

Investment Insights

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Q1 2019

This quarter's *Investment Insights* looks in more detail at US corporate leverage. In particular, we seek to understand if recent investor concerns about rising debt levels and stretched corporate balance sheets are merited or mispriced in the context of prospects for US economic growth and the outlook across global asset classes. In short, does corporate America have a debt problem or not?

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Does corporate America have a debt problem?

Dan Heron, Ryan Primmer

Highlights

- US corporate debt excluding Financials has risen to levels of GDP previously associated with US recessions, while a number of key leverage ratios paint a similarly negative picture. We assess the risks and their implications.
- A 300% rise in outstanding Investment Grade (IG) BBB over the past decade warrants close attention. But in our view, the bigger threat lies in US leveraged loans, where the value of debt to increasingly poor quality borrowers has soared while lender protections have diminished.
- Overall our view is that US corporate balance sheets are in stretched territory, but in aggregate not dangerously so given our base case for growth and policy rates.
- Crucially for the US economy, consumer debt is more important than corporate debt; it is hard for us to see US demand growth collapsing given continued wage growth, a robust labor market and the healthy state of US household finances.
- Key takeaway is that high corporate leverage increases economic 'tail' risks should growth slow more than we expect.
- Already fully priced? After derating of US equities and widening of credit spreads since early October, US risk assets do not look significantly mispriced on a short-term basis.
- Nonetheless, macro uncertainty, debt refinancing wall, downgrade risk, and lower EPS growth are likely to weigh on US credit spreads and equity PE multiples over the medium term; alongside higher volatility, this is the new normal.
- Cooling demand impulse, low inflation, tightening financial conditions and US debt backdrop are all part of why we believe the Fed is close to the top of the rate tightening cycle and that USD will weaken over the medium term.
- From a multi asset perspective, current risk/reward more attractive away from US assets on a tactical basis:
 - In credit, we prefer local currency emerging market (EM) debt to US IG or high yield (HY), but expect US credit to offer plenty of opportunities as the cycle matures
 - In equities, high leverage and still expensive relative equity valuations in the US are key drivers to our preference for ex-US equities; EM and Japan are our favored markets
 - Cross asset: underweight US HY may be a potentially effective hedge to overweight equities in multi asset portfolios

“When sorrows come, they come not single spies, but in battalions.” (Hamlet, Act IV, Scene V -William Shakespeare)

In the context of the lengthening list of concerns that have occupied investors’ minds in recent months, maybe Shakespeare had a point. The ‘wall of worry’ that investors have tried and failed to climb has included:

- Global growth concerns as the US/ China trade war continues and the imbalances between a generally solid US economy and the significantly less buoyant demand impulse outside of the US increase risks of a sharper-than-forecast slowdown;
- Fears that China will be unable to reconcile its economic transition and deleveraging imperative (amplified by the trade spat with the US) without a hard landing;
- Tightening financial conditions as unconventional monetary policy measures are slowly withdrawn and global quantitative easing evolves to global quantitative tightening;
- Fears of a US monetary policy mistake in the context of inconsistent communication from the US Federal Reserve (Fed) and a war of words with the White House; and
- Heightened geopolitical risks including Brexit and on-going issues within the Eurozone.

But more recently, investors have honed in on an additional concern: US corporate leverage.

This quarter’s Investment Insights looks in more detail at US corporate balance sheets to assess the potential risks to the broader US economy should corporate funding costs rise further and income fall as the US cycle matures. In particular, we seek to understand if recent investor concerns are merited, overdone or mispriced in the context of prospects for US and global economic growth and the outlook across US asset classes. In short, does corporate America have a debt problem or not?

Among the widespread recent media and analytical coverage of US corporate balance sheets, there seems little conflict over a handful of basic facts that provide important context to the overall debate about US corporate credit.

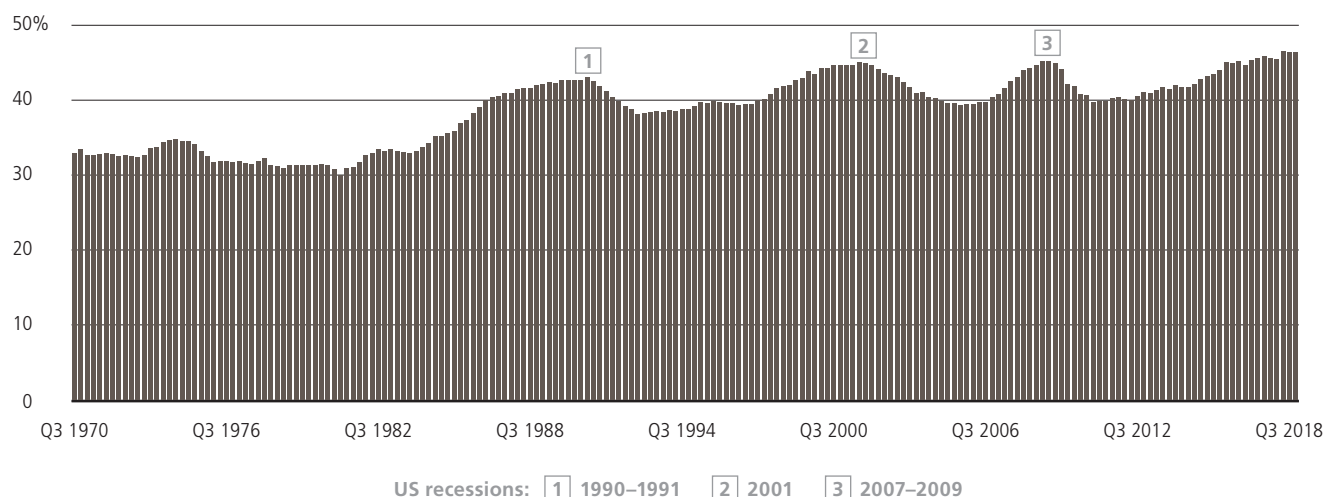
First, US corporate debt levels have grown significantly since the post-financial crisis lows in absolute terms and as a percentage of US GDP. And second, that such levels of debt as a percentage of GDP have been associated with US recessions in the past (Exhibit 1).

Companies have used the capital raised for a variety of purposes: to refinance existing debt at better rates, to fund M&A, to finance capital expenditures, and to buy back equity.

In seeking to assess the risks posed by US corporate debt, much of the recent analytical coverage has honed in on the specific areas of debt growth. In investment grade markets, the outstanding value of BBB issuance—the lowest rung of the investment grade rating ladder—grew by over 300% over the 10-year period to end-2018 at a compound annual growth rate (CAGR) of 15.4%, significantly outpacing issuance across other ratings bands (Exhibit 2).

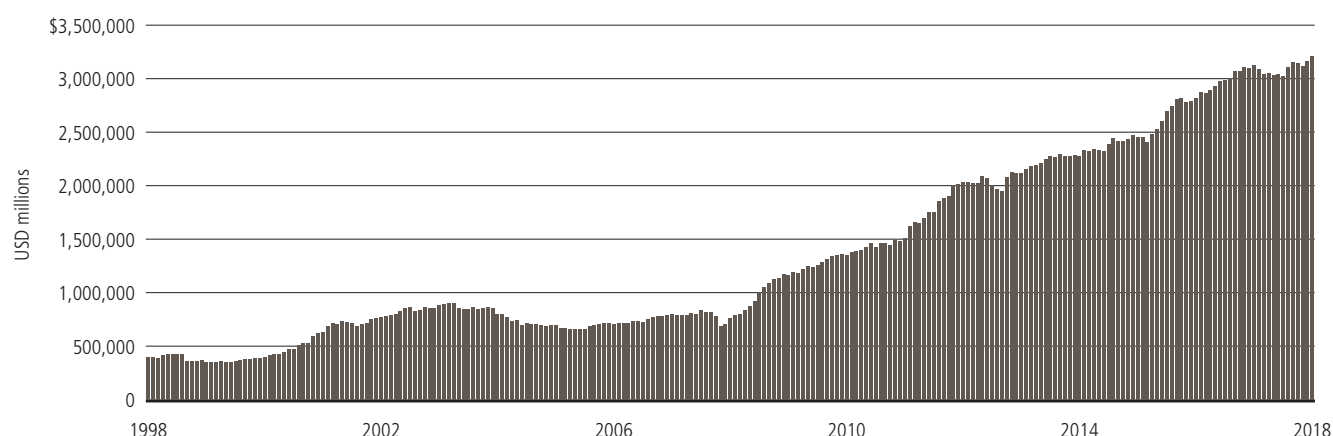
We seek to understand if recent investor concerns are merited, overdone or mispriced in the context of prospects for US and global economic growth and the outlook across US asset classes.

Exhibit 1: US corporates ex-financials debt to GDP % 1970 to 2018



Source: UBS Asset Management, Refinitiv, as of Q3 2018.

Exhibit 2: US IG BBB market value (USD millions, capital only)



Source: UBS Asset Management, Refinitiv. Using data between December 31, 1998 and December 31, 2018.

This imbalanced development has led to, in our view, at least partly justifiable concerns about the outlook for US credit should the economic backdrop slow, debt servicing ratios worsen and any significant proportion of this BBB IG debt face downgrades from the major ratings agencies and fall into HY. In credit markets such bonds are referred to as ‘fallen angels’.

A key part of the overall risk relates not just to IG BBB spreads, which are highly likely to move ahead of any ratings downgrades, but then what additional risk premium HY investors demand for the increase in supply in their universe after the BBBs are downgraded. The issue is particularly acute given the market value of USD BBB is now around 2.5x that of the entire HY universe (Exhibit 3).

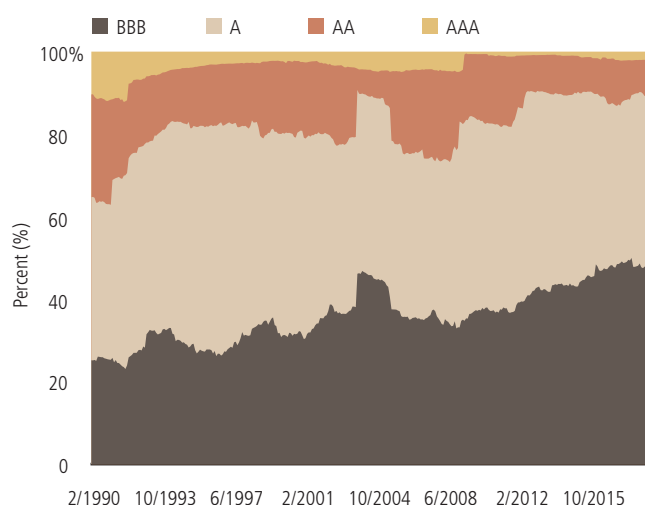
The issue is particularly acute given the market value of USD BBB is now around 2.5x that of the entire high yield universe.

Exhibit 3: Market value of BBB USD investment grade as a % of US high yield



Source: UBS Asset Management, Refinitiv. Using data between December 31, 1998 and December 31, 2018.

Exhibit 4: USD investment grade by rating market value



Source: Bloomberg, DB Global Research. Using data between February 28, 1990 and December 30, 2018.

Over the very long term, average ratings downgrades from BBB run at around 4.5% annually.¹ Simple arithmetic reveals that the high yield universe should expect an increase in supply of at least 11% in 2019. While substantial, this does not feel unmanageable. But what is the outlook for BBB downgrades relative to an 'average' year?

In our view, the growth in debt levels only tells part of the story. After all, debt in absolute terms can continue to grow as long as companies can deliver earnings and cashflow growth to service the debt. More important in our view are key leverage metrics—the ratio of

debt compared to other balance sheet, cashflow and income measures—and what investors can deduce about the margin of safety companies have to pay their interest obligations.

So how do US companies stack up? Unfortunately, leverage (net debt/EBITDA) across debt ratings categories has risen steadily in recent years and now stands higher than it was before the financial crisis (Exhibit 5).

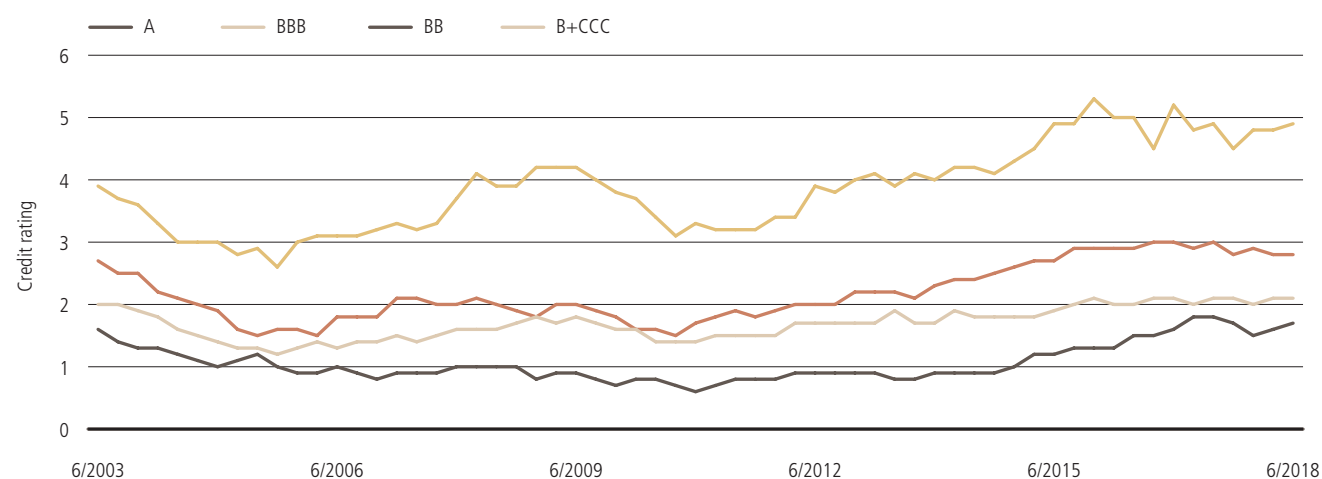
On this measure at least, the market's recent concerns about debt levels appear well founded.

But dig a little deeper and a more comprehensive and nuanced picture emerges. Interest coverage is a key leverage ratio calculated by dividing earnings before interest and tax by interest expense. It therefore gives investors a simple ratio to understand the headroom a company has to pay its interest obligations out of profit. On this measure, the balance sheets of listed US companies have actually become less stretched in recent months, even if they are significantly less robust than a few years ago (Exhibit 6).

Other key measures favored by ratings agencies tell a more pessimistic story for the outlook for US credit in general and for BBB and the likelihood of downgrades in particular. Using US Net Debt/EBITDA, current US (Exhibits 7, 8 & 9) leverage ratios imply as much as USD 300bn of downgrades from BBB to high yield over the coming year—equivalent to 25% of the US HY market. We believe HY investors would struggle to digest such an increase in supply without material disruption.

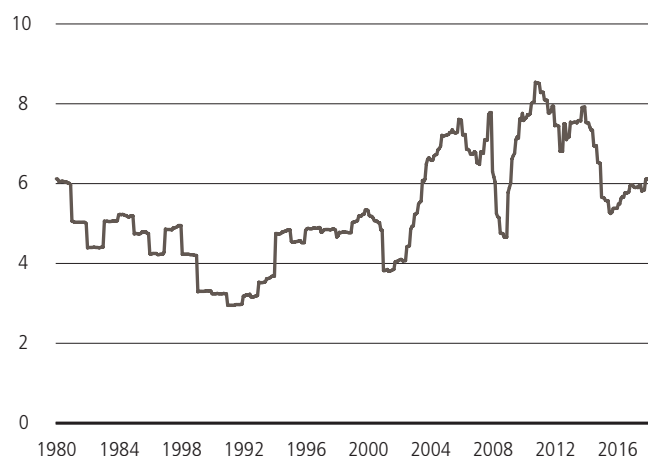
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Exhibit 5: Leverage by credit rating

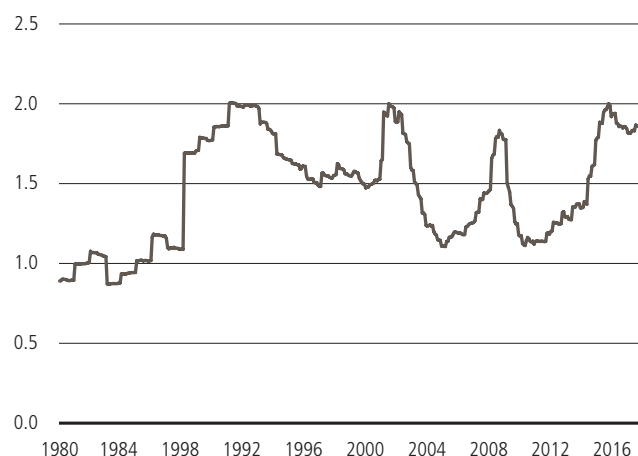


Source: Worldscope, Bloomberg, UBS. Using data between June 2003 and June 2018.

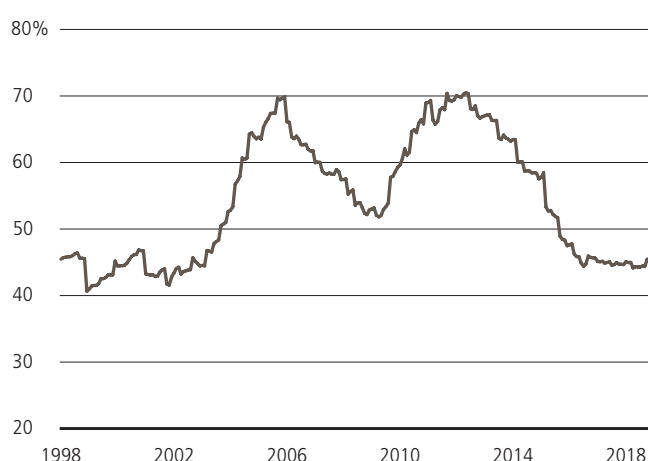
¹ Moody's Investors Service Annual Default Study.

Exhibit 6: US interest coverage (ex-fins)

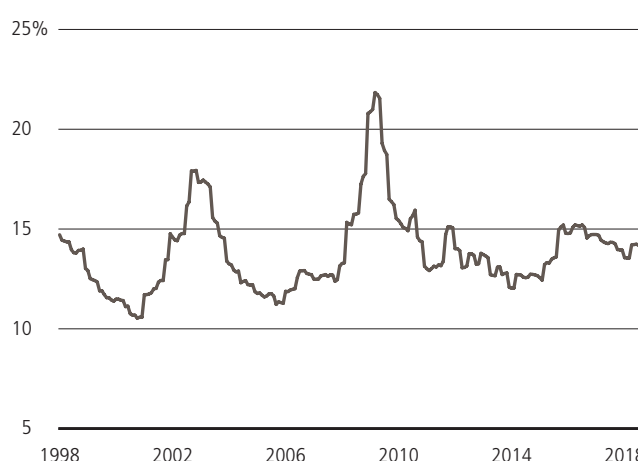
Source: UBS Asset Management, Refinitiv. Using data between December 31, 1980 and December 31, 2018.

Exhibit 7: US net debt/EBITDA (ex-fins)

Source: UBS Asset Management, Refinitiv. Using data between December 31, 1980 and December 31, 2018.

Exhibit 8: US ex-fins free cash flow to net debt

Source: UBS Asset Management, Refinitiv. Using data between December 31, 1998 and December 31, 2018.

Exhibit 9: US ex-fins net debt/enterprise value

Source: UBS Asset Management. Using data between December 31, 1998 and December 31, 2018.

But as our UBS Investment Bank colleagues recently pointed out in addressing precisely this issue, on the measure of financial health that has the strongest relationship with ratings downgrades, US non-financial debt ratios are actually healthier than average and significantly lower than during the last two US recessions: “The relationship between debt to enterprise value ratios

and IG to HY downgrades is much stronger.” And based on this measure alone, “the read-through for 2019 fallen angel risk would also be of the order of \$50–75bn, or only 4% to 6% of the HY bond market.”²

On balance this is a mixed picture. While still robust US corporate earnings growth suggests that near-term risks are not

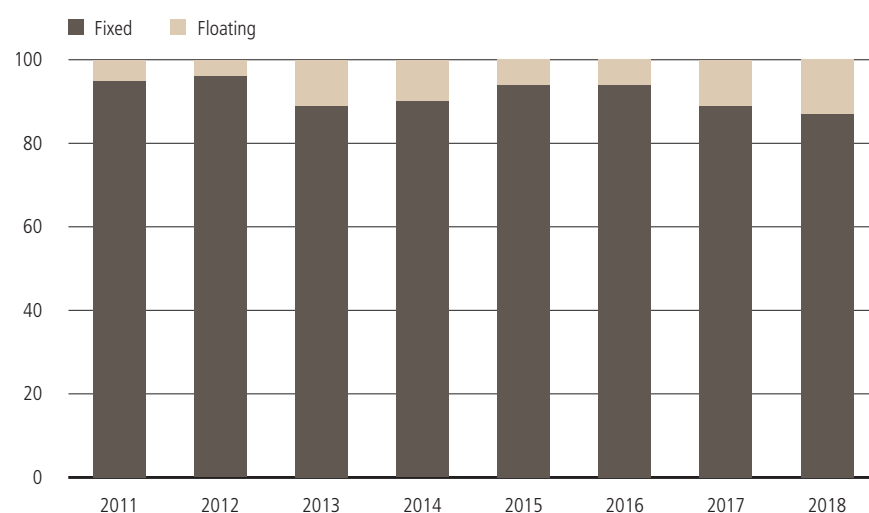
significant, we remain wary of rising late cycle tail risks. While it is not our base case, the probability is rising of a vicious cycle of worse-than-expected revenue and EPS growth driving deteriorating debt fundamentals and prompting first investment grade spreads wider ahead of ratings downgrades and then high yield spreads wider too.

² “Can global fallen angel risk be redeemed?” Stephen Caprio, Matthew Mish, Bhanu Baweja and Anna Ho, UBS Investment Bank Global Research, January 16, 2019.

In the context of this assessment it is worth noting that the overwhelming majority of corporate bond issuers in the investment grade and high yield universes have wisely fixed their borrowing rates (Exhibit 10). Nonetheless, some USD 5trn of US corporate debt matures in the next five years (Exhibit 11). Assuming rates and spreads stay where they are, higher funding costs are likely to weigh on corporate earnings if the debt is rolled in full or on overall growth if debt levels are reduced.

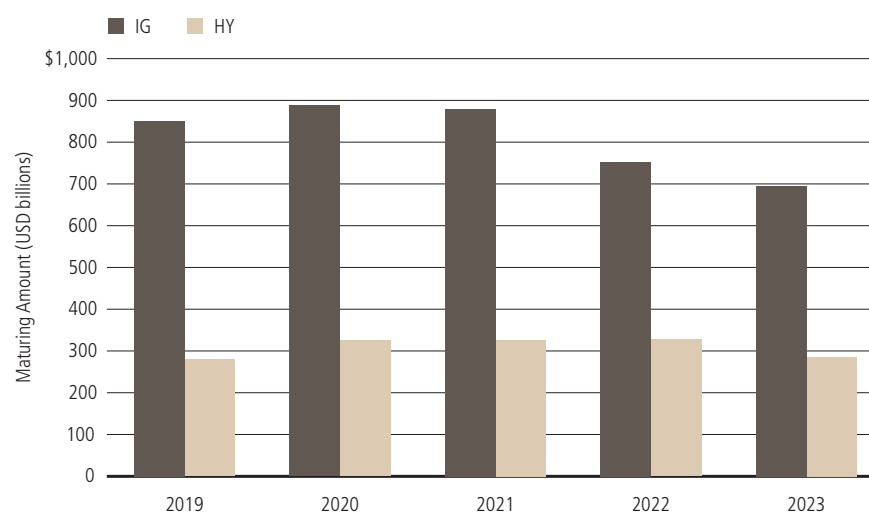
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Exhibit 10: US IG/HY issuance by coupon type



Source: HSBC, Bloomberg as of December, 2018.

Exhibit 11: US IG and HY maturity wall, 2019–2023



Source: UBS Asset Management, HSBC, Dealogic December 2018.

Leveraged loans: What they are and why they matter

If the issuance in investment grade BBB is an important factor for investors in traditional credit markets to be aware of, the growth in so-called Leveraged Loans—floating rate finance extended to poor quality borrowers with stretched balance sheets (hence ‘leveraged’)—warrants particular attention.

In the six-year period to October 2018, the par value of outstanding USD leveraged loans more than doubled, growing at a compound annual rate of over 12% (Exhibit 12). At just over USD 1trn in value, the USD leveraged loan market is now broadly the same size as US high yield.

But perhaps just as noteworthy as the growth has been the corresponding fall in lender protections, or covenants. These developments have prompted both comment and analysis from major financial institutions including the US Federal Reserve, the Bank of England, the Reserve Bank of Australia, the Bank for International Settlements and the International Monetary Fund (IMF).

In an interview with the Financial Times in October 2018, Janet Yellen, former Federal Reserve chair, said she was “worried about the systemic risks associated with these loans.” And in a November 2018 IMF blog on the subject, the IMF’s analysts highlighted that “speculative excesses in some financial markets may be approaching a threatening level. For evidence, look no further than the \$1.3 trillion global market for so-called leverage loans.”

And with good reason. There are more than faint echoes here of the sub-prime mortgage issues of 2007/8. Private equity backed M&A deals have been a major issuer of leveraged loans, confident that in a robust US demand backdrop with low but rising rates demand for floating rate yield would remain strong.

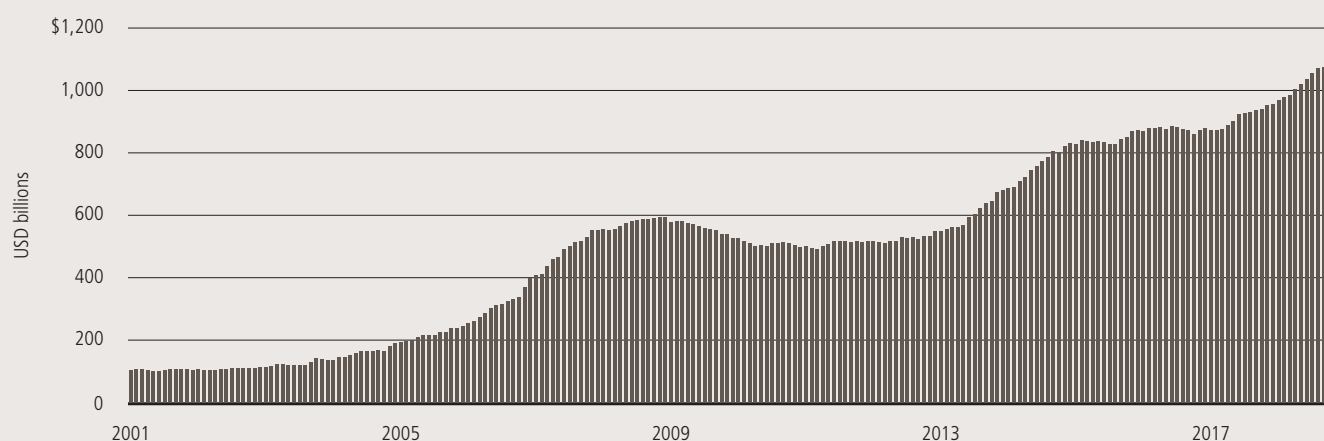
On the other side are income-hungry institutional investors. But the major buyer of leverage loans has been structured debt products such as collateralized loan obligations whose multiple tranches are often bought by mutual funds. This raises the specter of a significant liquidity mismatch between the daily pricing of mutual funds and the underlying collateral in the event of widespread redemptions.

There are counter arguments, however, that provide insight into the market’s growth. For much of the past two years, the market has strongly (and correctly) believed that US base rates would continue to rise. Leveraged loans are floating rate, offering obvious attractions in this environment. Long-term average default rates in leveraged loans run to around 2%—significantly lower than high yield—and due to loans’ seniority in the capital structure, average recovery rates when loans have defaulted are around 70%.

Whether those ‘averages’ hold true in a downturn given lower credit quality and lower investor protections remains to be seen. And as the IMF’s November blog noted, leveraged loans with low levels of protection—so-called ‘covenant-lite’ loans—now represent some 80% of new issuance, up from 40% in 2012 and under 30% in 2007. According to the IMF: “A sharp rise in defaults could have a large negative impact on the real economy given the importance of leveraged loans as a source of corporate funding.”

We are watching developments in this space extremely carefully, and in particular signs of liquidity issues that may have wider implications for risk assets, for US corporate funding costs and for the wider US economy. That said, with a flat yield curve and as the Federal Reserve approaches the top of the fed funds rate in this cycle the attractions of floating rate debt have diminished markedly. We therefore do not expect the rate of growth in leveraged loans to continue even if demand for yield overall from investors remains strong.

Exhibit 12: US leveraged loan debt outstanding USD billions



Source: Worldscope, Bloomberg, UBS. Using data between January 1, 2001 and October 1, 2018.

Impact on the economy

Given high leverage, generally stretched servicing ratios and potentially higher financing costs at the very least, we would expect credit growth to slow materially in the BBB and leveraged loan channels—suggesting strongly that the US credit cycle is close to or already at its end.

But what does that mean for the US economy? In order to understand the vulnerability of the US economy to rising corporate debt levels we need to consider this evolution in the context of the total leverage within the US economy across all sectors.

On the government side, the US is running an unhealthy twin budgetary and current account deficit—begging the question as to how long foreign investors will continue to absorb US Treasury issuance at current yield levels as government debt to GDP continues to grow. Given the USD's status as the most important reserve currency, we do not see any material short-term pressures to US sovereign funding costs from this source and the instinctive reaction of investors to buy US Treasuries amidst the turmoil of the recent sell-off in risk assets is, in our view, instructive.

But the fact that the US fiscal deficit is growing at this stage of the cycle is

hardly helpful to the outlook. Historically, the US fiscal budget has generally moved in line with unemployment—providing important counter-cyclical support when necessary and reducing inflation risks at the top of the demand cycle. Some of the changes to the tax code introduced in early 2018 will have a lasting impact on growth prospects. But a large proportion have only, in our view, provided a short-term boost to US demand. Therefore we believe that the pro-cyclical increase in US government debt ratios at a time of near-full US employment increases medium-term risks to the US economy and reduces the capacity for fiscal spending to act as a counter balance when private sector dynamics deteriorate.

But there are relative bright spots within the US debt data. And in our view, they are potentially significant. First, corporate debt excluding financials in the US is not a major contributor to the overall national debt compared to government or household debt (Exhibit 13).

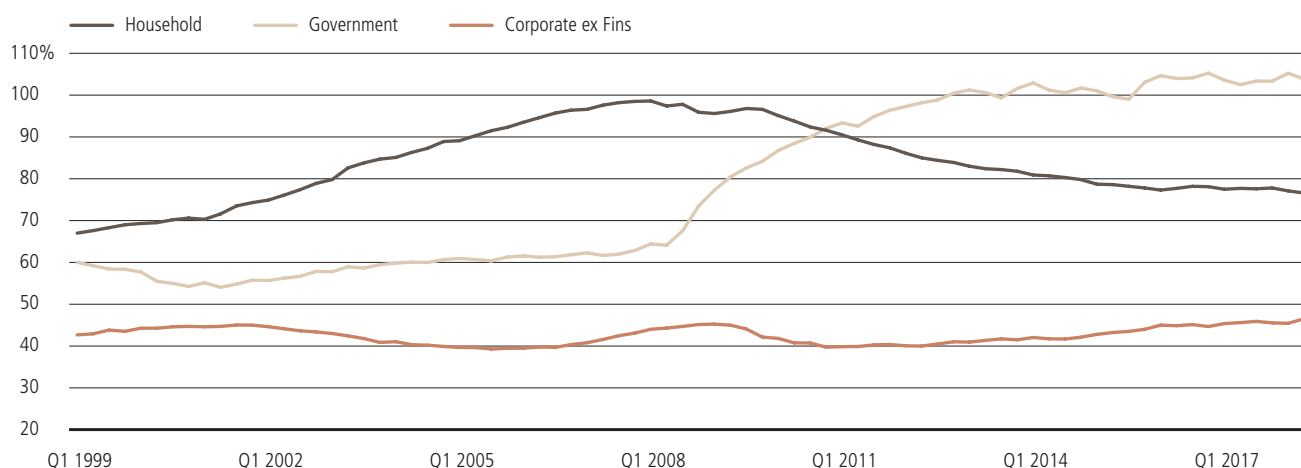
And second, while US companies have been busy piling on the debt, US households have been doing the opposite. Consumer debt ratios have improved significantly since the financial crisis with the savings rate broadly constant while overall household wealth has increased significantly (Exhibit 14).

Given consumption accounts for around two thirds of US demand, what is going on with household debt provides an important counter to what is going on in US corporate and government debt. In our view, robust US labor markets and continued wage growth provide further confidence in the medium-term outlook for consumption growth (Exhibit 15).

In the context of such a well-supported consumer, we believe that the probability of a US recession in 2019 is low. This is supported by our proprietary Recession Indicator that puts the probability at around 30%. Growth is slowing, not collapsing. Nonetheless, there is little question that the US demand impulse is moderating as the boost from last year's fiscal impetus wanes and in the face of tighter financial conditions and a weakening external environment. With major fiscal expansion unlikely to take up the slack, debt levels are also likely to constrain growth prospects in the US over the medium term.

In the short term we believe that the main economic impact of high US corporate leverage is therefore that it increases tail risks—a situation amplified by the pro-cyclical fiscal boost provided by the US government at a time of full employment.

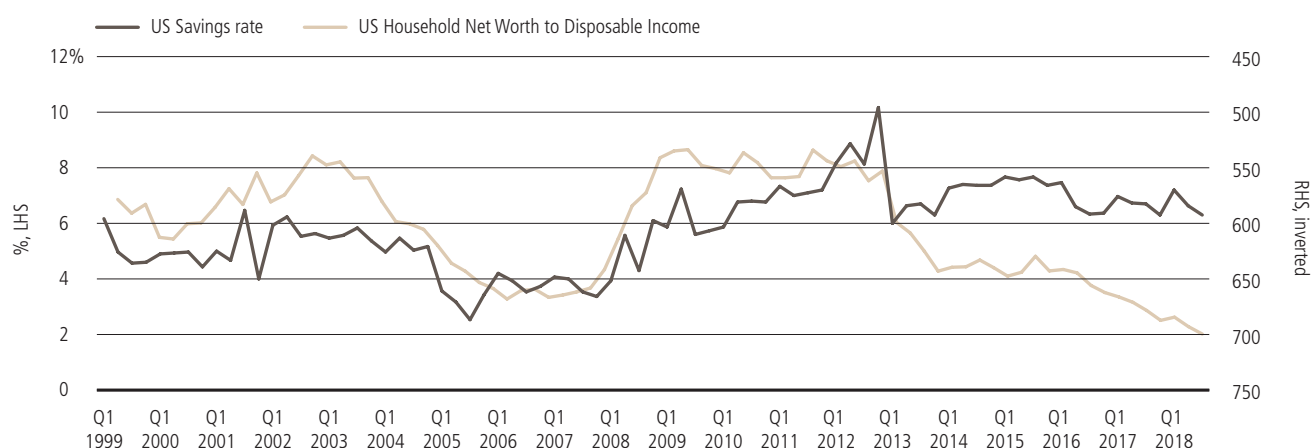
Exhibit 13: US debt as % of GDP: households, corporates (ex Fins), govt



Source: UBS Asset Management, Refinitiv. Using data between Q1 1999 and Q1 2018.

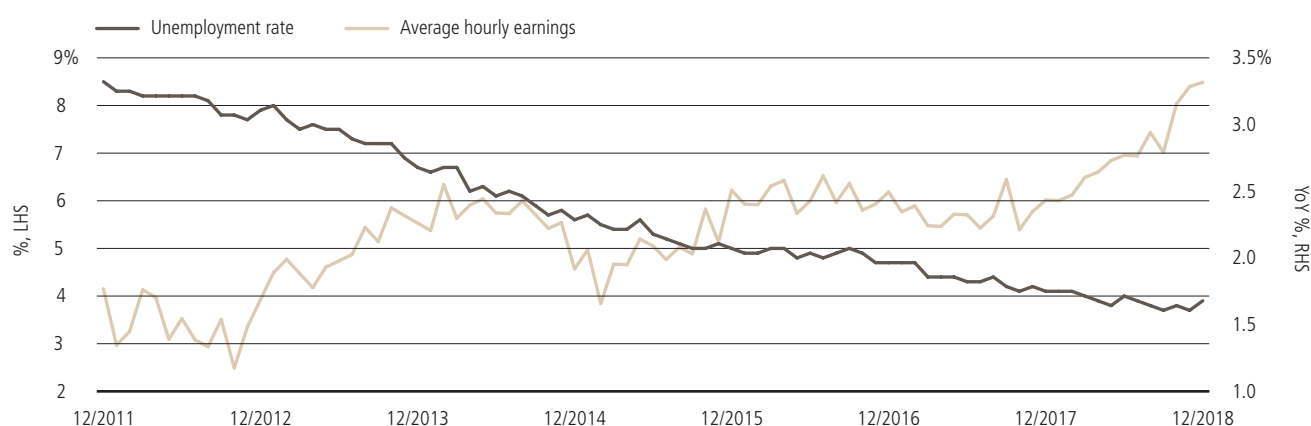
Exhibit 14: US households in good shape

Savings rate (%), LHS) v Household net worth to income (RHS, inverted)



Source: UBS Asset Management, Refinitiv. Using data between Q1 1999 and Q1 2018.

Exhibit 15: US unemployment (%), LHS) v wage growth (YoY %, RHS)



Source: UBS Asset Management, Refinitiv. Using data between December 15, 2011 and December 15, 2018.

What's in the price?

The widespread media and investment bank analytical coverage of US corporate leverage suggests very strongly that the concerns about US corporate leverage have already played a key role in the broader drawdown in risk assets and are therefore partly if not wholly discounted in prices.

Our view is that it has not simply been the level of borrowing and leverage ratios in isolation that have prompted the repricing—but that these metrics generally look so poor at this late stage of the US cycle.

At a different stage, US corporate debt ratios might be improved by higher margins through operational gearing or

by rising income as revenue growth accelerates. But US corporate margins are already close to cyclical highs. The US labor market is tight and wage growth is accelerating. Absent a sudden and unexpected improvement in productivity, it seems more likely that US profit margins will shrink than grow in 2019.

Within equity markets, US PE multiples dropped 28.5% from end-January to

end-December (Exhibits 16 & 17). Like changes in credit spreads, changes in equity earnings multiples tend to be leading indicators. While few would argue that tightening US financial conditions, higher geopolitical risks and increasing macro volatility driven in part by higher corporate leverage all warrant a lower multiple, in a long-term context the fall looks particularly savage.

Absent a sudden and unexpected improvement in productivity, it seems more likely that US profit margins will shrink than grow in 2019.

We do not believe that US equities are significantly mispriced on a standalone basis. Nonetheless, stretched corporate balanced sheets at this stage of the cycle also increase the potential downside risks to EPS growth. And the same factors that prompted the derating in the first place are likely to weigh on US equity multiples over the medium term. On a relative basis we believe that the risk/reward in global equity markets is more attractive outside the US.

From a multi asset perspective we have a similar view on US credit as we do on US equities. As the US cycle turns, higher spreads and higher volatility are likely to be the new normal. The steady decrease in investment bank US credit inventory since the financial crisis also reduces an important potential source of liquidity that is likely to be sorely missed should investor risk appetite diminish still further. US credit markets are fragile, and credit spreads have simply normalized from unusually low levels in a long-term context.

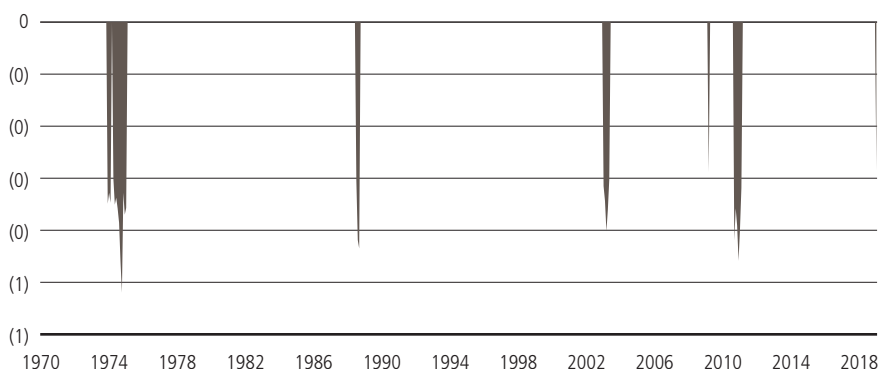
That said, we do not see a significant spike in BBB downgrades or high yield defaults in the short-term given the growth outlook. However, BBB issuance is still likely to continue to weigh on investment grade spreads, as is the impact of higher USD hedging costs on demand for US IG bonds from heavy-weight foreign buyers (Exhibit 18). Market data shows foreign buying is already rolling over.

Exhibit 16: MSCI USA



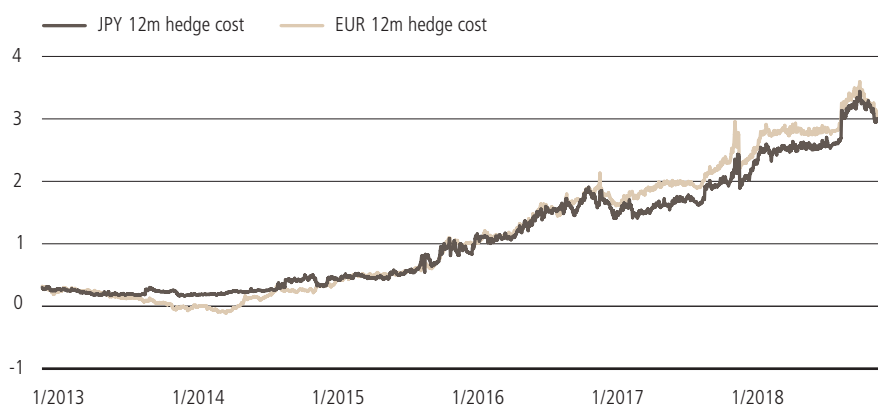
Source: UBS Asset Management, Refinitiv. Using data between January 30, 1970 and December 31, 2018.

Exhibit 17: MSCI USA 11m % change in PE > 28.5% drop in 2018



Source: UBS Asset Management, Refinitiv. Using data between December 31, 1969 and December 31, 2018.

Exhibit 18: 12m USD hedging costs for Japanese and European investors

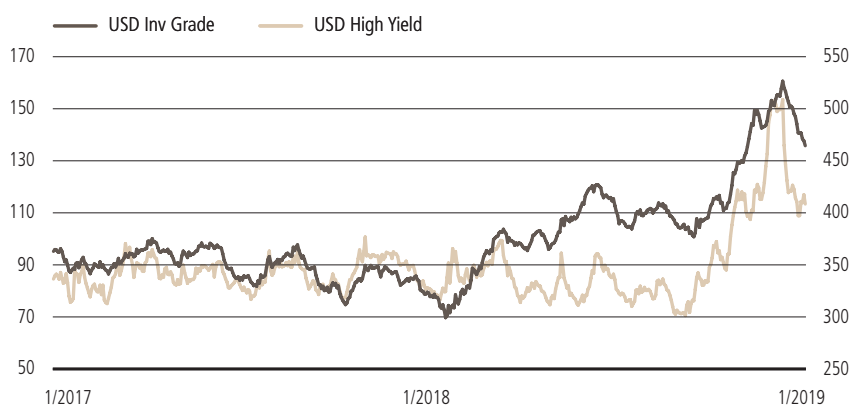


Source: Bloomberg, DB Global Research as of January 2019.

While the supply backdrop for US high yield remains supportive on a relative basis to investment grade in the near term, we believe that lower-rated corporate credit represents high beta exposure to US economic growth. We remain wary of increased late cycle 'tail' risks. High Yield spreads relative to both Treasuries and IG have been notably wider at similar levels of overall debt to GDP and leverage ratios historically (Exhibits 20 & 21). Meanwhile, the sector is also unlikely to be spared should any significant problems arise in the leveraged loan space given the crossover in issuers.

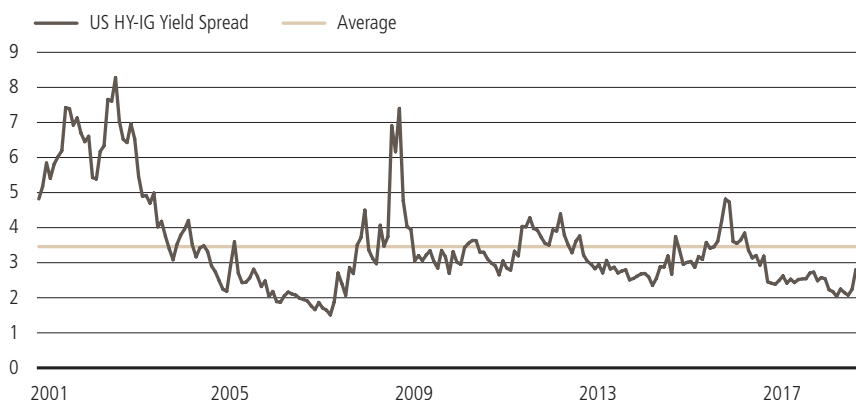
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Exhibit 19: USD investment grade and high yield spreads over 10y US Treasuries (basis points)



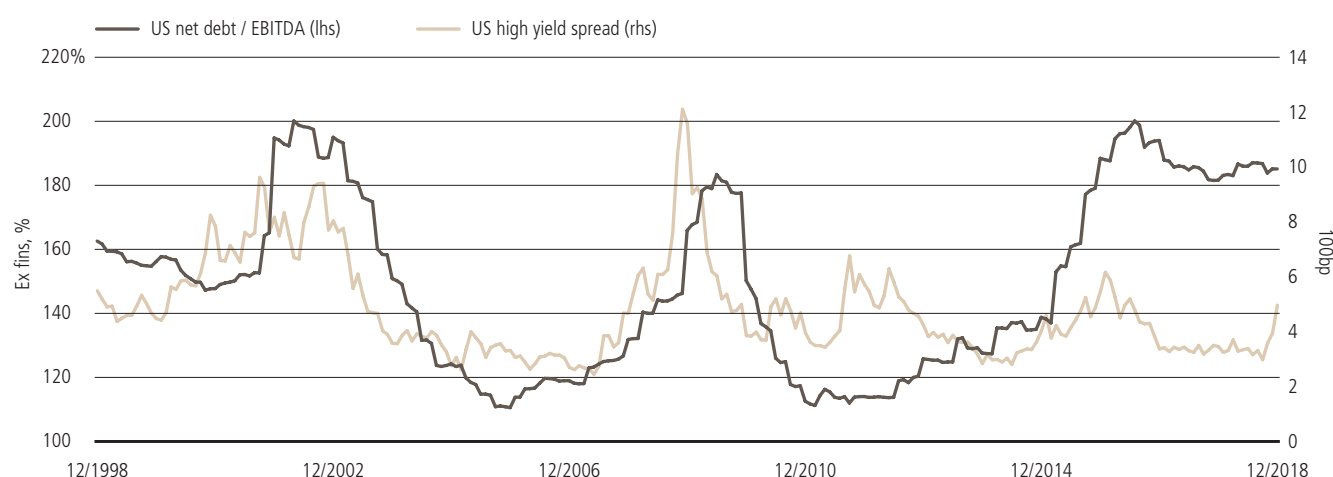
Source: UBS Asset Management, Refinitiv as of January 16, 2019.

Exhibit 20: USD high yield/ investment grade yield spread



Source: UBS Asset Management, Refinitiv as of January 16, 2018.

Exhibit 21: US net debt /EBITDA (ex Fins, LHS, %) v US HY yield spread (RHS, 100bp)



Source: UBS Asset Management, Refinitiv, as of December 31, 2018.

In short, in the context of our base case for continued above-trend growth in the US, we do not believe that either USD investment grade or high yield are significantly mispriced. On a relative basis within the global credit universe we believe that the risk/reward is currently more attractive in local currency emerging market debt, but there are likely to be plenty of tactical opportunities in credit as the US cycle matures and investor assumptions ebb and flow.

We also believe that there is more protection in global equity valuations than in US high yield despite recent spread widening. Within a number of multi asset portfolios we are therefore

using an underweight position in US high yield to hedge an overweight position in global equities.

The bottom line

Does corporate America have a debt problem? On the one hand, it is hard to argue with the weight of poor debt and leverage metrics. US corporate balance sheets are stretched. But for the wider US economy we believe that the robust state of household balance sheets currently more than offsets these headwinds. But that may change. And high levels of corporate leverage represent a vulnerability that may well prove problematic when the economy and earnings turn more sharply.

More importantly, is US corporate debt an immediate problem for investors? Despite our concerns about covenant quality and potential liquidity issues in leveraged loans, we believe the answer is no, not in the short term given the extent of the repricing and overwhelmingly negative sentiment in the context of a still reasonable US economic backdrop.

But at a time when global liquidity is being withdrawn by central banks, the US cycle is turning and investors can get a positive real return in 'risk free' short-term US money markets, at the very least the potential upside for US credit spreads and for US equity multiples is, in our view, starting to diminish.

Is buy-back fuelled US EPS growth sustainable?

For many US corporates, the low base rates and suppressed credit spreads of the post-financial crisis era provided a financial engineering arbitrage opportunity that few have overlooked. Equities may have been lowly valued in the aftermath of the financial crisis, but on a relative basis debt was significantly cheaper. Executive boards—many of whom are remunerated on EPS targets in the US—have said thank you, borrowed, and bought back stock.

Is the use of debt to buy equity a fundamental misallocation of capital that is storing up significant problems for the future of the US economy? Since an explicit purpose of liquidity provided by the Federal Reserve via quantitative easing was to encourage lower cost debt funding and to support asset prices, it is hard to argue that companies' use of debt capital to boost equity EPS and share prices is somehow an unforeseen policy consequence.

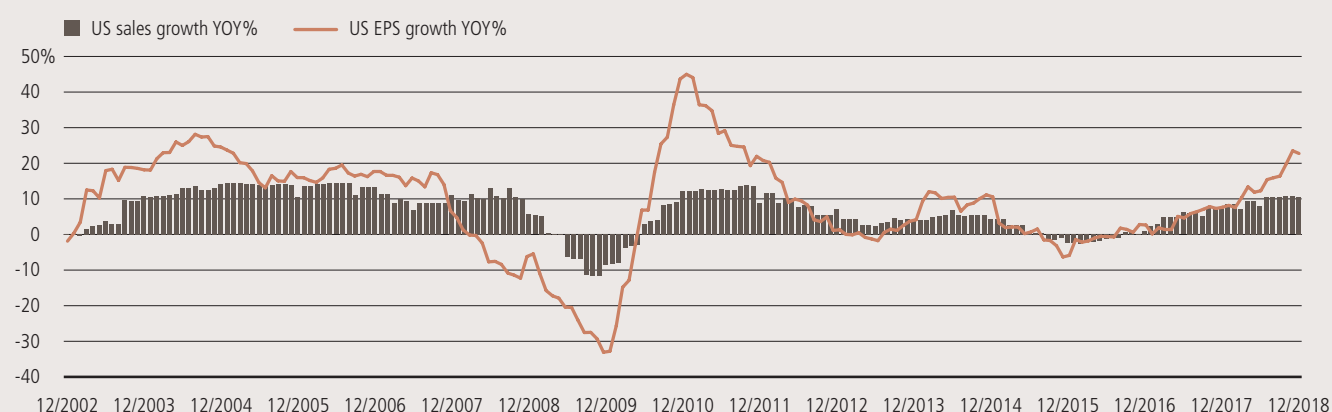
Perhaps more importantly from a philosophical point of view, it's worth remembering that debt itself is not a bad thing, nor rising debt levels de facto evidence of an imbalanced economy or stretched corporate balance sheets. More often than not, economic growth is funded to a large degree by debt. And at the company level, efficient balance sheet management

demands that the majority of companies utilise at least some debt financing alongside equity capital. The use of debt to boost profits, return on equity (ROE) and EPS is hardly revelatory.

Nonetheless, we have argued in detail before about the negative impact on corporate investment and therefore long-term earnings growth when a larger proportion of corporate profits is being returned to shareholders via dividends and share buybacks rather than invested. At least in part we believe this reflects the demands for income from an ageing population. We do not repeat the arguments here past simply highlighting that the recent faster growth in US EPS relative to, for example, sales growth and EBITDA growth looks unsustainable, even if it has been driven by last year's changes to the US tax code (Exhibit 23).

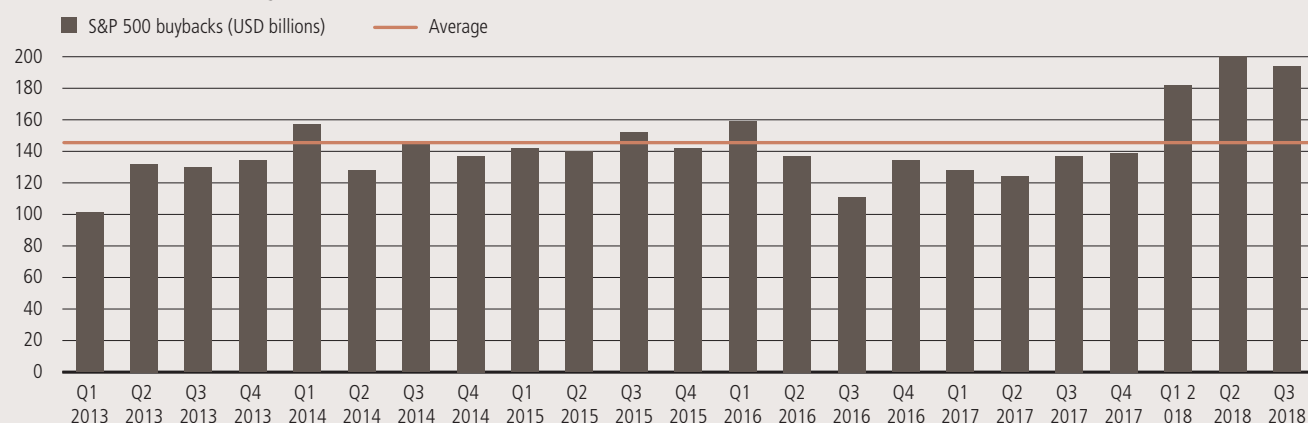
Unsurprisingly, average US annual EPS, Sales and EBITDA over the long-term are closely comparable even if EPS is significantly more volatile. But the key lesson from the past is that periods when EPS growth significantly exceeds sales growth are normally followed by periods when EPS growth is significantly lower than sales growth (Exhibit 22).

Exhibit 22: US YoY & sales growth v EPS growth



Source: UBS Asset Management, Refinitiv as of December 2018.

Exhibit 23: S&P 500 buyback value USD billions



Source: HSBC, Bloomberg as of December 2018.

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