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Market Briefing

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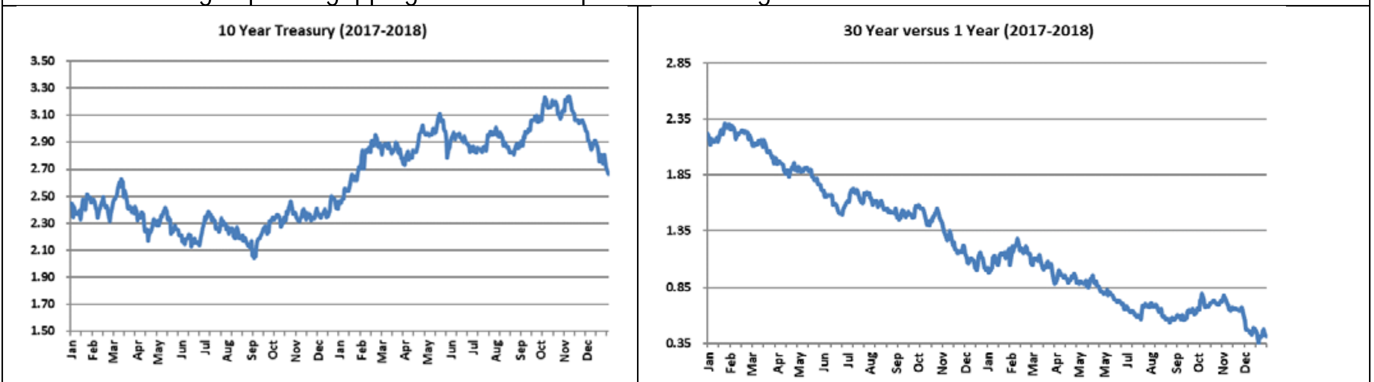
Subject: 2018 Year in Review

General Thoughts: 2018 began in many respects following the trends of 2017. The second half of the year, however, saw a dramatic increase in volatility and uncertainty. This was driven by concerns over the economy as forecasts began to show slowing global growth, including in the US, and some considerations for a possible recession into 2020. This evolved from escalating trade disagreements and tariffs, and weaker than expected growth from the tax cuts enacted at the end of 2017. The Fed continued to raise rates on the short end of the curve, while at the same time noting a somewhat less hawkish tone. The market initially followed with higher rates for longer term Treasuries, but then backed up in the fall as concerns increased over the strength of the economy and disagreements rose over the independence of the Fed. As investors pulled out of risk assets, this drove Treasury prices even higher and yields lower. By the end of the year, the yield curve flattened to its lowest point since 2007, and was negatively sloped for a portion. Other concerns only served to exacerbate this market reaction. Negotiations over Brexit, which had never made much progress, were now running out of time with the March 2019 deadline looming. Prime Minister May's government sought to at least reach agreement over the broadest issues (e.g., the border between Ireland and Northern Ireland), and barely survived a no confidence vote in Parliament. Prospects for a softer exit continue to be negative and numerous details remain unresolved. Economic growth in China has also continued to soften, raising more concerns with the economies of emerging market countries that are its main trading partners. The (still relatively) new government in Italy continues to work on a budget that will gain approval with the EU/IMF that has been providing economic support, but as it moves closer to agreement on that side risks losing support internally. Meanwhile, as Angela Merkel's term approaches an end as head of the German government, questions rise on who will lead the EU going forward. With the partial shutdown of the Federal government and a split in control of Congress, market uncertainty is expected to continue well into 2019, if not increase. Valuations for less liquid assets will be particularly suspect and require additional diligence. Thinner markets will be vulnerable to significant drops in demand resulting in prices gapping and bid/ask spreads widening.



Interest rates: Interest rates rose modestly during the middle of the year, but reversed in the last few months as investors became more concerned about the direction of the global economy. Initial efforts to reduce risk impacted primarily "cusp" assets, but the market sell-off widened in December. The repositioning of cash to risk-free Treasuries added to yield pressures that were already being experienced based on expectations of lower rates in the

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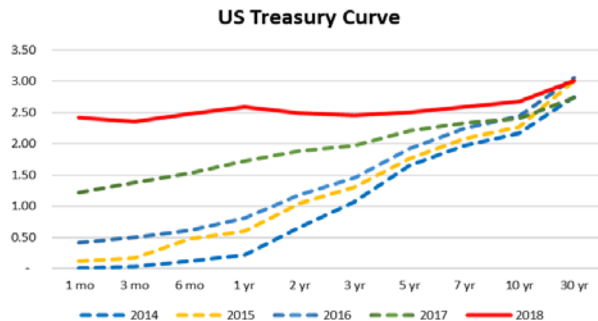
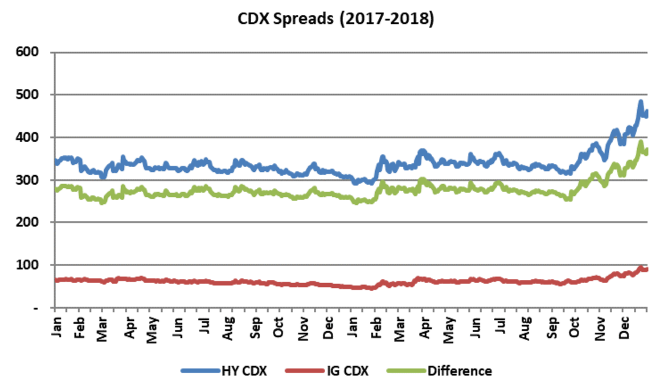
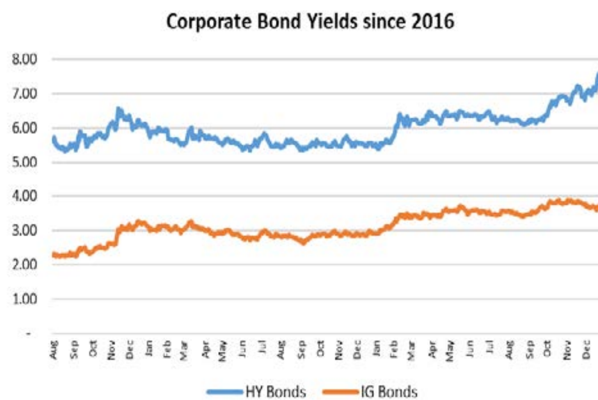
future. The 10-Treasury yield peaked at 3.25% in November and closed the year at 2.69%, only 23 basis points above where it started the year. The steepness of the yield curve, as represented by the difference between the 30-year and 1-year Treasuries, ended the year at barely 40 bps. The curve was also negatively sloped (longer maturities yielding less than shorter maturities) between the 1-year and 5-year, an anomalous situation that signals market expectations for a recession.



** While higher interest rates and investment yields are key to insurers, as they are to all investors, insurers also benefit from a steeper yield curve since that puts them in a better position to take advantage of their longer tailed liabilities. Insurance products, especially on the Life side, are expected to offer higher yields in exchange for less liquidity. When the yield curve is flat, insurance products are less competitive with other financial investments. This leads to the often referred to "reach for yield" by institutional investors. As rates on longer duration assets rise, that will improve the return on investment opportunities for reinvested cash flows and reduce the pressure to "reach for yield", but will also have a negative impact on the fair value of existing holdings that were purchased during the lower yielding environment. The duration on 30-year bonds with interest rates at their current level is close to 20, meaning a one percent increase in rates reduces the fair market value by 20 percent.

Credit Spreads: Corporate credit spreads, as represented by index CDX levels, began the year at relatively low levels especially for lower credit qualities, supported by comparatively benign delinquency data and strong demand for any investment with any kind of yield. With increased volatility and uncertainty in the last few months of the year, credit spreads especially on weaker credits did spike about 100 basis points.





Bond Yields: Negative pressure on values from higher long term rates can be exacerbated by the additional impact of wider spreads on risk assets. Besides concerns of a weaker economy and the resulting impact on earnings, defaults could start to rise among weaker credits if those issuers are unable to refinance maturing debt. While the widening in spreads for investment grade bonds was offset by the decline in Treasury yields, below investment grades saw a general increase in yields of 75 basis points or more. This will negatively impact their fair value. Property/Casualty and Health companies have significantly increased their exposure to lower quality credits in recent years.

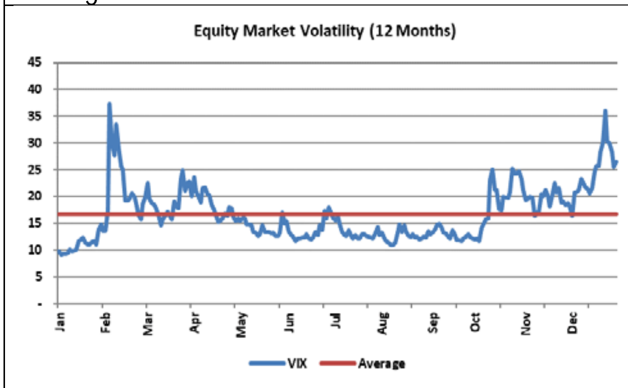
Equity Markets: After fairly consistent strong performance for several years, 2018 saw increased volatility and a substantial sell-off in the last quarter. Uncertainty over the impact of trade tariffs on the general economy and the direction of interest rates all put pressure on prices. The S&P 500 ended down 7.3% for the year, its worst performance in 10 years. Financial and technology stocks were especially weak. Financials were down 15.2% and the insurance sector was down 8.6% for the year. This largely

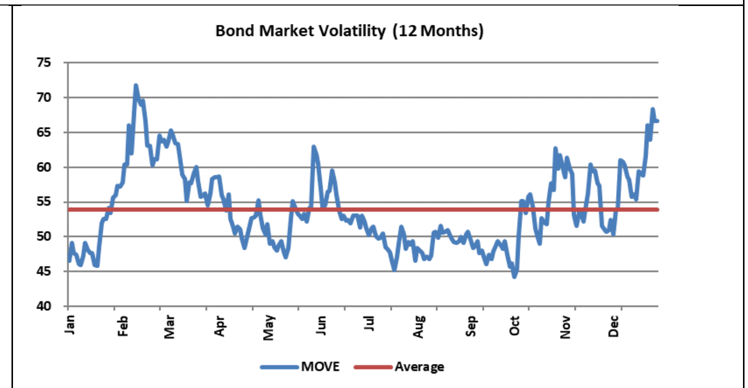
reflected challenges expected due to lower interest rates, a flatter yield curve and prospects for an increase in defaults.

Equity Valuations: Stock valuations are influenced by a number of variables, including interest rates, historic and projected earnings. By the beginning of 2018, average prices as a multiple of earnings had reached high levels of more than 25 times earnings, well above the 10-year average. With the market downturn at the end of the year, this had come back down to less than a 20 multiple. Since 2012, the Property/Casualty industry has significantly increased its exposure to unaffiliated common stock, from 14.5% of invested assets to 22.0%, while Life and Health companies have stayed relatively stable.

Oil prices: Oil prices, using the benchmark West Texas Intermediate, have also ranged from $55 at the end of 2017 to $75 at the beginning of October. From there, prices dropped steeply, ending the year at roughly $45. The sell-off reflected decisions by oil producing countries to reverse production limits implemented earlier in the year as well as expectations for reduced demand given lower economic growth. US producers have significantly increased their production over the years and are also negatively impacted by the lower prices. Besides direct exposure to energy companies which for US insurers had been relatively modest, there is also indirect exposure through bank and other investments.

Measures of market volatility: The S&P Volatility Index (VIX) for equities and the Merrill Lynch Bond Market Index (MOVE) for bonds, have climbed from quiet, lower levels that ran from mid-2015 to mid-2017. Both measures of market volatility increased in the fourth quarter. For the majority of US insurers' investments market volatility is not a significant issue as their investment approach focuses more on longer term valuations and strategies. However, significant changes in volatility can materially impact other kinds of investors, especially leveraged investors such as hedge funds. Investment performance of the hedge fund industry has struggled over the last several years with lower market volatility. While still preliminary, indications are that the recent increase in volatility has not been a benefit to most of the hedge fund industry, leading to more withdrawals and funds closing. Volatility is also a key input into derivatives valuations, along with interest rates. The recent significant increase in market volatility likely impacted year end valuations of derivatives positions, and may have also impacted hedge effectiveness of some strategies.





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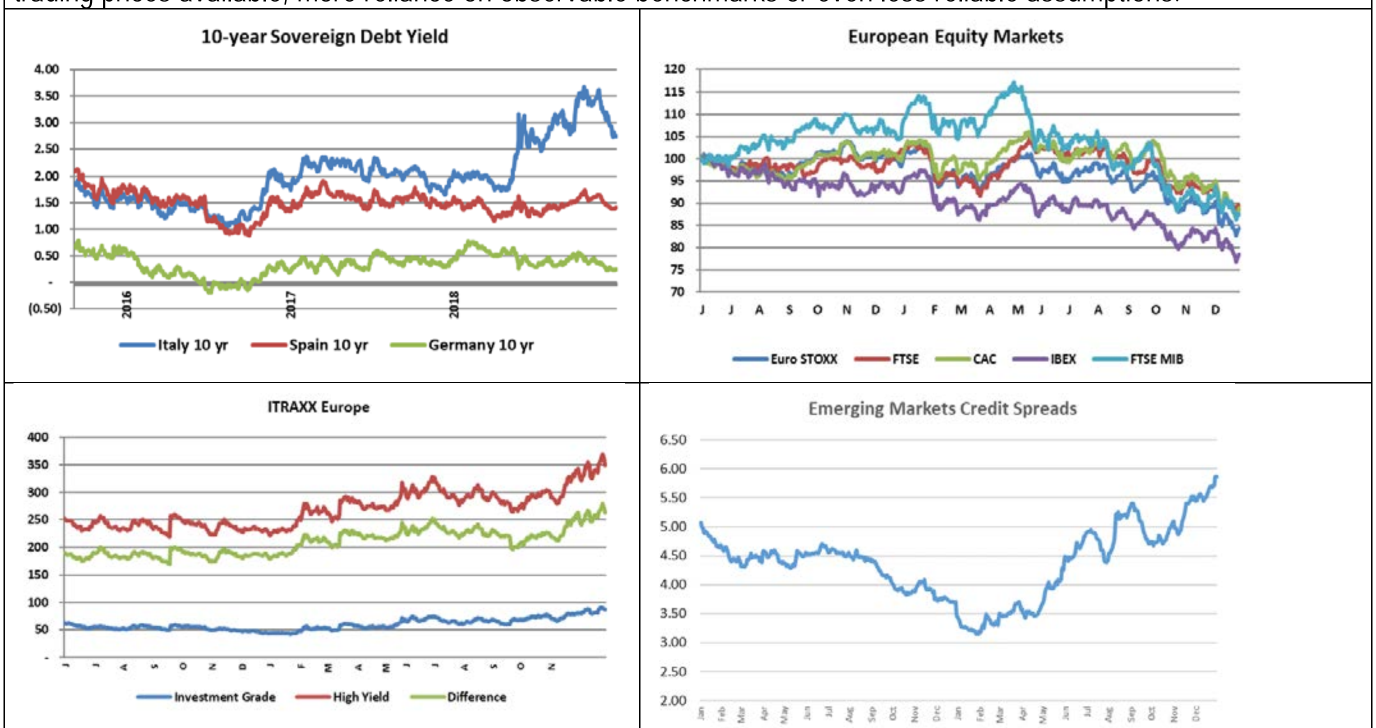
Market Vulnerability to Event Driven Volatility: With valuations in many areas still high and concerns that key economic and market indicators are at a possible turning point, there is an increased likelihood for even higher volatility and gapping of prices for assets. This is especially true for markets and asset classes where investors in general have reached for yield, believing that the additional risk was marginal but now is increasing. One example of this was the market reaction to the change in government and budget issues in Italy. Even the modest increase in risk led investors to exit quickly, driving Italian government bond prices sharply lower and yields higher by more than 100 basis points. This weakness continued as the Italian government struggled to put together a budget that would meet EU/IMF requirements. While there was some recovery in bond prices over the last few weeks of the year, equity markets and credit spreads continued to struggle. Outside of Europe, the shift in general emerging market corporate credit spreads, which are predominantly below investment grade, was even more dramatic in 2018, widening almost 300 basis points since the beginning of the year. Exposure of US insurers to non-US investments, especially emerging markets, is small. However, valuations will be a potential issue with limited recognizable public trading prices available, more reliance on observable benchmarks or even less reliable assumptions.



Brexit: Following the referendum vote to exit the EU, the UK government triggered the mechanisms for departure with a deadline of March 2019. Since then there have been ongoing negotiations to determine the terms of departure with the hope of having a smooth transition and avoiding a "hard exit". Thus far the UK government has struggled to come to terms with the EU for even basic terms. An agreement was reached on at least some of those issues, but the government of Prime Minister May seemed to lack the necessary support, forcing her to delay the decision and subjecting her government to a no-confidence vote that she was successful at surviving. Nonetheless, it remains questionable how the exit will transpire with many details still to be worked out. Markets have been consistently skeptical since the referendum. Viewed as being especially vulnerable are financial institutions and how existing agreements will fare after the split. Banks and insurers have created legal entities in the different jurisdictions which, while costly, should soften the issues prospectively. What is of primary concern is retrospective transactions that do not address the separation, including separate and potentially different legal frameworks. US companies with European business are among those dealing with the issues.

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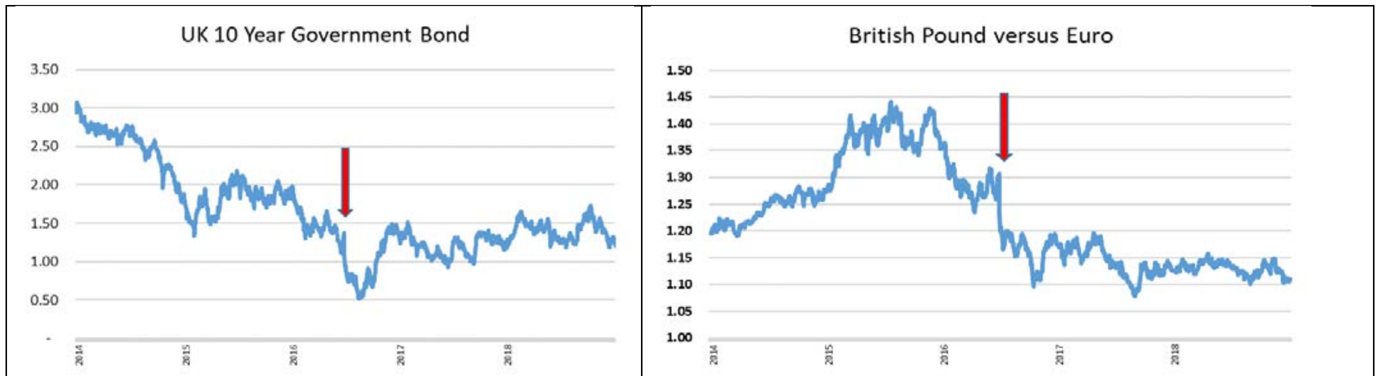
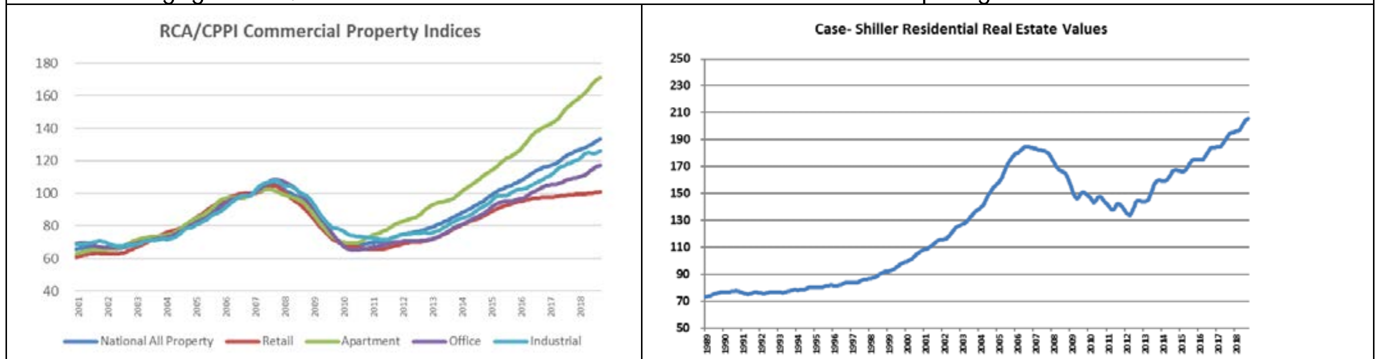


Real Estate Markets: The low interest rates that have stretched over several years strengthened many markets and led to more than complete recoveries in market values in many areas, as well as high levels of new issue volume. So much so that some data for several markets raised concerns over underwriting standards and whether the market recovery has gone beyond rich valuations into possible "bubble" territory. Of particular concern has been commercial and residential real estate values, where national indices have recovered beyond their pre-crisis peaks. There are significant differences based on geography and, for commercial properties, property types. Retail has been suffering with both well-publicized (Sears and Toys R Us) bankruptcies and weakness among smaller retailers. Vacancy rates in the retail sector are reported at above 10% on a national level. On the residential side, there has been recognized recent weakness in some sales figures and housing starts as mortgage rates began to rise. Excessive valuations in real estate were a major component leading into the financial crisis ten years ago. Investments in commercial real estate, mostly through mortgage loans, has been a substantial area of growth for US insurers, especially Life companies but also on a percentage basis for Property/Casualty. This is even moreso the case when including indirect investments through CMBS, REITs and banks with significant real estate exposure. Commercial real estate investments, including mortgage loans, (non-insurer occupied) real estate and CMBS, now total over 17.4% of invested assets in the US Life industry, up from 16.1% in 2012. The most significant growth has been in mortgage loans, which benefited from a revision to the Risk-Based Capital guidance in 2013.



New Issue Volumes: Meanwhile orginations/issuance of commercial mortgage loans and CDO/CLOs are also approaching the pre-crisis levels that some view as indicators of over-exuberhance and possible lax underwriting. The question is whether or not this generation of transactions will survive better a weakening economy and/or rising interest rates. Since the financial crisis, there has been increased oversight over these markets by Federal regulators. However, some of the additional regulation initiated by Dodd-Frank have been reversed as being overly restrictive and a drag on bank earnings. There has been noted increases in leverage for many transactions which may not be supportable if interest rates rise and/or valuations decline.

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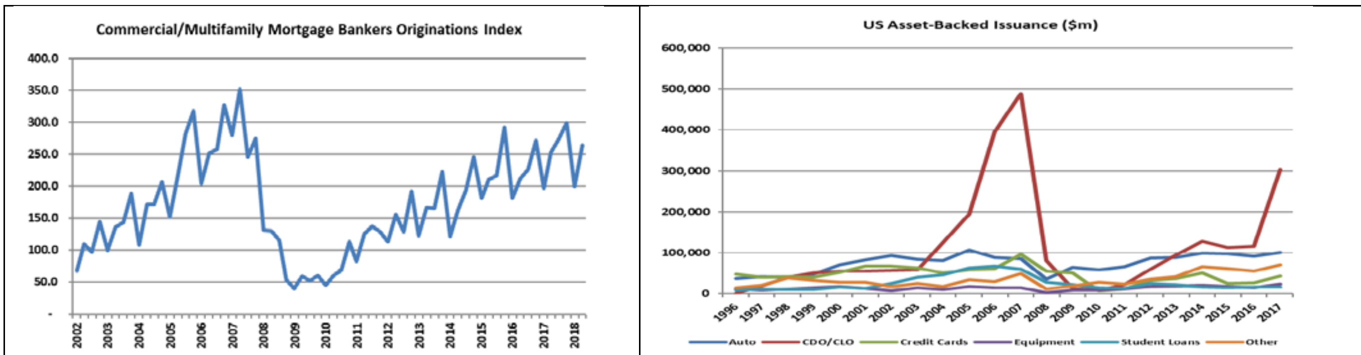
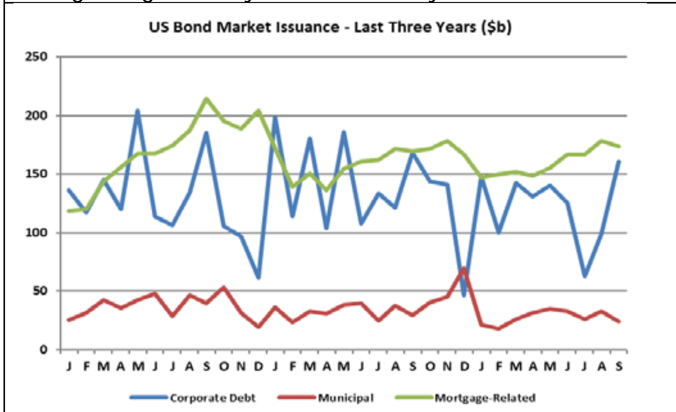
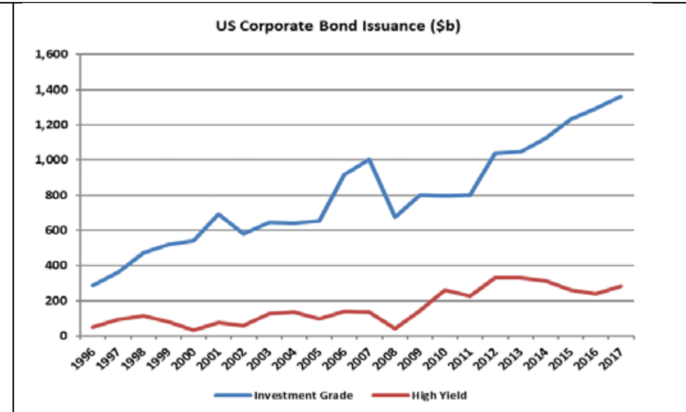
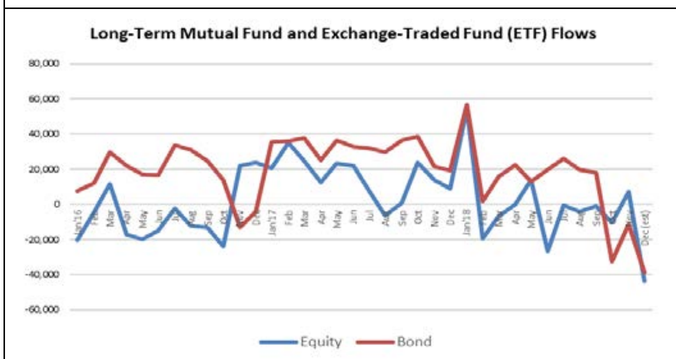


Corporations also took advantage of the low interest rate environment and issued as much as the market would bear, both for investment grade and below investment grade credits. While higher quality issuers have generally retained significant cash positions on their balance sheets, more speculative credits have used the financing to fund operations, raising questions of whether or not they will be able to refinance when the bonds mature, especially if interest rates are higher. The municipal bond market also saw a brief, but significant bump in new issuance at the end of 2017, in anticipation of tax law changes. Not included in this data is loan originations, which recent years saw significant expansion beyond traditional bank lending to include other investors in leveraged loans and middle market loans. US insurers have been expanding into this area along with other investors, partly attracted to the non-fixed rate coupons which should perform better in the rising interest rate environment. The structure of these transactions changed significantly in the last ten years and as such are untested in a downturn.







Funds Flows: Reflecting on overall market sentiment, flows in and out of long term mutual funds and exchange-traded funds were significantly positive throughout 2017, continuing into 2018 at least for bond funds. These trends turned strongly negative in the last few months of the year for both equities and bonds. Driving some of this data is short selling of certain exchange-traded bond funds, which reportedly reached $10 billion in December.

The Final Word? It is perhaps to soon to tell if this is really the end of the 10-year long bull market, but it is clear that there are significant stresses virtually everywhere one looks. Riskier parts of the markets where investors stretched looking for yield are cracking or have already cracked. Additional diligence into the investment strategies of insurers that stepped out of their historic comfort zone seems well warranted, as well further analysis into risk management approaches for dealing with the increased volatility and the potential for a significant down market that reverses at least some of the lofty valuations.

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