

# End of the game or extra innings?



## Newsletter – 1Q 2019

As we enter 2019, we focus this quarter's newsletter on the question that is on everyone's mind: Is the current volatility signaling an end to the current cycle or is it simply another bout of drama similar to those that have punctuated similar periods of previous credit cycles. It is an important question because each scenario has materially different strategy implications. To address this question, we will rely on our three factor assessment of the current state of play in high yield ("HY") comparing the current environment to previous periods. The result of this assessment will form the basis of our HY outlook for 2019.

### Fundamentals

#### GDP and Core Inflation

As can be seen from Chart 1, US GDP has been growing near 3% for the past several quarters. The 2019 numbers represented on this graph show the average of economic forecasts by 100 analysts and are intended to highlight the consensus expectation for economic growth. Currently, the consensus is for real GDP growth to slow in the coming year, to approximately 2%. This is consistent with the implications of diminished benefit from the 2017 tax cuts, the government shutdown, and headwinds brought about by the imposition of trade tariffs, both imports and exports. The takeaway, however, is that consensus thinking expects a modest deceleration in growth, but does not forecast a dramatic slowdown or recession in the medium term.

**Chart 1: Real GDP and Core Inflation**

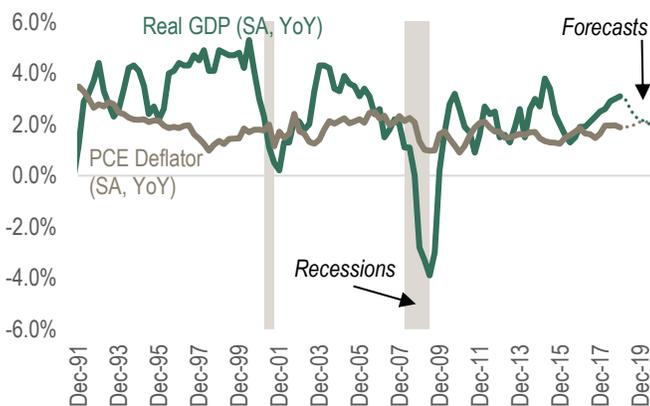


Chart 1 also shows the trajectory for Core Personal Consumption Expenditure (Core PCE). This measures the prices paid by consumers for domestic purchases of goods and services

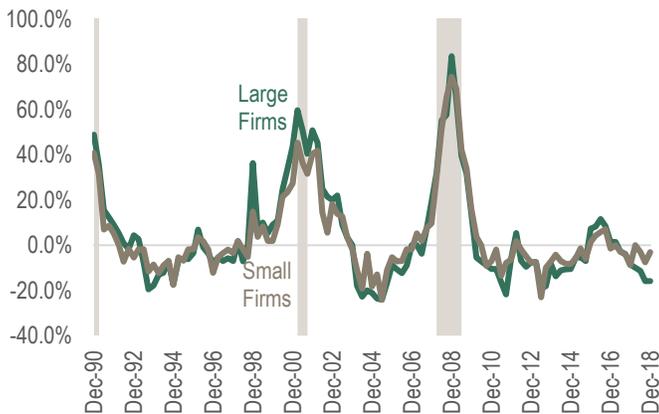
excluding volatile food and energy. This represents the Fed's preferred measure of inflation when assessing their dual mandate of price stability and full employment. As with the GDP series, consensus views the rate of change in Core PCE to be relatively well behaved in 2019, close at the Fed's stated 2% goal. Consistent with this consensus outlook, breakeven inflation rates across the term structure of the TIPs markets have fallen dramatically in the 4Q18. Over that period, the 5-year forward breakeven rate fell nearly 25 bps to end 2018 at 1.93% and short-end forward market expectation for a series of rate hikes in 2019 declined from nearly 90% to a current reading of just under 5%. These factors are important insofar as they suggest that the imperative for material tightening beyond current levels has significantly diminished. It is likely that in the coming FOMC meetings, the Fed will confirm that their data-driven approach is pointing toward more accommodation rather than tightening for 2019. Fed Chairman Powell already signaled a more dovish approach in early January by stating that the health of the economy would ultimately determine the course of policy.

#### Credit Creation

Important to any recovery is the self-feeding force of credit creation. The Fed Loan Officer Survey provides a useful perspective as it presents a diffusion index of loan officer orientation toward their readiness to lend. As can be seen in Chart 2, the survey's Net % of Firms Tightening Lending Standards of Commercial & Industrial Loans shows that the broad lending environment remains relatively constructive. After a brief period around the time of the Metals, Mining, Energy and Production contraction (2014-16) when banks moved to tighten standards, the recent trend has been more supportive. On average, loan officers continue to encourage the loan initiation process and only tighten standards when evidence emerges that lending outcomes are becoming more uncertain. In previous periods prior to a recession, lending standards have become notably more difficult well before the actual recession. The current Loan Survey reading offers only modest evidence of this, and it is currently centered on small firm lending.

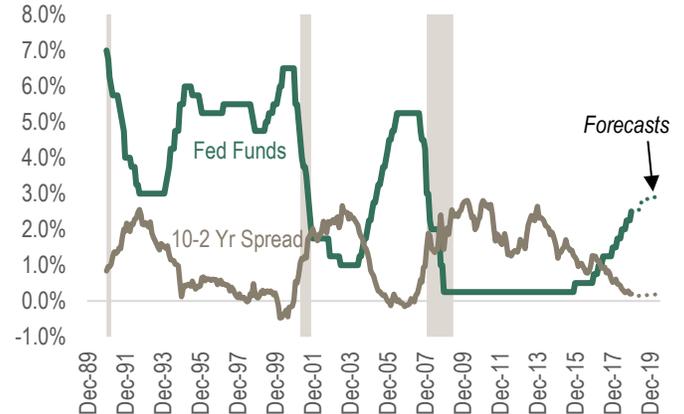
Chart 2: Fed Loan Officer Survey

Net % Firms Tightening Lending Standards for C&amp;I Loans

Fed Policy

The Federal Reserve Open Market Committee has been conducting a “data dependent” campaign of tightening policy since late 2015, with a cumulative Fed Funds rate increase over the period of 2.25%. This data dependent mantra has centered on inflation and employment conditions. This is important for two reasons. First, the Fed is signaling a high level of transparency in linking actions to its interpretation of the data. Given the 4Q18 decline in inflation data, the imperative for continued tightening has become more muted. Second, the trajectory for Fed policy is also important because for the last 50-years, recessions have been coincident with Fed tightening campaigns. In effect, there is a variable lag between Fed overnight rate moves and the subsequent effects policy tightening has on the real economy. We anchor on in evaluating whether rate policy has passed a tipping point, where rate increases push the real economy into recession. To this end, the slope of the 2-year to 10-year US Treasury curve has been a very consistent predictor of recessions. In the past, once this slope persistently falls below zero (2-year yields above 10-year yields), the clock starts ticking on a recession. On average, a recession occurs within 20 months (ranging between +11 months and +29 months). As you can see from Chart 3, while the 2-year to 10-year curve is flat, it has yet to persistently trade below zero. As a result, we know we are late in this current cycle and it is likely we are near an important trip-wire, but it does not yet appear that we have crossed the line. We think that a respite in Fed tightening, or at least a more dovish Fed, will prolong the period of time before the line, as represented by an inverted yield curve, is crossed.

Chart 3: Fed Policy and Slope of Yield Curve

Defaults

For 2018, the PAR-weighted default rate for bonds was 1.81% (1.08% if iHeart's much telegraphed default is excluded). This figure was slightly higher than the full year 2017 rate of 1.28%. Including distressed exchanges, the bond default rate was 1.87% in 2018, compared with 1.46% in 2017. For loans, the PAR-weighted default rate was 1.63% (1.02% excluding iHeart) which was lower than the 1.84% figure for 2017. Including distressed exchanges, the loan default rate was 1.65%.

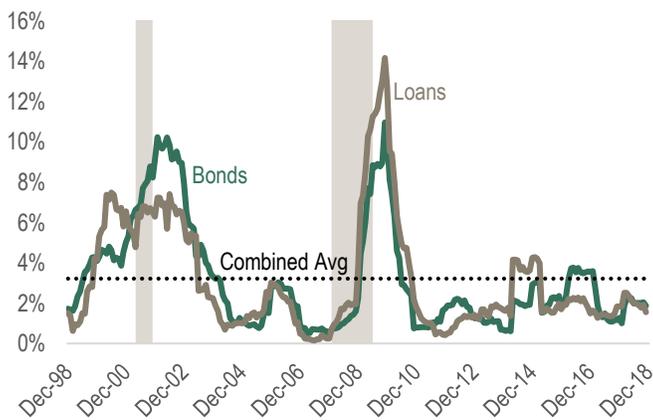
Default rates have an uneven track record of forecasting recessions. Over the last three recessions, default rates have moved decisively above the long run average default rate of 3.2% approximately 9-months before the National Bureau of Economic Research (NBER) declared a recession, on average. However, this average was distorted by the last recession (07-09; Global Financial Crisis). In the very sharp recent contraction, the default rate did not move above the mean until roughly 1-year *after* the NBER recession start was designated in December 2007. In the prior two recessions (1990-91 and 2001), the average *lead* was 18 months. The first two recessions were more classic contractions involving grinding demand declines that reflected a broad range of stresses in the macro environment. Ultimately, these stresses were manifested in increasing default rates that foreshadowed the end of the business cycle. The Global Financial Crisis (GFC) was different because it was the product of a rapid economic collapse resulting from a liquidity crisis that accelerated the credit contraction and led to the rapid increase in default rates after the fact.

Past performance is not a guarantee or a reliable indicator of future results.

From our perspective, defaults appear to be a reasonable way of assessing the potential of contraction if the banking system is relatively sound. Here, we view the post-Dodd-Frank financial system to be in better shape than any other time over the past 30-years. Take any measure from capital adequacy to reserves, the current financial system is in good shape. It is our view that the next recession will probably follow the playbook of the 1990 and 2001 recessions. If that assumption holds true, it follows that default rates will move above the LT average well before the economy decelerates into recession.

**Chart 4: Default Rates**

Trailing 12 months, par weighted

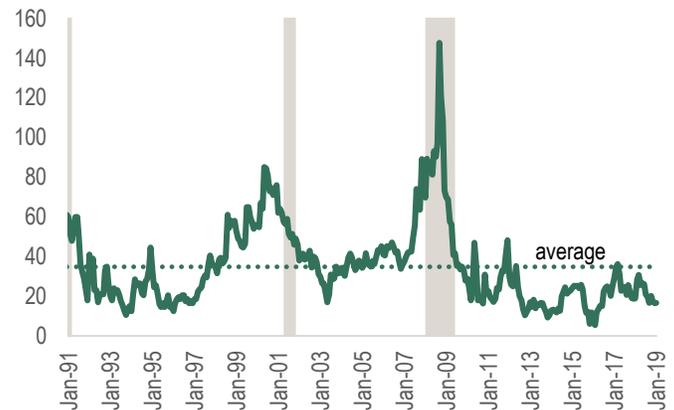


Leading Indicators

To gauge financial system health, we like to look at the 2-year swap spread. This is derived from taking the 2-year yield on fixed-to-floating exchange listed contracts and subtracting the yield on a comparable maturity US treasury instrument. The resulting spread reflects the Counterparty Credit Risk premium embedded in the swap market. As such, it's a proxy for the uncertainty within the interbank market. As the economy approaches an end in the business cycle, we would expect this spread to widen to compensate swap counterparties for the risk of timely payments within the inter-dealer market. This has been the case since the inception of the formalized swap market in the late 1980s. Although there are periods when this spread spikes to reflect localized issues (mid-cycle slow-downs in 1994 and 2011), the spread only moves materially above the long-term average about 13 months prior to the start of a recession. As can be seen from Chart 5, 2-year swap spreads remain well below the long run average spread and reflect no sign of intermarket uncertainty. We

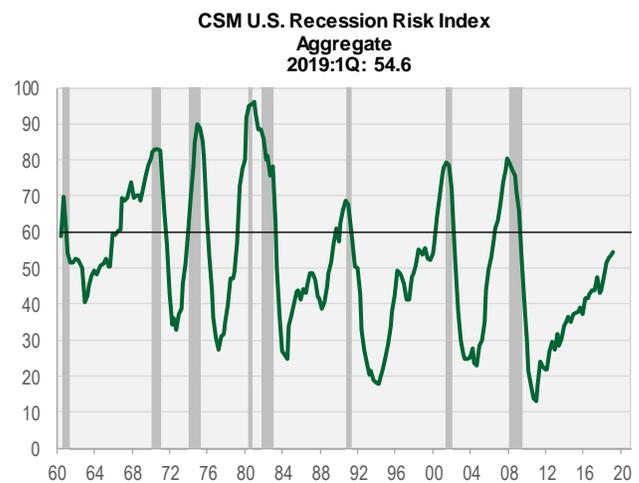
view this stability to be a positive byproduct of the post Global Financial Crisis (GFC) regulatory reforms and an important bulwark against a downturn to the current expansion.

**Chart 5: 2-Year Swap Spreads**



The firm Cornerstone Macro does a lot of economic cycle research with the objective of providing early indications and outlook for macro conditions. As seen on Chart 6, their recession risk index has a long history of forecasting the onset of a recession. Once this indicator crosses 60, a recession is approximately 6 quarters away (based on the last 6 recessions dating back to the early 70s). This indicator is still well below 60 (recent number 54.6). We view this indicator as offering another perspective that mirrors our judgement that although the current cycle is certainly long in the tooth, it still lacks any obvious indications that its ending is near.

**Chart 6: Cornerstone Macro Recession Index**



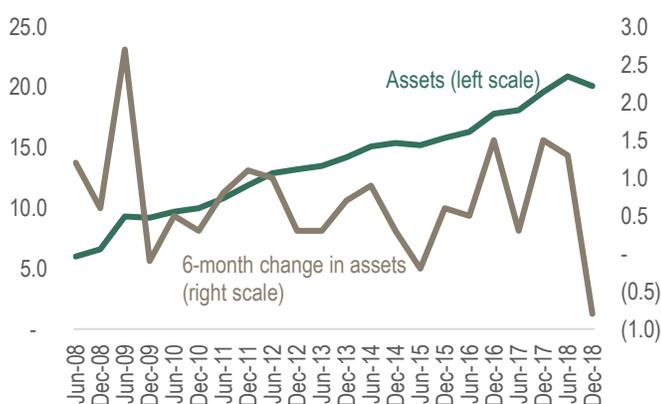
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## Technicals

### Outlook

The technical picture for debt markets has been unusual in 2018, and will probably remain relatively messy into 2019. First, the broad backdrop is anomalous insofar as global central banks are employing both traditional and non-traditional monetary policy tools, i.e., quantitative easing (QE). As shown on Chart 7, over the past decade, the top four international Central Banks (Bank of China, Bank of Japan, European Central Bank and Federal Reserve) have been steadily adding balance sheet assets to stimulate growth. The net effect of these open market policy interventions has been to add liquidity to the financial system thereby providing a strong underpinning for international debt markets. While this underpinning has explicitly targeted the investment grade market, it has also offered second order benefits to other debt markets like high yield. With the Fed's Q417 decision to begin the process of shedding balance sheet assets rather than accumulate them, this technical tailwind has begun to fade. This process is expected to accelerate as the ECB plans to stop balance sheet accumulation early in 2019.

**Chart 7: Balance Sheets Assets – Top 4 Central Banks**  
Federal Reserve, ECB, Bank of China, Bank of Japan (\$trillions)



### Supply vs. Demand

The primary reason for the anomalous technical landscape in 2018 was due to the shrinkage in the market through a combination of contracting net new issuance and credit migration forces whereby rising stars (upgrades from HY to IG) exceeded fallen angels (downgrades from IG to HY). At the same time, negative high yield mutual fund and ETF flows that started in 2017 accelerated in 2018. The only technical bright spot for the high yield market was the relentless need to reinvest high yield coupons. As seen on Chart 8, we ended 2018 with the unusual

case of a supply shortfall, with total net supply shrinking by \$65B compared to a net observable demand of \$32B. The last time we experienced this kind of supply shortfall was 2008, but that year did not involve a net contraction in supply. Over the long run, we believe fundamental factors dominate technical factors in the high yield market. Nevertheless, over short periods, technical imbalances can be meaningful. We think 2018's supply shortfall moderated spreads for most of the year due to coupon reinvestment demand, but the moderation broke down in the fourth quarter due to the spike in outflows. With no obvious catalysts for an improvement in the supply picture, we expect the 2019 technical picture will probably unfold like 2018 with uncertainty centered on fund flow dynamics.

**Chart 8: High Yield Supply and Demand (in \$billions)**

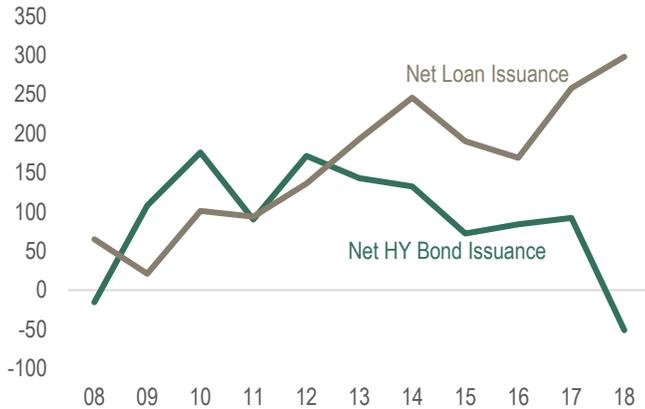
	08	09	10	11	12	13	14	15	16	17	18
New Issuance	53	181	302	246	368	399	356	293	286	328	187
Calls/tend/maturities	(68)	(73)	(126)	(156)	(197)	(255)	(223)	(221)	(202)	(236)	(239)
Net issuance	(15)	108	176	90	172	143	133	72	84	92	(51)
Up/Downgrades	29	137	(5)	4	(25)	(43)	(9)	93	161	(2)	(14)
Total supply	14	245	171	94	146	101	124	165	245	90	(65)
Coupon reinv	58	69	71	82	83	88	89	94	98	87	78
Net fund flows	8	36	18	22	37	(8)	(24)	(14)	14	(21)	(46)
Total demand	66	105	89	104	120	80	65	80	113	66	32
Surplus/(Shortfall)	(52)	140	82	(10)	27	20	58	85	132	24	(97)

### Loan Market Influence

Part of the reason for the dramatic decline in high yield bond issuance in recent years is the leveraged loan market. Since 2008, leveraged loan net new issuance has outpaced net high yield bond issuance by over 75%. Chart 9 shows the annual net new issuance for the two markets. Given deep demand for leveraged loans by funds and collateralized vehicles, high yield bond supply has been redirected to the loan market.

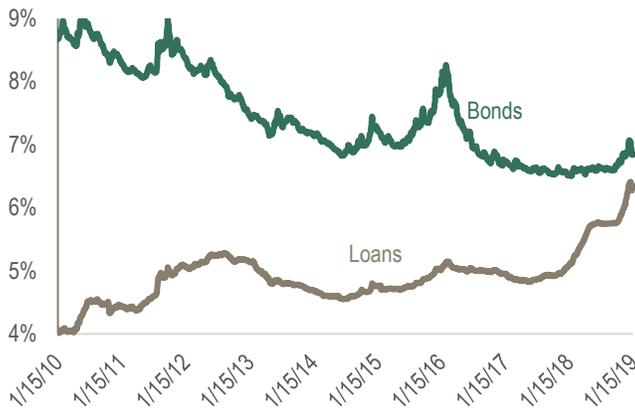
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**Chart 9: HY Bond and Leveraged Loan Net New Issuance**  
\$billions



At the core of this supply shift is a combination of low Libor rates combined with lax underwriting requirements (e.g., increases in covenant light structures accounting for well over 75% of the newly issued loan market in recent years). These conditions have produced an attractive alternative for corporate issuers, and they have responded; hence, the diversion of issuance from bonds to loans. It is likely that this narrowing of the valuation will materially erode the technical tailwind that has favored loans over the past 5-years.

**Chart 10: Current Yield of HY Bonds vs. Leveraged Loans**



**Euro-US High Yield Dynamic**

A related factor in the high yield technical situation over the recent several years is the diminishing advantage of US dollar compared to Eurodollar high yield. From the GFC to about 2015, both nominal and after currency swapped yields in the US dollar high

yield market increasingly offered a considerable premium to the Eurodollar equivalent. This led to fund flows from Euro accounts to US dollar accounts. Since 2015, although nominal spreads between the markets favored US-dollar high yield, the cost of hedging began to increasingly erode the advantage, as seen on Chart 11. In 4Q18, the after hedging advantage was gone and with it, the technical tailwind. We do not anticipate a massive change in this technical as 2019 unfolds.

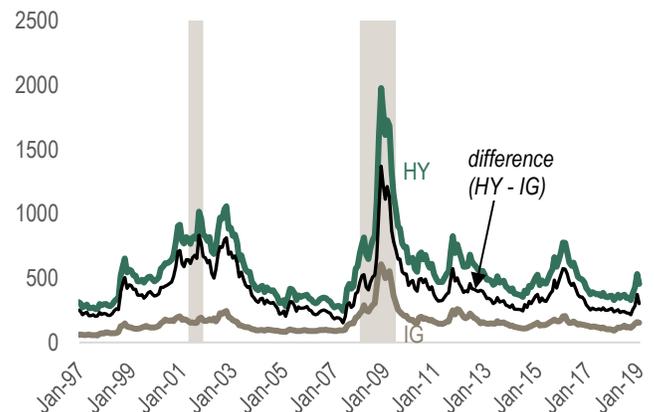
**Chart 11: US HY YTW Minus Euro HY YTW**  
Before and After Foreign Exchange Hedge



**Valuation**

Against the long view of spreads in the Broad Investment Grade and High Yield markets depicted on Chart 12, the late 4Q18 spike in volatility appears to be just that – a cyclical bout in volatility.

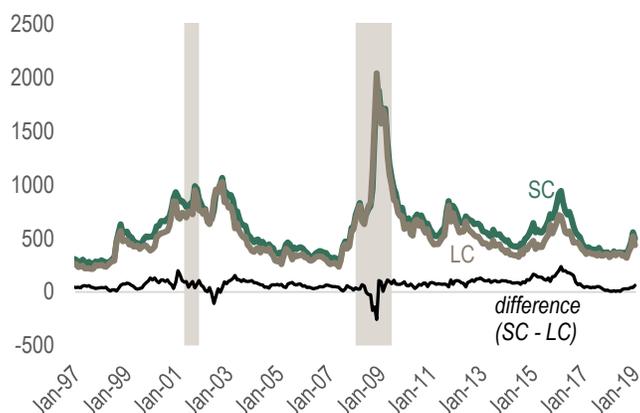
**Chart 12: Spreads - Investment Grade vs. HY**



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Another perspective of the recent volatility is shown on Chart 13. This chart shows the difference between Large Cap and Small Cap high yield spreads. Like the broader spread measures on the previous chart, the recent spike does not appear especially alarming. In both cases, valuation has improved materially, but it has not moved above long term mean or even median values.

**Chart 13: Spreads – Large vs. Small**



To put context on these observations, we compare eight similar periods of market volatility focusing on spreads in the overall high yield market as well as the large cap and small cap markets. Chart 14 outlines the spread range measured from the start of each period through the peak of the period. This assessment is representative because the periods have fallen outside of the end of business cycles and chosen because of both the period's volatility and link to headline or sector uncertainty. As a broader observation, the spread change during these periods falls below the long run standard deviation of spreads for each respective market. The only exception is the period 11/4/15 – 2/25/16. This period was unique insofar as the bulk of the credit damage during that period was centered in small cap metals and energy companies due to the combination of earlier commodity declines and the exhaustion of internally generated liquidity. The recent sell-off in 4Q18 has been relatively sharp compared to the previous period in terms of averages, both duration and magnitude of the swing.

**Chart 14: Comparison to Other Periods**

Period	Days	Spread Change		
		Total HY	Lrg Cap	Sml Cap
10/2/18-1/15/19	93	226	211	274
11/4/15-2/25/16	113	230	211	493
6/3/15-10/2/15	121	228	237	320
6/23/14-8/1/14	39	91	94	72
5/8/13-6/25/13	48	108	109	90
4/8/11-11/24/11	230	311	314	302
4/26/10-6/11/10	46	164	170	140
3/9/05-5/17/05	69	179	156	166
Average (excl current)	95	187	184	226

The recent period is also notable in the speed with which the market has come back. From the peak in spreads on January 3<sup>rd</sup> 2019, the market tightened over 75 bps in the subsequent 3-trading days. That is nearly 34% of the total spread widening over the entire 93 trading day period. Large caps behaved even more dramatically by tightening 80 bps (38% of the full period widening) within 3 trading days of the peak. Small cap high yield was more subdued, tightening 65 bps or 24% of the full cycle widening over the same 3-day period. In the subsequent days of trading in January though the 15<sup>th</sup>, small cap high yield has begun to close the gap as displayed on Chart 15.

**Chart 15: Current Market Conditions**

	Total HY	Lrg Cap	Sml Cap
Historical spread (mean)	561	548	723
Historical spread (median)	495	465	608
Standard deviation	262	277	437
Recent peak (1/3/19)	548	531	673
as % of mean	98%	97%	93%
as % of median	111%	114%	111%
Current (1/15/19)	461	442	593
as % of mean	82%	81%	82%
as % of median	93%	95%	98%
Change: peak to current	-87	-89	-80

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## Outlook

### Fundamentals Continue About Average

The fundamental picture for economic growth in the US has been called into question by the late 2018 volatility in risk markets. We think that the volatility is driven not by imminent slippage into recession, but rather by an array of factors threatening growth that are exacerbated by the lateness of the business cycle. Our view is that growth will decelerate from 3%, but that foundation of the current expansion remains on relatively firm footing. Consensus expectations for growth and inflation remain constructive around 2%, which appears consistent with underlying trends. The latter is important because interest rate policy will likely moderate in 2019. We expect defaults to pick-up to around 2%, but nothing that would forecast truly difficult conditions. Moreover, none of the forward looking indicators we look at have crossed into “clock watch” mode. What could we be missing? This cycle could be different. Factors like the government shutdown, trade policy, and externalities like global growth and BREXIT could certainly become more onerous. Of the known unknowns, global growth is probably the most meaningful risk, but even that force will have a relatively muted impact on US domestic growth in 2019.

### Technical Conditions Remain Mixed

High yield technical factors remain tentatively balanced as we move into 2019. Like late 2018, this balance will be fragile. The Fed is explicitly contracting its balance sheet. Add to this overall withdrawal in liquidity, many of the factors at play in 2018 (bank loan popularity, lack of maturity wall, tepid M&A calendar, etc.) will continue to be a headwind for supply. The only bright spot in the supply side is that the cost of capital gap between bonds and loans shrunk dramatically in 2018. This may moderate some of the relative flow to loans for 2019. Nonetheless, we expect 2019 to be another weak year for supply. On the demand side, absent tactical investors that have been sitting on the sidelines, there is little to be optimistic about in 2019 except for the relentless need to reinvest internally generated coupon income.

### Valuation is Better, but Late Cycle Caution Continues

Valuation has improved over the course of 4Q18, but a considerable amount of that value was harvested in the first few days in 2019. Moreover, we are late in the cycle and valuation metrics remain below long run mean and median values. While we are more constructive on valuation compared with 2018, late cycle investing is a tricky business. On balance, we view valuation about average across the horizon of this cycle’s opportunities.

### High Yield Return Expectations

Our return expectation starts with the current yield of around 6.35%. In the absence of defaults or treasury moves, assuming only modest scope for material spread tightening due to the lateness of the cycle, this low-6% would be our expectation for a 1-year horizon. We expect defaults to move up to around 2% over the next 12-months. A more conservative view of defaults could be closer to 3%. Using a 40% post default recovery on those default possibilities would translate into somewhere between 120 bps to 180 bps of credit losses over the horizon for our base-case and conservative-case default scenarios, respectively. As for USTs, given our view of decelerating (but not contracting) macro conditions, a more dovish Fed and the low realized correlation of UST to high yield, we expect only a modest UST influence.

Adding it all up, we put a 4% to 6% range on return expectations for the next 12 months. For the calendar year 2019, the roughly 3.2% gains experience in the broad high yield market in the first 15-days of the year would be added to our range. It is instructive to note that the 2005, 2011 and 2015/16 periods outlined on Chart 14 were in many ways the most similar to the volatility that we experienced in 4Q18. They were collectively followed by relatively solid high yield returns that averaged over 14%. Of those three periods, 2005 probably was the most relevant late phase bout of volatility (shorter in magnitude and amplitude, but less than 2-years from the end of the cycle). That subsequent period produced 12-month returns of around 6.5%.

To answer the question at the beginning of this piece, we think the cycle has entered extra innings. How many extra innings the current cycle goes is difficult to say. A number of factors could bring the cycle to an end but there are no obvious warning signs, which leads us to believe the cycle could continue for a while. In other words, there is not an MVP-type power hitter on-deck waiting to end the game with a single swing. A combination of singles, unforced errors, etc. are more likely to bring the game to its end...if not, the game will carry on.

**All investments contain risk and may lose value.** Investing in high yield securities is subject to certain risks, including market, credit, liquidity, issuer, interest-rate, inflation, and derivatives risks. Lower-rated and non-rated securities involve greater risk than higher-rated securities. High yield bonds and other asset classes have different risk-return profiles and market cycles, which should be considered when investing.

Data sources: Chart 1: Bloomberg, Bureau of Economic Analysis; Charts 2-3: Bloomberg, Federal Reserve; Chart 4: JPMorgan, Moody’s, S&P; Chart 5: Bloomberg, Chart 6: Cornerstone Macro; Chart 7: Bloomberg, Morgan Stanley; Chart 8: Bloomberg, BofA Merrill Lynch; and Charts 9-15: BofA Merrill Lynch.

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