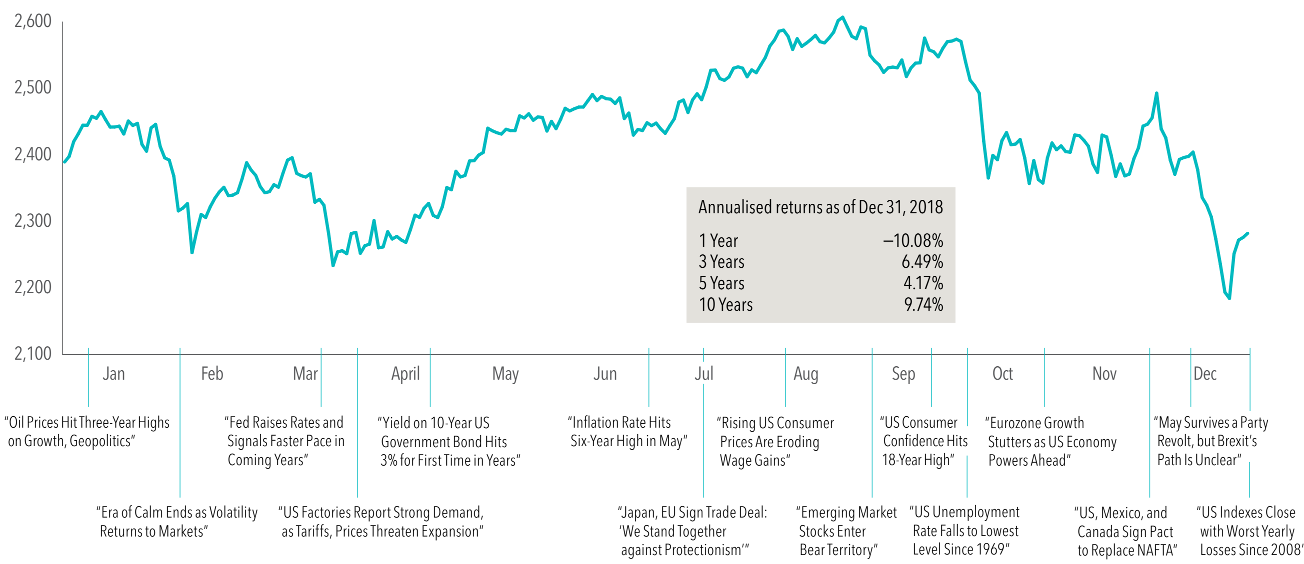
2018 Market Review

January 2019

After logging strong returns in 2017, global equity markets delivered negative returns in British pound terms in 2018. Common news stories in 2018 included reports on global economic growth, corporate earnings, record low unemployment in the US, the implementation of Brexit, US trade wars with China and other countries, and a flattening US Treasury yield curve. Global equity markets delivered positive returns through September, followed by a decline in the fourth quarter, resulting in a −1.3% return for the S&P 500 and −3.8% for the MSCI All Country World Index for the year.

Exhibit 1: World Stock Market Performance

MSCI All Country World Index (IMI) with selected headlines from 2018



Past performance is not a guarantee of future results.

Source: MSCI. In GBP, net dividends. Index is not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

All non-US equity market returns are in USD, net dividends, unless otherwise noted.

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Exhibit 2: Average Compound Returns for Stocks in a Following 12-Month Period

Market Decline Cutoff	US Large Caps	Non-US Developed Markets Large Caps	Emerging Markets Large Caps
10%	12.22%	15.29%	16.79%
20%	12.24%	16.31%	22.41%
30%	17.38%	23.71%	34.16%

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Declines are defined as points in time, measured monthly, when the market's return since the prior market maximum has declined by at least 10%, 20%, or 30%, depending on the cutoff. Declines after December 2017 are not included, but subsequent 12-month returns can include 2018 returns. Compound returns are computed for the 12 months after each decline observed and averaged across all declines for the cutoff. US Large Cap is the S&P 500 Index, from January 1926 through December 2018, provided by Standard & Poor's Index Services Group. Non-US Developed Markets Large Cap is the MSCI World ex USA Index (gross div.), from January 1970 through December 2018. Emerging Markets Large Cap is the MSCI Emerging Markets Index (gross div.), from January 1988 through December 2018. MSCI data © MSCI 2019, all rights reserved.

The fourth quarter equity market decline has many investors wondering how equities may perform in the near term. Equity market declines of 10% have occurred numerous times in the past. The S&P 500 returned −11.6% in the fourth quarter while the MSCI All Country World Index returned −10.7%. After declines of 10% or more, equity returns over the subsequent 12 months have been on average positive 74% of the time in US markets and 78% of the time in other developed markets.[1]

Exhibit 1 highlights some of the year's prominent headlines in the context of global stock market performance as measured by the MSCI All Country World Index (IMI). 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.

MARKET VOLATILITY

Exhibit 2 shows the performance of markets subsequent to declines of 10%, 20%, and 30%. For each decline threshold, returns are shown for US large cap, non−US developed markets large cap, and emerging markets large cap stocks in the following 12−month period. While declines in equity markets may cause investor concern, the data provides evidence that markets generally have positive returns after a decline.

The increased market volatility in the fourth quarter of 2018 underscores the importance of following an investment approach based on diversification and discipline rather than prediction and timing. For investors to successfully predict markets, they must forecast future events more accurately than all other market participants and predict how other market participants will react to their forecasted events.

There is little evidence suggesting that either of these objectives can be accomplished on a consistent basis. Instead of attempting to outguess market prices, investors should take comfort that market prices quickly incorporate relevant information and that information will be reflected in expected returns.

While we cannot control markets, we can control how we invest. As Dimensional's Co−CEO Dave Butler likes to say, *"Control what you can control."*

WORLD ECONOMY

In 2018, the global economy continued to grow, with 44 of the 45 countries tracked by the Organization for Economic Cooperation and Development (OECD) on pace to expand. Argentina was the only country expected to contract.[2] While market participants

Exhibit 3: Real GDP Growth by Region (%)
(annual rate)

	2017	2018		
	Q4	Q1	Q2	Q3
US	2.3	2.2	4.2	3.4
Canada	1.7	1.7	2.9	2.0
Euro Area	2.7	1.5	1.7	0.6
Japan	1.5	−1.3	2.8	−2.5
China	6.1	6.1	7.0	6.6
Australia	2.2	4.3	3.6	1.0
UK	1.5	0.4	1.6	2.5

Sources: BEA, Statistics Canada, Cabinet Office (Japan), National Bureau of Statistics (China), Eurostat, Australian Bureau of Statistics, Office for National Statistics (UK).

may consider the economic outlook of a region, it is just one of many inputs that determine realised market performance.

2018 MARKET PERSPECTIVE

Equity Market Highlights

Global equity markets, as measured by the MSCI All Country World Index, ended the year down −3.8%, with significant dispersion by country.

US equities generally outperformed other developed markets for the year, although they lagged other developed and emerging markets in the fourth quarter. The S&P 500 Index recorded a −1.3% total return for the year and −11.6% return in the fourth quarter.

Returns among other developed equity markets were nearly all negative. The MSCI World ex USA Index, which reflects non−US developed markets, was down −8.8% for the year and −10.7% for the fourth quarter, and the MSCI Emerging Markets Index fell −9.3% for the year and −5.3% for the fourth quarter. US small cap stocks, as measured by the Russell 2000 Index, returned −5.7% for the year.

Impact of Global Diversification

While markets around the world generally had negative returns in the fourth quarter, the dispersion in their returns highlights the importance of global diversification during market declines. The MSCI All Country World Index (IMI) outpaced the MSCI Europe Index (IMI) by over 5% for the year (−4.5% versus −10.3%).

When considering individual countries, 40 out of 47 countries were down for the year. Using the MSCI All Country World Index (IMI) as a proxy, three countries posted positive returns among developed markets, and four managed a positive return among emerging markets. As is typically the case, country-level returns varied significantly. In developed markets, returns ranged from −19.4% in Belgium to 6.2% in New Zealand. In emerging markets, returns ranged from −37.7% in Turkey to 35.0% in Qatar—a spread of more than 70%. Large dispersion among country returns is common, with the average spread in emerging markets over the past 20 years of 91%.[3] Without a reliable way to predict which country will deliver the highest returns, this large dispersion in returns between the best and worst performing countries again emphasises the

Exhibit 4: Major World Indices

As at December 31, 2018

Index	4th Quarter 2018	One Year	Three Years*	Ten Years*
Global Equity Returns (%)				
MSCI All Country World	−11.21	−4.49	11.81	11.08
MSCI All Country World IMI	−10.67	−3.79	11.92	10.79
MSCI World	−11.35	−3.04	11.61	11.00
MSCI World Small Cap	−15.76	−8.50	11.29	13.39
MSCI World IMI Value	−9.89	−5.98	10.70	9.91
MSCI World IMI Growth	−13.87	−1.67	12.37	12.63
MSCI Emerging Markets	−5.26	−9.27	14.70	9.34
MSCI Emerging Markets Small Cap	−4.96	−13.54	8.85	11.21
MSCI Emerging Markets IMI Value	−4.41	−6.03	14.70	8.82
MSCI Emerging Markets IMI Growth	−6.06	−13.37	13.07	10.24
Regional Equity Returns (net div.) (%)				
MSCI Europe	−10.63	−9.57	7.19	7.44
MSCI Europe Small Cap	−15.84	−14.92	7.15	13.58
MSCI Europe IMI Value	−10.54	−11.27	7.72	6.74
MSCI Europe IMI Growth	−12.05	−9.30	6.63	9.23
MSCI United Kingdom	−9.67	−8.82	6.67	8.14
MSCI United Kingdom Small Cap	−15.55	−15.03	3.17	14.86
MSCI United Kingdom IMI Value	−11.00	−10.57	7.48	8.24
MSCI United Kingdom IMI Growth	−9.79	−8.01	4.52	9.64
Russell 1000	−11.76	1.13	14.54	14.66
Russell 2000	−18.29	−5.48	12.72	13.34
S&P 500	−11.45	1.56	14.71	14.50
Russell 3000 Value	−10.14	−2.90	12.34	12.48
Russell 3000 Growth	−14.33	3.96	16.38	16.56
Fixed Income Returns (%)				
Bloomberg Barclays Global Aggregate Bond (hedged to GBP)	1.26	0.10	1.89	3.66
FTSE World Government Bond (hedged to GBP)	1.91	0.95	1.86	3.17
Bloomberg Barclays Global Aggregate Credit (hedged to GBP)	−0.14	−2.13	2.42	5.08
Bloomberg Barclays Sterling Gilt 0–12 Months Index (GBP)	0.20	0.52	0.31	–

**Annualised*

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importance of maintaining a diversified approach when investing globally.

To emphasise this point, Israel went from being the worst performer in developed markets in 2017 (0.9%) to the second–best performer in 2018, returning −2.4%. Likewise, Qatar went from being the second worst performing emerging market country (−20.3%) in 2017 to being the best performer in 2018.

When considering investing globally, investors should remember that this helps provide valuable diversification benefits. For example, given the strong returns of US markets through September, the US equity market was one of the stronger performing markets for the year, ranking seventh out of the 47 countries in the MSCI All Country World Index (IMI). However, it is worth noting that if we look at the past 20 years going back to 1999, US equity markets have only outperformed in 10 of those years—the same expected by chance.

Currencies

Currency movements contributed to British pound returns in 2018 for non-UK assets. The weakening of the pound versus the strengthening of other currencies had a positive impact on returns for British pound investors with holdings in unhedged non-UK assets, and contributed 3.9% from the returns as measured by the difference in returns between the MSCI All Country World IMI Index in local returns vs. GBP. The British pound weakened against most currencies including the euro, the US dollar, and the Japanese yen, but strengthened against a few, in particular the Australian dollar.

As with individual country returns, there is no reliable way to predict currency movements. Investors should be cautious about trying to time currencies based on the recent strong or weak performance of the euro or any other currency.

Broad Market Index Performance

In 2018, the MSCI Emerging Markets Value Index (IMI) outperformed its growth counterpart (−6.0% vs. −13.4%). In developed markets, however, this was not the case. The MSCI World Value Index (IMI) underperformed its growth index counterpart (−6.0% vs. −1.7%). Small cap stocks generally underperformed large cap stocks globally. For example, the MSCI World Index outperformed its small cap counterpart (−3.0% vs. −8.5%). Similarly, the MSCI Emerging Markets Index outperformed its small cap counterpart (−9.3% vs. −13.5%).

The mix of relative performance of value vs. growth stocks within and across regions this year serves as a reminder of the importance of integrating premiums when designing and managing portfolios. Within US equity markets for example, when at least one of the size, value, and profitability premiums has been negative in a given year, at least one of the other factors was positive 81% of the time.[4] Positive premiums can contribute to relative returns during time periods when other premiums are negative.

Developed Markets

In developed markets, small cap stocks underperformed large cap stocks and value stocks underperformed growth stocks.

The MSCI World Small Cap Index declined −8.5% for the year versus −3.0% for the MSCI World Index. Growth stocks, as measured by the MSCI World Growth Index (IMI), returned −1.7%, outperforming value stocks, which returned −6.0% in 2018, as measured using the MSCI World Value Index (IMI).

Emerging Markets

In emerging markets, small cap stocks, as measured by the MSCI Emerging Markets Small Cap Index, underperformed large cap stocks, as measured by the MSCI Emerging Markets Index. However, over the past 10 years, small caps returned an annualised 11.2%, outperforming large caps, which returned 9.3%.

Value stocks returned −6.0% as measured by the MSCI Emerging Markets Value Index (IMI), outperforming growth stocks, which returned −13.4% using the MSCI Emerging Markets Growth Index (IMI). This was the sixth largest outperformance of value over growth in emerging markets since 1999.

The complementary behavior of size (small vs. large) and relative price (value vs. growth) in emerging markets in 2018 is a good example of the benefits of diversification. While small cap stocks underperformed, diversified portfolios were buoyed by outperformance among value stocks. This integration can increase the reliability of outperformance and mitigate the impact of an individual asset group's underperformance.

Despite recent years' headwinds, the size, value, and profitability premiums remain persistent over the long term and around the globe. It is well documented that stocks with higher expected return potential, such as small cap and value stocks, do not realise outperformance every year. Maintaining discipline to these parts of the market is the key to effectively pursuing the long–term returns associated with size, value, and profitability.

Fixed Income

Over the full year, the return on the US fixed income market was negative; the Bloomberg Barclays US Aggregate Bond Index (hedged to GBP) returned −1.6%. Non–US fixed income markets posted higher returns in 2018, contributing to the return of the Bloomberg Barclays Global Aggregate Bond Index (hedged to GBP) at 0.1%.

Yield curves were upwardly sloped in many developed markets for the year, indicating positive expected term premiums. Realised term premiums were negative in the US as long–term maturities underperformed their shorter-term counterparts and positive in developed markets outside the US. For example, the FTSE Non–USD World Government Bond Index 10+ (hedged to GBP) returned 2.7% for the year vs. 1.3% for the 1–10 Index.

Credit spreads, which are the difference between yields on lower quality and higher quality fixed income securities, widened during the year, as measured by the Bloomberg Barclays Global Aggregate Corporate Option Adjusted Spread. Realised credit premiums were negative both globally and in the US, as lower–quality investment–grade corporates underperformed their higher–quality investment–grade counterparts. Treasuries were the best performing sector globally, returning 1.1%, while corporate bonds returned −2.7%, as reflected in the Bloomberg Barclays Global Aggregate Bond Index (hedged to GBP).

In the US, the yield curve flattened as interest rates increased more on the short end of the yield curve relative to the long end. The yield on the 3–month US Treasury bill increased 1.06% to end the year at 2.45%. The yield on the 2–year US Treasury note increased 0.59% to 2.48%.[5] The yield on the 10–year US Treasury note increased 0.29% during the year to end at 2.69%. The yield on the 30–year US Treasury bond increased 0.28% to end the year at 3.02%.

Exhibit 5: Major World Indices Ranked by One-Year Performance (%) *As at December 31, 2018*

Russell 3000 Growth Index	3.96
S&P 500 Index	1.56
Russell 1000 Index	1.13
FTSE World Government Bond Index (hedged to GBP)	0.95
Bloomberg Barclays Sterling Gilt 0-12 Months Index (GBP)	0.52
Bloomberg Barclays Global Aggregate Bond Index (hedged to GBP)	0.10
MSCI World IMI Growth Index (net div.)	−1.67
Bloomberg Barclays Global Aggregate Credit Bond Index (hedged to GBP)	−2.13
Russell 3000 Value Index	−2.90
MSCI World Index (net div.)	−3.04
MSCI All Country World Index (net div.)	−3.79
MSCI All Country World IMI Index (net div.)	−4.49
Russell 2000 Index	−5.48
MSCI World IMI Value Index (net div.)	−5.98
MSCI Emerging Markets IMI Value Index (net div.)	−6.03
MSCI United Kingdom IMI Growth Index (net div.)	−8.01
MSCI World Small Cap Index (net div.)	−8.50
MSCI United Kingdom Index (net div.)	−8.82
MSCI Emerging Markets Index (net div.)	−9.27
MSCI Europe IMI Growth Index (net div.)	−9.30
MSCI Europe Index (net div.)	−9.57
MSCI United Kingdom IMI Value Index (net div.)	−10.57
MSCI Europe IMI Value Index (net div.)	−11.27
MSCI Emerging Markets IMI Growth Index (net div.)	−13.37
MSCI Emerging Markets Small Cap Index (net div.)	−13.54
MSCI Europe Small Cap Index (net div.)	−14.92
MSCI United Kingdom Small Cap Index (net div.)	−15.03

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In other major markets, yield curves generally flattened too. In the UK the yield on 2–year Gilts increased by 0.25% to 0.75% over the year, whereas yields on 10–year Gilts remained flat around 1.25%.

In Germany, yields on government bonds with maturities up to eight years ended the year in negative territory. The yield on 2–year government bonds remained flat at –0.60% but yields on 10–year bunds declined by 0.18% to 0.24%. Yield spreads of other eurozone government bonds relative to Germany generally widened: for instance the spread between Italian and German 10–year government bonds widened from less than 1.00% to over 2.20% over the year.

Yields on Japanese bonds declined across the yield curve, with the yield on 10–yr government bonds ending 2018 in negative territory.

CONCLUSION

2018 included numerous examples of the difficulty of predicting the performance of markets, the importance of diversification, and the need to maintain discipline if investors want to effectively pursue the long–term returns the capital markets offer. The following quote by John "Mac" McQuown, a Dimensional Director,[6] provides useful perspective as investors head into 2019:

"Modern finance is based primarily on scientific reasoning guided by theory, not subjectivity and speculation."

1. Declines are defined as points in time, measured monthly, when the market's return since the prior market maximum has declined by at least 10%. Declines after December 2017 are not included, but subsequent 12-month returns can include 2018 returns. Compound returns are computed for the 12 months after each decline observed and averaged across all declines for the cutoff. US markets (1926–2018) are represented by the S&P 500 and Developed ex US markets (1970–2018) are represented by the MSCI World ex USA Index.
2. OECD Real GDP Forecast, 2019. Accessed Jan. 4, 2019. *https://data.oecd.org/gdp/real-gdp-forecast.htm#indicator-chart*
3. Source: MSCI country investable market indices (net dividends) for each country listed. Does not include Greece, which MSCI classified as a developed market prior to November 2013. Additional countries excluded due to data availability or due to downgrades by MSCI from emerging to frontier market. MSCI data © MSCI 2019, all rights reserved. Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.
4. Measured from 1964 through 2017. In US dollars. Size premium: Dimensional International Small Cap Index minus the MSCI World ex USA Index (gross dividends). Relative price premium: Fama/French International Value Index minus the Fama/French International Growth Index. Profitability premium computed by Dimensional using Bloomberg data: Dimensional International High Profitability Index minus the Dimensional International Low Profitability Index. Profitability is measured as operating income before depreciation and amortization minus interest expense, scaled by book. Dimensional indices use Bloomberg data. Fama/French indices provided by Ken French. MSCI data © MSCI 2019, all rights reserved. The information shown here is derived from such indices. Index descriptions available upon request. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. 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 no guarantee of future results.
5. Source: The US Department of the Treasury.
6. Dimensional Director refers to the Board of Directors of the general partner of Dimensional Fund Advisors LP.

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