Month Treasury Bill Index	0.03	0.12	1.49	1.19	0.63
Bloomberg Barclays Municipal Bond Index	-0.35	5.51	4.91	3.49	4.54
FTSE World Government Bond Index 1-5 Years (hedged to USD)	-0.36	0.57	2.88	2.05	1.96
Bloomberg Barclays US TIPS Index	-1.47	7.54	5.68	3.86	3.44
FTSE World Government Bond Index 1-5 Years	-2.39	3.20	1.29	1.43	0.09
Bloomberg Barclays US Aggregate Bond Index	-3.37	0.71	4.65	3.10	3.44
Bloomberg Barclays US Government Bond Index Long	-13.39	-15.60	5.84	3.17	6.30

One basis point (bps) equals 0.01%. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Yield curve data from Federal Reserve. State and local bonds are from the S&P National AMT-Free Municipal Bond Index. AAA-AA Corporates represent the ICE BofA US Corporates, AA-AAA rated. A-BBB Corporates represent the ICE BofA US Corporates, BBB-A rated. Bloomberg Barclays data provided by Bloomberg. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). FTSE fixed income indices © 2021 FTSE Fixed Income LLC, all rights reserved. ICE BofA index data © 2021 ICE Data Indices, LLC. S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Global Fixed Income

First Quarter 2021 Yield Curves

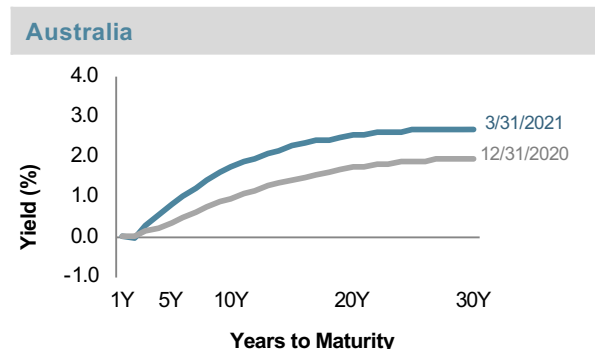
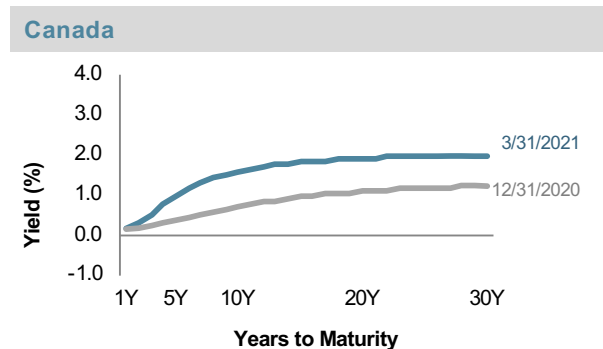
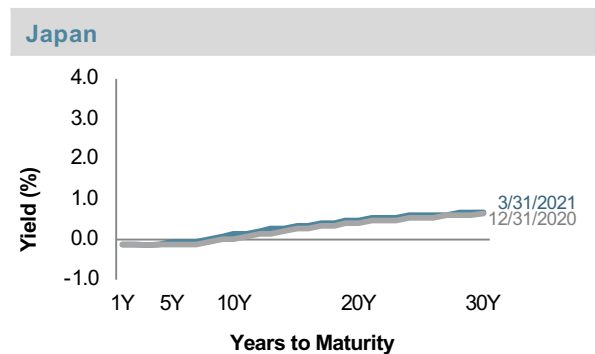
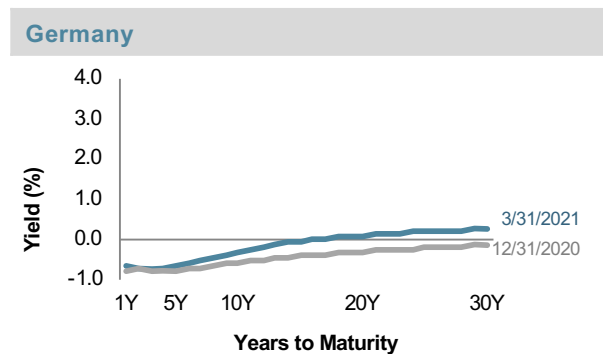
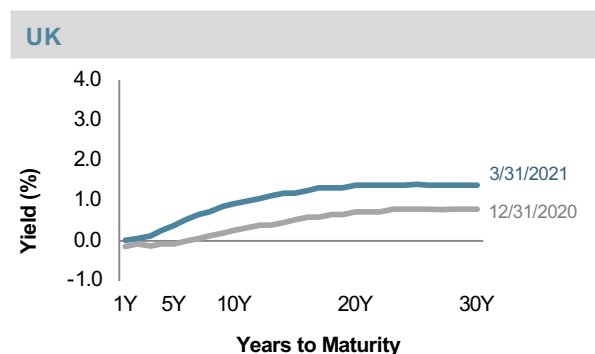
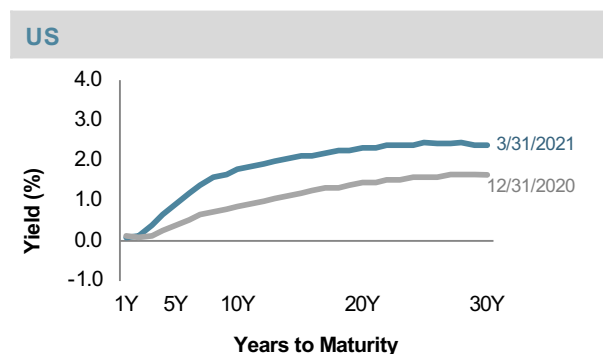
Government bond yields generally increased in the global developed markets for the quarter.

Longer-term bonds generally underperformed shorter-term bonds in developed markets.

Short- and intermediate-term nominal interest rates were negative in Japan and Germany.

Changes in Yields (bps) since 12/31/2020

	1Y	5Y	10Y	20Y	30Y
US	-4.7	56.1	89.6	86.0	74.9
UK	13.9	46.2	67.6	66.5	62.2
Germany	10.6	10.6	27.5	39.7	40.4
Japan	-1.0	2.5	7.6	7.8	2.7
Canada	1.7	57.8	88.3	82.3	74.7
Australia	2.9	43.2	76.9	79.5	73.2



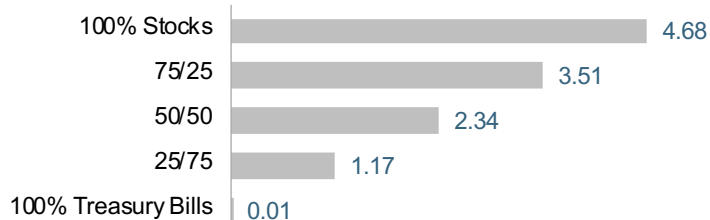
One basis point (bps) equals 0.01%. Source: ICE BofA government yield. ICE BofA index data © 2021 ICE Data Indices, LLC.

Impact of Diversification

First Quarter 2021

These portfolios illustrate the performance of different global stock/bond mixes and highlight the benefits of diversification. Mixes with larger allocations to stocks are considered riskier but have higher expected returns over time.

Ranked Returns (%)

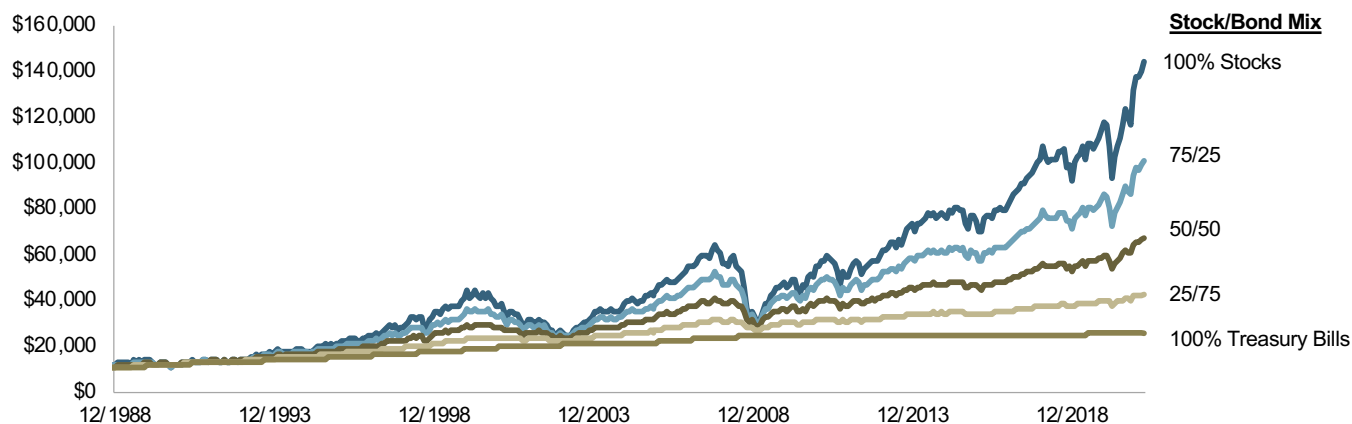


Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV
100% Stocks	4.68	55.31	12.66	13.81	9.73	14.07
75/25	3.51	39.64	10.05	10.71	7.57	10.55
50/50	2.34	25.27	7.29	7.55	5.31	7.03
25/75	1.17	12.11	4.38	4.33	2.97	3.51
100% Treasury Bills	0.01	0.08	1.35	1.07	0.55	0.23

Growth of Wealth: The Relationship between Risk and Return



1. STDEV (standard deviation) is a measure of the variation or dispersion of a set of data points. Standard deviations are often used to quantify the historical return volatility of a security or portfolio.

Diversification does not eliminate the risk of market loss. **Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect expenses associated with the management of an actual portfolio.** Asset allocations and the hypothetical index portfolio returns are for illustrative purposes only and do not represent actual performance. Global Stocks represented by MSCI All Country World Index (gross div.) and Treasury Bills represented by US One-Month Treasury Bills. Globally diversified allocations rebalanced monthly, no withdrawals. Data © MSCI 2021, all rights reserved. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld).

YOLO, Meme, and EMH: What's Your Investment Style?

First Quarter 2021

Marlena Lee, PhD
Global Head of Investment Solutions

You only live once! Social media investors have banded together on unconventional platforms to drive up the prices of a handful of “meme stocks,” seemingly without traditional evaluation of investing risks and rewards. They made headlines with their “short squeeze” of GameStop (GME), and, as they garner media attention, their tactics continue. While it’s not the intended victim of the YOLO traders, will the efficient market hypothesis be a casualty of these events? The answer depends a lot on your definition of efficient markets. Perhaps long-term investors would be better served questioning the potential impact on their investment philosophy.

Fama (1970) defines the efficient market hypothesis (EMH) to be the simple statement that prices reflect all available information. The rub is that it doesn’t say how investors should use this information. EMH is silent on the “correct” ways investors should use information and prices should be set. To be testable, EMH needs a companion model: a hypothesis for how markets and investors should behave. This leaves a lot of room for interpretation. Should asset prices be set by rational investors whose only concerns are systematic risk¹ and expected returns? It seems implausible to link recent meme-stock price movements to economic risks. Rather, they seem fueled by investor demand to be part of a social movement, hopes to strike it rich with a lucky stock pick, or plain old schadenfreude.

There is a vast ecosystem of investors, from individuals investing in their own accounts to governments and corporations who invest on behalf of thousands. Ask investors why they invest the way they do, and you’ll likely get a range of goals and approaches just as diverse. It’s this complex system that generates the demand for stocks.

Another complex system fuels the supply of stocks. Supply and demand meet at the market price. People may contend that the market is not always efficient, or rational, but the stock market is always in equilibrium. Every trade has two sides, with a seller for every buyer and a profit for every loss.

There are plenty of well-studied examples that show supply and demand at work. The huge increase in demand for stocks added to a well-tracked index often creates a run-up in the stock price. Some of this price increase can be temporary and reversed once the tremendous liquidity demands at index reconstitution² are met. Index reconstitution is just one example; instances of liquidity-driven price movements happen all the time. It is well documented that liquidity demands can produce temporary price movements.³ Investors may wonder if temporary price dislocations motivated by users of r/WallStreetBets differ from those caused by changes to an index. Lots of buying puts temporary upward pressure on prices, which later fall back to “fundamental value”—it sounds familiar. The more relevant observation may be that markets are complex systems well adapted to facilitate the supply and demand of numerous market participants.

There are numerous reasons people may be willing to hold different stocks at different expected returns. Can all those differences be explained by risks? Doubtful. To quote Professor Fama, “The point is not that markets are efficient. They’re not. It’s just a model.”⁴ EMH can be a very useful model to inform how investors should behave. We believe investing as if markets are efficient is a good philosophy for building long-term wealth. Trying to outguess markets might be a quick way to destroy wealth.

1. Systematic risk is the possibility of an investor experiencing losses due to factors that affect the overall performance of the financial markets in which he or she is involved.

2. Reconstitution involves the re-evaluation of a market index. The process involves sorting, adding, and removing stocks to ensure that the index reflects up-to-date market capitalization and style.

3. For example, see “Tesla’s Charge Reveals Weak Points of Indexing” (Dimensional, 2021)

4. “Are markets efficient?” – Interview between Eugene Fama and Richard Thaler (June 30, 2016)

YOLO, Meme, and EMH

(continued from page 18)

It's true, you only live once. The good news is that investors can look to market prices, not internet fads, to pursue higher expected returns. Theoretical and empirical research indicate higher expected returns come from lower relative prices and higher future cash flows to investors. Long-run investors can be better served by using markets, rather than chatrooms, for information on expected returns.

The information in this document is provided in good faith without any warranty and is intended for the recipient's background information only. It does not constitute investment advice, recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized copying, reproducing, duplicating, or transmitting of this document are strictly prohibited. Dimensional accepts no responsibility for loss arising from the use of the information contained herein.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

Named securities may be held in accounts managed by Dimensional. This information should not be considered a recommendation to buy or sell a particular security. Diversification does not protect against loss in declining markets. There is no guarantee strategies will be successful.

Eugene Fama is a member of the Board of Directors of the general partner of, and provides consulting services to Dimensional Fund Advisors LP.