

2015 Year in Review: Economy & Markets, and Planning Ahead



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Certified Financial Planner™ ©2016



PROFESSIONAL
FINANCIAL
Consultative Wealth Management

“Forecasts may tell you a great deal about the forecaster; they tell you nothing about the future.”

– **Warren Buffet**, America’s wealthiest investor

Key Takeaways:

- Markets fluctuated widely and unpredictably. Investors should view daily events from a long-term planning perspective. Achieving even modest market rates of return in 2015 required unusual patience and discipline for investors.
- The U.S. economy and stocks broadly showed modest gains, but was the worst year for large U.S. stocks since 2008, while international stocks continued their decline, with emerging markets oiling the way.
- Contrary to many economists and commentators predicting crisis in fixed income markets, government bonds worldwide posted modestly positive returns despite fears of interest rate increases.
- Finally, investors must have a clear plan and focus on what they can control.

The U.S. economy and broad stock market showed modest gains in 2015, although investor discipline was tested periodically by news of a global economic slowdown, rising market volatility in China and other emerging market countries, dramatically falling oil and commodities prices, and progressively rising U.S. interest rates.

The S&P 500 Index of large U.S. stocks logged a 1.4% total return for 2015, much lower than earlier in the year. Returns across U.S. indices were mixed, but as measured by the Russell 3000, **the broad U.S. market gained only 0.5%—its lowest return since the 2008 financial crisis.** Performance among international markets was mostly negative: the MSCI World ex USA Index logged a 3.0% total return and the MSCI Emerging Markets Index a 14.9% return (net dividends, in USD). Much of the lower returns were due to the U.S. dollar’s strong performance against major currencies. Much of the lower returns for international markets were explained a substantial 3.7% broad currency decline, continuing 2014’s trend (MSCI ACWI currency adjustment). Contrary to what appears to be a U.S. investor advantage, a rising dollar relative to the

currencies of other countries makes U.S. companies less profitable, and thus their expected return as investments lower.

For much of last year, the negative impact of higher U.S. interest rates triggered by a potential U.S. Federal Reserve Bank (Fed) rate increase on bonds and fixed income portfolio positions concerned many investors. Almost daily media attention on key figures of the Fed, constantly speculating what they might do next, suggest ominous implications of large losses awaiting bond and fixed income investors. The reality was very different. When the Fed belatedly announced an increase last December, the market impact in bond prices was minimal. By year-end the yield on the benchmark 10-year Treasury note stood at 2.3%, up a mere 10 basis points from 2014. The Barclays U.S.



US Stock Market Performance

Russell 3000 Index with selected headlines from 2015



Source: Russell Investment Group.

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

Government Bond Index returned 0.9% and Barclays U.S. Intermediate Corporate Index still returned 1.1%. Global government bonds in the Citigroup World Government Bond 1–5 Year Index (hedged) had positive returns with returning 1.0%, and the Barclays Global Aggregate Corporate Bond Index 1–5 Years returned an extra 0.1%. Not good news for investors reliant on fixed income yields for their retirement income, but not the disaster that those with monthly retirement income needs were led to think it would be.

The *US Stock Market Performance* above highlights some prominent headlines from 2015 in the context of broad U.S. market performance. These headlines do not explain returns, but remind investors looking back over last year that daily news and daily events should be *viewed from a long-term perspective*, and should not be basis for switching investments. Similarly, the chart below based on an international index offers a snapshot to again remind investors that headlines do not determine the market’s direction, but rather records the media’s perception of events, often testing investor commitment to their long-term planning strategies yet again.

Our 2016 Planning Predictions

At Professional Financial, we believe that wealth preservation should not depend on picking the right stocks or advisory gurus, or timing markets based on expectations

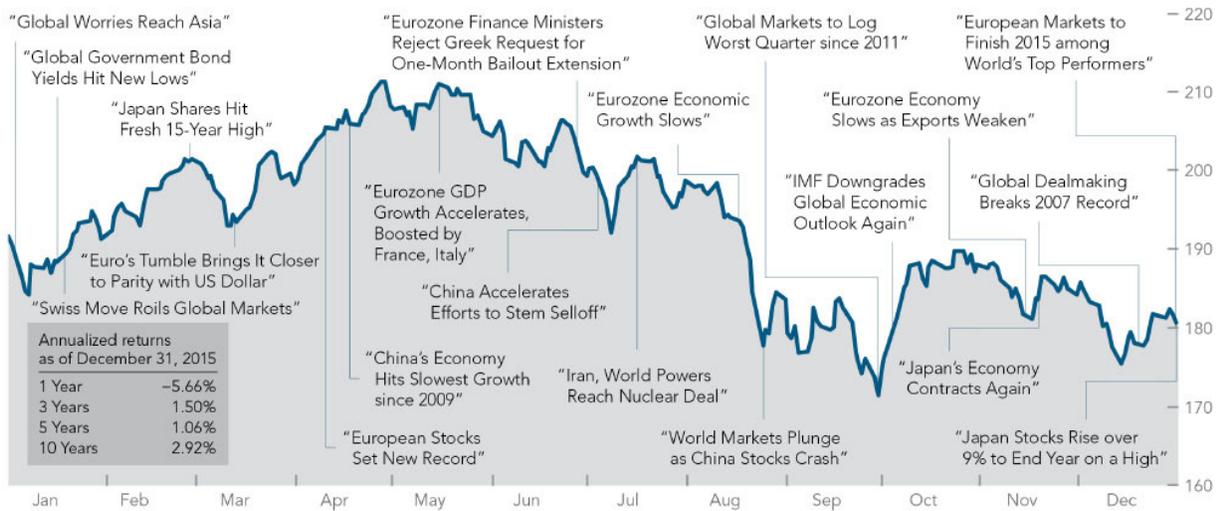
for interest rates and the economy, is not the way to achieve lasting financial security. The nasty returns that markets and many investment vehicles all-too-frequently realize are a disturbing reminder that not only are popular expectations often confounded at critical turning points, but also the collective expectation of supposed “experts” quoted in the popular media. A more professional approach is to design a planned investment strategy that works with the dimensions of those investments informed by the science of capital markets—one that stays globally diversified, with risk-weighted allocations closely aligned with your family’s guiding values, goals, needs, dreams, and circumstances.

Troubling events occurring daily somewhere in the world from weather, war, political or social change—are broadcast instantaneously over the internet and headlined in papers the next day. Perhaps tensions will escalate in the Middle East this year, or the U.S. presidential election will have a happy ending. The real threat to a family’s wealth occurs when an investor’s basis for decision-making is the forecast of media “experts”—suddenly changing what may have been a thoughtful portfolio strategy due to recent news events like we described. Journalists, faced with a publishing deadline, get forecasts from economic “experts” often only because deadline, were simply called and asked to give one. So, for those who love annual predictions, here is our Top 10 list:



Non-US Stock Market Performance

MSCI All Country World Index ex USA with selected headlines from 2015



Source: MSCI.

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1. Markets will go up sometimes—and sometimes down. And sometimes up or down a lot.
2. There will be completely unexpected news. Occasionally news will move prices dramatically.
3. Acres of newsprint will be devoted to the likely path of interest rates, upward or downward.
4. Acres more will speculate on China's growth outlook, or the lowered rate of growth.
5. TV pundits will frequently and loudly debate prospects of short-term market direction.
6. Some economies will strengthen. Others will weaken. Those countries in the media will keep changing.
7. Some companies will prosper. Others will falter. Those companies in the media will keep changing.
8. Parts of your portfolio will do well, some will do poorly. We don't know which or by how much.
9. A new popular book will say the old rules no longer work and that everything has changed.
10. Another new book will say nothing has really changed and the old rules still apply.

Since forecasting is so hard to get right—at least reliably right for successful planning—our predictions are admittedly vague, with broad margins of error. (No newspaper quotes for us, I suppose.) Like a TV weather forecaster predicting wind, rain, heat, and cold for interstate travelers

driving from the east coast to western shores over the next week, your audience should be prepared for a variety of climates, and so must our forecasts.

Global Backdrop for Planning U.S. Economy

The U.S. economy continued to grow modestly during 2015, but slowed to 1% by year-end. GDP growth for all of 2015 was about 2.5%, which continues to be significantly below the 3.6% per year historical average.

Positive economic signs in 2015 included a lowered unemployment rate, which officially fell from 5.7% to 5.0% over the year—the lowest “official” jobless rate since 2008. Overall, the economy added 2.7 million jobs, and had the second-best annual income gain since 1999: wages were up 2.5% (year over year), although still below the 6.3% annual average. U.S. housing activity remained solid with price growth, and new home sales increased. Improved employment and housing activity echoes continued improvement in consumer confidence: the University of Michigan's Index of Consumer Sentiment averaged 92.9 in 2015—the highest since 2004.

On the other hand, predicting recession is declining U.S. factory activity among several negative economic



Exhibit 3: CHANGE IN U.S. OUTPUT: MONTHS UNTIL FULL RECOVERY



Source: Federal Reserve Bank of Minneapolis
Start of recovery for the 2007 recession was June 2009

indicators. The Institute for Supply Management's (ISM) index fell to 48.2 by year-end, the weakest reading since the recession officially ended in June 2009. (Readings below 50 indicate contraction.) Inflation (personal consumption expenditures index) still remains low, despite all the efforts of the Federal Reserve. November's 0.5% annualized rate marked the 43rd straight month of annualized inflation below the Fed's 2% target rate. Low inflation makes residential and auto loans harder to pay off, reducing spendable income of investors.

Global Economy

Global economic growth in 2015 was the weakest since the dark days of the 2008-2009 financial crisis. The Organization for Economic Cooperation and Development (OECD) estimated 2015 world growth at 2.9%. The slowdown came in spite of improved consumer spending sparked by lower energy prices and the European Central Bank's (ECB) quantitative easing efforts. A decline in the euro's value boosted exports and contributed to an improved current account surplus in 2015. Japan's economy showed only sluggish signs of improvement.

China, the world's second largest economy, began a dramatic slowdown during 2015, with growth falling to 6.9%, a figure less than half its growth rate in 2010. The Chinese government officially revised that figure to 6.5%—the weakest growth in 25 years, but conveniently

corresponding to official targets of its new five-year plan. Chinese equity markets declined by more than 40% from 2015's peak by year-end. The Chinese government faces unprecedented challenges transforming its economic model using free-market reforms necessary to transition from an economy focused on heavy industry and exports to consumer spending of its people. This transition will be measured as the marginal rate of Chinese construction consumption reduces and as China's currency is progressively devalued relative to the currency of its important trading partner, the U.S.

While China's stock market is small on a global scale, the impact of China's huge real estate and construction slowdown on its trading partners is enormous. Clumsy attempts by inexperienced central bank forced to keep stock prices from falling and—unable to keep supporting the price of the yuan after daily spending billions in reserves—the Bank of China's surprise devaluation of their currency raised important questions about the extent of China's impact on the economies of its non-U.S. trading partners, particularly those in the emerging markets. Emerging market nations are further impacted by persistently weak global commodity prices (partly due to China) and the prospect of higher U.S. interest rates. The International Monetary Fund (IMF) cut its 2015 growth estimate for emerging markets to 4%, marking the fifth consecutive year of declining growth.



Oil Market Decline

The world oil market continued its prolonged slide to lows not seen in nearly 12 years. After falling by more than 50% in 2014, oil declined another 30% to end 2015, marking the largest two-year price drop on record. Factors affecting the price decline include: (1) excess supply spurred in part by higher production in North America, Middle East, and Russia, (2) slack demand due to slowing global growth, especially in the emerging markets, and (3) OPEC's waning ability to influence market prices by adjusting its production. While cheap oil was a boon to consumers in developed economies, the steep oil price decline caused all sectors to suffer as firms curtailed spending and canceled projects, and oil-exporting countries struggled with the effects of a weaker currency and reduced tax revenues contributing to increased political and social instability in various Middle Eastern countries. The lifting of U.S. sanctions on Iran will increase oil supplies, and keep oil prices lower.

Diverging Paths for Central Banks

The divergence of major central bank actions in 2015 marked the first time since the euro's origin in 1999 that the Federal Reserve, ECB, and Bank of England struck different monetary paths due to competing national economic interests. In the late 1990s, the central banks worked together to apply timely rate hikes, while the 2001–2003 market decline brought uniformly similarly timed rate cuts. International cooperation is no longer the case.

Some have suggested a "Currency War" is developing as countries adopt central bank policies that depreciate their currencies relative to other countries in order to improve their exports and balance of payments at the expense of trading partners, and hopefully their stock markets from a wealth effect. It's a dangerous game.

The Federal Reserve postponed monetary tightening in the U. S. until December, and then raised its benchmark interest rate only by a quarter point, stating that monetary tightening would be gradual. The immediate impact on U.S. financial markets was negligible. That modest increase was its first rate hike in a decade.

Overseas, responding to signs of economic slowdown, more than 40 central banks also eased monetary policy. The ECB implemented a major stimulus program during 2015, and Japan announced new quantitative easing measures in December, and recently reduced central bank rates below zero.

Major World Indices As of December 31, 2015

Index	Three Months	One Year	Three Years*
US Equity Returns (%)			
Russell 3000 Index	6.27	0.48	14.74
Russell 2500 Index	3.28	-2.90	12.46
Russell 2000 Index	3.59	-4.41	11.65
Russell 2000 Value Index	2.88	-7.47	9.06
Russell 2000 Growth Index	4.32	-1.38	14.28
Russell 1000 Index	6.50	0.92	15.01
Russell 1000 Value Index	5.64	-3.83	13.08
Russell 1000 Growth Index	7.32	5.67	16.83
S&P 500 Index	7.04	1.38	15.13

Non-US Equity Returns (net div.) (%)			
MSCI World ex USA Small Cap	5.82	5.46	7.82
MSCI World ex USA	3.91	-3.04	3.93
MSCI World ex USA Value	2.17	-7.68	1.99
MSCI World ex USA Growth	5.61	1.65	5.83
MSCI Emerging Markets	0.66	-14.92	-6.76
MSCI Emerging Markets Small Cap	3.27	-6.85	-1.67
MSCI Emerging Markets Value	-1.45	-18.57	-9.50

Fixed Income Returns (%)			
BofA Merrill Lynch Three-Month US Treasury Bill	0.03	0.05	0.05
BofA Merrill Lynch 1-Year US Treasury Note	-0.17	0.15	0.20
Citigroup World Government Bond Index 1-3 Years (hedged)	-0.05	0.71	0.81
Barclays US Government Bond	-0.91	0.86	1.01
BofA Merrill Lynch 1-5 Year US Treasury and Agency	-0.65	0.97	0.68
Citigroup World Government Bond Index 1-5 Years (hedged)	-0.08	1.00	1.17
Barclays US TIPS	-0.64	-1.44	-2.27

Other Returns (%)			
Dow Jones US Select REIT	7.54	4.48	11.76
S&P Global ex US REIT (net div.)	1.86	-3.54	3.08
Bloomberg Commodity Total Return	-10.52	-24.66	-17.29

*Annualized

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



2015 Investment Overview

In the U.S. equity markets, most major indices logged negative performance, despite a strong rebound during Q4. For the year, the total return of the S&P 500 Index was 1.4%; the Russell 3000 Index 0.5%; and the Russell 2000 Index -4.4%. Most of the U.S. market return was concentrated in a relatively small number of dividend-paying stocks of large growth companies. U.S. market volatility, measured by the Chicago Board Options Exchange Market Volatility Index (VIX), closed slightly higher at year end, but had been much higher.

Non-U.S. developed stock markets experienced mixed performance across almost all major indices. The MSCI World ex USA Index, a benchmark for large cap stocks in developed markets outside the U.S., returned -3.0%. Small cap and value stock returns were mixed: The MSCI World ex USA Small Cap Index returned 5.5% and the Value Index returned -7.7%. The MSCI Growth Index was positive at 1.7%. Emerging markets performed especially poorly: The MSCI Emerging Markets Index returned -14.9%; the MSCI small cap subindex returned -6.9%; the value subindex returned -18.6%. (All international returns in U.S. dollars, net dividends).

Performance of Size and Value Premiums

U.S. value (relative price) stocks underperformed growth stocks by a substantial amount in 2015. The value factor delivered its weakest performance in nearly seven years. Using Russell indexes to show the gap:¹

- U.S. large cap stocks: large value underperformed large growth by -9.5%.
- The relative price dimension: U.S. value underperformed growth by -9.2%.
- U.S. size dimension: small cap stocks underperformed large cap stocks by -5.3%.
- U.S. small cap stocks: small value underperformed small growth by -6.1%.

Value and size premiums and their dimensional factors do not move in tandem across global markets. For example, the size premium was positive in both developed non-U.S. markets and emerging markets in 2015. The MSCI World ex USA Small Cap Index outperformed the World ex U.S. Index by 8.5% (USD, net dividends). Likewise, the MSCI Emerging Markets Small Cap Index outperformed the Emerging Markets Index by 8.1%.

The magnitude and the duration of 2015's negative value and size premiums are not without precedent. *Exhibit 5* shows that while small cap and value dimensional stocks historically offered higher *expected* returns over long periods relative to their large and growth dimensions, bigger return premiums are not *realized* every year.¹ For example, using rolling return periods in *Exhibit 6*, U.S. small caps outperformed large caps in only 58% of one-year periods, and in only 72% of the ten years. For the value (relative price) dimension, U.S. value outperformed growth 61% of one year periods, and 90% of the ten years. Not until we get to 15 year overlapping period horizons do we see those premiums realized almost all the time. Still, except for the profitability dimension, we do not reach close to 100% confidence until nearly 20 years have passed, but even that outcome is not guaranteed.

Still, a recent multi-year period like 2013-2015 in which U.S. small cap and value stocks did not outperform large caps and growth (1989-1991 and 2009-2011 were similar periods), has caused some to question their confidence in academic research regarding the persistence of those dimensional strategies. Investor patience can be sorely tested at times, and we can certainly understand. Yet decades of peer-reviewed statistical data remind us of the necessity of perseverance in pursuing dimensional investment strategies. *Exhibit 8* illustrates that after enduring extended periods of negative-premiums, small cap and value stocks subsequently dramatically outperformed their counterparts. Moreover, when premiums reversed, they often did so astonishingly and for multiple years.

Let's use *Exhibit 7* to consider a previous series of years when value strategies underperformed by even greater margins to gain a better perspective. As many growth stocks and tech-related firms soared in price during the mid- to late 1990s, value strategies delivered positive returns but did relatively worse. At year-end 1998, value stocks had underperformed growth stocks over the previous one, three, five, 10, 15, and 20 years. The inception of the Russell indices was January 1979, so all the available data (20 years) from the most widely followed conventional benchmark appeared to "prove" superior growth stocks performance. To many investors, it seemed foolish for money managers to hold "old economy" stocks while the "new economy" represented the future.

Exhibit 5: DIMENSIONS OF EXPECTED RETURN

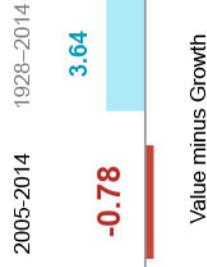
10-Year and Historical Stock Premiums (annualized): U.S., Developed ex U.S., and Emerging Markets

Company Size
Relative performance of small cap
stocks vs. large cap stocks (%)



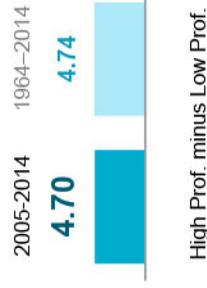
Small minus Large

Relative Price
Relative performance of value
stocks vs. growth stocks (%)



Value minus Growth

Profitability
Relative performance of high profitability
stocks vs. low profitability stocks (%)



High Prof. minus Low Prof.

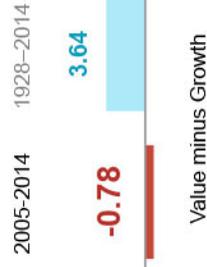
US Stocks

Company Size
Relative performance of small cap
stocks vs. large cap stocks (%)



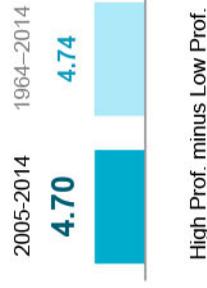
Small minus Large

Relative Price
Relative performance of value
stocks vs. growth stocks (%)



Value minus Growth

Profitability
Relative performance of high profitability
stocks vs. low profitability stocks (%)



High Prof. minus Low Prof.

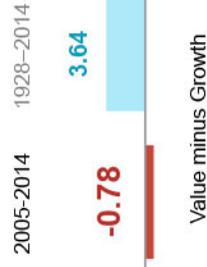
Developed ex
US Markets
Stocks

Company Size
Relative performance of small cap
stocks vs. large cap stocks (%)



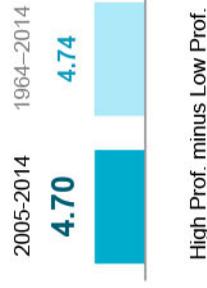
Small minus Large

Relative Price
Relative performance of value
stocks vs. growth stocks (%)



Value minus Growth

Profitability
Relative performance of high profitability
stocks vs. low profitability stocks (%)



High Prof. minus Low Prof.

Emerging
Markets
Stocks

Information provided by Dimensional Fund Advisors LP.

US size premium: Dimensional US Small Cap Index minus S&P 500 Index. US relative price premium: Fama/French US Value Index minus Fama/French US Growth Index. US profitability premium: Dimensional US High Profitability Index minus Dimensional US Low Profitability Index. Dev. ex US size premium: Dimensional Intl. Small Cap Index minus MSCI World ex USA Index (gross div.). Dev. ex US relative price premium: Fama/French International Value Index minus Fama/French International Growth Index. Dev. ex US profitability premium: Dimensional International High Profitability Index minus Dimensional International Low Profitability Index. Emerging Markets size premium: Dimensional Emerging Markets Small Cap Index minus MSCI Emerging Markets Index (gross div.). Emerging Markets relative price premium: Fama/French Emerging Markets Value Index minus Fama/French Emerging Markets Growth Index. Emerging Markets profitability premium: Dimensional Emerging Markets High Profitability Index minus Dimensional Emerging Markets Low Profitability Index. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book.

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. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower. See Kenneth R. French's Data Library of Research Returns for description of index data: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html. Eugene Fama and Ken French are members of the Board of Directors for and provide consulting services to Dimensional Fund Advisors LP. The S&P data is provided by Standard & Poor's Index Services Group. MSCI data © MSCI 2015, all rights reserved.

Exhibit 6: HISTORICAL PERFORMANCE OF PREMIUMS OVER ROLLING RETURN PERIODS

U.S. Markets

Overlapping Periods: January 1928–December 2014

MARKET beat T-BILLS



Market is Fama/French Total US Market Index.
T-Bills is One-Month US Treasury Bills.

There are 865 overlapping 15-year periods, 925 overlapping 10-year periods, 985 overlapping 5-year periods, and 1,033 overlapping 1-year periods.

Overlapping Periods: January 1928–December 2014

VALUE beat GROWTH



Value is Fama/French US Value Index.
Growth is Fama/French US Growth Index.

There are 865 overlapping 15-year periods, 925 overlapping 10-year periods, 985 overlapping 5-year periods, and 1,033 overlapping 1-year periods.

Overlapping Periods: January 1928–December 2014

SMALL beat LARGE



Small is Dimensional US Small Cap Index.
Large is S&P 500 Index.

There are 865 overlapping 15-year periods, 925 overlapping 10-year periods, 985 overlapping 5-year periods, and 1,033 overlapping 1-year periods.

Overlapping Periods: July 1963–December 2014

HIGH PROFITABILITY¹ beat LOW PROFITABILITY



High is Dimensional US High Profitability Index.
Low is Dimensional US Low Profitability Index.

There are 439 overlapping 15-year periods, 499 overlapping 10-year periods, 559 overlapping 5-year periods, and 607 overlapping 1-year periods.

Information provided by Dimensional Fund Advisors LP.

Indices are not available for direct investment. Past performance is not a guarantee of future results.

1. Profitability is a measure of current profitability, based on information from individual companies' income statements. Based on rolling annualized returns using monthly data. Rolling multiyear periods overlap and are not independent. This statistical dependence must be considered when assessing the reliability of long-horizon return differences. Dimensional Index data compiled by Dimensional Fama/French data provided by Fama/French. The S&P data is provided by Standard & Poor's Index Services Group. Eugene Fama and Ken French are members of the Board of Directors for and provide consulting services to Dimensional Fund Advisors LP. Index descriptions available upon request.



Exhibit 7: COMPARING VALUE & GROWTH INDEX RETURNS

12-months ending December 31		
	1999	2015
Russell 1000 Value Index	7.36%	-3.83%
Russell 1000 Growth Index	33.16%	5.67%
Value vs. Growth	-25.80%	-9.50%

Total return for U.S. stocks, in U.S. dollars

Many then-famous value-style managers counseled patience throughout most of the 1990s, but the worst came in 1999. Growth stocks performed dynamically as value stocks trailed them by the largest calendar year margin in the 36 year history of the Russell indices—over 25%. I recall untimely early retirements among many respected managers in year 2000 as once-patient investors switched into high-performance growth funds.

In the first quarter of 2000, growth stocks streaked to a 7% return while value stocks returned a mere 0.5%. As of March 31, 2000, value stocks had underperformed growth stocks *by 5.6% per year for the previous 10 years* and by 1.5% per year since the inception of the Russell indices in 1979. A *Wall Street Journal* article appearing in January of 2000 profiled a prominent value-style fund manager who regularly received angry letters and email messages—his fund shareholders ridiculed him for avoiding non-value technology-related investments. Two months later the board replaced him as portfolio manager amidst persistent shareholder redemptions. Professional Financial, using multi-factor investing back then, lost several clients, and many prospective clients seemed to avoid us.

With value stocks falling so far behind in the relative performance race, it seemed plausible to many that value stocks would need an investing lifetime to catch up, if ever. Instead, it took less than a year!

By November 2000, value stocks had delivered modestly higher returns than growth stocks since index inception (21 years, 11 months earlier). By only month-end February 2001, value stocks had outperformed growth stocks over the previous one, three, five, 10, and 20 years and since inception. The speed of the reversal was surprising and dramatic. Between April 2000 and November 2000, value stocks outperformed growth stocks by 26.7% and by

39.7% from April 2000 to February 2001. Client attrition for us ceased, and we grew ever since.

Such results are not confined to the 1990s technology boom-and-bust. Although less pronounced, a similar reversal of value stock underperformance took place following a lengthy period ending in December 1991. Similar evidence exists for size premiums as also can be seen within the last decade described in *Exhibit 8*:

- From January 1995 to December 1999, the annualized size premium was negative by approximately 9.6% a year, amounting to a cumulative total return difference of approximately 113%. Within the next 18 months, the entire cumulative shortfall in returns had recovered.
- From January 1995 to December 2001, the annualized size premium was positive by 1.6%.

The Moral of This Story?

Prices and price movements are difficult to predict at either the individual security level or the asset class level, and dramatic changes in relative performance in asset classes can take place in extremely short time periods that an undisciplined investor can easily miss.

While there is a sensible economic story and empirical evidence to support our expectation that value stocks should outperform growth stocks and that small caps should outperform large caps long-term, we know that value and small caps can underperform even for extended periods. Illustrating historical outcomes reinforce the importance of patience and perseverance in pursuing these sometimes elusive but highly rewarding premiums.

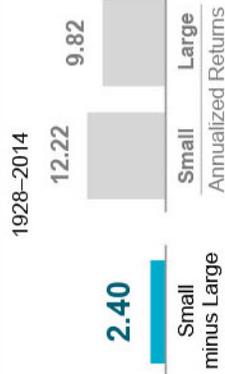
A fundamental economic concept for informed investors to always keep in mind is that risk and expected return are related. In periods of economic prosperity or low

Exhibit 8: DIMENSIONS OF EXPECTED RETURNS

Historical premiums and returns (annualized): U.S., Developed ex U.S., and Emerging Markets

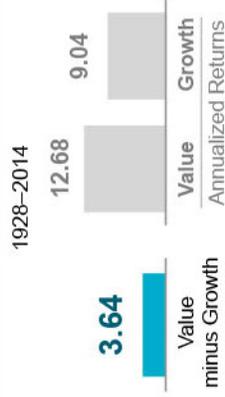
Company Size

Relative performance of small cap stocks vs. large cap stocks (%)



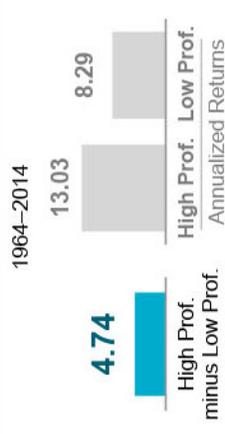
Relative Price

Relative performance of value stocks vs. growth stocks (%)



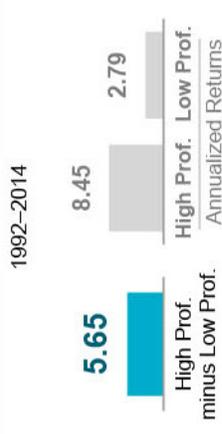
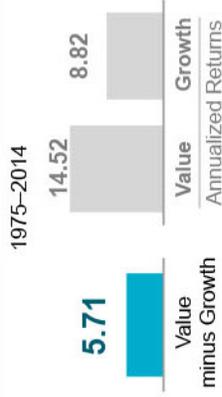
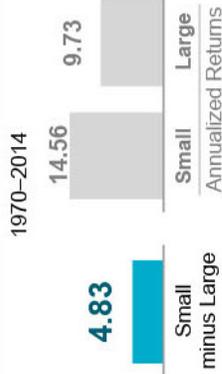
Profitability

Relative performance of high profitability stocks vs. low profitability stocks (%)

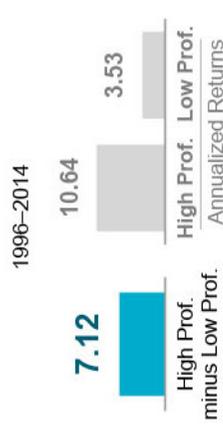
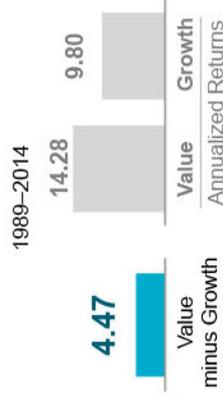
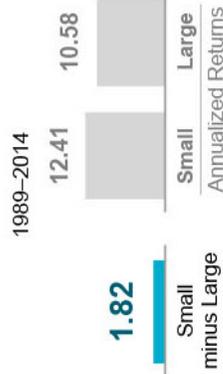


US Stocks

Developed ex US Markets Stocks



Emerging Markets Stocks



Information provided by Dimensional Fund Advisors LP.

Information provided by Dimensional Fund Advisors LP.

US size premium: Dimensional US Small Cap Index minus S&P 500 Index. US relative price premium: Fama/French US Value Index minus Fama/French US Growth Index. US profitability

premium: Dimensional US High Profitability Index minus Dimensional US Low Profitability Index. Dev. ex US size premium: Dimensional Intl. Small Cap Index minus MSCI World ex USA

Index (gross div.). Dev. ex US relative price premium: Fama/French International Value Index minus Fama/French International Growth Index. Dev. ex US profitability premium: Dimensional

International High Profitability Index minus Dimensional International Low Profitability Index. Emerging Markets size premium: Dimensional Emerging Markets Small Cap Index minus MSCI

Emerging Markets Index (gross div.). Emerging Markets relative price premium: Fama/French Emerging Markets Value Index minus Fama/French Emerging Markets Growth Index. Emerg-

ing Markets profitability premium: Dimensional Emerging Markets High Profitability Index minus Dimensional Emerging Markets Low Profitability Index. Profitability is measured as operat-

ing income before depreciation and amortization minus interest expense scaled by book.

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. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower. See Kenneth R.

French's Data Library of Research Returns for description of index data: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html. Eugene Fama and Ken French are

members of the Board of Directors for and provide consulting services to Dimensional Fund Advisors LP. The S&P data is provided by Standard & Poor's Index Services Group. MSCI data ©

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market volatility, that principal is easy to forget. The only reason a rational investor would knowingly accept additional risk with their money is that they reasonably expect (over a sensible period of time) to receive higher returns than would be realized from less risky (or risk free) available alternatives. The economic point is *that if the expected result always occurred, there would be no risk, and hence no reward over the risk-free rate of return because prices would already have adjusted for such a progressive reduction of risk.*

In liquid and competitive markets, security prices in publicly traded markets incorporate the aggregate expectations of all market participants. This underlies the notion of “market efficiency” first posited by Nobel laureate Eugene Fama. For example, if a particular segment of securities like tech stocks in the late 1990s over time becomes generally *expected to always* generate a higher return relative to other segments of securities, then investors should see intense competition among various market participants like hedge funds progressively bid up those prices to the equivalent return of a low-risk or even “risk-free” investment such as U.S. Treasury bills. We find it unsurprising that the 2015 return of large U.S. stocks—after a six-year bidding war for investors desperate for income—was close to the aggregate dividend yield, and substantially similar to the return provided by the U.S. government and credit bond indices! Yet who seriously believes that stocks and government bonds have equivalent investment risks? The broad-based downward market adjustment we see at the very beginning of 2016 (a continuation from mid-year 2015), should not surprise any sensible investor who accepts another University of Chicago Nobel laureate’s oft-repeated remark, “There is no free lunch.”

Conclusion: The Right Focus

Planning for the future is inherently uncertain. As Yankee baseball legend Yogi Berra famously remarked, “It’s tough to make predictions, especially about the future.” Unexpected events always occur, at home and abroad: who predicted the collapse of oil prices or of Chinese stocks? Some events will have worse consequences than many expect; others will turn out better than anyone expected. Some personally bad events (such as from losing a job at Xerox due to restructuring) may eventually turn

out to be much better for you instead, and vice versa.

Accepting sensible risks, and maintaining a consistent level of risk throughout business and market cycles, is essential to a positive financial outcome when multifactor strategies are employed. **Tough markets separate the owners of risk from the renters of risk.** A sound approach for informed planning to meet long-term investment management goals is to focus on what you can control, and not on what is outside your control. Each investor must understand what matters for them in order to have a successful planning experience, and then concentrate on doing those things well—such as, reducing taxes. Financial control begins with a carefully crafted investment plan—a formal written investment policy that can be read and re-read over inevitable ups and downs of market cycles and frequent family changes. As the foundation of any wealth management plan, the investment policy statement must fit that family’s particular needs, goals, values, and circumstances, as well as their collective tolerance for risk. The right planning will allow for occasional and perhaps prolonged market turbulence, and may consider how day-to-day cash flow need would be met for unplannable contingencies such as unemployment or disability or even death that may occur during dark periods of great business vulnerability.

Yes, return premiums associated with dimensions of the capital market—including size, value and now profitability—are unpredictable over the short-term whether here in the U.S. or internationally. That is true both in terms of when dimensions of return will show up and which securities will drive those premiums, and by how much and for how long. For those reasons, we believe the best investment policy strategy is to structure a broadly diversified global portfolio, especially with a view to minimizing taxes, using a methodology consistently focused on the appropriate targeted dimensions of market returns, to capture the associated expected premiums planned for their dimensional investment strategy in the most reliable way.

Through Professional Financial, our clients have access to decades of research in the science of capital markets. Our special associations provide our firm the ability to structure portfolios around dimensions of returns while diversifying broadly and cost effectively, grounded in decades of economic research around the dimensions of



returns. We look back on happy outcomes for many clients who, taking informed risks, stuck with their plan.

Making informed decisions about what matters for planning your family's deepest goals and dreams demands a truly informed approach. An independent firm lead by Certified Financial Planners able to act as your personal chief financial officer— working with a network of

experts—can help bridge the gap between theoretical and empirical research and by implementing a practical process that effectively captures what markets offer. We simplify complex personal financial affairs to better address challenges to meeting your goals and dreams, and use planning to help clients achieve greater peace of mind through the uncertainties of business, markets, politics, and the vicissitudes of life.

1. U.S. small cap is represented by the Russell 2000 Index; U.S. large cap is the Russell 1000 Index; U.S. value (marketwide) is the Russell 3000 Value Index; and U.S. growth (marketwide) is the Russell 3000 Growth Index. U.S. large value is the Russell 1000 Value Index; U.S. large growth is the Russell 1000 Growth Index. Russell data © Russell Investment Group 1995–2016, all rights reserved.

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