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INSIGHT



2017 CREDIT MARKET UPDATE AND OUTLOOK WHAT DO WE KNOW?

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2017 Credit Market Update and Outlook: What Do We Know?

Just one year ago, the pendulum of credit market sentiment, which swings between fear and greed, had clearly gone in the direction of fear. The fear was predominantly due to the energy sector, and markets questioning whether the fear would continue or swing back toward greed. A year later, we have our answer; the fear lost momentum and the pendulum swung back towards greed.¹ The return of greed in 2016 provided the fifth highest calendar year return for high yield since 1986. Such performance likely seemed unfathomable to most investors early in 2016. Energy market distress was the topic du jour in high yield, and January started the year with another decline on top of the approximately 5% loss in 2015. Prices continued to decline and yields spiked to 10%. As the chart illustrates, from that inflection point through January 2017, yields dropped materially to end right back where they started, below 7%.

BofA/ML HIGH YIELD MASTER INDEX YTM



Data sources: Bloomberg, L.P., Bank of America/Merrill Lynch

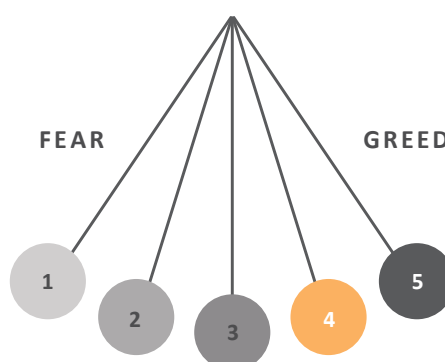
In the *2016 Credit Market Outlook*, published mid-February 2016, FEG asked the often-raised question, “When do we get back into public credit?” At that time, the high yield markets were pricing in considerable fear, as reflected by the declining price and higher yield than average. Our report noted a shift along the fear/greed pendulum from a ball four position (i.e., greedier) to a ball two position (i.e., more fearful). Conversely, given the building strength in high yield bonds since February 2016, FEG believes that credit markets have shifted back to a ball four position to start 2017.

2016 FEAR/GREED PENDULUM



Source: Concept adapted from Howard Marks, Oaktree Capital. Note: Orange denotes FEG's position

2017 FEAR/GREED PENDULUM



Source: Concept adapted from Howard Marks, Oaktree Capital. Note: Orange denotes FEG's position

Last year is now in the rearview mirror, and hindsight indicates that we should have advocated a meaningful allocation to high yield bonds. But given what we “knew” at that time, our report noted the following:

“Perceptive market participants can make a strong case that the public credit markets have over-shot on the downside, an appropriate margin of safety has come back into play, and a buying opportunity is present. Equally well-informed market participants, however, might take the counterpoint that the lack of corporate dealer inventory, poor liquidity, and prices too high to warrant interest from the credit hedge fund and private distressed community suggest further risk to the downside.”

In other words, the markets could have easily shifted fully to ball one—full fear—on the fear/greed pendulum.

Additionally, the report noted that the Federal Reserve Bank was less accommodative, there were no signs of improvement in fiscal policy, and that U.S. and global economic growth remained sluggish. As such, there appeared to be a margin of safety priced into the public markets, perhaps enough to warrant taking a partial allocation or a measured approach of dollar cost averaging to complete the allocation if high yield bond prices declined further. In short, the measured approach recommended in that document proved to be too measured, and a full allocation should have been recommended instead. With a tip of the hat to the writings of Howard Marks, founder of Oaktree Capital Management, what do “we” know?

“There are known knowns. There are things we know we know. But we also know there are known unknowns. That is to say, we know there are some things we do not know. But there are also unknown unknowns... the ones we don’t know we don’t know.”

Donald Rumsfeld, former U.S. Secretary of Defense paraphrasing
Frank H. Knight, PhD’s Knightion Uncertainty

It is fairly easy to handicap *known knowns* such as bond prices, yields, coupons, past fund flows, and trailing 12-month default rates, because this data is readily available and therefore “known” by the market. It is significantly more difficult to handicap *known unknowns*.

The two key *known unknowns* that positively surprised the markets in 2016 were the Brexit vote in June and the election of Donald Trump over Hillary Clinton in November. The existence of both votes were known to market participants ahead of time, but the outcomes were unknown, despite the widespread belief that the results were foregone conclusions and that Britain would remain in the European Union and Clinton would win the U.S. presidency. As such, these outcomes had essentially already been priced into the market. Interestingly, in both cases risk assets initially declined, only to reverse and move higher following the event. In the case of the Trump victory, the prices of risky assets rallied materially, as the “more of the same” Clinton victory that had been seemingly priced into the market was replaced with an “exuberance for the unknown potential,” leading market pundits who did not anticipate a Trump victory to quickly reverse course.

In short, a fair amount of the “riskier” world that many believe a Trump presidency brings has been viewed positively by the markets thus far, and is therefore analyzable through the lens of the *known knowns* considered in the 2016 outlook and comparable to the *known knowns* facing investors in 2017.

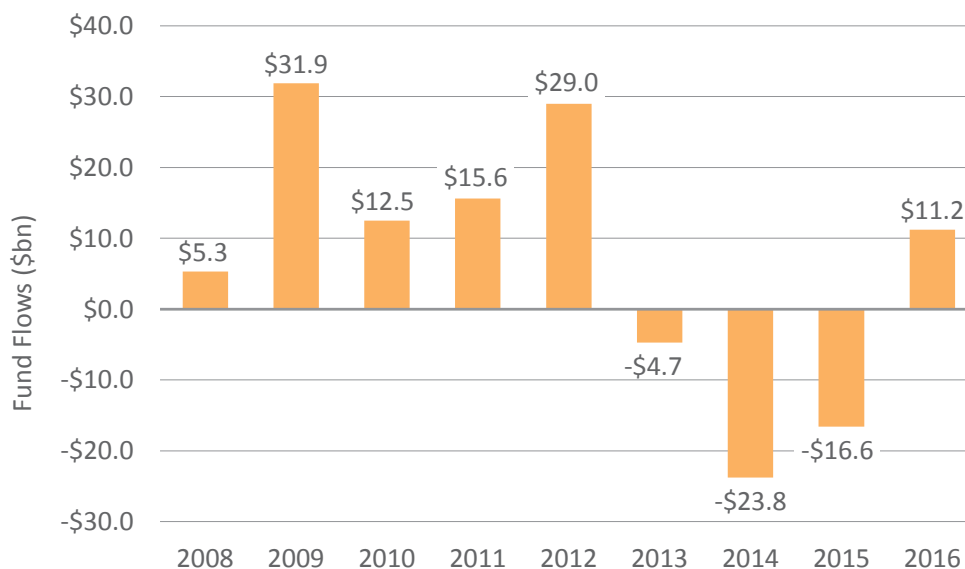
Known Known: Fund Flows

2016: High Yield Fund Outflows Continued

2017: High Yield Funds Reversed Course

The High Yield Mutual Fund Flows chart shows a meaningful change from the last three years of outflows, as February 2016 marked a key reversal point for high yield fund flows. While one year does not make a trend, an outlook that suggests a more positive environment for business and the economy (i.e., recession risk reduction) could lengthen the credit cycle and lead to continued investment in high yield bonds in 2017.

HIGH YIELD MUTUAL FUND FLOWS



Data sources: J.P. Morgan, Lipper FMI

Known Known: Building a Maturity Wall

2016: The Small Maturity Wall Remains Navigable

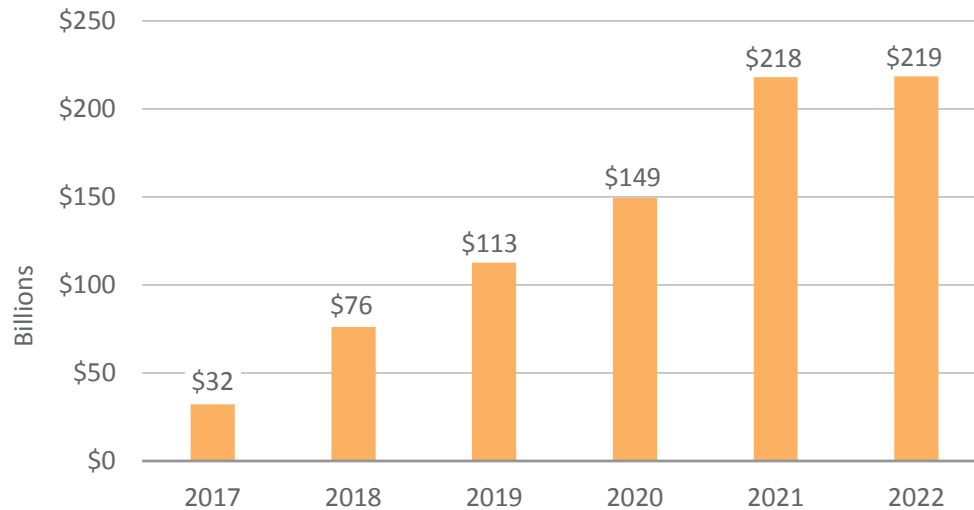
2017: The Maturity Wall Is a Non-Issue

Experts, particularly those with an emphasis on distressed investment strategies, often cite pending maturity walls—the amount of corporate debt issuance that is close to maturity and will need to be refinanced—as an area of potential concern for investors. The theory is that if tight credit markets are unfriendly at a point in time when a large amount of debt needs to be refinanced, then defaults will increase.

Leading up to the credit crisis in 2008, maturity walls were all the rage in the presentations of distressed asset managers. They proved to be more of an awareness item for investors though, as they ultimately did not have a material impact on defaults. The seizure of the credit markets during the crisis was much shorter than many anticipated. Many companies refinanced their debt as money flooded back into the credit markets, particularly in 2009, as the High Yield Mutual Fund Flow chart suggests.

Despite outflows in credit in 2014 and 2015, material inflows into high yield have allowed the credit markets to remain wide open. As such, FEG does not expect maturity walls to create much of a hurdle for credit investors in 2017.

U.S. HIGH YIELD MATURITIES



Data source: Edward Altman and Brenda Kuehne, *Defaults and Returns in the High-Yield Bond and Distressed Debt Market: The Year 2016 in Review and Outlook*, 02/03/2017

Known Known: The Cycle

2016: The Next U.S. Distressed Cycle May Be in Sight

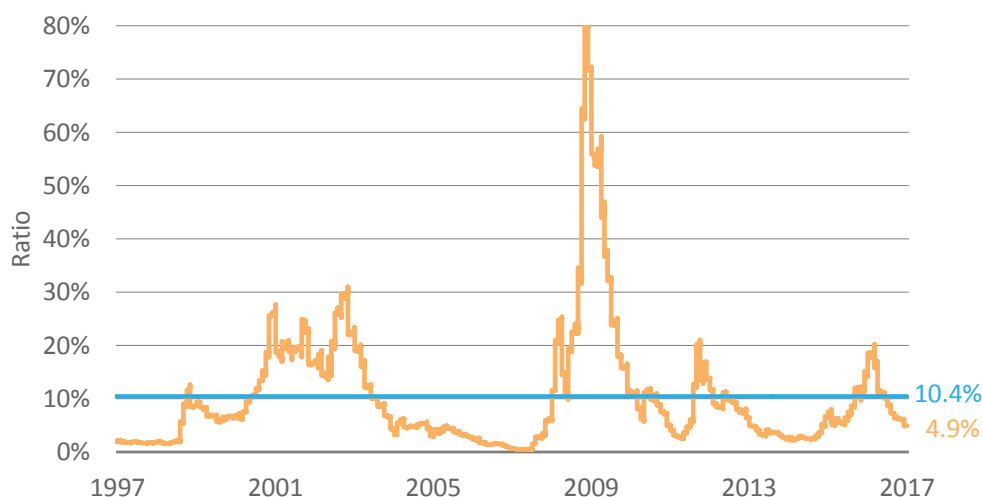
2017: The Next U.S. Distressed Cycle May Be Pushed Out

While it cannot be said with 100% precision that the next U.S. distressed cycle will be pushed out, investors can adopt a high degree of confidence that the credit cycle may be pushed out further than anticipated in early 2016 when sales of high yield bonds were becoming more pronounced, yields were rising, and option-adjusted spreads (OAS) were widening. This degree of confidence is based primarily on inferences from what has recently been priced into the market.

In early 2016, FEG noted that the U.S. High Yield Distressed Ratio—bonds trading greater than 1000 basis points over Treasuries—appeared to be forecasting the next meaningful U.S. distressed opportunity, as this ratio had increased meaningfully since early 2015. FEG's position was, and remains, that the 2008-2009 experience of an 80% distressed ratio was unlikely for the next distressed cycle, as the systemic leverage that was then in place is no longer as serious a threat. As such, we believe that a distressed ratio of greater than 20% is more consistent with earlier distressed opportunities and suggests a reasonable entry point for allocating to distressed investments.

On a full market value basis, the distressed ratio briefly exceeded 20% in March 2016. Further, the distress was focused in the energy sector. Rather than mark a true distressed opportunity, the subsequent increase in demand for oil triggered a rally in high yield bonds that pushed the distressed ratio well below its historical average at 4.9% in early 2017, which, as a known known, leads us to believe that the high yield market is no longer pricing in a near-term U.S. distressed opportunity.

U.S. HIGH YIELD DISTRESSED RATIO (DAILY)



Data sources: Bank of America/Merrill Lynch, Bloomberg, L.P.; Data as of 1/11/2017 Note: Distressed ratio = Full market value of U.S. High Yield Distressed Index (HODI) as percentage of full market value of broad U.S. High Yield Index (H0A0)

Known Known: Default Rates

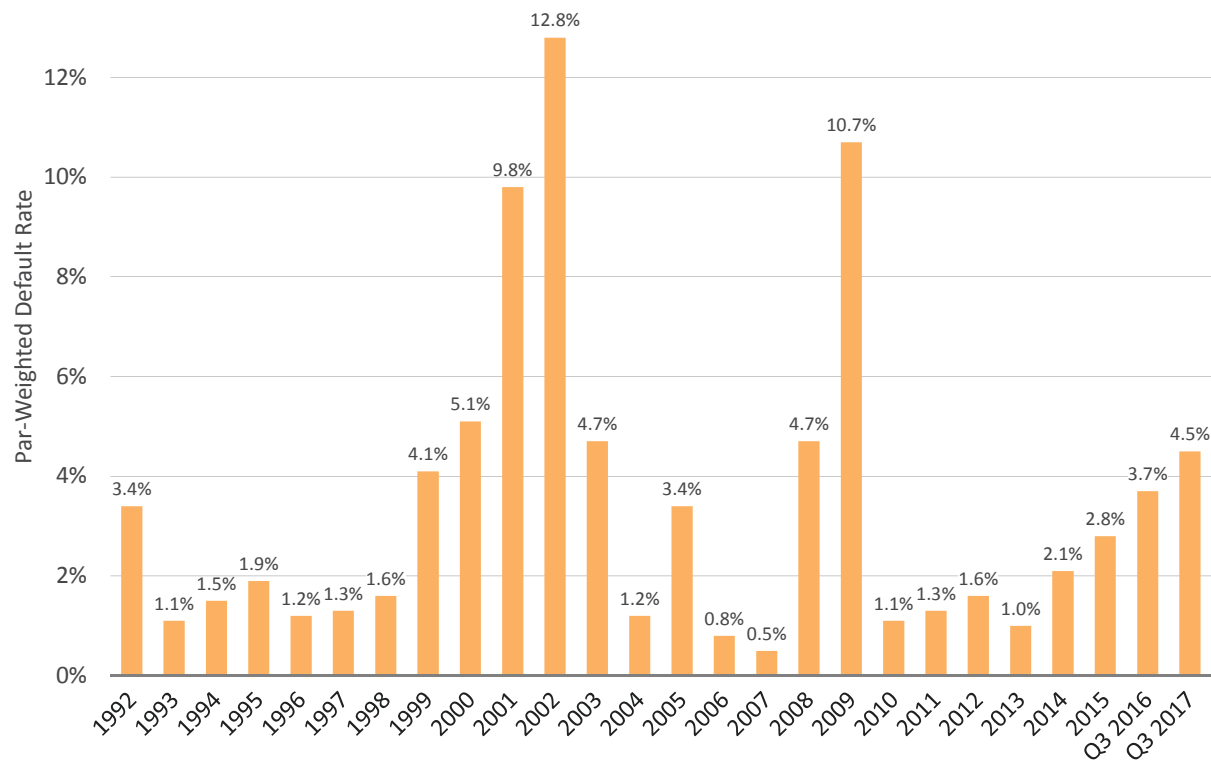
2016: Default Rate Expectations Have Increased

2017: Default Rate Expectations Remain Elevated

Despite recent improvement in the distress ratio (i.e., a lower ratio) and improved fundamentals such as higher oil prices, the market's growing belief of better than 2% U.S. GDP growth, and strengthening corporate earnings, default rate expectations remain elevated.

The chart on the following page provides color on the mortality-rate-driven default rate, which is comparable to an actuarial birth/death model, as provided by Professor Edward Altman of New York University's Stern School of Business. The model forecasts a 4.5% default rate for the 12-months ending September 30, 2017, marking a 20% increase from third quarter 2016 (3.7%). There seems to be a disparity between the expectations for higher defaults for the 12-months ending September 30, 2017 and what the markets are more recently implying given the improvement in the distressed ratio. It is FEG's belief that absent renewed concerns about a near-term U.S. recession, defaults may surprise on the lower side of Altman's expectations.

HISTORICAL DEFAULT RATES AND FORECASTS FOR HIGH YIELD BONDS



Source: New York University Salomon Center: Special Report on Defaults and Returns in the High-Yield Bond Market 3Q16 Review

Known Known: Value

2016: Prices are Lower/Value Is Higher, BUT... Prices Can Go Lower/Stay Low for a While

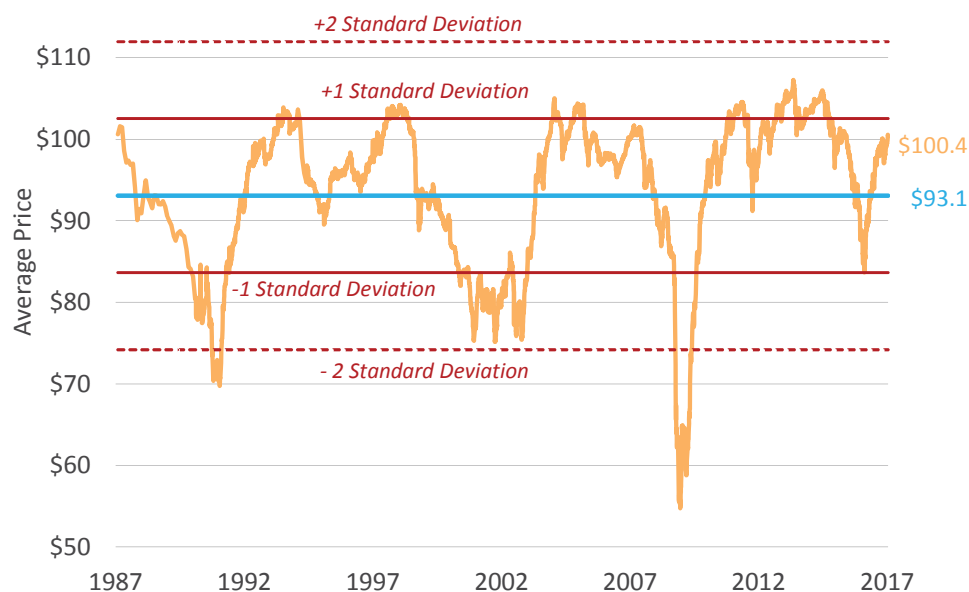
2017: Prices are Higher/Value Is Lower, BUT... Prices Can Go Higher/Stay High for a While

In February 2016, high yield bond prices declined to the mid-80s and yields rose above 10%, marking an \$8 discount below the index's historical average price and coinciding with the index being 1 standard deviation "cheaper" than its historical average price. As such, the known known that the market was providing investors at the time made for an interesting dilemma. If investors chose to allocate to high yield bonds at an average price of \$85, they knew there was potential for meaningful downside. Conversely, they also knew there was potential for an upside move back to at least the long-term average.

This dilemma made for a compelling argument as to whether FEG should recommend a tactical allocation to high yield or recommend that asset managers emphasize distressed investment opportunities in the event that more pain was on the horizon. The known knowns the market was providing at the time—price, yield, and OAS—unfortunately did not provide us with a high enough degree of conviction that the return potential was commensurate with the risk.

High yield bonds have done a complete about-face since early 2016, moving through par (\$100) and yielding 6.3%, closing in on a two-standard deviation low in yield—the all-time low yield was 5.7% in June 2014. The known known of the high yield market today is the presence of a more fully priced market with less opportunity to find attractively valued bonds. What we also know from experience is that high yield bond prices can remain elevated for years, as investors can maintain a willingness to hold these assets even at high dollar prices to receive the coupon payment. Making an allocation to high yield based upon our understanding of the known knowns and the lack of a margin of safety priced into the asset class, does not make sense.

BofA/ML HIGH YIELD MASTER INDEX AVERAGE PRICE



Data sources: Bloomberg, L.P., Bank of America/Merrill Lynch; Data as of 01/11/2017

Known Known: Underwriting

2016: Underwriting Standards Have Weakened on a Cumulative Basis

2017: Underwriting Standards Have Improved at the Margin

Monitoring underwriting standards is a mainstay of FEG's credit market analysis and annual outlook. We place great emphasis on the quality of underwriting standards prevailing in the new issue market, paying particular attention to what percentage is low quality—rated B or lower. With data provided by Altman, the Mortality Rates by Original Rating table employs an actuarial view of historical bond defaults. Altman assigned mortality rates to high yield bonds as a way to help investors understand how quickly bonds have defaulted (died) after issuance (birth).

Looking at the B and CCC-rated bonds at year four of their lifespan, nearly 24% of bonds rated B at issuance and nearly 45% of bonds rated CCC defaulted. Lower-rated bonds intuitively are more likely to default than bonds with higher ratings at issuance and these numbers help investors to form realistic expectations of the unknowable future defaults.

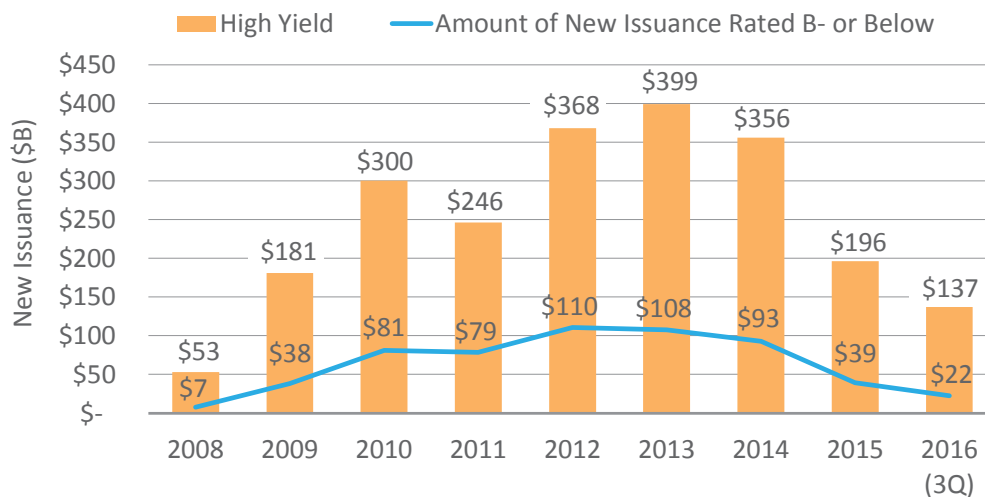
MORTALITY RATES BY ORIGINAL RATING – ALL RATED CORPORATE BONDS 1971–2015

		Years After Issuance									
		1	2	3	4	5	6	7	8	9	10
B	Marginal	2.85%	7.72%	7.85%	7.80%	5.70%	4.48%	3.58%	2.08%	1.76%	0.77%
	Cumulative	2.85%	10.35%	17.39%	23.83%	28.17%	31.39%	33.85%	35.22%	36.36%	36.85%
CCC	Marginal	8.13%	12.43%	17.89%	16.32%	4.85%	11.65%	5.44%	4.84%	0.66%	4.28%
	Cumulative	8.13%	19.55%	33.94%	44.72%	47.40%	53.53%	56.06%	58.19%	58.46%	60.24%

Data source: Edward Altman and Brenda Kuehne, *Defaults and Returns in the High-Yield Bond and Distressed Debt Market: The Year 2016 in Review and Outlook*, 02/03/2017

In conjunction with low demand for high yield bonds from 2013 to 2015, new issuance of high yield bonds softened in 2015 and 2016. Along with that softness, lower rated new issuance—the traditional hunting ground for distressed investors—waned. As such, and along with a lower distressed ratio, the potential for a near-term U.S. distressed opportunity appears lower than in early 2016.

HIGH YIELD BOND NEW ISSUANCE AND AMOUNT OF NEW ISSUANCE RATED B- OR BELOW



Data sources: S&P Global Fixed Income Research, Edward Altman and Brenda Kuehne, 12/31/2016

Known Known: Volcker Rule

2016: Volcker Rule Impact Has Teeth

2017: Volcker Rule and Other Regulations May Be Repealed or Tweaked

The Volcker Rule, which went into effect in April 2014, essentially forced the shutdown of proprietary trading desks and ushered in a massive reduction in primary dealer inventory on Wall Street. This was a direct result of the credit crisis. Consequently, primary dealers no longer use their balance sheets to take on risk and act as a buffer for asset prices in times of market stress.

Should the Trump administration choose to repeal the Volcker Rule and other regulations such as Dodd-Frank, the impact could positively influence prices for risk assets. Because markets are discounting mechanisms, these potential changes could already be priced into the market following Trump's election. At best, the future of regulation in the U.S. is a known unknown.

Unknown Unknowns for 2017

To paraphrase Mr. Rumsfeld, “the *unknown unknowns* are the ones we don't know we don't know...” which tend to be the difficult ones. These are the most challenging risks facing investors because they are unaware that the risk even exists! Unknown unknowns are the unforeseen diseases, Arab Springs, or other unexpected events for which an investor cannot make direct preparations. As such, hedging against unknown unknowns is virtually impossible.

Some investors attempt to hedge against *unknown unknowns* by employing broad market hedges or tail risk hedging strategies, but, we believe, diversification has long been the best solution.*

While trying to analyze the potential impact of *unknown unknowns* may seem pointless, it can still be an enjoyable thought exercise. In that vein, it is worth considering “The Ten Surprises of 2017,” an article written by two-time FEG Investment Forum speaker Byron Wien of Blackstone. Two of his surprises stood out as potentially pertaining to the credit markets.

The first is, “Increased economic growth, inflation moving toward 3%, and renewed demand for capital push interest rates higher across the board and the 10-year U.S. Treasury yield approaches 4%.” If this surprise were to come to pass, FEG believes the likely outcome of growth and capital demand for the credit markets could be enough increased demand for high yield bonds and loans—particularly bank loans, because they are floating rate issues—to overcome the inflationary detriment and improved relative value of 4% yielding Treasuries. In short, the outcome could be a late cycle rally that would lead to a lower return target for these assets.

Wien's second surprise is, “Populism spreads over Europe affecting the elections in France and Germany. Angela Merkel loses the vote in October. Across Europe the electorate questions the usefulness of the European Union and, by the end of the year, plans are actively discussed to close it down, abandon the euro and return to their national currencies.” This surprise leads us back to maintaining a view on global macroeconomic issues, which have been decidedly challenging for credit investors to price in historically because they tend to focus more on gauging issuer default risk. Based upon the presumption that both Brexit and Trump's election in 2016 were of the global macro variety, and thus were not factored into the market prior to taking place, these outcomes were handled exceedingly well by the credit markets, resulting in no material impact. Therefore, if this surprise came to pass, it is likely the credit markets would once again take them in stride.

*Note, diversification does not assure a profit or protect against market loss

Conclusion

FEG's annual credit market outlook seeks to provide color to markets that most market participants consider opaque through a blending of valuations, fundamentals, and sentiment. This year's outlook borrows from Donald Rumsfeld in order to offer a thoughtful lens for analysis—we do make an effort to provide something that is both entertaining and informative. The primary change from the 2016 outlook to the 2017 outlook is our belief that investors have done an about-face from early 2016, and shifted from a ball two position (more fearful) along the fear/greed pendulum shown earlier back to a ball four position (more greedy).

Legendary economist John Maynard Keynes' "animal spirits" have been revived and investors have bid up the prices for credit-related and other risk assets since February 2016 without appreciation for the lateness of the credit cycle and struggling economic expansion. The conclusion from this year's credit market outlook is that credit-related yields are low, prices are high, and there is little in the way of a margin of safety in today's credit markets. Although the credit cycle/economic expansion is late, it could continue for the foreseeable future. It appears as though the biggest risks to investors today are *unknown unknowns*, meaning, be careful of what you don't know you don't know.

FOOTNOTES

¹ Barclays Capital

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