THE GLOBAL CREDIT CYCLE: Now Your Fear It, Now You Don't

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Executive Summary

Since our last update 12 months ago, it's fair to say that credit was all of a sudden a concern and then it wasn't! 4Q18 and very early 1Q19 were characterized by significant investor angst, mostly in developed markets, around the quantum of BBB-rated corporate debt and potential value destruction in the event of a material economic downturn and wave of "Fallen Angels." Then central banks pivoted and that was that, quite frankly.

Interpreting the credit cycle "clock" remains a bit art, a bit science. In placing the various sub-segments of the global credit complex this year versus last, we have really focused on trends in leverage and underlying credit fundamentals and acknowledge that the year-on-year change in corporate balance sheets may not reflect precisely where we are in the cycle in a qualitative sense. By of example, let's consider Euro High Grade, which remains close to the Cycle Top year over year. Taken at face value, the optics of the clock would suggest balance sheets must necessarily deteriorate before they improve, i.e., a move from the Top to the Bottom. However, this is at odds with observed corporate behavior, which has become more conservative against the backdrop of slower Euro area growth. As we comment, stalled growth makes for a stalled credit cycle.

Developed Market–Emerging Market Divergence. One of the striking features of this update is the divergence between Developed Markets and Emerging Markets. Emerging Market Corporates continue to see improving fundamentals, whereas they continue to corrode in Developed Markets. Emerging Market Corporates have really been hunkered down behaviorally since 2015-2016, reflecting a myriad of factors across different jurisdictions and sectors (weaker commodity prices, political scandal, sanctions, etc.). Looking forward, we think we're probably close to the peak in credit quality given the impact of things like trade and a number of stressed sovereign situations.

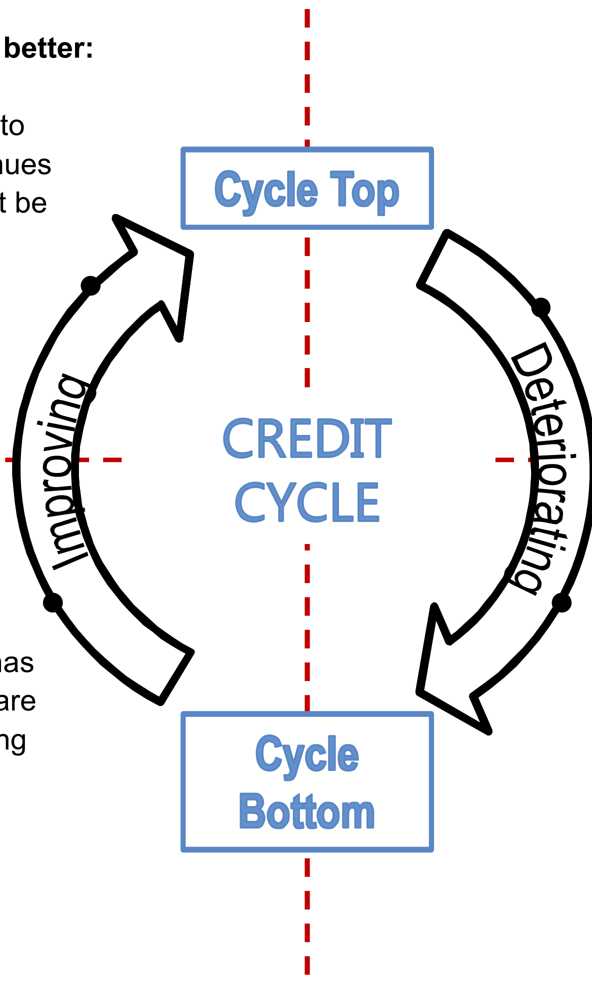
High Grade versus High Yield. The ongoing corrosion of Developed Market fundamentals is very much a High Yield and Leveraged Loan story. While we don't expect a material rise in default rates, we do expect this to be reflected in pricing in an environment where growth is slowing and note the 2Q19 decompression between High Grade and High Yield.

Stephen Dulake **Eric Beinstein**

Defining the quadrants of the credit cycle diagram

Strong credit metrics, trending better: A market/sector has solid credit fundamentals that are continuing to improve. For instance, their revenues might be increasing, or they might be reducing leverage or taking other actions in support of creditors.

Strong but weakening credit metric trends: A market/sector has solid credit fundamentals, but they are trending weaker, either because of weaker business results or management decisions to increase leverage, engage in M&A, or take other actions that are negative for creditors. Closer to one o'clock, fundamentals are very strong and there is little concern; at three o'clock credit deterioration has been evident.



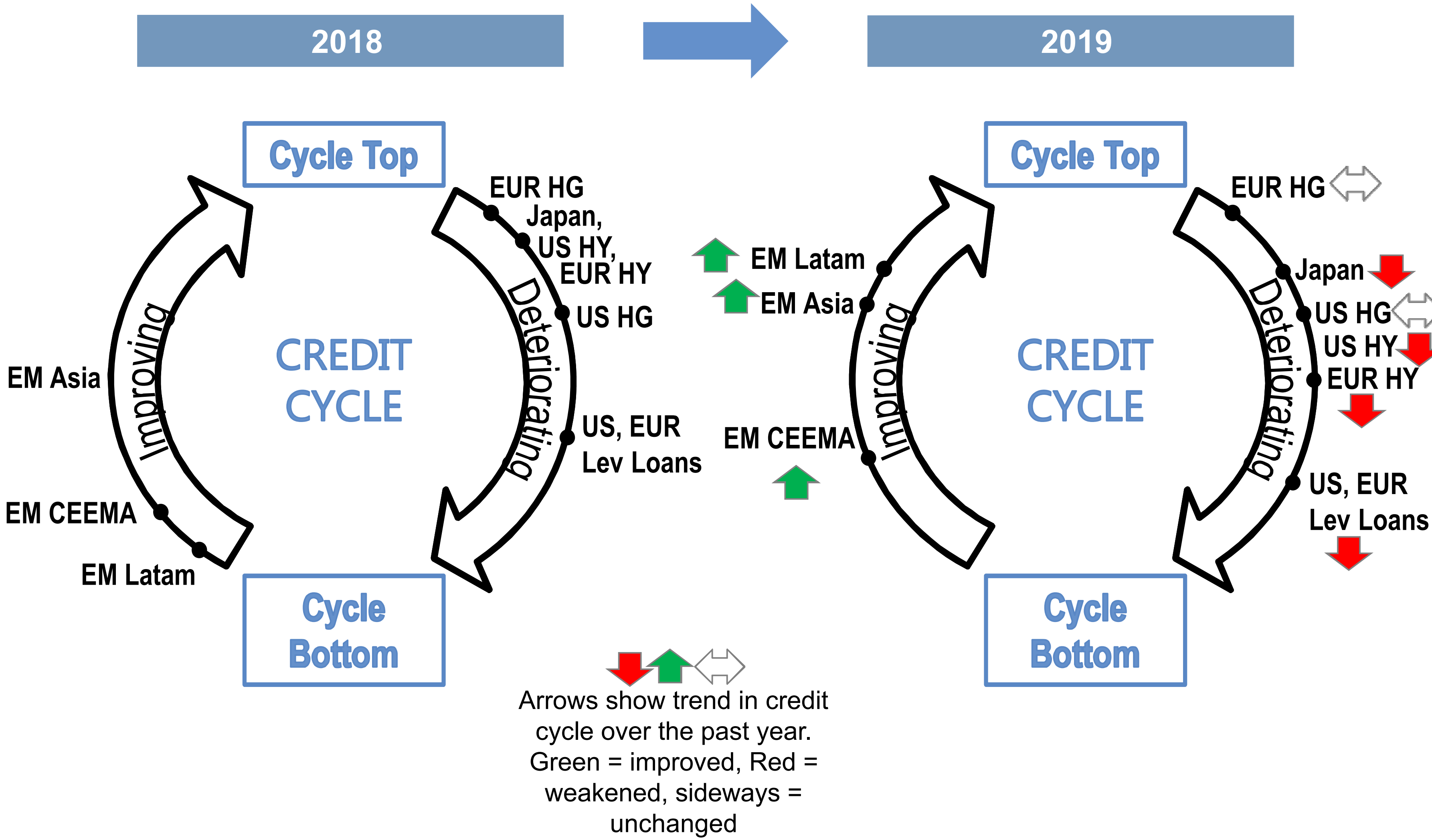
Weak credit metrics but on an improving trend: A market/sector has weak credit fundamentals, but they are improving thanks to a better operating environment or less negative management trends. This could be because a company post M&A has begun to de-lever, or the operating environment has bottomed.

Weak credit metrics, which continue to trend down: A market/sector has weak credit fundamentals and they continue to weaken, either because of weaker business results or management decisions to increase leverage or engage in M&A or take other actions that are negative for creditors.

Source: J.P. Morgan.

Agenda

EM credit trends are improving while HY in both the US and Europe is deteriorating. In HG we see metrics stable



Source: J.P. Morgan.

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Where are we in the credit cycle globally?

- **US High Grade:** Leverage in US High Grade is at a new peak, but excluding recent M&A transactions it has been stable oya. This has been led by declining EBITDA growth at a pace that is about equal to declining debt growth. On the positive side, some of the largest BBB issuers have a renewed focus on deleveraging and maintaining/improving their credit ratings, and the share of very highly levered HG companies has declined. More worryingly, HG issuer non-Financial EBITDA growth has been declining for six quarters, even as US GDP growth has been strong. With this trend likely to continue given JPM's economic views, it will be difficult for leverage metrics to improve meaningfully, even with corporate focus on this. If/when we enter a period of weaker economic performance it is likely that the concerns about the large amount of BBB- debt will resurface again.

- **US High Yield:** Credit metrics for high yield companies eroded modestly during 1Q19 off their strongest base in six years. Revenue growth in 1Q (+2.4% y/y) was the weakest since 3Q16 with six sectors seeing a y/y contraction. Meanwhile, EBITDA contracted y/y for the first time since 3Q16 after growing 12.7% per Q in 2017/2018. Leverage, too, increased for the first time in 11 quarters off a 6yr low (+0.1x q/q to 4.08x vs. 4.57x in 2Q16 and 3.87x in 3Q12). That said we do not expect much of a pickup in default activity for the foreseeable future. Strong top- and bottom-line performance the past few years and a record pace of refinancing has balance sheets in a solid position. Default rates are forecasted to be 1.5% in 2019 and 2.0% in 2020.

- **US Leveraged Loans:** Given the overlap between companies in the high yield Loan and Bond markets, most characteristics for the two markets are similar. Combining the aforementioned, we believe default rates will remain below 2% for the next two years. That said, the leveraged loan market is further ahead in the credit cycle compared to the high yield market. Demand from retail loan mutual funds, CLOs, and SMAs continues to drive more and more borrower-friendly terms, which in turn has allowed loan new issue characteristics to turn modestly more aggressive.

- **European High Grade:** Euro Area growth has continued to downshift this year, with our economists recently revising down their FY19 GDP growth forecast by 0.2% to 1.2% oya. However, the impact of this on credit fundamentals has been hard to gauge due to the introduction of IFRS 16, which we believe caused net leverage to rise by 0.3x q/q in 1Q19. In our view, however, the pass-through from slower growth has been fairly limited so far, with revenues growing by +6.0% YoY in 1Q19. Additionally, corporate behavior has become more conservative as business sentiment has deteriorated, with M&A volumes falling to a two-year low of €120bn in 2Q19. Falling sovereign yields are also a boon, with interest coverage ratios remaining near all-time highs at 13x. Overall, we think that the credit cycle has continued to stall.

Source: J.P. Morgan.

Where are we in the credit cycle globally?

- **European High Yield:** European high yield issuers continue to see a slow deterioration in credit fundamentals as regional growth has stalled. Our most recent snapshot of issuer leverage is at 4.2x, the upper end of the range from the past seven years. Additionally, we are now seeing net downgrades on average, with a steep rise in idiosyncratic risk. On the positive side, however, interest coverage ratios remain healthy, and more cautious issuer behaviour has caused our estimate of “credit negative” supply to fall to a historical low of just 12% of total issuance.

- **European Leveraged Loans:** Leveraged loans are the most advanced segment of European credit markets as far as the cycle is concerned, we believe. First-lien leverage is now higher than levels seen just ahead of the financial crisis, and covenants and documentation looser still.

- **Japan Credit:** After having posted record high profits in three consecutive years, Japan corporate earnings are peaking out. Given limited domestic growth potential due to an aging and declining population, Japan corporates continue to look for growth opportunities outside the archipelago and are expected to increase leveraging activities. As a flip side of an export-driven-economy, most of the corporates centered on exporters are continuously vulnerable to external factors such as global economies, trade friction, and geopolitics.

- **Emerging Markets:** Most of the EM regions have moved further along the credit cycle but are still in the improving phase or close to the peak. We believe additional improvement in credit metrics is likely to be limited given the more uncertain macro outlook, but we expect better resilience against a downturn as issuers have been conservative with very little M&A or shareholder-friendly activities. The focus has been more on balance sheet management and reducing debt, thereby supporting the decline in leverage ratios despite slower growth. Financials have remained broadly stable across the regions, and operating performance has held up even in countries that have been facing elevated macro volatility. The main risks to EM corporate fundamentals stem from select sovereign situations and the negative effects from economic slowdown that could also lead to a deterioration in funding conditions. That said, we do not expect meaningful contagion to corporates outside of the countries in question, which would keep the overall fundamental trend from weakening rapidly.

Source: J.P. Morgan.

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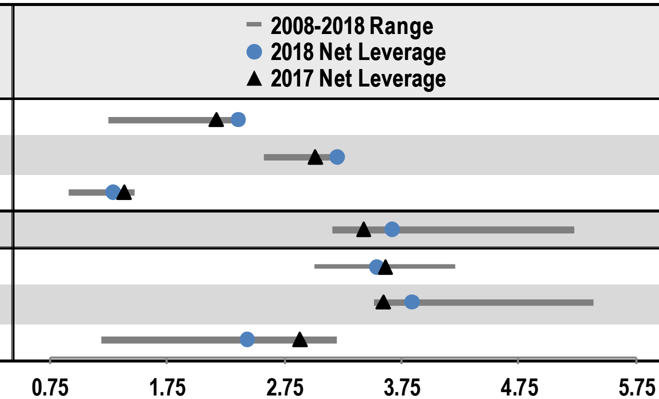
Agenda

Leverage: Most credit markets had relatively unchanged leverage except for the EM High Yield credit market

Net Leverage

Credit Markets	Net Leverage 2018	Net Leverage 2017	2008 - 2018 Min	2008 - 2018 Max	Y/Y Change
US HG	2.4x	2.2x	1.3x	2.4x	0.2x
EUR HG	3.2x	3.0x	2.6x	3.3x	0.2x
EM HG	1.3x	1.4x	0.9x	1.5x	-0.1x
Japan	3.7x	3.4x	3.2x	5.2x	0.3x
US HY	3.5x	3.6x	3.0x	4.2x	-0.1x
EUR HY	3.8x	3.6x	3.5x	5.4x	0.2x
EM HY	2.4x	2.9x	1.2x	3.2x	-0.5x



- **US HG:** Net leverage has risen to a new peak with and without the commodities-related sectors. Increasing leverage has been driven by M&A and a slowing pace of EBITDA growth. More positively, the largest BBB issuers are showing an increased focus on their balance sheets and deleveraging.
- **EUR HG:** Net leverage rose by 0.2x to 3.2x over 2018, driven by a 5.2% YoY increase in net debt. Primarily, this was due to heavy acquisition volumes last year, although the M&A pipeline has slowed in 2Q19.
- **Japan:** Leverage increased by 0.3x led by telecom, EPCO, and real estate. Also, a hike in M&A activities accelerated the trend.
- **US HY:** Net leverage for HY companies decreased to 3.54x in 4Q18 (3.71 ex-commodities), down from 3.56x the previous quarter and compared to a high of 3.90x in 3Q16.
- **EUR HY:** Leverage rose by 0.2x to 3.8x in 2017, driven both by a 4.1% YoY rise in net debt and a 1.1% YoY fall in EBITDA.
- **EM HG and HY:** Net leverage in 2018 declined by 0.1x to 1.3x for IG and -0.5x to 2.4x for HY, driven by double-digit top-line growth and decline in debt. Exporters further benefitted from FX depreciation across EM. Deleveraging was evident across all regions but most pronounced in EM Europe (-0.7x to 1.1x) and Latin America (-0.3x to 1.6x).

Source: J.P. Morgan.

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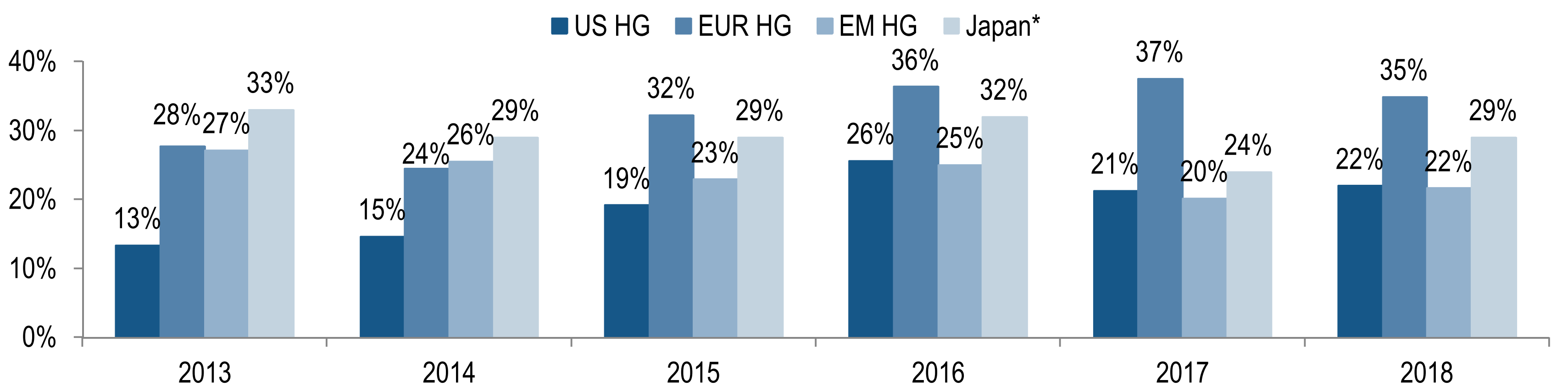
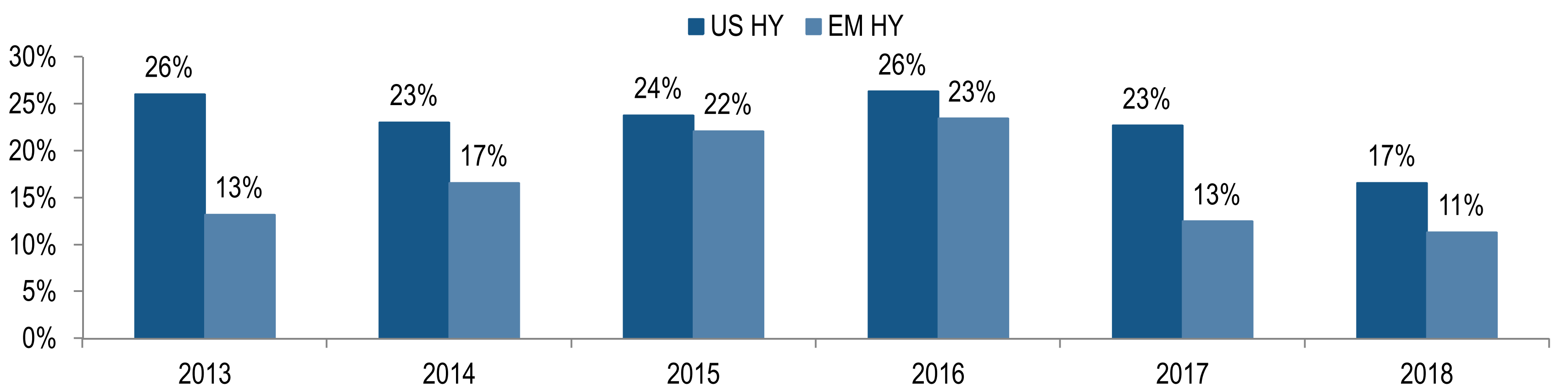
Tail risk has declined or remained steady for most markets

High Grade - percentage of debt with leverage over 4x



High Yield - percentage of debt with leverage over 7x



*Japan excludes Utility (EPCOs) and Trading House, which are highly levered by nature
Source: J.P. Morgan.

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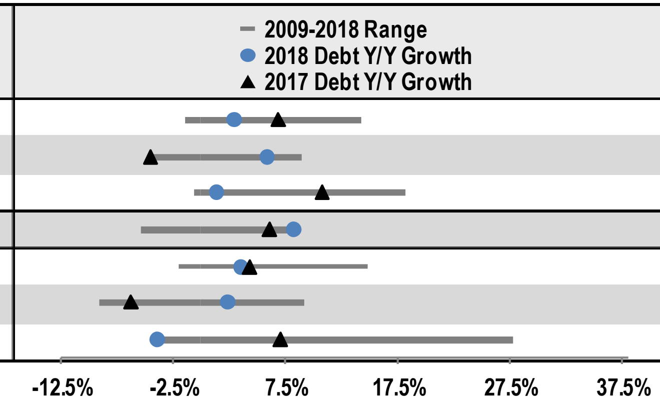
Debt Growth: EUR HG and HY saw a pickup in debt growth. This has slowed meaningfully in the US and EM credit markets

Debt Y/Y Growth

Credit Markets	Debt Y/Y Growth 2018	Debt Y/Y Growth 2017	2009 - 2018 Min	2009 - 2018 Max	Y/Y Change
US HG	3.0%	6.9%	-1.4%	14.1%	-4%
EUR HG	5.9%	-4.6%	-4.7%	9.0%	11%
EM HG	1.3%	10.8%	-0.7%	18.2%	-9%
Japan	8.3%	6.0%	-5.5%	8.5%	2%
US HY	3.5%	4.3%	-2.1%	14.9%	-1%
EUR HY	2.4%	-6.2%	-9.2%	9.2%	9%
EM HY	-3.9%	7.0%	-3.9%	27.8%	-11%



- **US HG:** Debt growth has slowed recently and only grew 3.0% y/y, which is the slowest annual rate of growth in USD HG debt in the last 13 years. The rate of debt growth has declined steadily since the peak of 14.1% in 3Q16.
- **EUR HG:** Total debt rose by 5.9% over 2018, with the Bayer/Monsanto acquisition contributing roughly a third of the increase.
- **EM HG:** Gross debt was relatively flat y/y in 2018, while net was down 4% as issuers remained conservative with their balance sheets, continuing focus on liability management. Debt levels were up modestly in Asia IG (+3%) and Middle East & Africa (+2%), mostly in oil & gas, TMT, and utilities segments, but down -10% and -4% in EM Europe and Latin America. Asia real estate, while not in aggregate figures, also had a material pickup in gross debt, which was used to finance growth.
- **Japan:** Recent hike in debt growth is mainly driven by non-manufacturers such as real estate, telecom, and EPCOs, while manufacturers in general are still cautious on re-leveraging.
- **US HY:** Debt growth averaged 3.0% in 2018 vs. average of 9.0% between 2012 and 2017.
- **EUR HY:** Debt increased by 2.4% over 2018. While modest, this was the fastest pace of growth since 2015.
- **EM HY:** Gross debt declined by -11%, driven by commodity segments. Improved cash flow generation, focus on paring down debt via asset sales/tenders/buybacks, and still modest issuance outside of China contributed to the reduction in overall debt levels. Similar to EM HG, Asia real estate sector recorded an increase in debt levels for HY as well.

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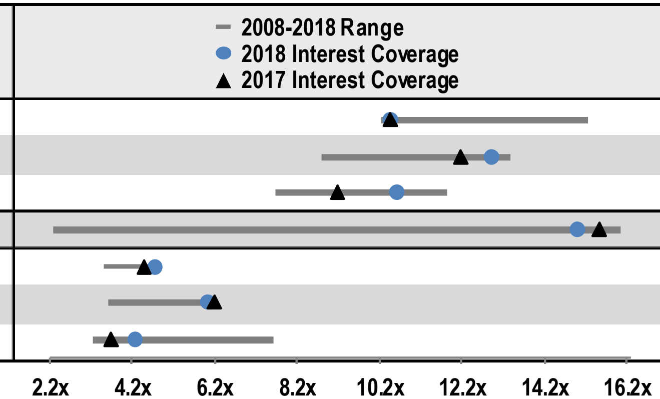
Source: J.P. Morgan.

Interest Coverage: Improvement across most markets to the higher end of its 10yr range

Interest Coverage

Credit Markets	Interest Coverage 2018	Interest Coverage 2017	2008 - 2018 Min	2008 - 2018 Max	Y/Y Change
US HG	10.5x	10.5x	10.2x	15.2x	0.0x
EUR HG	12.9x	12.2x	8.8x	13.4x	0.7x
EM HG	10.6x	9.2x	7.7x	11.9x	1.4x
Japan	15.0x	15.6x	2.3x	16.1x	-0.5x
US HY	4.8x	4.5x	3.5x	4.8x	0.3x
EUR HY	6.1x	6.2x	3.6x	6.2x	-0.2x
EM HY	4.3x	3.7x	3.2x	7.6x	0.6x

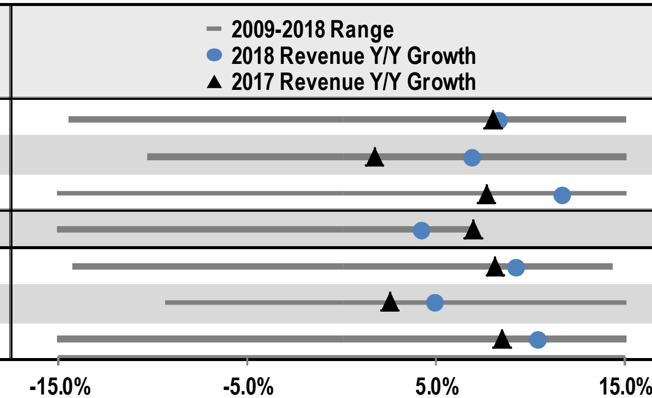


- **US HG:** Interest coverage was flat y/y and in the low end of its 10yr range. However, it is difficult to be concerned when the metric is above 10x for the overall market. Interest expense increased 5% y/y, which was the slowest growth since 4Q17.
- **EUR HG:** Interest coverage ratios rose to a record high of 12.9x in 2018 as older high coupon bonds were refinanced at current extremely low yields.
- **Japan:** Thanks to prolonged ultra low interest rate environments, Japan corporate continued to enjoy high level of interest coverage.
- **US HY:** Coverage rose to a three-year high at 4.8x. The historical coverage range is narrow.
- **EUR HY:** Interest coverage fell modestly over the year from 6.2x to 6.1x, driven by rising debt levels and a 1.1% YoY decline in EBITDA.
- **EM HG and HY:** Interest coverage improved to the best levels since 2011 given robust profitability and lower interest burden. For EM HG, interest coverage stood at 10.6x at YE2018, up 1.4x y/y, while for EM HY it was at 4.3x, up 0.6x y/y.

Revenue Growth: Most markets saw an increase in revenue growth y/y. In 2019 slower GDP expectations may change this

Revenue Y/Y Growth

Credit Markets	Revenue Y/Y Growth 2018	Revenue Y/Y Growth 2017	2009 - 2018 Min	2009 - 2018 Max	Y/Y Change
US HG	8.3%	8.0%	-14.5%	15.1%	0%
EUR HG	6.9%	1.7%	-10.3%	16.8%	5%
EM HG	11.7%	7.7%	-23.2%	32.9%	4%
Japan	4.2%	7.0%	-19.2%	7.0%	-3%
US HY	9.2%	8.1%	-14.3%	14.4%	1%
EUR HY	4.8%	2.5%	-9.4%	25.5%	2%
EM HY	10.3%	8.4%	-28.1%	35.5%	2%

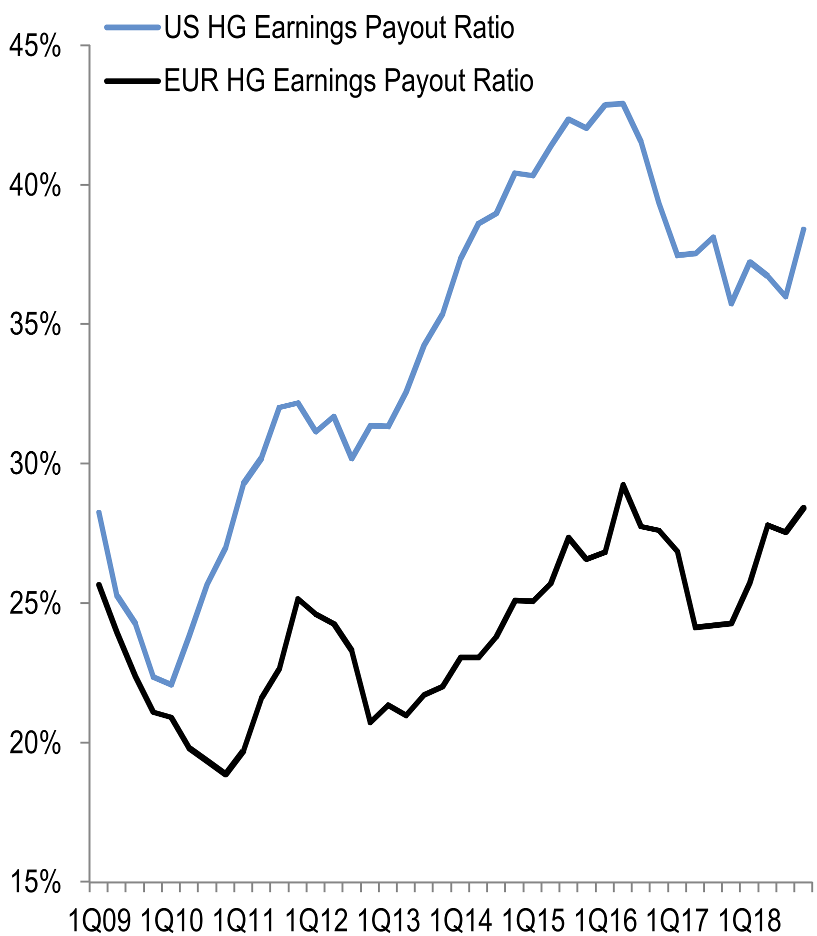


- **US HG:** Revenue grew 8.3% y/y for the overall US HG credit market and only 4.5% ex commodities. This is still solid growth despite being the slowest rate of growth in three quarters. However, we expect revenue growth to decline over 2019.
- **EUR HG:** Revenue increased by 6.9% over the year. The strength primarily came from a continued recovery in the Oil & Gas sector, with Technology and Industrials also strong.
- **EM HG:** Revenue growth in USD terms +15% was nearly as buoyant as in 2017 (+16%). Growth was widespread with nearly 85% of issuers posting an increase in the top line.
- **Japan:** Revenue growth was led by Oil and Trading House, while Shipper and Retail were weak.
- **US HY:** Revenue growth was strong in 2018 and 2017 following a lackluster 2016 and negative 2015.
- **EUR HY:** Revenue grew by 4.8% over 2018, which was a decent step up from 2.5% in the prior year.
- **EM HY:** Revenue in USD terms rose +9% y/y, moderating somewhat from the +12% pace seen in 2017. While commodity players continued to provide a boost to growth, revenue growth was still a robust +8% even when excluding this segment.

Source: J.P. Morgan.

Cash to Shareholders: The payouts as a share of EBITDA increased thanks to tax reform

Earnings payout has increased recently



Note: Earnings Payout Ratio is defined as (Share Buybacks + Dividends) / EBITDA
Source: J.P. Morgan.

This is due to the increase in share buybacks

- The **US HG** earnings payout ratio grew 3% y/y to 38% in 2018 as the growth in cash to shareholders (28% y/y) outpaced the growth in EBITDA (9%). The Technology sector recorded the largest sector increase of 55% to 101%, a multi-year high since 3Q05. This is a result of cash repatriation changes in the 2018 tax reform bill.
- The **EUR HG** earnings payout ratio rose to 28% in 2018. This was driven by a 15% YoY increase in dividends to €132bn across our sample and a two-thirds rise in share buyback volumes from €27bn to €44bn. Much of the rise came from the Oil & Gas sector, which was able to increase shareholder payouts after retrenching in 2015-7 due to the decline in oil prices.

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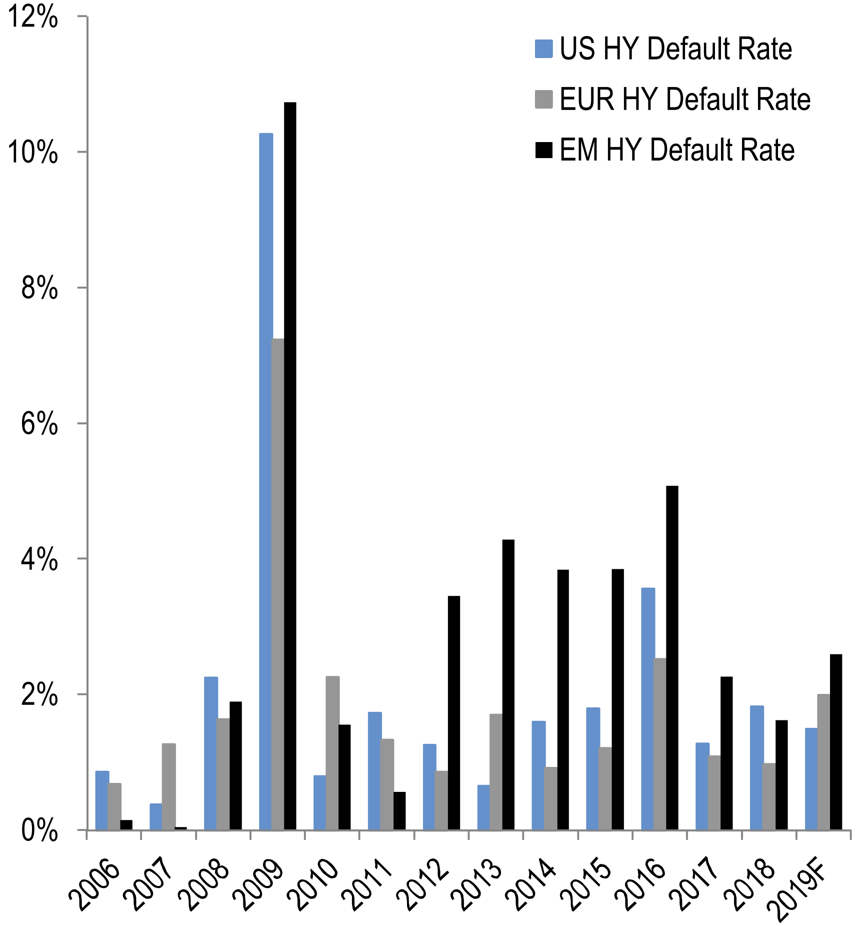
Default rates in HY: Modest pickup in default activity. We expect this to continue through YE 2019

Default rate has been modest



Source: J.P. Morgan.

- **US HY:** We do not expect much of a pickup in default activity for the foreseeable future. We forecast 2019 and 2020 high yield bond and loan default rates of 1.5% and 2.0% apiece, which is below the 3.0-3.5% long-term averages.
- **EUR HY:** 2018 started off in a benign manner, with no defaults through to the end of May. Restructuring activity picked up thereafter, with a steady stream of defaults through to the end of the year, leaving the FY rate at 1.0% (1.9% on an issuer-weighted basis).
- **EM HY:** Default rate was a modest 1.6% in 2018, marking a new cycle low, following a 3.5-5.1% range between 2012 and 2016. For the CEMBI HY index, the default rate ended the year even lower at 1.2%. For 2019 we expect a modest pickup in default rates to 2.6% for EM HY overall and a more modest 1.8% for CEMBI HY.

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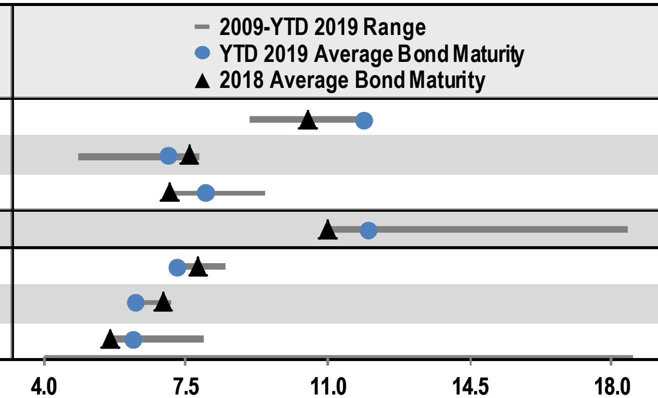
Bond maturities: A mixed trend with longer duration supply in US HG, EM HG, and Japan, while other markets reduced maturities

Average Bond Maturity of New Issues

Credit Markets	Bond Maturity (yrs) YTD 2019	Bond Maturity (yrs) 2018	2009 - YTD 2019 Min	2009 - YTD 2019 Max	YTD Change # of years
US HG	11.9	10.5	9.1	11.9	+1.3
EUR HG	7.0	7.6	4.9	7.8	-0.6
EM HG	8.0	7.1	7.1	9.5	+0.9
Japan	12.0	11.0	11.0	18.4	+1.0
US HY	7.3	7.8	7.3	8.5	-0.6
EUR HY	6.2	6.9	6.2	7.1	-0.7
EM HY	6.2	5.6	5.6	7.9	+0.6



- **US HG:** The YTD average maturity of new issues reached a peak of 11.9yr. Recent issuer liability management trends have added even more long-dated bonds to the market. Also less demand for short duration floaters has led to more longer duration supply
- **EUR HG:** The average maturity of new issues has dipped slightly to 7.0y, from 7.6y in 2018. This is the lowest level in four years, which comes as something as a surprise considering flat yield curves.
- **EM HG:** The average maturity for EM HG bonds dropped to the lowest post-crisis level at 7.1 last year but has increased to 8.0 YTD as rates have come down.
- **Japan:** Under the negative yield situation, corporate bond maturity has been extended to beyond 10 years.
- **US HY:** High yield new issues averaged 7.8 years to maturity post-crisis. In 2018 it was slightly below this at 7.6 years.
- **EUR HY:** YTD average new issue maturity stands at 6.2 years, a decline from the 6.9 years seen in 2018.
- **EM HY:** The average maturity for EM HY bonds dropped to a post-crisis low of 5.6 but has risen to 6.2 YTD. Notably, we believe that the higher portion of Asia issuance is likely to keep the average maturity at lower levels than in prior years.

Source: J.P. Morgan.

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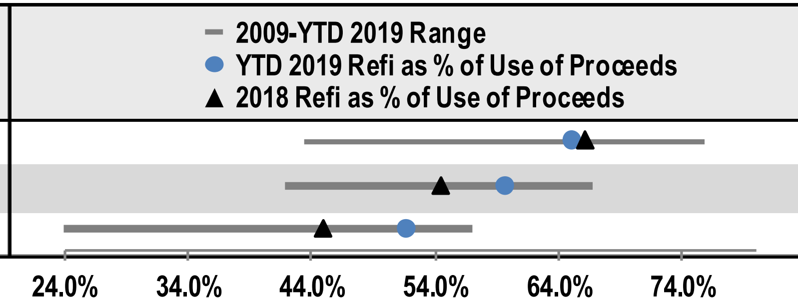
Use of Proceeds in HY: Refinancing is responsible for 50% of issuance or more across HY markets

Refinancing as a % of Total Use of Proceeds

Credit Markets	Refi % of Use of Pro YTD 2019	2018	2009 - YTD 2019 Min	Max	YTD Change
US HY	65.1%	66.1%	43.4%	75.9%	-1%
EUR HY	59.8%	54.6%	41.9%	66.8%	5%
EM HY	51.7%	45.0%	24.0%	57.0%	7%



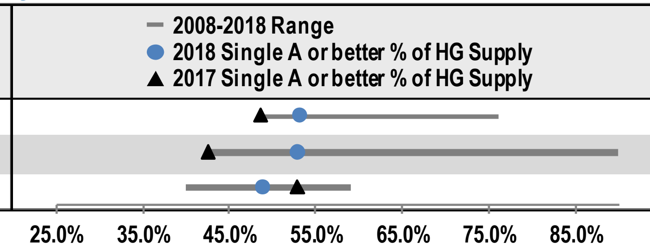
- **US HY:** Refinancing activity dipped in 2018 to 61% amid an increase in market volatility but has since recovered in 2019 alongside a steady decline in yields.
- **EUR HY:** Last year saw a decline in the proportion of new issuance for refinancing to 55% from 67% in 2017 as wider spreads caused bonds to extend. However, it has increased slightly this year to 60%.
- **EM HY:** New issuance trends for EM HY corporates were robust last year, with 45% of issuance placed for refinancing purposes. Capex and acquisition financing remained modest at 6% and 4%, respectively. Additionally, tenders/buybacks/calls came in at a historical high of $86bn, exceeding $83bn in 2017. We expect these trends to remain broadly similar for 2019.

Source: J.P. Morgan.

Rating trends: In most markets the average rating of newly issued bonds improved y/y

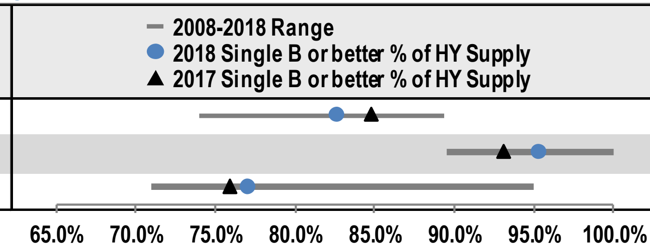
Single A or Better as a % of Total HG supply

Credit Markets	>Single A Supply % 2018	2017	2008 - 2018 Min	Max	Y/Y Change
US HG	53.2%	48.5%	48.5%	76.1%	5%
EUR HG	53.0%	42.5%	42.5%	90.0%	10%
EM HG	49.0%	53.0%	40.0%	59.0%	-4%



Single B or Better as a % of Total HY supply

Credit Markets	>Single B Supply % 2018	2017	2008 - 2018 Min	Max	Y/Y Change
US HY	82.6%	84.8%	74.0%	89.4%	-2%
EUR HY	95.3%	93.1%	89.5%	100.0%	2%
EM HY	77.0%	76.0%	71.0%	95.0%	1%



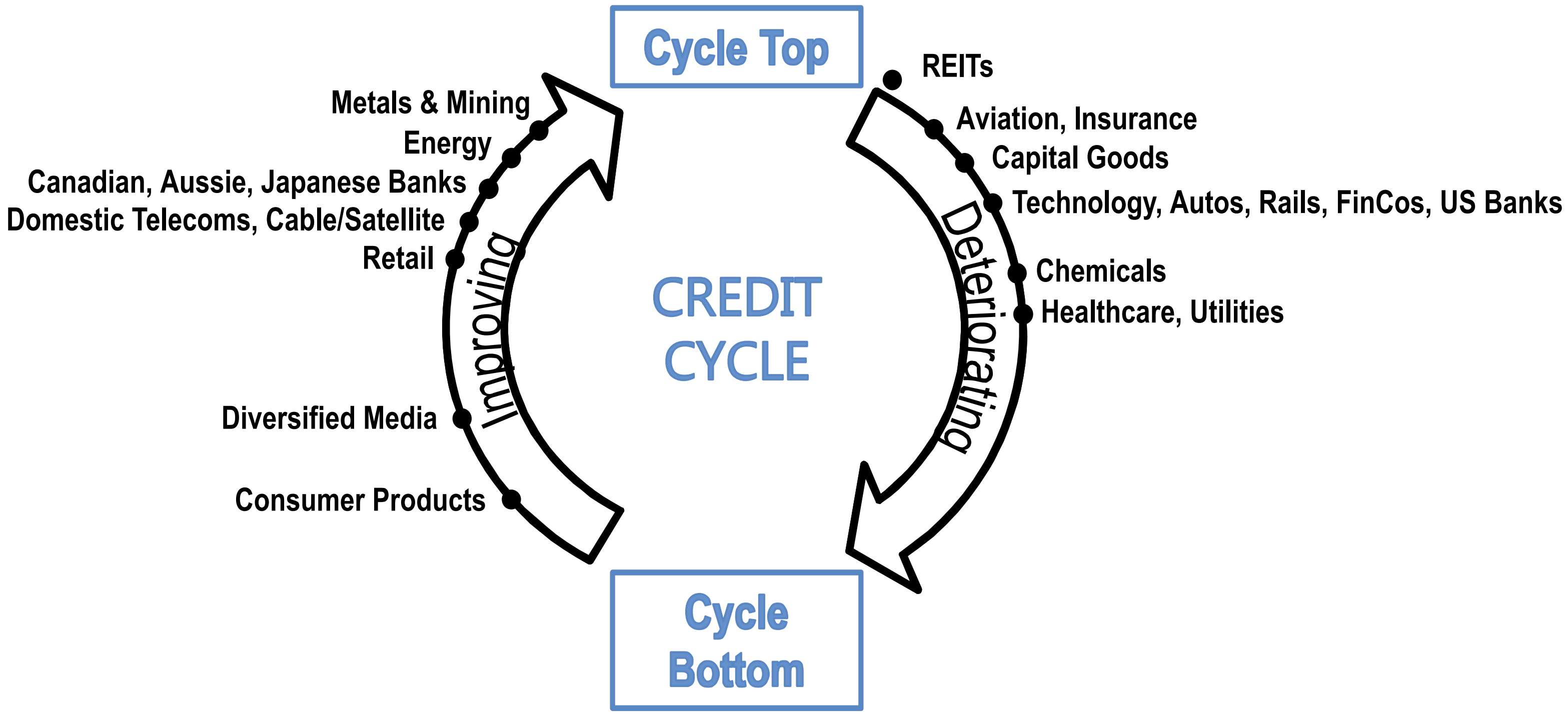
- **US HG:** More than 50% of HG issuance in 2018 was rated A or better, a slight improvement from 2017, but still near the low of its 10-year range. This is a positive development despite the pickup in M&A activity, which generally leads to more rating downgrades.
- **EUR HG:** New issuance rated A or better as a percentage of total HG supply increased to 53% in 2018, which is a normalization from the record low of 43% in 2017.
- **EM HG:** The share of A or better rated was around 50% of issuance in 2018.
- **US HY:** Upper- and middle-tier rated high yield bonds continue to account for more than 80% of new-issue volume each year post-crisis.
- **EUR HY:** There was relatively little lower rated issuance in high yield in 2018, with the proportion of single-B or better supply rising to 95% from 93% in 2017.
- **EM HY:** Portion of lower rated issuance moderated last year. New issues rated single B or above accounted for 77% of HY supply last year, which was up from 76% in 2017. Note that almost all of the issuance below the single B bucket consists of non-rated bonds, especially out of Asia, and CCC rated issuance accounted for only 1%.

Source: J.P. Morgan.

J.P.Morgan

Agenda

Regional Focus: US High Grade
Most sectors are improving, hovering near the top of the cycle



Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG Energy – Matthew Anavy:** Fundamental improvement continues, albeit at a more constrained pace than market expectations due to increased commodity volatility on the back of decelerating global demand (trade, etc.). Capital discipline remains a focus across sectors, but actual achievement of economic returns on capital remains elusive. Regardless, cash flow continues to improve across the E&P universe, and midstream providers are the sweet spot of the value chain. Domestic hydrocarbon volumes are ramping up, which should be supportive of the recovery in the Midstream/MLP subsector. However, if the broader Energy sector cannot achieve sustainable cash flow and returns on capital, higher beta E&P and Services may never recover. We think crude likely remains range bound long term at $45-65/bbl. OPEC and Russia have shown their proverbial hand in managing to an oil price deck that limits high capital cost, low opex, low decline projects (oil sands, offshore), as well as demand destruction, but at the same time embraces shale as a swing producer given high decline rates and capital budget flexibility.

- **US HG Banks – Kabir Caprihan:** Bank credit fundamentals are strong, but the best is behind the system. Lower short-terms rates will lead to NIM compression, and loan growth is negligible. Regulatory relief coupled with higher payouts should lead to a decline in very robust capital levels, but not meaningfully so. Credit quality is expected to normalize as delinquencies rise on the consumer front, while C&I is strong.

- **US HG Canadian, Australian, Japanese Banks – Kabir Caprihan:** While capital and liquidity metrics are strong, profitability is challenged due to lower rates and conduct-related expenses. The housing markets in Australia and Canada have cooled due to regulatory issues.

- **US HG Finance Companies – Kabir Caprihan:** The sector is diverse and credit fundamentals remain sound for most sub sectors. Asset managers' flows, leverage, and profitability are under pressure due to fees and the growth in passive investing. Credit quality for card companies continues to weaken due to growth in receivables and the normalization of credit quality.

- **US HG Capital Goods – Virginia Chambless:** The macro outlook across most end markets and geographic regions remains positive, though some signs of slowing growth are starting to emerge in economic data. Most capital goods companies are experiencing revenue growth and higher profit margins, while improvements are showing some deceleration. Rising input costs and China tariffs are a slight headwind, though companies have largely been able to pass through with pricing. Strategic activity continues at an elevated pace, with several large M&A transactions and other portfolio moves across the sector recently announced. Financial policies have inched more aggressive; ratings actions have been mixed to slightly negative over the last few months.

Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG Consumer – Virginia Chambless:** Underlying business fundamentals are generally stable as demand for food, beverage, and personal care items does not experience much volatility through economic cycles. However, macro trends toward healthier consumption patterns, organic products, and less processed consumer goods have been somewhat of a headwind for companies negotiating for retailer shelf space and promotion support. Notable credit deterioration and negative rating actions have resulted from a large wave of strategic M&A across food/beverage/tobacco as companies seek to reshape their portfolios for faster top- and bottom-line growth. We believe the next few years will see companies focus on acquisition integrations and balance sheet repair through cash flow generation or non-core asset sales.

- **US HG Retail – Virginia Chambless:** Broadly speaking, retail credit fundamentals have been improving given the solid consumer environment in the US with low unemployment that has resulted in low- to mid-single digit growth in consumer spending. The competitive environment in the retail sector remains intense, with the secular shift in shopping to the online/digital channel from traditional bricks & mortar as well as more spending on durable goods/services and less on apparel. This has impacted some segments of retail more than others, but all retailers have been adapting their strategies and investments to defend their relevance and market share. Walmart and Kroger have made acquisitions in the online space while Kohl's has rolled out a test partnership with Amazon. Some areas of retail have been performing quite well the last few years (home improvement, off-price, discounters), while other segments have been more challenged (department stores).

- **US HG Healthcare – Brett Gibson:** Fundamentals remain weak as prior M&A waves have left most balance sheets with sizable amounts of leverage relative to their ratings and many companies are focused on rewarding shareholders. While some of the companies (most notably Services companies) are actively delevering following recent M&A, many companies in the sector have taken a more indifferent approach to balance sheets. On the operating side, recent discussions related to Medicare-for-All, drug pricing, and other various legal challenges have raised concern for the ability of certain parts within the Healthcare value chain to maintain overall earnings levels and balance sheet strength.

- **US HG Insurance – Brett Gibson:** Mixed macro conditions and volatile markets (including the 10-year yield being lower by over 80bp since the middle of 2018) have hurt fundamentals since the last iteration of this report. For Life, trends remain challenged with poor ROE and organic growth. While RBC ratios dropped with the implementation of tax reform for statutory accounting, balance sheets remain fair for the most part as issuers stay disciplined with their product offerings. However, some products (most notably long-term care) represent long-term overhangs for the sector given persistently low interest rates. For P&C, underlying trends remain fair, but capital growth has stalled and long-term questions persist for certain products.

Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG Utilities – Kevin Kwan:** Throughout the past year, management teams have been able to mostly mitigate the effects of tax reform, and legislation predominantly had a neutral impact on utility credits. Going forward, grid modernization and storm hardening continue to be the focus for management teams, and outsized capital programs this year will be primarily focused on regulated transmission and distribution, as well as renewables. While asset improvements are supportive of credit quality in the long-run, larger capital spends and corresponding funding needs will likely weigh on cash flow in the near term. Regardless, the sector remains relatively well insulated from ongoing trade wars and tariffs, and regulatory environments have been broadly supportive of infrastructure investments.

- **HG Automotive – Jonathan Rau:** We continue to expect US auto sales to remain resilient in 2019 given the relative age of the car parc and a still healthy economic backdrop. IHS forecasts US auto sales in the mid to high 16mm rate over the next three years, which we think would provide a supportive environment for credit. While fundamentals in the US market, the largest driver of profitability for domestic OEMs, have held in, deterioration in the Chinese and European markets has negatively impacted the more globally exposed suppliers. Auto sales in China have declined ~15% YTD on a combination of declining consumer confidence and US/China trade tension, among broader macro weakness. Automaker and supplier forecasts imply meaningful sequential improvement in 2H, but we have not yet seen any signs of demand improvement. We think the Chinese government could respond with further auto sector stimulus efforts if weakness persists or if US/China trade tensions escalate further. In Europe, sales have tracked slightly lower y/y, but we expect an improvement as the year progresses as the WLTP overhang fades. On the auto financing side, stretched lending metrics and the potential for residual value pressure are areas of concern, but interest rate stability is a positive development. Balance sheets are generally healthy with low leverage, ample liquidity, and reduced pension deficits.

- **US HG Metals & Mining – Jonathan Rau:** Credit quality among the major miners is approaching a peak in our view with signs of softening on the horizon. The major iron ore producers are likely to continue to benefit from the supply disruption resulting from the tragic Vale dam collapse earlier this year, while Chinese demand for higher quality ore continues to grow. We remain watchful of the resilience in China's demand for iron ore and base metals in light of this country's slowing GDP growth and pace of infrastructure investment. Steel fundamentals have deteriorated on account of declining prices (in part due to competitive pressure from scrap steel producers and softer demand) and rising iron ore input costs. We view event risk in the precious metals space as significantly lower following a wave of almost entirely equity-funded consolidation. While risks to global GDP growth keep our commodity strategists constructive on the medium term outlook for gold given its safe haven appeal and late cycle characteristics, they remain cautious on the outlook for base metals demand in 2019 (though more direct stimulus from the Chinese government targeting construction and infrastructure could spur a sharp recovery in prices). Credit metrics across the sector are in solid shape following years of balance sheet repair, but we think most of the deleveraging stories have played out at this point as companies increasingly adopt growth-oriented and shareholder-friendly capital allocation policies.

Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG Chemicals – Jonathan Rau:** Fundamentals have deteriorated across the HG chemicals sector. Specialty chemical producers have suffered from sluggish end-market demand in China and in Europe. Though most producers remain optimistic that results will improve in 2H19, we have yet to see signs of a turnaround in China where the automotive market in particular has been weak. In addition to softer end market demand, commodity chemical producers' margins are suffering on account of excess supply in the ethylene/polyethylene chain, markets we expect to loosen further as additional capacity comes on line. Fertilizer companies have faced recent weather-related setbacks in North America, though we view this as more of a temporal phenomenon. Though a handful of M&A deals have now been completed (or called off), we remain watchful of activist shareholder involvement in some of the coatings and specialty chemical names. Leverage for the sector has trended upward in recent years, a theme we expect to continue as companies continue to prioritize shareholder returns and pursue inorganic growth opportunities.

- **US HG Aviation – Mark Streeter:** Aviation fundamentals globally are slowing but remain solid. Though unit revenue trends are sluggish in certain regions, airlines continue to generate near solid profits/margins in the current environment. IATA specifically predicts ~$28bn of net profits for the global sector in 2019, a forecast that was recently reduced by 20% but nonetheless would still be a top five year for the industry. Credit momentum is slowing, but we still see ratings upside in United and Air Canada. Labor cost creep and pressure to return cash to shareholders (due to weak stock prices) remain major concerns. For the lessors, global traffic has slowed from 6%+ to closer to 5% in 2019, which is still at or above the long-term trend. Similar to the airline story, credit ratings continue to rise, but now more slowly after the upgrades at Avolon and Aircastle to low BBB. The MAX situation is driving higher short-term lease rates for substitutes. However, with interest rates now much lower, expectations for an uplift in lease rates overall is now tempered

- **US HG Rails – Mark Streeter:** Rails have benefitted significantly from lower corporate tax rates and from relatively strong US economic trends, which are now slowing. Given the increase in retained cash flow, the agencies afforded the rails more leverage flexibility. In 2018, larger issuers in Rails increased capital return to shareholders through large debt-funded buybacks that used up the additional debt capacity as well as resulted in rating downgrades. However, leverage targets are now fairly well articulated. The net result of the step up in bond supply in 2018 was that rail credit sector performance didn't exhibit as much of the "defensiveness" that the market had come to expect during periods of recent widening spreads, but we do expect more "defensive" behavior from rail credit going forward. Precision scheduled railroading remains the driving strategic imperative for many rails in 2019. Fewer rails are disclosing pricing trends during a year when renewals could drop below same-store sales (negative inflection point). Weak frac sand is also a headwind for the rails. Weather-related issues in February and March negatively impacted the earnings of many of the rails resulting in higher casualty costs, but the rails should be able to make up for lost ground in subsequent quarters. Our equity counterparts expect favorable seasonality, and momentum from new operating plans should support a "Goldilocks" scenario for the U.S. rails through at least the fall of 2019. The tariff situations in Mexico and China have broad implications for HG rails. Kansas City Southern generates ~30% of its revenue from cross-border traffic with Mexico. Union Pacific is next at ~10%. For KSU specifically, note that ~60% of the cross-border traffic flows North to South.

Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG REITs – Mark Streeter:** CRE demand is running better than expected against the backdrop of cyclical high supply and recent global macro volatility. The current CRE cycle is 10+ years running, but we see no clear signs of the major disruption forthcoming. Rent growth is keeping pace with inflation, which is driving a marginal increase in same-store NOI trends. Even Moody's upgraded its outlook on the much-maligned retailers from Stable to Positive. J.P. Morgan is now forecasting two rate cuts by YE2019. Mall performance remains very bifurcated with high end holding in fairly well while B malls continue to struggle with tenant defaults. We believe this is favorable for REIT equities near term. The tone from REIT management teams at recent meetings was more bullish than expected, but they nevertheless are positioning for a cycle turn (less speculative development, maintaining some balance sheet dry powder). The net lease outlook remains solid with earnings growth fueled by strong investment pipelines and low capital cost. The tariff noise and impact on rates and sentiment remain wild cards. Long term, we still believe that REIT credit offers one of the best combinations of downside protection and incremental spread for the risk, but our near-term total return outlook for the sector remains Neutral.

- **US HG Cable/Satellite – Brian Turner:** The Cable/Satellite subsector continues to perform well with strong financial and operational results. Cable operators are benefitting from the growth in residential broadband and business services, which has helped offset declines in the video and telephony businesses. We expect the trends for broadband to remain solid, with the constant growth in data consumption and room for improvement in penetration as notable positives. In terms of M&A, we expect activity to be limited as Comcast focuses on de-levering and integration post Sky acquisition and Charter remains focused on business execution.

- **US HG Diversified Media – Brian Turner:** Fundamentals in the Diversified Media space remain solid as companies focus on increasing their content investments and driving down leverage amid an industry backdrop defined by consolidation. Commentary across the industry from management teams points to investments in content being up considerably in 2019 as networks intensify their focus on creating both relevant and diverse content portfolios. Leverage levels continue to fall across the sector, most notably at Discovery and Viacom, which have both worked to clean up their balance sheets. We expect M&A to remain a key theme in the sector for the remainder of 2019 as broadcasters and cable networks turn to scale to help offset the secular challenges facing the industry.

- **US HG Domestic Telecom – Brian Turner:** Overall, the HG Domestic Telecom sector remains stable with fundamentals improving slightly as the large operators have limited promotional activity and worked to de-lever their balance sheets. AT&T remains on track to achieve its target leverage of ~2.5x by YE, and Verizon has committed to de-levering with the goal of achieving single-A ratings, now with positive outlooks at both S&P and Moody's. We don't expect M&A to play a significant factor in the sector this year as the focus of the large operators has largely shifted from acquisitions to de-leveraging and building out 5G. From a spread perspective, performance has been strong in 2019 with the sector (~26bps tighter YTD) outperforming the JULI (~20 tighter YTD).

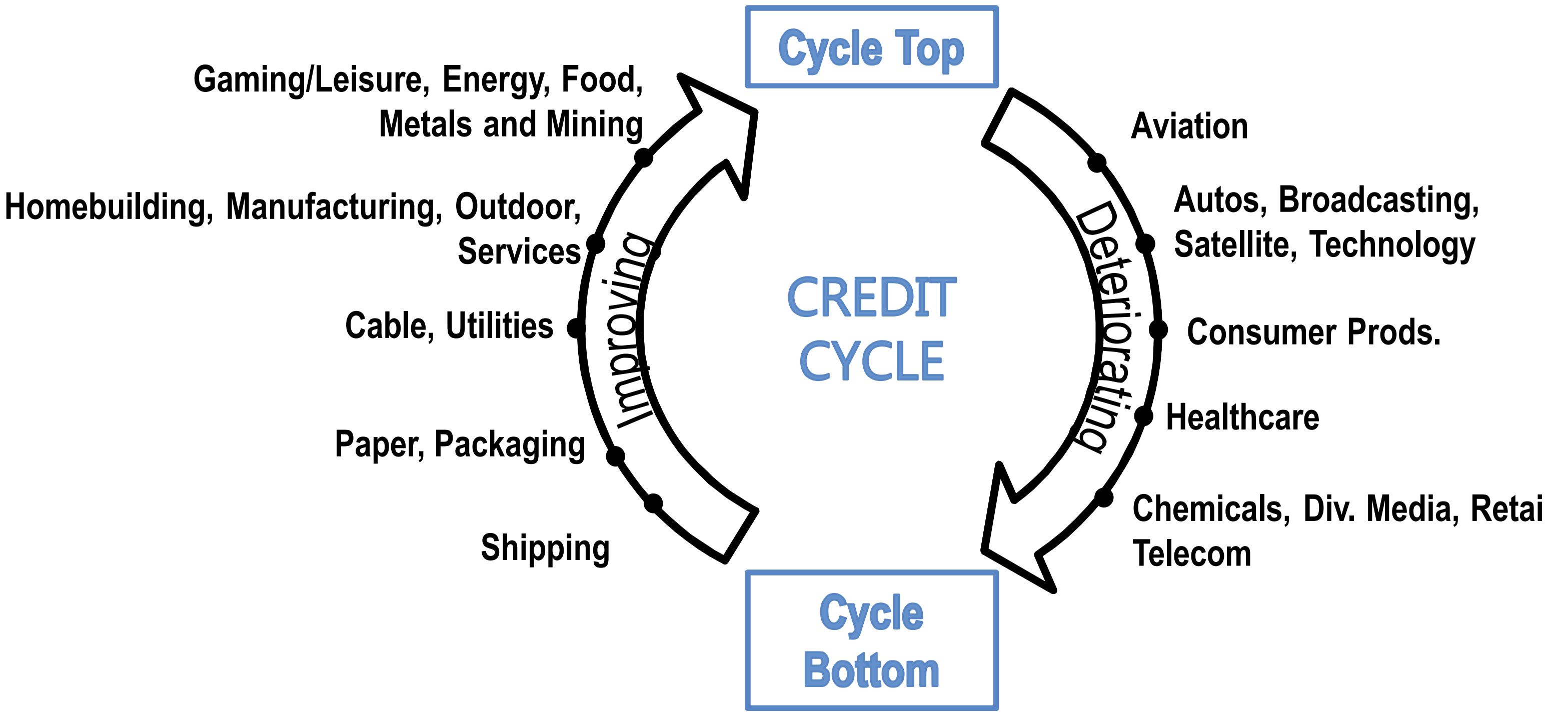
Source: J.P. Morgan.

Sector Focus: US High Grade

- **US HG Technology – Brian Turner:** While fundamentals generally remain strong across the Technology sector, we are seeing pockets of weakness emerge. The U.S/China trade war and Huawei dispute has created a volatile backdrop for U.S. Technology companies, particularly in semiconductors and hardware, amid an already weaker point of the chip cycle and slower growth in IT spending. Furthermore, we have seen increased M&A in the sector, most notably in the payments and software space with several large-scale merger announcements already this year. In terms of valuation, the sector is ~11bps tighter YTD but has underperformed the broader corporate market with the JULI ~24bps tighter YTD. Given trading levels, coupled with macro uncertainty and potential threats from government regulation, we continue to believe there is little upside for the sector.

Source: J.P. Morgan.

Regional Focus: US High Yield
A very diverse credit cycle picture with Energy past the worst



Source: J.P. Morgan.

Sector Focus: US High Yield

- **US HY Manufacturing/General Industrial – Yilma Abebe:** Credit fundamentals improved over the last year driven by higher industrial production and overall economic growth in most markets. While we think growth rates are likely to moderate, our base case view calls for most end markets in manufacturing/general industrials to grow at a low digit rate over the next 12 months, allowing credit risk to remain stable or improve for the group. An important risk to this outlook is the ongoing trade dispute, which could negatively impact this sector, causing credit risk to increase.
- **US HY Services – Yilma Abebe:** We expect credit fundamentals to be mixed in this sector, which has diverse end market drivers. We expect credit selection rather than sector weighting to be increasingly important over the next year. This said, our base view calls for credit fundamentals to stay stable or improve modestly for most names in this group over the next 12 months. We also expect capital allocation toward debt reduction to increase as cyclical downturn risks increase following many years of expansion.
- **US HY Consumer Products – Carla Casella:** HY Consumer Products has been supported by a strong consumer environment over the past several years but a turbulent retail environment, characterized by greater price transparency, a shift to buying online, and store closures. While we have seen no weakness to date, if recession fears come to fruition, we could see greater price pressures. Tariffs are a growing concern as it is unclear how much of the cost will be absorbed by suppliers, goods diverted, or offset by FX. M&A will remain a key theme, though we expect 2019 to be more of a “digestion” year than a year for new levering M&A.
- **US HY Food – Carla Casella:** HY Food & Beverages should see less pressure in 2019 on the cost front as labor and transportation costs have stabilized. M&A remains a key theme for branded packaged foods. We expect volatility in both costs and pricing for proteins, with rising corn costs (likely more of a 2020 impact) and short worldwide supply of pork (owing to ASF in China) driving up demand and pricing for all three main proteins (pork, chicken, and beef).
- **US HY Retail – Carla Casella:** HY Retail remains under pressure from consumers’ shifting spending patterns – experiences, value (price competition), and online. Tariffs add to these risks for 2019 and beyond, particularly for home goods (less so for apparel unless round 4 goes into place). We expect to continue to see more store closures than openings, gross margin pressure from competition and tariffs, and increased SG&A and capital spend to build out omnichannel capabilities. Retailers with highly levered balance sheets will struggle through the process, and we could see further stressed exchanges or bankruptcies (more risk in 2020 than 2019).

Source: J.P. Morgan.

Sector Focus: US High Yield

- **US HY Housing (Homebuilding and Building Products) – Arjun Chandar:** Lower interest rates helped stimulate traffic across most markets and product types during the important spring selling season and helped extend the cycle. Cost inflation continues to weigh on margins as builders struggle to push prices meaningfully higher in a more selective market. Despite lower financing costs, consumers are evaluating a home purchase in the context of reduced tax incentives and the prospect of an uncertain economy. The market remains undersupplied relative to anticipated demand, primarily from the millennial generation, who are evaluating options to move away from the rental market toward the sales market. In a slowing growth domestic economy (with China trade uncertainty representing an overhang), we believe that Housing continues to be in a late stage growth cycle.

- **US HY Metals/Mining – Arjun Chandar:** HY Metals & Mining is primarily levered to Chinese commodity demand and global growth, and we believe that we are in the "final innings" of cyclical growth as Chinese demand wanes. Leverage in the system is expected to rise on earnings volatility induced by commodity price pressure in steel, thermal coal, base metals, and, to a lesser degree, precious metals. Iron ore has been an outlier YTD due to unforeseen supply disruptions driven by the Vale tragedy, but overall metals/mining companies will continue to feel pressure from commodity prices as Chinese infrastructure spend moderates and commodity demand comes down, in our view. We believe that steel continues to feel like the most challenging metal commodity to forecast going forward. We think integrated steel production could be subject to more competitive pressure as scrap supply from the mini-mills downwardly impacts steel prices and puts legacy integrated steel contracts at risk.

- **US HY Healthcare – David Common:** There is still downside and credit deterioration for our companies in the two largest subsectors: Pharmaceuticals and Healthcare Services. In HY pharmaceuticals every company (with the notable exception of Bausch) is involved in some capacity in (1) antitrust investigations and (2) opioid litigation, both of which could result in significant liabilities. In Healthcare Services the prospect of Medicare for all and/or eventual budget tightening could lead to materially weaker earnings for a sector that already has ample leverage.

- **US HY Telecom – Thomas Egan:** Access line declines continue due to competition from cable companies and wireless substitution. Nearing bottom where growth in high-speed access and enterprise services offset loss of legacy consumer voice products. But that bottom is probably still a few years away. Wireless performance continues to be event driven.

Source: J.P. Morgan.

Sector Focus: US High Yield

- **US HY Technology – Thomas Egan:** The Technology sector has finally turned downward after a protracted period of growth. Spending by many of the big cloud providers has resulted in a softening of server and data center related equipment sales, and that has reverberated throughout the technology supply chain. And after several years of shortages, NAND and DRAM memory inventory levels have climbed dramatically, causing significant pricing declines. Barring a significant change in the economy, we see the weakness lasting well into 2020. Software and service providers will likely outperform.

- **US HY Energy – Tarek Hamid:** Fundamental improvement continues, albeit at a more constrained pace than market expectations due to decelerating global demand (trade, etc.). Capital discipline remains a focus across sectors, but actual achievement of economic returns on capital remains elusive. Regardless, cash flow continues to improve across the E&P universe, and midstream providers are the sweet spot of the value chain. However, if the sector cannot achieve sustainable cash flow and returns on capital, higher beta E&P and Services may never recover. We think crude likely remains range bound long term in the $45-65/bbl range. OPEC and Russia have shown their proverbial hand in managing to an oil price deck that limits high capital cost, low opex, low decline projects (oil sands, offshore) as well as demand destruction, but at the same time embraces shale as a swing producer given high decline rates and capital budget flexibility.

- **US HY Utilities – Tarek Hamid:** The environment for IPPs remains benign as modest base power pricing is offset by tight peak markets and improved operational cost performance across the sector. Positive externalities (ZECs, resolution of California PPAs) slightly outweigh negative externalities around capital allocation in our view. Longer term, capacity additions, particularly in ERCOT, remain a concern and likely constrain improvement beyond 2021.

- **US HY Cable – Michael Pace:** Overall, cable company top lines and margins are still growing, albeit modestly. Broadband and commercial (both higher margin segments) are offsetting video and wireline telephony declines. Wireless has been added to the bundle, and although it will continue to be a modest drag on cash flow over the near term, we think this is important strategically longer term. We do not expect balance sheets to improve much (if at all) from here.

- **US HY Satellite – Michael Pace:** Away from Satellite Radio, most satellite company businesses are deteriorating, primarily satellite TV (DBS) and fixed satellite services (FSS). We expect this to continue over the foreseeable future and possibly accelerate at FSS operators in the two- to three-year time frame. As a result, we believe a cycle bottom is still years away as supply/demand dynamics are likely to remain unfavorable. Balance sheets are expected to slightly weaken near term, but catalysts such as C-Band and potential consolidation could serve as an offset.

Source: J.P. Morgan.

Sector Focus: US High Yield

- **US HY Gaming/Leisure – Michael Pace:** Gaming/Leisure companies are still growing modestly as the economic and consumer backdrop remains ok. However, we believe we are getting closer to a cycle top, but note we thought this last year. We do not expect the advent of sports betting in the US to meaningfully alter growth prospects, but it should help on the margin. Balance sheets should improve modestly (on average), but note M&A could delay this temporarily.
- **US HY Chemicals – Nathan Schubert:** Many producers guided to stronger 2H2019 results following softer y/y 4Q18 and 1Q19 earnings. Given the sector's elevated operating leverage and beta, the focus remains on broader macroeconomic themes. Trade remains the biggest focus for Chemical investors; however, the issue is largely moot given diverse asset bases and/or end markets, which largely mitigates direct tariff impacts as production and trade shifts to areas not subject to tariffs. Nonetheless higher order effects from downstream customers (e.g., automotive, homebuilding, and electronics) will likely impact results in the back half of 2019, in our view. Regardless, we remain mostly ambivalent about 2H2019 earnings given the relatively easy y/y comparison and think 2H2017 is the more appropriate benchmark for gauging growth.
- **US HY Paper & Packaging – Nathan Schubert:** We expect Paper & Packaging fundamentals to continue to improve throughout 2019 following a relatively challenging 2018. Last year's raw material headwinds should continue to shift into tailwinds as additional polyethylene capacity startups begin production in the US. Growth in the metal substrate remains a longer term secular trend as downstream consumers look for plastic substitutes to assuage end-market environmental concerns. Net leverage increased modestly relative to historical levels of 3.5-4.0x due to increased M&A activity and shareholder-friendly activity. However, we forecast FCF generation to improve in 2019 and expect balance sheets to improve closer to historical norms by year-end.
- **US HY Aviation – Mark Streeter:** Aviation fundamentals globally are slowing but remain solid. Though unit revenue trends are sluggish in certain regions, airlines continue to generate near solid profits/margins in the current environment. IATA specifically predicts ~$28bn of net profits for the global sector in 2019, a forecast that was recently reduced by 20% but nonetheless would still be a top five year for the industry. Credit momentum is slowing, but we still see ratings upside in United and Air Canada. Labor cost creep and pressure to return cash to shareholders (due to weak stock prices) remain major concerns. For the lessors, global traffic has slowed from 6%+ to closer to 5% in 2019, which is still at or above the long-term trend. Similar to the airline story, credit ratings continue to rise but now more slowly after the upgrades at Avolon and Aircastle to low BBB. The MAX situation is driving higher short-term lease rates for substitutes. However, with interest rates now much lower, expectations for an uplift in lease rates overall is now tempered.

Source: J.P. Morgan.

Sector Focus: US High Yield

- **US HY Shipping – Mark Streeter:** The shipping sectors have been volatile this year amid the China/U.S. trade war and ahead of the upcoming IMO 2020 regulations next year. On the crude tanker side, heavy fleet growth and OPEC production cuts have kept rates range-bound YTD, although sentiment has improvement as owners look ahead to lower fleet growth next year and an expected pickup in demand from IMO 2020 due to higher refinery runs, new crude trades, and the potential for floating storage. The low-sulfur regulations are expected to have an even more material impact on product tanker demand next year as new low sulfur bunkers boost clean product demand. In dry bulk, demand has been impacted by the Vale iron ore production cuts and fall in China soybean imports from swine flu and the U.S./China trade spat. However, we expect the market to improve materially next year on the back of lower vessel speeds (due to higher fuel costs as a result of IMO 2020), low fleet supply growth, and the normalization of Brazilian iron ore exports. In LNG, the market remains in its upcycle currently, but we see moderate downside risk over the next couple years as fleet supply is expected to outpace demand growth. Lastly, container shipping remains mixed, with macro concerns regarding a trade war weighing on sentiment.

- **US HY Broadcasting – Avi Steiner:** Television fundamentals remain mixed. Core advertising revenue growth remains slightly negative, and we believe core will continue to lag overall economic growth as advertisers increasingly reallocate ad dollars to digital/new media platforms. However, TV ad sales have been offset by continued, albeit moderating, growth in net retrans revenue. While cord cutting is accelerating across the traditional pay TV ecosystem, English language broadcasters have not yet seen a meaningful sub decline, while overall sub fees have so far remained roughly constant. English language Television Broadcaster leverage has moved higher as the industry has further consolidated, though we expect some improvement in the near term as the industry approaches 2020 and the associated even year event ad revenue boost. Radio fundamentals are slightly more challenged than its TV counterparts. While Radio's reach remains high, time spent listening to terrestrial Radio is less robust as digital audio platforms continue to proliferate, putting pressure on core OTA advertising. Nascent digital offerings by the industry's largest Radio groups should provide a modest buffer. Radio Broadcaster leverage has improved on balance owing to recent restructurings and accretive asset sales.

Source: J.P. Morgan.

Sector Focus: US High Yield

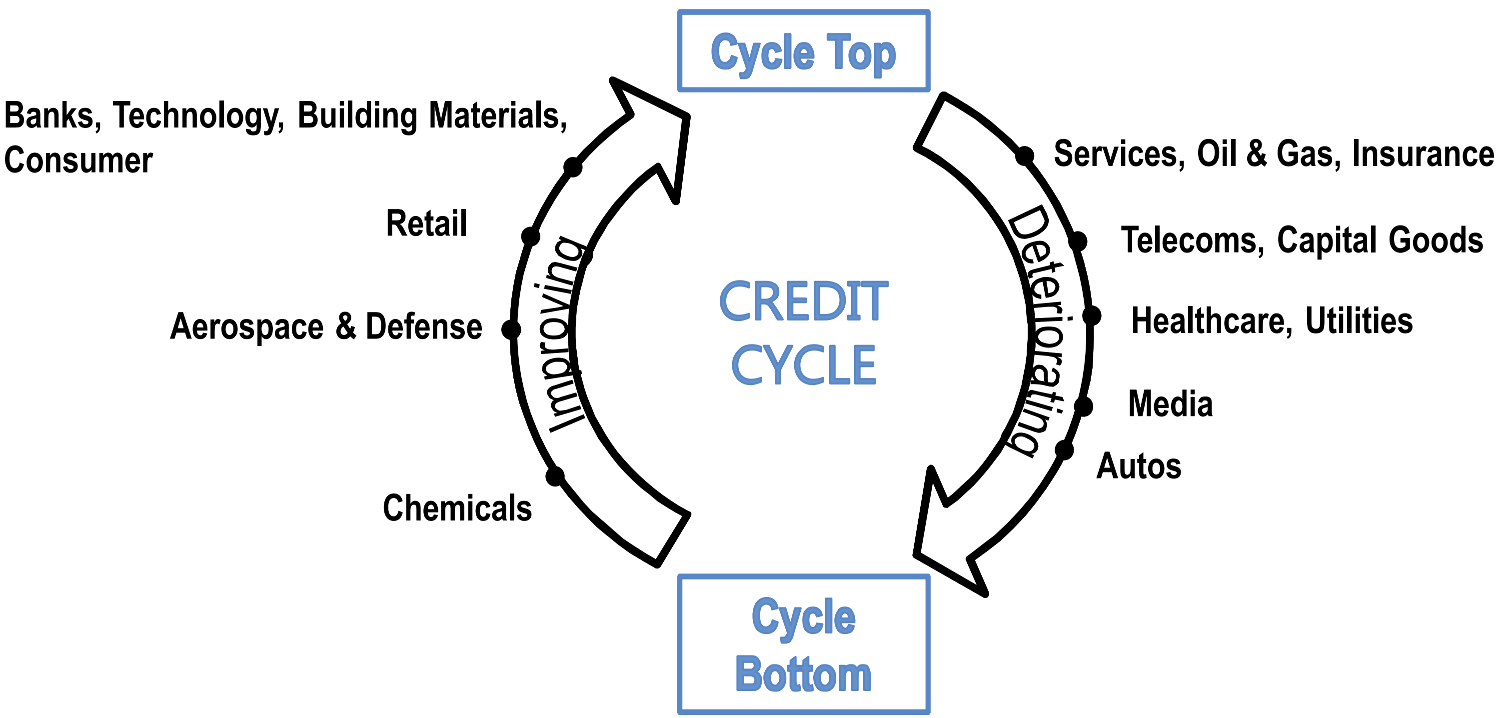
- **US HY Autos – Avi Steiner:** We expect a modest decline in domestic SAAR in 2019 to the mid to high 16mm unit level (vs 17.2mm in 2018), driven by moderating OE incentives and increasing ATPs, interest rates (though moderating), continued growth in off-lease volumes, and the lapping of 2018's tax cut benefit. We do not expect this decline to accelerate given the still healthy domestic economy, relative age of the car parc, and still low prices at the pump. We expect overall industry expenses to be under modest upward pressure given the need to invest in next-generation automotive technology (electrification and autonomous), though we note key commodity prices have moderated post last year's tariff steel and aluminum imposition. Globally, given the interconnected nature of the Automotive market, the picture is slightly more negative as China auto sales (the world's largest auto market) have decreased 12 straight months and are expected to decline on a full-year basis, on the back of a slowing economy, the impact of the trade war with the U.S., and the absence of meaningful government stimulus. European Auto sales are expected to show very modest growth in 2019, in large part due to the lapping of 2018's WLTP. On balance, supplier leverage is at levels that should allow the industry to withstand a downturn, though there are a few that have either recently completed a large-debt funded acquisition, and/or suffered execution issues, that are less well positioned.
- **US HY Outdoor – Avi Steiner:** Outdoor continues to be the best positioned among the traditional advertising mediums, with revenue growth trending in the low to mid single digits in 2019. Outdoor remains less at risk of digital media disintermediation than the Broadcast and Print mediums, while supply is somewhat constrained by local and municipal market regulations. The dispersion among credit metrics within the Outdoor sector is wide (~4x to ~8x), though we note that EV multiples remain in excess, while we expect metrics to improve on the back of the favorable operating trends.
- **US HY Diversified Media – Avi Steiner:** Print-centric media companies that account for a large portion of this sub-sector, including newspaper and magazine publishers, and commercial printers, are expected to see further erosion in their core businesses as digital substitution continues nearly unabated. Conversely, we expect non-print-related ad agencies and measurement companies to continue to experience modest, albeit uneven growth. Credit metrics within the sector vary widely given the number of disparate verticals, though we expect leverage to improve slightly on balance, driven by select asset sales and free cash flow.

Source: J.P. Morgan.

Agenda

J.P.Morgan

Regional Focus: European High Grade
Most sectors strong or improving, few in the lower right quadrant



Source: J.P. Morgan.

Sector Focus: European High Grade

- **EUR HG Building Materials – Benjamin Defay:** While demand for cement and other building materials products remains healthy, we are cautious on the European building materials sector given the uncertainty around the global macroeconomic backdrop. Leverage is relatively high, but capital allocation across the sector is now more balanced with several companies selling assets to reduce their debt position after years of heavy M&A.
- **EUR HG Capital Goods – Benjamin Defay:** The outlook for European capital goods companies is mixed with increasing pressure in the manufacturing and auto end markets but supportive demand from construction. Visibility is limited with lead indicators having declined materially in recent months on the back of rising global trade tensions. Balance sheets remain solid with net debt levels generally low, but leverage is rising due primarily to M&A activity as well as increasing cash returns to shareholders.
- **EUR HG Banks – Roberto Henriques:** We see European banks getting very close to "peak" capital with limited further scope for improvement to sector solvency, and the focus now more on NPS issuance following the finalisation of the Banking Package and its publication in the Official Journal last month. Additionally, dividend pay-out ratios have returned back to pre-crisis levels with well capitalised large-cap banks implementing more progressive dividend policies to return excess capital to shareholders. Operationally we note that credit costs have also bottomed out, with banks facing challenges in reducing the overall cost base, whilst the rates outlook has undermined earnings power.
- **EUR HG Insurance – Arun Kumar:** Fundamentals in insurance remain healthy for the most part across sub-sectors, with solid P&C combined ratios, stable life technical margins, and Solvency II ratios averaging out at around the 200% mark. However, several late cycle trends have emerged over the last 18 months which we continue to monitor. In particular, a shift in insurance portfolio holdings towards credit/risk assets away from govies, as well as a material step up in M&A activity.
- **EUR IG Retail – Ela Kurtoglu:** We expect credit profiles to remain largely stable in retail with divergent trends in food and non-food retailing with respect to operational and financial performance. Food retail benefits from improving profit generation, however shareholder returns are starting to take center stage, potentially limiting further balance sheet improvement. In non-food retail, structural shifts are having a diverse and mostly negative impact on profits, however issuers are taking a conservative approach to shareholder returns in order to maintain balance sheet strength.
- **EUR HG Consumer Products – Ela Kurtoglu:** European Consumer names pursued a conservative approach to portfolio management and largely refrained from transformational acquisitions. As such, despite a slowdown in profit growth, credit profiles remained strong supported by strong cash flows despite rising shareholder returns.

Source: J.P. Morgan.

Sector Focus: European High Grade

- **EUR HG Oil & Gas** – **Daniel Vaun:** Credit quality across the integrated energy sector has peaked, as self-help measures are almost entirely exhausted, and management teams prioritize replenishing depleted reserves and implement growing shareholder returns. While the sector is better positioned to weather a lower commodity price environment, we believe credit spreads are expensive, and forecast a gradual drift wider.
- **EUR HG Chemicals – Stephanie Vincent:** Despite a weak first quarter across Chemicals, most of our credits in the IG space affirmed their FY guidance. In general, we do not expect significant catalysts for the sector in 2H19 other than some divestitures of business units that do not fit with company strategies and bolt-on acquisitions. Exposure to end markets such as automotive, however remains a concern that could weigh on the sector depending on the direction of trade talks.
- **EUR HG Autos – Stephanie Vincent :** While IG Autos have been one of the main underperformers since last year, we take comfort in the good liquidity positions of well established OEMs in our coverage universe and for a trade talk resolution to help revive the sector. In addition to IHS' (an automotive industry forecasting service) guidance for a 2% contraction in global production for FY19, we expect the continued shift away from diesels, and hence increased spending to continue pressurising margins. Alliances and potential consolidation among OEMs with strong balance sheets is a recent theme that we expect to further develop in the near future.
- **EUR IG Healthcare – Danielle Ward:** While Investment Grade Pharma has generally been considered to be one of the more defensive sectors, and M&A activity has been lighter than feared since US tax reforms, shareholder returns have been prioritised alongside business development, while continued appetite for reverse Yankee debt issuance by US-based companies has sustained issuance levels. We remain nervous of further credit negative actions in the space, such as M&A and additional shareholder returns, with most names under our coverage seeking opportunities to expand their pipeline. We also note that some of our historically-conservative European-based issuers have shown increasing appetite for leverage/shareholder returns recently, though this has thus far not been too detrimental to credit profiles (e.g., ratings neutral/part funded by disposals).
- **EUR HG Telecom – Christian Crosby:** While still considered among the more defensive subsectors, we remain cautious on a continued challenging environment in TelCos. With revenue growth limited as competitive intensity remains high, EBITDA generation has been largely dependent on margin improvements over the last few years which we expect to slow. We more importantly argue that issuers have become increasingly willing to re-lever for M&A in order to re-start growth and accept elevated capital spending for spectrum auctions and fiber rollouts, and therefore see fundamentals continuing to trend adversely.

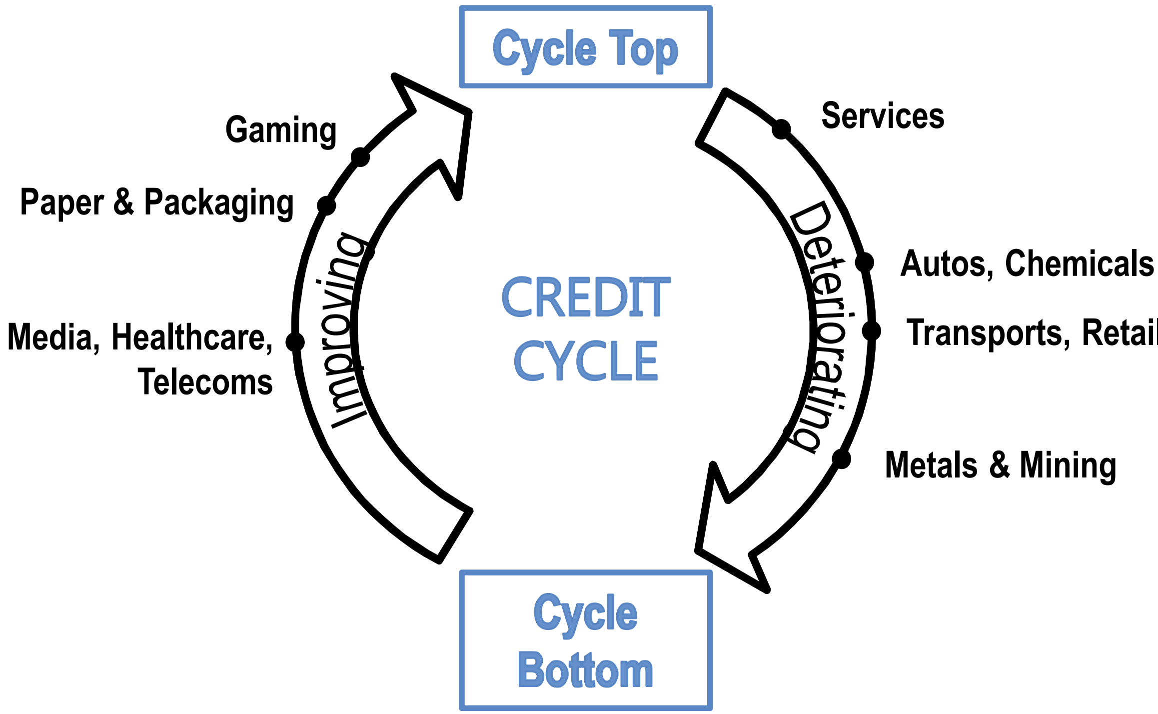
Source: J.P. Morgan.

Sector Focus: European High Grade

- **EUR HG Media – Christian Crosby:** Media fundamentals have been mixed as most issuers battle secular business downtrends and external threats from over-the-top players. While revenue growth has been anemic, management teams have in the last few years been largely conscious of a need to cut costs and maintain strong balance sheets. That said, we believe M&A is one of the few avenues to growth for many of these sectors, and as seen in a few recent transactions expect re-levering across the subsector for most names.
- **EUR HG Technology – Christian Crosby:** Sector IBoxx constituents are composed of largely high-rated issuers as European names are coupled with mega-cap U.S. names with generally solid growth trends and stable balance sheets. Post-tax reform, U.S. firms have global access to large cash balances, which we believe will be largely deployed to shareholder returns and M&A but also address near-term debt maturities, limiting issuance needs. We expect growth to be more muted in the wake of trade tensions (particularly with China), but see fundamentals stable overall.
- **EUR HG Utilities – Daniel Vaun:** Our unconstructive view is predicated on our expectation of a continued deterioration in credit quality over the medium term, attributable to reduced profitability, elevated capital expenditure, mounting appetite for debt-funded acquisitions, and downward rating pressure. Valuations fail to reflect these risks.
- **EUR HG Services – Brendan Breen:** High Grade Services remains a fundamentally robust sector with revenue growth correlated to broader GDP growth and general macroeconomic trends. Issuers continue to balance shareholder rewards with IG-rating objectives. Overall, we think the companies within this sector are stable, and we see limited potential for credit “surprises” in the near term.
- **EUR HG Aerospace & Defence – William Wade:** Demand drivers are still strong in the A&D sector, with no signs of this changing in the short term. Relentless global air travel growth, especially in Asia, plus stable-to-rising sovereign defence budgets continue to be tailwinds for Aerospace & Defence groups. The short/medium-term outlook for cash generation is also solid, particularly as companies look to complete on the execution of their programme ramp-ups.

Source: J.P. Morgan.

Regional Focus: European High Yield
Most sectors are improving



Source: J.P. Morgan.

Sector Focus: European High Yield

- **EUR HY Paper & Packaging – Benjamin Defay:** We recognize sector leverage is elevated and parts of the sector experience margin pressure due to higher raw material prices (i.e., plastic packaging, graphic paper). However, packaging fundamentals remain strong with solid balance sheets and ongoing deleveraging helped by healthy FCF generation across the sector.
- **EUR HY Metals & Mining – Benjamin Defay:** The European HY Metals & Mining sector now largely comprises idiosyncratic stories with limited sector read-through. On balance the outlook remains challenging for many companies including Vallourec which we expect to continue to generate negative FCF for the next 18 months and for Outokumpu which should record declining earnings and rising leverage. However Constellium should continue to report growing earnings and declining leverage on the back of healthy demand from the automotive and aerospace end markets.
- **EUR HY Retail – Ela Kurtoglu:** HY retail is facing structural challenges which together with high operational and financial gearing, limits earnings and cash flow visibility. Profits are mostly coming off the peaks (which were optimized going into the prior refinancing rounds) due to static/declining sales and rising cost pressures. Leverage remains elevated due to lack of cash generation whereby capex and interest mostly consume EBITDA. As such we have been seeing a rising number of insolvency proceedings in the space.
- **EUR HY Chemicals – Jemma Permalloo:** Deleverage targets for some credits in our universe seem ambitious given ramping investments and elevated capex. We also see headwinds for the sector, including softer pricing resulting in margin pressure, capacity growth in raw materials such as ethylene and polyethylene.
- **EUR HY Autos – Jemma Permalloo:** We are less constructive on HY auto suppliers for 2H19 given their smaller liquidity cushions. We continue to see a pull towards IG for credits such as Fiat Chrysler and Faurecia as the companies remain focused on their balance sheets, and in particular for the OEMs, rationalising their portfolios and manufacturing footprints. Raw materials, pricing pressure, intense competition in profitable segments such as SUVs/trucks, and ongoing trade wars will continue weighing on the sector.
- **EUR HY Healthcare – Danielle Ward:** We are generally constructive on the European Healthcare space, given scope for EBITDA and leverage improvements over time, supported by demand growth and favourable demographics, and the pan-European exposure. This is balanced with continuing themes of sector consolidation, budgetary constraints, and elevated staffing costs due to nursing shortages within the UK healthcare services.

Source: J.P. Morgan.

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Sector Focus: European High Yield

- **EUR HY Transport – Danielle Ward:** We remain cautious on the High Yield Transportation space after a fairly healthy 2018, as the sector continues to face headwinds from fuel costs, trade disruption and an uncertain macroeconomic picture. The outlook for air/sea freight demand has moved downwards in the past few months, translating into pricing pressure for credits exposed, while consumer demand softness stemming from Brexit and a subdued European macro backdrop have been pain points for travel-exposed names.
- **EUR HY Telecoms – Andrew Webb:** Our sector consists of idiosyncratic, largely challenger telecom operators. We remain fundamentally constructive, as our largest Issuers are focused on improving corporate balance sheets; however, this is tempered by a high degree of exposure to the Italian market, which we view as a potential source of volatility later in the year. Altice Europe has led the way, with the monetization of tower and FTTH assets raising ~€4.2bn, with proceeds earmarked for debt reduction. Telecom Italia's incoming management has placed deleveraging at the top of its priority list, with some non-core asset sales and cash flow generation driving balance sheet improvement. Wind Tre is also looking to tower sales to reduce debt. Revenue profiles vary by market, with intense competition pressuring service revenues notably in France, Switzerland, and Italy. The ongoing need for investment remains a hallmark of the sector, with NGA networks and early stage preparations for 5G having begun, with most markets completing the latest round of spectrum auctions and operators considering roadmaps and network densification needs.
- **EUR HY Media – Andrew Webb:** We are broadly constructive on the Media sector fundamentals; however, the sector already trades tight to the market. Liberty has agreed the sale of cable assets in Germany, Switzerland and Eastern Europe. The company has not made firm decision on the use of proceeds, and we await approvals for the various sales for clarity. We believe some debt reduction is possible, given the reduced diversification and scale of remaining operations. Netflix is the next largest exposure within the sector; the OTT platform continues to make inroads with global subscribers; while credit investors continue to fund the content portfolio. The company expects FCF deficits to improve each year from 2020 onwards, driven by revenue growth and improving operating margins.
- **EUR HY Services – Brendan Breen:** The HY services sector is a diverse set of issuers operating in relatively niche sub-sectors across Europe, and hence broad fundamental and structural themes are limited. However, leverage remains high due to a mixture of factors including M&A and a tough competitor environment impacting margins, hence we see little scope for significant improvement in the near term.
- **EUR HY Gaming – Brendan Breen:** Fundamentals remain solid and have been improving in most jurisdictions, while recent results have generally been strong across the sector. We expect consolidation to remain a theme, particularly given the various regulatory headwinds impacting most of the credits across Europe.

Source: J.P. Morgan.

Agenda

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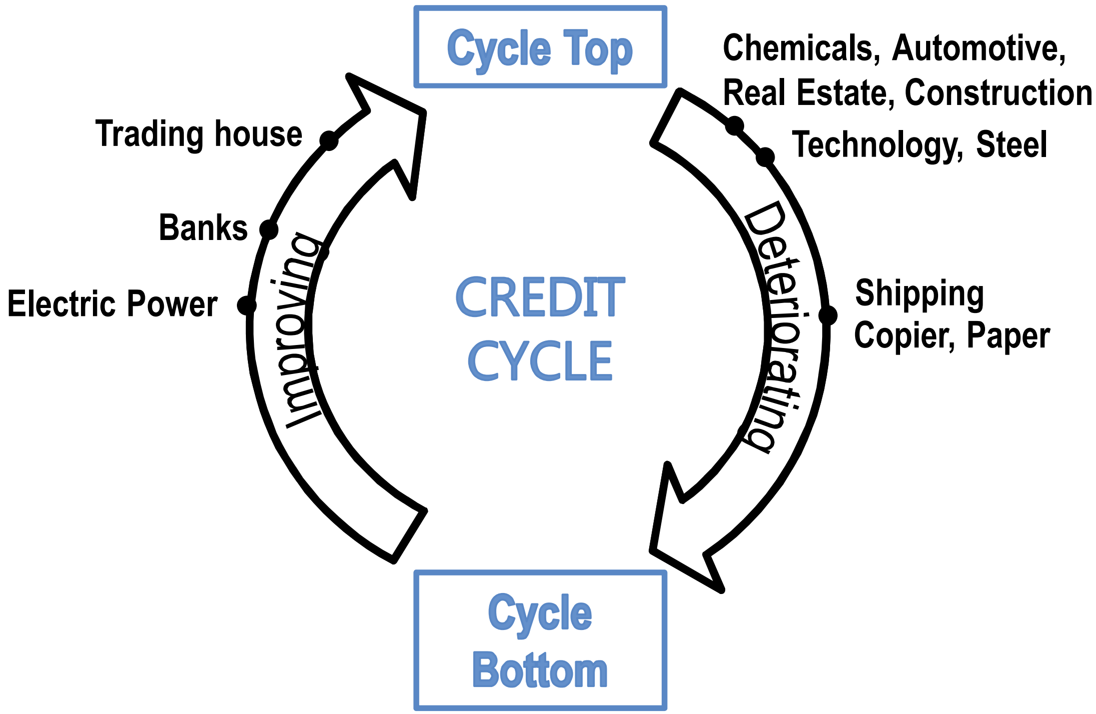
Regional Focus: Japan
Gradually peaking out and still vulnerable to external factors



Source: J.P. Morgan.

Regional Focus: Japan

- **Automotive:** F3/19 earnings were pressured by slowed sales in the US and China. The sector is sensitive to trade talks in the short run and to disruption risk in the long run.
- **Chemicals:** Improvement in earnings seems to peak out due to hike in raw material costs. Slowed growth in China could accelerate it directly and indirectly.
- **Banks:** Negative yields in the domestic market continue to put pressure on earnings and urge banks to search for yield outside Japan. Regional banks are more negatively affected.
- **Technology:** Sharp and Toshiba are back to normal from ailing situations. Major companies in the sector have sharped up earning capacities through implementing selective investments and withdrawal from some product for now. Having said that, they are continuously exposed to global competition.
- **Steel:** Major steel makers stabilized profitability but still have difficulties in obtaining a fair margin from their main clients. If Asian export market deteriorates (via oversupply from China), it could harm margin on export market, which is a source of stable profits.
- **Trading House:** Their sales and earnings improved through hike in energy price and other focus business. Business and financials are better balanced than past years in general.
- **Shipping:** Integrated container business missed the target in 2018 but gradually back to normal. Competitiveness in non-container businesses is more important. Global economy and trade talks are very influential to the sector.
- **Electric Power:** Perspective on nuclear generation resumption is still not clear, but thanks to relatively low fuel prices and fuel transfer mechanism, the credit trend has bottomed out.
- **Construction:** The sector benefits from metropolitan redevelopments (including the 2020 Olympics), but new orders seem to peak out.
- **Real estate:** The sector has improved credit metrics in recent years thanks to enhanced demand for metropolitan office and condominiums, but seemingly is seemingly peaking out.
- **Aviation:** Lower fuel prices and increase in inbound passengers in addition to successful yield management are improving credit metrics.
- **Paper:** The sector faces two main risks – continuous down trend of paper demand (main business) and how to expand into other/overseas business. The same logic is applicable to the **Copier** industry.

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Source: J.P. Morgan.

Agenda

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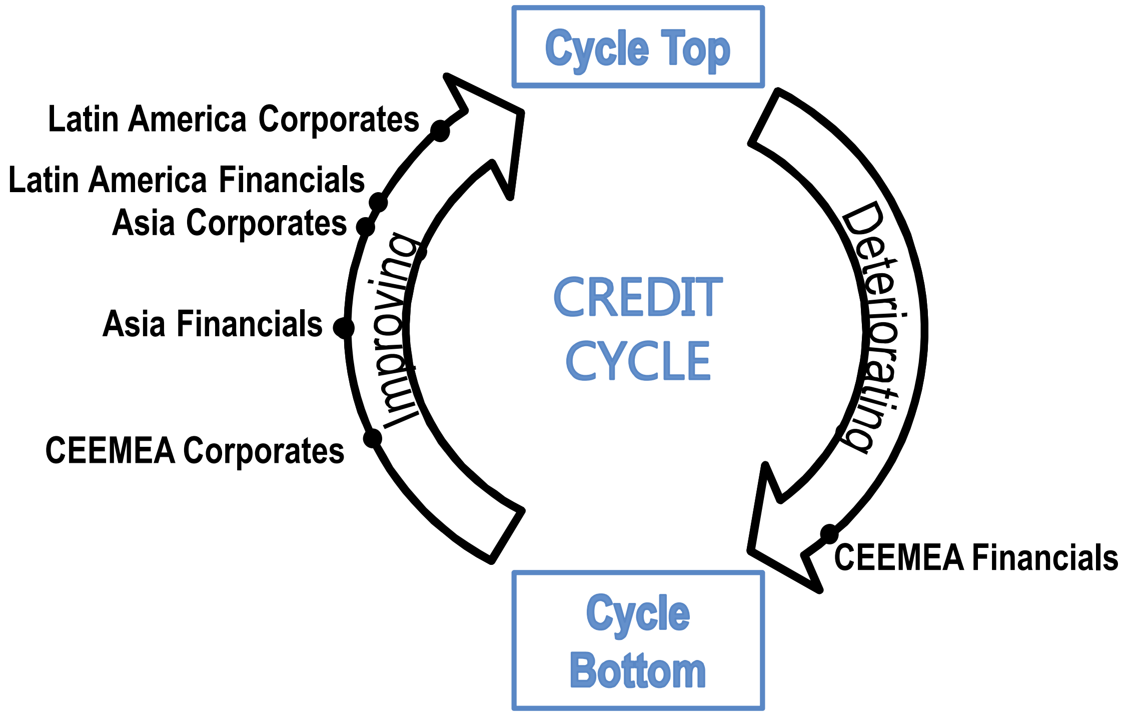
Regional Focus: Emerging Market corporates have generally moved along the credit cycle but are still in improving phase



Source: J.P. Morgan.

Regional Focus: Emerging Markets

- **Asia Corporates:** The fundamental trend continues to be slightly positive as overall capex spending and M&A appetite has reduced somewhat over the last few years. China's ongoing deleveraging program has led to several of its SOEs deleveraging. Similarly, Hong Kong corporates have deleveraged from muted capex spending even as earnings remain robust, helped by continued strength in the property sector as well as strong market position of other credits. On the other hand, Indian and Korean corporates are seeing a renewed capex cycle, and this is where we think the improving credit cycle is at a more advanced stage. While heightened US-China trade tensions could be negative for China's macro and tech hardware sector, we don't believe it would derail this overall positive trend given most IG corporates have built up buffers. Also, any potential drag on China corporates should be partially offset by trade substitution to Korea and ASEAN. Given the higher leverage, Asia HY fundamentals will be more vulnerable to slower growth, especially as China HY industrials defaults have already increased due to excessive leverage and corporate governance issues. While we recognize China HY real estate could have to contend with softer property demand, we believe downside risk is mitigated somewhat as there is still room to relax the currently tight housing policy.

- **Asia Financials:** Downside risks to growth in China may add to pressure on banks' credit quality, but the impact is likely to be asymmetrical. City and rural commercial banks may see pressure from concentrated loan portfolios and weak discipline around problem loan recognition, with data reflecting this pressure in 1Q'19. In contrast, joint stock banks and large banks have seen stable NPL trends, although increased pressure to support privately owned enterprises represents another channel for increased credit risk. In India, the system NPL ratio peaked in March 2018, and we expect a gradual decline in credit costs, which should begin to support profitability despite the persistence of some risks, notably in the non-bank financial sector. Reduced trade that weighs on growth could have a delayed impact on asset quality for banks in Singapore, Korea, and Hong Kong, which have recently been enjoying benign credit trends.

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Regional Focus: Emerging Markets

- **CEEMEA Financials:** We continue to see several risks to the "muddle through" scenario for Turkish banks. External financing needs are still large, local and foreign investor confidence is low, the real sector measures lack sovereign participation, and there are geopolitical risks on the horizon. GCC banks are going through a phase of consolidation with second tier banks being acquired by national champions. Weak economic growth and falling real estate prices are the main risks to asset quality in the UAE with negative implications for bank AT1s. The Russian banks' credit fundamentals are on an improving trend, and the country has a strong external position; however, US sanctions are the main risk.

- **CEEMEA Corporates:** Credit fundamentals are expected to remain largely stable with increase in leverage from commodity-based sectors (oil & gas, steel), partially offset by precious metals and stable outlook for defensive TMT and utility sectors. After years of reining in capex, companies with strong B/S from the M&M and O&G sectors are increasing both capex and shareholder distributions.

- **Latin American Financials:** Financials have once again followed different paths. Argentine banks are clearly following a deteriorating trend, although we think it should be temporary given the short-term nature of loans in Argentina. That said, improvements will likely depend on the sovereign story. At the same time, Andean banks have been recovering and should continue to do so, but likely in a continued gradual pace, particularly in Colombia where the corporate sector remains under pressure due to specific corporate cases. Mexico has been more resilient than expected but could be at the start of a deteriorating trend given the uncertainties related to trade and overall policies from the new administration. Finally, Brazilian banks have recovered, but further improvements depend on better economic activity, which has been somewhat on hold due to uncertainties related to the approval of the Social Security Reform.

- **Latin American Corporates:** After facing pressure from cyclically low commodity prices and weak economic activity in key countries like Brazil and Argentina in past years, corporates in the region have largely focused on deleveraging in the more recent past, strengthening overall balance sheets and reducing the demand for fresh debt. Although some stories have lagged and could improve from a point of weakness, we believe that credit metrics are closer to the peak in aggregate, with gradual deterioration from current levels more likely, as some commodity prices (namely pulp and industrial metals) have been facing a downward trend and growth across the region has been lower than expected, with lingering political and policy risk. However, we don't see a sharp drop in credit quality, given that investments and M&A activity are expected to remain subdued.

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