

## Macro Keys

### US corporate default wave: Rogue wave, or the start of a tsunami?

#### Global Macro Strategy

#### Global

#### The key questions

In this piece we address several pivotal questions around the US default outlook. First, is the recent default wave breaking with the recent recovery in commodity prices? Second, should it be viewed as a proverbial rogue wave – a one-off, extreme event – or could this be the start of a tsunami – a series of successive, larger defaults? Third, what will be the key determinants of defaults in this cycle? And how will changes in market structure impact the outlook? Fourth, what's priced in by market expectations? And finally, how should investors position portfolios?

#### Commodity defaults to remain elevated well into 2017

In brief, we expect commodity sector defaults will remain elevated for the rest of 2016 and into 2017. And we project ex-commodity industry defaults to rise with the deterioration in corporate profits, lending standards and funding costs. In particular, investors should focus on the media/entertainment, consumer/service, retail and industrial sectors. In this cycle, our belief is that structural impairment will be the key drivers of defaults. Market participants should focus more on the narrow cushion between the market value of assets and debt as well as weak cash flow generation at lower quality firms, and less on bond maturities and covenants as triggers of default.

#### Non-commodity defaults to climb above consensus forecasts

Our year-ahead forecast for US speculative grade defaults is 5 – 5.5% by Q2 '17, comprised of 15% and 3.5% default rates in commodity and ex-commodity sectors, respectively. We believe our projection for non-commodity defaults is largely out of consensus, with most participants expecting only an incremental increase in non-commodity defaults from current levels near 1.5%. In our view, the bias to our forecasts is to the upside. Part of our rationale is driven by structural changes in credit markets which could worsen the cycle, including greater macroprudential regulation, a higher concentration of holdings in 'frail' hands, a much riskier leveraged loan market, and less relief from rates at the zero bound.

#### Recommend positioning in high grade credit, large cap equities

We recommend corporate credit investors maintain an up-in-quality bias, preferring US high grade over high yield. We actually prefer expressing this view in equities, favoring large caps over small caps. Fundamental credit deterioration is causing a more pronounced rise in leverage and decline in interest coverage for small caps. In addition, small cap benchmarks such as the Russell 2K have an elevated concentration in financials. We believe tighter credit conditions, not only in C&I but also CRE, will increasingly weigh on small capitalized financials, the majority of which are regional banks and REITS, relative to their large cap peers.

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# US corporate default: Rogue wave, or the start of a tsunami?

The US speculative grade default rate has accelerated from 1.7% to 4.4% over the prior year<sup>1</sup>, driven by stress in commodity-related industries. Oil & gas and metals/mining default rates have surged to 10 – 15%<sup>2</sup>. However, default rates across other sectors are averaging a modest 1.5%. In our view, there are several pivotal questions:

- *With the recent recovery in commodity prices, is the recent default wave breaking?*
- *Should it be viewed as a proverbial rogue wave – a one-off, extreme event – or could this be the start of a tsunami – a series of successive, larger defaults?*
- *What will be the key determinants of defaults in this cycle? How will changes in market structure impact the outlook?*
- *What's priced in by market expectations?*
- *How should investors position portfolios?*

## Commodity-related defaults likely to remain elevated

In our view, default rates in the energy and metals/mining sectors will remain elevated for the rest of 2016 and into 2017. There are several arguments that support this view. First, base effects matter. For example, default rates in the energy and natural resource sectors increased from 3.5% and 10.2% to 15.9% over the past twelve and six months, respectively. Simply put, the acceleration in commodity related defaults has been fairly recent – and will be sustained in the data through year-end of 2016 (Figure 1). Second, despite the recent rally in commodity prices, considerable stress still exists in the space. For example, in the US high yield bond market, 34% and 9% of issuers are trading at distressed levels<sup>3</sup>. The reality is that, despite the recent rally, one-year forward crude oil and natural gas prices are still down about 47% and 41%, respectively, from peak levels seen in 2014. This phenomenon has led to a substantial increase in leverage and severe cash flow pressures across the space. According to Moody's, approximately 44% and 27% of all speculative grade issuers in the energy and metals/mining sectors are rated triple C or below. Third, capital market access for many commodity related issuers is still not a feasible option. For example, US high yield bond issuance year-to-date in the commodity sectors is a mere \$8bn, down 75% from the prior year. Longer term, the default outlook will depend not only on the evolution of commodity prices, but also the broader evolution of the credit and economic cycles.

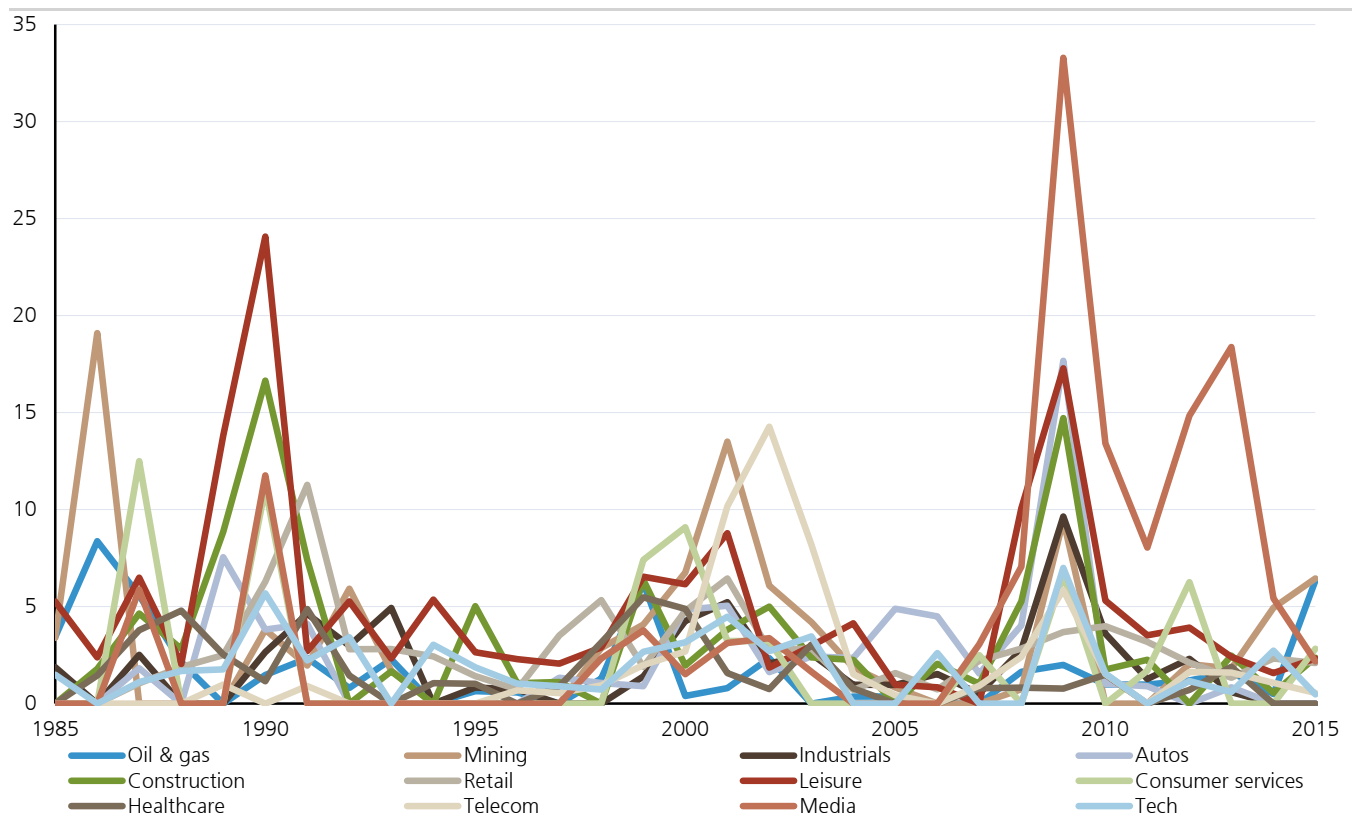
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<sup>1</sup> Issuer-weighted basis.

<sup>2</sup> Metals/mining and oil & gas defaults are 11.5% and 10.3%, respectively, as of end April per Moodys. Energy and natural resource defaults are 15.9% as of end March per S&P.

<sup>3</sup> Issuers with an average bond price trading less than \$70.

**Figure 1: Annual default rates for select industry groups (1985 – present)**



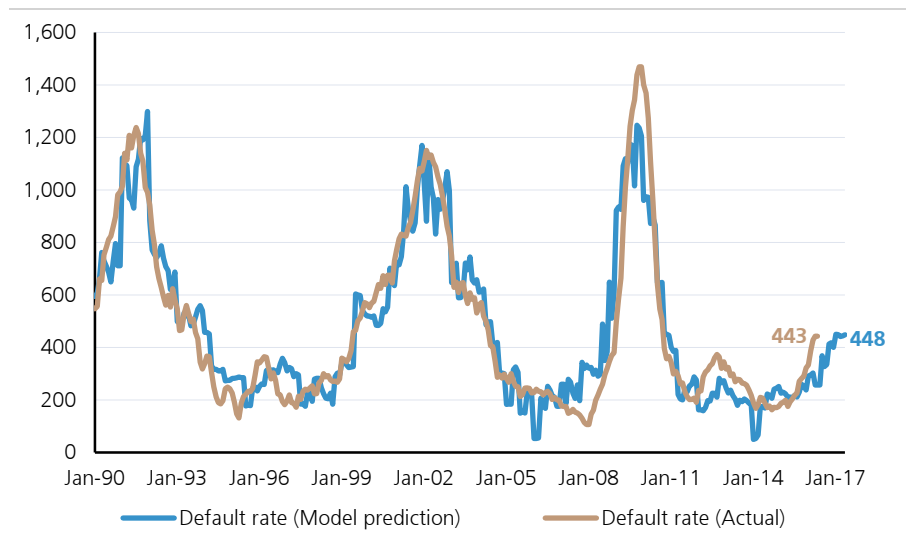
Source: UBS, Moody's

### Ex-commodity defaults expected to climb above consensus

Our conversations with investors suggest the majority anticipate a flat or modest uptick in default rates outside of commodities. We believe this view is optimistic for several reasons. First, our quantitative framework is signalling a broader deterioration in the default outlook, with our model projecting default rates of 4.3% over the next 12 months (versus 2.6% one year prior, Figure 2). The primary drivers of the rise are an increase in nonfinancial leverage (led by a 7.6% decline Y/Y in corporate profits), a tightening in lending conditions (with banks reporting net tightening of 6% versus net easing of 6% one year ago), and increasing spreads on loan rates (with a net 4% of banks decreasing spreads vs a net 40% decreasing 12 months ago). To be clear, we have previously treated commodity-related defaults as a unique phenomenon this cycle – i.e., beyond the scope of our model<sup>4</sup>. However, based on more recent evidence, the reality is our models are picking some, but not all, of the commodity related stress. For example, we estimate between 40% and 60% of the deterioration in corporate profits, lending standards and spreads is due to commodity related stress. A reasonable point estimate, in our view, for ex-commodity default rates is 3.5% (half of the Y/Y increase in our model forecast from 2.6% to 4.3%). Higher frequency data suggest default stress is rising specifically in the media/ entertainment, consumer/service, retail and aerospace/ industrial sectors (as well as the non-bank financials).

<sup>4</sup> [Corporate defaults: what is the outlook and is it priced in?](#), M. Mish, 22-Oct-2015 and [\\$1tn in distressed credit: not just an energy story](#), M. Mish, 25-Feb-2016

**Figure 2: US speculative grade default rate – actual versus model prediction**



Source: UBS, Moody's

### **Defaults driven by insolvency rather than illiquidity concerns in this cycle**

In reviewing the academic literature on defaults, one preliminary study in particular underscores the importance of insolvency and financing constraints rather than lack of liquidity in forecasting default rates. This paper<sup>5</sup> studies empirical evidence to disentangle the principal influences of defaults, in essence finding: first, the principal factor driving defaults is insolvency (i.e., market value of assets less than debt); second, illiquidity is a relevant but distant second (i.e., inability to repay current liabilities); and, third, the financing constraints or external funding environment is important and interrelated with illiquidity. Interestingly, the work also investigates the issue of bond maturities and suggests defaults due to lack of liquidity are principally missed interest, not principal repayments; further, on the issue of covenants it suggests covenants have a limited role in explaining defaults, and, in most cases, are only a trigger when firms are insolvent.

We find this line of reasoning intuitively appealing as it validates the importance of fundamentals – in particular the degree of leverage or debt in the structure relative to the market value of the firm's assets (i.e. the merton based approach) and the trajectory of cash flow generation (i.e., negative cash flow implies firms will quickly be unable to pay incoming bills). It also dilutes the perceived importance of bond maturities or maturity walls, which receives exaggerated importance from market participants, as well as covenants in terms of explaining defaults. We have previously been lamenting against the former line of reasoning for years to limited avail<sup>6</sup>.

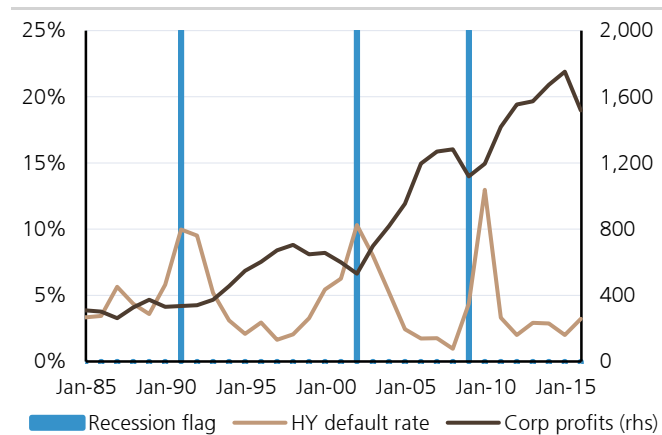
Consistent with this train of thought, our belief is that structural impairment will be the key driver of defaults. There are a few reasons for this thesis: first, corporate profits have declined for six quarters from elevated levels, and a subdued trajectory

<sup>5</sup> Insolvency, illiquidity and the risk of default. S. Davydenko, February 2013.

<sup>6</sup> [FAQs on corporate credit defaults](#), M. Mish, 10-Jul-2014 and [Scaling the global maturity wall](#), M. Mish, 18-Feb-2015.

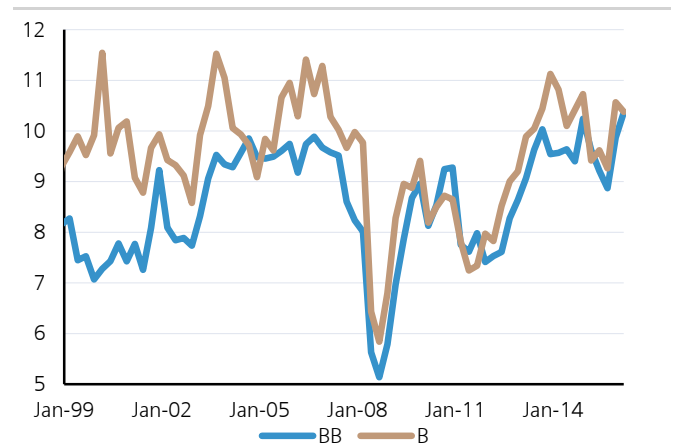
is probable given structural headwinds on revenues, margins and tax rates<sup>7</sup> (Figure 3). Second, asset price reflation has resulted in historically elevated multiples for firms, in terms of enterprise value relative to trailing earnings. And lower quality firms have been quick to take advantage of the accommodative backdrop to lever up firms in step. The result is that the cushion between firm valuations and total debt in the capital structure is precariously thin, particularly for issuers rated single B and below (Figures 4, 5). Simply put, the risk of structural impairment seems greater in this cycle if either earnings miss expectations and/or multiples revert to more normalized levels. And, in relation to our earlier discussion, this dynamic of less cushion between the market value of assets and debt is also evident in the energy sector, where market capitalizations for small cap shares have languished near late 2015 levels (despite the more pronounced rebound in high yield energy bond valuations, Figure 6). The overarching mosaic is consistent with higher ex-commodity defaults and elevated commodity defaults going forward.

**Figure 3: US non-financial corporate profits and US HY default rates (\$ bn, %)**



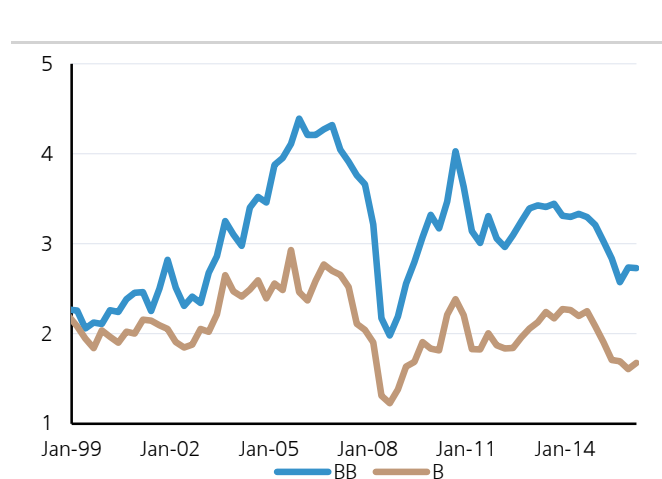
Source: UBS, Federal Reserve, Moody's

**Figure 4: Median EV/EBITDA multiples for double and single Bs**



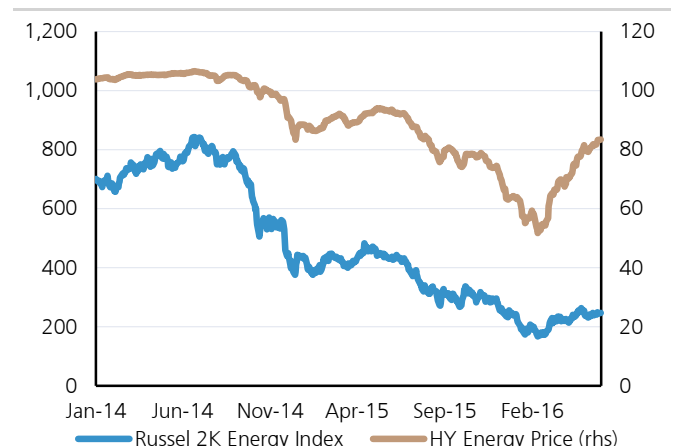
Source: UBS, Datastream

**Figure 5: Median EV/debt for double and single Bs**



Source: UBS, Datastream

**Figure 6: Small cap energy share prices versus US high yield energy bond prices (\$, rhs)**



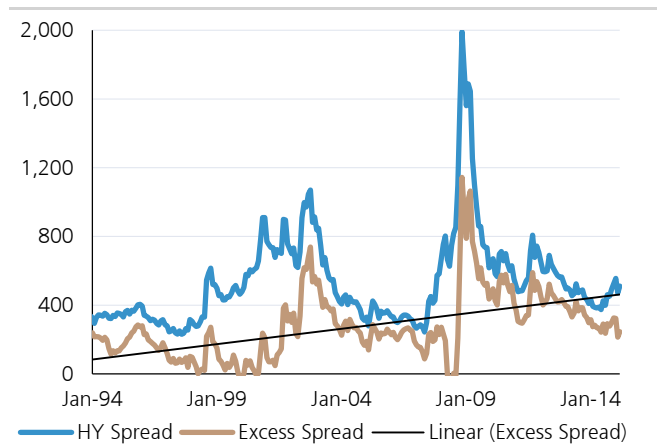
Source: UBS, Yieldbook, Bloomberg

<sup>7</sup> Playing to win: the new global competition for corporate profits, McKinsey & Co, September 2015.

## Is your view different from what is priced in?

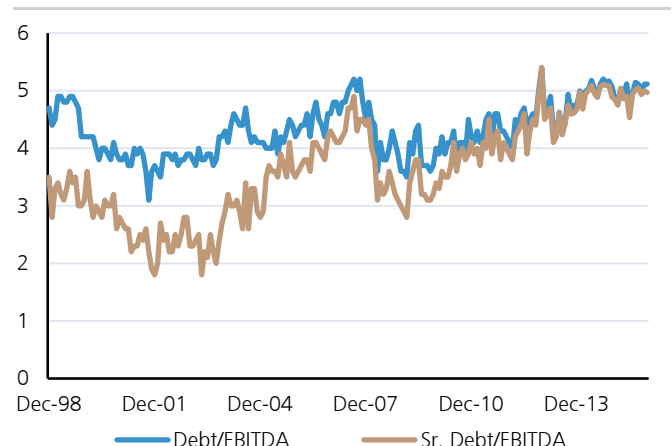
Our commodity and ex-commodity default forecasts of 15% and 3.5%, respectively, suggest default rates will climb to 5 – 5.5% over the next 12 months. Recent client conversations suggest a majority of investors are anticipating little increase in ex-commodity default rates from current levels near 1.5%. In this context, S&P expects the US speculative grade default rate to slightly increase from 3.8% to 3.9% by year-end. Moodys, in comparison, is more bearish with US spec grade default rates climbing from 4% to 5.7% by Apr '17. Market valuations seem to be aligned with the more benign outlook, in our view; US high yield spreads have recovered substantially, rallying from near 900bp to 615bp. Breaking down US HY spreads into compensation for loss and non-losses, which we categorize as 'excess spread', the tightening appears even more pronounced as excess spreads have shifted from the 300 – 400bp context down to the 225 – 275bp range (Figure 7). This takeaway is consistent with our HY spread models which suggest spreads are moderately expensive (50 – 100bp) dependent on the outlook for commodity prices.

**Figure 7: US high yield spreads and excess (loss-adjusted) spreads (bp)**



Source: Source: UBS, Yieldbook, Moody's

**Figure 8: leveraged loans median leverage (debt/EBITDA)**



Source: UBS, S&P LCD

## What are the risk scenarios? Which structural changes in credit markets could worsen this default cycle?

In terms of risk scenarios, to be clear we believe the upside case is largely embedded in market prices. The consensus anticipates commodity-related defaults to peak later this year, and ex-commodity defaults to remain low (i.e., little contagion). This would coincide with resilient global GDP growth, a dovish Fed, and limited fallout from political events. The downside case, in our view, is for a more broad-based contagion in default rates across industries more likely triggered by a downside global growth surprise, a more hawkish Fed and/or a broader correction in asset prices.

However, we would posit that several structural changes in credit markets could worsen this credit cycle. First, greater macroprudential regulation could perversely tighten the supply of credit in a downturn, exacerbating funding stresses. In this context, we are growing more concerned that regulators may mark-to-market bank exposures to C&I loans, a practice which could increase provisioning and

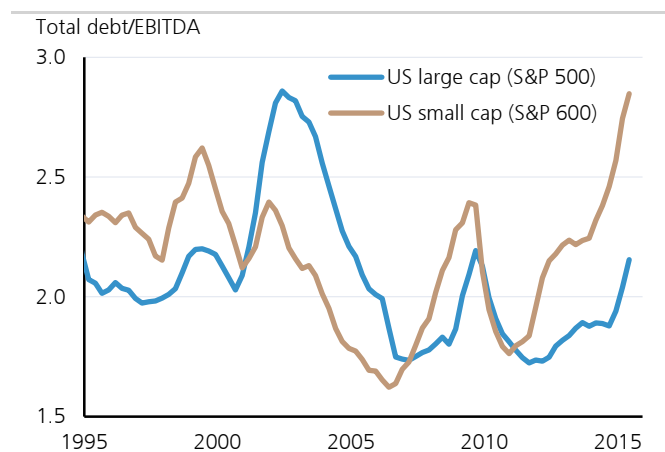
tighten bank lending appetite<sup>8</sup>. Second, holdings of corporate debt are increasingly concentrated in 'less stable' hands. In a rising default environment, mutual funds, ETFs and foreign investors are more likely to liquidate holdings than pension, life insurance, private equity and hedge funds, and forced selling could cause significant price volatility, and this in turn could lead to major redemption issues, given that 55% of the HY market (proxied by the Citi HY index) and 36% of the Leveraged Loan market (proxied by the S&P Leveraged Loan Index) are held by funds with major outflow risk, up from 45% and 19% in March 2009<sup>9</sup>.

Third, the leveraged loan market is much larger and lower-quality than in prior cycles, in our view. This poses upside risks for speculative grade default rates as many issuers are essentially triple C default risk wrapped in a (secured) blanket. Further, the rise in covenant-lite and loan-only structures is well documented, which raises recovery risks for these instruments. Our primary concern is reflexivity as HY bond and loan markets are traditionally highly correlated, with roughly one-third overlap among issuers<sup>10</sup>. Finally, rates at the lower bound presents greater flow risks, in our view, as nominal returns will be lower, volatility (VAR calculations) will be higher, and reflation options seem leaner in this cycle versus prior<sup>11</sup>.

### How should investors position portfolios?

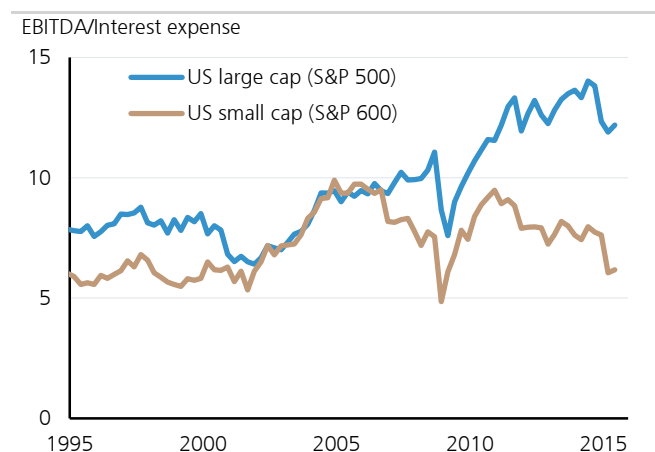
We recommend corporate credit investors maintain an up-in-quality bias, preferring US high grade over high yield. We actually prefer expressing this view in equities, favoring large caps over small caps. The thesis is two-fold: first, from a macro perspective, fundamental credit deterioration is causing a more pronounced rise in leverage and, in particular, a decline in interest coverage for small caps (Figures 9, 10). And second, from a micro standpoint, small cap benchmarks such as the Russell 2K have an elevated concentration in financials (e.g., 26% of all exposure). We believe tighter credit conditions, not only in C&I but also CRE, will increasingly weigh on small capitalized financials, the majority of which are regional banks and REITS, relative to their large cap peers<sup>12</sup>.

**Figure 9: Small caps are more leveraged than large caps**



Source: UBS, Factset/Compustat

**Figure 10: Large caps have far better interest coverage**



Source: UBS, Factset/Compustat

<sup>8</sup> [Fed's lev lending review: sobering](#), M. Mish, 10-Nov-2015

<sup>9</sup> [Credit Illiquidity: Structural Faultlines](#), S. Caprio, 14-Apr-2016 and [Credit market illiquidity: top FAQs](#), S. Caprio, 12-May-2016

<sup>10</sup> [Decoding the US triple C debt concerns](#), M. Mish, 10-May-2016

<sup>11</sup> [US high yield: quantifying the downside risk in this cycle](#), M. Mish, 16-Mar-2016

<sup>12</sup> [Non-bank lending: the tip of the iceberg?](#), M. Mish, 10-Mar-2016

### **Valuation Method and Risk Statement**

Past performance is not indicative of future returns. Investing in equities globally poses country, industry and company-specific risks. Valuations can be impacted by changes in the macroeconomic landscape as well as financial market stability.



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