



2019 Annual Outlook

The steep market declines in late 2018 likely herald a change in the investment environment. As we pass “peak central bank”, liquidity is becoming less prevalent. An entire generation of traders were trained to buy-the-dip on the floor provided by this liquidity. With the U.S. Federal Reserve draining the proverbial punch bowl, the new trading strategy likely shifts to sell-the-rally, causing markets to return to their natural higher volatility state. While the equity market may appear more attractive, this may be illusory if earnings estimates decline as we expect.

The world does not appear to have pervasive excesses, but we are concerned about specific areas of capital markets. One such area is corporate credit. The historical liquidity structure provided by banks has been regulated to near extinction and credit markets have grown explosively in response to zero percent interest rates.

The world continues to provide interesting investment opportunities for those willing to think a bit differently. We remain interested in emerging markets, and specifically, the integration of Chinese A-Shares—the second largest market in the world—into the global markets. In 2018, emerging market investors gave back much of their 2017 excess returns. However, as a result, valuations have become particularly compelling and earnings growth remains strong.

Markets in Review

Despite carrying lofty valuations into the beginning of 2018, U.S. equity markets began the year strongly, particularly on a relative basis, far outpacing their international and emerging market counterparts. This was driven by a near-perfect Goldilocks environment – U.S. economic growth remained strong while global growth weakened, and U.S. corporate earnings growth accelerated due in part to corporate tax reforms. These factors allowed the U.S. Federal Reserve to continue normalizing with four interest rate hikes, which fueled a dollar rally and contributed to the strong performance of U.S. equity markets relative to the rest of the world. However, U.S. markets would eventually run out of fuel and “catch down” to international markets due to increasing investor anxiety and declining liquidity that limited investors’ appetite and ability to continue buying the dips.

The S&P 500 declined 4.4% in 2018, as shown in **Chart 1**, outperforming world equity markets, which declined 8.7%. International equity markets declined 10.7%, while a stronger dollar exacerbated these losses for U.S. investors by an additional 3.5% (-14.2% total). Emerging markets were even weaker, declining 10.1% in local currency terms and 14.6% when currency declines were taken into consideration. These markets took the full brunt of the China trade-war rhetoric and suffered from investor concerns rooted in the historical performance of these markets in rising dollar environments. Within emerging markets, Chinese equity markets declined nearly 19%, while Chinese A-Shares, the partially restricted on-shore markets, fell 33% in 2018.

Even though a 4.4% equity market decline might not seem particularly concerning, fourth-quarter losses were severe and violent. We just experienced the worst December equity market performance (-9.0%) since 1931, which created a 13.5% loss for the fourth quarter and a peak-to-trough decline in excess of 20%. The severity and speed

Chart 1. Capital Market Performance

Market	Index	2018	Performance		Valuations	
			Annualized 3 Year	5 Year	Forward P/E Dec 2018	Dec 2017
World Equity	MSCI World	-8.7%	6.3%	4.6%	13.5x	17.0x
U.S. Equity	S&P 500	-4.4%	9.3%	8.5%	14.3x	18.5x
International Equity	MSCI AC World ex U.S.	-14.2%	4.5%	0.7%	13.8x	14.3x
Europe Equity	MSCI Europe	-14.9%	2.1%	-0.6%	11.9x	15.0x
Emerging Market Equity	MSCI Emerging Markets	-14.6%	9.2%	1.6%	10.4x	12.3x
China Equity	MSCI China	-18.9%	8.0%	4.6%	10.0x	13.3x
India Equity	MSCI India	-7.3%	8.2%	8.1%	17.4x	18.6x
Frontier Market Equity	MSCI Frontier Markets	-16.4%	4.2%	0.7%	9.9x	12.5x
Spreads vs. Treasuries						
10-Year Treasury	Citi Treasury Benchmark 10-Year	0.0%	0.7%	2.6%	-	-
Municipal Bonds	Barclays Mgd Money Short/Int	1.4%	1.4%	2.3%	55bps	55bps
U.S. High-Yield Bonds	Barclays High-Yield Corporate Bond	-2.1%	7.2%	3.8%	526bps	343bps
Emerging Market Bonds	JP Morgan Emerging Market Bond	-4.6%	4.7%	4.2%	343 bps	225 bps
Hedge Funds	HFRI Fund Weighted	-4.5%	3.0%	2.2%		
Conservative Hedge Funds	HFRI FOF Conservative	-1.1%	1.6%	1.7%		
Commodities	Bloomberg Commodity Index	-11.2%	0.3%	-8.8%		
Gold	Spot Price of Gold	-1.6%	6.0%	1.1%		

Source: Bloomberg, MSCI, Factset Hedge Fund Research, Inc.

of these declines shook investor confidence and raised concerns about the correction turning into a rout – only to be followed by the strongest January performance in decades. International equity markets experienced similar declines, while emerging markets held up relatively better as global concerns were already discounted by their sharp declines earlier in the year.

Losses were not limited to equity markets, leaving investors few places to hide. For the year, bond markets were flat, but longer-dated U.S. Treasuries lost 1.6%. Yield chasers in this low interest rate environment who invested in corporate and high-yield bonds lost over 2% for the year. Credit losses were particularly acute in the fourth quarter, as high-yield bonds lost 4.7%, with limited liquidity hampering investors' ability to sell without taking more severe losses. We are particularly concerned about liquidity and market support in the corporate and high-yield bond markets that might exacerbate losses in the future.

The breadth of losses across asset classes in 2018 was nearly unprecedented. A recent Goldman Sachs study stated that over the last 100 years, there have been only a handful of times when so few asset classes have outperformed U.S. cash. Even traditional stock/bond balanced portfolios provided limited protection, generally losing between 4% and 7% in 2018. Not since 1969, about 50 years ago, have we seen positive cash returns at the same time equity, credit and U.S. government bonds were all negative.

We typically don't devote significant space in our Annual Outlook to reviewing shorter-term market activity, but recent market declines and the corresponding spike in volatility were significant changes to investors' recent experience and likely represent a paradigm shift in the market and volatility environments.

Say Hello to Volatility

Beyond investor losses in the fourth quarter, 2018 may be remembered as the year in which volatility reintroduced itself to investors. The responsible triggers include a trade war with China that became something more than hollow rhetoric, the sanctity of the European Union coming back into question, the decided slowing of global growth, and the central banks' transition from quantitative easing ("QE") to quantitative tightening ("QT"). As a result, the S&P 500 saw the most +/- 2% daily moves since 2008, which comes in direct contrast with 2017, when we experienced the fewest +/- 1% daily moves in over 50 years.

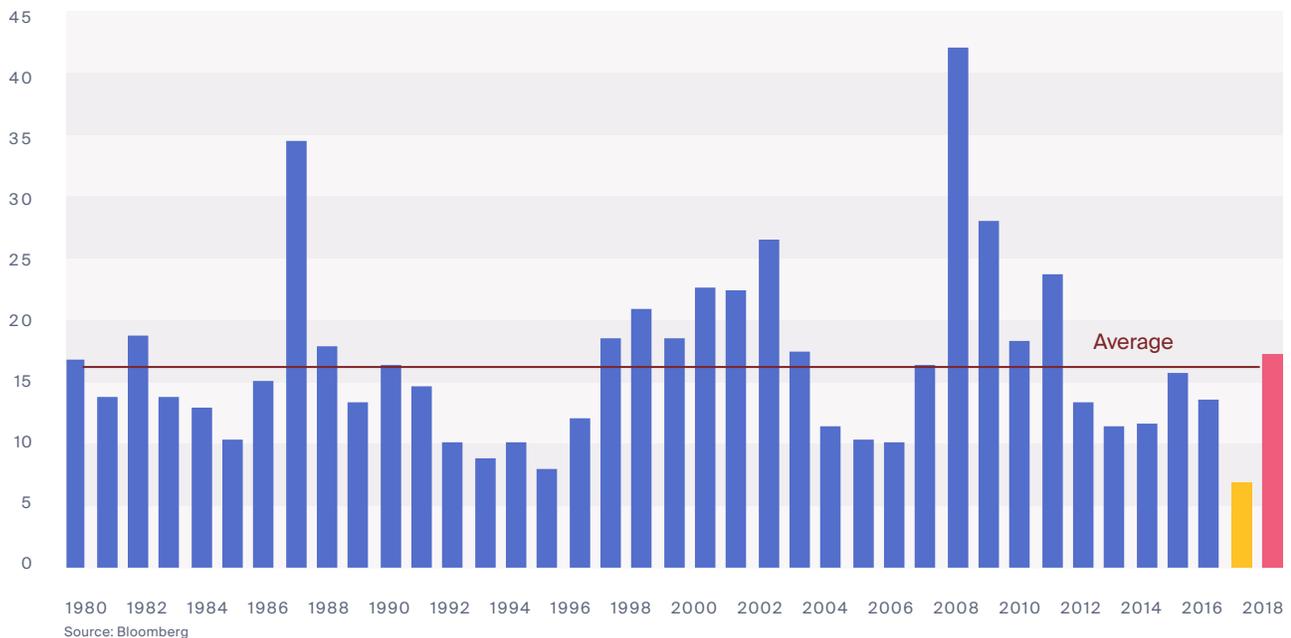
People tend to frame events based on their recent experiences. Through the lens of this recency bias and against the backdrop of 2017, which was the most benign period in the history of capital markets, it is tempting to believe that the recent increase in volatility is unusual. Quite the opposite; it was 2017 and the immediately preceding years that were the aberration. **Chart 2** shows that 2017 represented the least volatile year in the last 40+ years, with the S&P 500 realizing 6.7% volatility, well below its long-term average of over 16%. While volatility increased in 2018, it was simply returning to more normal levels.

Many factors contributed to the recent low volatility. The world became accustomed to highly accommodative central banks whose excessive liquidity policies prompted investors to buy every market dip and systematically truncate every market decline. Corporate share buybacks, often funded with low interest rate debt, reached record levels and further supported share prices. With these factors changing in the future, volatility looks like it's here to stay – and that might not be so bad in the long run. The fourth quarter might have been a seemingly inexpensive reminder of needed investment discipline before a more severe and sustained correction arrives at a future date. On a positive note, if we have returned to a more normal, higher volatility environment, it should provide opportunities for active investors, as long and short stock picking become more profitable.

Say Goodbye to Buying-the-dip

In this type of environment, buying-the-dip as a pervasive and reliable trading strategy is likely to disappear. It has been the right trade for so long that we have trained nearly an entire generation of new traders for whom this is the norm. And, indeed, it was a simple strategy with a clear record of profitability over the last 10 years. According to Morgan Stanley, buying the S&P 500 dips, based on the prior week's performance, was a profitable strategy for 13 straight years until 2018. Any other approach was simply proven wrong, as markets would consistently run away from investors who took a pause to sit on the sideline. So prevalent was liquidity from central banks that this was a near-universal trading strategy across most asset classes. Can it be coincidental that a return to normal volatility levels and the demise of buying-the-dip happened at a time when central banks have been withdrawing liquidity at record rates? Could buying-the-dip be giving way to selling-the-rally?

Chart 2. A Return to "Normal" Volatility
S&P 500 Annual Realized Volatility 1980 - 2018 (%)



What's Next?

The decade since the Global Financial Crisis has been a spectacular period for equity investors. Even including recent declines, the S&P 500 has generated an annualized 16.7% return from the March 2009 low through December 2018. Equity investors who timed this perfectly (we know of precisely zero) would have made 354% over this period. There have been only three times in history during which equity market performance has matched this 10-year record. And, while investor sentiment felt particularly negative in December, recent losses look relatively small in comparison to the longer-term gains, as shown in **Chart 3**. However, in the midst of these tumultuous markets, investors are beginning to ask whether this is simply a correction or something more sinister presaging a deep recession or a market crisis.

Are We Headed for a Financial Crisis?

In just the first few weeks of 2019, we saw Apple warn on revenue softening for the first time in 15 years and U.S. manufacturing activity (based on the ISM index) register the third-largest decline this century — exceeded only by September 11th and the depths of the Global Financial Crisis. Overlay these data points with political unrest around the world, a trade war with China, the fabric of the European Union being stretched to its breaking point (once again) and we have the recipe for fears of a market crash.

So, are we headed for a financial crisis? Our crystal ball is never perfect, but the answer is “probably not.” The precise combination of factors that cause each financial crisis is unique and unpredictable, but there are broad similarities and patterns that can inform our view. Hyman Minsky was an economist whose views have gained following now that once-in-a-lifetime crises are happening with alarming frequency. Contrary to conventional wisdom, Minsky’s Financial Instability Theory posits that the financial system does not naturally seek equilibrium, but rather swings between stability and fragility, and that this rotation is an integral part of the business cycle itself. It is this

Chart 3. Recent Declines Were Severe but Relatively Benign
S&P 500



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movement from stability to fragility and then into crisis, known as the “Minsky Moment,” that can be instructive for us.

Economic and financial system stability, and the investor comfort that accompanies it, creates the behavior that eventually leads to its own demise. This sanguinity leads to increased risk-taking and rising asset values, which in turn leads to investors increasing leverage to chase these positive returns. A vicious cycle then pushes prices higher and eventually leads to unsustainable excesses. At this point, even a slight wobble in asset prices could lead to a deleveraging and unwinding of asset prices that, at its extreme, can lead to crisis. Stability itself sows the seeds of instability.

Do we have excesses and elevated valuations in capital markets today? Most certainly, but not pervasively – at least not after the fourth quarter. A further argument against a capital market collapse is the lack of leverage in the financial system itself. While investors and traders appear to have forgotten lessons from the 2008 Financial Crisis, the banking system has not. Regulations put in place in its aftermath have had a noticeable de-risking effect.

Bank capital, liquidity and funding sources have all improved. Today, U.S. banks and their European counterparts finance themselves with more customer deposits and less reliance on short-term, flighty interbank loans and repo markets, as shown in **Chart 4**. Further, U.S. bank Capital Adequacy Ratios – a measure of the quality and magnitude of bank assets relative to their capital – have increased 60% (from 8.5% to 13.9%) over a 10-year period ending in 2017. Similarly, bank loan-to-deposit ratios have shrunk from 97% to 76% over this same period. Very simply, banks appear healthy relative to recent history.

Assuming today’s financial system is more secure – with lower leverage and higher-quality funding sources – and that the recent market correction will not devolve into something more sinister, we must look at more traditional factors to gather clues on the market’s future direction. Specifically, we must examine liquidity, valuation and fundamentals.

Revisiting Peak Central Bank and Declining Liquidity

As we discussed in last year’s Annual Outlook titled “Peak Central Bank,” QE is ending and global central banks are beginning to drain liquidity. The strategy of inducing investors to shift from cash to risky assets by forcing interest rates to zero percent was effective at inflating asset prices. Now that central banks are attempting to put the genie back in the bottle, we are experiencing understandable consequences. Faced with changing circumstances, namely more attractive returns on cash and greater volatility on risky assets, investors are adapting. During the fourth quarter as investor sentiment soured, few stepped in to buy-the-dip, and those who did suffered significant losses.

There is no doubt that the end of the long period of experimental interest rate repression, both in the U.S. and across other major developed economies, is already underway. The net purchases by the major central banks around the world have already turned

negative, as shown in **Chart 5**. The questions now facing investors are how fast and how much of a lasting impact will it have on the behavior of market participants?

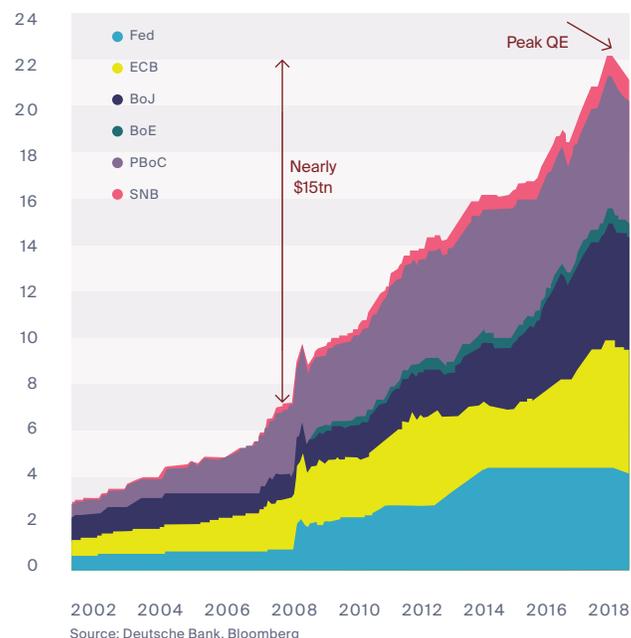
To understand the potential impact of draining the proverbial punch bowl, we need to contextualize the distortions created by the original policy. The clearest example of central bank distortions is likely in Europe. The European Central Bank recently announced the official end of its QE program, which accumulated EUR 2.6 trillion in assets over a four-year period. During this period, its purchases exceeded the combined amount of debt issued by European governments and corporations, and caused nearly 50% of Eurozone government bonds to trade with yields below zero. Italian bonds, rated BB and considered junk by the rating agencies, traded at lower yields than U.S. Treasury bonds – making this possibly the largest distortion in capital markets history. While central bank balance sheet reductions will be gradual and well-telegraphed, to think this change will have no impact on capital markets is naïve.

In the U.S., very few people were forecasting that the Fed would hike rates four times in 2018, but nonetheless it happened. Investor expectations for 2019 rate hikes are all over the place with the consensus changing continuously in response to economic data. Recent economic data and severely negative market sentiment have shifted market expectations toward fewer rate hikes in the immediate future. At the beginning of the fourth quarter of 2018, the Fed’s stated goal and the market’s consensus expectation was for three additional hikes in 2019. Today, the market is currently expecting zero, as shown in **Chart 6**, and Federal Reserve Chairman Powell has even stated that the Fed “will be patient as we watch and see how the economy evolves.”

Chart 4. Healthier Bank Deposits
% of Bank Assets



Chart 5. Passing Peak Central Bank
Total Assets on Central Bank Balance Sheets (Trillion \$)



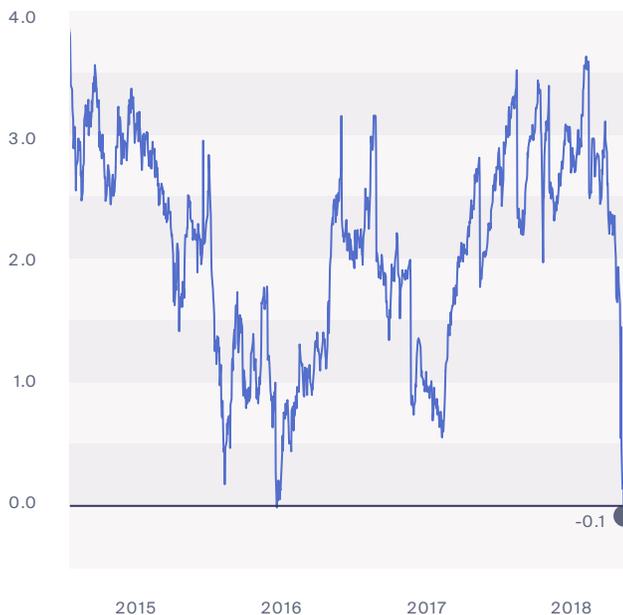
However, we believe the risks to the market's rate hike expectations are to the upside, as U.S. economic growth remains relatively robust (albeit slower), labor markets are tight, wages are rising and inflation is inching higher – all of which limit the Fed's flexibility to leave rates below their neutral equilibrium. Both the December and January employment reports were surprisingly strong, with December's report beating consensus expectations by the largest margin since May 2009. Increasing labor market tightness continues to work its way into wage increases and overall inflation, both in the U.S. and in Europe, as shown in **Chart 7**. While these inflation measures aren't soaring, they are back to normal levels that do not require abnormally accommodative monetary policy.

Giving further ironical credence to the Fed's need to continue hiking rates is the recent increase in the unemployment rate, which climbed to 3.9% from 3.7% in November. Labor markets have become so tight that wages are growing to levels where they are pulling retired workers back into the workforce and, as a result, increasing the unemployment rate. U.S. payrolls have now grown for 100 straight months, by far the longest stretch of steady hiring on record. What began as an underwhelming "jobless recovery" has now become the longest job recovery on record. Unless the economy unexpectedly weakens significantly, it appears as if tightness in the U.S. economy will force the Fed to continue raising rates or risk runaway inflation.

And indeed, we believe there is room to increase rates further without harming the economy, as real U.S. interest rates are just beginning to move back into positive territory, as shown in **Chart 8**. Historically, in normal economic environments, real interest rates should be closer to 2% or higher, implying that both short-term and

Chart 6. Vanishing Rate Hike Expectations

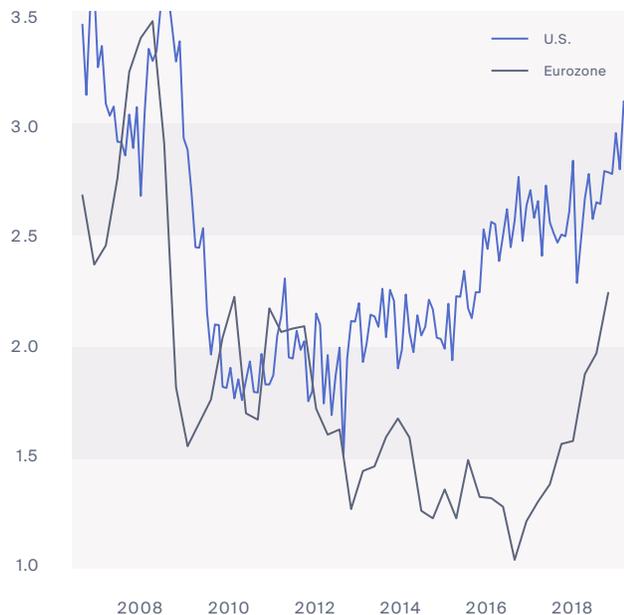
Number of 25bp Rate Hikes by U.S. Fed Expected in Next 12 Months



Source: Morgan Stanley Research, Bloomberg

Chart 7. Wage Growth Accelerating

Developed World Wage Growth by Region, % Change YoY



Source: Bureau of Labor Statistics, European Central Bank, Haver Analytics

longer-term interest rates have room to rise. European rates are also still repressed to levels well below normal.

Given years of zero-percent interest rates, it should not be surprising that investor cash allocations fell to their lowest level since the dot-com mania of the late 1990s, as shown in **Chart 9**. With interest rates now increasing, cash has become relatively more attractive. As a result, investors are more willing to abandon riskier investments in favor of safety, exacerbating recent market declines and highlighting liquidity challenges. Mutual fund and ETF flows in the fourth quarter indicate increased demand for cash alongside rising concerns about risky assets. Money market fund inflows totaled \$165 billion in November and December, the highest two-month inflow since 2008. In contrast, U.S. equity funds witnessed outflows of \$42 billion over the same period and set a record for a single week in mid-December with \$32 billion of outflows.

Hedge Fund Unwind

Institutional investors, such as hedge funds, also contributed to selling pressure and weak liquidity during the recent market declines. While it is common to see hedge fund de-risking toward the end of the year, the position declines we witnessed during the fourth quarter, particularly October and December, were among the most extreme on record.

According to Morgan Stanley, U.S. equity long/short portfolio gross (long plus short) and net (long minus short) exposures declined significantly over the course of 2018, as hedge funds sold their positions to stem losses. As shown in **Chart 10**, after reaching a multi-year high (196%) in April, hedge fund gross exposure declined sharply to a five-year low, very near the all-time lows experienced in the aftermath of the Financial

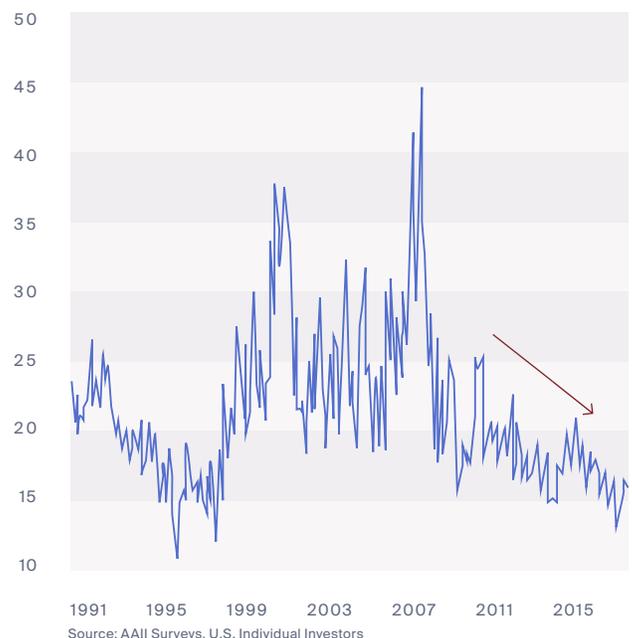
Chart 8. Real Rates Have Room to Rise

10 Yr. Treasury Inflation Protected Security Rates, Constant Maturity %



Chart 9. Yield-Free Cash Chased Risky Assets

Cash Allocation % of U.S. Individual Investors



Crisis. This aggressive de-risking activity from hedge funds certainly contributed to recent equity market losses.

Hedge fund selling created even more severe losses for those invested in so-called crowded positions, where hedge fund ownership is particularly concentrated. Hedge fund crowding has been an issue that we have discussed frequently over the last few years. More importantly, it has been a factor that we have actively worked to minimize in our hedge fund strategies by moving away from large, commonly known hedge funds that invest in the same or very similar securities. These widely available funds are often found on broker-dealer and trust company platforms and their recent poor performance likely continued the underwhelming experience of their investors who do not have access to a differentiated set of investment solutions.

Central bank liquidity withdrawal is shifting both retail and institutional investor psychology, creating a more volatile environment with more downside risk. While this doesn't mean the market can't go up, we expect this change will act as a headwind for asset prices and remove the buy-the-dip mentality that has been so prevalent. To wit, the U.S. market rebounded nicely in January after entering 2019 in a dramatically oversold position as many hedge funds covered short positions.

The Revaluation of Risky Assets

The market decline in the fourth quarter led to a significant de-rating of equity valuations. **Chart 11** shows peak 2018 price-to-earnings valuations and, in contrast, where they stood at year-end, with percentiles compared to their history. Except for emerging market equities, which began the year at an attractive valuation and have now reverted to their cheapest historical quintile, all other asset classes traded at elevated valuations before reverting to something closer to their historic median levels.

Chart 10. Sharp Hedge Fund Deleveraging

Gross Leverage for U.S. Equity Long/Short Funds in 2018 (%)

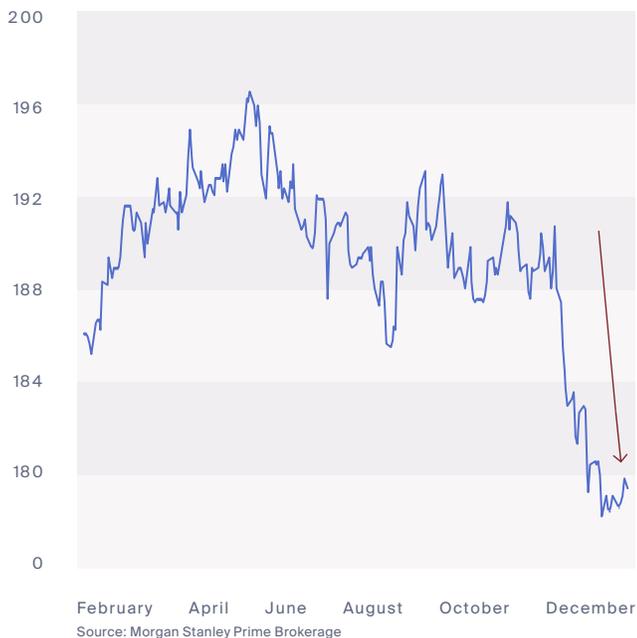
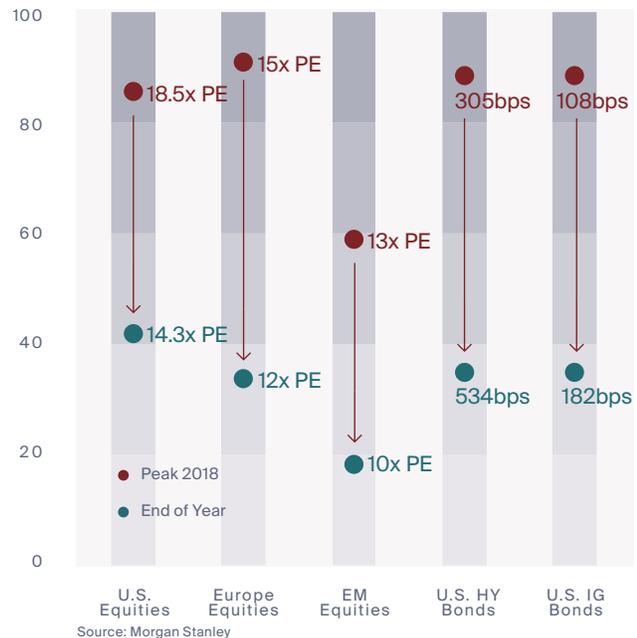


Chart 11. Valuations are More Reasonable

2018 Valuations as a % of Historical Valuations



The recent market de-rating has been quite severe in an historical context, as shown by the steep declines on the right side of **Chart 12**. According to JP Morgan, over the last 100 years, there have been only 20 episodes when P/E multiples contracted more than 20%, which places the recent declines in select company. Currently, the S&P 500 trades at 15.3x 2019 earnings estimates after troughing at 14.3x in December. These ratios are now near or below both their five-year (16.4%) and 10-year averages (14.6%). International markets continue to trade at a relative discount to these multiples, which may be warranted given their slower earnings growth estimates.

Beyond equities, it is also worth noting that credit spreads have widened. High-yield spreads have increased to 535bp after rising more than 200bp in the past three months. While this seems like an attractive entry point, history suggests that credit spreads can go much wider. As we will discuss in greater detail, we remain cautious on credit, where structural liquidity challenges might prove acute if earnings growth slows and the risk of recession increases. We recommend continuing to underweight bonds, particularly credit, as the incremental benefits are limited and the risks are increasing.

The good news for investors is that lower valuations like these typically lead to higher returns in the future. And after recent declines, return expectations for riskier assets appear to be more attractive and closer to their post-1990 historical averages. However, investors should remain cautious in viewing P/E ratios by only examining price movements alone without examining what now appears to be weakening earnings. The equity market may not be as cheap as investors believe if earnings revisions continue to trend downward.

Chart 12. Sharp Equity Market De-Rating
Forward Price/Earnings Ratio

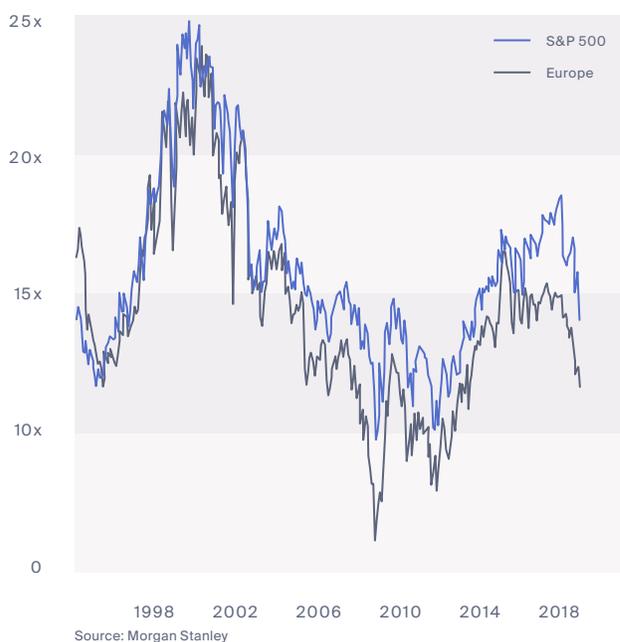


Chart 13. Tax Reform Drives Earnings Spike
Trailing 12 Month EPS for S&P 500 in \$



Earnings and Fundamentals

It can easily be argued that the outperformance of U.S. equities over the last two years was driven by exceptionally strong earnings growth relative to the rest of the world, as shown in **Chart 13**. The third quarter of 2018 represented a record ninth consecutive quarter of accelerating year-over-year growth, which is two quarters longer than the previous record. Most of this growth was due to corporate tax reform, which moved the U.S. corporate marginal effective tax rate from the highest among developed economies to a more competitive position just below the median. Does it matter that this bump was largely created by corporate tax cuts? No, not for past performance. But, it will matter for future performance to the extent that this is a non-recurring event and future earnings growth will need to be driven more by fundamental factors.

While tax-reform driven earnings growth has been exceptionally strong, the downside is that it creates a high hurdle for subsequent period earnings growth now that the one-time benefit is disappearing. Unfortunately, this prior period may have masked a lack of fundamental progress in U.S. corporations. A rising dollar over the last several years has hurt the competitiveness of U.S. multinational corporations and rising wages and input costs have begun to take a toll in some sectors. Yes, gross margins remain near record levels, but operating margins are starting to come under pressure. As we look into 2019 and the benefits of tax reform abate, true earnings growth will be exposed for all to see.

Let's start by reinforcing that there is plenty of good news on the U.S. economy and posit that a recession, which some analysts are predicting for 2019, is unlikely. Business surveys are still expanding, same store sales for the 2018 holiday spending period were among the best in the last 20 years, wages are rising across all income levels and consumer confidence, despite recent market corrections and a government

Chart 14. Earnings Revisions Turning Negative
Global Corporate Earnings Revisions (3 Month Moving Average as %)



2010 2011 2012 2013 2014 2015 2016 2017 2018
Source: IBES, JP Morgan Asset Management
Number of Positive Revisions Less Negative Revisions as % of Total Companies



After a six-year period of consistent downward revisions, tax reform helped earnings exceed expectations. Unfortunately, it appears we are reverting back to disappointment.



shutdown, remains high. Additionally, U.S. households are in much better shape than they were a decade ago. Homeowners' equity has now surpassed 2007 peaks and household debt and debt service levels have declined, which were of great concern in the aftermath of the Global Financial Crisis.

However, U.S. and global growth rates appear to be slowing and may decline to below 3.0%, and corporate earnings growth appears set to follow a similar pattern. Prior to corporate tax reform, we experienced a period of slowing growth during which future optimism was consistently giving way to declining earnings estimates. **Chart 14** shows the steady downward revisions of earnings estimates for 2012 into early 2017. Earnings finally started to meet or exceed expectations in late 2017 and then estimates exploded upward with the news of tax reform. For 2019, we are once again seeing the old pattern of downward revisions. Currently, analysts are projecting earnings growth of 6.8% for 2019 in contrast to estimates two months ago of 8.8%. Some analysts expect year-over-year earnings comparisons will turn negative in 2019. Upcoming earnings announcements will be a critical litmus test for equity markets and will be a key ingredient for determining future market direction. We believe caution is warranted.

What does all this mean?

Stimulus and liquidity withdrawal are easier for markets to withstand when economic and corporate earnings growth are stable or improving. Unfortunately, we are likely to experience slowing in both areas. The primary question for investors, therefore, is whether the market is discounting this slowdown in the recently reduced valuations. Our belief is that weakening fundamentals will offset improved (lower) valuations, leaving us in a less favorable position than most investors realize. As a result, equity returns will likely remain muted for the foreseeable future and return patterns will be more volatile. Investors should ensure they are comfortable with this increased volatility and can withstand these declines.

Emerging Markets and China

Gresham has advocated emphasizing emerging market ("EM") equities for the last several years based on more attractive valuations relative to U.S. equities, research inefficiencies in these markets and the potential to find companies with stronger growth prospects. While EM equities meaningfully outperformed U.S. equities in 2017, the majority of this relative outperformance was given back in 2018.

When we discuss EM today, it is important to understand the China-centric evolution of these markets over the past twenty years. In 1998, Brazil and Mexico were the largest two countries in the MSCI Emerging Markets Index, each with a weight of 11.5%. At the end of 2018, China alone constituted over 30% of this benchmark. Further, as we discuss later, these index weights currently include almost no weighting for Chinese A-Shares, which is the second largest equity market in the world behind the U.S. Relatedly, South Korea and Taiwan, which are highly intertwined with the Chinese manufacturing supply-chain complex, now constitute 13.7% and 11.4% of the index, respectively. As a result, it could easily be argued that China-related companies now constitute nearly half of this benchmark. In many ways, EM investing, particularly by traditional benchmark-centric investors, have become a focused bet on China and will be increasingly so as A-Shares become more accurately represented in the benchmark.

Similarly, the sector composition and top holdings of the MSCI EM Index have changed significantly to reflect the rise of the consumer and specifically the Chinese consumer. In 2008, Chinese technology firms comprised just 13% of the EM index, whereas today, two Chinese technology giants, Tencent and Alibaba, collectively account for 9% of the index on their own. Broadly, the technology, consumer and healthcare sectors aggregately now comprise over 40% of the index, while the financials, energy, and industrial sectors have shrunk to roughly the same level, and this is just since the Financial Crisis, as shown in **Chart 15**.

It should be no surprise then that a combination of seemingly narrow concerns centered on a Chinese trade war and the Chinese government’s tightening of financial conditions, to reduce shadow banking problems and regain better control of lending activity, were the primary drivers of EM equity market losses in 2018. Additionally, EM losses last year were compounded by idiosyncratic problems in Turkey and Argentina, and by populist challenges in Greece and Italy. Although it may not be dispositive for identifying a market bottom, it is interesting to note that these markets were relatively more stable during the fourth quarter of 2018 when U.S. equities reached bear market territory, highlighting a very unusual pattern. More specifically in October, when the U.S. market suffered significant declines, China losses were tempered, Turkish equity markets were flat and Brazil equities posted a sizable gain.

As we enter 2019, the picture for EM equities appears to be improving. We believe that the underperformance of EM equity markets is likely to have found a floor and the stage may be set to resume the outperformance we witnessed in 2017. Investor concerns over slowing growth globally and a trade war in China now appear fully discounted in

Chart 15. China Market Transforming

Share of MSCI EM Index in %

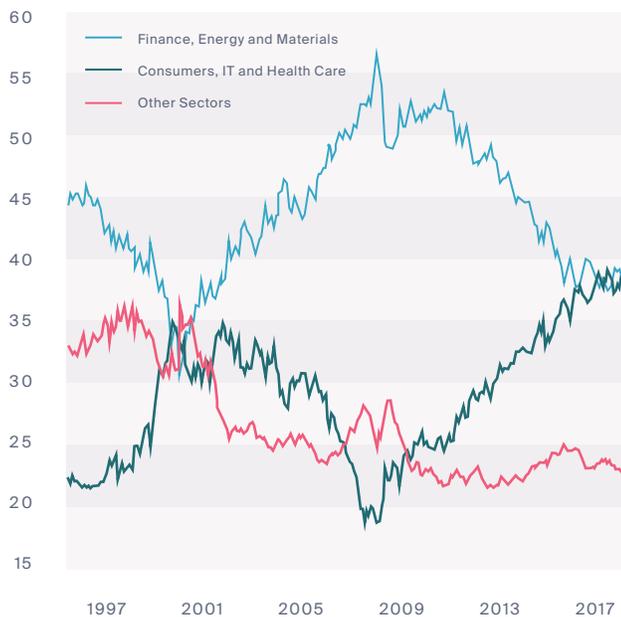


Chart 16. EM Earnings Growth Remaining Strong

Trailing 12 Month EPS in U.S. \$



current share prices. Additionally, if the EM currency index, which has declined nearly 40% since 2012, including a 10% decline of the Chinese renminbi (“RMB”) in 2018, merely stabilizes, a significant performance headwind will be alleviated.

Most importantly, EM earnings are continuing their upward recovery after six years of stagnation, as shown in **Chart 16**. Relatedly, we expect the recently initiated Chinese stimulus to begin gaining traction in the second quarter and beyond, which will assuage concerns of slowing economic growth. EM equity valuations have become even more compelling during the recent market declines as earnings remained robust. **Chart 17** shows the price-to-earnings discount of EM equities relative to U.S. equities. Additionally, a recent JP Morgan study suggested that investors’ allocations to emerging and frontier markets are hovering near their all-time lows, which should provide market support as this allocation normalizes. The combination of these factors provides a solid foundation for future EM equity market performance and a likely resumption of the outperformance we witnessed in 2017.

China Trade War

One of the primary concerns for EM and China investors in 2018 was the percolating U.S.-China trade dispute. As we enter 2019, this issue continues to loom over investors as the stated March 1 deadline for resolution approaches. Our view is that this risk is priced into capital markets through both RMB declines and equity market de-rating.

While we don’t want to understate the potential importance of the trade conflict if left unresolved, Chinese exports to the U.S. have actually increased since tariff discussions began in early 2018. Further, since the middle of the first quarter of 2018, the Chinese RMB lost nearly 10% against the U.S. dollar, which most analysts believe has already offset the trade shock from the 25% tariffs set to be imposed. Regardless of

Chart 17. EM Equities Even Cheaper
Forward Price/Earnings Ratio

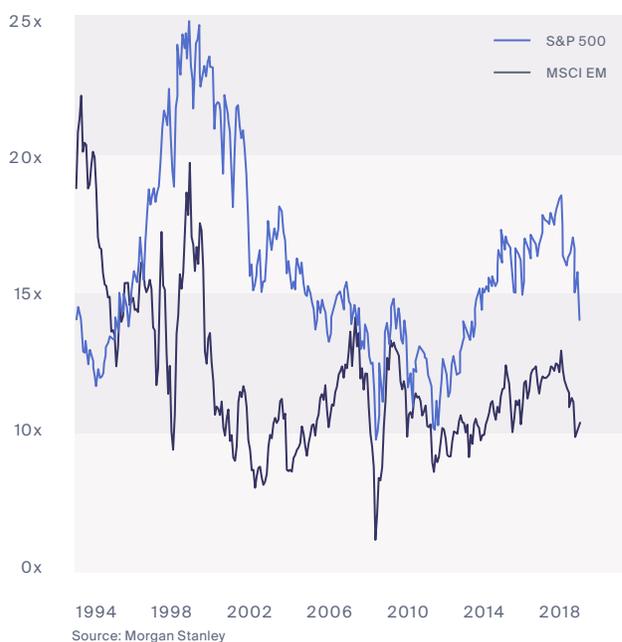
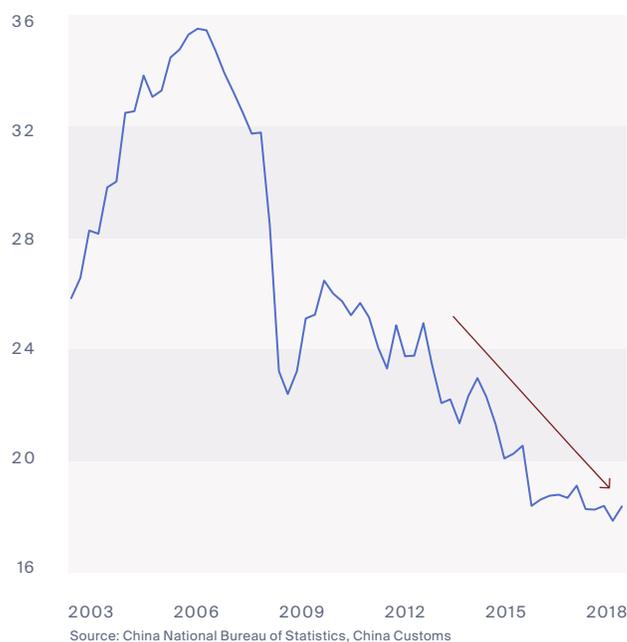


Chart 18. China Economy Becoming More Consumer Driven
China Exports as a % of GDP



how or when the trade conflict is resolved, the importance of exports to the Chinese economy has declined significantly over the last 15 years. As shown in **Chart 18**, Chinese exports as a percentage of GDP have declined from roughly 36% prior to the 2008 Financial Crisis to 18% in 2018. Furthermore, over this same period, China's current account surplus, a source of friction with the U.S. when it peaked above 10%, is now bordering on a trade deficit. The Chinese economy today is very different and much more balanced towards investment and consumption rather than the exporting juggernaut it was 15 years ago.

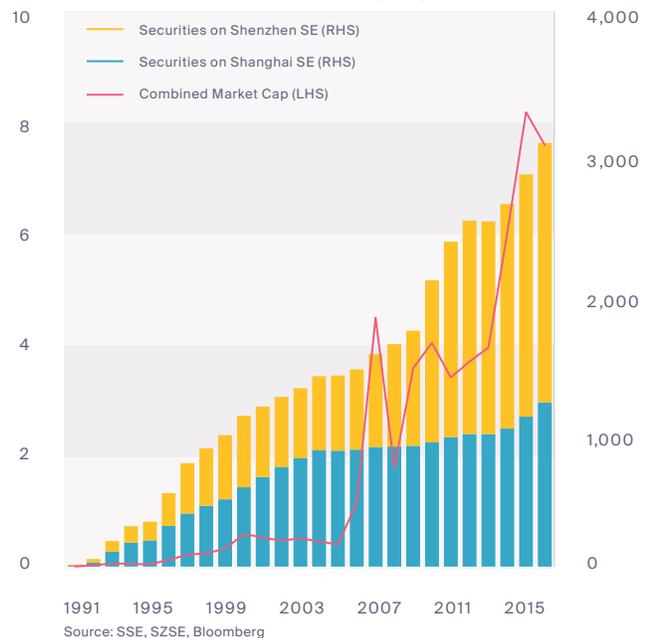
On a side note, one positive aspect of the 2018 depreciation in the Chinese RMB is that the declines were market driven and the People's Bank of China was not forced to intervene as it did in 2016, which sparked frightful capital outflows. This time, foreign investors continued to invest in local Chinese stocks and the net flows were positive. While only a single data point, this is a positive sign for the maturation of the Chinese markets, the stabilization of cross-border capital flows and China's continued evolution into a functioning member of the global financial system.

Spotlight: Chinese A-Shares

Chinese A-Shares are the largest market that most people have never heard of. Historically inaccessible to foreign investors, A-Shares trade on the Shanghai and Shenzhen Stock Exchanges and are denominated in RMB. Most Chinese companies that investors know are listed on the Hong Kong Stock Exchange ("H-Shares") or on one of the U.S. stock exchanges. Even the most widely followed Chinese equity market indices, such as the Hang Seng Index, are comprised of only H-Shares. Even the world's largest index providers, MSCI and FTSE Russell, didn't include A-Shares in their indices until the middle of 2018. However, important changes are occurring and we believe the A-Share markets represent one of the more compelling investment

Chart 19. Chinese A-Share Explosive Growth

Market Capitalization, Billion \$ (LHS) and
Number of Listed A-Share Securities (RHS)



China A-Shares are the largest market no one has ever heard of. It is likely just a matter of time before these markets surpass the U.S. to become the largest in the world.



opportunities in the world, both in the near-term and the long-term, but they are not without their unique risks.

Market Background

Securities trading began in Shanghai in the 1860s, but the current Shanghai Stock Exchange was established in 1990 following a four-decade moratorium. After only 25 years in existence, the A-Share market, which includes stocks listed on both the Shanghai and Shenzhen Stock Exchanges, has grown at an astonishing pace, reaching a total market capitalization of nearly \$9 trillion, before the recent declines, with over 3,000 combined listings, as shown in **Chart 19**. At the beginning of 2018, this market had nearly twice the market capitalization and over five times the volume of its Hong Kong H-Share counterpart. In a global context, A-Shares are collectively now the second largest exchange in the world behind the U.S. by both metrics. While not imminent, it is likely just a matter of time before A-Shares become the largest equity market in the world.

The QFII and Connect Programs

So why do so few global investors understand and allocate to A-Shares? It wasn't until 2003, when the Chinese government instituted the Qualified Foreign Institutional Investor ("QFII") program, that a select few large institutional non-Chinese investors were first allowed access to these securities. Prior to this time, foreign investors were restricted to a limited subset of companies listed on the Hong Kong Exchange. As of mid-2018, only 300 investors, with a total QFII allocation of only \$100 billion, had been granted access. This lack of accessibility is the main reason index providers avoided adding A-Shares to their global equity market indices.

In 2014, access to A-Shares improved dramatically with the advent of the Shanghai-Hong Kong Connect program, whereby foreign investors were allowed to purchase Chinese listed A-Shares through Hong Kong-based brokers. In 2016, a similar program was initiated with the Shenzhen Stock Exchange. Today, these Connect programs provide off-shore investors access to about 1,800 listed companies, comprising over 80% of the market capitalization listed on these local exchanges. Stock Connect is rapidly establishing itself as the primary channel to access A-shares and has prompted index providers to change their positions with respect to inclusion in their indices.

Index Inclusion

After declining to add A-Shares to its EM Index for the last three years, MSCI finally agreed to their inclusion in 2018. To avoid disruption to benchmark-oriented investors, MSCI limited their initial Inclusion Factor to 5%, meaning that the weighting of mainland Chinese equities would represent only 5% of their actual free float. At this low level, A-Shares currently represent only 0.8% of the Index.

So why do we care? If the Chinese governing authorities continue to liberalize access and institute reforms, which is consistent with both their stated intentions and past behaviors, MSCI plans to increase their Inclusion Factor. If this were to fully occur, Chinese equities would comprise more than 42% of the MSCI Emerging Market Index, with A-Shares alone accounting for about 16% of the index.

Unique Risks

Beyond the usual risks present in non-U.S. markets, such as currency fluctuations and the lack of quality of financial disclosures, the Chinese equity markets present

several additional risks that investors should examine carefully. First, the investor base is still predominantly retail, with the latest estimate suggesting that over 80% of these investors are not financial institutions. Relatedly, there is limited sell-side institutional research. As a result, investment flows tend to be dominated by speculation and emotion rather than investment fundamentals. This has led to heightened volatility and significant market declines, as we witnessed in 2015 and more recently in 2018.

A-Share markets are not directly shortable and there is not yet a true arbitrage mechanism to eliminate the valuation differences between shares of the same company listed in Hong Kong and on the mainland. This has contributed to periods of frustratingly high valuations and large divergences from a company’s fundamental value, which in turn has contributed to high realized volatility in these markets that far exceeds that of other emerging markets, as shown in **Chart 20**. For example, since 2010, Chinese A-Shares have experienced nearly 40 weeks with more than a 5% move. This is double the number of such volatile weeks for emerging markets and more than triple the number for U.S. markets.

A-Share markets also include a significant portion of state-owned enterprises (“SOEs”). These companies tend to be larger and less liquid due to the more limited amount of their free float. At times, these companies can represent good value, but their operating results are often subject to non-economic policy decisions by the government.

Trading suspensions are an additional challenge. A-Share investors will remember the summer of 2015 when, during extreme market conditions, numerous companies opted to suspend trading of their shares to avoid dramatic price declines. During this

Chart 20. China A-Shares are Volatile

Annualized Standard Deviation, February 2007 - December 2018 (%)

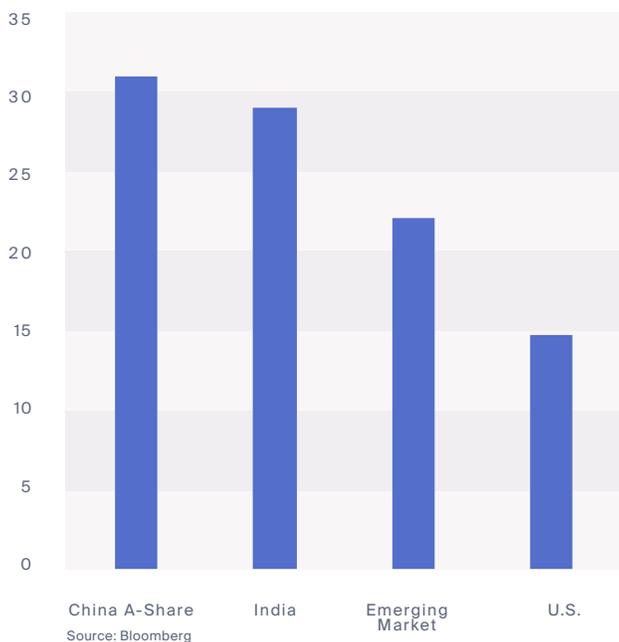
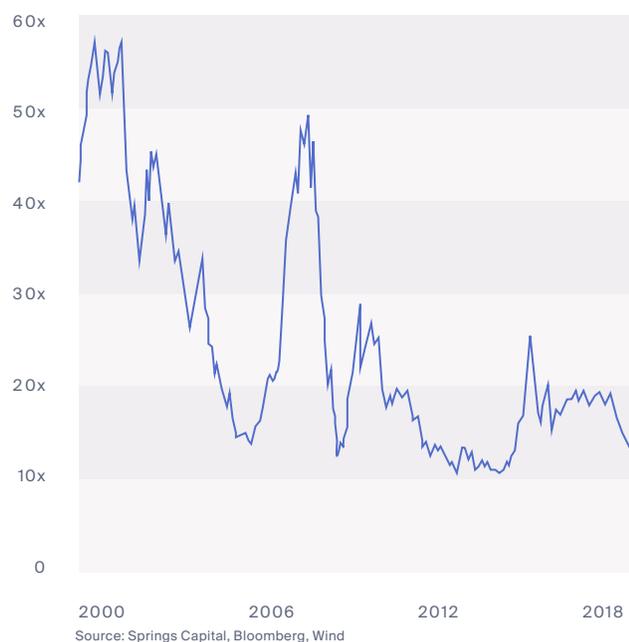


Chart 21. A-Shares are Becoming Cheap Again

Trailing 12 Months Price/Earnings Ratio



period, the government gave companies free rein to halt trading in their shares in a misguided attempt to manage market volatility and stem losses. The market still lost 40% over three months and an estimated 25% of mainland stocks were suspended from trading.

New regulations that limit the allowable reasons for suspension were issued in 2016 in the aftermath of this confidence-eroding event and they appear to be working, even during the sharp declines in 2018. According to Gavekal Research, the number of stocks suspended from trading actually fell in 2018, from 203 (5.9%) to just 13 (0.4%) at the end of the year, which is comparable to or better than general international levels.

While we expect ongoing reforms will continue to reduce these inefficiencies, we believe that A-Shares remain a fertile investment area for a creative and flexible manager not beholden to benchmark hugging mandates.

Current Investment Opportunity

A-Shares were the world's worst performing major equity market in 2018. Last year, the Shanghai and Shenzhen markets declined 24% and 32%, respectively, on a slew of bad news comprised of slowing growth fears, trade war uncertainty and the retraction of liquidity from government reforms. While some of these concerns will linger, there are several reasons to view these investment markets favorably.

These declines have significantly improved valuations, which are now approaching the lows we witnessed in 2014, as shown in **Chart 21**. Nearly every sector of the A-Share market is trading below its 20-year median price-to-earnings and price-to-book ratios, with some sectors trading in their cheapest quarter or decile.

By the end of February, MSCI will announce whether it will increase its A-Share Inclusion Factor later this year from 5% to something as high as 20%. Market reforms, such as increasing quotas for the exchange Connects and the reduction in stock suspensions, should be positive factors in their decision. Additionally, FTSE's initial inclusion of A-Shares in its index later in 2019 should be another powerful boost to investor demand. Analysts estimate that more than \$50 billion per year of investment inflows could result simply from the rebalancing required by active managers and index funds just to stay neutral to index weights.

Gresham has been investing in these markets for several years through local managers that have flexible, non-benchmark-oriented mandates. The inefficiency that exists within a market of this size is unfathomable for western investors accustomed to the efficiency of developed country equity markets. Today, valuations are dramatically improved, although the recent adjustments were painful, and provide investors with an attractive entry point or rebalancing catalyst. We recently allocated additional capital into the Chinese markets and we have seen several of our opportunistic managers rotating capital into A-Share opportunities.

Credit Market Concerns

While it is nearly impossible to predict the origin of the next crisis, credit markets are a likely candidate. Ironically, for a firm like Gresham whose investment approach is grounded in fundamentals, our concern stems as much or more from the technical structure of credit markets, its impact on liquidity and the downside risk it creates for investors.

During the ultra-low interest rate environment of the last 10 years, corporations responded rationally by issuing massive amounts of debt. **Chart 22** shows U.S. corporate debt as a percentage of GDP over the last few decades. It is interesting to note that in prior cycles the corporate-debt-to-GDP ratio spiked as we entered a recession, when GDP was contracting. Although a recession is unlikely in the near-term, as we have already discussed, corporate debt levels are already accelerating to a record level.

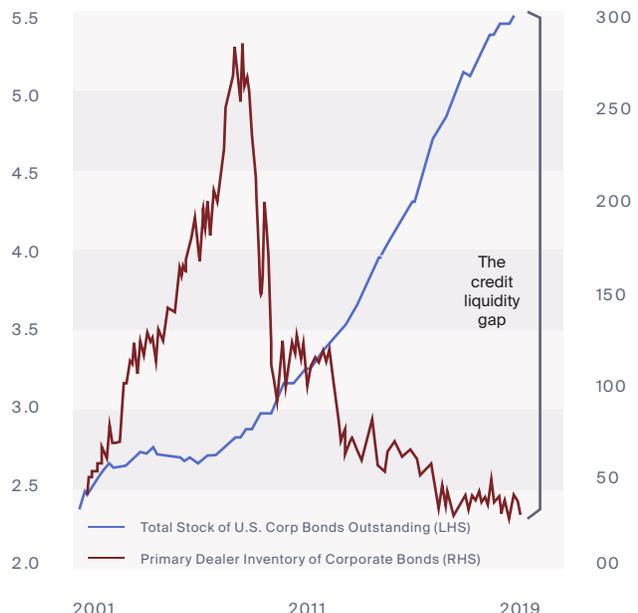
Prior to the Great Financial Crisis in 2008, U.S. corporations had just over \$2.5 trillion of investment-grade debt outstanding. Banks, as the primary market clearing agents at the time, had nearly \$300 billion or roughly 10% of this debt positioned in inventory – roughly 10% of total corporate debt outstanding. Today, the U.S. investment-grade corporate debt market has more than doubled to roughly \$5.5 trillion, with below-investment-grade or “junk” bonds adding an additional \$2.5 trillion. This staggering growth has occurred at the same time that underlying liquidity mechanisms have nearly disappeared. Due to the Volcker Rule and other regulatory changes, most of which analysts would argue have made the banking system less risky, banks now hold in inventory only about \$40 billion or less than 1% of the total amount of outstanding investment-grade corporate debt, as shown in **Chart 23**.

Chart 22. Record Corporate Debt Levels
U.S. Corporate Debt as a % of GDP



Source: Haver Analytics, Gluskin Sheff
Shaded areas represent recessions.

Chart 23. Troubling Corporate Bond Liquidity
Trillion \$ (LHS), Billion \$ (RHS)



Source: Deutsche Bank, FRB, Haver Analytics, D6 Global Research

The other important structural change that has occurred over the past 10 years is that retail investors, in a quest for yield in a yield-less environment, have poured huge amounts into corporate bond and high-yield ETFs. Prior to the Financial Crisis, corporate bond ETF assets totaled \$15 billion, an insignificant fraction of total bond inventory and banks' ability to provide liquidity. Today, corporate bond ETF assets exceed \$300 billion, approaching 10 times the size of U.S. banks' inventory, almost all of which is in the hands of retail investors whose ETF shares provide them daily liquidity!

Compounding our concern is the relatively low quality of issuance we have experienced. Today, over \$3.2 trillion dollars of outstanding U.S. investment-grade corporate debt is rated "BBB" – the lowest rating qualifying as investment grade. This is the highest level in history and it is rivaled only by the post-tech bubble when a large percentage of debt was downgraded to BBB, as shown in **Chart 24**.

If corporate earnings growth slows as we anticipate, or earnings actually decline, downgrades will accelerate and investors will be forced to sell bonds for non-investment reasons. Fixed income investors often have ownership restrictions tied to the rating of a bond and there is a large divergence in the ability of investors to own a bond that is rated investment grade vs. non-investment grade. If we begin to see an acceleration of downgrades with the preponderance of debt already rated BBB, the downgrades will move a lot of bonds into "junk" territory and likely trigger significant amounts of forced selling, which is likely to overwhelm the reduced capacity of market makers to provide liquidity.

Chart 24. Quality Shrinking as Market Grows

Trillion \$ (LHS), % (RHS)

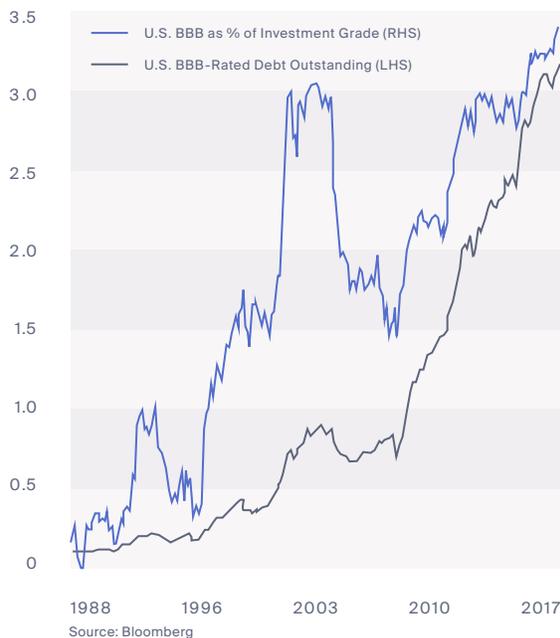
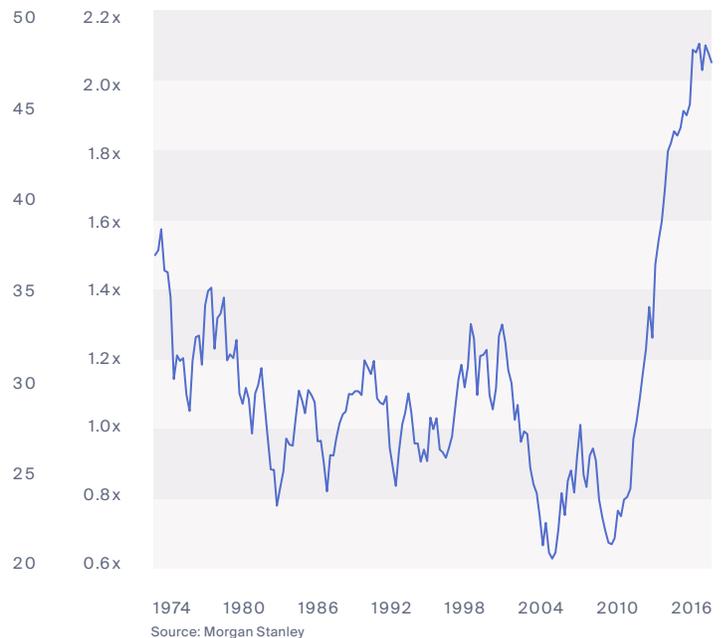


Chart 25. Corporate Leverage has Exploded

Median Net Debt-to-EBITDA Ratio for Largest 1,500 U.S. Stocks



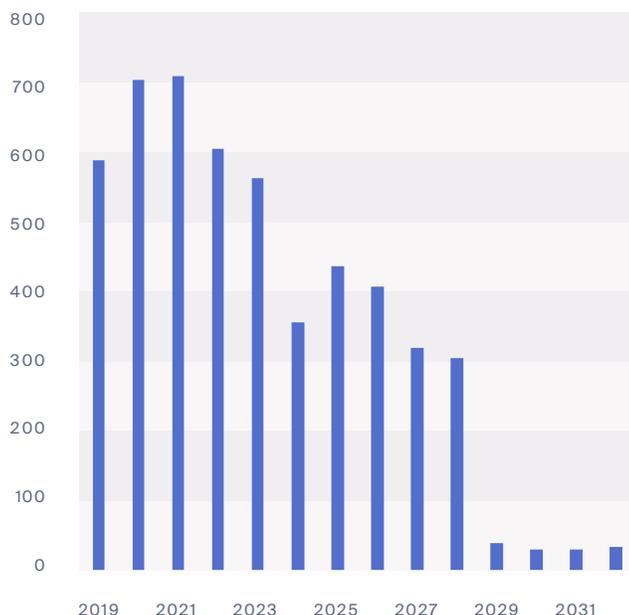
Additionally, corporate bond issuance has outstripped the growth of corporate fundamentals. Today, the median leverage of the largest 1,500 stocks is at record highs, as shown in **Chart 25**. Unfortunately, investors are not fully aware of this problem because debt service coverage ratios still appear very healthy, with low interest payments resulting from low interest rates. For companies in the S&P 500, interest expense as a percent of operating income has declined from 30% in the early 1990s to under 15% today. Unfortunately for corporations and investors, nearly two-thirds of this debt is coming due in a “wall of maturities” that will require refinancing over the next few years, as shown in **Chart 26**. These excessive debt levels coupled with the higher interest expense burdens that will result when these obligations are refinanced at higher interest rates could easily trigger a wave of downgrades and defaults.

Investors have been sleepily pouring money into these yield-bearing instruments, even as yield spreads reached record lows in 2018 and risks have reached record highs. When stressed selling in the corporate bond market begins, we believe investors will suffer losses far greater than their relatively safe expectations for the asset class would suggest. In the fourth quarter of 2018, we may have seen the first crack in this market. On limited fundamental news and relatively benign selling pressure, corporate spreads spiked wider by 200 basis points, coming off near-record lows, as shown in **Chart 27**.

Now is not the time to own corporate or high-yield bonds. Patient capital should wait until after an unwind rather than stretching for yield in an environment that is not rewarding investors for the risks that have developed in these markets. Hyman Minsky would be proud.

Chart 26. A Wall of Maturities is Coming

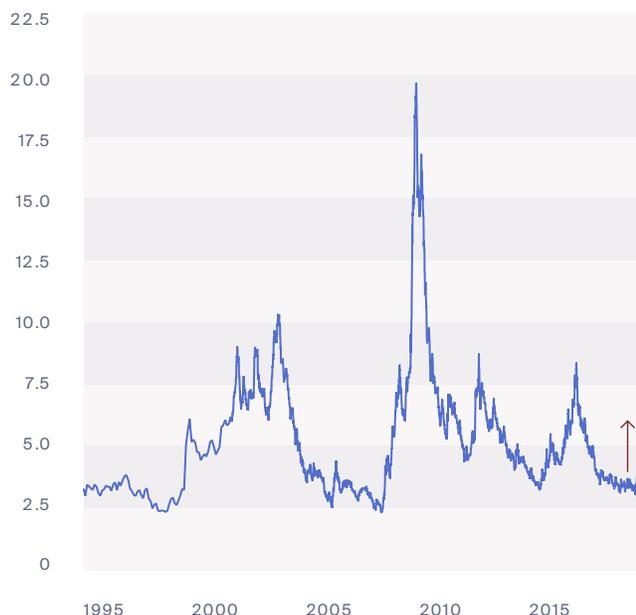
Billion \$



Source: Goldman Sachs
Note: Corporate Debt Maturities for Largest 1,500 U.S. Stocks

Chart 27. Spreads Spiked Wider with Limited Selling

U.S. High-Yield Spreads, %



Source: BCA Research

For years, analysts have warned about too much capital flooding into private equity and venture capital. Indeed, institutional investors continue to increase their allocations to private equity. According to Preqin, the share of institutional investors with target private allocations above 10% has more than doubled over the past four years to 45%. Further, a survey of these investors suggests that nearly 40% plan to increase their private equity allocation in the next 12 months and over 50% plan to increase it over the longer-term. These planned allocation increases come despite nearly none of these investors suggesting that it is easier to find attractive investment opportunities and over 50% of them actually suggesting the opposite.

Because of this high investor demand, U.S. private equity fundraising remains strong. While it failed to reach record levels last year, it remained high by historical standards, as shown in **Chart 28**. Private equity fundraising reached \$166 billion in 2018, which was a 25% decline from 2017. Most of this decline was due to relatively few so-called “mega-funds” closing during the year, with Carlyle and Hellman & Freidman leading the way with \$18.5 billion and \$16.0 billion funds, respectively.

Is there too much money in private equity? Possibly, but not to the extent that some commentators believe. To answer this question by looking at only fundraising commitments misses half of the story. Private equity managers are perpetually selling portfolio companies and distributing capital back to their investors. In fact, the pace of distributions from private equity funds has closely tracked new fund commitments over the last decade, as shown in **Chart 29**. The distribution numbers for venture capital, where fundraising concerns are arguably even greater, consistently exceed fund commitments. With the proverbial distribution spigot returning capital to investors, investment capital is rising, but not to the point of panic.

Chart 28. U.S. Private Equity Fundraising Appears Large
Capital Raised in Billion \$

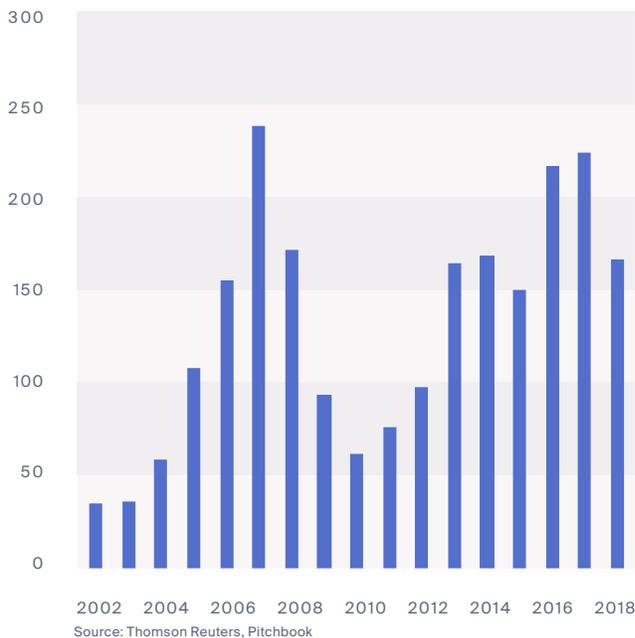
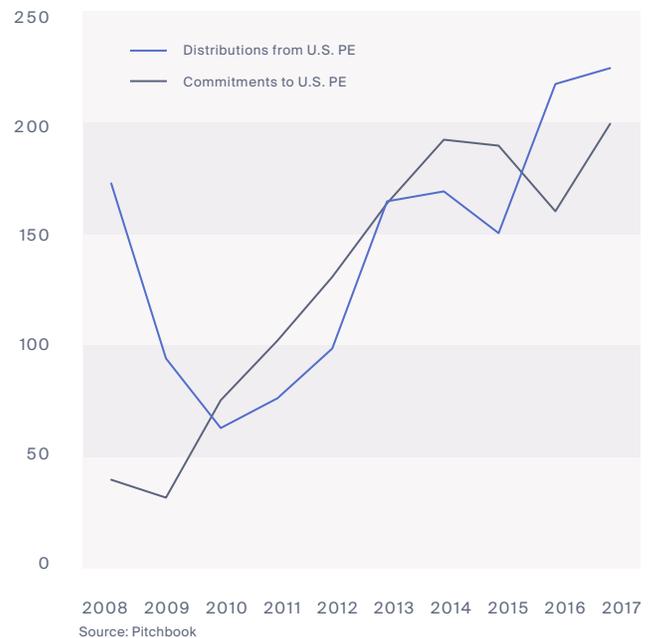


Chart 29. Distributions Keeping Pace with Fundraising
Billion \$



**High Prices and
“Covenant-Lite”
Loans**

While overall capital levels are not excessively concerning, we are concerned about several aspects of the private equity environment. First, the old adage “when fundraising is easy, then investing becomes difficult” is true. The concentration of capital in large mega-funds has created a challenging pricing environment, as shown in **Chart 30**. The grey line shows that larger deal sizes, which are typical of larger funds, consistently require higher purchase prices. Generally, higher prices paid for assets lead to lesser investment returns.

Interestingly, in the 10-year bull market since the Global Financial Crisis, larger managers do not yet appear to have paid a significant performance cost for paying higher prices for companies. According to Cambridge data, the median returns of managers with funds above and below \$750 million during this period are not materially different...yet. It also appears that larger managers are compensating for the higher prices they are paying by using more debt. These two risks and the potential for larger losses they create will likely not manifest themselves until we reach a down cycle, as we saw with pre-crisis vintages. Investors should remain mindful of the hidden risks inherent in some of these mega-funds, particularly as we approach the end of the current cycle.

One other area of concern, particularly with larger, levered deals is the quality of that leverage. While leverage levels have not risen further from their already high levels, we are concerned about the terms of leverage, specifically the lack of covenants that provide protection for bond holders. **Chart 31** shows the percentage of so-called covenant-lite loans. Before the crisis in 2007, investors were concerned about the prevalence of these types of loans. Today, these protection-free loans have become

Chart 30. Larger Private Deals are More Expensive
Median Purchase Price as a Multiple of EBITDA

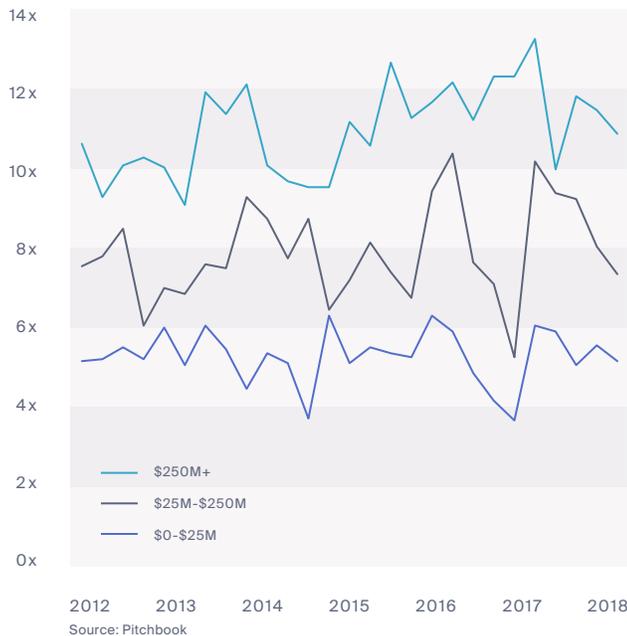
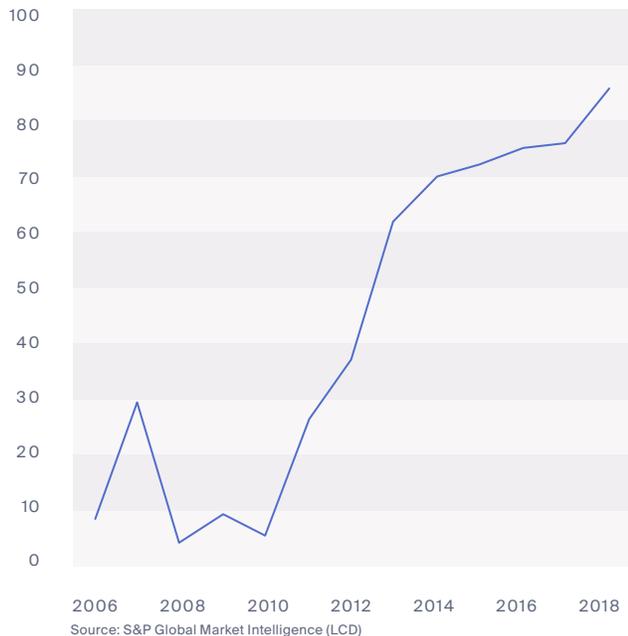


Chart 31. Loan Quality Continues to Decline
Covenant-Lite Loans as a % of New Loans Issued



the norm, reaching nearly 90% of all loan issuance. This further heightens our concerns about pending trouble in the credit markets that we discussed earlier.

Going forward, we remain optimistic about opportunities in private equity and venture capital. Specifically, we continue to target small- and middle-market buyout funds, and opportunistically invest in international private equity. Additionally, we continue to support venture capital investments where innovative companies continue to aggressively disrupt traditional business models. Our venture capital focus remains in the U.S. and China, and on early-stage investments where valuations are more reasonable, but failure rates are also higher. Successful private investing remains a bottom-up, manager-selection endeavor, but investors should not ignore the macro environment that creates tailwinds for specific areas of the private markets.

Investment Themes

Cash

With four more interest rate hikes in 2018, cash now offers positive real (after-inflation) yields for the first time in nearly six years. For the last two years, we have recommended that clients hold a cash buffer against our concerns regarding elevated equity valuations and the impact of passing “peak central bank.” Those concerns, or at least the canary in the coal mine, were realized in the fourth quarter with significant losses to risk assets. While equity markets around the world have de-rated and some investors may want to nibble, we expect volatility in equity and other risk assets to remain high. A cautious stance and some additional cash in the portfolio may still be prudent.

Bonds

Interest rates have moved higher, but most of the rise has caused the yield curve to flatten, with short rates rising more than long rates and the 10-year Treasury reaching 3.30% for a moment before rallying back to lower yields. Longer-maturity bonds now provide limited incremental yield benefit beyond investing in cash to warrant accepting the duration risk (interest rate sensitivity) associated with extending out the yield curve. We are particularly concerned about the credit market. While a recession and a severe spike in defaults is unlikely – although possible – we simply believe that credit market liquidity is insufficient to support a normally functioning market should stressed selling occur. We witnessed the first tremor of this during the fourth quarter of 2018 when credit spreads widened far beyond what fundamentals would suggest. We continue to recommend minimizing exposure to bonds – cash is a better alternative – and particularly credit.

U.S. Equities

The significant de-rating of U.S. equities in the fourth quarter, exacerbated by hedge fund deleveraging and decreasing central bank liquidity, created a more reasonably valued equity market that is now closer to 5- and 10-year average valuations. Generally, this would be a positive for equity market investors and forward-looking return expectations. However, one factor offsetting this positive view is the erosion of forward earnings estimates. Equity markets may not be as cheap as some analysts believe when we see actual earnings results in 2019. We recommend maintaining equity exposure generally, which may require some rebalancing toward this element of the portfolio given recent losses.

International Equities

Developed-country equities experienced similar declines to U.S. equities over the course of the year and still trade at a persistent discount to U.S. equities. Despite

lower valuations, the region in aggregate may deserve the discount, as slower and lower economic growth and earnings potential relative to the U.S. seem highly likely. We see pockets of opportunities, but European equities, like the host countries of these companies, are becoming increasingly difficult to evaluate homogeneously given their various populist political movements and a common currency that binds highly divergent economies and creates unique problems for each country.

Emerging and Frontier Markets

We have recommended overweighting EM equities for the last few years. While they significantly outperformed U.S. equities in 2017, most of this advantage was given back in 2018. We continue to believe that equity investors should maintain a favorable view toward EM and frontier markets due to lower valuations, higher earnings growth in selected companies, and greater inefficiency that provides stock-pickers an advantage. These markets will remain volatile and investors must have the ability to withstand significant drawdowns and even be willing to add into weakness to invest effectively in this area.

Hedge Funds

As we expected, the unwinding of crowded hedge fund positions exacerbated losses for investors in the fourth quarter of 2018. Many of the largest and most levered funds were forced to deleverage their portfolios to avoid further losses and, in many cases, locked in disappointing results for the year. We expect higher volatility and dispersion to become the new normal and, while this should help the average fund, the most popular hedge funds found on common broker-dealer and trust company platforms are far too large and lack the nimbleness required to fully exploit these opportunities. Hedge funds in less efficient markets than the U.S., and even in emerging markets, such as China, India and Latin America, are more likely to produce better results going forward.

Private Investments

Private investments remain the least efficient investment area offering outsized returns for top-quartile manager allocations. Private equity continues to be inefficient at the smaller end of the size spectrum, but highly competitive at the larger end, where valuations are high, leverage is more prevalent and the potential for true additive business transformation is limited. Venture capital investment both in the U.S. and China will continue to develop disruptive business models and remains an area of interest.

While this Annual Outlook does not provide our in-depth view on private real assets, we continue to believe the area is fertile investment ground. We expect select investments in high-quality energy areas to remain more attractive than traditional real estate. Real estate remains our least favorite asset in this area, as low-cap rates, high valuations and increasing efficiency continue to suppress potential future returns. The energy sector continues to evolve and has been buffeted by volatile commodity prices over the last three years. These disruptions are creating opportunities in specific basins as the U.S. production ramps to become a net exporter of energy.

About Gresham

Gresham Partners is an independent investment and wealth management firm that serves its clients as a multi-family office and an outsourced chief investment officer. Gresham has been serving select families, family offices, foundations and endowments since the firm was established in 1997. Today, we manage or advise on over \$6.5 billion for about 100 clients located nationally.

We are committed to providing superior investment performance by utilizing select, difficult-to-access managers that are located globally in a full range of asset classes and are not affiliated with Gresham. We make these managers available to our clients in a flexible format well suited to achieving a broad spectrum of investor goals. As a multi-family office, we integrate this investment approach with comprehensive wealth planning and management services to address the full range of each client's financial needs, often avoiding the need for them to maintain a family office.

Gresham is wholly owned by its senior professionals, client fees are its sole source of compensation, it avoids conflicts of interest that affect many other firms, and it serves its clients as a fiduciary, dedicated to serving their best interests.

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