ABBOT DOWNING

ABBOT DOWNING STRATEGY REPORT

Lessons Learned

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Lessons Learned

> *"The first lesson of economics is scarcity: there is never enough of anything to fully satisfy all those who want it. The first lesson of politics is to disregard the first lesson of economics."*
>
> Thomas Sowell,
> American Economist

The past few months for asset market investors have been a more challenging experience than most of the past decade has been, given wide intra-day swings. The worst December in 87 years[1] was followed in rapid order by the best January in nearly three decades,[2] leaving many participants with a bad case of whiplash. While both economic and political issues were credited by the popular press as being the root cause of the volatility, as we noted last month "we hesitate to ascribe too much fundamental forethought to the trading activity during the final weeks (of December) and suspect a number of non-fundamental factors such as algorithmic trading; year-end tax loss harvesting and a dearth of traditional liquidity sources contributed to the whipsaw action." [3, 4]

While the economy and the markets powered strongly through much of 2018—including several notable technology stocks that briefly sported $1 trillion-dollar market caps in early fall—the market gains were all erased in a heart wrenching, hand wringing final few weeks. Indeed, as shown in the "periodic table" of returns below *(see Table 1: Annual Quilt Chart – The Value of Asset Allocation)*, the top performing asset class in 2018 was inflation (CPI), followed by cash. Odd, isn't it, that 2018 dawned with many worried about the Fed's ability to foster enough inflation to get toward its long-term targets? And cash? Cash hasn't been in either of the top two spots in any of the past 15 years—and only made 3rd place in 2008. Go figure.

As 2019 has begun, it seems to us that domestic markets have settled into a fairly constructive mindset. Acute concerns over trade tensions and the government shut down have cooled (for the moment) as headlines alluding to developments in key areas seem to be greeted with optimism or as least not disdain. Domestic markets have regained much of the ground lost late last year as illustrated by Chart 1 *(see Chart 1: S&P 500 Index – Historical Perspective)* while traditional indicators of either excessive optimism (ebullient investor or business sentiment, elevated valuations, overpriced acquisitions, rampant IPOs) or excessive fright are notably absent.

While markets have stabilized and most economic statistics are registering readings supportive of a reasonably healthy economy, both uptrends are long in the tooth. We remain overweight equities and growth biased in our positioning, though watchful of a variety of indicators that might hint at the next downturn's imminence. Given this combination of factors, it may be an opportune time to pause and reflect upon how the intensity of late 2018 impacted you and your comfort with the way your portfolio is constructed. Toward this end, we offer up a few of the lessons that can perhaps be gleaned from what just happened.

Lesson 1: Volatility is Normal

Volatility is normal though exceedingly uncomfortable, especially when we haven't witnessed it in a while. As reported in Bloomberg Markets, the first 10 months of 2017 had eight days with a 1% gain or loss, while the same period of 2018 had 48 such days! (And note those statistics were generated before the worst of it in November/December!) If you were left feeling nervous, sleepless and overly concerned, it might be time to reassess your public/private or stock/bond mixes.

Lesson 2: Stay Focused on the Fundamentals

Short-term volatility can be—and more often than not is—caused by structural and emotional issues rather than thoughtful reactions to long term fundamental changes. It's tough to turn the U.S. or global economies on a dime. The trajectory of the U.S. economy has basically been upward since its founding hundreds of years ago. On the whole, stock markets tend to represent the best and brightest of this economic trajectory over the very long pull *(see Chart 2: U.S. Markets Have Displayed Resilience Despite Uncertain Events)*. And markets and economies both tend to be in growth mode substantially more than half the time.[5]

Lesson 3: Market Timing (as in Getting All The Way Out or All The Way In) Typically Doesn't Work

Though leaning into volatility to round up, trim, and otherwise rebalance can be additive to portfolios over the long run. Market timing is difficult because it requires precision on at least two decisions—when to get out and when to get back in. A third decision, where to park proceeds, further complicates the issue as do trading costs and potential taxes. Having a long-term allocation that feels durable no matter what the environment and then using volatility to trim overvalued assets and round up on undervalued ones can help straddle a variety of potential outcomes.

Lesson 4: Ensure Your Spend Rate is Sustainable

Ensure your spend rate is sustainable and ideally that larger future liabilities are decked against specific assets (e.g. bonds/cash). Knowing that a bulk of your annual spending needs are provided for by dividend and interest payments or against a pool of short-term fixed income can make swings in the more growth oriented parts of the portfolio more tolerable.

Lesson 5: Focus on What You Can Control

Taxes, turnover, costs, allocation—versus what you can't (for example headlines). If markets and economies are long term upwardly biased and you have patience, participation should have the upper hand.

Lesson 6: Dollar Cost Averaging Can Help You Get "Unstuck"

The funding of new accounts or dealing with the need to reduce large concentrations in specific sectors/stocks can prompt one to freeze with inaction for fear of making a "wrong" decision especially around timing. The fear of regret is a powerful motivator. One way to address this is to "schedule" dollar cost averaging in or out.

Lesson 7: Short-Term Markets can be Exceedingly Emotional

Though Greed and Fear aren't the only two emotions that drive markets. As emotional turning points are neared, volume tends to get heavy and investor emotions can run either excessively complacent or greedy or excessively fearful. Fundamentals get tossed out the window and our hardwired "fight or flight" responses tend to kick in. It's vital to remember at these points, though, that we are the only creature with the capability to insert a "pause" between stimulus and response. In that pause, it's helpful to reassess your investment objectives, understand why you are investing in the first place and what you want your funds to accomplish over the long pull.

Lessons Learned *(Continued)*

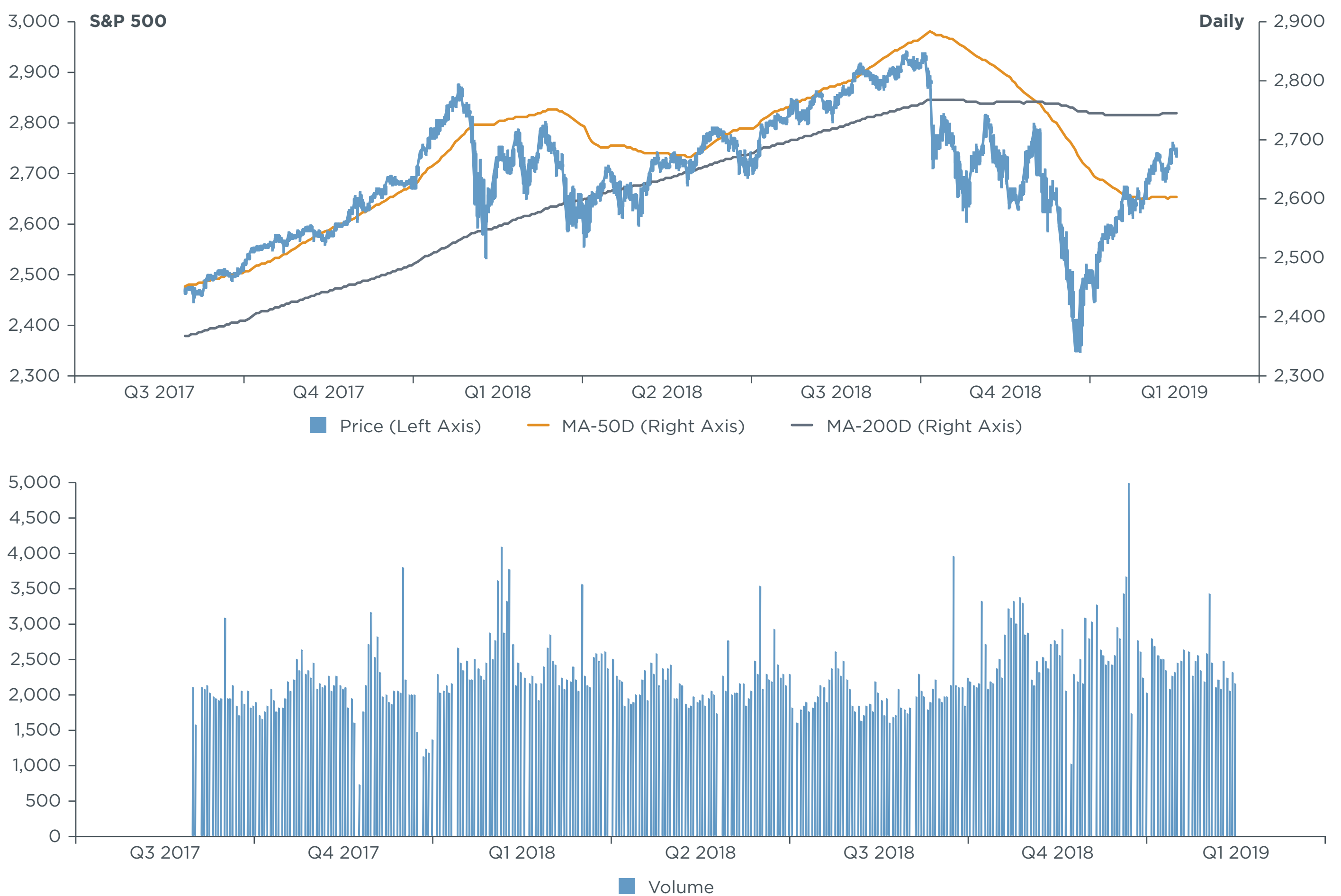
Table 1: Annual Quilt Chart – The Value of Asset Allocation

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	AVERAGE
Public Real Estate 38.0%	Emg-Mkt Equities 34.5%	Public Real Estate 42.4%	Emg-Mkt Equities 39.8%	Dev Ex-U.S. Fixed Inc 11.4%	Emg-Mkt Equities 79.0%	U.S. Small-Cap Equities 26.9%	Emg-Mkt Fixed Inc 8.5%	Public Real Estate 28.7%	U.S. Small-Cap Equities 38.8%	Public Real Estate 15.9%	U.S. Large-Cap Equities 1.4%	U.S. Small-Cap Equities 21.3%	Emg-Mkt Equities 37.8%	CPI 2.2%	U.S. Mid-Cap Equities 8.9%
Emg-Mkt Equities 26.0%	Commodities 21.4%	Emg-Mkt Equities 32.6%	Commodities 16.2%	Inv-Grade Fixed Inc 5.2%	High-Yield Fixed Inc 58.2%	U.S. Mid-Cap Equities 25.5%	Inv-Grade Fixed Inc 7.8%	Emg-Mkt Equities 18.6%	U.S. Mid-Cap Equities 34.8%	U.S. Large-Cap Equities 13.7%	Emg-Mkt Fixed Inc 1.2%	High-Yield Fixed Inc 17.1%	Dev Ex-U.S. Equities 25.6%	Cash Alternatives 1.8%	Emg-Mkt Equities 8.3%
Dev Ex-U.S. Equities 20.7%	Public Real Estate 15.4%	Dev Ex-U.S. Equities 26.9%	Dev Ex-U.S. Equities 11.6%	Cash Alternatives 1.8%	U.S. Mid-Cap Equities 40.5%	Public Real Estate 20.4%	Dev Ex-U.S. Fixed Inc 5.9%	Emg-Mkt Fixed Inc 18.5%	U.S. Large-Cap Equities 32.4%	U.S. Mid-Cap Equities 13.2%	60%/40% Portfolio 1.2%	U.S. Mid-Cap Equities 13.8%	U.S. Large-Cap Equities 21.8%	Inv-Grade Fixed Inc 0.0%	U.S. Large-Cap Equities 7.8%
U.S. Mid-Cap Equities 20.2%	Dev Ex-U.S. Equities 14.0%	U.S. Small-Cap Equities 18.4%	Dev Ex-U.S. Fixed Inc 11.3%	CPI 0.1%	Public Real Estate 38.3%	Emg-Mkt Equities 19.2%	High-Yield Fixed Inc 5.0%	Dev Ex-U.S. Equities 17.9%	Dev Ex-U.S. Equities 23.3%	60%/40% Portfolio 10.6%	CPI 0.7%	U.S. Large-Cap Equities 12.0%	U.S. Mid-Cap Equities 18.5%	Dev Ex-U.S. Fixed Inc -1.7%	Public Real Estate 7.6%
U.S. Small-Cap Equities 18.3%	U.S. Mid-Cap Equities 12.7%	U.S. Large-Cap Equities 15.8%	Hedge Funds 10.0%	Emg-Mkt Fixed Inc -10.9%	Dev Ex-U.S. Equities 32.5%	Commodities 16.8%	60%/40% Portfolio 5.0%	U.S. Mid-Cap Equities 17.3%	60%/40% Portfolio 17.7%	MG&I Port (4AG w/o PC) 6.6%	Inv-Grade Fixed Inc 0.5%	Commodities 11.8%	U.S. Small-Cap Equities 14.6%	High-Yield Fixed Inc -2.1%	U.S. Small-Cap Equities 7.5%
MG&I Port (4AG w/o PC) 13.1%	Emg-Mkt Fixed Inc 10.7%	U.S. Mid-Cap Equities 15.3%	MG&I Port (4AG w/o PC) 7.4%	Hedge Funds -19.0%	Emg-Mkt Fixed Inc 28.2%	High-Yield Fixed Inc 15.1%	CPI 3.0%	U.S. Small-Cap Equities 16.3%	MG&I Port (4AG w/o PC) 12.1%	Inv-Grade Fixed Inc 6.0%	Public Real Estate 0.1%	Emg-Mkt Equities 11.6%	60%/40% Portfolio 14.3%	60%,40% Portfolio -2.3%	High-Yield Fixed Inc 7.0%
Dev Ex-U.S. Fixed Inc 12.0%	Hedge Funds 9.3%	MG&I Port (4AG w/o PC) 14.5%	Inv-Grade Fixed Inc 7.0%	60%/40% Portfolio -21.6%	U.S. Small-Cap Equities 27.2%	U.S. Large-Cap Equities 15.1%	U.S. Large-Cap Equities 2.1%	U.S. Large-Cap Equities 16.0%	Hedge Funds 9.1%	Emg-Mkt Fixed Inc 5.5%	Cash Alternatives 0.0%	Emg-Mkt Fixed Inc 10.2%	MG&I Port (4AG w/o PC) 13.2%	Hedge Funds -4.1%	Emg-Mkt Fixed Inc 6.9%
Emg-Mkt Fixed Inc 11.7%	MG&I Port (4AG w/o PC) 7.9%	Hedge Funds 12.9%	Emg-Mkt Fixed Inc 6.3%	MG&I Port (4AG w/o PC) -24.3%	U.S. Large-Cap Equities 26.5%	MG&I Port (4AG w/o PC) 14.6%	MG&I Port (4AG w/o PC) 0.8%	High-Yield Fixed Inc 15.8%	High-Yield Fixed Inc 7.4%	U.S. Small-Cap Equities 4.9%	Dev Ex-U.S. Equities -0.4%	MG&I Port (4AG w/o PC) 9.0%	Public Real Estate 11.4%	U.S. Large-Cap Equities -4.4%	60%,40% Portfolio 6.5%
High-Yield Fixed Inc 11.1%	U.S. Large-Cap Equities 4.9%	High-Yield Fixed Inc 11.8%	60%/40% Portfolio 6.2%	High-Yield Fixed Inc -26.2%	MG&I Port (4AG w/o PC) 26.0%	60%/40% Portfolio 12.2%	Cash Alternatives 0.1%	MG&I Port (4AG w/o PC) 12.6%	Public Real Estate 4.4%	Hedge Funds 3.0%	Hedge Funds -1.1%	60%,40% Portfolio 8.2%	Dev Ex-U.S. Fixed Inc 9.9%	Emg-Mkt Fixed Inc -4.6%	MG&I Port (4AG w/o PC) 6.5%
U.S. Large-Cap Equities 10.9%	U.S. Small-Cap Equities 4.6%	60%/40% Portfolio 11.1%	U.S. Mid-Cap Equities 5.6%	U.S. Small-Cap Equities -33.8%	Hedge Funds 20.0%	Emg-Mkt Fixed Inc 12.0%	U.S. Mid-Cap Equities -1.5%	60%/40% Portfolio 11.4%	CPI 1.5%	High-Yield Fixed Inc 2.5%	MG&I Port (4AG w/o PC) -1.9%	Hedge Funds 5.4%	Emg-Mkt Fixed Inc 9.3%	MG&I Port (4AG w/o PC) -4.7%	Dev Ex-U.S. Equities 5.2%
Commodities 9.1%	60%/40% Portfolio 3.9%	Emg-Mkt Fixed Inc 9.9%	U.S. Large-Cap Equities 5.5%	Commodities -35.6%	Commodities 18.9%	Hedge Funds 10.2%	U.S. Small-Cap Equities -4.2%	Hedge Funds 6.4%	Cash Alternatives 0.0%	CPI 0.8%	U.S. Mid-Cap Equities -2.4%	Public Real Estate 5.0%	Hedge Funds 8.5%	Public Real Estate -4.7%	Hedge Funds 4.5%
Hedge Funds 9.0%	CPI 3.4%	Dev Ex-U.S. Fixed Inc 6.8%	Cash Alternatives 4.8%	U.S. Large-Cap Equities -37.0%	60%/40% Portfolio 18.5%	Dev Ex-U.S. Equities 8.2%	Hedge Funds -5.3%	Inv-Grade Fixed Inc 4.2%	Inv-Grade Fixed Inc -2.0%	Cash Alternatives 0.0%	U.S. Small-Cap Equities -4.4%	Inv-Grade Fixed Inc 2.6%	High-Yield Fixed Inc 7.5%	U.S. Mid-Cap Equities -9.1%	Inv-Grade Fixed Inc 3.9%
60%/40% Portfolio 8.4%	Cash Alternatives 3.0%	Cash Alternatives 4.8%	CPI 4.1%	U.S. Mid-Cap Equities -41.5%	Inv-Grade Fixed Inc 5.9%	Dev Ex-U.S. Fixed Inc 6.8%	Public Real Estate -5.8%	CPI 1.7%	Emg-Mkt Equities -2.3%	Emg-Mkt Equities -1.8%	High-Yield Fixed Inc -4.5%	CPI 2.1%	Inv-Grade Fixed Inc 3.5%	U.S. Small-Cap Equities -11.0%	Dev Ex-U.S. Fixed Inc 3.0%
Inv-Grade Fixed Inc 4.3%	High-Yield Fixed Inc 2.7%	Inv-Grade Fixed Inc 4.3%	High-Yield Fixed Inc 1.9%	Dev Ex-U.S. Equities -43.1%	Dev Ex-U.S. Fixed Inc 3.9%	Inv-Grade Fixed Inc 6.5%	Dev Ex-U.S. Equities -11.7%	Dev Ex-U.S. Fixed Inc 0.8%	Dev Ex-U.S. Fixed Inc -5.1%	Dev Ex-U.S. Fixed Inc -2.5%	Dev Ex-U.S. Fixed Inc -4.8%	Dev Ex-U.S. Fixed Inc 1.9%	CPI 2.2%	Commodities -11.2%	CPI 2.1%
CPI 3.3%	Inv-Grade Fixed Inc 2.4%	CPI 2.5%	U.S. Small-Cap Equities -1.6%	Public Real Estate -47.7%	CPI 2.7%	CPI 1.5%	Commodities -13.3%	Cash Alternatives 0.1%	Emg-Mkt Fixed Inc -6.6%	Dev Ex-U.S. Equities -4.5%	Emg-Mkt Equities -14.6%	Dev Ex-U.S. Equities 1.5%	Commodities 1.7%	Dev Ex-U.S. Equities -13.4%	Cash Alternatives 1.3%
Cash Alternatives 1.2%	Dev Ex-U.S. Fixed Inc -9.2%	Commodities 2.1%	Public Real Estate -7.0%	Emg-Mkt Equities -53.2%	Cash Alternatives 0.1%	Cash Alternatives 0.1%	Emg-Mkt Equities -18.2%	Commodities -1.1%	Commodities -9.5%	Commodities -17.0%	Commodities -24.7%	Cash Alternatives 0.3%	Cash Alternatives 0.8%	Emg-Mkt Equities -14.2%	Commodities -2.5%

Source: Wells Fargo Investment Institute as of December 31, 2018. ***Hypothetical and past performance do not guarantee future results.*** *An index is unmanaged and not available for direct investment.*

Please refer to pages 27–29 for definitions of the indices, descriptions of the asset class risks, and the composition of the hypothetical Moderate Growth & Income Portfolio and hypothetical 60%/40% Portfolio. The average is the 15-year compounded (geometric) annual growth rate. Information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. Average is calculated as geometric mean. Average is calculated as 15 years from 2004–2018.

Chart 1: S&P 500 Index – Historical Perspective



Source: FactSet, S&P 500 Index Price Return and Volume, August 31, 2017 to February 13, 2019. Past performance is no guarantee of future results.

Lessons Learned *(Continued)*

Chart 2: U.S. Markets Have Displayed Resilience Despite Uncertain Events

S&P 500 Price Index Level (Log Scale)

3,200
1,600
800
400
200
100
50

Fed Policy Uncertainty & Policy Risks *December 2018*
$787 billion stimulus package approved *February 2009*
U.S. tax reform *December 2017*
Fiscal cliff *January 2013*
Stock market crash *October 1987*
World Trade Center/ Pentagon attacks *September 2001*
President Nixon resigns *August 1974*
U.S. debt downgrade *August 2011*
Oklahoma City bombing *April 1995*
Robert F. Kennedy shot *June 1968*
Iran hostage crisis *November 1979*
TARP passed *October 2008*
Martin Luther King Jr. shot *April 1968*
Stagflation
Federal Reserve tightened money
Gulf War
The Vietnam War
Iraq War

1965 1967 1969 1971 1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019

Recessions

Source: Wells Fargo Investment Institute. Market Chart Turning Data Into Knowledge as of December 31, 2018. Past performance is no guarantee of future results.

Risk Discovery Leads to Smart Implementation

> "Risk is what's left when you think you've thought of everything."
>
> Carl Richards

In the investment industry, the concept of risk remains one of the more complicated topics to pin down. Risk takes on many different forms. The full impact is usually not measurable with numbers. By definition you often experience risk before anything bad has even happened. But perhaps the main reason risk is so difficult to formally quantify is because each person experiences and responds to risk in their own way. For example, this past December, the S&P had one of its larger monthly drawdowns—shedding over 9%. In subsequent conversations with clients, the responses we heard ranged all the way from "Gee, I hadn't noticed" to "Should we sell all our equities and go to cash?" So how do you try to find, let alone manage, what's left after you think you've thought of everything?

Question, Question, Question...

We've written about our Discovery process in several prior reports. In particular, in the September 2017 Strategy Report we described the five-step process involved in Client Discovery: ask questions, listen, set expectations, execute and repeat. This process is critical for helping our clients understand and enunciate what risk really means to them. We ask things designed to uncover a client's specific experiences, like:

- Were you an investor in public markets during the recent financial crisis? If so, what did you do? What lessons did you learn? What would you consider to be your most successful investment? Your least successful?

We look to gauge what kind of an investor each client thinks they are:

- How would you prioritize capital preservation, income and growth? What benchmarks do you compare your portfolio to? How often do you look at your portfolio balance?

And we also ask about a client's more general feelings:

- What is most important when you think about your expectations for the next 10 years? What motivates you? Describe the most valuable relationship you have with someone outside of your family.

Some clients have likened the Discovery process to an exhausting physical exam or a rigorous session with their therapist. It is not meant to make you feel like you are having your head shrunk, but it is made to put in you in direct contact with what anxieties you may have regarding your wealth and subsequently flesh out what 'financial success' really looks like.

Turning Answers into Investments

We don't take this process lightly. Discussing one's experiences—both familial and financial—both good and bad—can be difficult. We do this with a very firm goal in mind; building a customized portfolio focused on managing the risks unique to each client. So the next steps after asking questions are to set expectations and execute. Two useful examples might help illustrate this process. In the first scenario, a husband and wife received a large distribution from the wife's family business. The wife's two other siblings received similar sized distributions. During the Discovery process she expressed that she felt as if her family had limited confidence in her ability to understand, navigate and manage the investing process and they feared she might lose most of the money. Through these discussions we collectively determined the priorities were limiting large drawdowns AND giving her the confidence to be able to speak effectively and intelligently about how her money was being managed. We agreed on a conservative asset allocation and we conducted an extensive education process with her and her husband; talking through concepts like asset allocation, correlation and diversification, public versus private markets and basic hedge fund concepts. Discovery led to risk mitigation through customized execution.

Risk Discovery Leads to Smart Implementation *(Continued)*

In another example, a man sold his successful packaging business. During the Discovery process we talked about his experiences during the financial crisis. During the crisis he was forced to sell two pieces of property because some other investments were experiencing cash flow issues. The properties had held their value and were the only sources of additional liquidity he could generate to save the balance of his real estate portfolio. Unfortunately one of those properties was a vacation home that his family had been using since his childhood. The risk he was prioritizing was liquidity, and financial success to him would mean buying that piece of property back. We spoke over the next several meetings about private capital markets and the potential for less liquid investments to provide enhanced returns (you can read more in the December 2018 Strategy Report). We modeled various dire market scenarios to reflect what could happen during a major correction—showing at the depths of a bad scenario how much of his portfolio we could access within 24 hours. Ultimately we created a custom asset allocation focusing on liquidity, and we established a line he could access quickly to buy the vacation property back should it come back on the market; which it ultimately did. Discovery led to risk mitigation through customized execution.

Conclusion

The investment industry often talks about risk in a clinical way. People discuss concepts like volatility or drawdowns, permanent impairment of capital, underperformance relative to a benchmark, 'black swans'. But in reality, risk is very subjective, very personal. In the scenarios above, helping these clients through their process by discussing standard deviation or tracking error would have been hollow. We were able to dig into what risk looked like to each of them and build a portfolio designed to help address and mitigate those specific risks while helping them achieve their goals. It is important for us to leverage each client's experiences and use them to mitigate the risks that are most impactful to them. We all go through challenges, but there's power in learning from them. As Shakespeare wrote "A scar nobly got is a good livery of honor."

Capital Market Assumptions

2018 Asset-Class Return and Volatility Assumptions (10- to 15-Year Horizon)

	Hypothetical Arithmetic Return	Hypothetical Geometric Return	Hypothetical Standard Deviation	Yield or Dividend Yield	Downside Risk	Sharpe Ratio
Inflation	2.5%	2.5%		2.5%		
Cash Alternatives	2.5%	2.5%	1.0%	2.5%	0.9%	0.00
U.S. Short Term Taxable Fixed Income	2.7%	2.7%	1.8%	2.7%	-0.1%	0.12
U.S. Intermediate Taxable Fixed Income	3.2%	3.1%	4.5%	3.1%	-4.0%	0.16
U.S. Long Term Taxable Fixed Income	3.8%	3.2%	10.5%	3.2%	-12.5%	0.12
High Yield Taxable Fixed Income	6.8%	6.1%	12.0%	6.1%	-11.7%	0.36
Short Term Tax Exempt Fixed Income	2.2%	2.2%	1.8%	2.2%	-0.7%	0.10
Intermediate Tax Exempt Fixed Income	2.6%	2.5%	4.5%	2.5%	-4.7%	0.13
Long Term Tax Exempt Fixed Income	3.0%	2.6%	9.0%	2.6%	-11.1%	0.12
High Yield Tax Exempt Fixed Income	5.4%	4.8%	12.0%	4.8%	-13.1%	0.30
Developed Market Ex-U.S. Fixed Income	3.2%	2.9%	8.3%	2.9%	-9.7%	0.09
Emerging Market Fixed Income	6.8%	6.1%	12.0%	6.1%	-11.7%	0.36
Inflation-Linked Fixed Income	3.3%	3.1%	6.0%	3.1%	-6.3%	0.12
Preferred Stock	5.1%	4.4%	12%	4.4%	-13.4%	0.21
U.S. Large Cap Equities	8.9%	7.8%	16.0%	2.1%	-15.2%	0.40
U.S. Mid Cap Equities	9.8%	8.4%	17.8%	1.8%	-16.8%	0.41
U.S. Small Cap Equities	10.3%	8.5%	20.0%	1.3%	-19.2%	0.39
Developed Market Ex-U.S. Equities	8.9%	7.5%	17.5%	3.0%	-17.4%	0.36
Developed Market Ex-U.S. Small Cap Equities	9.8%	8.0%	20.0%	2.0%	-19.8%	0.36
Emerging Market Equities	11.5%	9.2%	23.0%	2.3%	-22.0%	0.39
Frontier Market Equities	11.1%	8.2%	26.0%	3.5%	-26.0%	0.33
Public Real Estate	8.7%	7.2%	18.0%	4.1%	-18.2%	0.34
Private Real Estate*	8.7%	7.7%	15.0%	6.0%	-14.1%	0.41
Infrastructure	8.7%	7.5%	16.0%	4.0%	-15.5%	0.38
Master Limited Partnerships	8.9%	7.6%	17.0%	6.0%	-16.7%	0.38
Timberland	7.5%	6.8%	12.3%	5.0%	-11.4%	0.41
Commodities	5.5%	4.4%	15.0%	0.0%	-17.3%	0.20
Hedge Funds—Relative Value*	5.3%	5.1%	5.8%	0.0%	-3.9%	0.48
Hedge Funds—Macro*	5.1%	4.9%	6.3%	0.0%	-4.9%	0.41
Hedge Funds—Event Driven*	5.5%	5.3%	7.0%	0.0%	-5.6%	0.43
Hedge Funds—Equity Hedge*	6.1%	5.7%	8.8%	0.0%	-7.7%	0.41
Private Equity*	13.0%	10.9%	22.0%	0.0%	-19.3%	0.48
Private Debt*	9.3%	8.1%	16.0%	6.8%	-14.9%	0.42

Sources: Wells Fargo Investment Institute.

Capital market and asset class assumptions are estimates of how asset classes may respond during various market environments. For example, Downside risk is based on our assumptions about average returns and the variability of returns. It represents the minimum return that would be statistically likely in 95% of annual returns. In other words, in 19 out of 20 years, performance would likely be better than this figure and in the twentieth year it would likely be worse. There is no guarantee that any particular 20-year period would follow this pattern. Hypothetical returns represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. Geometric return is the compounded annual growth rate of an investment (asset class or portfolio) over a specified period of time longer than one year. Standard deviation is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk. Yield on a bond assumes constant maturity. Dividend yield on an equity or real-asset investment represents the projected dividend as a percentage of the purchase price. Sharpe ratio measures the additional return that an investor could expect to receive for accepting additional risk. The assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved. The information given has been provided as a guide to help with investment planning and does not represent the maximum loss a portfolio could experience.

**Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.*

Key Market Events

Listed below are key upcoming events and/or accelerating trends we're watching especially closely, as well as a few comments related to how they may impact short-term markets.

The Return of Volatility

Global equity markets have rebounded from the sharp losses experienced in Q4. The S&P 500 gain of 8% in January was the best in 30 years for the first month of the year. A more cautious tone in comments from the Fed chairman Jerome Powell on future rate hikes and balance sheet reduction, combined with increased optimism that a U.S.-China trade deal will be completed are key factors for the stock market turnaround. U.S. payroll gains that significantly beat expectations in December and January also contributed to improved investor sentiment; the risk of a U.S. recession seems remote in 2019. Nevertheless, market gyrations will most likely continue throughout the year, as two potential headwinds will be continuously scrutinized—the extent to which S&P 500 EPS growth decelerates from the unsustainable pace of 20% plus in 2018, and the magnitude of China's economic slowdown.

Behind the broad, swift equity market slide of 2018 and rebound in early 2019 is an underlying new reality: roughly 85% of all trading is on autopilot—controlled by machines, models, or passive investing formulas.[6] While fundamentals ultimately drive capital markets in the long run, the aforementioned program trading environment combined with an extended business cycle will likely result in continued volatility in 2019.

Global Trade

President Trump and China's leader Xi Jinping met in Buenos Aires during the G-20 summit, and announced a temporary trade deal with the U.S. agreeing to hold off on raising tariffs to 25% from 10% on $200 billion of Chinese goods until March 1st. And there have been significant concessions from China since November: Beijing has agreed to reduce tariffs on auto imports, increased purchases of U.S. agricultural products, promised to ease foreign joint venture regulations (including allowing foreign institutions majority ownership of financial institutions), and publicly acknowledged that more needs to be done with foreign intellectual property. The most difficult issue to resolve is how to enforce any agreement; the U.S. wants a binding, written agreement that will finally hold China accountable to their promises. Chief U.S. trade negotiator Robert Lighthizer and Treasury Secretary Steven Mnuchin were dispatched to Beijing last week, but President Trump hasn't yet committed to meeting Chinese President Xi Jinping. Pressure is growing on the U.S. and China to forge a trade deal. The most likely outcome is that there will be an agreement in some form by March 1st, but that negotiations will persist well past that deadline.

Global trade negotiations have evolved into a political chess match that is highly unpredictable and we feel they thus carry a greater than average risk of "surprising" investors and markets.

Domestic Geopolitical Concerns

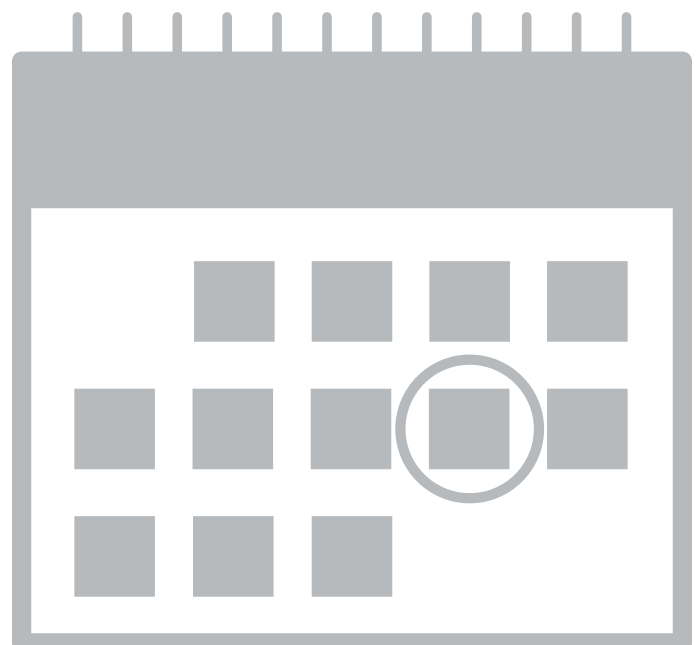
Historically, equity markets have corrected in the run-up to midterm elections, but once this uncertainty has been removed following the election, stocks have performed well over the following 12 months—regardless of which party was in charge before or after the election. Looking forward however, the new Democrat Party-controlled House of Representatives could add to market volatility in this rather hostile political environment. Although the new U.S. tax bill with permanently lower corporate tax rates and immediate write off of capital expenditures for the next five years is currently not in danger of being overturned, issues relating to deficits, regulation, the environment and fiscal spending will likely produce added friction. Case and point, President Trump is working with Republican and Democratic negotiators on a border security funding deal to avert another government shutdown.

In addition to the ongoing uncertainties regarding the partial government shutdown, the Mueller investigation surrounding the 2016 election will undoubtedly result in partisan attacks from both political parties when a final report from the independent counsel is ultimately submitted—probably fairly soon. House Democrats have also promised hearings on President Trump's tax returns and prior financial dealings.

Commodity Prices

WTI crude prices have recently plunged from $76 per barrel to $42 per barrel in Q4—before rebounding back to $53 early this year, as the Trump Administration eased sanctions on Iran by allowing key trading partners to continue buying its oil, along with a massive unwinding of hedge fund long positions in futures markets. Oil prices are expected to increase, and trade in a range of $60 to $70 over the next year, due to OPEC and Russian production cuts along with a re-emergence of political risks (Iran, Venezuela). The falling prices have been beneficial in headline inflation numbers such as CPI and PPI, perhaps giving the Fed wiggle room in moderating the pace of rate hikes in 2019.

Commodities price volatility, especially to the upside, could further stoke investor nerves regarding inflationary pressures.



Central Bank Meetings—The Fed and The ECB

As expected, the U.S. Federal Reserve voted to maintain the target range for the federal funds rate at 2.25% to 2.50% at the January meeting. The future path of interest rates (as projected by the FOMC "dot plots") was also unchanged with two rate increases expected in 2019. In the meantime, futures markets indicate a low probability of further hikes in 2019.

QE tapering will remain a focus in 2019, as the Fed reduces the bond purchasing program initiated in the wake of the financial crisis. At the January FOMC meeting, the Fed announced it will continue reducing Treasury security purchases by up to $30 billion per month and mortgage-backed purchases by up to $20 billion monthly. The Fed also left open the possibility of adjusting its balance sheet reduction plan in the future if it needs to respond to economic and financial developments. Adding to the demand/supply issue is the fact that the U.S. Treasury has begun increasing its issuance of T-bills, notes, and bonds to pay for an expanding deficit, and increased government spending. Investors will be watching closely to see if yields are forced upward given the extra supply, reduced demand and pending what happens with the U.S. Budget appropriations in coming weeks.

Employment cost index releases should continue to spawn market volatility; recent monthly unemployment reports have reached the lowest levels since year 2000 and year-over-year wage gains exceeding 3.0% have been the best since 2009. These are likely to be much watched statistics for the remainder of the year along with their inferred implication for Fed monetary policy decisions.

After almost four years of quantitative easing, the ECB ended its net bond purchases in 2018 without negative market reaction, as expected. It also pledged to keep interest rates unchanged "at least through the summer of 2019", now at minus 0.4%.

We feel that markets will remain focused on the progress of inflation and the Fed's comments surrounding economic health. Fed Chair Powell held a press conference following the January meeting, and he noted that the Fed will discuss balance sheet plans and reserve levels at future meetings, while continuing to follow a data-dependent approach to any rate changes. To help increase transparency, Chair Powell has initiated the practice of holding a press conference after every FOMC meeting, while press conferences generally were held at every other meeting in the past.

Markets will also continue to scrutinize ECB President Mario Draghi's comments; in December, the ECB shaved its forecast for growth in the 19-nation currency union by 0.1 percentage points for 2019 and 2020, to 1.9% and 1.7% respectively. This follows a growth reduction forecast in October, and is consistent with recent comments suggesting more caution; Mr. Draghi stated "it's a climate of great uncertainty" at a press conference.

Techlash

Despite rebounding sharply in early 2019 and outperforming the S&P 500 year to date, the tech sector will likely continue to experience greater volatility relative to other equity sectors. High profile (and continued) hacks, data misuse announcements and potential meddling/manipulation of data feeds by a variety of bad actors continue to plague many players. Key leaders from companies like Google and Facebook are making repeat visits to testify in front of congressional panels, and moves against key global players by the U.S. and China keep the industry in the headline news flow. Scrutiny of the all-important technology sector is likely to continue and bears watching as any unexpectedly negative announcement—even if preliminary—could impact the stocks.

In addition to regulatory issues, tech stocks have come under pressure due to fundamentals; concerns of peak earnings, slowing revenue and high valuations have led to additional volatility for this sector. Indeed, shares of Apple, Inc. plunged after management slashed its quarterly revenue forecast for the first time in 15 years, prompted by a slowdown in sales of iPhones in China.

The European Union is far ahead of the U.S. on this front and has already lodged fines on affected companies from Facebook to Apple. Given the high profile, and growth-valuations that many individual names bear, we expect news flow and market sentiment to continue to buffet the industry on a day-to-day basis.

U.S. Economic Data Heading into 2019

According to the U.S. Bureau of Economic Analysis (BEA), the latest GDP report showed the U.S. economy accelerating 2.6% on an annualized basis in Q4, down from 3.5% in Q3. Overall, U.S. GDP growth advanced 3.0% in 2019, and is forecast to increase 2.5% in 2019. We believe the latest data inputs support continued growth through 2019: leading economic indicators (LEI), quality corporate bond spreads, and manufacturing surveys are all forecasting solid expansion.

Although output has clearly accelerated throughout 2018, we believe monitoring incoming data late in a business cycle for signs of acceleration and deceleration is prudent as year 2019 progresses.

Non-U.S. Geopolitical Concerns

Corporate fundamentals in Europe and Japan have improved, but investors should still be aware of political risks. For example, uncertainties surrounding the Brexit endgame continue to heighten levels of market volatility. This week, Members of UK parliament (MPs) in the House of Commons will once again consider Theresa May's Brexit deal that she negotiated with the EU—a deal which they have already rejected; but with negotiations extended, an official vote is now not likely until late February or even March. A no-deal Brexit could occur if a majority of MPs cannot come to a decision, but still seems unlikely as it is strongly unpopular among MPs. The closer Brexit negotiations reach the March 29th deadline for the UK to quit the EU without an agreement (Hard Brexit), the more uncertainty it creates for European businesses and capital markets.

France has endured 13 straight weekends of "Yellow-Vest" demonstrations (although the crowds have decreased in size) sparked by new fuel taxes that disproportionately hurt workers who commute from the suburbs and rural areas. In response, President Emmaneual Macron rolled back the fuel tax and some pension taxes, while also increasing the minimum wage. Although Mr. Macron promised to continue his broader pro-business agenda (the wealth tax was not reinstated), the riots are still likely to negatively impact future reforms.

Based on election results from last March, Italy currently has a coalition government formed by two populist parties: Left wing 5 Star movement and the right-wing Lega party, which presents a complicated situation. Indeed, the Italian parliament initially produced a budget that was rejected by the EU based on spending rules and debt levels. Brussels has demanded that Italy revise and resubmit its budget. Moody's subsequently downgraded Italy's debt, while Standard & Poors has "lowered its outlook" on Italy. Italy countered with a revised deficit target proposal in line with demands by the EU (from 2.4% to 2.0% of GDP). The yield on the country's 10-year government bonds dropped below 3% for the first time since September and stocks climbed on the news. Nevertheless, the Italian economy fell into a technical recession in the last half of 2018 after a sharp increase in borrowing costs and political uncertainty regarding the stand-off with Brussels over its budget plans.

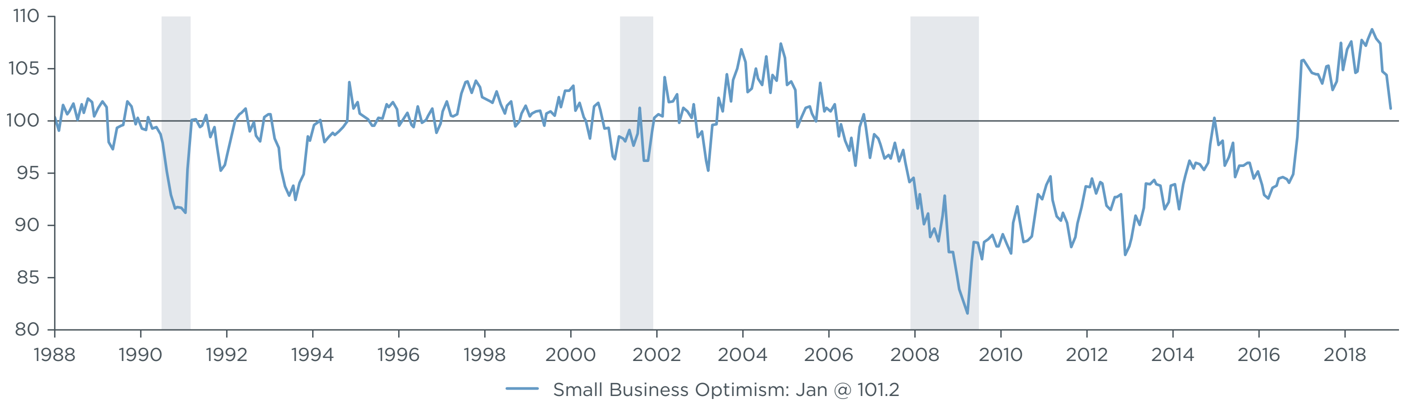
While European governments in general have shifted toward pro-growth policies, investors are keenly aware of intense political divisions within the bloc that could be disruptive. In addition to the aforementioned examples in the UK, Italy, and France, Spanish lawmakers recently ousted the country's prime minister, and Chancellor Merkel has stepped down as leader of her Social Democratic party in the wake of another regional election disappointment; her preferred successor barely won over anti-Merkel challengers.

Notable Observations

Sentiment—both among consumers and business owners—has been a key component underlying the length and strength of U.S. economic activity over the past decade. That confidence has shown selected signs of tiring in recent months however given strains and uncertainty caused by trade issues, political contentiousness, and the government shutdown. While sentiment remains at long term high levels it bears watching for its potential impact on business and consumption trends if these issues are not constructively resolved in the near term.

Chart A: Small Business Optimism Index

Overall Index 1986 = 100



Sources: National Federation of Independent Business and Wells Fargo Securities.

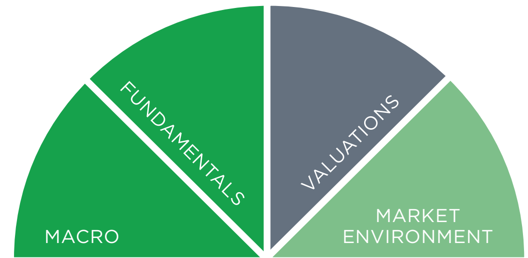
Dynamic Allocation Summary

Global Equities Outlook Overview

U.S. Large Cap Equities

Outlook: Mixed Positive

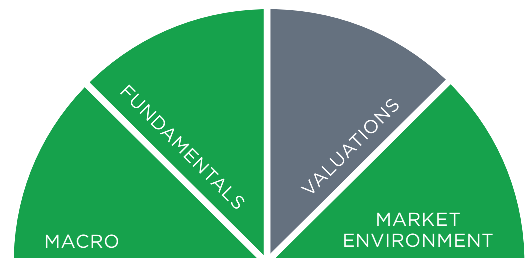
Macro and fundamental inputs continue to favor U.S. large-cap equities. Valuations have returned to average after the strong rebound in early 2019, and in instances where clients are in need of capital we would consider taking profits in this asset class, if the client is above target weights. At the same time, if U.S. large-cap stocks were to experience additional volatility, we would consider this a potential opportunity to invest at more attractive prices.



U.S. Small Cap Equities

Outlook: Neutral

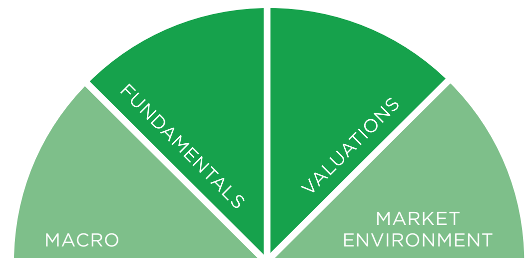
We have a neutral weighting on domestic small cap equities. Valuations are deemed expensive relative to larger companies, but the new tax plan should benefit small-cap stocks by comparatively more than the large-cap indices; smaller domestic companies tend to pay higher tax rates than large, multinational companies, and generally have lower profit margins. Active management is favored to generate alpha in this space.



Developed Market Equities

Outlook: Mixed Positive

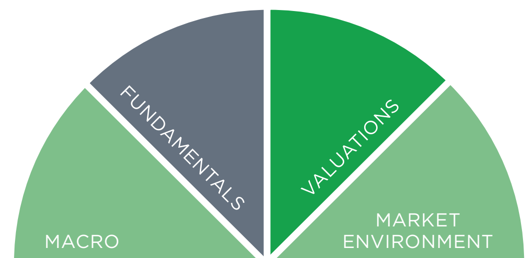
Although economic growth in developing countries outside the U.S. stalled in 2018, output should improve in 2019. Accelerating profits, and reasonable valuations favor developed market equities in our opinion. In cases where clients have immediate funds to invest, developed equities would be one of our top considerations.



Emerging Market Equities

Outlook: Neutral

We have become more optimistic on emerging market equities due to strengthening currencies and stabilizing commodity prices, along with attractive valuations. A potential slowdown in China and future stability of the Yuan are potential risks.



Outlook Ratings POSITIVE | MIXED POSITIVE | NEUTRAL | NEGATIVE

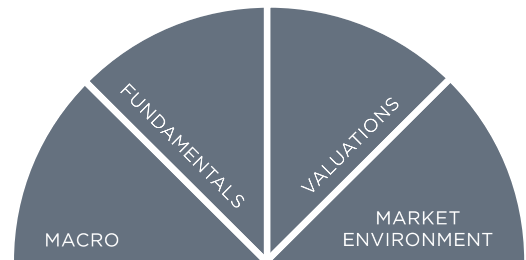
The color-coded rating system applies to specific inputs only (Macro, Fundamentals, Valuations, and Market Environment) and represents the current and shorter-term (three to six months) outlook for the specific inputs based on qualitative data and recommendations from the Abbot Downing Asset Allocation Committee. It is intended to provide guidance to the Abbot Downing Portfolio Construction Team. The content does not represent a buy, hold, or sell recommendation for specific asset classes.

Dynamic Allocation Summary (Continued)

U.S. Investment Grade Fixed Income

Outlook: Neutral

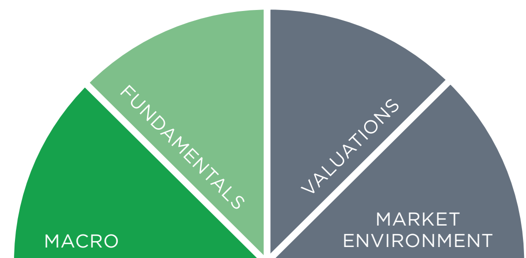
We feel that yields of investment-grade bonds (Treasuries, municipals, and corporates) have moved into fair value range, and are supported by expectations that the Fed will continue to raise rates at a gradual pace; markets currently appear to anticipate a low probability of additional rate hikes in 2019.



Non-Investment Grade Fixed Income

Outlook: Neutral

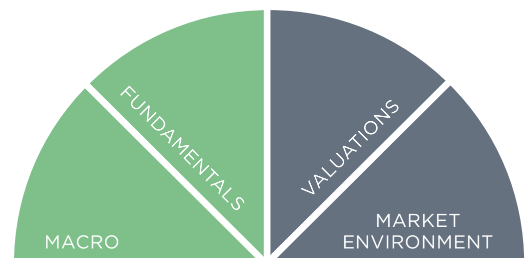
We remain constructive on preferred stock securities based on healthy yield premiums versus investment-grade bonds. Valuations have become expensive in the high-yield asset class.



International Fixed Income

Outlook: Negative

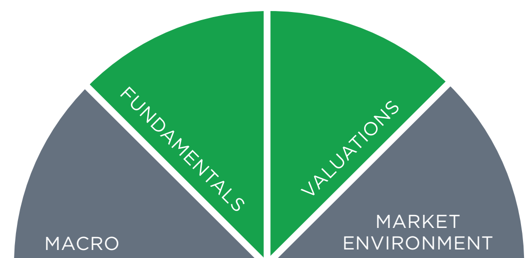
We believe near zero yields on many developed country sovereign debt issues warrant caution for this sector. Emerging market bond spreads are now above their long-term historical averages.



Real Estate Investment Trusts (REITs)

Outlook: Neutral

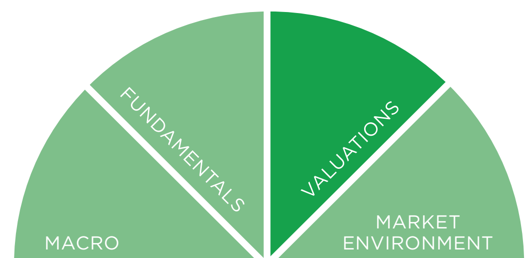
We have downgraded REITs to neutral, as they have become more sensitive to interest rate moves. REIT fundamentals remain solid and exhibit attractive valuations. REITs currently sell at a 1.5% discount to underlying real estate holdings.



Master Limited Partnerships (MLPs)

Outlook: Positive

Although MLPs came under pressure in Q4 as investors adjusted to lower oil prices and tax-loss selling, performance has rebounded strongly based on stronger fundamentals. Current MLP yields of near 9% are also attractive on both an absolute and relative basis. Finally, active management is favored in this space due to the recent FERC ruling and risk of C-corp conversion.



Outlook Ratings POSITIVE | MIXED POSITIVE | NEUTRAL | NEGATIVE

Disclosures

Risk Considerations

Past performance does not indicate future results. The value or income associated with a security or an investment may fluctuate. There is always the potential for loss as well as gain. Investments discussed in this report may be unsuitable for some investors depending on their specific investment objectives and financial position.

Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities.

There is no guarantee that dividend-paying stocks will return more than the overall stock market. Dividends are not guaranteed and are subject to change or elimination. There are no guarantees that growth or value stocks will increase in value or that their intrinsic values will eventually be recognized by the overall market. The return and principal value of stocks fluctuate with changes in market conditions. The growth and value type of investing tends to shift in and out of favor.

Asset allocation and diversification do not assure or guarantee better performance and cannot eliminate the risk of investment losses. Your individual allocation may be different than the strategic long-term allocation above due to your unique individual circumstances but is targeted to be in the allocation ranges detailed. The asset allocation reflected above may fluctuate based on asset values, portfolio decisions, and account needs.

Investing in **commodities** is not suitable for all investors. Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity. Products that invest in commodities may employ more complex strategies which may expose investors to additional risks.

Convertible securities are subject to the same interest rate, price and credit risks as regular debt securities. Prices tend to be inversely affected by changes in interest rates. In addition, a convertible security is also subject to the risks associated with common stocks. The return and principal value of stocks fluctuate with changes in market conditions.

Alternative investments, such as hedge funds, carry specific investor qualifications which can include high income and net worth requirements as well as relatively high investment minimums. They are complex investment vehicles which generally have high costs and substantial risks. The high expenses often associated with these investments must be offset by trading profits and other income. They tend to be more volatile than other types of investments and present an increased risk of investment loss. There may also be a lack of transparency as to the underlying assets. Alternative investments are subject to fewer regulatory requirements than mutual funds and other registered investment company products and thus may offer investors fewer legal protections than they would have with more traditional investments. Additionally, there may be no secondary market for alternative investment interests and transferability may be limited or even prohibited. Other risks may apply as well, depending on the specific investment product. Please carefully review the prospectus, private placement memorandum or other offering documents for complete information regarding terms, including all applicable fees, as well as risks and other factors you should consider before investing.

Investments in **fixed-income securities** are subject to interest rate and credit risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. They are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Mortgage-related and asset-backed securities are subject to prepayment risks. Changes in prepayments may significantly affect yield, average life and expected maturity.

Currency hedging is a technique used to seek to reduce the risk arising from the change in price of one currency against another. The use of hedging to manage currency exchange rate movements may not be successful and could produce disproportionate gains or losses in a portfolio and may increase volatility and costs.

Investing in **foreign securities** presents certain risks that may not be present in domestic securities. For example, investments in foreign, emerging and frontier markets present special risks, including currency fluctuation, the potential for diplomatic and potential instability, regulatory and liquidity risks, foreign taxation and differences in auditing and other financial standards.

Disclosures (Continued)

Master Limited Partnerships (MLPs) involves certain risks which differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc., regulatory risk, and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage; volatility of the commodities markets; market risks; supply and demand; natural and man-made catastrophes; competition; liquidity; market price discount from Net Asset Value and other material risks.

There are special risks associated with investing in **preferred securities**. Preferred securities are subject to interest rate and credit risks and are generally subordinated to bonds or other debt instruments in an issuer's capital structure, subjecting them to a greater risk of non-payment than more senior securities. In addition, the issue may be callable which may negatively impact the return of the security. Preferred dividends are not guaranteed and are subject to deferral or elimination.

Private debt has speculative characteristics that include potential default, limited liquidity and the infrequent availability of independent credit ratings for private companies.

There are risks associated with investments in **private companies**. Such companies are not subject to SEC reporting requirements and are not required to maintain effective internal controls over financial reporting. These companies may have limited financial resources; shorter operating histories; more asset concentration risk; narrower product lines and smaller market shares that larger companies. In addition, securities issued by private companies are typically illiquid and there may be no readily available trading market for such securities.

Investing in **real estate** involves special risks, including the possible illiquidity of the underlying property, credit risk, interest rate fluctuations and the impact of varied economic conditions.

The prices of **small cap and mid cap company stocks** are generally more volatile than large cap company stocks. They often involve higher risks because smaller companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

Treasury Inflation-Protected Securities (TIPS) are subject to interest rate risk, especially when real interest rates rise. This may cause the underlying value of the bond to fluctuate more than other fixed income securities. TIPS have special tax consequences, generating phantom income on the "inflation compensation" component of the principal. A holder of TIPS may be required to report this income annually although no income related to "inflation compensation" is received until maturity.

There is no assurance that any of the target prices or other forward-looking statements mentioned will be attained.

Index and Other Definitions

An index is unmanaged and not available for direct investment

Inflation is the change in the **Consumer Price Index (CPI)**. The CPI measures the price of a fixed basket of goods and services purchased by an average consumer.

Core inflation is the change in the core **Consumer Price Index (CPI)**. The core CPI measures the price of a fixed basket of goods and services—excluding the volatile food and energy components—purchased by an average consumer.

Alpha is a coefficient measuring the risk-adjusted performance, considering the risk due to the specific security, rather than the overall market. A large alpha indicates that the stock or mutual fund has performed better than would be predicted given its beta (volatility).

Baltic Dry Index is reported daily by the Baltic Exchange in London. The index provides a benchmark for the price of moving the major raw materials by sea. The Baltic Dry Index is not restricted to Baltic Sea countries or to a few commodities like crude oil. Instead, the Baltic Dry Index takes into account 23 different shipping routes carrying coal, iron ore, grains and many other commodities.

Beta measures a security's or group of securities' (portfolio's) volatility relative to a benchmark. A result greater than 1.0 implies that the security or portfolio is more volatile than the benchmark; a result less than 1.0 suggests that the security or portfolio is less volatile than the benchmark. Betas may change over time.

Conference Board's Leading Economic Index (LEI) is a composite economic index designed to signal peaks and troughs in the business cycle. The leading economic index is essentially a composite average of several individual leading indicators. They are constructed to summarize and reveal common turning point patterns in economic data in a clearer and more convincing manner than any individual component—primarily because they smooth out some of the volatility of individual components.

Consumer Confidence Index® (CCI) is a barometer of the health of the U.S. economy from the perspective of the consumer. The index is based on consumers' perceptions of current business and employment conditions, as well as their expectations for six months hence regarding business conditions, employment, and income.

Markit Manufacturing Purchasing Managers Index (PMI) tracks manufacturing and service sector activity in the Eurozone. An Index value over 50 indicates expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

PMI Surveys, such as the **Eurozone Manufacturing PMI**, track sentiment among purchasing managers at manufacturing, construction and/or services firms. An overall sentiment index is generally calculated from the results of queries on production, orders, inventories, employment, prices, etc.

The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output.

Disclosures (Continued)

The Market Volatility Index (VIX) is an index designed to track market volatility as an independent entity. The index is calculated based on option activity and is used as an indicator of investor sentiment, with high values implying pessimism and low values implying optimism.

The Institute of Supply Management (ISM) **Manufacturing Index**® is a composite index based on the diffusion indexes of five of the indexes with equal weights: New Orders (seasonally adjusted), Production (seasonally adjusted), Employment (seasonally adjusted), Supplier Deliveries (seasonally adjusted), and Inventories. An Index values over 50 indicate expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

The U.S. Dollar Index (USDX, DXY) is an index (or measure) of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

Real economic growth is the change in the gross domestic product (GDP) adjusted for inflation—that is, the volume of services and goods produced in the United States.

West Texas Intermediate Crude Oil is a light, sweet (i.e., low sulfur) crude oil which is the main type of U.S. crude oil traded in U.S. futures markets.

Brent Crude Oil is a light, sweet crude oil extracted from the North Sea. It serves as a major benchmark price for purchases of oil worldwide.

Bond credit rating. A grade given to bonds that indicates their credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these evaluations of a bond issuer's financial strength, or its the ability to pay a bond's principal and interest in a timely fashion. The general meaning of these credit rating opinions are as follows:

AAA—Extremely strong capacity to meet financial commitments. Highest Rating.

AA—Very strong capacity to meet financial commitments.

A—Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.

BBB—Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.

Global Fixed Income Representative Indices

Global Multiverse Fixed Income: Bloomberg Barclays Multiverse Index provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies. Standalone indices such as the Euro Floating-Rate ABS Index and the Chinese Aggregate Index are excluded. The Multiverse Index family includes a wide range of standard and customized sub-indices by sector, quality, maturity, and country. JP Morgan Global Ex United States Bond Index is a total return, market capitalization weighted index, rebalanced monthly consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

U.S. Inv Grade Taxable Fixed Income: Bloomberg Barclays U.S. Aggregate Bond Index is composed of the Bloomberg Barclays Capital U.S. Government/Credit Index and the Bloomberg Barclays Capital U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

U.S. Treasury Bills Fixed Income: Bloomberg Barclays U.S. Treasury Bills includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than three months and more than one month, are rated investment grade, and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

Short, Intermediate and Long Term Fixed Income: Bloomberg Barclays U.S. Aggregate Bond Index is made up of the Bloomberg Barclays U.S. Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment grade quality or better, have at least one year to maturity, and have an outstanding par value of at least $100 million.

U.S. Treasury Fixed Income: Bloomberg Barclays U.S. Treasury Index includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

U.S. Corporate Fixed Income: Bloomberg Barclays U.S. Corporate Bond Index includes publicly issued U.S. corporate and Yankee debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

U.S. Municipal Fixed Income: Bloomberg Barclays U.S. Municipal Bond Index represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million, and a remaining maturity of at least one year. The Index excludes taxable municipal bonds, bonds with floating rates, derivatives, and certificates of participation.

U.S. TIPS Fixed Income: Bloomberg Barclays Treasury Inflation Protected Securities (TIPS) Index includes all publicly issued, investment-grade U.S. TIPS with an outstanding face value of more than $250 million and that have at least one year to maturity.

U.S. High Yield Fixed Income: Bloomberg Barclays U.S. High Yield Bond Index is an unmanaged index that tracks the performance of below investment grade U.S.-dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

Developed ex. U.S. Fixed Income: JPMorgan GBI Global ex-U.S. (Unhedged) in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

Disclosures (Continued)

Emerging Market Spread: Bloomberg Barclays EM USD Aggregate Index is a flagship hard currency Emerging Markets debt benchmark that includes USD denominated debt from sovereign, quasi-sovereign, and corporate EM issuers. The index is broad-based in its coverage by sector and by country, and reflects the evolution of EM benchmarking from traditional sovereign bond indices to Aggregate-style benchmarks that are more representative of the EM investment choice set. Country eligibility and classification as an Emerging Market is rules-based and reviewed on an annual basis using World Bank income group and International Monetary Fund (IMF) country classifications. This index was previously called the Bloomberg Barclays U.S. EM Index and history is available back to 1993.

Emerging Market Bond (U.S. Dollar): JP Morgan Emerging Markets Bond Index (EMBI Global) currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

Preferred Stock: S&P Preferred Stock is an unmanaged index consisting of U.S.-listed preferred stocks.

U.S. Dollar Index (USDX) measures the value of the U.S. dollar relative to majority of its most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies.

Global Equity Representative Indices

Global Market Equity: MSCI AC World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The Index consists of 46 country indices comprising 23 developed and 23 emerging market country indices. The developed market country indices included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, and the United States. The emerging market country indices included are: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

Dow Jones Industrial Average is a price-weighted index of 30 "blue-chip" industrial U.S. stocks.

NASDAQ Composite Index measures the market value of all domestic and foreign common stocks, representing a wide array of more than 5,000 companies, listed on the NASDAQ Stock Market.

Large Cap Equity: S&P 500 Index is a capitalization-weighted index calculated on a total return basis with dividends reinvested. The index includes 500 widely held U.S. market industrial, utility, transportation, and financial companies.

Large Cap Equity (Growth): Russell 1000® Growth Index measures the performance of those Russell 1000® companies with higher price-to-book ratios and higher forecasted growth values.

Large Cap Equity (Value): Russell 1000® Value Index measures the performance of those Russell 1000® companies with lower price-to-book ratios and lower forecasted growth values.

Mid Cap Equity: Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000® Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index.

Small Cap Equity: Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000® Index.

Developed Market ex. U.S. Equity: MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The Index consists of the following 21 developed market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.

Emerging Markets: MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

Frontier Market Equity: MSCI Frontier Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets. The MSCI Frontier Markets Index consists of the following 24 frontier market country indexes: Argentina, Bahrain, Bangladesh, Bulgaria, Croatia, Estonia, Jordan, Kenya, Kuwait, Lebanon, Lithuania, Morocco, Kazakhstan, Mauritius, Nigeria, Oman, Pakistan, Romania, Serbia, Slovenia, Sri Lanka, Tunisia, Ukraine, and Vietnam. The MSCI Saudi Arabia Index is currently not included in the MSCI Frontier Markets Index but is part of the MSCI Gulf Cooperation Council (GCC) Countries Index. The MSCI Bosnia Herzegovina Index, the MSCI Botswana Index, the MSCI Ghana Index, the MSCI Jamaica Index, the MSCI Palestine IMI, the MSCI Trinidad & Tobago Index, and the MSCI Zimbabwe Index are currently stand-alone country indexes and are not included in the MSCI Frontier Markets Index. The addition of these country indexes to the MSCI Frontier Markets Index is under consideration.

Disclosures (Continued)

Global Real Assets Representative Indices

Global REITs: FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

Domestic REITs: FTSE NAREIT U.S. All Equity REITs Index is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. It represents all tax-qualified REITs with more than 50% of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria.

International REITs: FTSE EPRA/NAREIT Developed ex-U.S. Index is designed to track the performance of listed real estate companies in developed countries worldwide other than the United States.

MLPs: Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis and on a total-return basis.

Commodities (S&P GSCI): S&P Goldman Sachs Commodity Index is a trade-weighted index of commodity sector returns representing unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. The index includes futures contracts on 24 physical commodities, of which Energy represents nearly 70%.

Commodities (BCOM): Bloomberg Commodity Index represents futures contracts on 19 physical commodities. No related group of commodities (e.g., energy, precious metals, livestock and grains) may constitute more than 33% of the index as of the annual reweighing of the components. No single commodity may constitute less than 2% of the index.

Commodities (RICI): The Rogers International Commodity Index is a U.S. dollar based index representing the value of a basket of commodities consumed in the global economy. Representing futures contracts on 37 physical commodities, it is designed to track prices of raw materials not just in the U.S. but around the world.

Global Alternative Investments Representative Indices

Global Hedge Funds: HFRI Fund Weighted Composite Index. A global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net-of-all-fees performance in U.S. Dollars and have a minimum of $50 million under management or a 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

Relative Value Arbitrage: HFRI Relative Value (Total) Index. Strategy is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative, or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

Arbitrage: HFRI RV: Fixed Income Sovereign Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a sovereign fixed income instrument. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple sovereign bonds or between a corporate and risk-free government bond. Fixed Income Sovereign typically employ multiple investment processes including both quantitative and fundamental discretionary approaches and relative to other Relative Value Arbitrage sub-strategies, these have the most significant top-down macro influences, relative to the more idiosyncratic fundamental approaches employed.

Long/Short Credit: HFRI RV: Fixed Income—Corporate Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a corporate fixed-income instrument. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple corporate bonds or between a corporate and risk-free government bond. They typically involve arbitrage positions with little or no net credit market exposure, but are predicated on specific, anticipated idiosyncratic developments.

Disclosures (Continued)

Structured Credit/Asset Backed: HFRI RV: Fixed Income—Asset Backed Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a fixed-income instrument backed by physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments specifically securitized by collateral commitments, which frequently include loans, pools and portfolios of loans, receivables, real estate, machinery, or other tangible financial commitments. Investment thesis may be predicated on an attractive spread given the nature and quality of the collateral, the liquidity characteristics of the underlying instruments and on issuance and trends in collateralized fixed-income instruments, broadly speaking. In many cases, investment managers hedge, limit, or offset interest-rate exposure in the interest of isolating the risk of the position to strictly the disparity between the yield of the instrument and that of the lower-risk instruments.

Macro: HFRI Macro (Total) Index. Encompass a broad range of strategies predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard-currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches and long- and short-term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments rather than on realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

Systematic Macro: HFRI Macro: Systematic Diversified Index. Diversified strategies employing mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies are designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes. Strategies typically employ quantitative processes which focus on statistically robust or technical patterns in the return series of the asset, and they typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean-reverting strategies. Although some strategies seek to employ counter-trend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Typically have no greater than 35% of portfolio in either dedicated currency or commodity exposures over a given market cycle.

Discretionary Macro: HFRI Macro: Discretionary Thematic Index. Strategies primarily rely on the evaluation of market data, relationships and influences, as interpreted by individuals who make decisions on portfolio positions; strategies employ an investment process most heavily influenced by top-down analysis of macroeconomic variables. Investment Managers may trade actively in developed and emerging markets, focusing on both absolute and relative levels on equity markets, interest rates/fixed income markets, currency and commodity markets; they frequently employ spread trades to isolate a differential between instrument identified by the Investment Manager as being inconsistent with expected value. Portfolio positions typically are predicated on the evolution of investment themes the Manager expects to develop over a relevant time frame, which in many cases contain contrarian or volatility-focused components.

Event Driven: HFRI Event Driven (Total) Index. Maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated and frequently involve additional derivative securities. Exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company-specific developments. Investment theses are typically predicated on fundamental (as opposed to quantitative) characteristics, with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

Activist: HFRI ED: Activist Index. Strategies may obtain or attempt to obtain representation on the company's board of directors in an effort to impact the firm's policies or strategic direction and in some cases, may advocate activities such as division or asset sales, partial or complete corporate divestiture, dividends or share buybacks, and changes in management. Strategies employ an investment process primarily focused on opportunities in equity and equity-related instruments of companies that are currently or prospectively engaged in a corporate transaction, security issuance/repurchase, asset sales, division spin-off, or another catalyst-oriented situation. These involve both announced transactions and situations in which no formal announcement is expected to occur. Activist strategies would expect to have greater than 50% of the portfolio in activist positions, as described.

Disclosures (Continued)

Distressed Credit: HFRI ED: Distressed/Restructuring Index. Strategies focus on corporate fixed-income instruments, primarily corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceedings or financial-market perception of near-term proceedings. Managers are typically actively involved with the management of these companies; they are frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments that are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

Merger Arbitrage: HFRI ED: Merger Arbitrage Index. Strategies primarily focus on opportunities in equity and equity-related instruments of companies that are currently engaged in a corporate transaction. Merger Arbitrage involves primarily announced transactions, typically with limited or no exposure to situations in which no formal announcement is expected to occur. Opportunities are frequently presented in cross-border, collared, and international transactions that incorporate multiple geographic regulatory institutions, typically with minimal exposure to corporate credits. Strategies typically have over 75% of positions in announced transactions over a given market cycle.

Equity Hedge: HFRI Equity Hedge (Total) Index. Equity Hedge Investment Managers who maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short.

Directional Equity: HFRX EH: Multi-Strategy Index. Managers maintain positions both long and short in primarily equity and equity-derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage, holding period, concentrations of market capitalizations, and valuation ranges of typical portfolios. Managers typically do not maintain more than 50% exposure to any one Equity Hedge sub-strategy.

Equity Market Neutral: HFRI EH: Equity Market Neutral Index. Strategies employ sophisticated quantitative techniques to analyze price data to ascertain information about future price movement and relationships between securities. These can include both Factor-based and Statistical Arbitrage/Trading strategies. Factor-based investment strategies include strategies predicated on the systematic analysis of common relationships between securities. In many cases, portfolios are constructed to be neutral to one or multiple variables, such as broader equity markets in dollar or beta terms, and leverage is frequently employed to enhance the return profile of the positions identified. Statistical Arbitrage/Trading strategies consist of strategies predicated on exploiting pricing anomalies which may occur as a function of expected mean reversion inherent in security prices; high-frequency techniques may be employed; trading strategies may also be based on technical analysis or designed opportunistically to exploit new information that the investment manager believes has not been fully, completely, or accurately discounted into current security prices. Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Cambridge Associates LLC U.S. Private Equity Index® is an end-to-end calculation based on data compiled from 1,152 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2014. Pooled end-to-end return, net of fees, expenses, and carried interest. The latest published returns data are as of September 30, 2014.

Note: While the HFRI Indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indices are based on information hedge fund managers decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

Table 1: Annual Quilt Chart – The Value of Asset Allocation

Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported.

Index Definitions

■ **Hypothetical 60%/40% Portfolio:** Composed of 60% S&P 500 Index and 40% Bloomberg Barclays U.S. Aggregate Bond Index.

□ **Hypothetical Moderate Growth & Income Porfolio (4 Asset Groups without Private Capital):** 3% Bloomberg Barclays U.S. Treasury Bill 1-3 Months, 11% Bloomberg Barclays U.S. Aggregate (5-7Y), 6% Bloomberg Barclays U.S. Aggregate (10+Y), 6% Bloomberg Barclays U.S. Corporate High Yield Index, 3% JPM GBI Global Ex-U.S. TR USD Index, 5% JPM EMBI Global TR USD Index, 20% S&P 500 Index, 8% Russell Mid Cap TR USD Index, 6% Russell 2000 Index, 5%MSCI EAFE GR USD Index, 5% MSCI EM GR USD, 5% FTSE EPRA/NAREIT Developed TR USD Index, 2% Bloomberg Commodities Index, 3% HFRI Relative Value Arbitrage Index, 6% HFRI Macro Index, 4% HFRI Event Driven Index, 2% HFRI Equity Hedge Index.

The compositions of the Hypothetical Moderate Growth & Income Portfolio and the Hypothetical 60%/40% Portfolios are for illustrative purposes only. Hypothetical results do not represent actual trading, and the results achieved do not represent the experience of any individual investor. In addition, hypothetical results do not reflect the impact of any fees, expenses, or taxes applicable to an actual investment. The indices reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. Hypothetical and past performance are no guarantee of future results.

HFRI Relative Value Arbitrage Index tracks funds that attempt to take advantage of relative pricing discrepancies between instruments, including equities, debt, options, and futures. Managers may use mathematical, fundamental, or technical analysis to determine misvaluations. Securities may be mispriced relative to the underlying security, related securities, groups of securities, or the overall market.

HFRI Macro Index tracks managers that trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches, and long- and short-term holding periods.

HFRI Event Driven Index is also known as "corporate life cycle" investing. This involves investing in opportunities created by significant transactional events, such as spin-offs, mergers and acquisitions, bankruptcy reorganizations, recapitalizations, and share buybacks. The portfolio of some event driven managers may shift in majority weighting between risk arbitrage and distressed securities, while others may take a broader scope. Instruments include long and short common and preferred stocks, as well as debt securities and options. Leverage may be used by some managers. Fund managers may hedge against market risk by purchasing S&P put options or put option spreads.

HFRI Equity Hedge (Total) Index is a fund-weighted index of select hedge funds focusing on equity hedge strategies. Equity hedge investing consists of a core holding of long equities hedged at all times with short sales of stocks and/or stock index options.

■ **Cash Alternatives:** Bloomberg Barclays U.S. Treasury Bills (1-3M) Index is representative of money markets.

■ **Commodities:** Bloomberg Commodity Index irepresents futures contracts on 22 physical commodities. No related group of commodities (e.g., energy, precious metals, livestock and grains) may constitute more than 33% of the index as of the annual re-weightings of the components. No single commodity may constitute less than 2% of the index.

■ **Emerging-Market Equities:** MSCI Emerging Markets Index (MSCI EM GR) is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets.

■ **Developed Market Ex-U.S. Fixed Income:** JP Morgan Global Ex. United States Index (JPM GBI Global Ex-U.S.) is a total return, market capitalization weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

■ **Emerging-Market Fixed Income:** JPM EMBI Global Index is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

■ **High-Yield Taxable Fixed Income:** Bloomberg Barclays U.S. Corporate High-Yield Bond Index covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

Table 1: Annual Quilt Chart – The Value of Asset Allocation (Continued)

- **Inflation-CPI:** IA SBBI U.S. Inflation Index is a custom unmanaged index designed to track the U.S. inflation rate.
- **Developed Market Ex-U.S. Equities:** MSCI EAFE Index (Europe, Australasia, Far East) Index (MSCI EAFE GR) is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.
- **U.S. Taxable Investment-Grade Fixed Income:** Bloomberg Barclays U.S. Aggregate Bond Index is composed of the Bloomberg Barclays U.S. Government/Credit Index and the Bloomberg Barclays U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.
- **U.S. Large-Cap Equities:** S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value.
- **U.S. Mid-Cap Equities:** Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000® Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index.
- **U.S. Small-Cap Equities:** Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.
- **Public Real Estate:** FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.
- **Hedge Funds:** HFRI Fund Weighted Composite Index is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that compose the index. Constituent funds must have either $50 million under management or a track record of greater than 12 months.

CPI (consumer price index) measures the price of a fixed basket of goods and services purchased by an average consumer.

Asset Class Risks

Asset allocation is an investment method used to help manage risk. It does not ensure a profit or protect against a loss.

Commodities: The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or other factors affecting a particular industry or commodity.

Equity Securities: Stocks are subject to market risk, which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors.

Fixed Income: Investments in fixed-income securities are subject to interest rate, credit/default, liquidity, inflation and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. If sold prior to maturity, fixed income securities are subject to market risk. All fixed income investments may be worth less than their original cost upon redemption or maturity. U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity and are subject to interest rate risk.

Foreign/Emerging Markets: Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

Hedge Funds: Hedge Funds are available only to persons who are "accredited investors" or "qualified purchasers" within the meaning of U.S. securities laws. Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods with adverse consequences for the investor.

Real Estate: Investing in real estate investment trusts (REITs) has special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

Small/Mid-Cap: The prices of small/mid-company stocks are generally more volatile than large-company stocks. They often involve higher risks because of smaller and mid-sized companies may lack the management expertise, financial resources, product diversification, and competitive strengths to endure adverse economic conditions.

Table 1: Annual Quilt Chart – The Value of Asset Allocation (Continued)

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