

# INVESTCORP



## INVESTCORP ENVIRONMENT REPORT

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2Q 2019



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## OVERVIEW

We are delighted to introduce the 2Q 2019 edition of the Investcorp Environment Report, where we share selected insights from our proprietary research and internal models. As noted previously, our investment framework combines “cycle-aware” analyses of the macroeconomic drivers of traditional and alternative risk premia with more traditional valuation, technical and flow-driven investment approaches. We also model the cyclical outlook for alpha generation for each major hedge fund strategy. Our report begins in Section II with an overview of the major themes in the global macroeconomic environment: we evaluate where we are in the business cycle and draw out the implications for traditional beta markets. We introduce a new section this quarter: Investcorp’s credit experts offer their perspectives on the CLO market, in the United States and Europe.

### Global Macro Environment

Global growth momentum stabilized in recent weeks, thanks to supportive monetary policies and fading geopolitical headwinds – notably on the trade front. Still, the growth outlook appears mixed with continued weakness in the manufacturing sector for example. The inflation outlook remains relatively benign despite greater evidence of tighter labor markets and lower output gaps.

Still, much of the uncertainty that crippled markets last year has not disappeared. The trade issues have not been settled yet and we doubt any resolution would fully alleviate the risk premium as enforcement questions would continue to cloud investments decisions longer-term. And the impact of stimulative monetary & fiscal policies is also subject to potential lags and/or lower multiplier effect than currently discounted by markets.

In that environment, we opt for patience and prudence. This translates into lower risk budgets, greater appetite for liquidity, positive carry and a balance between upside capture and downside protection.

### Alternative Risk Premia

In Section III, we discuss the cyclical outlook for alternative risk premia. In **cash equities, we are opting for a “barbell” approach of overweight in both Quality and Value.** In a downside scenario, **Quality should continue to outperform as increasing concerns over levered balance sheets should fuel demand for “safe-plays” in equities. On the other hand, a cyclical rebound would create a sustained bid for Value,** where positioning remains light and valuations have improved, relative to history. In Fixed Income, we are staying underweight in Rates Carry and Value strategies but prefer an allocation to Front-Rate-Bias strategies in Emerging Markets. In credit, we also opt for Emerging Markets hard currency debt, on an absolute and relative basis – against high-yield corporate debt. Our constructive stance on emerging markets is also expressed in foreign exchange with a preference for carry. We stay constructive on mean reversion as the strategy should be in a strong position to monetize higher realized volatility in foreign exchange.

### Hedge Funds

In Section IV, we synthesize our perspectives on traditional and alternative risk premia into forward-looking views for major hedge fund strategies. We remain largely neutral on beta-heavy strategies, with a slight preference for Emerging

Markets Equity L/S managers and an underweight position in Credit L/S funds. **We maintain our greater appetite for liquidity at this stage of the business cycle.**

Finally, we **remain constructive on the broad Global Macro opportunity set, directional and relative value players.** Volatility arbitrage could also benefit from a higher volatility environment with strong regional and asset class dispersion offering attractive relative value trades. Global Macro funds should also offer some protection in case of a faster-than-expected rate-hiking cycle or materialization of geopolitical risks.

### U.S. and European Broadly Syndicated Leveraged Loans

In a new section for the Investcorp Environment Report, our credit teams across the Atlantic discuss recent developments in the leveraged loans market including an in-depth review of credit fundamentals in the United States and Europe. In particular, the recent dynamics the leveraged loan market are discussed with an eye to gauge the sensitivity of the asset class to systemic risk.

## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

Strategy	Negative	Neutral	Positive	Comments
<b>Equity</b>				Neutral medium-term stance as limited positioning, supportive CBs and positive momentum signals offset demanding valuations in a context of low growth & elevated tail risks
US				US, a growth play with allocation to Tech. Poor earnings momentum and elevated valuations leave little room for error. Positioning can continue to fuel upside, if “FOMO” behavior re-appears
Euro area				A value play, but with limited catalysts ahead and growing risks of falling in the “secular stagnation” trap. Risks of disorderly Brexit and autos tariffs still concerning medium-term. Needs Chinese growth re-acceleration to stand out.
Japan				Another value play, with lower tail risks attached. Monetary policy remains supportive and the earnings outlook decent
Emerging Markets				Play on a successful Chinese stimulus and potential move lower in the dollar, supporting the global liquidity environment
<b>Duration</b>				
US				Negative Equity/Rates correlation re-asserting itself as inflation fears fade and growth concerns take center stage. Rates have disconnected (a bit) from equities, pricing in a worse growth outcome, for now
Europe				Limited value for diversification at current levels, a pure carry play with negative asymmetry if growth were to surprise to the upside
Japan				Limited value for diversification at current levels, a pure carry play with negative asymmetry if growth were to surprise to the upside
<b>Credit</b>				
Dev. High Yield				Spreads have tightened sharply, leaving little value & cushion if growth continues to decelerate. Typically underperforms later cycle although corporate deleveraging trends could be a positive medium term
EM				Attractive carry and better valuations from an historical perspective.
<b>FX</b>				
USD				Challenged longer-term on growing twin deficits and elevated valuations. Decent relative economic momentum a plus and supported by high interest rate diff. vs G3
EUR				Near-term outlook neutral on poor growth momentum but value and flow dynamics could be supportive longer-term
JPY				Narrowing interest rate differential and strong valuation make the yen an attractive hedge in diversified multi-asset portfolios

## GLOBAL MACRO AND MARKETS OUTLOOK

### Global Macro

We begin our discussion of the outlook ahead by detailing our perspectives on the global economy's current momentum with respect to growth and inflation dynamics. Absent major contra-cyclical forces, we find that momentum generally offers the best forecast of the near-term evolution of the economic system. We then study the nature and strength of identified and potential negative feedback loops, the catalysts and tipping points lying ahead that could meaningfully alter the economic system direction of travel. Next, we evaluate flow and positioning signals to determine what is priced in and to identify pockets of entrenched investor expectations. Finally, we conclude with an update of our asset allocation playbook.

### Fundamentals

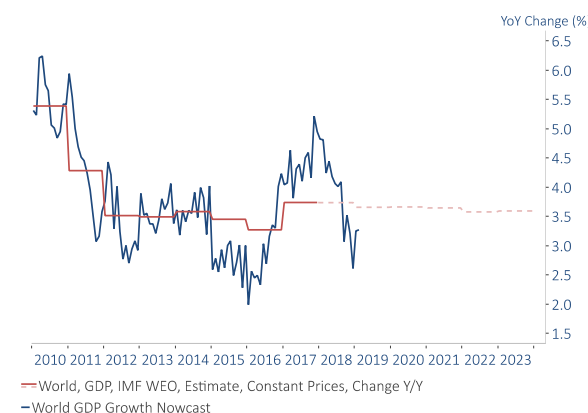
#### Assessing Global Economic Momentum

Our approach to macro analysis originates with an assessment of global economic momentum along two primary vectors: growth and inflation. We seek to understand direction and speed of travel across a large set of macro variables in an effort to identify the path of least resistance for the economic system. After that, we consider contracyclical forces and their potential tipping points, any factor that could bring about a change in regime.

As usual, we begin with an update of our Global GDP Aggregate Nowcast indicator. As can be seen in the chart below, measures of global economic growth have staged a mild rebound in recent weeks. Fading headwinds on the trade front, new stimulus measures in China, and a dovish by the Federal Reserve have all contributed to a significant easing of financial conditions since the December nadir.

Sentiment has also rebounded from the depressed levels seen late last year.

#### Global GDP Aggregate Nowcast



Source: Goldman Sachs, Morgan Stanley, Investcorp, Macrobond

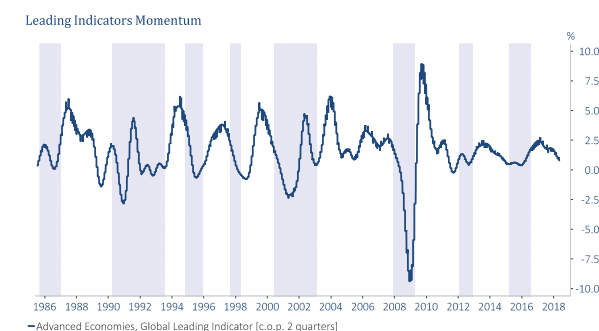
That said, macroeconomic data continues to paint a mixed picture, weighed down in part by concerns that last year's slowdown could prove deeper and longer than expected. While risky assets are discounting many of the issues that undermined confidence during 2018, we believe caution is warranted against the backdrop of still-tenuous US-China trade negotiations and the potential for Section 232 tariffs on European automobile imports. Investors will likely want to see the threat of escalating trade frictions fully recede before gaining conviction that a slower pace of interest-rate normalization is enough to get the economy back on track.

The near-term outlook also depends on whether Chinese fiscal and monetary authorities can avoid a hard landing using the gradual stimulus approach they favor. In our view, calibration risk remains

elevated; prior financing channel structural reforms and favoritism toward state-owned enterprises (SOEs) could prove to be major hurdles to a successful recovery in domestic activity.

Global leading indicators, meanwhile, remain weak, as evidenced by the first chart below, though downside momentum has been slowing and there are hints of stabilization in the corporate sector. Recent asset-price appreciation suggests investors are growing more optimistic and less concerned about a Fed-induced recession in the short run, but readings from proprietary indicators that rely on principal component analysis to isolate the dominant trend from several time series – highlighted in the subsequent three charts – are not yet flashing a green light. Business sentiment, for instance, has only just edged higher following a multi-month slide, while trade volumes in Europe (Germany, France, Sweden, United Kingdom, Switzerland) and Southeast Asia (South Korea, Hong Kong, Taiwan, Japan, Singapore) have slowed. Global consumer sentiment is still heading south.

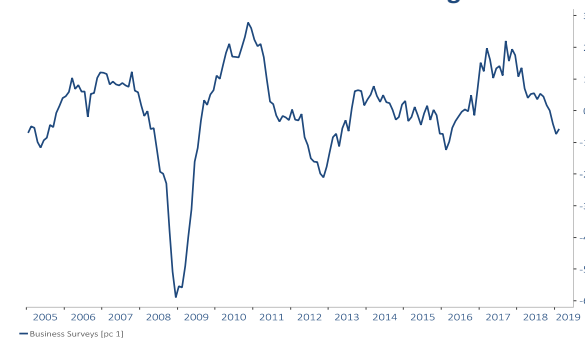
#### Global Leading Economic Indicators – Growth



Source: Goldman Sachs, Investcorp

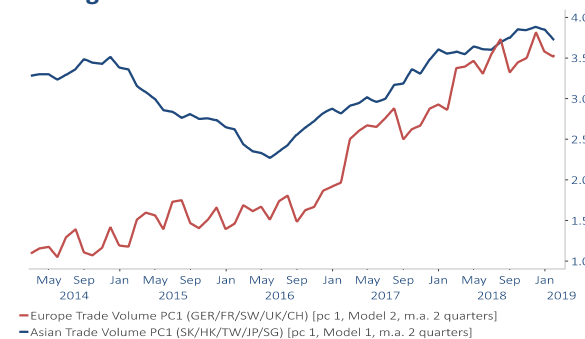
## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

### Global Business Sentiment – Bottoming Out?



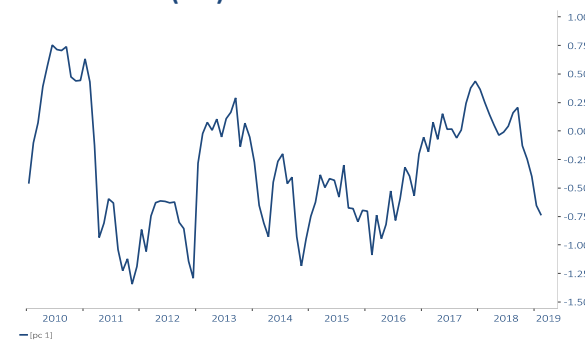
Source: Investcorp

### World Trade Volume (Europe, Southeast Asia) – Turning Lower



Source: Investcorp

### Global Consumer Sentiment – No Sign of a Rebound (Yet)

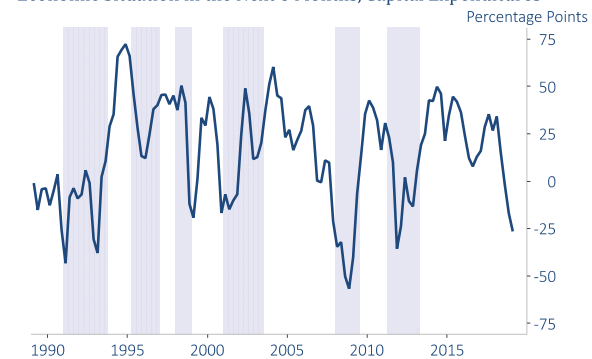


Source: Investcorp

Across most regions, but especially in Europe, one key reason for the slowdown in activity has been wavering corporate confidence, which has been undercut by idiosyncratic factors and heightened uncertainty about the economic and political outlook. Not surprisingly, this has weighed on capital spending plans, as indicated by the following chart.

### Europe Capex Expectations – Plunging Further

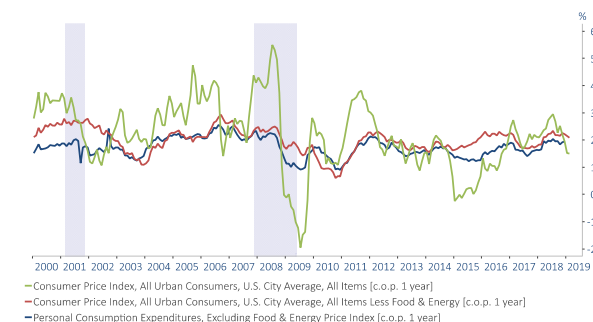
Euro Area, Economic Surveys, Ifo, World Economic Climate, Economic Situation in the Next 6 Months, Capital Expenditures



Source: Investcorp

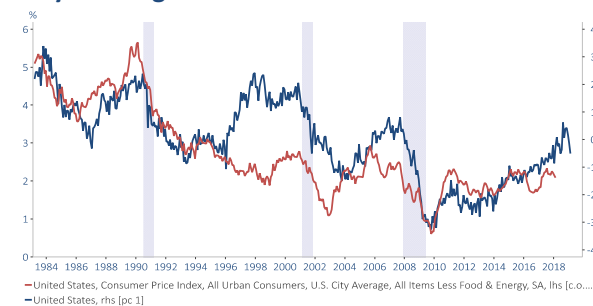
With respect to inflation, upside pressures stemming from limited capacity have been somewhat offset by secular headwinds, including technological innovation, organized labor's diminished bargaining power, and expectations that remain anchored to the subdued trend of the post-financial-crisis era. As indicated by the following two charts, inflation in the US – as well as across developed markets – continues to be below central bank targets; in fact, recent Fed communications suggest it is comfortable with an overshoot above the 2% level. With monetary policy near the zero-bound, higher inflation readings should give policymakers greater accommodative leeway during the next downturn, allowing for lower real interest rates.

### US Inflation Measures



Source: Investcorp

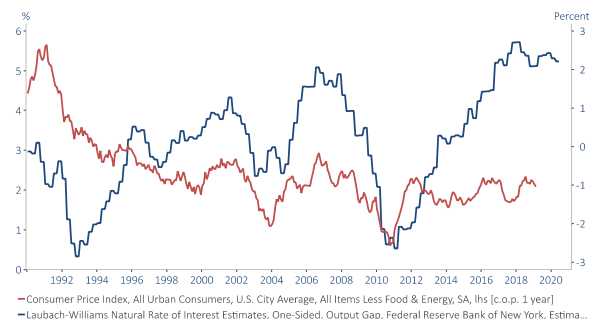
### US CPI and Composite Wages Indicator – a Cyclical High?



Source: Investcorp

That said, it is not clear whether subdued price trends will carry on for the foreseeable future. Although questions remain about the efficacy of the Philip's curve in the current environment – the divergence between US CPI readings and the output gap continues to be somewhat striking, as shown below – or the potential non-linearities that exist below certain unemployment thresholds, it does not mean the threat of run-away inflation has gone away. Recent data has left monetary policy-makers more relaxed and many analysts firmly discounting econometric forecasts, but the burden of proof will invariably fall on incoming data in the period ahead.

## US CPI and Output Gap



Source: Investcorp

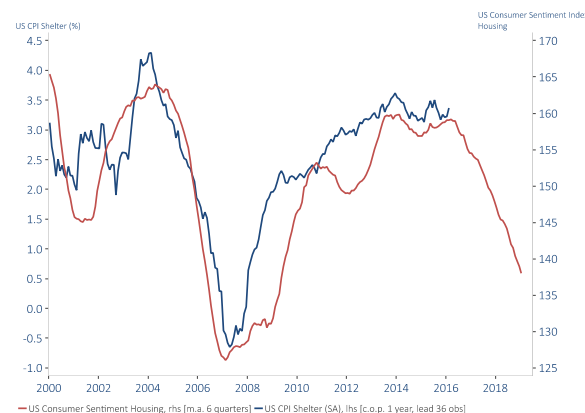
For now, though, certain indicators offer a measure of comfort. A comparison between US inflation expectations—as measured by the five-year, five-year forward inflation breakeven rate—and a market-neutral inflation equity factor—derived from the relationship between equities with a high correlation to rising inflation and those that fare best during periods of falling prices—suggests that the latest uptick is not something to be overly concerned about. As can be seen below, the latter turned lower ahead of breakeven rates in 2018; more recently, it has levelled off following a brief recovery earlier this year.

## Inflation Pricing in the Equity World



Source: Investcorp

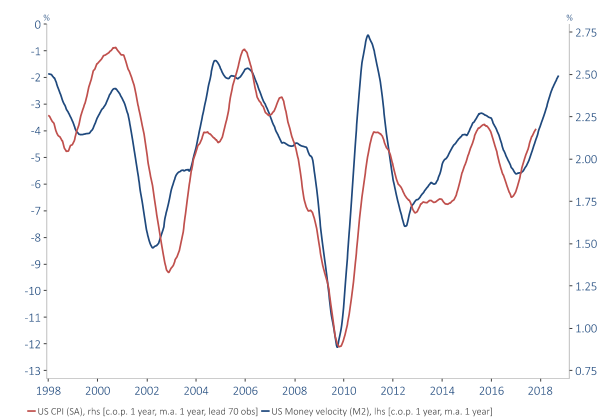
## Cooling US Housing Market Points to Lower Shelter CPI...



Source: Investcorp

But as is often the case, not all forward-looking measures tell the same story, as illustrated by the contrasting images in the following two charts. On the one hand, a cooling domestic housing market—represented here by a smoothed version of sentiment towards housing derived from the University of Michigan Survey of Consumers—suggests there are downside risks to the US shelter price Index, the largest component of the CPI, should the historical relationship between the two continue to hold. On the other hand, the rising velocity of money appears to be signaling upside inflation risks in the period ahead.

## ...While Faster M2 Velocity Suggests Continued Upward Pressure on CPI



Source: Investcorp

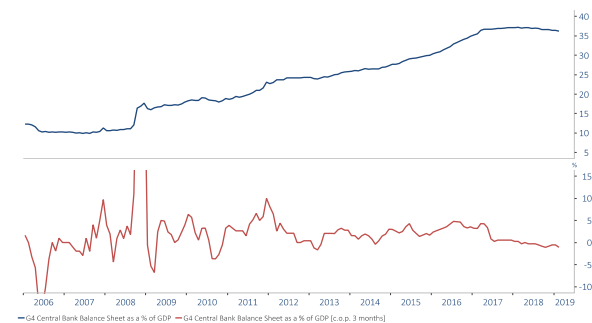
Amid the mixed signals, we continue to believe that an empirical approach serves as the best guide to the outlook for inflation going forward. In a nonstationary system where many prior relationships no longer seem to hold true, assumption-heavy econometric models might not prove very useful. Making matters worse, it has become nearly impossible to properly quantify the impact of various narratives, including rapid technological innovation, heightened trade uncertainty and a changing central bank communication policy, on the anchoring of inflation expectations. Under the circumstances, we prefer to carefully track the momentum of time series we have highlighted here—along with others—in an effort to identify potential tipping points and/or accelerants.

## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

### What could swing the economic pendulum the other way?

As in the past, our review of potential countercyclical factors begins with an update on global liquidity. As illustrated below, G4 central bank balance sheets, calculated as a percentage of GDP on a three-month lookback basis, have continued to shrink. In the first quarter, they diminished by more than 1%, largely driven by the Fed's ongoing balance sheet reduction efforts – the existing run rate remains equal to the \$50 billion monthly cap – and the ECB's tapering of its quantitative easing policy.

#### G4 Central Banks Balance Sheet (as a % of GDP), 3-Month Rate of Change



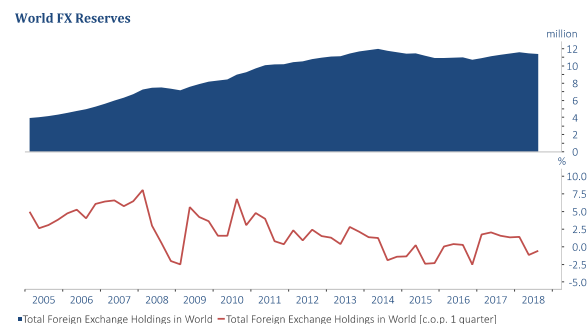
Assuming the current framework remains in place, the next few months could see the pace of balance sheet contraction accelerate, which may well instigate more of the spillover effects on global financial conditions that we saw in 2018.

That said, the Fed's recent shift to a more accommodative stance, heralded by its announcement that it would dial back its balance sheet run-off policy beginning in May and target a stable balance sheet by the end of September, along with plans by the European Central Bank for a new round of

TLTROs, suggest that conditions might not end up as difficult as some fear. The fact that the People's Bank of China has stepped up its liquidity provision also serves to diminish the threat of a broad-scale liquidity dry-out.

Lending further weight, emerging market foreign exchange reserves – included within the totals highlighted in the chart below – and the associated liquidity provision look to have found a floor. They have rebounded from the contractionary levels we saw in late-2018, though heightened currency volatility in the wake of the meltdowns in Argentina and Turkey has forced some central banks to deploy reserves to support their currencies. Going forward, EM foreign exchange reserve policies will likely depend on where the US dollar heads. Should the greenback weaken, the liquidity trend will likely march higher again, creating a positive feedback loop for global financial conditions.

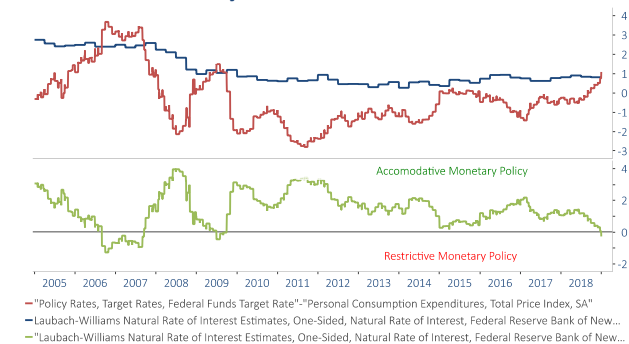
#### World Foreign Exchange Reserves (in \$ Millions), 3-Month Rate of Change



The Fed's U-turn was a major development, especially given that US monetary policy was on the verge of turning restrictive, as shown below. At this stage, being patient makes sense; it will give

Chairman Powell and other FOMC members time to gauge the lagging impact of past rate increases and digest global trade and other developments. The limited upside pricing pressures seen so far also afford the central bank a measure of optionality amid growing calls for a less symmetrical approach regarding future hikes. With rates much closer to the zero-bound than in past cycles, an inflation overshoot is probably desirable. It would allow for more accommodative policies if and when the economy takes a turn for the worst.

#### How Accommodative Is the Federal Reserve's Interest Rate Policy?



Be that as it may, the jury is still out on whether the Fed's more dovish posture will be enough to offset the negative growth momentum discussed earlier. In our view, other uncertainties, particularly those relating to global trade frictions, will need to be resolved before growth can reaccelerate to the upside.

It is worth keeping in mind that monetary policy-making acts with a significant lag, which means the recent shift could take time to feed through into leading economic indicators. That said, the impact of the turnabout on financial conditions was felt



almost immediately: credit spreads declined and equity prices rose, as can be seen in the first chart below. Moreover, with inflationary pressures remaining muted thus far, it appears that investors expect the soft patch to be enough to trigger a pause in the rate hike cycle. In fact, markets have begun discounting an increased probability of a cut this year, as suggested by the second chart.

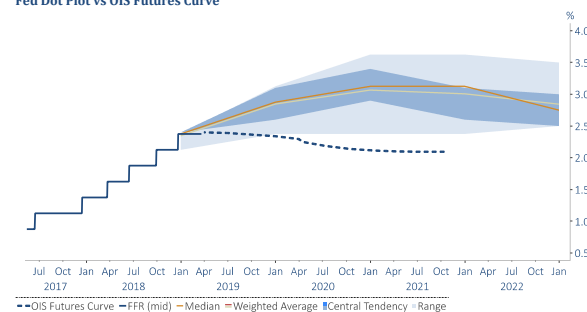
### Recent Fed Communications and Equity Market Reaction

Stock Market Reactions to Fed Balance Sheet Comments				
Date	Speaker	Comment	S&P 500 Reaction (%)	
1/4/2017	Minutes	Firming outlook has implications for balance sheet	0.1	
1/9/2017	Rosengren	Should think about size of balance sheet	-0.1	
1/12/2017	Harker	Time to consider not reinvesting	-0.5	
4/5/2017	Minutes	Change to reinvestment policy is soon appropriate	-0.3	
5/24/2017	Minutes	Announces process for phasing out reinvestment	-0.1	
6/14/2017	Statement	Guidance on potential cap sizes	0.2	
9/20/2017	Statement	Normalization will begin in October	-0.4	
12/19/2018	Powell	Balance sheet runoff is on autopilot	-2.6	
12/21/2018	Williams	Can change B/S policy to meet goals	1.5	
1/4/2019	Powell	Will not hesitate to change B/S policy to meet goals	1.1	
1/30/2019	Statement	Prepared to adjust balance sheet normalization	0.9	

Source: Goldman Sachs

### What are markets discounting?

Fed Dot Plot vs OIS Futures Curve



Source: Macrobond, Investcorp

Rate hike expectations in Europe have also been pushed out, aided by the ECB's acknowledgement of diminished economic momentum and increased downside risks ahead. As in the US, a successful

resolution of high-profile geopolitical issues, including those relating to Italy, Brexit and heightened trade tensions, are seen as key to a rebound in activity in the region. If these uncertainties are addressed and corporate sentiment improves, increased fiscal stimulus measures from France and Italy could serve as an incremental tailwind.

Some would argue that with monetary policy about as accommodative as it can be, additional ECB support at this juncture would be akin to pushing on a string. It is even possible that negative interest rates have, by undercutting domestic bank profitability, impeded the supply of credit and the velocity of money. If so, a lift-off above zero could prove procyclical and bolster the European economy. While the ECB does not appear impervious to such arguments, it has noted the difficulties of assessing the impact of below-zero rates on the region's financial institutions, leaving matters at a standstill. Consequently, with banks struggling to achieve a decent return on assets, prospects for a sustained recovery seem limited.

Whether or not the recent Fed and ECB shifts in stance spurt growth in the traditional sense, they – together with positive developments on the trade front – have had a supportive and broad-based impact on financial conditions across the globe. As the following charts reveal, conditions have loosened year-to-date, accompanied by a pick-up in risk appetites in the US, Europe and emerging markets. Should the more positive environment be sustained, it could bode well for the growth outlook going forward.

### Financial Conditions in the US

Investcorp - US Financial Conditions



Source: Investcorp

### Financial Conditions in Europe

Investcorp - EU Financial Conditions



Source: Investcorp

### Financial Conditions in Emerging Markets

Investcorp - EM Financial Conditions



Source: Investcorp

## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

### China

In China, fiscal and monetary authorities have mobilized to address the ongoing slowdown. They have provided incremental stimulus that included front-loaded issuance of local government bonds, January's 100 basis point reduction in reserve requirements, and the announcement during the National People's Congress of a fiscal package that included cuts in VAT. Authorities are attempting to strike a balance by stimulating growth enough to avoid a hard landing but not so much that it jeopardizes prior credit-related structural reforms.

However, at least some of these efforts, including their focus on state-owned enterprises (SOEs), appear to be counterproductive. According to research from the Peterson Institute, prioritizing SOEs has likely proved costly to Chinese productivity, especially when taking into account the detrimental impact that a restructuring of the shadow banking credit channel has had on small- and medium-sized private companies, which are typically not well served by the large domestic banks.

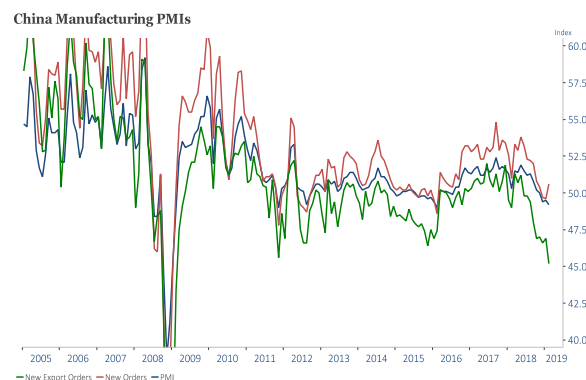
Moreover, as was eloquently discussed in Angel Ubide's Paradox of Risk, incremental approaches tend to have greater calibration risks than the "shock & awe" variety. Nevertheless, Chinese authorities persist in their preference for preserving past policies and longer-term financial stability, including lowering the country's growth objective to the 6-6.5% range. While we are guardedly optimistic that recent efforts will be enough to stem the falloff in activity, we would want to see more of a sustained upturn in credit creation and business activity than is evident in the two charts below to bolster our conviction about the eventual outcome.

### China Credit Impulse – Minor Uptick So Far



Source: Macrobond, Bloomberg

### China Business Surveys – Still Mixed



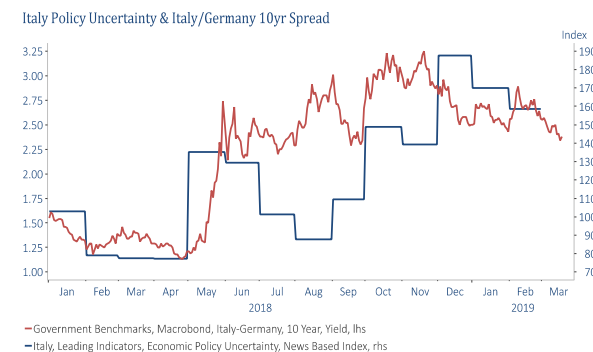
Source: Macrobond, Investcorp

### Government Policy

Government policy and geopolitical risks have been major forces behind market movements in recent months although often difficult to fully anticipate. Europe has so far been the major source of concern for investors, with the Italian political volatility and budget issues and the ongoing Brexit negotiations.

Starting with Italy, as we discussed in the latest editions of the Environment Report, rationality prevailed and the Italian government largely caved to the demands of the European Commission. With pressure on Italian debt and negative economic spill-overs from increased uncertainty, the coalition found itself backed into a corner. With the rise of social unrest in France, the European "elites" are also pivoting towards greater leniency on budget issues, paving the way for a compromise around a 2% deficit for 2019.

### Italy Economic Uncertainty Index and Italian Debt Spread vs. Germany (10-year)



Source: Macrobond, Investcorp

The situation with respect to Brexit is more fluid, however; as of the time of this writing, uncertainty regarding the final outcome remained elevated. Our base case calls for a long extension of the current deadline and some form of softer deal down the line. That said, we recognize that volatility could remain high in the coming weeks and the risks of a no-deal scenario have risen. At the same time, there are no real signs of a rebound in economic sentiment, as can be seen in the chart below.



## UK Economic Sentiment

United Kingdom, Economic Surveys [pc 1]

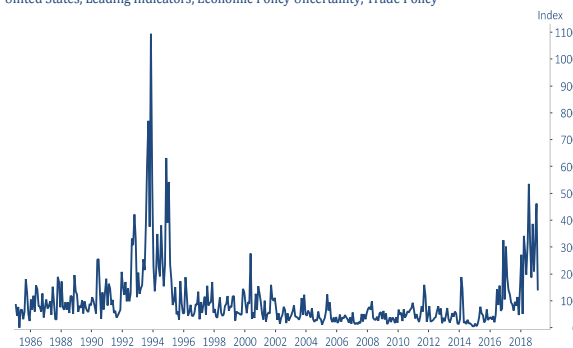


Source: Macrobond, Investcorp

On the trade front, the more rancorous rhetoric has cooled somewhat, as suggested below; positive headlines regarding high-level US-China negotiations have dribbled out from both sides while the March 1 tariff hike deadline was pushed back to allow for continued discussions. In our view, a face-saving deal will likely be announced in coming weeks, though the timeline may well prove longer than we – and perhaps most market participants – expect. Even if a near-term solution is found, recent remarks by Trade Representative Robert Lighthizer to the House Ways and Means committee suggest the US will continue to press for further concessions.

## US Trade Policy Uncertainty Index

United States, Leading Indicators, Economic Policy Uncertainty, Trade Policy



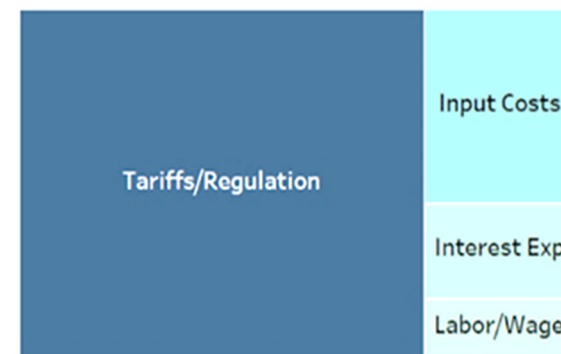
Source: Macrobond, Investcorp

In fact, should a deal go through, the focus could shift toward enforcement, with the US insisting on its right to unilaterally impose new tariffs should China fail to honor its commitments. Additionally, a “win” for the American side could also tempt it to open up a new front with Europe, where long-running trade negotiations seem to have stalled. The EU has been pushing back on US demands for agricultural liberalization and is unlikely to back down, especially amid the “yellow vest” protests in France that have continued to escalate.

Even so, President Trump has demonstrated a heightened sensitivity to swings in US equity markets; as the chart below indicates, tariffs represent the greatest source of worry for US companies. He may seek to avoid stoking too many negative catalysts as his administration and the Republican-dominated Senate gear up for the upcoming 2020 presidential elections. But that does not necessarily mean he will avoid a fight. The recent announcement of a Section 232 national security investigation of the auto and auto parts markets suggests that risks remain for the medium term.

## Tariffs – Greatest Source of Worry for US Corporates

Based on Mentions Per Million Words



Source: JPMorgan

## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

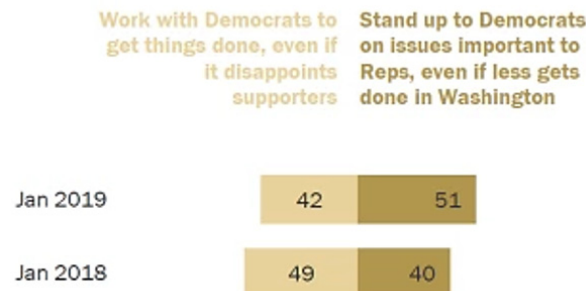
Political polarization has been a recurring feature of the post-Trump era, and the recent Pew Research polls highlighted below suggest that conditions remain as they were. With House Democrats in the majority, it is not all that surprising that their base of voters continues to be strongly opposed to cooperating with the current administration. This also suggests that there are limited prospects for passage of the widely sought-after bipartisan infrastructure bill before next year's presidential elections.

Further undermining the case for bipartisanship, Republican voters appear to have been sold on the benefits of tariffs. This will likely make any efforts to pivot away from the policies of the current administration more challenging, even if the pressure to buoy share prices is deemed a priority. As we see it, a tariff-related Pandora's box has been opened and it will be difficult to put things back to where they were before. For now, companies in the US and elsewhere will have little choice but to adapt, which will have implications for capital spending and the level of margins going forward.

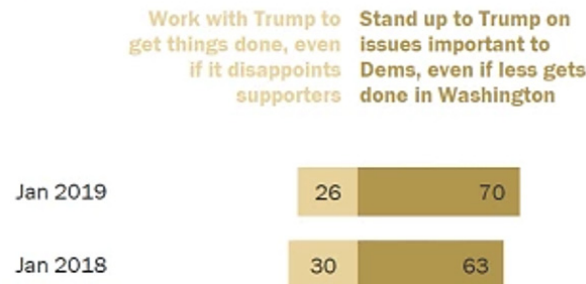
They will likely face other challenges, too. The 2020 presidential race – as well as the upcoming Democratic primaries – could bring about a renewed focus on recent fiscal reforms. Just as President Trump deliberately sought to undo much of his predecessor's initiatives, it would not be surprising to see Democrats seeking to do the same. With 73% of the party's supporters opposed to the measures, corporate executives could soon begin to doubt their sustainability, especially if Democrats look to be gaining momentum as the election season unfolds. The continuing shift away from centrist politics will likely have real implications for the global economy going forward, raising medium and long-term uncertainty for all concerned.

### In both parties, increasing shares want leaders to 'stand up' to opposition

% of Republicans and Republican leaners who say Donald Trump should ...



% of Democrats and Democratic leaners who say Democratic leaders in Washington should ...

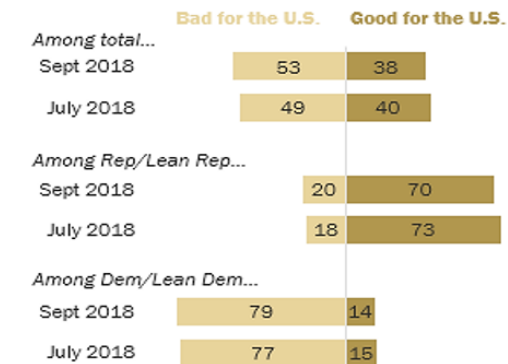


Note: Don't know responses not shown.  
Source: Survey of U.S. adults conducted Jan. 9-14, 2019.

PEW RESEARCH CENTER

### More continue to say increased tariffs will be bad than good for the U.S.

% who think increased tariffs between the U.S. and its trading partners will be ...

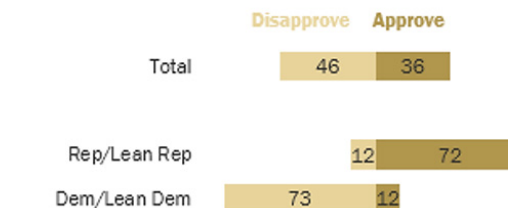


Note: Don't know responses not shown.  
Source: Survey of U.S. adults conducted Sept. 18-24, 2018.

PEW RESEARCH CENTER

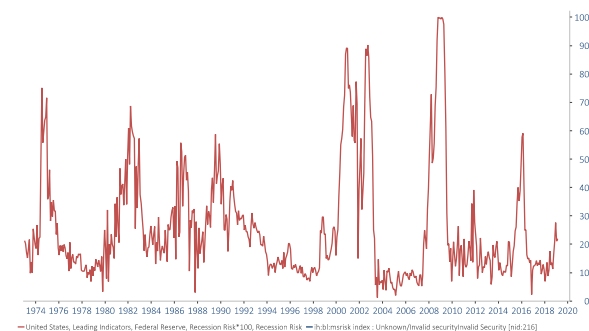
### Partisans remain divided over the 2017 tax law

% who \_\_\_ of the tax law passed by Donald Trump and Congress last year



Finally, we conclude with 12-months ahead US recession risk forecasts, which are based on models from the Federal Reserve and Morgan Stanley, illustrated below, continue to paint a benign picture of the economy. Both models are below the unconditioned probability of 20%. That said, the relentless flattening of the yield curve has been signaling some level of concern over the medium-term growth outlook. Taken alone, we would not seek to read too much of this indicator as its timing horizon has been variable and changes in market structure could well have distorted its informational value.

#### Recession Risk Models



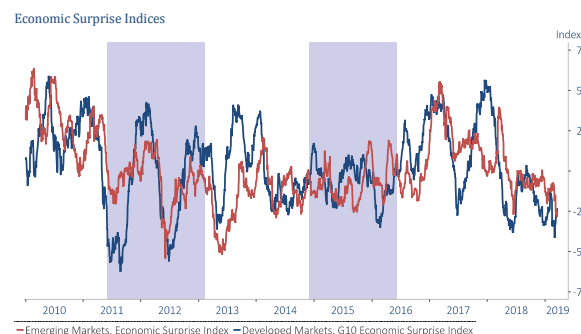
Source: Morgan Stanley, Federal Reserve, Investcorp

#### What's priced in?

There is more to our outlook than economic, political and geopolitical themes and dynamics. As usual, we also incorporate data on sentiment and positioning across different markets and investor segments into our analysis. This helps us to identify areas where our views diverge meaningfully from market assumptions, potentially shedding light on opportunities for tactical asset allocation. The following paragraphs provide a brief overview of our thoughts in this regard.

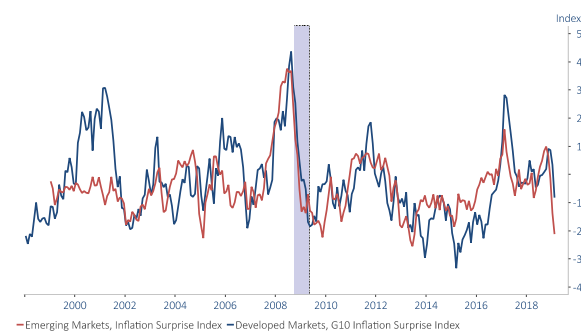
#### Surveys

##### Economic Surprise Index – G10 and EM Universe



Source: Citi, Investcorp

##### Inflation Surprise Index – G10 and EM Universe



Source: Citi, Investcorp

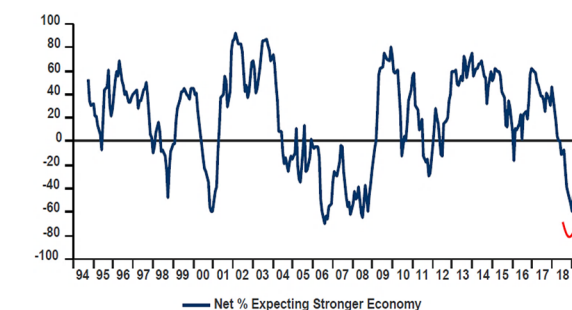
We begin with an assessment of economic surprise indices, where we have seen something of a divergence. As evidenced by the first chart below, pessimism appears to have found a floor in developed markets but has not yet done so in emerging markets. Inflation-related surprises, meanwhile, have increasingly been to the downside in both segments, as illustrated by the second chart, most likely owing to the fourth quarter sell-off in crude oil. However, the rebound in energy prices since then points to upside inflation surprises going forward.

Regardless, the fact that the US price trend has firmed only modestly despite strong cyclical tailwinds, including a major shot of fiscal stimulus, stands in contrast to what the Philip's curve and econometric models predict. At this juncture, it appears that investors are fully discounting inflation risk in their asset allocation frameworks.

As far as the global economy is concerned, the apparent reversal of fortunes in the developed market economic surprise index appears consistent with recent readings from the Bank of America Merrill Lynch Global Fund Manager Survey, overseen by Chief Investment Strategist Michael Hartnett. As shown below, investor pessimism regarding the outlook for growth, currently near multi-year lows, looks to have found a bottom. That said, the consensus remains downbeat about prospects for the period ahead.

#### Net % of Investors Expecting a Stronger Economy Over the Next 12 Months

Exhibit 21: How do you think the global real economy will develop over the next 12 months?



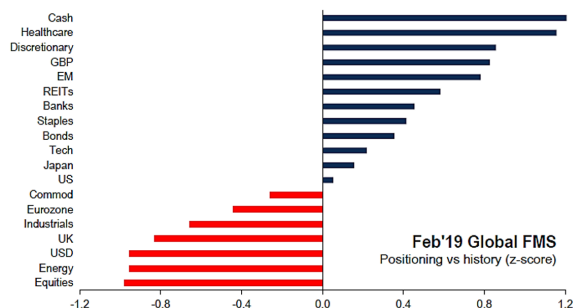
Source: BAML

Given their pessimistic outlook, it is not surprising that investors are heavy on cash and light on equities, as shown below. Current positioning is likely also a reflection of the flight to safety that occurred amid the deepening sell-off across sectors and

## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

factors in the final weeks of last year. Weightings in the US, one of the most popular segments just a few months ago, have now dropped back toward more neutral levels. In contrast, investors are betting on battered down emerging market stocks, presumably on the heels of Chinese stimulus measures and hopes for a lower US dollar.

### Global Fund Manager Survey

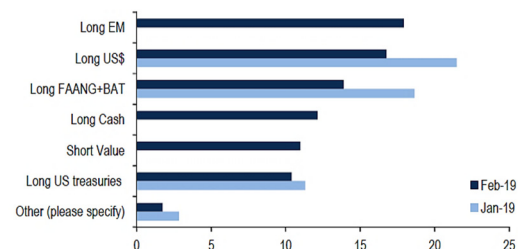


Source: BAML

Sector-wise, investors are favoring defensive segments, including healthcare, staples and fixed-income substitutes, and shying away from cyclical groups such as industrials and energy. With respect to geography, Europe and the UK remain the proverbial unloved stepchildren, likely stemming from the fatigue associated with seemingly never-ending geopolitical risks, while Japan is a modest overweight.

In terms of the most crowded trades, longs in EM, the US dollar, and technology are the standouts, with the latter two representing a recurring presence. Recent entries include long cash and short value, likely owing to caution surrounding the medium-term outlook for the economy. Expectations that growth will remain subdued will likely continue to favor technology over value, despite current lopsided positioning.

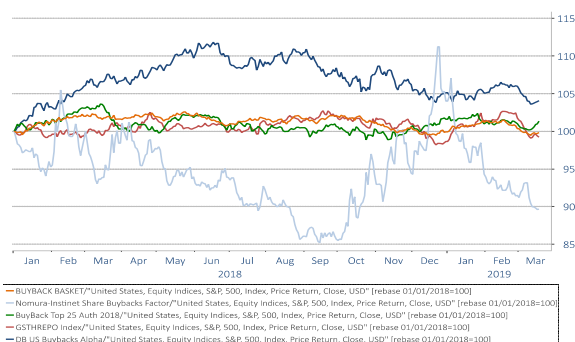
### What are the most crowded trades?



Source: BAML

Separately, one factor that has often provided a measure of support for equities is corporate buybacks. However, despite large volumes, buyback stocks have not significantly outperformed the broader market.

### Buybacks – Diminishing Impact?

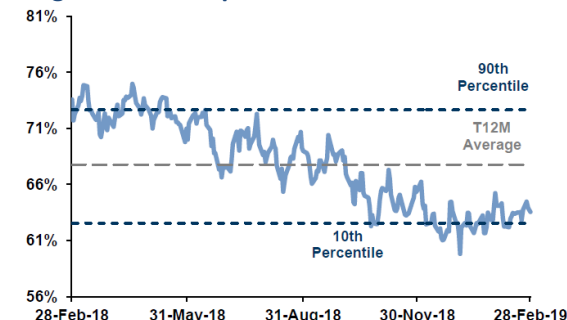


Source: Investcorp

### Positioning

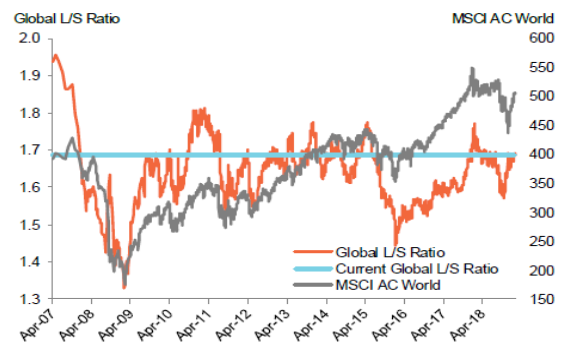
Based on data from the Goldman Sachs and Morgan Stanley prime brokerage platforms, highlighted in the first two charts below, equity hedge funds only marginally boosted net and gross exposures in the wake of the recent decline in realized volatility, suggesting a lack of enthusiasm for the recent rebound. As suggested by the third chart, short-covering looks to have been a key driver, with highly-shorted equities leading the pack early on in the rally.

### Hedge Fund Net Exposure



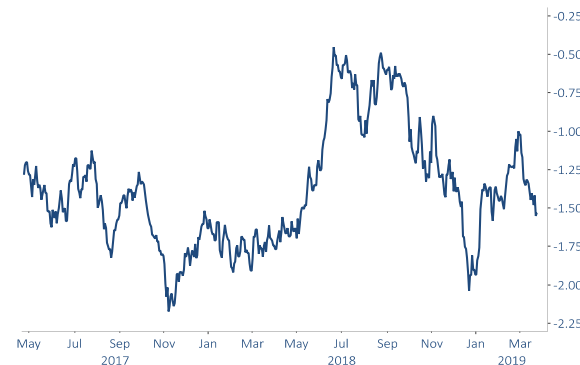
Source: Goldman Sachs

### Global Hedge Fund L/S Ratio



Source: Morgan Stanley

### Short covering drove some upside...



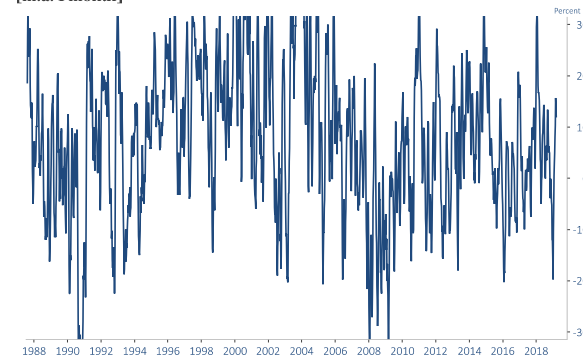
Source: Morgan Stanley

Given managers' reluctance to fully embrace the recent reversal of fortunes, share prices could see even more upside ahead should they start piling in on a "fear of missing out." That said, alpha generation has been strong and the group has performed honorably despite lower net exposure, which could limit the urge to ramp up risk in the absence of positive macro or geopolitical catalysts.

Among retail investors, sentiment regarding the stock market has bounced back from the lows seen around the turn of the year, as indicated by AAI survey data detailed in the chart below.

### Retail Sentiment Showing Signs of Capitulation

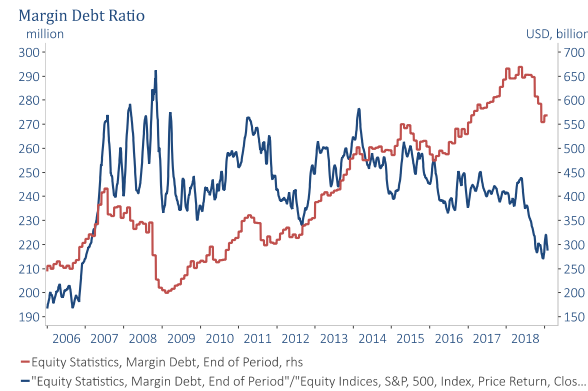
United States, Investor Surveys, AAI, Sentiment Survey, Bull-Bear Spread [m.a. 1 month]



Source: AAI, Investcorp

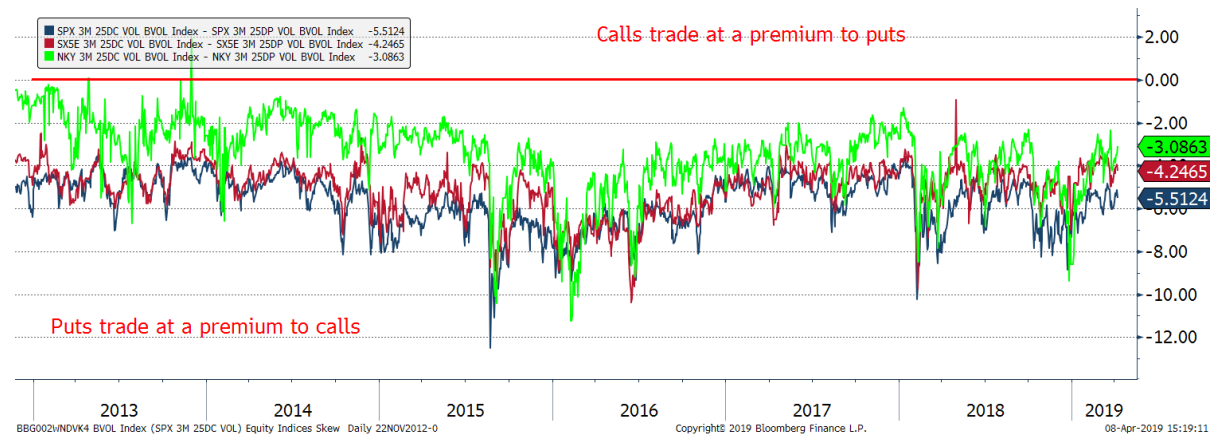
However, margin debt ratios remain near multi-year lows, suggesting that skepticism regarding the recent rally remains intact. With cash balances earning in excess of 2% annually, there may not be enough incentives at this point for individuals to opt for a levered investment strategy.

### Margin Debt Ratio at Multi-Year Lows



Source: Investcorp

### Equity Index Skew



Source: Bloomberg, Investcorp

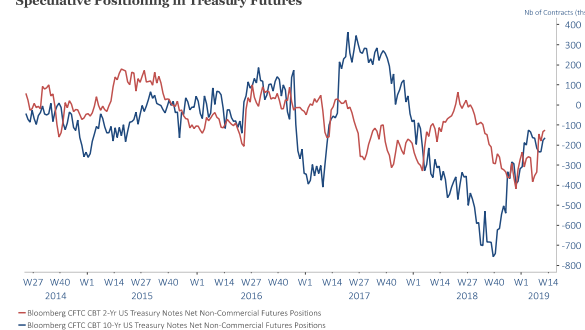


## GLOBAL MACRO ENVIRONMENT AND TRADITIONAL BETA MARKETS

Outside of equities, CFTC data detailed in the first chart below points to a significant build-up of long-duration bond positions on the heels of weak economic data and the Fed's dovish pivot. Similarly, flows into money market funds and fixed-income ETFs, highlighted in the subsequent two charts, have accelerated in recent months. Amid lower inflation risk and heightened end-of-cycle concerns, investors are increasingly moving toward safer shores.

### Net Speculative Positioning in US 2-Year and 10-Year Treasury Futures

Speculative Positioning in Treasury Futures



Source: Bloomberg, Investcorp

### Money Market Fund Assets Have Been Skyrocketing

ICI Money Market Funds Assets



Source: Investcorp

### Echoing a Broader Bid for Passive Fixed Income Funds

Fixed Income ETF AuM (Net, duration weighted)



Source: Investcorp

In commodities, the picture is slightly different: shorts are being unwound and new longs are being implemented on expectations that a more accommodative Chinese fiscal stance will stabilize demand for industrial metals and that easier US interest rates will translate into a lower dollar and concomitant buying of gold.

### Net Speculative Positioning in Key Commodities



Source: Bloomberg, Investcorp

We conclude our review of positioning with a look at foreign exchange, where the long US dollar trade, one of last year's favorites, remains among the last ones standing, as can be seen below. Since becoming a consensus exposure in the latter part of 2018, the greenback has – so far at least – defied calls for a reversal of fortunes. Despite narrowing yield and growth differentials between the US and other countries, the US currency has been stuck in a tight range versus most G10 counterparts.

### USD Exposure vs. G10

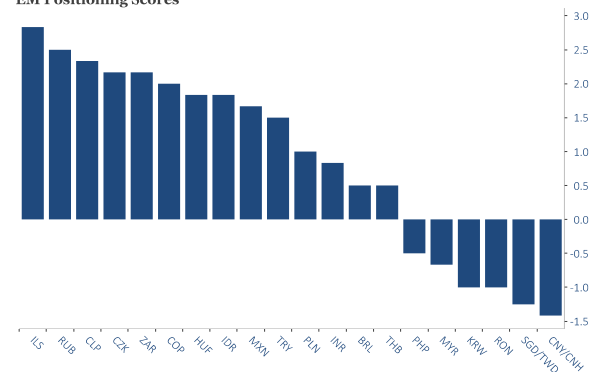
	This Week	Last Week	Short	Neutral	Long
	●	○	-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10		
USD	0	0		●	
EUR	-4	-1		○	
JPY	2	2			●
GBP	-4	-2		○	
CHF	-6	-2		○	
CAD	-6	-6			
AUD	-4	-3		○	
NZD	-1	0		○	

Source: Morgan Stanley

For the most part, ongoing geopolitical and macroeconomic risks elsewhere and decent carry have overshadowed elevated US fiscal and current account deficits and a demanding valuation, especially in the absence of a clear bearish catalyst. Separately, emerging market currencies have, surprisingly, lagged the price action seen in hard-currency debt and equities, while positioning remains mixed across high-beta pairs, as illustrated below.

## Positioning in EM Foreign Exchange

EM Positioning Scores



Source: Morgan Stanley, Investcorp

One post-scriptum on market liquidity, it is important to take note of the challenged liquidity environment this year, with multiple signs across Italian bonds, emerging market bonds and currencies and even recently manifesting itself in S&P500 futures. The following chart highlights the drop in top-of-the-book liquidity in this historically very liquid market. It helps explain the high intra-day volatility we have observed recently, with the market showing large “travels” during the open session. Lower liquidity is likely here to stay in periods of stress as market micro-structure may have been structurally affected by recent technology and regulations.

## Liquidity in US E-mini S&P500 Futures

# of ES futures contracts within 1 index point of the top of the order book (2wk average)



Source: JPMorgan

### Asset Allocation Playbook

We believe the current environment calls for patience and prudence. In light of the fragilities still emerging within the global economic system, we prefer to adopt a lower risk profile, building dry powder to seize future opportunities when they present themselves. As we have learned again in 2018, cash not only offers a decent carry but also preserves the optionality to invest at better valuations. Structurally lower liquidity across markets means severe dislocations are likely to be back in the not-too-distant future.

Equity and credit markets have seen sharp reversals, erasing much of the valuation cushion that had been built over the last quarter of 2018. In the meantime, we believe uncertainty remains over many of the major market drivers including the nature of a potential US/China trade deal and its eventual impact on corporate CapEx, the efficacy of the ongoing concerted monetary & fiscal stimulus (primarily driven by China) and other tail risks (US populism coming into 2020, Brexit, Auto tariffs, ...). This leads us to seek balanced exposure between upside capture, in certain value sectors & geographies while protecting on the downside through trade structuring as well as smart hedging strategies. We opt for positive carry portfolios, through a mix of credit and alternative risk premia strategies. We emphasized emerging markets as an attractive source of carry, with greater valuation support and the headwinds faced by the dollar, considering the Federal Reserve recent policy shift.

Finally, at this stage of the cycle, we prefer to keep a higher liquidity profile, to maintain optionality, unless the idiosyncratic liquidity premium/profile endogenously creates a decent margin of safety.

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## ALTERNATIVE RISK PREMIA

Asset Class	Strategy	Negative	Neutral	Positive	Comments
<b>Equities</b>					
	Low Beta				Low Beta extremely rich valuations at risk if growth picks up, fade recent strength.
	Momentum				Momentum has turned very defensive, aligned with low risk. Turning point for the economy with major catalysts ahead (trade) suggest caution.
	Quality				Constructive outlook on defensive nature at this stage of the business cycle. But already decoupled from credit spreads and expensive.
	Value				Greater value in value today, fears of turn in cycle overdone and resteeptening of the yield curve could make an attractive play, barbell with quality exposure.
	Carry				Neutral outlook on mixed signals.
	Mean Reversion				Shift lower in realized volatility is a headwind but out positive outlook on volatility in the coming months leaves us moderately overweight.
<b>Fixed Income</b>					
	Carry				Stay underweight at current carry levels across developed markets, opportunities remain in more niche developing or municipal bond markets. Opportunities in EM carry and EM FRB.
	Momentum				At strategic.
	Value				Meaningful divergence across value signals (absolute rates, real rates ...) suggests caution for this universe.
<b>Commodities</b>					
	Carry				Neutral as carry/seasonal patterns no longer supportive.
	Curve				Neutral allocation on mixed signals.
	Momentum				Positive fundamentals in late-stage business cycle but crowding risks have risen with stretched positioning in the energy complex for example.
<b>FX</b>					
	Carry				EM Carry offers attractive opportunities at current levels of valuations and carry. Retain underweight on G10 carry and prefer EM expressions instead.
	Momentum				Strategy well positioned to monetize ongoing trends in DM and EM FX.
	Value				Transition agreement offers some relief on the Brexit risk premium; shift in FX drivers with current account dynamics and value taking front stage. Look for entry points in JPY, EUR as defensive play.
	Mean Reversion				Higher volatility should help the strategy harvest gamma; factor has historically done well in high volatility environments and periods of volatility compression.



## ALTERNATIVE RISK PREMIA

### Outlook for Alternative Risk Premia Strategies

#### **Equity**

Our outlook for 2019 includes a lower expected return for low beta, on elevated valuations and continued risks from higher interest rates globally. The strategy has been a recipient of large inflows on the back of last quarter market volatility and move lower in interest rates. We still prefer to fade the recent strength, at current levels. Similarly, we are underweight momentum on large binary catalysts ahead that risk catching the factor by surprise. The ongoing US/China trade negotiations could well lead to an upside surprise for cyclicals; the ensuing short covering in cyclicals would prove costly to momentum shorts. We prefer a barbell approach of quality & value for the year which should offer a balanced factor allocation for both upside and downside scenarios. Quality could well continue to benefit from stress in corporate credit markets should the growth momentum continue to deteriorate while value should be a strong benefactor of a revival in cyclical sectors, with historically cheap valuations a major tailwind. Finally, we marginally reduce our allocation to mean reversion strategies on lower realized volatility. That said, we remain confident in the strategy's outlook as realized volatility could again turn higher, on negative growth surprises.

#### **Fixed Income**

In Fixed Income we remain underweight Carry and Value strategies. Interest rate differentials have compressed again over the past quarter leaving meager pickings for naïve carry implementations. In contrast, the divergence across value signals – e.g. real vs. nominal rates – suggests caution for this universe for the coming months. We stay neutral for momentum where the universe seems best positioned to capture a change in market direction.

#### **Commodity**

In Commodities we turn neutral on plain-vanilla Carry strategies, where carry and seasonal signals have turned less supportive. We retain neutral outlooks for both Curve and Momentum.

#### **FX**

In Foreign Exchange, we remain excited by the performance potential available in carry strategies, particularly within emerging markets. Elevated carry, relatively attractive valuations and headwinds to further dollar upside give us strong conviction. We stay overweight Mean Reversion as higher volatility should help support gamma harvesting algorithms. Mean Reversion has historically done well in both turbulent times and periods of volatility compression. Finally, we stay constructive on Value as a broader shift of focus towards current account dynamics plays itself in foreign exchange markets.

## Equity

Multi-factor equity risk premia broadly underperformed in 2018 as one can observe on the next chart showing the rolling one-year performance of a diversified basket of global long/short factors across value, momentum, size, quality and low beta. The strategy drew down by 6.7% over the year, dragged down by the poor returns of value, momentum and size.

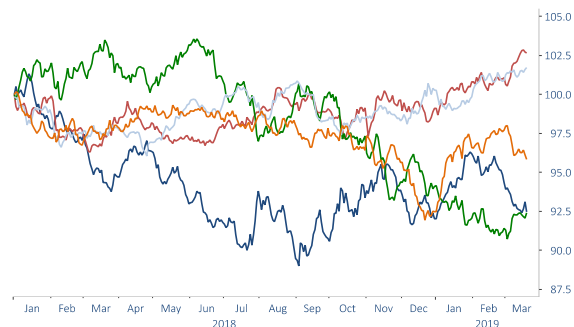
### Global Equity Multi-Factor L/S Rolling One-Year Performance

Global Equity Multi-Factor (Long / Short) [c.o.p. 1 year]



Source: Investcorp, JP Morgan

### Global Equity Factors (L/S) Performance in 2018



— Global Size (L/S) [rebase 01/01/2018=100] — Global Quality (L/S) [rebase 100]  
— Global Momentum (L/S) [rebase 01/01/2018=100]  
— Global Low Volatility (L/S) [rebase 01/01/2018=100] — Global Value (L/S) [rebase 01/01/2018=100]

Source: Investcorp, JP Morgan

Low Volatility and Quality factors were the only strategies that (barely) protected capital this year, supported by their defensive nature as sentiment turned decidedly bearish in the last quarter. As the following charts show, both strategies still underperformed relative to their macro sensitivities. Quality failed to gain much traction, on a global basis, despite rising risk premium in credit markets and much greater focus on companies balance sheets. In the same vein, Low Beta did not benefit much from the large rally observed in developed markets bond yields in the last months of the year. Historically, that factor had benefited to a greater extent from safe-haven flows and its “fixed income proxy” status in equity portfolios.

### US Quality Factor Performance vs Average OAS US Credit High Yield Index



Source: Bloomberg, Investcorp

That relative underperformance may be due to fairly elevated valuations, to begin with. It certainly looks like investors had already aggressively favoured low beta and quality stocks coming into the event, as credit concerns grew in the equity world. To that extent, credit may have just caught up with

the risk premia built in equities, explaining a lower outperformance from these defensive factors.

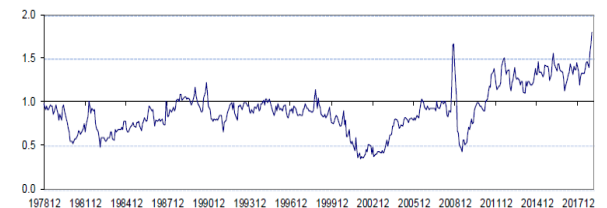
### US Low Beta Factor Performance vs. US 10-Year Yield (inverted)



Source: Bloomberg, Investcorp

That relative underperformance may be due to fairly elevated valuations, to begin with. It certainly looks like investors had already aggressively favoured low beta and quality stocks coming into the event, as credit concerns grew in the equity world. To that extent, credit may have just caught up with the risk premia built in equities, explaining a lower outperformance from these defensive factors.

### US Low Beta Factor – Relative Fwd P/E Ratio of High vs Low Quintiles

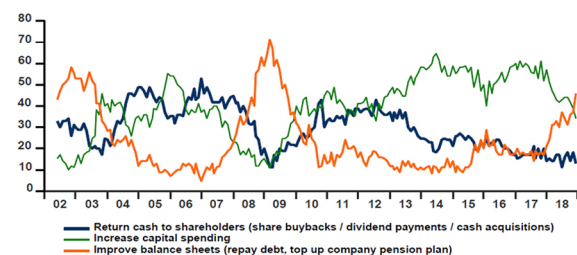


Source: Citi

## ALTERNATIVE RISK PREMIA

This theory is supported by the following chart highlighting the growing demand for corporate deleveraging across investors. The first spike in the preference for balance sheet improvement (orange line) matches well with the late '17 rally in Quality. The renewed concern for balance sheet leverage did not trigger however a similar bid for Quality.

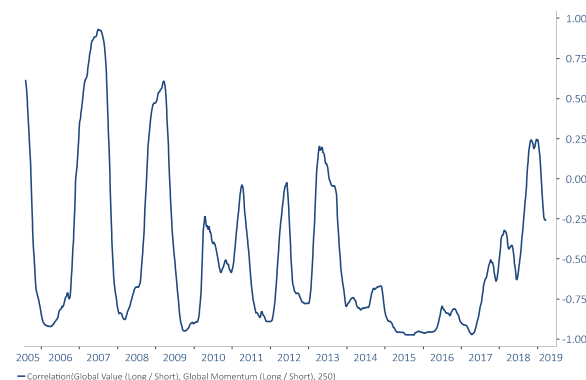
### Investor Preferences for Companies' Use of Cash Flow (Survey)



Source: BAML

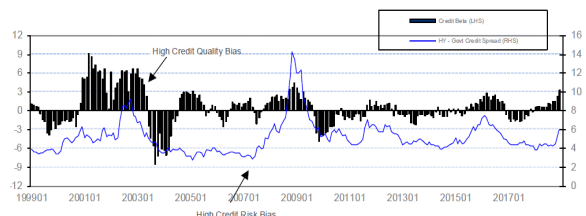
2018 was an odd year as both Value and Momentum suffered steep losses. The correlation between the two factors has been rising in recent months despite opposite response functions to market moves. This has seldom happened in history as one can see, with the most recent episodes in 2011 and 2013. Momentum has recently taken a more defensive stance, aligning itself more closely with quality and low beta as these styles outperformed. In so doing, it has also reached quite expensive levels when considering the forward P/E ratios of the high vs low factor quintiles. This leaves the factor at risk of short covering should the economic momentum proved more resilient than investors fear.

### Rolling Correlation of Equity Value vs. Momentum (1-Year Lookback Window)



Source: Investcorp

### Correlation of Momentum to Credit Quality



Source: Citi

### US Momentum Factor – Relative P/E Ratio of High vs. Low Quintiles



Source: Citi

The reverse has been true for Value, where the Price-to-Book discounts of its long vs short positions is reaching historical extremes. Certainly, the secular changes at play in the economy including most notably the increasing immaterial nature of most companies' assets may be lowering the informational value of P/B, when considered on a standalone basis. Still, even de-trended, the timeseries is showing greater potential for a Value revival today. This is still conditioned to a change in the macro-economic landscape... But January seasonal may also help trigger a short-covering rally...

### US Value Factor – Relative P/B Ratio of High vs. Low Quintiles



Source: Citi

So far, the relentless steepening of the yield curve has been a major headwind to the performance of Value. But value may prove to be an attractive play to benefit from a bull or bear steepening of the curve.

### US Value Factor Performance vs. US Yield Curve Slope (2-Year vs. 10-Year)

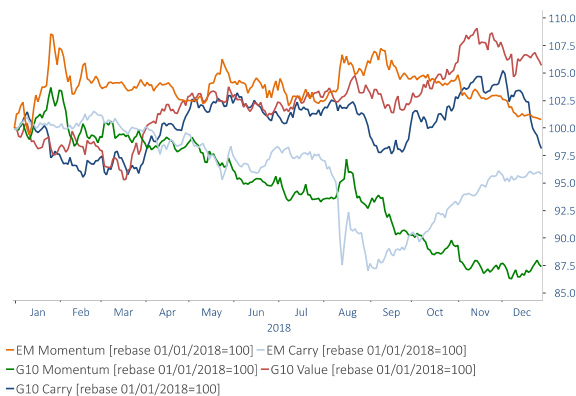


Source: Bloomberg, Investcorp

## Foreign Exchange

In foreign exchange, the performance of risk premia strategies was mixed with positive returns from Value in G10 and EM momentum while EM Carry and G10 Momentum underperformed. The performance of G10 Momentum was particularly sensitive on the look-back windows used, with longer-term trend models underperforming medium to short term implementations.

### FX Risk Premia Performance in 2018



Source: Nomura, Investcorp

The carry supporting global FX strategies picked up notably in 2018, although it came back slightly in the back end of the year. Still, current levels offer a decent tailwind to carry strategies, especially in an environment of lower yields and lower dollar. Valuations in emerging market currencies have been reset to more attractive levels and most countries have stronger balance sheets than in the past history.

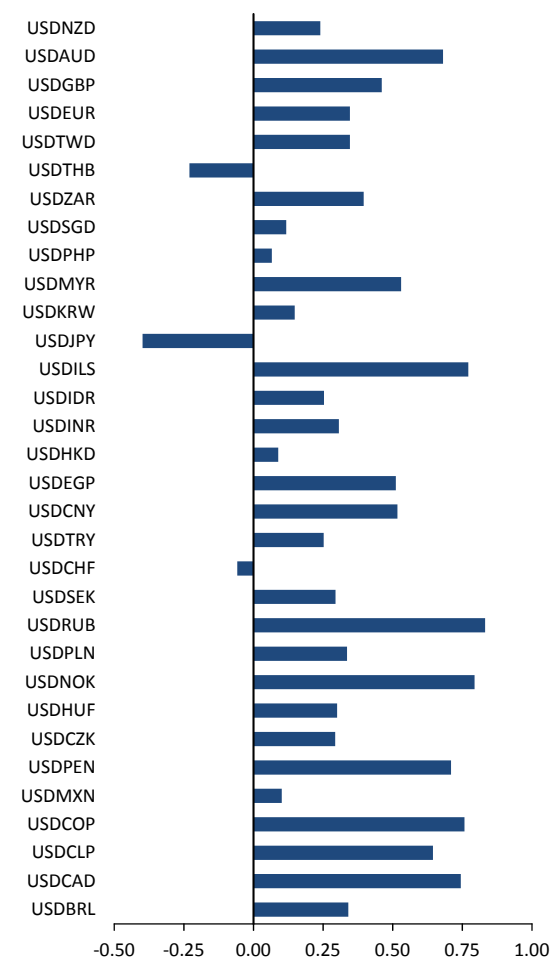
### Historical Carry – Global FX



Source: Investcorp

Momentum strategies remain long the dollar as one can see from a snapshot of momentum signals – averaged across 1-month to 1-year look-back windows. Only, the safe-haven currencies like the yen or the Swiss franc have turned positive – and the odd Thai baht that managed to significantly outperform its peers this year. We believe momentum may be at risk as the pricing out of Federal Reserve hikes may have capped dollar upside in the medium term.

### Global FX – Momentum Signals Snapshot

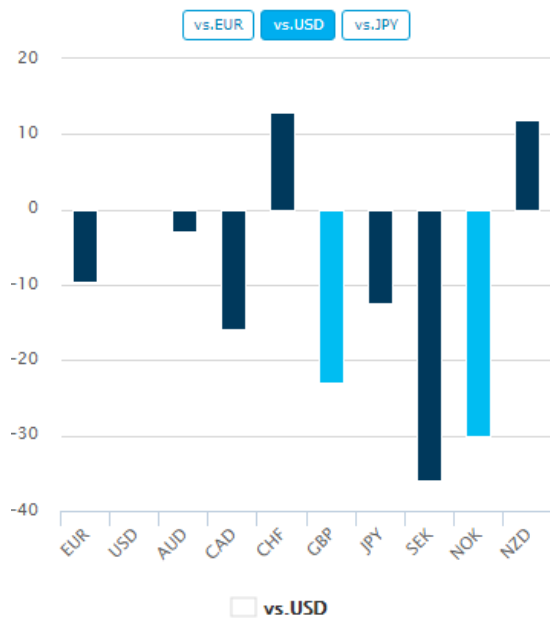


Source: Investcorp

## ALTERNATIVE RISK PREMIA

Dollar strength is also at risk in the context of elevated valuations with regards to its G10 peers, when considering Purchasing Power Parity models. Only the Swiss franc and the New Zealand dollar appear more expensive leading value models to prefer allocations to the Scandies or the Pound. The looming Brexit risk suggests caution on pound allocations and may require adjusting position sizing, ahead of key catalysts in the first quarter.

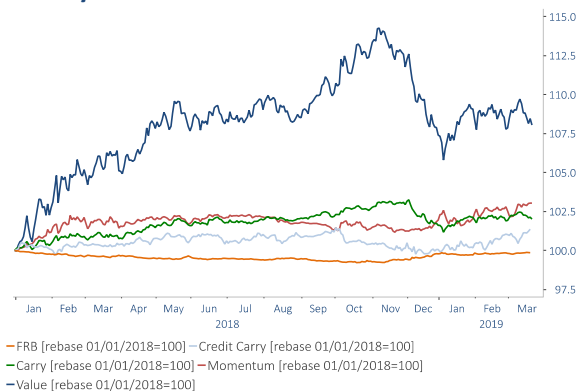
### Global FX – PPP Raw Value Signals Snapshot



Source: Barclays

## Fixed Income

### Fixed-Income Risk Premia Performance – January 2018 to March 2019



Source: Investcorp

In Fixed Income, we begin our review by an update on credit strategies. The sharp widening of credit spreads wreaked havoc with compression strategies in corporate credit. The spread between investment grade and high yield corporate credit debt widened to 160 basis points, from a low of 53 basis points in the summer.

Looking forward, we see room for tactical upside as our short-term reversion models turned more positive on higher-yielding credit. That said, we would be quick in taking profits on that allocation as the long-term picture remains challenged for corporate credit markets.

### Investment Grade – High Yield Credit Spread



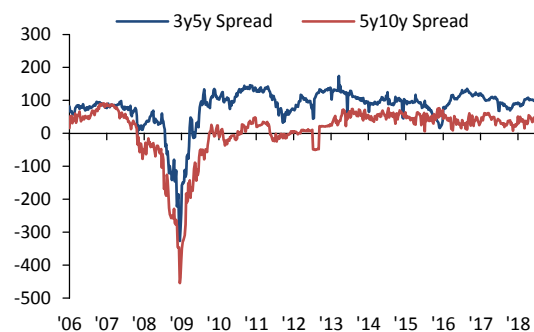
Source: JP Morgan, Investcorp

### High Yield Valuation Model



Source: Investcorp, JP Morgan

### US High Yield Credit Curves



Source: Investcorp, JP Morgan

As investors re-priced global growth lower, EM credit also saw large outflows with the spread to Treasuries reaching 435 basis points. We are more constructive on this asset class as leverage remains manageable across most sovereigns and a lower dollar could offer a powerful tailwind.

### EM Hard Currency Credit Historical Spread to Treasuries



Source: JP Morgan, Investcorp

Outside of credit, we remain underweight cross-sectional carry strategy in G10 fixed income. The historically low level of carry continue to point towards greater downside risks going forward and limited hedging benefits.

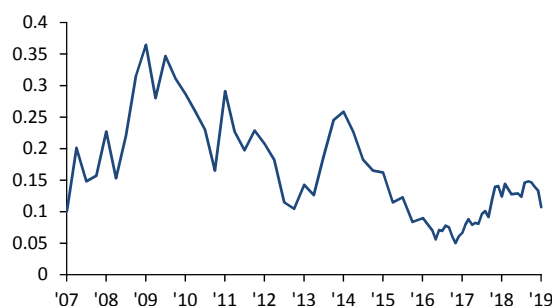
### DM Fixed-Income Carry Strategy – Historical Carry



Source: JP Morgan, Investcorp

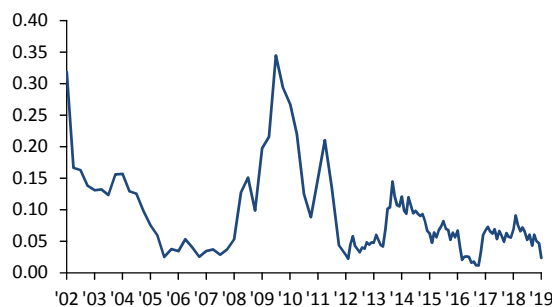
Our call for a larger allocation to front-rate bias strategy has paid off but we would be taking profits here, particularly for developed market strategies. In the DM space, the curves no longer offer any carry as investors scaled back expectations of higher interest rates for 2019 and beyond. We continue to overweight FRM in emerging markets where we may see some easing from central banks as inflation stabilizes on the back of lower commodity prices and a lower dollar.

### Emerging Markets Front Rate Bias Strategy – Historical Carry



Source: JP Morgan, Investcorp

### Developed Markets Front Rate Bias Strategy – Historical Carry

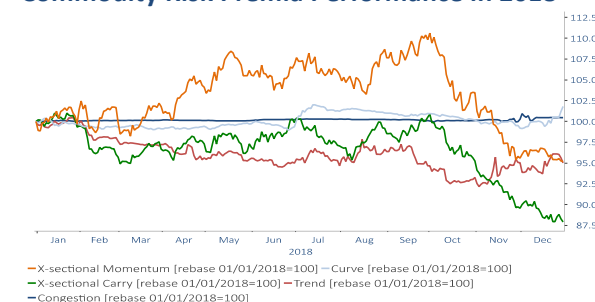


Source: JP Morgan, Investcorp

### Commodity

Cross-sectional carry and momentum/trend strategies underperformed in the commodity complex in 2018. The sharp reversal seen in energy prices in the fall was particularly costly to momentum signals while congestion and curve failed to gain much traction throughout the year.

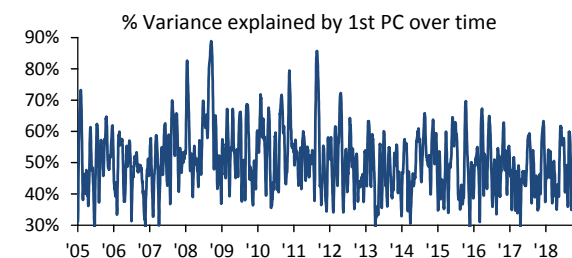
### Commodity Risk Premia Performance in 2018



Source: Investcorp

In the commodity space, our historical rolling principal component analysis, or PCA, which helps explain variance across the factors that are driving returns – continues to point to decent diversification properties. As can be seen in the charts below, the percentage of inertia – variance – stemming from the first and first three factors continues to indicate that the situation is “business as usual.”

### Commodity Universe – Internal Diversification Properties



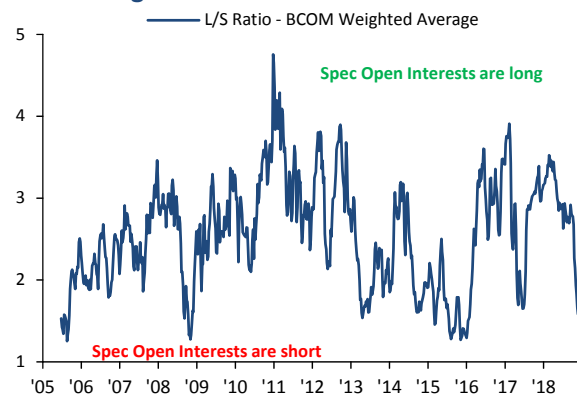
Source: Investcorp



## ALTERNATIVE RISK PREMIA

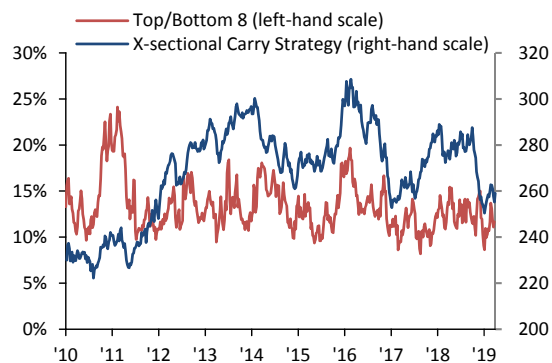
Speculative positions have moved to a large short position in commodities, in the historical context. This creates greater risks of an upside squeeze should fundamentals or geopolitical events turn more constructive for the asset class.

### Aggregate Commodity Speculative Investor Positioning Indicator



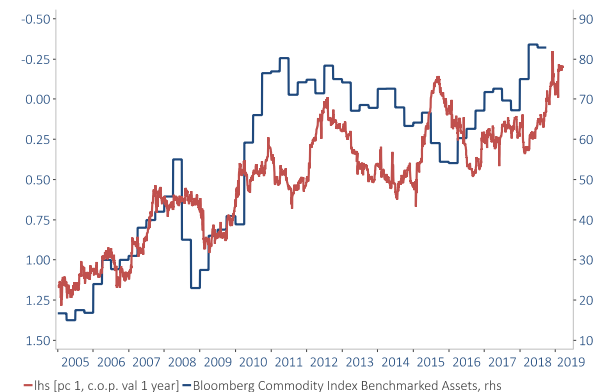
Source: Investcorp

### Commodity Cross-sectional Carry Strategy Performance & Historical Carry Metric



Source: Bloomberg, Investcorp

### Commodity Congestion Performance & Historical BCOM AuM



Source: Bloomberg, Investcorp



## HEDGE FUNDS

Strategy	Negative	Neutral	Positive	Comments
<b>Hedged Equities</b>	■ ■ ■	■	■ ■ ■	Expect range bound markets, play managers with trading skills and be mindful of factor exposures to provide balanced exposure.
US	■ ■ ■	■	■ ■ ■	New environment of higher volatility likely to stay but managers have adapted through lower net/gross exposures. Prefer alpha or trading oriented managers, balance factor expo.
Euro area ex UK	■ ■ ■	■	■ ■ ■	Strong support from valuations but overhang of geopolitical risks and lack of structural growth.
Japan	■ ■ ■	■	■ ■ ■	Reflation play attractive, support from valuations but yen exposure an issue.
Emerging Markets	■ ■ ■	■	■ ■ ■	Attractive relative valuations, well positioned to outperform in upside scenarios
<b>Event-Driven</b>	■ ■ ■	■	■ ■ ■	Tactical overweight in Merger Arbitrage as spreads widened in excess of fundamentals; stay neutral Special Situations
Special Situations	■ ■ ■	■	■ ■ ■	Potential for diversifying value exposure relative to fundamental L/S funds. Seek diversification from momentum/growth plays
Merger Arbitrage	■ ■ ■	■	■ ■ ■	Greater opportunity as higher volatility & spreads opened up M&A spreads. Stay tactical
<b>Equity Market Neutral</b>	■ ■ ■	■	■ ■ ■	Limited beta and diversifying features attractive in late-cycle environment
<b>Macro Discretionary</b>	■ ■ ■	■	■ ■ ■	Greater volatility should offer opportunities for RV/Trading managers but uncertainty over macro trends may limit upside potential near term. EM still has a place in a diversified portfolio
<b>Macro Systematic</b>	■ ■ ■	■	■ ■ ■	Trend following at risk in range bound environment: lower potential in rates with crowded shorts, maybe better in FX/alternative markets
<b>FI Relative Value</b>	■ ■ ■	■	■ ■ ■	Strategy has adapted well to a changing environment: it is less sensitive to balance sheet scarcity and well positioned to profit from funding dislocations.
<b>Corporate Credit</b>	■ ■ ■	■	■ ■ ■	Limited carry and asymmetric liquidity profile leave us underweight. Few dislocations to capture; prefer niche plays or wait for even better entry points
<b>Corporate Distressed</b>	■ ■ ■	■	■ ■ ■	Stay out of traditional corporate distressed plays as tight spreads leave limited risk premium in distressed assets. Look for idiosyncratic themes & opportunities.
<b>Structured Credit</b>	■ ■ ■	■	■ ■ ■	Traditional structured credit offers limited carry and upside optionality, however idiosyncratic opportunities across near CLO refi's and resets, callable RMBS, and near-maturity CMBS offer potentially attractive risk-adjusted reward.
<b>Convertible Arbitrage</b>	■ ■ ■	■	■ ■ ■	Relatively cheap valuations should offer support. Tepid new issuance and liquidity remain a concern
<b>Vol Arb</b>	■ ■ ■	■	■ ■ ■	Higher volatility environment here to stay, cross-asset & cross regions opportunities



## HEDGE FUNDS

### Hedge Fund Strategy Outlook

We retain our neutral outlook for **Hedged Equities** hedge funds. Equity volatility is likely to remain elevated and we prefer managers that can deliver alpha through tactical trading. We see lower risks to alpha as equity funds have already aggressively reduced net and gross exposures.

We remain neutral on **Special Situation** managers given the high consumption of equity beta budget. In **Merger Arbitrage**, we are staying tactical, seeking to increase exposure in periods when spreads widen in excess of their cross-asset anchors, i.e. equity volatility and investment grade credit spreads.

We continue to hold a constructive view on the **Macro Discretionary** investment style. Global macro managers are best equipped to monetize higher volatility and offer a valuable source of diversification in hedge fund portfolios, at this stage of the business cycle. We remain neutral on **Macro Systematic** as trend-following models have now adapted to a higher volatility regime but near-term prospects suggests continued choppiness across markets.

**Fixed Income Relative Value** remains a high conviction as greater velocity of flows and lower balance sheet capabilities from broker/dealers continue to support alpha generation. We continue to slightly underweight **Corporate Credit** managers. Credit relationships remain fairly tight and offer limited potential for alpha generation.

In **Distressed**, we maintain our neutral stance with an opportunity set bifurcated between tepid return expectations in traditional corporate distressed on the basis of compressed credit spreads relative to various risk measures and a greater performance potential in non-corporate idiosyncratic themes.

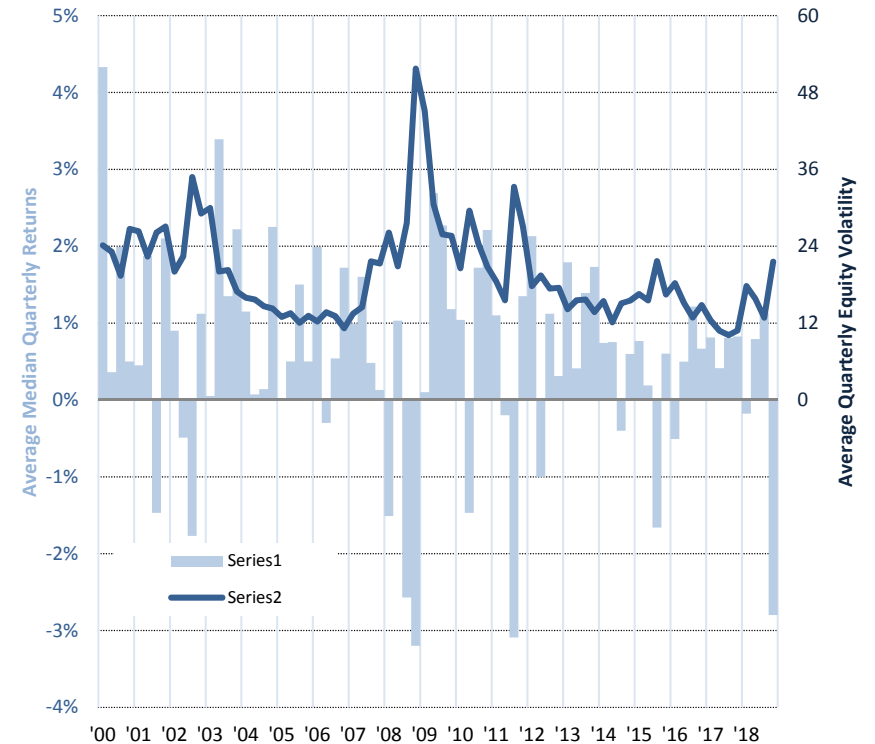
In **Convertible Arbitrage**, we hold our neutral outlook. We continue to see pockets of value and catalysts for managers to deliver on mild expectations. The same rational anchors our perspective for **Structured Credit** hedge funds.

Finally, we retain our overweight in **Volatility Arbitrage**. The dislocation in equity volatility has opened up a range of attractive relative value trading opportunities, across products, geographies and asset classes.

## Equity Long/Short

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
Valuation	■ ■ ■	■	■ ■ ■	Valuations have reset higher and leave little room for error if the macro momentum fails to re-accelerate from current depressed levels.
Earnings	■ ■ ■	■	■ ■ ■	Earnings growth has peaked and is likely to settle in the 0-5% in the United States. Consensus numbers will likely continue to be revised down.
Stock Selection	■ ■ ■	■	■ ■ ■	Equities pair-wise correlation has remained well behaved despite risk off environment, supported by large factor & sector rotation. At risk if the environment deteriorates further from current levels.
Momentum / Sentiment	■ ■ ■	■	■ ■ ■	Positioning has been reset materially lower, with large de-risking visible in both net and gross market exposures for equity hedge funds.
Macro Fundamentals	■ ■ ■	■	■ ■ ■	Recent disappointments in macro data likely transitory; reflationary environment consistent with positive returns for equities, albeit at a higher level of volatility as financial conditions tighten and excess liquidity is being withdrawn.
Liquidity & Financing	■ ■ ■	■	■ ■ ■	Not an issue for large and mid-cap names in developed markets; prime brokers are raising financing costs.

## US Equity Long/Short Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

Source: PerTrac, Investcorp

## HEDGE FUNDS

### Equity Long/Short

On the heels of the upheaval that occurred in last year's fourth quarter, equity markets have witnessed sizable reversions. For the year to date, global equity L/S hedge funds have generated strong performance, posting gains that match 2018's full year losses. Indeed, hedge funds as a group appear to have been major beneficiaries of the recent recovery, capturing more than 60% of the MSCI World index run-up despite historical exposure levels nearer 50%.

Nonetheless, despite a more accommodating environment than we saw in the latter half of last year, we are not convinced. From where we sit, easier financial conditions are simply not enough for us to drink the bullish Kool-Aid. On the contrary, we believe that elevated valuations, late-cycle concerns, heightened geopolitical risks, crowded positioning, and a changing volatility regime continue to warrant caution and a firmly neutral stance.

That is not to say that the moves seen so far are unimpressive. The reversal in share prices that began in late December has thus far carried well into the current year, and appears virtually unstoppable in the face of the Fed's pivot away from continued gradual rate hikes to an indefinite pause in the tightening cycle. Lending further support has been a lessening of US China trade tensions, with prospects for a market-friendly deal seemingly more likely than not.

Looking at developments in more granular terms, the pattern of sector and factor rotations has markedly reversed from what it was at the end of 2018. In particular, we have seen a sizable rebound in growth relative to quality. In the US, for instance, the S&P 500 Growth index gained 14.1% through the latter part of

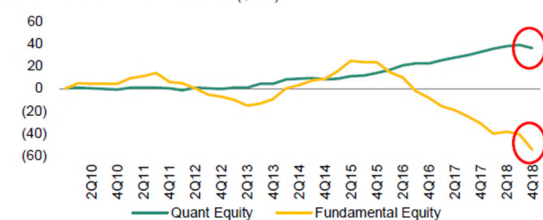
March, outpacing its value-oriented counterpart by 120 basis points.

The mid-cap segment has also fared well; the Russell 2000 is up 12.5% year-to-date amid waning concerns about supply chain inefficiencies being exacerbated by trade policy uncertainty. Separately, cyclical and commodity-oriented sectors underperformed last quarter, while energy stocks (+14.0%), homebuilders (+17.0%) and financials (+11.5%) have been at the forefront of the upside charge.

In terms of asset flows, the long-running shift toward passive ETFs and quantitative funds – the pace of which slowed somewhat in 2018 – remained intact. Last year, for instance, quantitative equity saw inflows of 3.2% while fundamentally-oriented funds witnessed outflows of 3.1%, as illustrated below. Consequently, the former group has increasingly become price-setters at the margin; their tight risk triggers in response to market turbulence have helped amplify broad rushes to the exits. Managers with a fundamental bent, meanwhile, continue to have less firepower available to buy the dips, even when it might otherwise be warranted.

### Equity Hedge Fund Flows

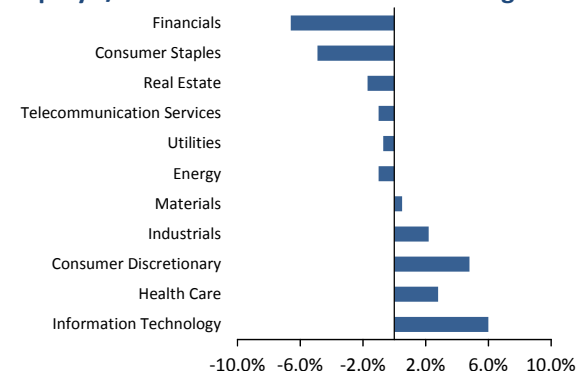
**Large 4Q Outflows for Fund. Eq.; Small Quant Outflows**  
Cumulative Net Asset Flows (\$Bn)



Source: Morgan Stanley

Positioning remains heavily skewed toward growth and momentum, as the following chart shows; exposure to the technology and consumer discretionary sectors, in particular, remains at lofty levels, reflecting continued overcrowding. Even after the big selloff in popular favorites toward the latter half of last year, positioning remains largely where it was prior to the fourth quarter. In fact, longstanding crowded longs have managed to retrace more than half of their 2018 losses since the current year began. Financials remain the sector where managers are most underweight, despite relatively benign valuations, including a forward P/E of 10.5 versus 16.6 for the S&P 500 index.

### Equity L/S Funds Relative Sector Positioning



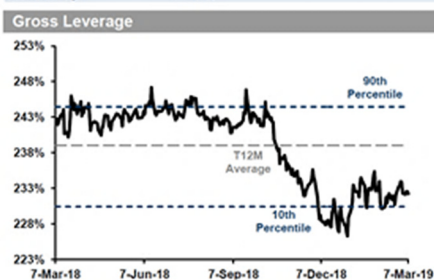
Source: Goldman Sachs

That said, aggregate equity L/S fund exposures paint a slightly different picture than lower-level positioning data. As the following chart reveals, equity L/S fund exposures remain near the bottom decile of their historical range and are significantly lower than their trailing 12-month average following the unwinding that occurred amid the late-2018

turbulence. While this could be viewed as a positive, the sharp, V-shaped rebound since then has likely limited prospects for much more upside ahead.

#### Equity L/S Funds Relative Sector Positioning

	Gross Leverage %	Date
Current	232.3%	7-Mar-19
T12M High	247.2%	14-Jun-18
T12M Low	226.3%	3-Jan-19
T12M Average	239.0%	



Source: Goldman Sachs

With all of the above in mind, as well as still-elevated geopolitical risks, we maintain our neutral stance on the group across all geographic regions.

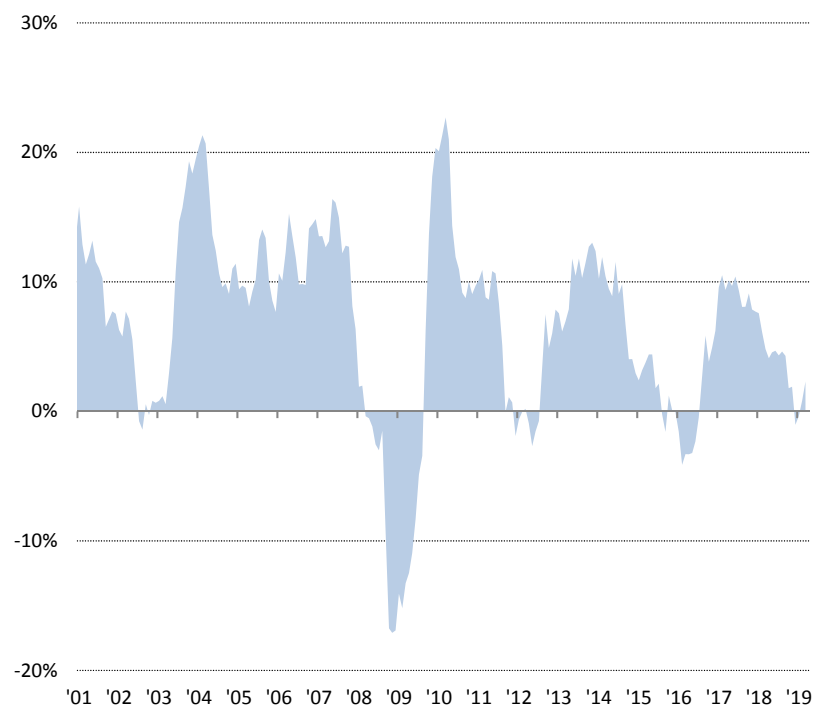
## HEDGE FUNDS

### Special Situations / Event-Driven

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
Market Beta	■ ■ ■	■	■ ■ ■	Neutral outlook for equities.
M&A Spreads	■ ■ ■	■	■ ■ ■	Spreads have widened meaningfully and now trade above what equity volatility and investment grade credit spreads would suggest.
Corporate Activity	■ ■ ■	■	■ ■ ■	Greater political uncertainty and higher cost of capital likely to dampen large corporate activity.
Activism	■ ■ ■	■	■ ■ ■	Activism continues to benefit from their sector and factor positioning, with also increasing security selection alpha in a less crowded market environment.
Tax	■ ■ ■	■	■ ■ ■	Limited catalysts.
Crowdedness	■ ■ ■	■	■ ■ ■	Lower levels of crowding in special situations portfolios.

Median 12-Month Rolling Returns<sup>1</sup>

### Event Driven Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

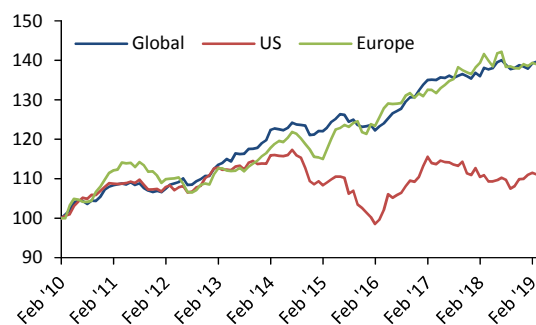
Source: PerTrac, S&P Capital IQ, Investcorp

## Special Situations / Event-Driven

Event-driven hedge funds globally gained a net 4.96% in the first three months, according to EurekaHedge, allowing many segments to recover what they lost in the fourth quarter. Based on EurekaHedge indices, US-focused funds were up 7.55% through March, more than offsetting the prior period's losses. Funds targeting emerging markets and Asia ex-Japan returned 7.02%, somewhat shy of what they gave back previously, while European funds tacked on a modest 2.71%.

The powerful rally we have seen since 2019 began has been a story of recovery across most asset classes, including the event-driven space. Returns have also been bolstered by the group's beta exposure to special situations and, in many cases, a significant uptick in corporate activity. As suggested below, many managers also appear to have generated increased alpha.

### Event-Driven Funds – Alpha by Region



Source: Bloomberg, Investcorp

### Outlook on Event-Driven Opportunity Set

Despite last quarter's sharp equity rebound, we continue to believe we are in a late-cycle economic recovery, which leaves us unwilling to alter our

neutral stance on the event-driven opportunity set. Markets may have shrugged off worries about growth, but geopolitical concerns remain, including those related to heightened trade frictions and rising populist sentiment. That said, there has been a modest pickup in corporate activity since 2019 began. As the following chart illustrates, the number of firms considering "strategic alternatives" looks on track to rise for the first time since 2016. Nonetheless, we remain in wait-and-see mode given the relatively small sample size involved.

### Number of Companies Considering Strategic Alternatives



Source: Capital IQ, Investcorp

Mirroring the slightly brighter outlook noted above, investment banking advisory stocks performance relative to that of the broader market – a proxy for corporate activity – has recorded a small uptick, as shown below. However, given the scale of underperformance we saw during the latter half of 2018, we would want to see more data to gain conviction that a full-on revival is underway.

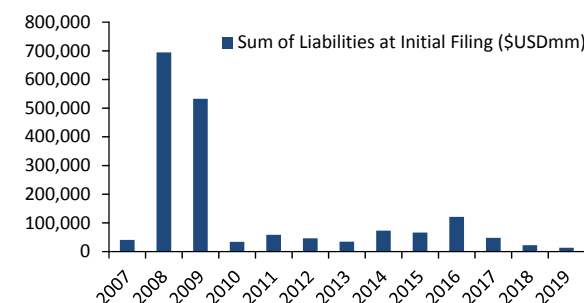
### Average Performance of Rothschild, Lazard, Moelis and Evercore Shares vs. S&P 500



Source: Bloomberg, Investcorp

Elsewhere, the growth in corporate debt levels is a development that needs to be monitored and a risk worth thinking about. Buoyed by a burgeoning leveraged loan market and historically low levels of bankruptcy – illustrated in the chart below – the aggregate value of issues outstanding has increased sharply. While US bankruptcies are at their lowest levels in more than a decade, a late-cycle deterioration in fundamentals and a consequent rise in corporate defaults, corporate stress and bankruptcies could weigh on the segment's beta-driven returns.

### US Bankruptcies Historical Volume

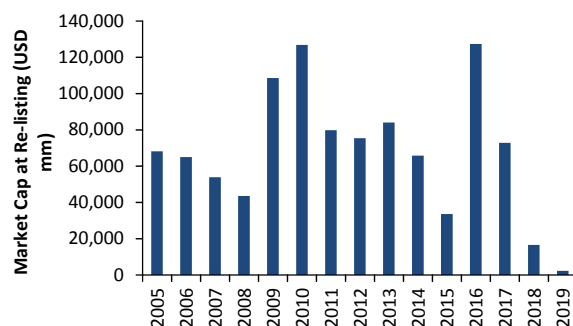


Source: Capital IQ, Investcorp

## HEDGE FUNDS

That said, rising debt-related turbulence could also serve to expand and enhance the strategy's forward-looking opportunity-set, owing mainly to increases in reorganization- and inorganic-growth-driven corporate activity. Given the drop-off to all-time lows in post re-organization equity turnover, highlighted in the chart below, some might argue there is no way for this measure to go but up as the economic cycle matures.

### Post Reorganization Equity Volumes



Source: CapitalIQ, Investcorp

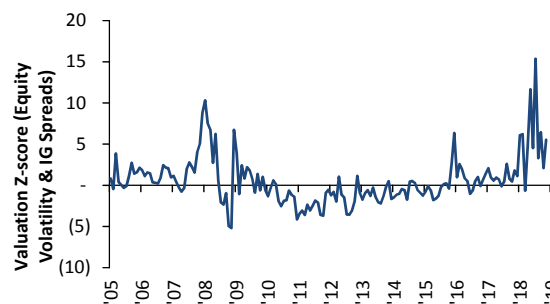
**Merger arbitrage** hedge funds returned a net 2.72% in the first quarter, according to HFRI, compounding last year's 3.29% gain and outpacing other event-driven sub-strategies. Keep in mind, however, that while the segment has fared well in relative terms, conditions have been less-than-supportive. In the announced M&A deal universe, for instance, spread volatility has picked up amid heightened market turbulence, rising nationalism and protectionism, greater trade uncertainty, and a variety of geopolitical developments, including concerns about a no-deal Brexit. In addition, corporate transactions involving technology and infrastructure have come under increased scrutiny, especially when they require both US and Chinese approval. In our view, the headwinds facing such

deals will likely continue, and we recommend taking a highly selective and cautious approach when it comes to cross-border M&A investing.

As readers may recall, our merger arbitrage valuation framework seeks to assess spread values in the context of market developments related to equity volatility and investment-grade credit spreads. We have found that these two measures can yield helpful insights with respect to valuations. By using a normalized fair value metric, we can better ascertain when spreads are trading cheap or rich to fundamentals, affording us a more informed view of the segment's future prospects.

In recent months, our valuation metric has been edging higher, suggesting that spreads are currently trading near fair value relative to underlying fundamentals. Indeed, despite heightened spread and broader market volatility, spreads have remained resilient and have not (yet) widened out to attractive levels. Consequently, we recommend that allocations to the strategy be made on a selective basis, with a distinct focus on complex, alpha-generating deals.

### US Merger Arbitrage Spreads Valuation Metric

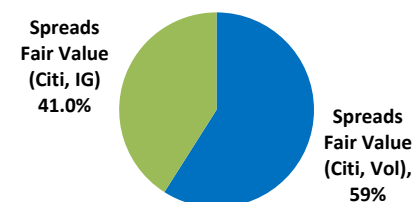


Source: Bloomberg, Investcorp

As far as the constituent drivers go, there has been something of a turnabout. Reversing the pattern of

recent quarters, much of the cheapness in merger arbitrage spreads is now attributable to moves in equity volatility relative to a tightening in merger spreads, as illustrated below.

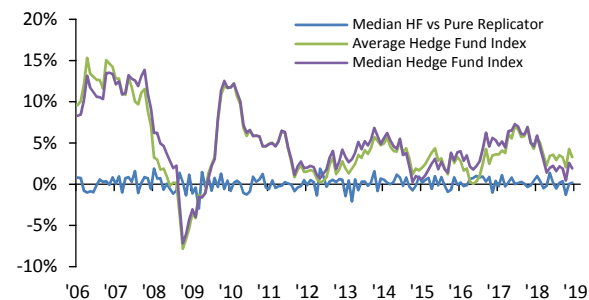
### Breaking Down the Value Metric by Component



Source: Bloomberg, Investcorp

Finally, in assessing our outlook for the strategy, we also take account of how it is implemented. As has been the case in prior periods, merger arbitrage hedge funds continue to generate strong alpha, outpacing pure replicators and the strategy benchmark. That said, absolute returns remain limited, largely because those opportunities deemed relatively "safe" have meager spreads, while those that have more to offer are cross-border deals that are often fraught with regulatory or other risks.

### 12-months Rolling Performance: HF vs Replicators



Source: Bloomberg, Investcorp

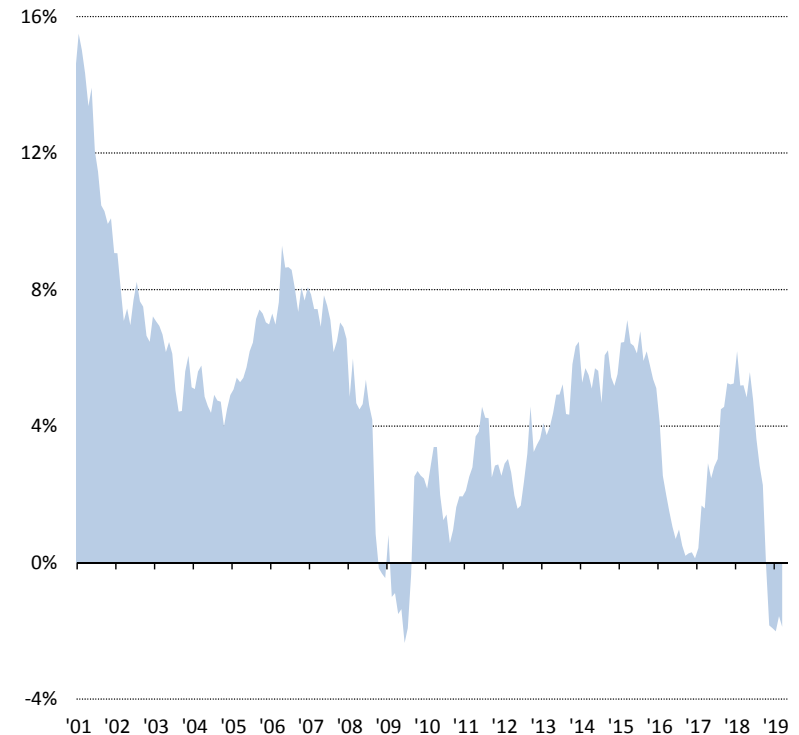


## Equity Market Neutral

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
<b>Dispersion</b>	■ ■ ■	■	■ ■ ■	Volatility-neutralized dispersion trading remains significant. Sector rotation is the primary driver amid equity market bifurcation stemming from new macro trends and changing government policies.
<b>Valuations</b>	■ ■ ■	■	■ ■ ■	Defensive factor valuations are unattractive, though they are not at historical extremes.
<b>Capital</b>	■ ■ ■	■	■ ■ ■	Capital allocated to the strategy has declined; returns have not kept pace with long-biased equity counterparts and prop trading desks have exited.
<b>Liquidity</b>	■ ■ ■	■	■ ■ ■	Liquidity is not an issue with respect to large and midcap developed market names. In small-cap and emerging markets, however, turnover constraints remain key to exploiting attractive alpha opportunities.
<b>Financing</b>	■ ■ ■	■	■ ■ ■	Higher short-term deposit rates enhance the attractiveness of cash collateral, but it is offset by higher prime broker financing costs.

Median 12-Month Rolling Returns

## Equity Market Neutral Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

Source: PerTrac, Investcorp

## HEDGE FUNDS

### Equity Market Neutral

Equity market neutral hedge fund returns were flat-to-lower in the quarter-to-date through February; the HFR EMN Index rose 0.55% and the HFRX EMN index lost 1.3%. Although last quarter witnessed a strong rally in share prices and a bounce back in equity long/short fund performance, it was apparent based on the EMN peer group we track that trading conditions were challenging. After starting the year on a positive note, managers were confronted by developments in February that were as difficult as those seen last October, though for different reasons.

In prior updates, we discussed the headwinds that weighed on the sector for most of last year, including the flood of capital into the space and a lopsided dependence on a limited set of highly-correlated factors — led by momentum and growth — which experienced sharp swings in performance and concomitant liquidations by long/short managers. That said, while disappointing quant fund returns last quarter were partly attributable to spillover from the latter, the February setback was exacerbated by a short squeeze in the lowest quality stocks. The rally in junk led to significant underperformance in value and heightened volatility in momentum, leaving EMN funds positioned long and short based on the contrasting fundamentals in the lurch. As shown in the following chart from Goldman Sachs, the divergence between the cheapest and richest stocks has reached an extreme; following the run-up in low-quality names, the US value factor was near a 2.6 standard deviation discount to its historical average.

### Long/Short Factor Valuation

Factor - Market Neutral	Fwd. P/E <sup>3</sup> (L/S Ratio)	5Y Avg.	Diff.	St Dev Above /Below Avg.
Growth (High vs. Low)	1.7	1.5	11%	1.4
Balance Sheet (Strong vs. Weak)	1.2	1.1	9%	1.4
Size (Large vs. Small)	1.1	1.0	8%	1.0
Volatility (Low vs. High)	1.0	1.0	1%	0.1
Momentum (Leaders vs. Laggards)	1.2	1.2	0%	0.0
Financial Returns (High vs. Low)	0.9	0.9	-2%	-0.2
Short Interest (Low vs. High)	0.9	0.9	-6%	-1.0
Integrated (High vs. Low)	0.7	0.8	-11%	-1.4
Value (Cheapest vs. Richest)	0.4	0.5	-18%	-2.6

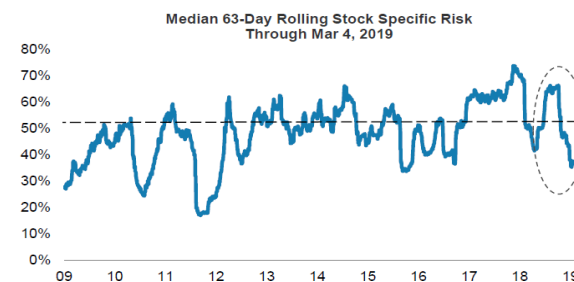
Source: Goldman Sachs

Value's poor showing during abrupt equity up-swings is not uncommon; we are not surprised to see casualties in the quant space during such epi-sodes. Nevertheless, despite the lessons of the past and the measures that systematic funds have taken to insulate models from such fallout, matters tend to play out in ways that invariably leave many of them behind. This stems, in part, from the fact that factors are difficult to time. Moreover, regardless of the robustness of alpha signals, the proven way to mitigate losses during such times is to diversify by strategy, data sets, time frames and geographies.

Arguably, the latter aspect may help explain why a handful of large and mostly closed funds in our peer group — which ranges from risk premia specialists to multi-strategy EMN managers — significantly outpaced the rest in 2018 and have continued to do so this year. In contrast, fundamental factor-based funds with a value-leaning bias generally trailed the pack last quarter. In terms of sub-strategies, several shorter-term-oriented statistical arbitrage and machine-learning-focused funds posted numbers that were respectable but hardly exceptional. Regionally speaking, Europe and Asia-oriented managers outshone US-focused counterparts; sector-wise, funds with a more defensive bent fared better than those targeting cyclical areas.

Although not particularly useful for forecasting purposes, one indicator that helps quantify the environment that quant managers are having to contend with is the degree of idiosyncratic, or stock-specific risk, which is not accounted for in a generic factor risk model. According to Morgan Stanley, idiosyncratic risk has been falling since last year's fourth quarter and, during March, hit its lowest levels since September 2016, as shown below. Correlation is not causation, of course, but it is worth noting that this measure was closer to 70% for most of 2017, when the strategy generally had a good run.

### Top 500: Stock-Specific Risk, Rolling 63-Day Windows (Through Dec 6, 2018)

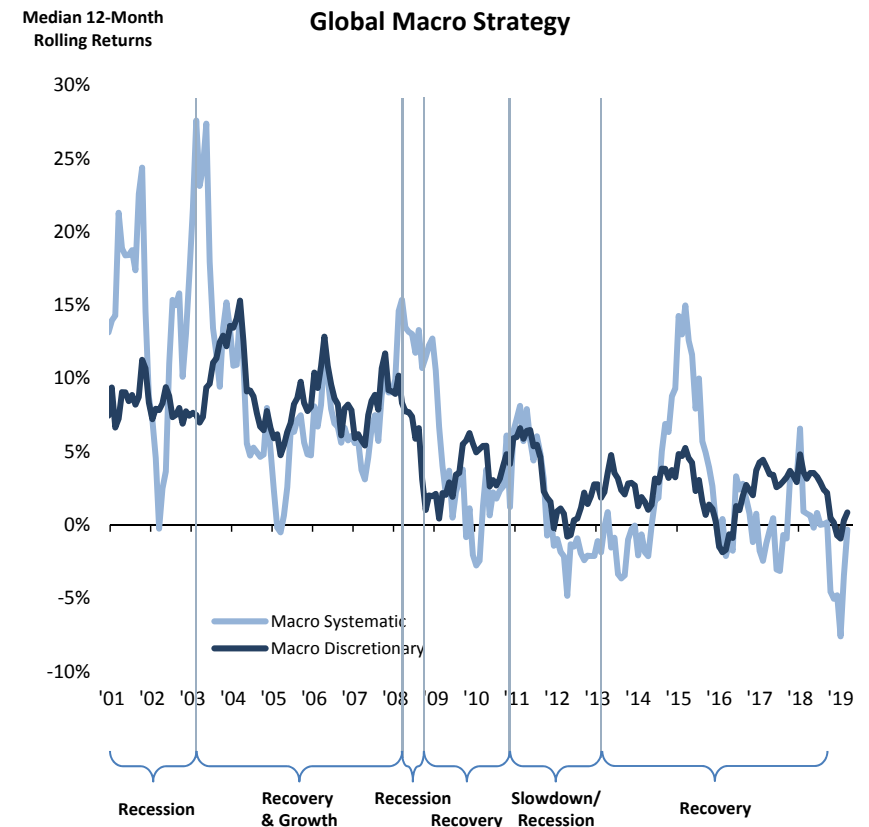


Source: Morgan Stanley, FactSet

From a top-down perspective, signs of a growing consensus among central banks about the policy path going forward provide a measure of macroeconomic certainty. However, with US-China trade negotiations and Brexit discussions still muddying the waters and a potentially volatile US election season getting underway, we could easily see macro-political headlines driving markets for the balance of the year, creating a challenging backdrop for stock selection. Under the circumstances, we continue to favor broadly diversified multi-strategy quant funds and would avoid chasing the returns generated by narrowly-focused and concentrated stock strategies.

## Global Macro

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
<b>Fundamentals</b>	■ ■ ■	■	■ ■ ■	Growth and inflation upturns proceeding at different speeds across regions, offers opportunities for differentiations across interest rate and foreign exchange markets.
<b>Trends</b>	■ ■ ■	■	■ ■ ■	Potential for trends in interest rates and foreign exchange.
<b>Correlation</b>	■ ■ ■	■	■ ■ ■	Slightly lower diversification in rates but foreign exchange and commodities still offer a good playing field.
<b>Volatility</b>	■ ■ ■	■	■ ■ ■	Higher market volatility is opening up opportunities for trading and rewarding smart use of option structures.
<b>Crowding</b>	■ ■ ■	■	■ ■ ■	Limited risk of crowding in macro themes today (outside of perhaps long oil).



Median returns are those of Investcorp's strategy peer group.

Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

Source: PerTrac, Investcorp

## HEDGE FUNDS

### Global Macro

#### Macro Discretionary

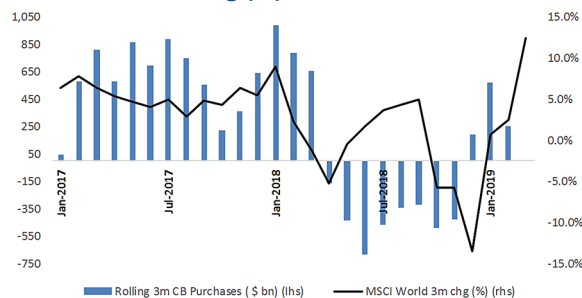
Discretionary global macro funds posted a net return of +2.9% in the first quarter 2019, according to HFRI indices.

Despite the Macro Discretionary strategy underperforming the HFRI Fund Weighted composite (+5.9%) in the first quarter the strategy remains one of our most preferred overweight strategies. We advocate for a diverse portfolio of macro managers with exposure to a broad range of policy divergence themes with an increasing tilt towards more traditional “FI/Rates/FX” managers. There are significant opportunities in the Emerging Markets complex but would recommend managers that can be tactical, trade relative value opportunities and avoid more illiquid areas such as corporate credit (single cusips) at this stage of the economic cycle.

As outlined in the Macro Systematic section, periodic sharp pull-backs in risk assets, interspersed with trading ranges made navigating markets treacherous in 2018. Furthermore, the softening of growth indicators in the last few months of 2018 heavily impacted the performance of risk assets into year-end, before we saw an abrupt turnaround and “V” sharp rebound in risk assets from mid-December into the first quarter. This dramatic shift in sentiment was largely driven by Central Bank policy, primarily through the more dovish policy shift from Chairman Powell. Specifically, by referring the word “patience” during the January 2019 FOMC meeting indicating that the Federal Reserve was likely to be on hold for the foreseeable future. This policy shift was further supported by a shift in central bank purchases (ECB and BoJ) that had previously been on a weakening trend in 2018 and that likely presaged the sell-off in risk assets. Risk assets have had a high

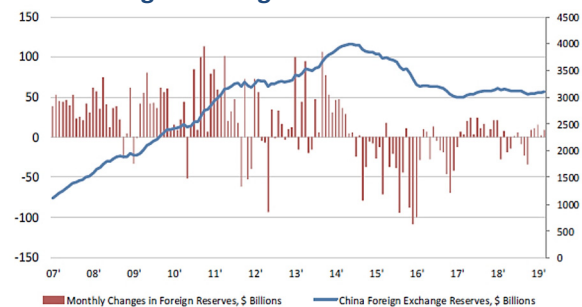
degree of correlation to global Central Bank purchases and this trend was again highlighted over the last six months.

#### Global Central Bank Security Purchases vs. MSCI World 3m chg (%)



Concerns on weakening China growth were assuaged both by aggressive credit expansion and rebound in China’s shadow banking system. Concerns on capital flight related to currency weakness from cuts in its lending rate are on hold as FX reserves remain relatively stable.

#### China Foreign Exchange Reserves



Macro Discretionary managers that came into the year with risk limits reset and dry powder and an appetite for risk were duly rewarded benefiting from the aforementioned benign environment for risk

assets in the first quarter. Macro discretionary managers generally posted strong numbers in January, particularly in the emerging markets space that benefitted from the strong rally across EM equities, credit, bonds and FX. Managers that did not try to fade the rally in risk assets into February and March fared better; as did managers that caught the sharp move in duration that saw the US 10-year rally 80bps from the December lows (though clearly underperforming their Macro Systematic counterparts on this move).

We will detail performance across the top 100 Macro Discretionary managers in our mid-year review but for now in terms of allocation our playbook for 2019 is to have exposure to the following components within the Macro Discretionary space:

- Managers with cross-asset expertise that can successfully navigate equity and credit indices in addition to pure FX/rates exposure
- Emerging markets specialists that have been able to play, inter alia, Latin America, EMEA but can also tactically hedge in periodic sell-offs to carry based strategies
- Managers that can switch into relative value rates trading including classic cash/futures basis
- The commodity complex has been a difficult space in recent years resulting in less capital allocated to the space, therefore managers that can play both relative value and directional plays in delta one and volatility across the whole commodity complex with sectors such as metals looking potentially interesting
- Idiosyncratic trades such as option structures to play mispriced event risk and Central Bank policy mis-steps

## Macro Systematic

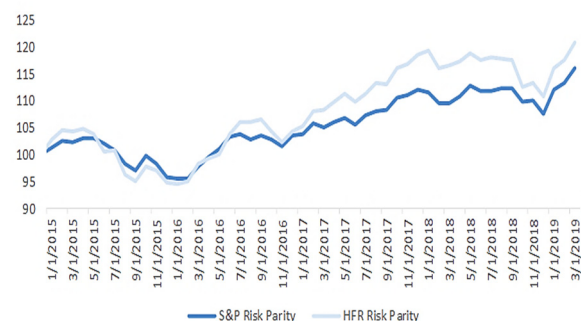
Macro Systematic strategies posted a return of +2.8%, according to HFRI indices and +1.9% according to the Societe Generale CTA index for the first quarter 2019.

We retain a neutral rating on the Macro Systematic strategy. We advocate an allocation to a diversified “cluster” of multi-quant, short-term CTA’s and medium-term CTA’s with an underweighting to medium-term CTA’s due to current range-bound trends, lower potential in rates and periodic crowded short positioning.

The Macro Systematic strategy has started 2019 on a much stronger footing after a very challenging 2018 for the sector. Managers found the “V-shaped” recovery in markets from mid-December 2018 into January challenging to navigate and most of the industry posted negative returns in January. Despite the fact that commodities (as measured by the GS commodity index that has a significant tilt to oil) are annualizing a price return of +84.8% year-to-date – the best start to a year ever for commodities – many macro hedge funds (both discretionary and systematic) have struggled to capture this performance.

First quarter performance for systematic strategies came predominately from strong performance in March. This was largely driven by long exposure to fixed income duration that benefitted from the sharp rally in government bonds. The pure trend space performed very well in March (as evidenced by the SG Trend Index that that was up +5.5% on the month and +2.9% year-to-date). The first quarter also saw a strong rebound for “risk parity” strategies – the strong rally in equities and fixed income provided the perfect backdrop for this strategy and provided the best quarterly return for the strategy since Q3 2010.

### S&P & HFR Risk Parity Indices (VAMI)



Source: Bloomberg

The ARI team tracks the top 50 global Macro Systematic managers and categorizes them into several distinct sub-categories including: “Alternative Trend”, “Diversified”, “Trend”, “Quantitative Macro” and “Short Term”. The overall results are understandably correlated to broader CTA indices such as the Societe Generale CTA index. Performance numbers referenced below are to February 2019.

- **Alternative Trend** – has been the strongest category over the past 12 months, generating an average of 10% over the last 12 months. This sub-style encompasses managers that trade in more esoteric instruments (as compared to standard trend models that typically trade in liquid futures contracts) – these may include ETF’s, OTC credit, interest rates swaps, cash equities. Though interestingly we did see some weakness in alternative trends due to exposure to credit in November.
- **Diversified** – managers have returned c. -2% with a huge range of +27% to -14% this partly determined by volatility levels
- **Trend** – is more clustered around an average return of -6%
- **Quantitative Macro** – managers with exposure to multiple quantitative alpha streams across cash equity style factors, volatility, trend, cross asset / GTAA type models etc have generated an average of c.3%
- **Short Term** – have had the widest dispersion. These typically have the lowest Sharpe ratio and have generated on average -4.8% over the last twelve months.

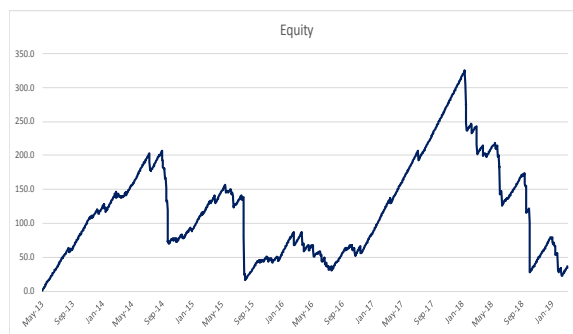
## HEDGE FUNDS

Our internal “trend exhaustion” indicators give an indication of the opportunity set for trend managers. These are calculated using three separate short to medium-term look-back periods across a number of asset classes.

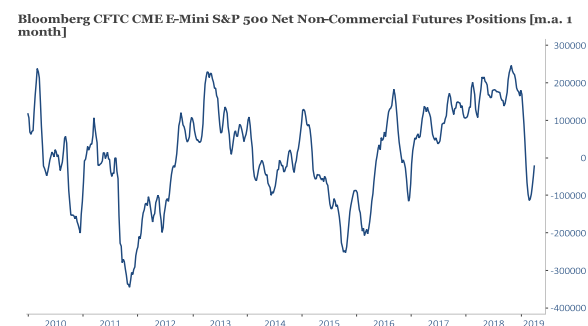
As indicated in the following charts, global equities are currently challenging for trend followers. The S&P 500 was in a broad trading range between 2600-2850 in 2018 with a breakout over the summer, punctuated with two sharp sell-offs in February and October to the lows in mid-December and subsequent sharp rally in Q1 2019.

After the sharp reversal in February at near maximum speculative length and subsequent de-risking, many trend models then got long through the summer of 2018 and were at modest net length into October and therefore were impacted with the sharp fall in the S&P 500. This is reflected in the equity trend exhaustion chart above with the only meaningful indication of trend around summer-time then an immediate reversal and modest net length currently.

### Investcorp Trend Exhaustion Indicator – Global Equity Indices



Source: Investcorp

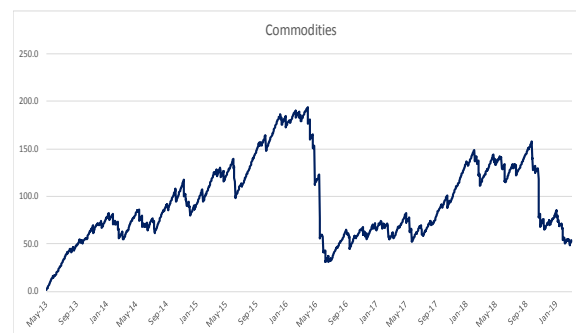


Source: Bloomberg



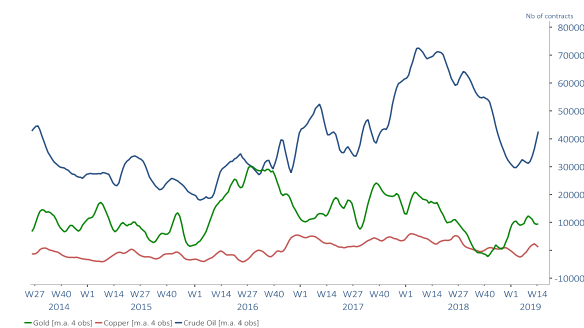
Commodity markets in 2018 were driven by two very broad trends, the steady trend in oil then the sharp reversal in from early October into December then the subsequent “V”-shaped recovery into Q1 2019 end. Significant speculative positioning and net length from the CTA universe was built up in crude oil into the summer of 2018 and subsequently collapsed after the sharp sell-off in oil and has subsequently been slowly rebuilt through the 2019 rally. Within the commodity complex we see pockets of strength in areas such as soybeans.

### Investcorp Trend Exhaustion Indicator – Commodities



Source: Investcorp

### Net Speculative Positioning in Commodity



### Oil (WTI Futures 1st Generic Contract)



Source: Bloomberg

## HEDGE FUNDS

The trend exhaustion measures for fixed income currently are exhibiting the strongest signals of all our indicators, not surprising with the global rally in bonds that was captured by many medium-term trend managers.

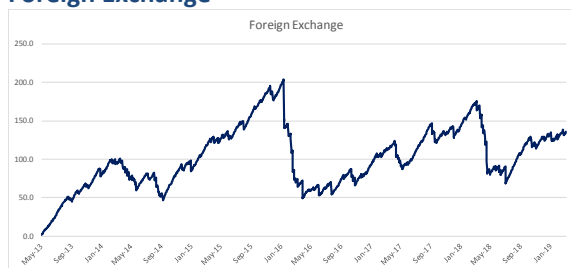
### Investcorp Trend Exhaustion Indicator – Fixed Income



Source: Investcorp

The trend exhaustion measure in FX corresponds with steady dollar strength exhibited since the beginning of 2018.

### Investcorp Trend Exhaustion Indicator – Foreign Exchange

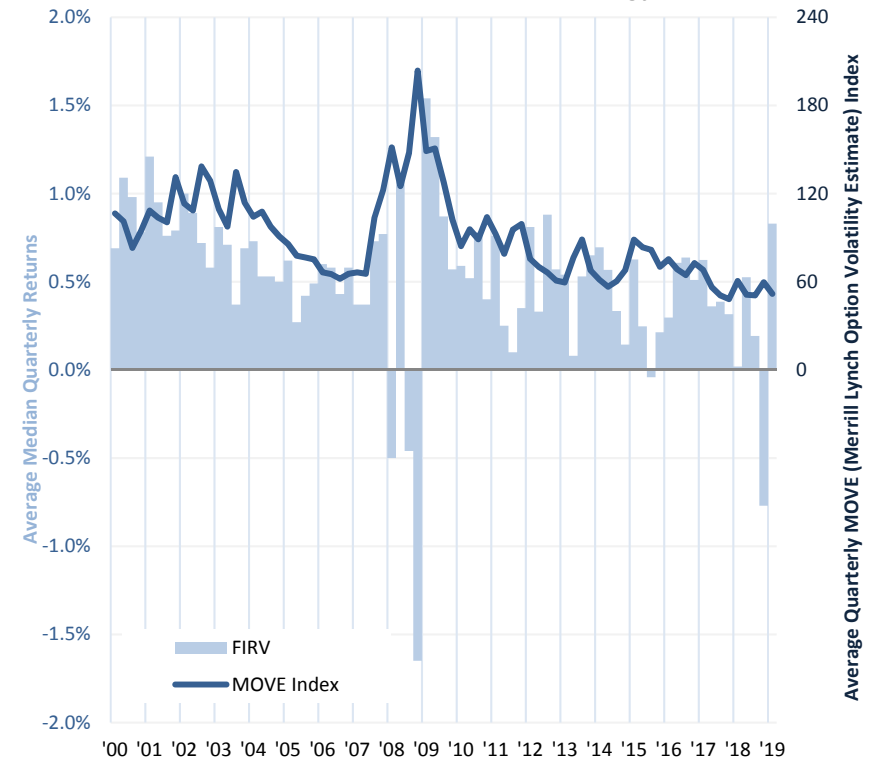


Source: Investcorp

## Fixed Income Relative Value

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
<b>Opportunity Set</b>	■ ■ ■	■	■ ■ ■	Heightened volatility in rates and flows sets the stage for curve micro-dislocations that relative value managers can capitalize on.
<b>Macro Fundamentals</b>	■ ■ ■	■	■ ■ ■	Macro trends continue to be supportive; event risks can instigate capital flows that lead to RV opportunities.
<b>Capital</b>	■ ■ ■	■	■ ■ ■	Capital pursuing the strategy remains limited in comparison to history amid an absence of proprietary trading and significantly lower leverage ratios.
<b>Liquidity</b>	■ ■ ■	■	■ ■ ■	In the Dodd-Frank regulatory era, liquidity can prove ephemeral, even in markets where such risk has historically been seen as negligible – as we learned during the October 2014 sell-off.
<b>Financing</b>	■ ■ ■	■	■ ■ ■	Balance sheet scarcity is limiting funds' ability to deploy the full range of strategies.

## Fixed Income Relative Value Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

Source: Investcorp, Bloomberg

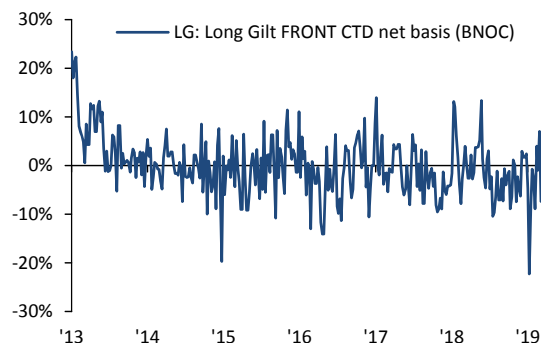
## HEDGE FUNDS

### Fixed Income Relative Value

Fixed-income relative value funds gained 1.8% quarter-to-date through February, according to the Morningstar MSCI Fixed Income Arbitrage Hedge Fund Index. In the peer group we track, balance-sheet-intensive fixed-income managers were at the forefront, aided by strong gains from traditional cash-futures basis trading in US and European markets.

In the US, performance emanated from trading long positions in deliverable baskets versus futures. In the UK, returns were more variable, owing largely to volatility in the basis between January and March, as can be seen in the chart below, amid Brexit-related uncertainty in the lead-up to the initial March 29 deadline.

### UK Cash-Futures Basis

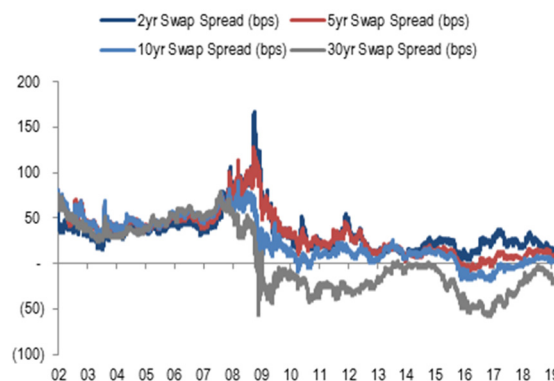


Source: JPMorgan, Investcorp

With regard to yield curve trading, there were selected opportunities in two-year/five-year spread flattening trades and forward-curve steepeners, but many market participants were caught out by the Fed-inspired repricing of front-end rates and the speed of corresponding adjustments in fixed-income markets. That said, some managers were able to capitalize on tightening two-year and

widening five-year US swap spreads, shown below. Going forward, many expect swaps and futures trading to represent fertile ground, supported, for example, by mortgage-holders seeking to hedge pre-payment risk. Separately, both the cross-currency and Libor basis swap markets offered up some healthy opportunities, as did cross-market sovereign spread trading in Europe.

### Historical US Swap Spreads



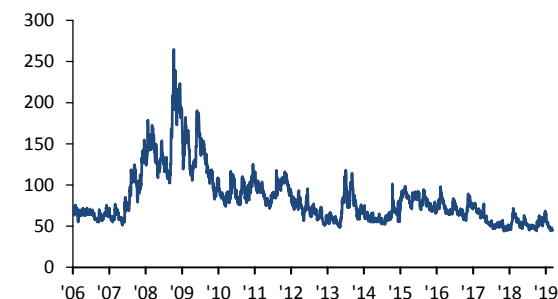
Source: Bloomberg, Investcorp

More broadly, the fixed-income rally that kicked off with the US central bank's dovish pivot in late-2018 largely carried on through the end of the quarter, supported by weak global economic data, US-China trade uncertainty, and the prospect of a no-deal Brexit. Sentiment was also bolstered by the FOMC's March 20 decision to end its balance sheet roll-off this September and its announcement that it did not see any further hikes for the rest of 2019.

The Fed's actions also triggered a dramatic repricing in swaption volatilities for tenors of up to 10 years. As evident in the following chart, which features snapshots from March 1 and March 30 of

the MOVE index, a gauge of normalized implied volatility on one-month Treasury options, there was multi-standard-deviation jump in demand from five-year lows for FI-related risk protection.

### Fixed-Income Implied Volatility Index (MOVE)



Source: Bloomberg, Investcorp

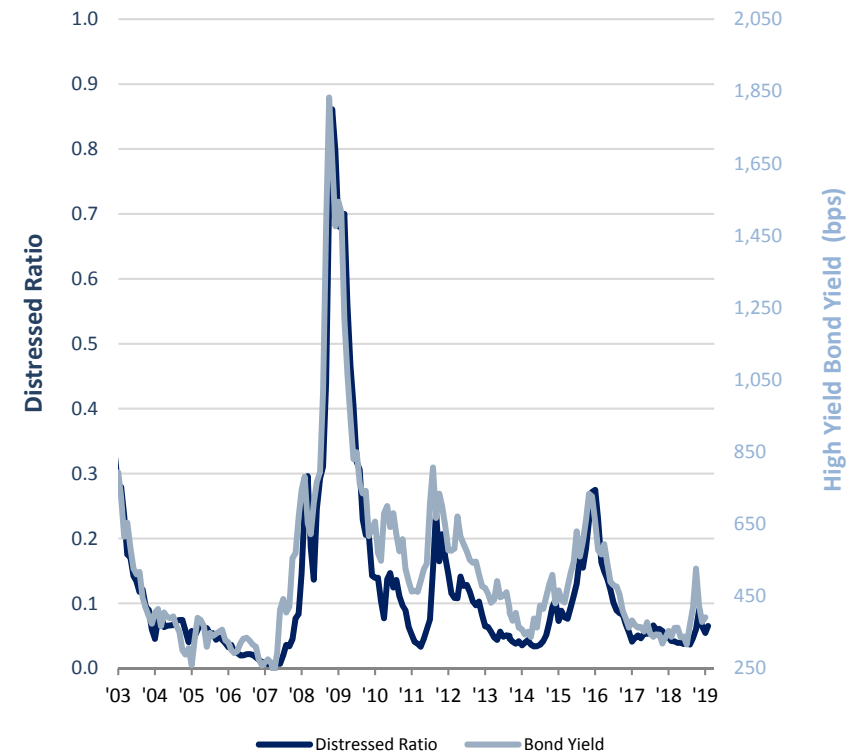
In earlier discussions, we suggested that the end of quantitative easing and the continuation of the rate-hike cycle could lead to increased dispersion across interest-rate curves. Given recent developments, we are slightly more cautious in this respect, especially if central banks elsewhere follow the Fed's lead and help ensure that ultra-loose monetary policies and unconventional easing programs remain in place for longer than previously thought.

Still, while the turnabout is not particularly good news for FIRV funds, it does not, in our view, spell a complete unwinding of the strategy's opportunity set. We have come a long way from the days when it was nearly impossible for managers to find opportunities in auction, on-the-run versus off-the-run, and mortgage relative value trades. While the move toward normalization may have reached a pause, we do not believe we are returning to the QE days of old.

## Corporate Credit

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
Valuation	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	Credit spreads offer limited room for tightening at current levels
Carry	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	Carry is back on line with pre-sell-off levels.
Credit Spreads	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	Credit spreads should remain stable or widen slightly from current levels.
Duration	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	US yields likely to stay range-bound – little impact for credit.
Dispersion	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	There is some dispersion, but it is difficult for managers to capture under current liquidity conditions.
Defaults	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	Defaults should remain low, though there will likely be some pick-up in energy-related sectors.
Liquidity	■ ■ ■ ■ ■	■	■ ■ ■ ■ ■	Liquidity is challenged: broker-dealers hold structurally lower inventories following regulatory curbs on proprietary trading.

Distressed Ratio & Bond Yield



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

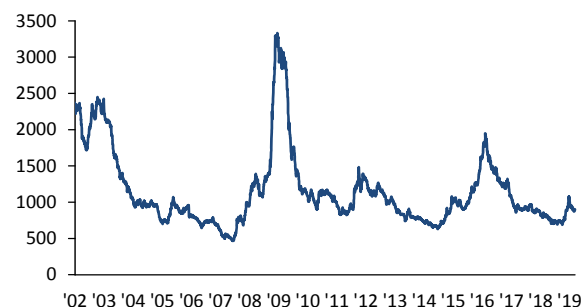
Source: Investcorp, Bloomberg

## HEDGE FUNDS

### Corporate Credit and Distressed

High yield credit gained 7.5% in the first quarter, according to the Barclays High Yield Index. The solid showing was accompanied by a 135 basis point decline in HY option-adjusted spreads, which ended March at 391 basis points, as shown below. During the span, high yield-focused hedge funds returned 4.76%, based on the HFRI RV: Fixed Income-Corporate Index.

#### Historical Credit Spread – CCC-rated Corporate Debt



Source: JP Morgan

Over the last 12 months, the Barclays benchmark climbed 5.95%, while the HFRI gauge rose 2.70%, owing largely to unaggressive positioning among managers. As has been the case previously, they have maintained average net exposures ranging from 30% to 60%, making it difficult for them to fully benefit from the snapback rally that kicked off the year.

Given the above, it is apparent that the group did not generate any real alpha net of fees, a recurring issue we have long made reference to. For one thing, the long/short high yield strategy remains challenged by generally low yields – the average was

6.54% at the end of February – that have left little room for further spread compression. At the same time, a relative paucity of defaults has limited the scope for spread-widening, which would benefit short positions.

Indeed, the S&P/LSTA Leveraged Loan Index default rate was 1.62% in February, slightly above January's 17-month low of 1.42%. At the forefront of the February defaulters by size was Windstream Holdings, which made a quick dash to Chapter 11 without having a confirmed restructuring plan in place. The catalyst was a federal court ruling against the company in its long-running battle with Aurelius Capital Management over covenant default claims. Regardless, the default rate remains well below its 3.1% historical average, and the number of distressed issuers continues to be limited, as can be seen in the following chart.

#### Number of Distressed Issuers



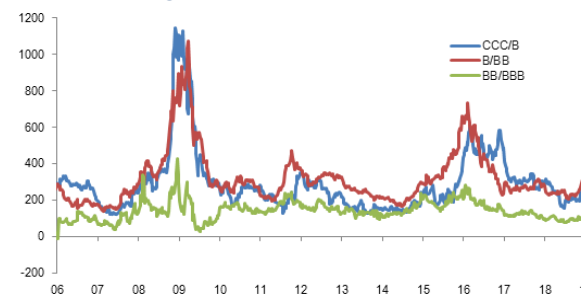
Source: TRACE, Bloomberg

As always, when we evaluate market conditions and prospects for the period ahead, we typically focus on three key metrics: compression trades,

liquidity premium, and CDS basis. The following paragraphs provide an overview of where they now stand.

**Compression trades.** Mean reversion is a powerful source of return-generation for long/short credit hedge funds: they tend to outperform benchmarks when credit spreads tighten across segments with different ratings. As illustrated below, spreads have been narrowing since they jumped higher at the tail end of last year.

#### Relative Credit Spread Differentials Across Ratings



Source: JPMorgan, Investcorp

**Liquidity premium.** Our research has shown that performance in this segment tends to be positively associated with the presence of a liquidity premium, which can be assessed by measuring the difference between global high yield spread indices and their liquid high yield counterparts. As the following chart indicates, this measure has been largely range-bound, fluctuating between 20 and 40 over the past several months.

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### Historical Corporate High Yield Liquidity Premium



Source: Investcorp

**CDS basis.** One metric that has proved useful as a contrarian indicator is the CDS basis, which can serve as a proxy for gauging stress within hedge fund portfolios. Because most managers go long through cash bonds and short by way of CDS, this measure often falls to new interim lows during periods of violent de-risking. In recent months, it has been hovering near its historical average, as indicated below, suggesting that the strategy's opportunity set remains somewhat lacking.

### CDS High Yield Basis



Source: JPMorgan, Investcorp

Beyond our shores, developments have been a bit more interesting. Over the past few months, spreads between European and US credit have narrowed, as can be seen in the following chart.

### EUR-US High Yield Spread



Source: Bloomberg, Investcorp

Separately, activity last quarter remained centered on covenant-lite credits, which offer investors protection that is more akin to that of a high yield bond than a traditional senior secured credit. "Cov-lite" obligations have continued to account for a growing share of loan issuance; as of February, they represented 82% and 79%, respectively, of outstanding leveraged loans in Europe and the US. In contrast, only 60% of the total was categorized as cov-lite in 2014.

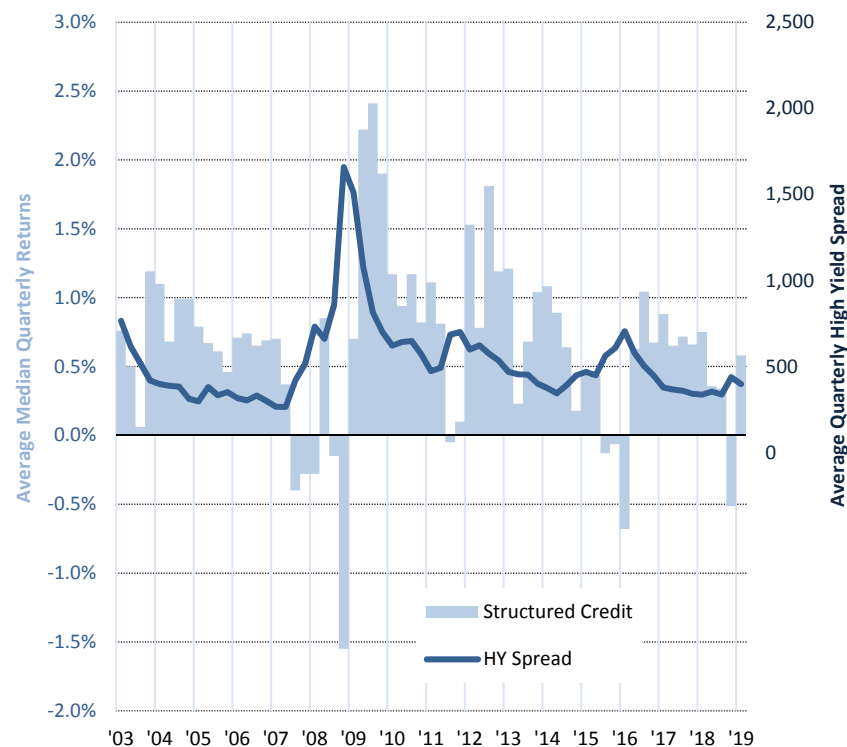


## HEDGE FUNDS

### Structured Credit

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
Valuation	■ ■ ■	■	■ ■ ■	Recoveries in most structured credit segments have lagged those seen in more liquid corporate credit counterparts, indicating a relative value opportunity.
Flows	■ ■ ■	■	■ ■ ■	Hunt for yield ongoing
Carry	■ ■ ■	■	■ ■ ■	Net-of-fees carry is too low to be an attractive driver of returns.
Idiosyncratic Legal & Structural	■ ■ ■	■	■ ■ ■	Put-backs and monoline wrappers are creating optionality in selected issues as well as CLO refinancings and resets.
Liquidity	■ ■ ■	■	■ ■ ■	With broker-dealers scaling back their market-making activities, the liquidity environment remains unsupportive; strong demand from real money investors has helped, but how they will behave in a severely stressed market environment remains a wild card.
Financing	■ ■ ■	■	■ ■ ■	Financing capability continues to be somewhat challenged by balance sheet scarcity.

### Structured Credit Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

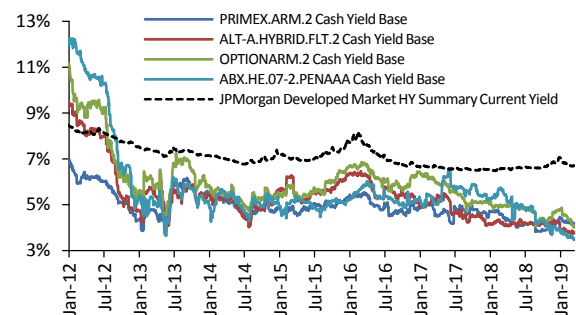
Source: PerTrac, Bloomberg, Investcorp

## Structured Credit

Structured credit has largely failed to keep pace with the risk-on rally that began the year, owing largely to inherent structural elements. Generally speaking, this asset class exhibits far less beta with respect to broader market movements than other fundamentally-driven approaches, which can, in fact, be an advantage when other strategies are under pressure.

This aspect aside, the strategy has often failed to produce an attractive combination of carry and capital preservation; at best, one is typically substituted for the other. Unfortunately, the broader trend of low-carry opportunities has largely worsened during the last 12 months, with RMBS – which represents a sizable slice of the structured credit space – seeing cash yields decline over the span, as illustrated below.

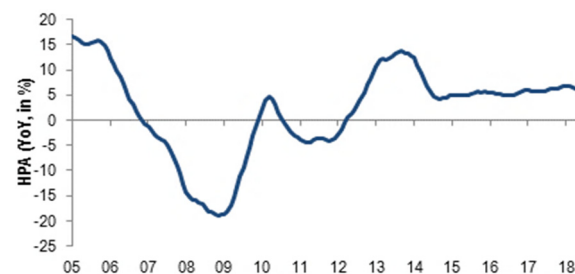
### Historical Non-Agency RMBS Cash Yield



Source: JPMorgan

Making matters worse, the housing market has continued to falter. While broader economic fundamentals still paint an encouraging picture for real estate, home sales have been slowing and prices have remained under pressure, as can be seen in the following chart.

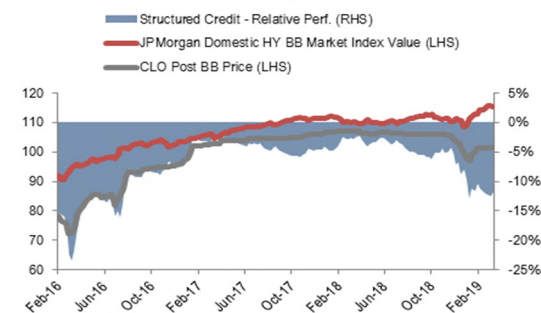
### S&P Case Shiller Home Prices Appreciation Index



Source: Bloomberg

In the CMBS space, while trading activity and new issuance have picked up and spreads have continued to recover, all eyes remain focused on developments in the retail sector. In fact, the rebound we have seen since the year began has encouraged many managers to look more closely at positioning on the short side of the CMBX index. Collateralized loan obligations, meanwhile, have seen prices recover amid improvement in underlying loan indices, though both remain slightly below last year's highs, as shown below. With spread arbitrage remaining under pressure, new issuance will likely continue to be constrained.

### Relative Performance between CLOs and Corporate Credit



Source: JPMorgan, Investcorp

More broadly, while optionality is somewhat limited amid the recovery in legacy positions, idiosyncratic opportunities remain, including such relatively safe plays as callable RMBS and TRUPS CDOs. With respect to the former, non-agency RMBS call activity has picked up, with 11 issues worth \$658 million being redeemed more recently. As an aside, near-maturity CMBS continued to trade at steep discounts even though most have been maturing with sharp recoveries.

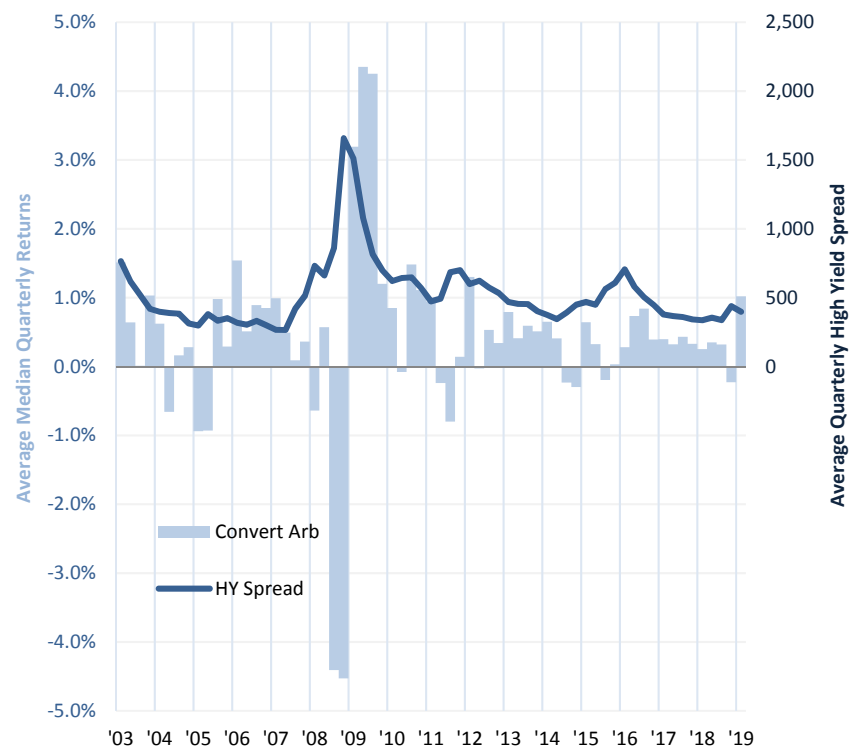
Non-qualified and non-prime mortgages continue to generate outsized returns; in addition, they offer attractive cushions against downside risk and enhanced liquidity stemming from greater market acceptance and the increased pace and scope of securitization. Finally, formerly attractive strategies such as legacy RMBS put-back litigation, which has suffered in the wake of adverse settlements.

## HEDGE FUNDS

### Convertible Arbitrage

Driver of Strategy Returns	Negative	Neutral	Positive	Comments
Valuation	■ ■ ■	■	■ ■ ■	Valuations have continued to come in limiting the strategy's upside potential in future quarters.
Issuance	■ ■ ■	■	■ ■ ■	New issuance has come down in recent months, reducing the alpha tailwinds of new issue trading generally available to hedge fund managers.
Capital	■ ■ ■	■	■ ■ ■	Long-only buyers have become an important part of the market, diffusing returns to the long-short risk premium.
Liquidity	■ ■ ■	■	■ ■ ■	Liquidity remains a concern as broker-dealers scale back market-making activities.

### Convertible Arbitrage Strategy



Median returns are those of Investcorp's strategy peer group. Strategy peer groups are created by Investcorp and are comprised of funds that Investcorp has judged to be relevant for each strategy.

Source: Investcorp, Bloomberg

## Convertible Arbitrage

Convertible bond arbitrage hedge funds posted a net return of +5.6% in the first quarter 2019, according to HFRI indices.

The Convertible strategy is enjoying a solid start to the year and was a beneficiary of the broad move up in risk assets and compression in credit spreads in the first quarter. The Barclays US Convertible index had a strong January, up +7.9%, and is up +11.9% for the year - broadly in line with the S&P 500 that is up 13.7% year-to-date. The Global convertible market has also performed well with the BAML 300 up +5.5% year-to-date, primarily driven by the US and Asia ex Japan markets.

We retain our neutral outlook on the convertible arbitrage strategy and year-to-date performance of returns that are broadly in line with the HFRI Composite index (+5.9% year-to-date) still justifies that position. We have continued to outline in recent environment updates that there are several offsetting crosswinds to the convertible strategy that leave us with a net neutral outlook.

The key clear positive for the strategy is with regards to new issuance in the US. 2018 was the strongest year for new issuance since 2014 and early signs for 2019 are also positive too. It appears that the Tax Reform Act of 2017, that limited the deductibility of interest expense on debt and substantially improved the relative attractiveness of convertibles when compared with high yield debt, is contributing to the uplift in new issuance. Flexible convertible structures have been a tailwind too. It is also interesting to note that many of the new

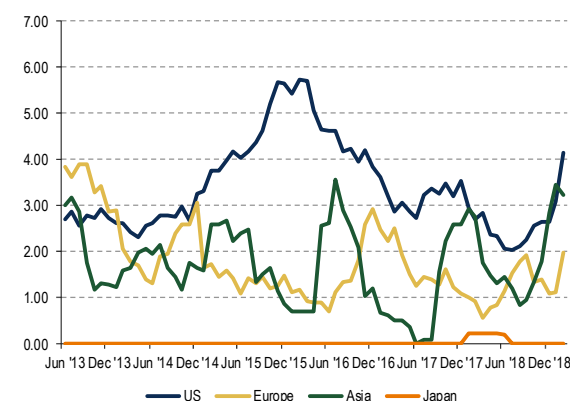
issuers in 2019 are first time issuers to the convertible market. Recent new issuance trends are detailed below.

Convertible arbitrage managers that are active in the primary market and are able to selectively purchase theoretically cheap new issues and turn these positions over quickly to the secondary market, and/or buy names in the secondary market that had to be sold by outright/index buyers offering potential discounts. This component of the strategy can meaningfully add returns annually to convertible arbitrage managers. Increased new issuance is therefore ostensibly positive for the strategy. However, as recently pointed out by research from BAML, new issuance in and of itself is not a sufficient condition and that pricing is also a very important component. BAML highlights that performance of new deals in 2018 was rather lacklustre. Specifically, that in the first three days after their launch date converts realised only +1.1% in 2018 versus +1.8% and +1.9% in 2016 and 2017 respectively. The most likely cause of this return compression being deal terms – i.e. elevated average coupon levels and lower conversion premiums and smaller median deal size.

However, it is noticeable in the US that new issuance terms have improved markedly recently with the current six-month average coupon standing at 4.2% (versus c.2-3% in 2018) and six-month average premium at 10.3% (versus c. 25-30 in 2018). US Issuance in 2018 was been dominated by the technology sector accounting for 43% of total issuance,

this is followed by Healthcare with 17% of total issuance. In 2019 so far Healthcare (51%) is leading the way followed by industrials (32%). The primary drivers of recent issuance in the US have (in order) been for growth capital, refinancing, M&A with secondary uses for exchanges, buybacks and capital expenditure.

### New issue trends – Coupon



Source: Bank of America Merrill Lynch

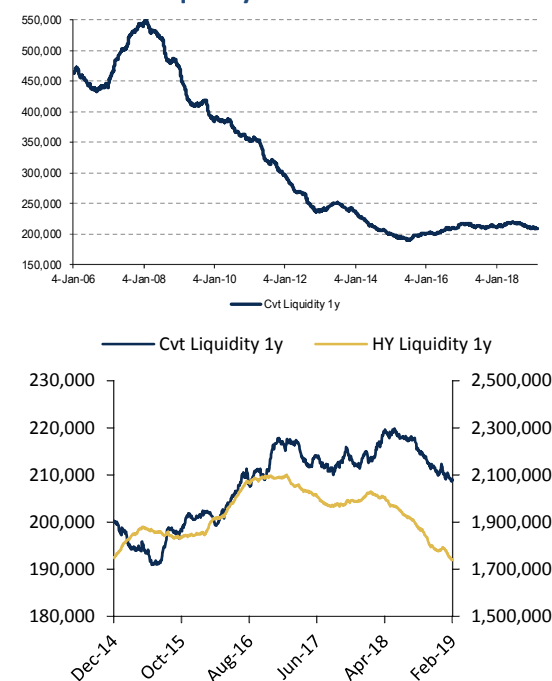
On the negative side, there are continued questions on fundamentals with a deterioration of credit quality and risk of spread widening as the economic cycle proceeds and downturn/recession risks arise. Furthermore, liquidity should be a key concern at this stage of the economic cycle. One other area to note is the performance of the technology sector, as the outsized representation of Technology within the converts market has been a tailwind for convertible performance. Clearly on further concerns on elevated valuations or government or regulatory

## HEDGE FUNDS

curtailments will impact the sector. Setting up heavily hedge “synthetic puts” to select names is a potential way to play these concerns.

Tactically, we would eschew significant leverage in portfolios, continue to position to shorter duration and volatility-oriented strategies and away from explicit credit orientated plays. Liquidity is also key consideration at this stage of the business cycle. Total convertible volumes have been on a declining trend for many years, concomitant with the shrinking of the convertible bond market (the US currently comprises of \$183b and trades in the order of \$1.0–1.5B average daily volume). This trend plateaued and improved from 2015 but seems to have begun deteriorating from mid-2018.

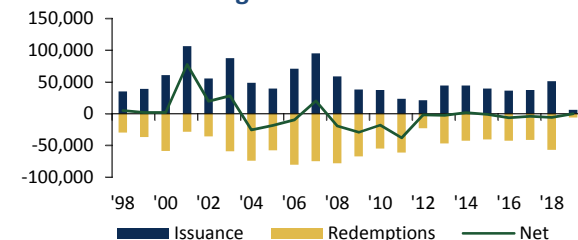
### Convertible Liquidity



Source: Bank of America Merrill Lynch

There was a marked slowdown of new issuance in Q4 2018 but global new issuance still finished 2018 +13.5% higher than 2017 and at the highest level since 2014. There has been a rebound in new issuance so far into 2019 with a strong February but this is still broadly in line with previous recent years. While January saw solid new issuance across all geographies, February was focused primarily on the US. Year-to-date new issuance in the US stands at \$5.97 billion. However, global net supply has weakened over the quarter with net redemptions across all regions leading to a global net redemption of the global converts market.

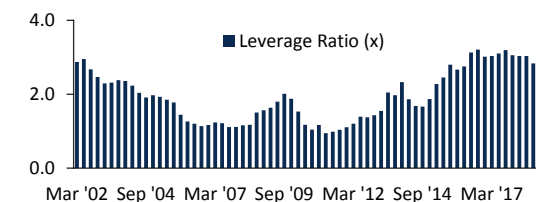
### Convertible Arbitrage US Net Issuance Trends



Source: Bank of America Merrill Lynch

Despite the very low default rates we continue to see early signs of deterioration on the fundamentals of the convertible market, whether one looks at leverage ratios of issuers. Important counters to this are that recent YoY earnings growth has been strong and leverage ratios have plateaued over the last 18 months.

### US Convertible Bonds Issuers Historical Leverage Ratio



Source: Bank of America Merrill Lynch

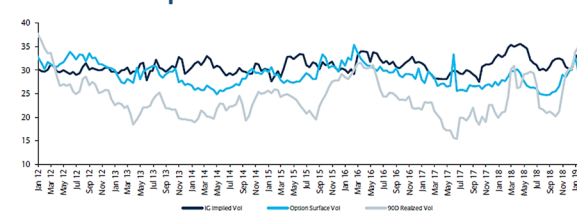
### US Convertible Bonds Earnings Growth (% YoY)



2018 marked a clear demarcation in the low volatility regime and as quantitative tightening (QT) cycle in the US we would expect volatility to rise concomitantly. Recently implied volatility in converts has not risen commensurately with realized volatility offering potentially more value in volatility.

In addition to the related issuance trend from increased volatility, as realized volatility grinds lower across all asset classes as well as convertible bond markets, portfolios can be set up with “synthetic put” structures that can monetize both idiosyncratic single-name volatility driven by company specific catalysts, as well as broader market volatility.

### IG US Convertible Bonds Implied Volatility Relative to Option Surface and Realized Volatility



Source: Barclays

## U.S. AND EUROPEAN BROADLY SYNDICATED LEVERAGED LOANS

### Loan Markets

Loan markets have not been immune to the volatility seen in broader credit and equity markets. That said, they fared better than other asset classes during the fourth quarter turbulence. For instance, while the European loan market (hedged into US dollars) was down 1.43% in the final two months, it produced a full year gain of 3.37%,<sup>1</sup> outshining the 1.07% loss in European high yield bonds.

For the most part, the market was overdue for a correction. Even though earnings continued to be generally favorable, suggesting no real cause for concern over credit, the spread tightening that occurred beforehand looked overdone. Technical factors, including a generalized shift into risk-off mode amid seasonally weak secondary market liquidity, exacerbated the slide, which saw more liquid, higher quality Issues hit harder than less attractive counterparts. Overall, average loan prices fell from a peak of 99.07 in September to 96.54 at year-end.<sup>1</sup>

Conditions on this side of the Atlantic were similar to those in Europe. While the US loan market posted a somewhat larger loss of 3.08% during the fourth quarter,<sup>2</sup> its 1.14% return for the year meant it was the only fixed-income asset class in the region that finished in the black. By comparison, the CS High Yield and Barclays IG indices were down 2.37% and 2.51%, respectively, and the 10-year Treasury lost three basis points.<sup>3</sup>

As in the European market, technical factors exacerbated the severity of the fourth quarter slide. First and foremost, loan mutual funds began to see investors heading for the exits in November, kicking off

seven straight weeks of outflows through January 2, according to data from Lipper. Redemptions over the span were \$15.8 billion, representing 15.9% of loan mutual fund assets; they included two weeks of record outflows of more \$3 billion.

Conditions have improved markedly since December. In the first quarter, the European loan market posted a return of 2.79%,<sup>4</sup> aided by the unwinding of short exposures, fresh capital flowing into the space, and new issue supply that was constrained by seasonal factors and borrower reluctance to wade in. In Europe, institutional loan issuance totaled EUR 18.36 billion through March, a 32% decline from the EUR 26.96 billion seen in the year-ago period.<sup>5</sup> Over the same span, the US market gained 3.78%;<sup>6</sup> institutional issuance fell to \$78.37 billion from \$129.9 billion in last year's first quarter.<sup>5</sup>

With the late-2018 turbulence behind us, demand for leveraged loans in Europe has been robust, accelerating through the end of March on the heels of a rebound in CLO new issues following the December-January pause. For the quarter overall, issuance totaled EUR 6.9 billion, marginally ahead of the EUR 6.8 billion seen in last year's first three months. CLO buying amid the paucity of primary supply fed through to the secondary loan market, which recovered to 98.02, just over a point below its recent highs.

That said, the fact that secondary market loans have been trading below par has helped ensure more investor-friendly pricing on new issues. For single-B rated loans, primary spreads have recently been 375 to 400 basis points, in contrast to the 300 to 325

basis point lows seen in the third quarter; in the US, new issues now feature spreads of 400 to 425 basis points, which compares favorably to the 375 to 400 basis point lows during the July-September period.

Lending further weight, loan market credit fundamentals remain supportive, especially in Europe, where the S&P European Leveraged Loan Index (ELLI) posted a trailing 12-month default rate of 0% from January to March. While the number of assets moving into stressed territory – the 70-80 price range – has picked up, the movements have stemmed from company-specific rather than broad-based concerns. With respect to the US, despite a 0.93% default rate at the end of March, prices remain fairly high, with approximately 68% of issues trading above 98.<sup>7</sup> Regardless, we expect idiosyncratic developments to predominate as we move further through the credit cycle.

Otherwise, we expect to see additional bouts of volatility ahead on the heels of ongoing Brexit uncertainty, US-China trade tensions, European elections, and slower growth in the US and elsewhere. We also anticipate greater variability in new loan issuance – that is, periods of high jumbo issuance interspersed with lulls. The pipeline is now relatively full in Europe – a bit less so in the US – though visibility is limited in the medium term. This can change quickly, of course, especially with private equity sponsors having record dry powder available for attractive opportunities. Otherwise, add-on-related activity can often take up the slack when new issuance slows.

1. Credit Suisse Western Europe Leveraged Loan Index, December 2018.

2. Credit Suisse Leveraged Loan Index, December 2018.

3. Credit Suisse; Barclays Research; LCD, an offering of S&P Global Market Intelligence.

4. Credit Suisse Western Europe Leveraged Loan Index, March 2019.

5. LCD, an offering of S&P Global Market Intelligence, March 2019.

6. Credit Suisse Leverage Loan Index, March 2019.

7. JPMorgan Credit Research.



## U.S. AND EUROPEAN BROADLY SYNDICATED LEVERAGED LOANS

Summing up, we believe that underlying credit fundamentals will remain solid and will support coupon-like returns for the rest of this year, though we caution that not all segments will benefit to the same extent. We remain cautious as we approach what could be the latter part of the credit cycle.

Finally, we do not expect the uptrend in performance to follow a straight line. Credit picking will remain key, especially at a time when intermittent turbulence can spawn air pockets beneath the secondary market laggards. Given the relative lack of stressed and distressed players in Europe, it would not be surprising to see loans trading in the 90s swiftly fall below 80 during a market disruption. This is largely because there are few active buyers in the “no man’s land” between the high-80s and low-90s; such moves often require an event to bring things back to where they were.



## Systemic Risk in Loans?

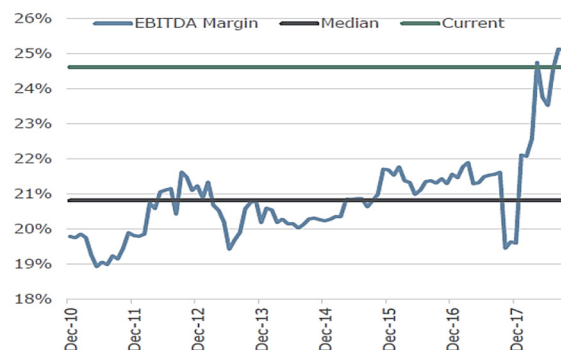
The press has marked the pace of growth and other developments in the US leveraged loan market as a source of systemic risk, suggesting this potentially sets the stage for another financial crisis and subsequent bailout. While we acknowledge that lenders have been accepting higher leverage and borrowers receiving more generous terms than previously, and that the risks in some segments have increased, we do not agree that this represents a broader threat to the economy or financial system.

In our view, improving US syndicated loan fundamentals, an investor base that is less dependent on short-term financing and fund flows than in the past, expectations that default and recovery rates in the next downcycle will yield positive returns, and structural differences between US leveraged loans and subprime mortgages, the main culprit in the debacle that occurred a decade ago, make leveraged loans a far more resilient asset class if and when conditions turn sour. In the paragraphs below, we discuss these factors in greater detail.

### General improvement in credit fundamentals

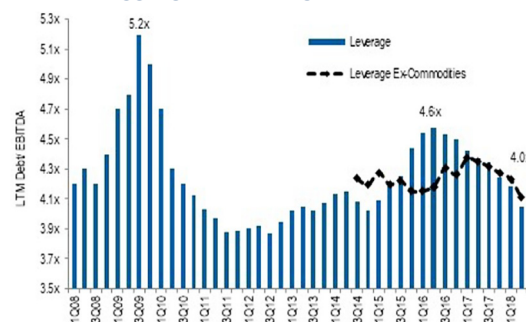
It is worth noting that the loosening of standards referred to above has generally been confined to new offerings, particularly those associated with private equity deals. In many cases, once the issues become seasoned, borrowers are working to improve financial performance, generate free cash flow, and delever balance sheets. Consequently, we have seen a steady improvement in credit metrics over the past several years. As indicated by the following three charts, sub-investment grade borrowers have done a good job improving profitability, decreasing leverage, and boosting interest-coverage capability.

### Profit Margins Have Improved...



Source: Wells Fargo Credit Research

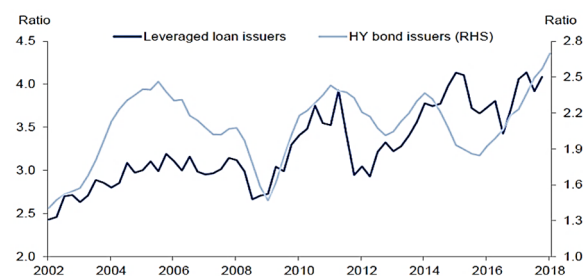
### ...While Aggregate Leverage Has Been Declining...



Source: JP Morgan Credit Research

### ...and Debt Service Coverage Has Increased

Median interest coverage ratios for HY bond and leveraged loan issuers



Source: Goldman Sachs research

## Composition of the U.S. leveraged loan investor base

Heading into 2008, large regulated financial institutions, notably banks and insurance companies, were among the biggest holders of subprime mortgage securities, which were at the epicenter of the global financial crisis; their exposure to leveraged loans represented only a fraction of their mortgage security exposure. Nowadays, banks have even less exposure to leveraged loans, owing mainly to their aggressive shift away from relying on balance sheets to an originate-and-distribute model. While it is always possible that banks will be left holding the bag with respect to some of the loans they have underwritten, they have historically proven successful in managing this risk and the related fallout.

Other structural elements, including how the investor base is funded, have also evolved over the past decade. Prior to the crisis, investment vehicles drawing on large amounts of short-term, mark-to-market financing were among the biggest operators in the space. Hence, once prices began to fall in earnest, margin calls often forced this group to sell, exacerbating the slide and promulgating a vicious circle of margin calls leading to liquidations and still-lower prices. This downward spiral was one of the key reasons why loan prices really hit the skids in 2008 and early-2009.

These days, loan buyers include CLOs, which account for approximately 60% of the market, global institutions such as insurance companies, pension funds and banks, which account for roughly 25%, and retail mutual funds, which comprise the

## U.S. AND EUROPEAN BROADLY SYNDICATED LEVERAGED LOANS

remainder. With the exception of the latter group, the current stable of investors tends to have a long-term perspective and access to stable sources of capital. CLOs, for example, enhance returns using non-mark-to-market financing with terms that are far longer than those of the loans they own, eliminating the maturity mismatches that can lead to problems. By their nature, the payouts from these structures are based on the cash flows generated by underlying holdings; CLOs are not forced to sell assets simply to repay this financing.

Lending further weight, the US loan market investor base, which includes hundreds of participants across the globe, is more diversified than it was 10 years ago. Even CLOs, which represent the single largest investor category, are funded by hundreds of different holders of their debt and/or equity securities. Under the circumstances, the impact any value impairment in the loan market caused by a spike in defaults or realized trading losses would end up being spread across a large group with direct or indirect exposure through CLOs.

### **The Impact of an economic downturn on defaults and recoveries**

With default rates near historic lows, they will invariably increase if and when the economy heads south. In some cases, the presence of more forgiving loan terms likely means at least some defaults will be avoided because borrowers will have more leeway to work through problems.

That said, the loosening of covenant protections over time suggests that recoveries from defaulting businesses will fall below the 80% average of the last 25 years. Assuming default rates during the next

downturn are more akin to what we saw during 2001-2002 than seven years later – that is, 5-6% annually over several years rather than 9% in one year – and recoveries match the 65% longer-term average, realized losses in what has become a \$1 trillion market could be in the vicinity of \$40-50 billion.

While losses of this magnitude should not be taken lightly, they pale in comparison to those seen during the global financial crisis, when the red ink flowing from \$2.25 trillion of shoddily-constructed residential mortgage securities and related derivatives reached nosebleed levels. In addition, realized losses in the US leveraged loan market during the next economic downturn will be diffused across a much larger pool of investors, none of which is likely to have a sufficient level of exposure to pose a systemic threat to the US financial system.

There are other reasons why current circumstances provide a measure of reassurance. For one thing, existing loans yield a current return of approximately 6% and generate interest of roughly \$60 billion annually, which is significantly above the potential loss totals referred to earlier. Should events unfold as suggested, the loan market would end up delivering positive returns – interest income less realized losses – during the next recession. Looked at differently, if recoveries were to remain at 65%, defaults would have to exceed 17% per year for the market to produce negative returns. Even if recoveries were to fall to 40%, defaults would have to rise above 10% to generate sub-zero performance.


Lending further weight, most loan portfolios are actively managed, affording managers increased opportunities to trade out of problematic positions

and limit downside risk. While such activities can lead to realized losses, they can mitigate the red ink associated with retaining exposure through a restructuring. Under the circumstances, the losses often end up being passed around like a game of hot potato, limiting the impact that problem situations can have on any single holder or group of investors.

### **U.S. leveraged loans are not sub-prime mortgages**

The financial press is quick to compare leveraged loans to subprime mortgages, suggesting the former will suffer the same fate as the latter did during the financial crisis should conditions turn sour. We believe this analogy is unwarranted, however, and that key differences between the two are being overlooked. For one thing, loans have more robust structures than subprime mortgages, including significantly higher equity cushions at the time of issuance. Moreover, subprime mortgages included large interest-rate step-ups after three-five years, leaving most homeowners with little choice but to refinance or cough up significantly more each month, which caught many of them wrong-footed.

In contrast, because leveraged loans typically pay LIBOR plus a fixed margin for the life of the obligation, company treasurers can more easily accommodate rising interest payments without being compelled to refinance. The loan market also affords greater transparency. Loan terms generally include ongoing financial reporting requirements and covenants that serve as a leading indicator of borrower wellbeing, which is not the case for mortgages. Finally, as noted above, loan portfolios can be actively managed, allowing for better risk management than is typically available when investing in subprime obligations.



### **U.S. leveraged loans are not private credit**

Many commentators associate the perils of private credit with burgeoning activity in the loan market, but there is a distinct difference between the two markets. In the latter case, the issuers are large corporations with diversified revenue streams and experienced management teams. Private credit borrowers, in contrast, tend to be smaller firms; they have less room for error and fewer resources to draw on to address problems or manage capital structures.

In addition, while the US leveraged loan investor base is, as noted earlier, relatively broad and diverse, private credit lender groups tends to be

small in number, limiting liquidity and participants' ability to reduce exposure and/or trade out of positions when risk profiles deteriorate. With the appropriate relationship between risk and reward, lending to small companies can be a profitable endeavor, but investors in this segment must have sufficient resources available to work-out problems when they arise.

### **Conclusion**

As fundamentally-driven loan investors, our objective is and always has been focused on selecting opportunities that allow us to create and manage well-balanced portfolios. Overall, we believe that US leveraged loans continue to offer attractive

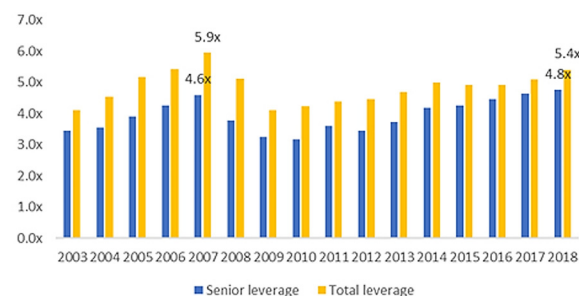
returns with acceptable risk, but recognize that credit selection has become even more critical as the odds of an end of a decade-long economic expansion increase. In our view, now is not the time to be reaching for yield; there will be opportunities for asset rotation and generating upside down the road. That said, our cautious outlook does not mean we share press concerns that the leveraged loan market is an accident-in-waiting. As noted earlier, structural and other factors strongly suggest that this segment will not pose a systemic threat to the financial system if and when the economy falters.

## U.S. AND EUROPEAN BROADLY SYNDICATED LEVERAGED LOANS

### Leverage in the European Loan Market

European loan market leverage has crept steadily higher in recent years, which the financial press sees as a sign that the market is becoming overheated. From 2009 to 2018, leverage multiples on European leveraged buyouts rose from 4.0x to 5.4x, as can be seen below. While the aggregate measure remains well below its 2007 highs of 5.9x, first lien senior leverage has exceeded that year's peak of 4.6x. This largely stems from a post-crisis propensity for more simplified structures involving limited use of second lien tranches and minimal junior debt issuance.

#### European LBO Leverage Levels



Source: LCD, an offering of S&P Global Market Intelligence

Various factors have contributed to the growing use of leverage. For one thing, healthy corporate balance sheets and the proliferation of cheap financing have spurred increased competition for corporate assets, with strategic buyers vying strongly with private equity and other financial institutions. Bolstered by their ability to extract synergies from corporate combinations, the former group has been willing to pay higher multiples for acquisition targets, boosting enterprise valuations overall. In the recent public-to-private buyout of RPC, for instance, these factors afforded Berry Global Group, Inc. the wherewithal to outbid Apollo.

Against this backdrop, private equity buyers have been forced to bid aggressively to remain in the game. Ironically, while the equity component of recent deals is higher than the 40-50% share that prevailed before the global financial crisis struck, the uptick in enterprise values amid continued strong lender interest has facilitated a corresponding rise in leverage.

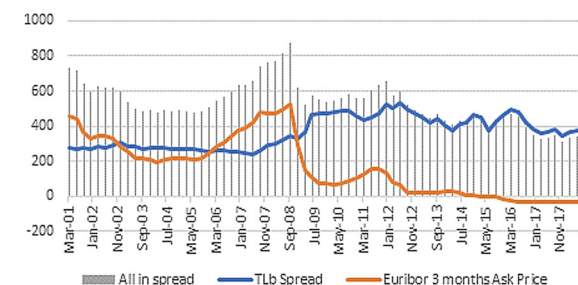
Indeed, demand from CLOs, managed accounts, pension funds and insurance companies for floating-rate loans, stemming from solid performance and the search for yield amid a persistent low-rate environment, has meant that deals are oversubscribed despite the increasingly aggressive structures being financed. Lending further weight, many investors view floating-rate securities as a natural hedge against rising rates.

There has been some discrimination, however. Contrary to 2006-2007, the lender base has been somewhat disciplined; conditions have not returned to a time when all deals were heavily oversubscribed regardless of quality. In transactions where concerns have been raised regarding structure, terms or business quality, lenders have pressed for wider spreads, deeper discounts and improved credit agreements. In some cases, deals have been pulled altogether following negative lender feedback. Given that, the quality of many loan portfolios appears to have remained strong, and weaker credits have had to accept more appropriate terms.

Regardless, while leverage has been increasing, the prolonged low-rate environment in Europe means

that interest coverage remains comfortably above historical averages. As a point of reference, three-month EURIBOR, which was over 5% in 2007, has been below zero since 2015. Even allowing for the fact that the vast majority of European deals include a 0% EURIBOR floor, the all-in cost of a loan – EURIBOR plus margin – has fallen from more than 800 basis points in 2008 to 350-400 basis points currently, as illustrated below. This has led to a marked reduction in interest expense – and an accompanying improvement in coverage ratios – despite the higher leverage.

#### EURIBOR (3 mths) Impact on European Senior Spreads



Source: LCD, an offering of S&P Global Market Intelligence

The current state of affairs should support the ability of leveraged businesses to remain cash-generative through an economic cycle, in contrast to what transpired a decade or so ago. Prior to the financial crisis, LBOs were predicated on the assumption that the business in question would “grow into” its capital structure. Consequently, earnings shortfalls quickly led to negative cashflow. When things unraveled, financially-stretched companies had little room to maneuver. They were quick to face cashflow issues

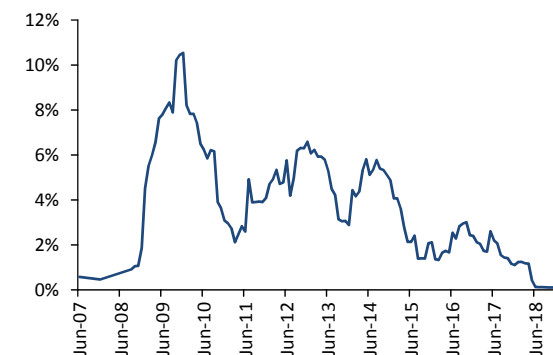
and covenant breaches, causing default rates to balloon above 10% during 2009. Today, low rates and the healthy cash flow foundations baked into transaction structures have helped mitigate that threat.

With many now expecting interest rates to remain lower for longer, default rates should remain subdued despite a deteriorating macroeconomic backdrop. Amid weaker-than-expected economic reports and other evidence of slowing European – and global – growth, the ECB at its March Governing Council meeting announced a new series of targeted longer-term refinancing operations (TLTRO III) to provide additional support for banks. It also announced a short extension to its forward guidance on rates, vowing to keep them where they were “through the end of 2019,” which pushed out prospects for any increase by four-six months to early 2020. This has effectively put the ECB’s normalization plan on hold, removing the threat of a potential “cliff effect” stemming from the withdrawal of current accommodation.

Thus far, the reaction has been enthusiastic: yields on 10-year German bunds briefly turned negative on March 22 for the first time in three years. That said, it is ironic that weaker economic data is being viewed as a positive, especially given earlier fears about the slowing pace of activity in the region. As with Pavlov’s dog, it appears that markets can’t help but respond positively to the prospect of a more supportive central bank and a further extension of monetary accommodation.

Taken together, these various factors bolster the notion that default and loss rates are unlikely to spike in the near-to-medium term, despite higher levels of leverage, even though conditions are about as benign as they can be. As illustrated in the chart below, the S&P ELLI trailing twelve-month default rate recently fell to zero after registering a record low reading of 0.11% in December. Should defaults eventually rise to the 2-3% level that many commentators, including rating agencies and research analysts, expect, this would still leave them below their long run averages.

#### ELLI Trailing 12-month Default Rate



Source: LCD, an offering of S&P Global Market Intelligence

Overall, then, we believe that defaults will likely stem from idiosyncratic situations rather than a broad-based systemic failure. With this in mind, bottom-up credit picking will be the key to successfully navigating the European leveraged loan market in the period ahead.



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