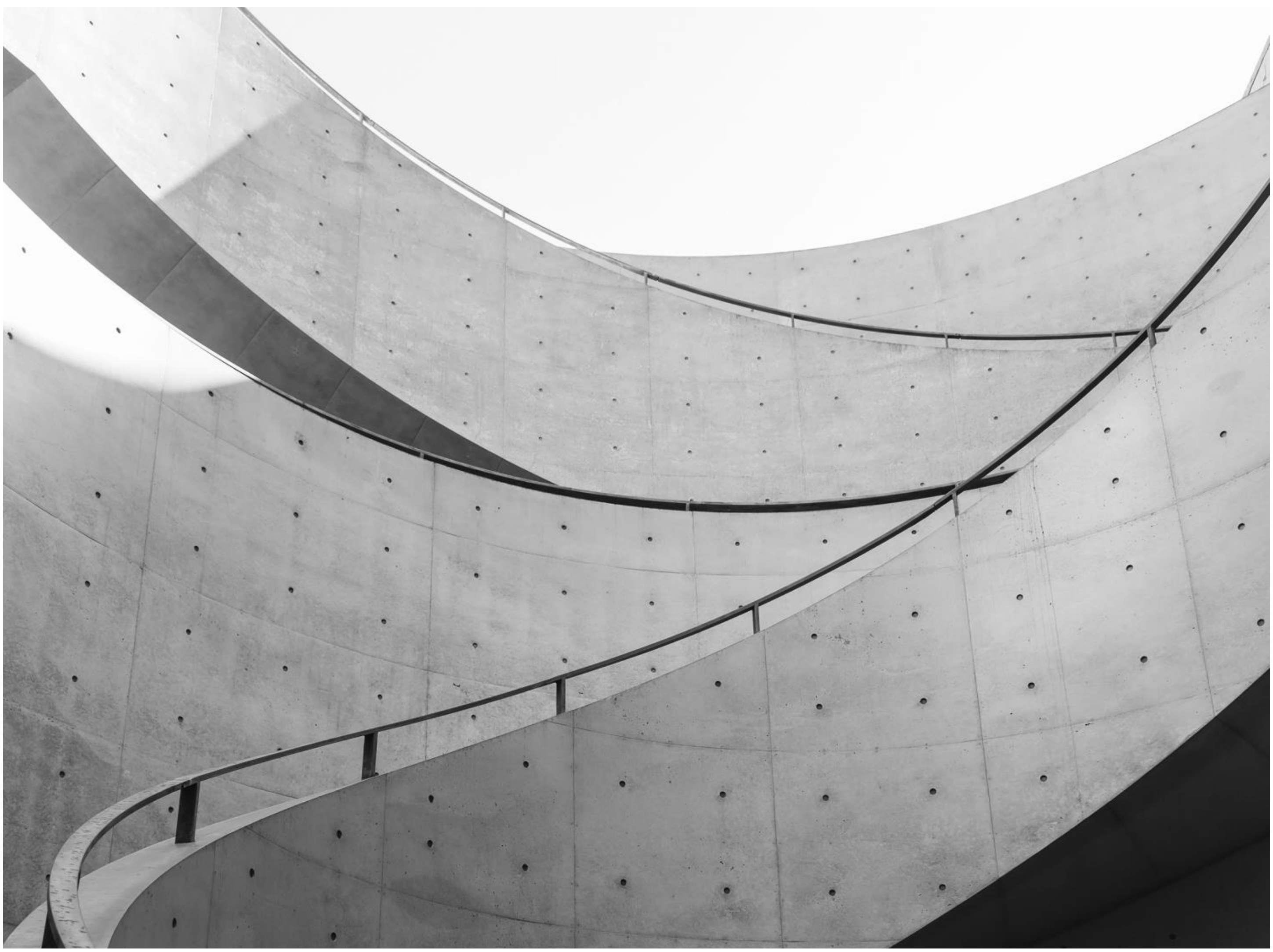
S&P Global Ratings

Global Corporate Leverage Trends 2018

Debt high, defaults low—something's gotta give

February 5, 2018



Contents

CONTACTS

Terry E Chan, CFA
Melbourne
+61-3-9631-2174
terry.chan@spglobal.com

Diego H Ocampo
Buenos Aires
+54-114-891-2124
diego.ocampo@spglobal.com

David Tesher
New York
+1-212-438-2618
david.tesher@spglobal.com

Paul Watters, CFA
London
+44-20-7176-3542
paul.watters@spglobal.com

RESEARCH ASSISTANT

Mabel Chen
Melbourne

Ten Years After The Global Financial Crisis

Corporate Leverage Is Worse, Not Better

Leverage-Default Dissonance (Gap)

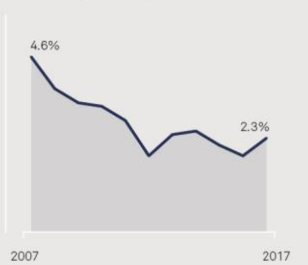
Globally, 37% of corporates are now highly leveraged versus just 32% in 2007.

Defaults could spike from low levels if market turns.

Continuing earnings recovery in 2018 could moderate leverage.

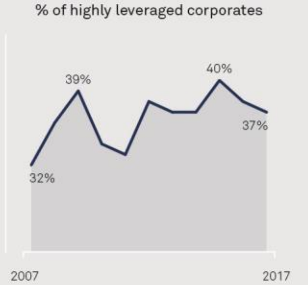
Easy liquidity, underwriting, and low interest rates...

U.S. 10yr treasury yield



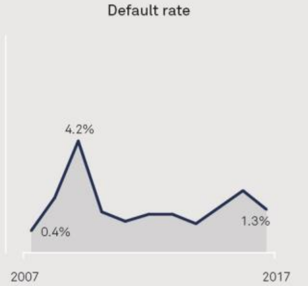
...have increased the number of highly leveraged corporates...

% of highly leveraged corporates

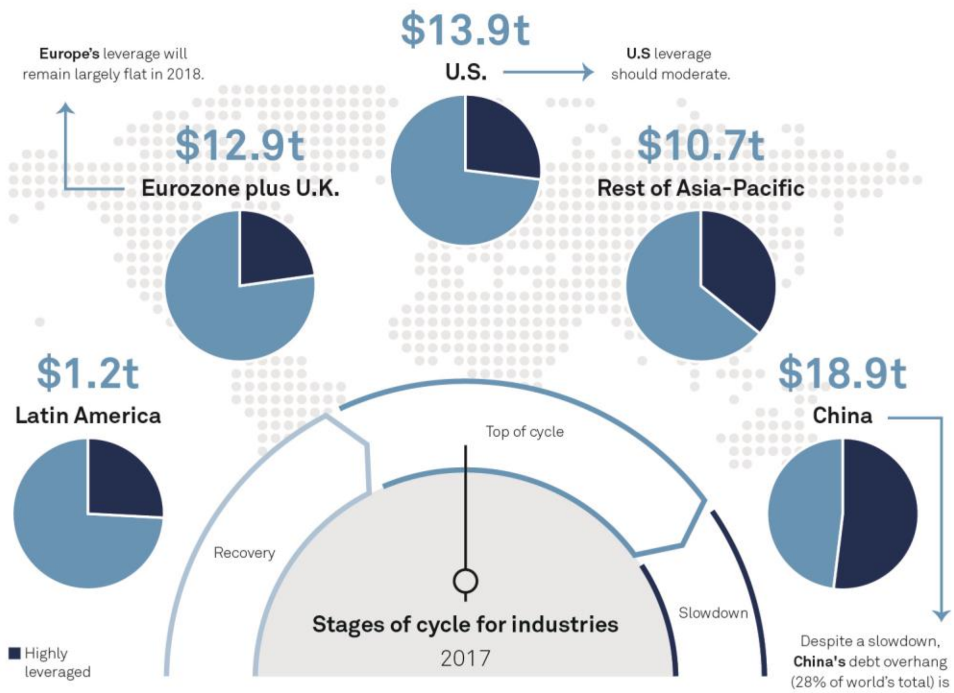


...a risk masked by relatively low default rates.

Default rate



China Represents The Largest Leverage Risk



Despite a slowdown, **China's** debt overhang (28% of world's total) is likely to persist in 2018.

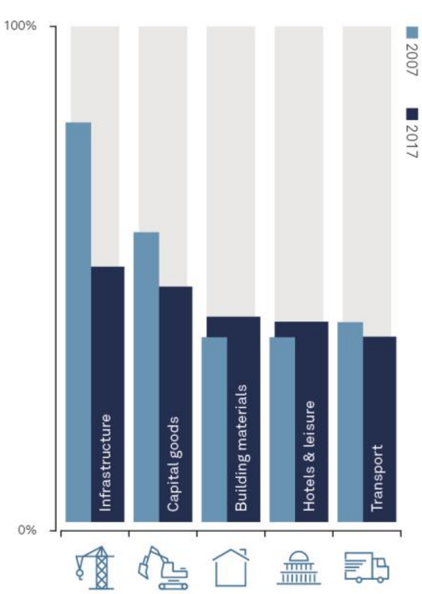
Overall, cycle appears to be peaking

Industries Rebalance

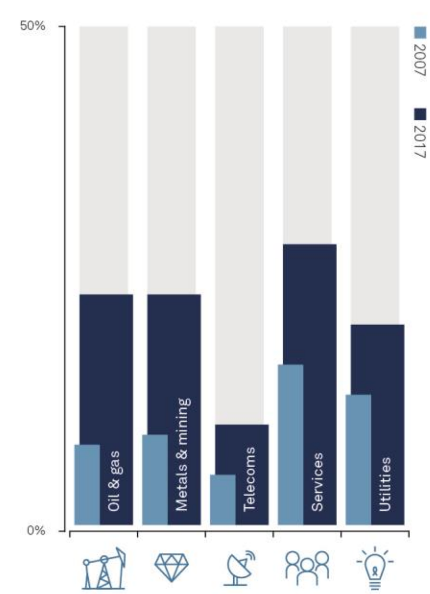
Most highly leveraged sectors reduced gearing since 2007...

...but lowly geared sectors have instead increased leverage.

Highly leveraged debt for 2007-2017p



Growth in highly leveraged debt 2007-2017p



Overview

- We estimate the proportion of highly leveraged corporates globally at 37% for 2017; five percentage points higher than in 2007 (pre-Global Financial Crisis).
- Yet default rates are low, implying a leverage-default gap. More positively, the gap should narrow in 2018 as the earnings recovery continues (e.g. helped by U.S. tax reform).
- On average, corporates are at the top of the credit cycle. Lower asset prices and liquidity reversals are major risks. If realized, defaults may become significant, given leverage levels.
- China's high corporate indebtedness (28% of world stock) should continue in 2018. U.S leverage should moderate while Europe's remains largely flat.
- Over the past decade, more heavily indebted sectors (e.g. infrastructure, capital goods, building materials) held or decreased their leverage while less-geared sectors (e.g. oil, metals) increased theirs.

Despite a recent rise in corporate profits and financial metrics, the still high leverage of global corporates poses a significant credit risk. Such leverage implies sensitivity to both higher funding costs and reduced access to financing. A material repricing in bond markets or faster-than-expected normalization in money market rates could impact credit profiles, triggering the next default cycle.

U.S. corporate tax cuts could extend this stage of the credit cycle.

High Leverage. Global nonfinancial corporate debt grew by 15 percentage points to 96% of GDP over 2011-2017. We estimate that 37% of corporates (based on a global sample of 13,000 entities) could be categorized as highly leveraged in 2017 (i.e. debt-to-earnings of above 5x), that's five points more than in 2007. The exceptional monetary stimulus by central banks had encouraged borrowers to lever up through to 2015 (40% peak of highly leveraged). A partial mitigation is improved debt-coverage ratios, reflected in a low 1.2% average annual global default rate in 2011-2017.

Profit Growing. Positively, global earnings growth has caught up with debt growth since 2016, having lagged in prior years. The continuing recovery in earnings and cash flow, which may be assisted by the recent tax reform benefiting U.S. companies, could see leverage moderating in 2018, but the overall level would remain high.

Cycle Stage. While stages of cycle vary by geography and industry, we see global corporates as at the top of the business cycle. For countries (e.g. the U.S.) where many sectors are operating close to capacity, monetary authorities are responding to cyclical conditions by slowly tapering stimulus. The recent U.S. corporate tax rate cut could help cash flows, extending this stage of the cycle, albeit at the risk of more aggressive Fed tightening.

Key Risk. Global credit conditions were broadly favorable going into 2018. However, both bond and equity markets have turned volatile in late January. Investors are fearful that faster economic growth, a weaker U.S. dollar, and resurgent commodity prices could spike inflation. In turn, this could result in a material repricing of risk and faster rise in interest rates. Removing the easy money punch bowl could trigger the next default cycle since high corporate debt levels have increased the sensitivity of borrowers to elevated financing costs.

Geographies, Sectors. China was the main driver of leverage growth over 2007-2017. Its US$18.9 trillion debt (including that of state-owned entities) makes up 28% of the world's total. Asia-Pacific ex-China and Latin America also contributed to the worsening, while North America and Europe improved. Among sectors, infrastructure, capital goods and building materials remain the most indebted. Oil, metals, and telecoms doubled (from low levels) their highly leveraged ratios.

Debt Grows, Defaults Low ... For Now

It's striking how rapidly global corporate debt has grown since the financial crisis. The debt-to-GDP ratio of non-financial corporates has grown by 15.4 percentage points since the end of 2011 to 95.6% (see chart 1). The regional differences are stark. For instance, aggressive monetary policy in the shape of Quantitative Easing program (QE2) has stimulated a 36% increase in corporate debt in the U.S. But it has had a much lower impact in the eurozone and the U.K. where corporate debt in local currency only increased 14% and 8%, respectively. China, on the other hand, experienced a corporate debt boom, with debt increasing by 104% since the end of 2011 as the authorities directed bank lending towards the non-financial corporate sector (including state owned enterprises) to achieve pre-determined macroeconomic growth targets.

We believe that the leverage-default gap has persisted because of abundant market liquidity.

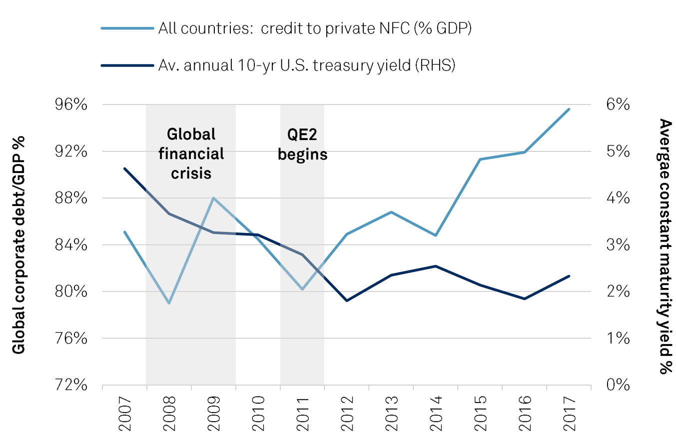
However, the result has been that, until very recently, corporate debt has been growing above the growth rate achieved in the economy, markedly so in the case of China but also in the U.S. The eurozone and particularly the U.K have been laggards by this measure.

Overall, the net result of these highly supportive financing conditions has been that a growing proportion of corporates have become highly leveraged (see Appendix Note 1 for definition) at the same time as our global default rate has remained depressed. This has opened up a leveraged-default gap (see chart 2). In our view, while this gap could close over time if nominal economic growth exceeds the accumulation of further debt for an extended period of time, it is far more likely as output gaps close that funding costs rise and financing conditions become much more challenging. This would significantly raise the risk of triggering the next default cycle, given the high levels of financial risk and the inevitable consequence that many corporates now have a much heightened sensitivity to changes in interest rates.

Chart 1

Global Corporate Debt Has Exploded On Back Of Extraordinary Monetary Stimulus...

Global corporate borrowing and long-term U.S. Treasury yields 2007 to 2017

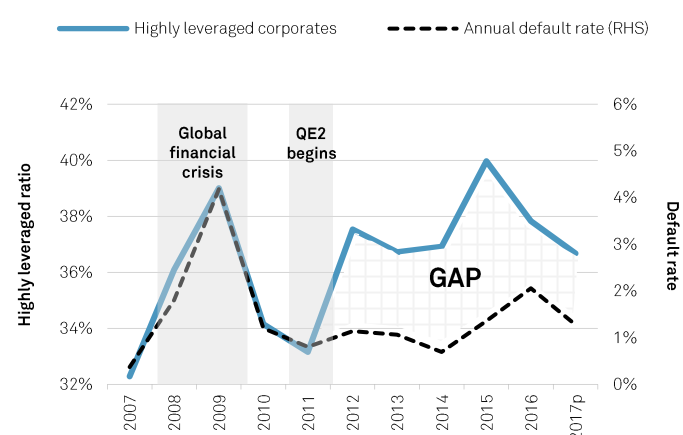


Source: Bank for International Settlements (BIS), Federal Reserve Bank of St, Louis.

Chart 2

...Keeping Default Rates Low And Opening Up A Leveraged-Default Gap

Global corporates: Highly leveraged ratio and default rate, 2007 to 2017



p – projected. Leverage ratios are debt-weighted averages of categorized debt/EBITDA and FFO/debt ratios for a corporate sample. EBITDA – earnings before interest, tax, depreciation and amortization. FFO – funds from operations (EBITDA less net interest expense less tax). Country data (debt-weight) source: Bank for International Settlements (BIS). Sample data source: S&P Global Market Intelligence. Other source: S&P Global Ratings.

We believe that the leverage-default gap has developed since the start of the Fed's QE2. It has placed downward pressure on long term U.S. Treasury yields (see chart 1). The easing in the highly leveraged ratio over 2016-2017 is driven by improved profitability, China's attempts to curb corporate over-borrowing, and higher defaults in 2016 (particularly in energy and natural resources). Rising defaults made some Chinese lenders slightly more cautious and constrained the ability of some corporates there to remain so highly leveraged. The Fed's gradual normalization of monetary policy could provide a floor and push up net interest expense in 2018 for companies exposed to floating-rate debt or needing to refinance.

To estimate global leverage, we analyzed the financials of over 13,000 corporates drawn from the database of S&P Global Market Intelligence, for the period of fiscal 2007 to first half-year 2017. The sample's total debt of $19.6 trillion is equivalent to almost 30% of the $66.6 trillion owed by nonfinancial corporates globally at June 2017, as estimated by the Bank for International Settlements (BIS). Default rates are from our annual default and transition studies (see Related Research [1] and [2]).

Earnings Growth Catches Up...

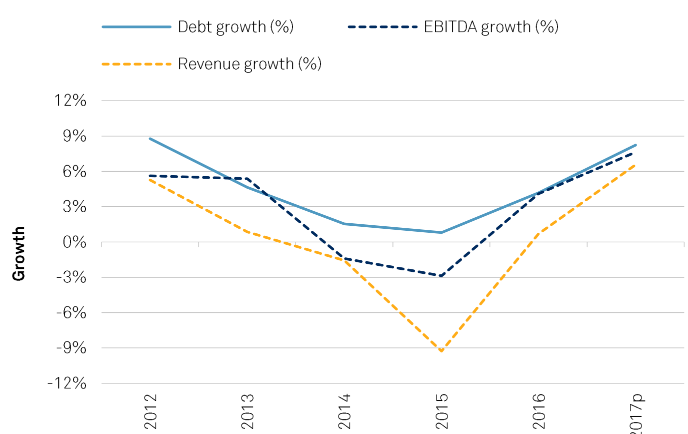
The main driver for the recent narrowing of the leverage-default gap has been a recovery in earnings. Debt generally grew faster than EBITDA for most of 2012-2015 before moving in line in 2016 (see chart 3). The EBITDA trend is similar to that we found in our industry trend studies (see Related Research [3]). In addition to the improving global economy, the EBITDA pickup could include a payoff (with a lag) from capital expenditure (capex) made several years ago (see Related Research [4]). With EBITDA recovering in 2016, and still relatively low interest rates, the leverage ratios of the sample pool is likely to have moderated further in 2017.

While the leverage position has improved from 2015, it's no better than pre-crisis 2007; in fact, it's marginally worse.

Chart 3

Earnings And Debt Growth Moving In Tandem In 2016 And 2017...

Global corporates: Debt, earnings, and revenue growth; ratios, 2012 to 2017

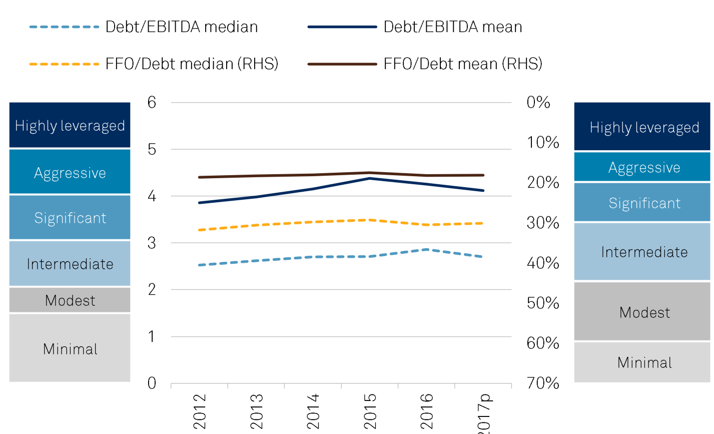


p – projected. For details and sources, see chart 2 footnote.

Chart 4

... Helping Steady Corporate Leverage

Global corporates: Leverage ratios (BIS-reweighted), 2012 to 2017



p – projected. Above includes real estate and utilities. For details and sources, see chart 2 footnote.

While debt to EBITDA globally has eased since 2015 (see chart 4), the sum-weighted average has still risen over the2012-2017 period back to 2009 levels and in line with our aggressive category of 4x-5x debt-to-EBITDA ratios. From a median borrower count standpoint, debt-to-EBITDA has risen more sharply since 2012, albeit from a much lower level, and now stands about 0.3x above where it was in 2009.

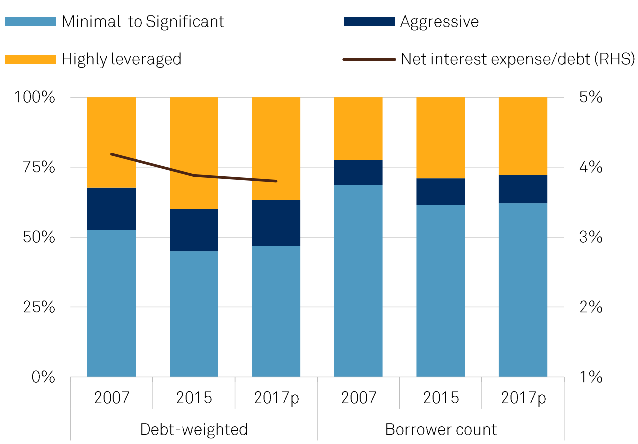
...But Distribution Is Still Worse

If we drill down from the mean and median level into the mix of risk, we see some deterioration in the distribution of risk since 2007. The proportion of highly leveraged (riskiest of six risk categories) has increased for leverage ratios (see chart 5), whether on a debt-weighted or borrower count basis. The fastest-growing and largest contributor to the highly leveraged ratio over the 10 years has been China (see chart 6).

Chart 5

Leverage Worsens Over Past Decade...

Global corporates: Debt-weighted (BIS) and borrower leverage distribution, 2011, 2015, and 2017

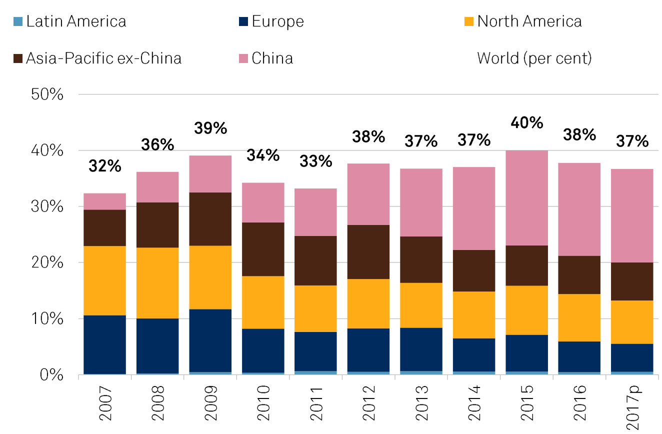


p – projected. For details and sources, see chart 2 footnote.

Chart 6

...Driven Largely By The Debt Boom In China

Regional corporates: Contribution (BIS-reweighted) to global highly leveraged ratio



p – projected. For details and sources, see chart 2 footnote.

Profit Cycle May Be Topping

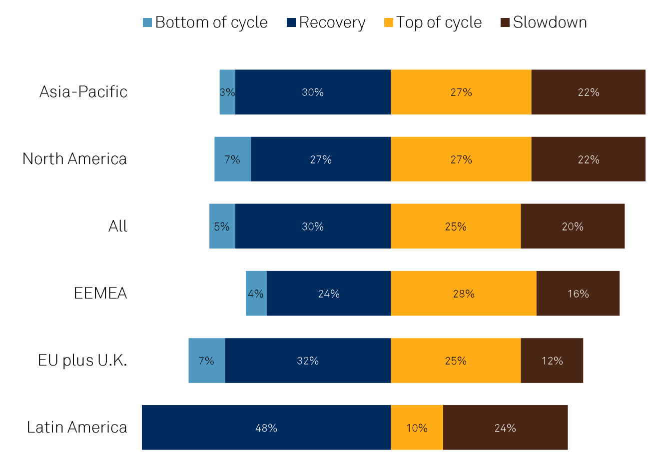
We recently asked 323 S&P Global Ratings' corporate analysts across all major regions to answer several credit-related questions including: What stage of cycle is your industry in? (see charts 7 and 8, and Related Research [5]). Analysts identified the consumer cyclicals (autos, media, retail), real estate, and technology sectors as being latest in the cycle overall. Retailing, media, and autos ranked highest among sectors considered to be already in a slowdown. Oil and gas, metals and mining and capital goods were seen as early in their cycle.

We assess consumer cyclicals, real estate, and technology as being latest in the cycle overall.

Chart 7

Most Of The World Is Averaging Top Of Cycle...

Regional: What stage of cycle is your industry in?

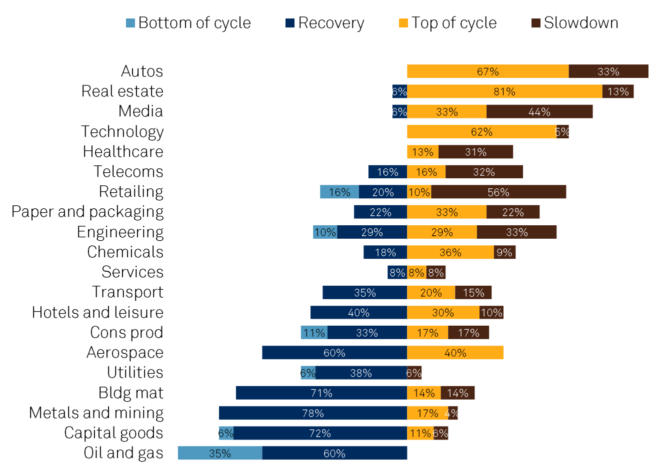


EEMEA – East Europe. Middle-East, Africa. EU – European Union. Chart percentages do not include 'not applicable' or 'stay the same' responses, so percentages will not sum to 100%. Source: S&P Global Ratings' internal global corporate analyst survey 2018.

Chart 8

...With Consumer Cyclical Sectors Most Likely To Face A Downturn

Industry: What stage of cycle is your industry in?



Bldg Mat – building materials; Cons Prod – consumer products; Services – business and consumer services. Chart percentages do not include 'not applicable' or 'stay the same' responses, so percentages will not sum to 100%. Source: S&P Global Ratings' internal global corporate analyst survey 2018.

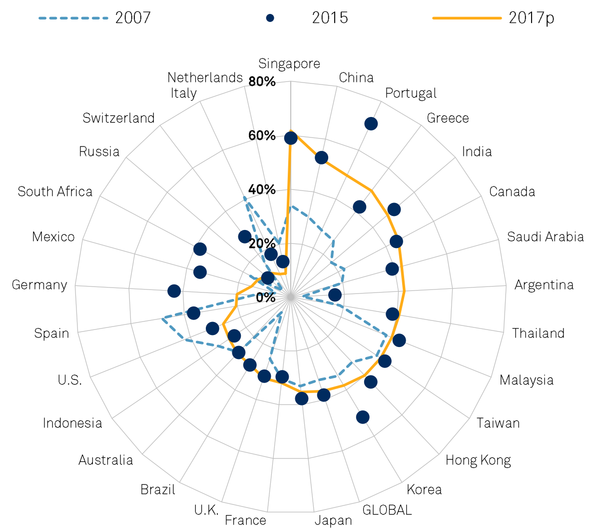
While there are clearly differences by industry and geography, our overall view is that corporates globally are at the top of the cycle considering the weight of debt in Asia-Pacific and the U.S.

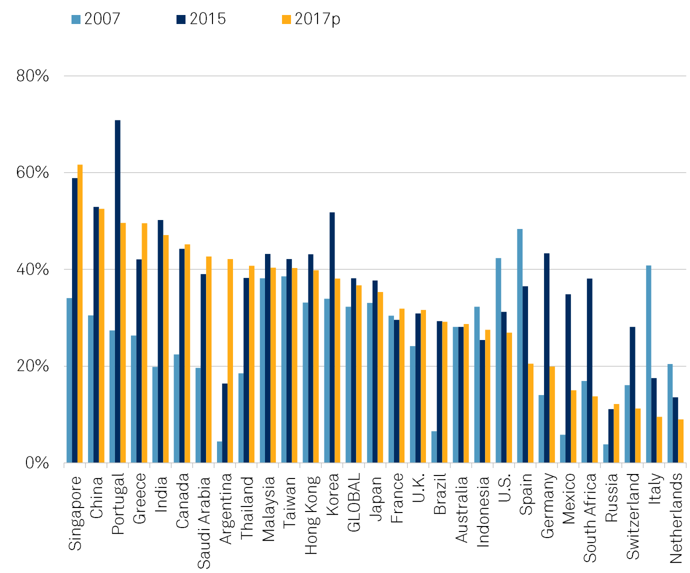
From our sampling, we note that corporates in the emerging markets (such as emerging market-dependent Singapore, China, India, Saudi Arabia, and Argentina) increased their ratio of highly leveraged companies during the past decade (see chart 9). In contrast, many developed markets more or less held or slightly reduced their highly leveraged ratios. In terms of industries sampled, infrastructure, capital goods, and building materials remain the most indebted (see chart 10). Oil and gas, metals and mining, and telecommunication doubled their highly leveraged ratios over 2007-2017 although admittedly from relatively low levels.

Chart 9

Emerging Markets Had Driven Leverage...

Global corporates: Highly leveraged ratios by country, 2007, 2015, and 2017p



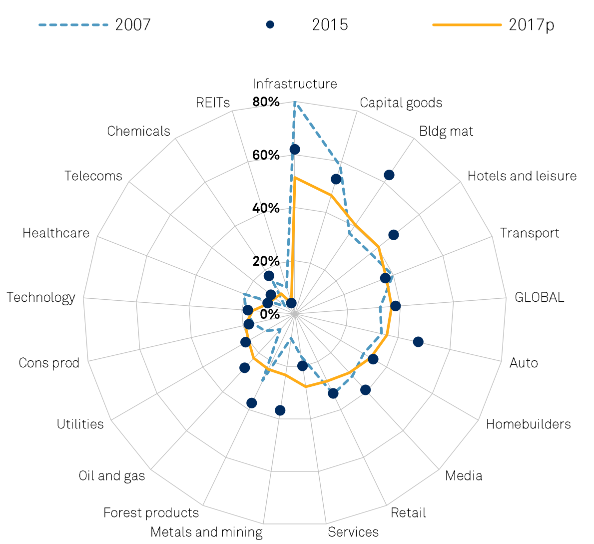


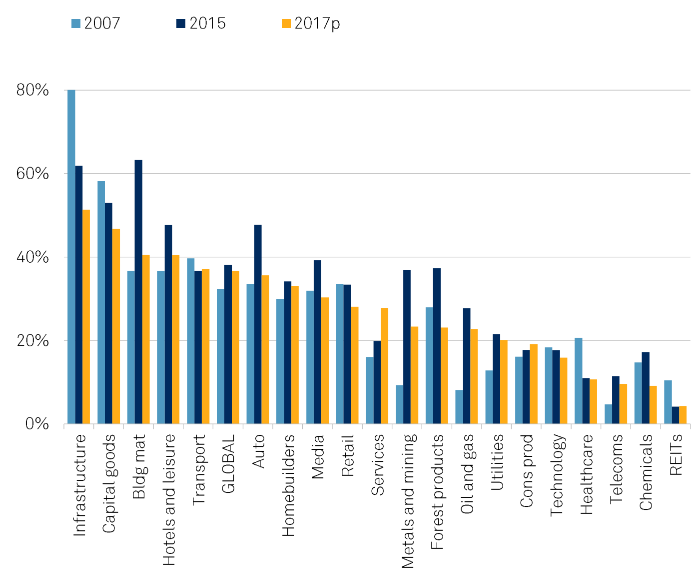
p – projected. For details and sources, see chart 2 footnote.

Chart 10

... While There Has Been Some Rebalancing Among Industries

Global corporates: Highly leveraged ratios by industry, 2007, 2015, and 2017p





p – projected. For details and sources, see chart 8 footnote.

China Increasingly Drives Global Leverage

China is no. 1 in driving leverage as the weight of China's corporate debt grows inexorably (see chart 11). The growth is driven by both China's GDP expansion and the propensity of government-related entities to borrow (rather than raise equity) over the past decade. We see this imbalance as a continuing risk to global credit conditions (see Related Research [6]).

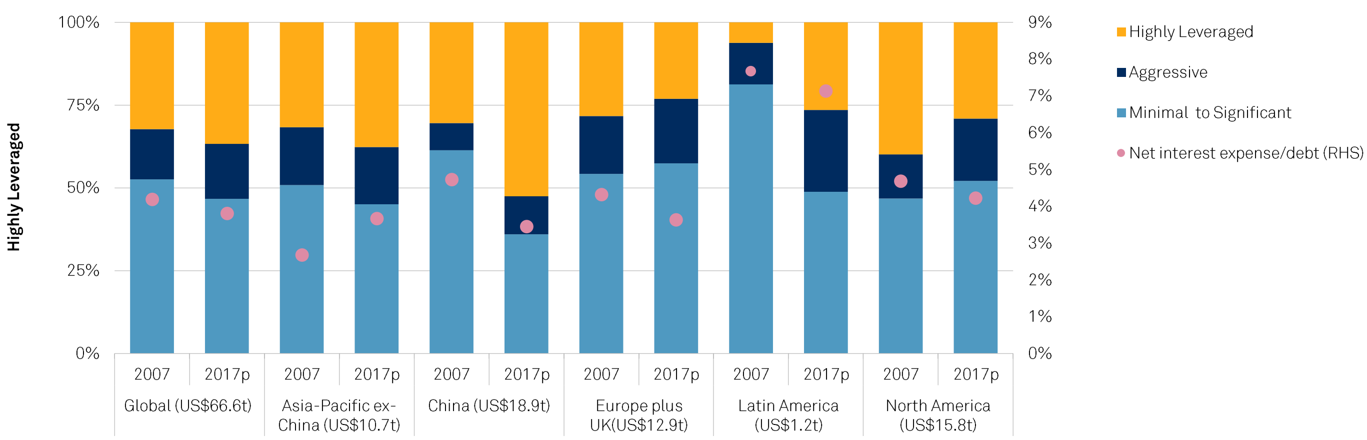
According to the BIS (see charts 11 and 12), China's corporate debt of US$18.9 trillion (including government-related enterprise debt) at June 2017 represents 28% of the world's total, more than double the level in 2009. Asia-Pacific ex-China and Latin America also contributed to the worsening, while North America and Europe improved. The net interest expense-to-adjusted debt ratio for the global sample declined slightly to 3.8% in 2017 from 4.2% in 2012. This was primarily driven by declines in rates in Europe, China, and North America.

The China corporate debt overhang imbalance is a risk to global credit conditions.

Chart 11

China's Higher Leverage Worsens Global Average

Global corporates: Leverage distribution (BIS-reweighted) by region, 2007 versus 2017

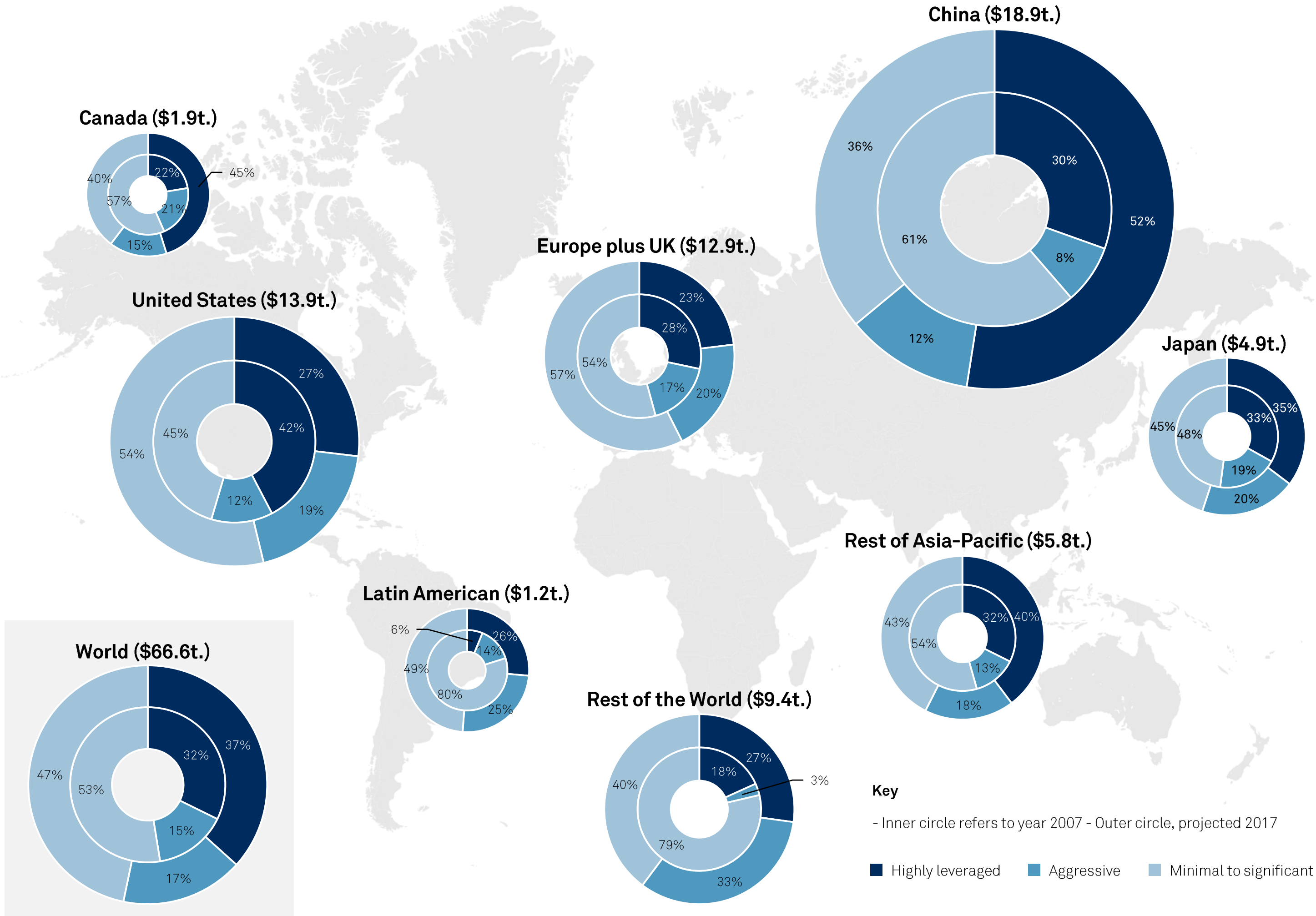


p – projected. For details and data sources, see chart 2 footnote.

Chart 12

China's Corporate Debt Size And Quality Poses A Credit Conditions Risk

Global corporates: Leverage distribution (BIS-reweighted) by region, 2007 versus 2017



p – projected. BIS – Bank for International Settlements. EBITDA – earnings before interest, tax, depreciation and amortization. FFO – funds from operations (EBITDA less net interest expense less tax). Leverage percentages are debt-weighted averages of debt-to-EBITDA and FFO-to-debt risk categories for a sample of nonfinancial corporates. Debt is reweighted based on BIS country data. Other ratios computed from the sample. Data source for sample financials: S&P Global Market Intelligence. Data source for debt amount (weights): BIS. Other data source: S&P Global Ratings.

China

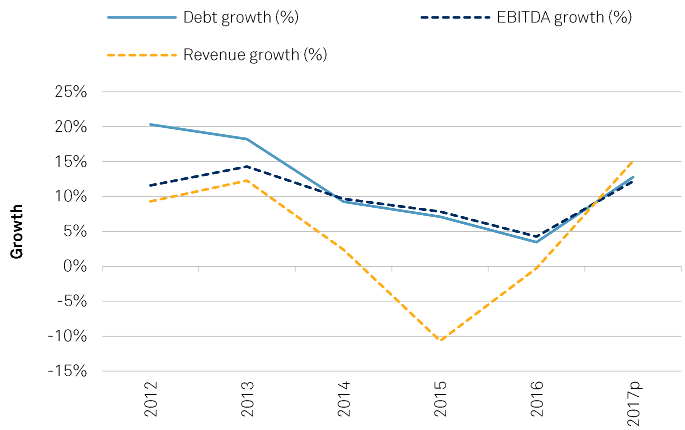
Terry Chan, Melbourne +61-3-9631-2174 terry.chan@spglobal.com

China's blistering debt growth since 2009 has increased systemic financial risks. Right now, we think the growth trend appears to be at an inflexion point. The central government's efforts to curb the surging leverage of state-owned enterprises and local government financing entities (LGFEs) should start to bear fruit. As the economy rebalances more towards consumption from heavy-industry investment, household debt will likely rise faster than corporate and government sector debt (see Related Research [7]).

Chart 13

China: Recent Earnings Rebound...

China corporates: Debt, earnings, and revenue growth;2012 to 2017

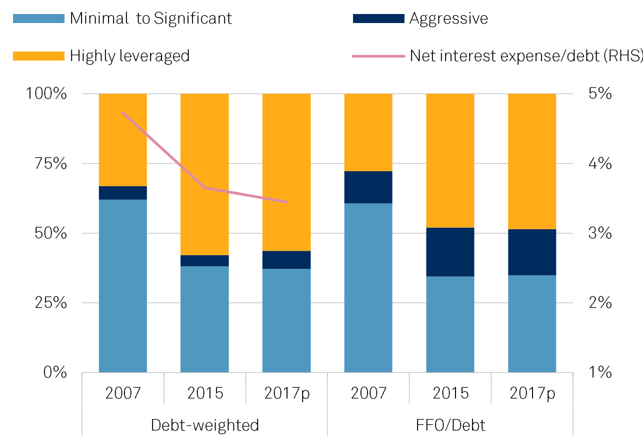


p – projected. For details and data sources, see chart 2 footnote.

Chart 14

...Steadies (But Not Improve) Leverage Levels

Chinese corporates: Debt/EBITDA and FFO/Debt distribution, 2007, 2015, and 2017



p – projected. For details and data sources, see chart 2 footnote.

We estimate that China's debt-hungry corporates account for a whopping 49% of the country's debt in 2017. Government debt (inclusive of LGFEs) makes up 29%, and households, the remaining 22%. The large corporate debt load relates to the former investment-heavy economic development model that the Chinese government has adopted. In our base case, we assume the government's deleveraging directives will rein in credit growth to a much slower rate.

China's debt, EBITDA, and revenue growth rates for 2012 to projected 2017 are much more volatile than global ones (see chart 13). This reflects the cyclical nature of debt-funded capital expenditure. Compared with the global distribution, China has much higher percentages of debt-to-EBITDA and funds from operations (FFO)-to-debt ratios by category in the most risky category (highly leveraged). But there has been some easing.

Economics

Can China Close Its Credit Gap Without A Painful Adjustment?

Paul Gruenwald, Singapore +65-6216-1084 paul.gruenwald@spglobal.com

(Editor's Note: The views expressed in this section are those of S&P Global Ratings' economics team. While these views can help to inform the rating process, sovereign and other ratings are based on the decisions of ratings committees, exercising their analytical judgment in accordance with publicly available ratings criteria.)

It has become increasingly acknowledged, even in Chinese official circles, that credit and debt are reaching unsustainable levels: that is, China has a credit gap (see Related Research [8]). However, there is disagreement about the urgency of tackling this gap, with the Chinese authorities more sanguine about the likely pain involved than many external observers. In our view, the paths to smoothly resolving the credit gap or not depend on two variables: the size of the gap and, more important, the amount of time the authorities have to correct any deviations. Using a simple simulation model, we show that the views of both camps are plausible. But which path ultimately prevails will depend in large part on the reform efforts of the authorities. (see Related Research [8]).

Asia-Pacific Ex-China

Terry Chan, Melbourne +61-3-9631-2174 terry.chan@spglobal.com

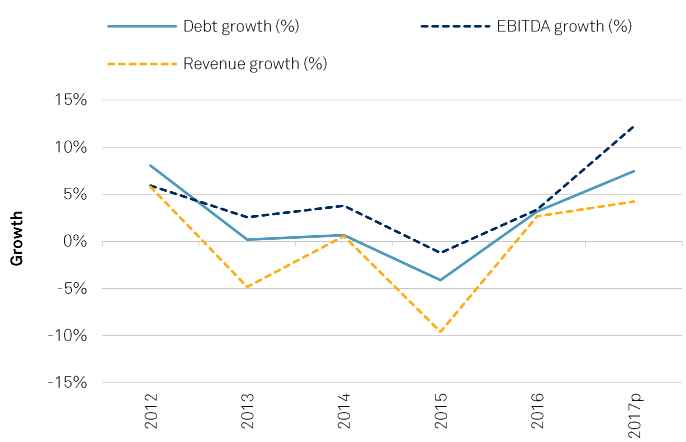
We expect Asia-Pacific countries to continue expanding their GDPs. The domestic and cross-border financing environment is still favorable--albeit with some tightening--indicating improving credit conditions than those a year ago. However, tail risks have become fatter. Conflict (North Korea), political, and trade (Trump) risks, while ebbing and flowing, remain. Meanwhile, the region's asset prices continue to climb. Taken together, the risk of investors pulling back liquidity, particularly from the region's emerging markets, is still building up. (see Related Research [9]).

Let's look at the annual growth rates of debt, EBITDA and revenue for 2012 to projected 2017 for Asia-Pacific ex-China (see chart 15) and the distributions of the debt-to-EBITDA and FFO-to-debt ratios for the region by category (see chart 16). Compared with the global distribution, Asia-Pacific ex-China tends to have slightly higher percentages in the more risky categories although there has been a slight easing over recent fiscal years. (The Asia-Pacific ex-China sample comprises Australia, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, and Thailand).

Chart 15

Asia-Pacific Ex-China: Earnings Rebound...

Asia-Pacific ex-China corporates: Debt, earnings, and revenue growth; 2012 to 2017

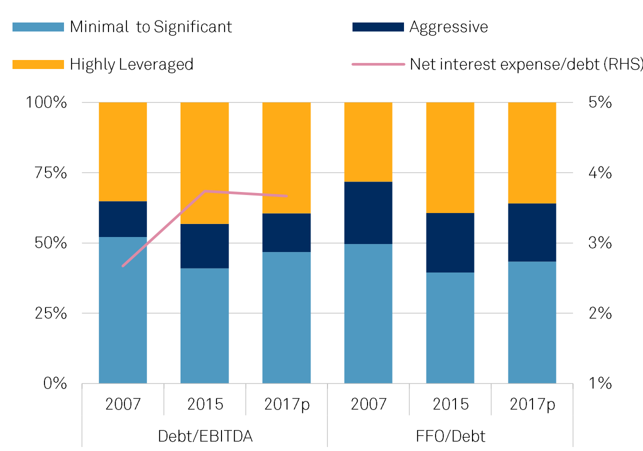


p – projected. For details and data sources, see chart 2 footnote.

Chart 16

...Helps Improve Leverage Levels

Asia-Pacific ex-China corporates: Debt/EBITDA and FFO/Debt distribution, 2007, 2015, and 2017



p – projected. For details and data sources, see chart 2 footnote.

Europe

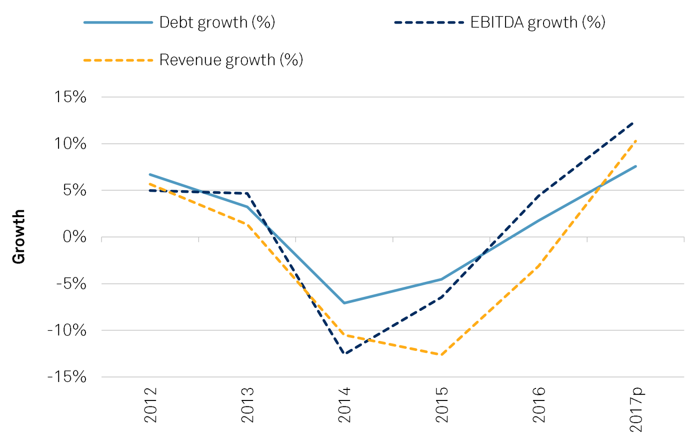
Gareth Williams, London +44-20-7176-7226 gareth.williams@spglobal.com

The European non-financial corporate sector will enter 2018 with favorable tailwinds in the form of a Eurozone economic recovery that has finally taken hold in tandem with a synchronized global upturn. There seems little prospect of the European Central Bank (ECB) tightening monetary policy while inflation remains quiescent and there is still considerable slack in most of the region's economy (apart from Germany). European interest rates are likely to remain unchanged at exceptionally low levels until late 2019 and, although the pace of ECB quantitative easing will moderate through 2018, this should remain a powerful underpinning factor for financial markets and corporate credit quality. (see Related Research [10])

Chart 17

Europe: Recent Earnings Rebound...

European corporates: Debt, earnings, and revenue growth; 2012 to 2017

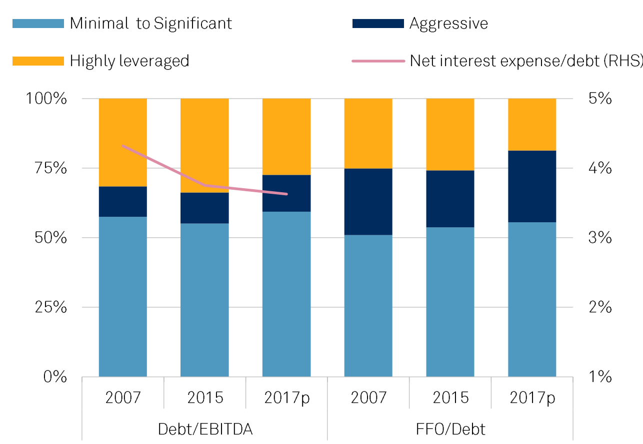


p – projected. For details and data sources, see chart 2 footnote.

Chart 18

...Helps Slightly Improve Leverage Levels

European corporates: Debt/EBITDA and FFO/Debt distribution, 2007, 2015, and 2017



p – projected. For details and data sources, see chart 2 footnote.

Against this backdrop, we estimate that all nonfinancial European sectors will see positive--albeit modest--revenue growth in the year ahead. Encouragingly, contained labor and other input cost pressures suggest that profit margins will for the most part move higher too, a welcome break from a period of sustained margin pressure and implying an upturn in EBITDA growth.

We compared the debt, EBITDA, and revenue growth rates for 2012 to projected 2017 for Europe (see chart 17) and the distributions of the debt-to-EBITDA and FFO-to-debt ratios by category (see chart 18). The percentages in the riskier categories are lower than the global ones, implying average financial risk is slightly lower. There has also been some easing in the level of the riskiest category (highly leveraged) over the recent years. (The Europe sample comprises France, Germany, Greece, Italy, Netherlands, Portugal, Russia, Spain, Switzerland, and the U.K.).

Latin America

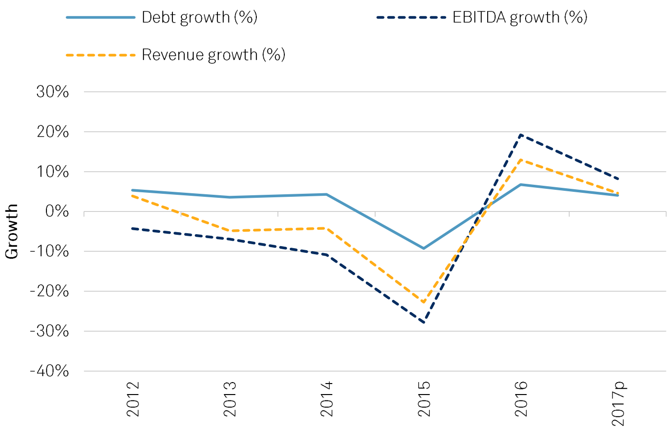
Diego H Ocampo, Buenos Aires +54-114-891-2116 diego.ocampo@spglobal.com

We expect moderate growth in 2018 for the region, with downside risks from elections and policy reforms. Leverage for Latin American (LatAm) corporations should improve in 2018 along with cash flow, with a few exceptions. Commodity prices should remain supportive of producers' credit qualities, with pulp and copper prices likely the most favored. The record amount of issuances in 2017 will still result in minimal refinancing risk over the next five years. Market conditions may recede a bit in 2018 due to lower refinancing needs, increasing yields, and the uncertainties surrounding upcoming elections. (see Related Research [11])

Chart 19

Latin America: Recent Earnings Rebound...

Latin American corporates: Debt, earnings, and revenue growth; 2012 to 2017

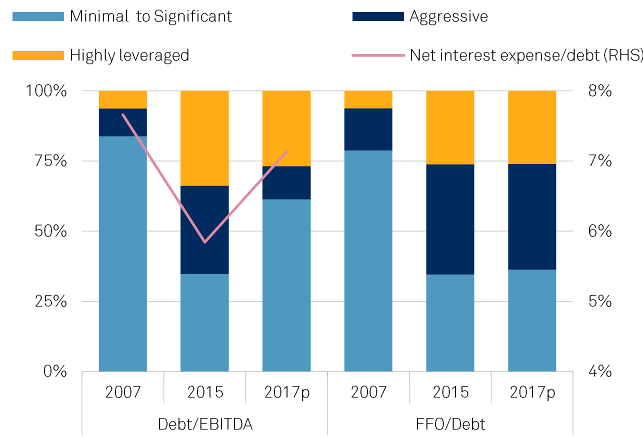


p – projected. For details and data sources, see chart 2 footnote.

Chart 20

...Improves Leverage Dramatically

Latin American corporates: Debt/EBITDA and FFO/Debt distribution, 2007, 2015, and 2017



p – projected. For details and data sources, see chart 2 footnote.

The debt, EBITDA, and revenue growth rates for 2012 to projected 2017 for LatAm are more volatile than global ones (see chart 19). For the distributions of the debt-to-EBITDA and FFO-to-debt ratios by category (see chart 20), the percentages in some of the more risky categories are higher than the global ones, implying average risk is somewhat worse. (The LatAm sample comprises Argentina, Brazil, and Mexico).

North America

David C Tesher, New York +1-212-438-2618 david.tesher@spglobal.com

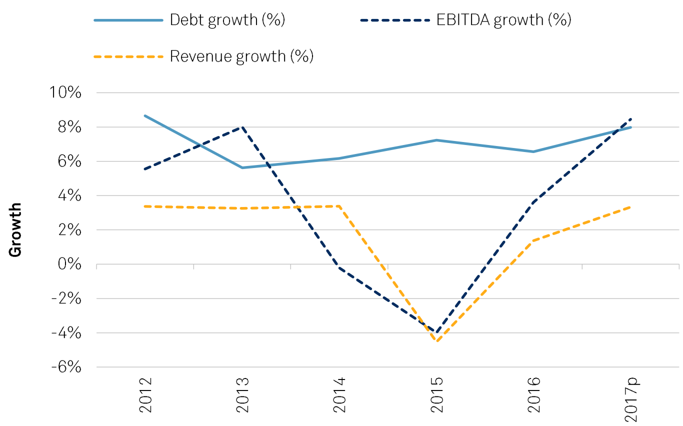
The economic picture is the brightest it has been in a while, but we think the broadly favorable economic landscape at present will have limited positive effects on U.S. corporate credit metrics. Comprehensive and permanent U.S. tax reform (see Related Research [12]) could help extend the credit cycle. Our sector outlooks on corporate borrowers are largely stable, with exceptions. Since third-quarter 2017, the outlook on consumer products, oil and gas, and merchant power is somewhat stronger. We continue to have negative outlooks on retail and health care services.

Total new debt volume through Dec. 1, 2017, was up almost 3% from the year-earlier period. Whether this stems from so-called animal spirts, optimistic economic data, or the promise of tax reform is unclear. The low cost of borrowing has enabled companies to pursue some of the largest-ever debt-financed deals, including mergers and acquisitions (M&A). Although U.S. M&A volumes have now declined for two consecutive years, deal-making prospects for 2018 could amplify in conjunction with meaningful corporate tax reform. (see Related Research [13]

Chart 21

North America: Recent Earnings Rebound...

North American corporates: Debt, earnings, and revenue growth; 2012 to 2017

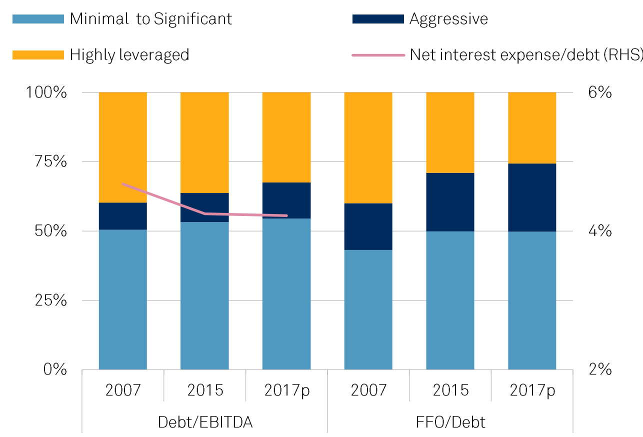


p – projected. For details and data sources, see chart 2 footnote.

Chart 22

...Helping Stabilize Leverage Levels

North American corporates: Debt/EBITDA and FFO/Debt distribution, 2007, 2015, and 2017



p – projected. For details and data sources, see chart 2 footnote.

Our projections of debt, EBITDA, and revenue growth rates for 2012 to projected 2017 for North America are slightly less volatile than global ones (see chart 21). The distribution of debt-to-EBITDA and FFO-to-debt ratios by category (see chart 22) imply a slightly less-risky portfolio than the global ones. (The North America sample comprises Canada and the U.S.).

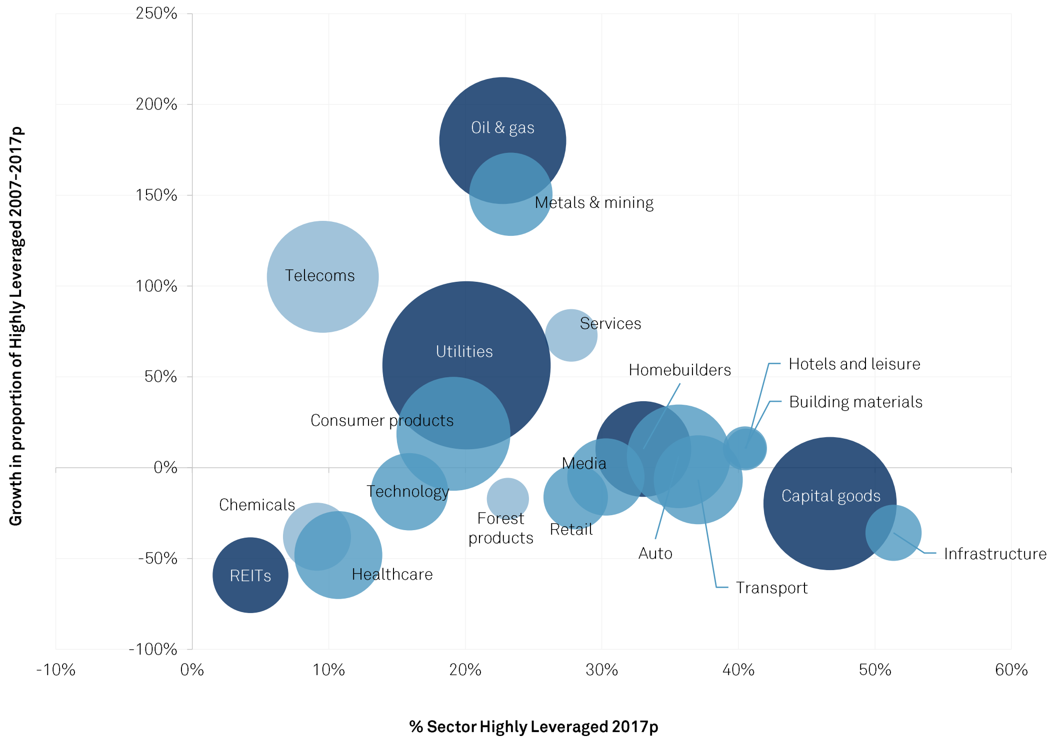
A Rebalancing Of Industries

Among the 20 industries sampled, we found that there has been a rebalancing among the industries in terms of highly leveraged ratios. The most heavily indebted industries (i.e. largest highly leveraged ratios) of infrastructure, capital goods, building materials, and hotels and leisure either maintained or decreased their leverage over the past decade (see chart 23). On the flipside, oil and gas, metals and mining, and telecommunication had doubled their highly leveraged ratios over the same period, albeit they started off with relatively low ratios.

Chart 23

Most Highly Leveraged Sectors Reduce But Lowly Geared Sectors Increase

% of industry sectors highly leveraged and change since 2007



p – projected. BIS – Bank for International Settlements. EBITDA – earnings before interest, tax, depreciation and amortization. FFO –funds from operations. Percentages are averages of the risk classification percentages of computed debt-to-EBITDA and FFO-to-debt ratios of a debt-weighted sample of corporates in each industry. Auto –automotive; Forest products – forest and paper products; Homebuilders –homebuilders and developers; Hotels & leisure – hotels, gaming and leisure; Infrastructure – transportation infrastructure; REITs – real estate investment trusts; Services – business and consumer services; Technology – information technology; Telecoms – telecommunications; Transport – transportation cyclical. Data source for sample financials: S&P Global Market Intelligence. Data source for debt weights: BIS. Other data source: S&P Global Ratings.

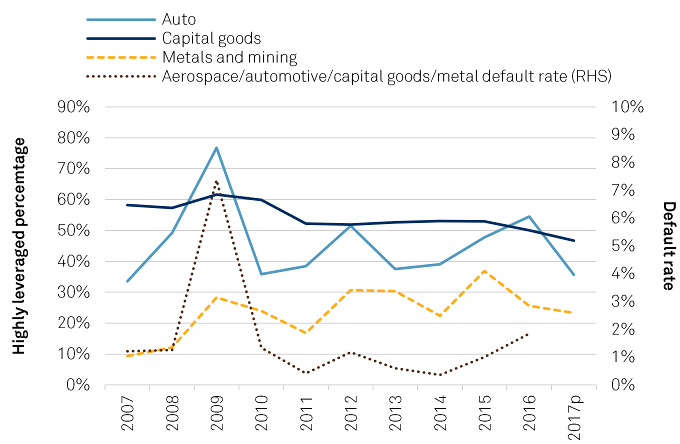
Aerospace, Auto, Capital Goods, Metals And Mining, And Oil And Gas

The highly leveraged ratio for the automotive corporate sample has been quite volatile over the past decade although it is projected to have ended 2017 at a level similar to 2007 (see chart 24). The highly leveraged ratio percentage for capital goods (includes aerospace) has improved (declined). In contrast, the ratios for metals and mining (see chart 24) and oil and gas (see chart 25) worsened (increased). The default rate for the combined aerospace, automotive, capital goods, and metals and mining sector (see chart 24) peaked during the Global Financial Crisis in 2009. The default rate for energy and natural resources hit a high in 2016 (see chart 25); it is likely to be lower in 2017, although still higher than most other sectors (see Related Research [2]).

Chart 24

Auto, Capital Goods And Metals Highly Leveraged Ratios Converge...

Auto, capital goods, and metals: Highly leveraged ratios and default rates, 2007 to 2017

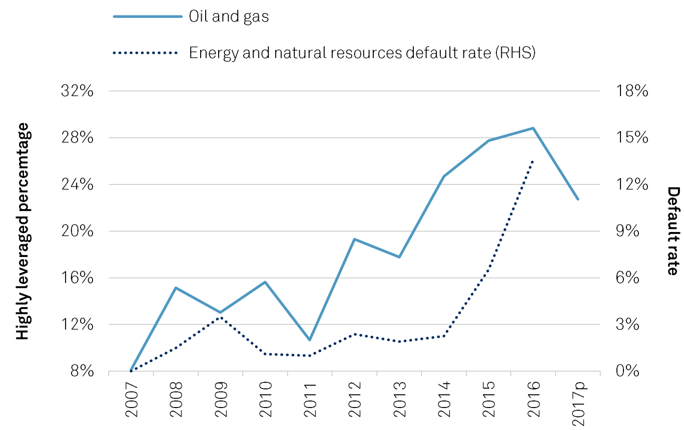


p – projected. For details and data sources, see chart 2 footnote.

Chart 25

...But Oil And Gas Highly Leveraged Trend A Concern

Oil and gas: Highly leveraged ratios and default rates, 2007 to 2017



p – projected. For details and data sources, see chart 2 footnote.

Aerospace And Defense

Christopher A Denicolo, CFA, Washington D.C. +1-202-383-2398 christopher.denicolo@spglobal.com

We expect that the credit ratios of global aerospace and defense companies will improve in 2018 on moderate revenue growth and higher margins, although this improvement will likely be constrained by the large U.S. defense contractors (which will return most of their cash to their shareholders) and the impact of certain debt-financed acquisitions. (see Related Research [14]).

Automotive

Vittoria Ferraris, Milan +39-02-72-111-207 vittoria.ferraris@spglobal.com

Steady credit metrics are likely in 2018, despite auto manufacturers increasing R&D spending and capex to comply with environmental regulation and to protect their competitive position vs. peers in the supply of a wide range of electrification options. Slightly improving forecasts for suppliers are reflective of both the benefits of cost-reduction measures over the past few years and the acceleration of electrification, which is likely to result in higher content per car in the next two to three years. (see Related Research [15]).

Capital Goods

Tuomas Erik Ekholm, CFA Frankfurt +49-69-33999-123 tuomas.ekholm@spglobal.com

We expect the positive performance in the majority of end markets to lead to higher capex, particularly on new equipment, which will help buoy companies' revenues, as well as their profits. On aggregate, we anticipate a modest improvement in credit metrics, with ratios of FFO to debt increasing to 36.4% and debt-to-EBITDA remaining at 2x on average over the next 12 months, with pressure on ratings easing further. However, ratings will likely remain under pressure for companies that concentrate on certain industries or segments, for example, oil and gas, where we do not expect a fast recovery, despite recent price increases (see Related Research [16]).

Metals And Mining

Diego H Ocampo, Buenos Aires +54-114-891-2116 diego.ocampo@spglobal.com

Our base-case assumptions result in credit measures gradually strengthening in 2018 for upstream and downstream producers. Modestly lower net debt is the driving force behind the improvement, given our relatively flat price and output expectations. Given the cyclical and unpredictable nature of the industries, we also assess the potential rating impact of deviations from our base case projections. (see Related Research [17]).

Oil And Gas

Thomas Watters, New York +1-212-438-7818 thomas.watters@spglobal.com

Given the outlook for hydrocarbon prices, we don't expect significant increases in credit ratios for the sector. Cash generation will generally trend upward, with capex remaining moderate. Decisions about shareholder returns--and any acquisitions and disposals--are likely to be as important for debt levels. (see Related Research [18]).

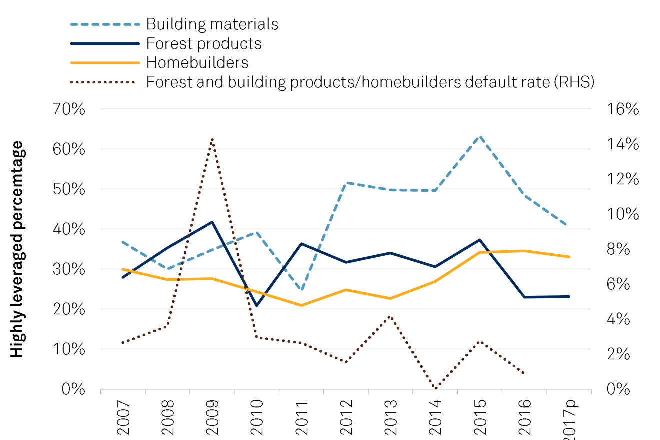
Building And Forest Products, Homebuilders, And REITS

The highly leveraged ratio for the forest products corporate sample improved (decreased) slightly, while that for real estate developers worsened (increased) slightly (see chart 26). More concerning is the significant worsening of the ratio for building materials. In contrast, the ratio for real estate investment trusts (REITs) improved decreased substantially (see chart 27). Both default rates for the combined building and forest products, and homebuilders sector (see chart 26) and real estate (see chart 27) peaked during the Global Financial Crisis in 2009.

Chart 26

Building Materials' Highly Leveraged Higher While Forest Products And Homebuilders Flattish...

Building and forest products, and homebuilders: Highly leveraged ratios and default rates, 2007 to 2017

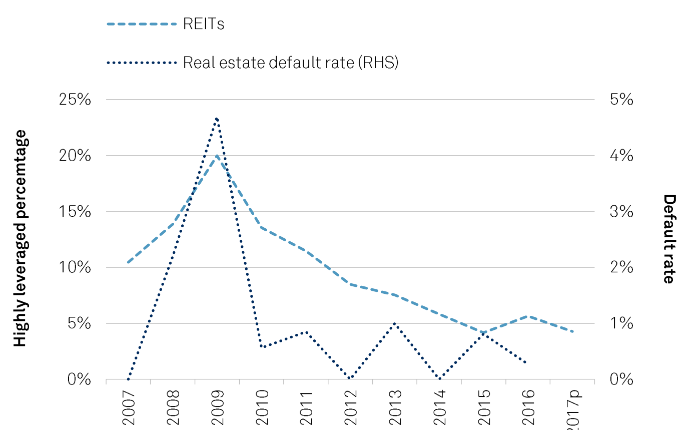


p – projected. For details and data sources, see chart 2 footnote.

Chart 27

...While REIT Investors Turn Conservative, With Highly Leveraged Declining

Real estate investment trusts: Highly leveraged ratios and default rates, 2007 to 2017



p – projected. For details and data sources, see chart 2 footnote.

Building Materials

Renato Panichi, Milan +39-02-7211-1215 renato.panichi@spglobal.com

Credit ratios are likely to improve modestly in 2018, reflecting improving operating leverage and moderately positive price movement. We believe that a recent increase in commodity costs should be absorbed through pricing and cost efficiency, thus limiting any significant negative impact on margins. (see Related Research [19]).

Homebuilders

Maurice Austin, CPA New York +1-212-438-2077 maurice.austin@spglobal.com

Globally, we expect improving demand, supporting some sales growth. In the U.S., we anticipate stable demand and a tight supply of new homes, supported by S&P Global Ratings' economic forecast for 1.3 million U.S. housing starts. Within Asia-Pacific, property developers' credit metrics are diverging. In China, we expect the high cost of land to constrain margins. Sales growth also faces the risk of slowdown. We expect stable credit metrics for Indonesian developers with satisfactory sales and manageable debt maturities. A robust backlog, growing revenues, and healthy planned deliveries should sustain European homebuilders' credit ratios in 2018. (see Related Research [20]).

Real Estate Investment Trusts And Operating Companies

Ana Lai, CFA New York +1 212 438 6895 ana.lai@spglobal.com

Overall, we expect steady economic growth and positive demographic and employment trends to support real estate demand in most markets, while supply conditions remain fairly benign across most property types. In the U.S., operating fundamentals are slowing, and we expect rent growth to decelerate with occupancy fairly stable. For REITs and operating companies in EMEA, we expect overall positive rent growth as a result of sustained economic recovery. Most REIT managers in Asia-Pacific are likely to maintain moderately conservative financial risk metrics. This creates a large rating buffer to withstand debt-funded growth and economic shocks. In LatAm, defensive portfolios imply solid operating and financial metrics. (see Related Research [21]).

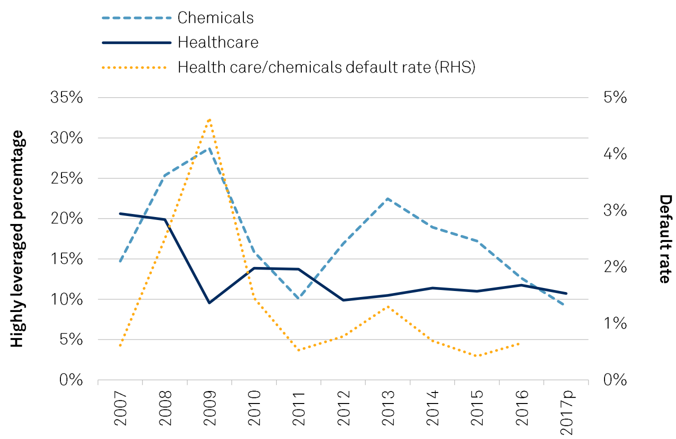
Chemicals, Consumer Products And Healthcare

The highly leveraged ratio for the chemicals corporate sample has been slightly volatile over the past decade although it is likely to have ended 2017 at a better (lower) level than 2007 (see chart 28). The ratio for the healthcare and pharmaceuticals improved (decreased) between 2007 and 2012 before stabilizing. In contrast, the leverage trend for consumer products and business and commercial services had been volatile and is likely to have finished in 2017 higher than in 2007, particularly worrying for services (see chart 29). The default rates for the combined healthcare and chemicals sector and combined consumer and services sectors peaked in 2009 although the former had a small surge in 2013, and the latter in 2015.

Chart 28

Both Chemicals And Healthcare Highly Leveraged Trend Down...

Chemicals and healthcare: Highly leveraged ratios and default rates, 2007 to 2017

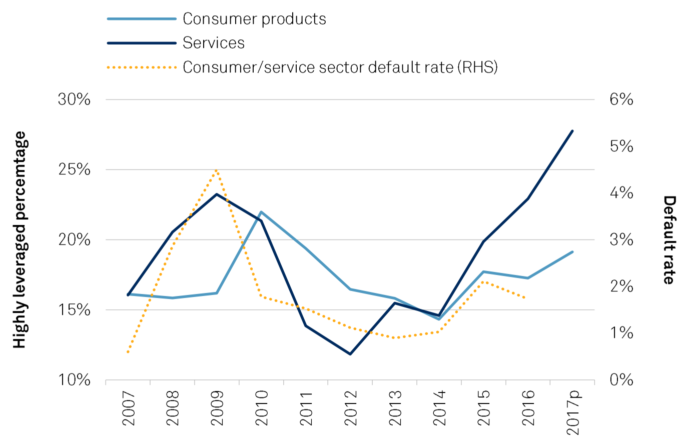


p – projected. For details and data sources, see chart 2 footnote.

Chart 29

...Whereas Consumer Products And Services' Highly Leveraged Rises

Consumer products, and services: Highly leveraged ratios and default rates, 2007 to 2017



p – projected. For details and data sources, see chart2 footnote.

Chemicals

Paul Kurias, New York +1-212-438-3486 paul.kurias@spglobal.com

We believe EBITDA margins will largely stabilize in 2018 following several years of improving margins. The flattening of margins is somewhat attributable to the increase in commodity chemical capacity. However, we forecast an increase in total revenue in 2018, which, when combined with flattish margins, generates increased total EBITDA. This higher EBITDA contributes to our expectation for slightly stronger credit metrics, including an improvement in the median FFO-to-total debt ratio in 2018. We project this improvement will occur across all major regions. (see Related Research [22]).

Consumer Products

Diane Shand, New York +1 212 438 7860 diane.shand@spglobal.com

Organic sales growth should stay in the low-single digits, driven by price/mix, innovation, and emerging markets. Margins may expand slightly because of M&A synergies, companies' cost-reduction programs, and management of pricing and promotions. Credit metrics should strengthen slightly because of companies' cost cutting and some debt repayment. (see Related Research [23]).

Healthcare

Shannan Murphy, Boston +1 617 530 8337 shannan.murphy@spglobal.com

Growth will be stable and margins flat, with pockets of weakness. On a consolidated basis, we expect the healthcare companies we rate to grow revenues about 4%-5% in 2018, which includes the impact of M&A. While operating trends for healthcare equipment and big pharma companies remain very stable, healthcare service companies face slowing organic growth next year, given likely soft patient volume, and we expect generic drug manufacturers to face another year of significant price deflation. Margins are broadly stable across the portfolio, with some deterioration among service providers (especially hospitals), as well as generic and some specialty pharma companies. (see Related Research [24]).

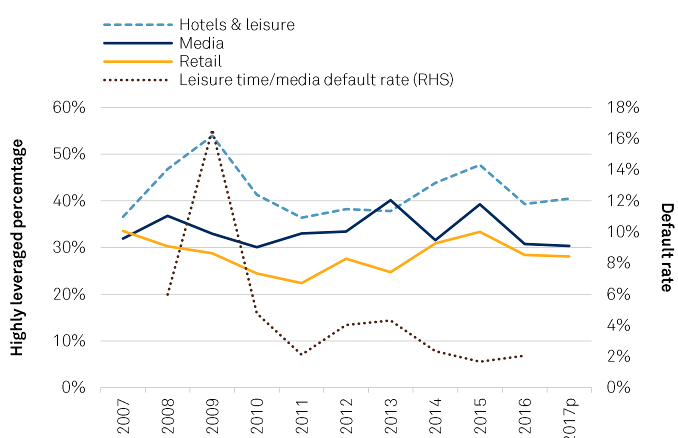
Hotels And Leisure, Media, Retail, Technology And Telecommunications

The highly leveraged ratios for the hotels and leisure, media and retail corporate samples have been relatively stable (albeit hotels and leisure is more volatile) (see chart 30). Meanwhile technology's ratio eases slightly (see chart 31). However, the leverage for telecommunications has trended up, albeit with volatility. The default rate for the combined leisure time and media sector peaked in 2009. Default rates of both the technology and telecommunications sectors had second highs; the former in 2014 and the latter in 2013.

Chart 30

Hotels And Leisure, Media And Retail's Highly Leveraged Ratio Relative Stable...

Hotels and leisure, and media: Highly leveraged ratios and default rates, 2007 to 2017

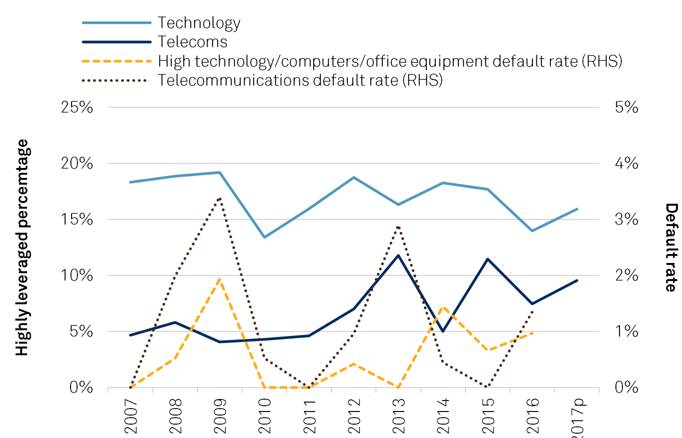


p – projected. For details and data sources, see chart 2 footnote.

Chart 31

...While Technology's Highly Leveraged Ratio Eases But Telecom's Rises

Technology and telecommunications: Highly leveraged ratios and default rates, 2007 to 2017



p – projected. For details and data sources, see chart 2 footnote.

Hotels, Gaming, And Leisure

Emile Courtney, New York +1 212 438 7824 emile.courtney@spglobal.com

The base-case forecast for modestly improving leverage in 2018 reflects modest revenue and EBITDA growth. But for many issuers, the forecast does not include opportunistic acquisitions and other unexpected leveraging events. (see Related Research [25]).

Media And Entertainment

Naveen Sarma, New York +1-212-438-7833 naveen.sarma@spglobal.com

Advertising spending is highly correlated to overall economic growth and consumer spending. In 2018, we expect mid-single-digit percentage growth in global ad spending, fueled by continued hyper growth in mobile ad spending. Traditional media ad spending will either slow down or decline, while growth in TV ad spending will vary by market, driven by cyclical events such as sports and elections. We also expect healthy TV ad spending growth in the U.S. and key European markets such as the U.K., Germany, and France due to cyclical events, particularly the Winter Olympics and FIFA World Cup. In Brazil, the FIFA World Cup, coupled with economic recovery, should also boost TV ad revenues in 2018. (see Related Research [26]).

Retail And Restaurants

Robert Schulz, CFA New York +1-212-438-7808 robert.schulz@spglobal.com

Overall, we expect mixed revenue growth--some companies or subsectors will experience revenue declines (negative same-store sales or store closings) while others will have revenue growth (favorable sector dynamics). Slow economic growth in the West will also constrain revenue growth for some. (see Related Research [27]).

Technology

Andrew Chang, San Francisco +1-415-371-5043 andrew.chang@spglobal.com

We expect hardware revenues to grow in the low-single digit percentages in 2018 as we anticipate improving sales in the smartphone, server, and enterprise networking equipment markets. Partially offsetting this growth will be the challenging prospects in storage hardware, reflecting the ongoing migration of corporate IT workloads to the public cloud from on-premise environments, and another year of decline, albeit decelerating, in the telecom networking equipment market. (see Related Research [28]).

Telecommunications

Madhav Hari, CFA Toronto +1-416-507-2522 madhav.hari@spglobal.com

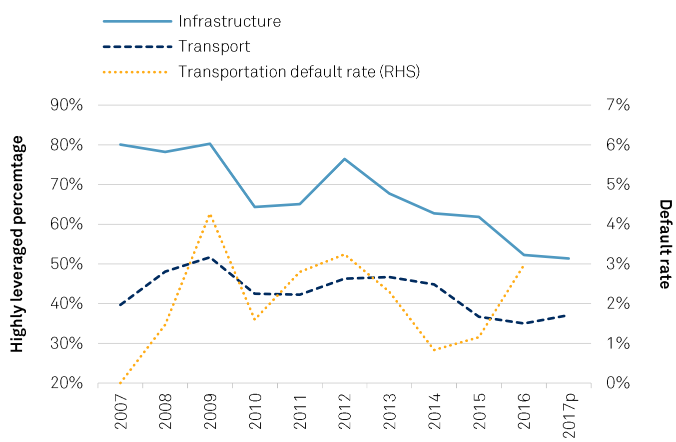
We project revenue growth to be flat or at a low single-digit percentage in more developed markets such as Canada, Western Europe, Japan, and Australia, and modest erosion in the U.S., reflecting market maturity, intense competition, and secular pressure in several wireline services. We believe cable companies in the U.S. and integrated telecom companies in Western Europe will post stronger growth than their peers. Developing markets in Asia-Pacific and LatAm should see higher (if slowing) growth versus other regions. We expect stable-to-improving profitability and free cash flow in most markets from cost controls and operating leverage. Credit metrics are likely to improve, given solid cash generation and operators' desire to bolster balance sheets. (see Related Research [29]).

Infrastructure, Transportation, And Utilities

The highly leveraged ratio of the global infrastructure corporate sample has steadily improved (declined) over the past decade (see chart 32). In contrast, the highly leveraged ratio for transportation is more cyclical, which is echoed in three cyclical highs of defaults in 2009, 2012, and 2016. For utilities, the highly leverage ratio rose to a peak in 2013 before improving (declining) (see chart 33). However, the ratio is still higher than it was in 2017. Its default rate peaked in 2012.

Chart 32

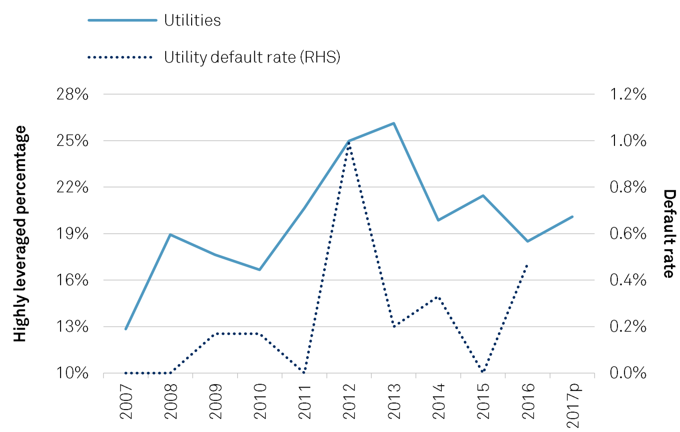
While Both Infrastructure And Transport's Highly Leveraged Ratio Improves...



p – projected. For details and data sources, see chart 2 footnote.

Chart 33

... That For Utilities Has Trended Up.



p – projected. For details and data sources, see chart 2 footnote.

Transportation

Philip Baggaley, New York +1-212-438-7683 philip.baggaley@spglobal.com

We expect continued moderate revenue growth, fairly stable margins, and credit ratios that are stable-to-modestly positive for global transportation companies over the next two years, with some variation by sub-sector. (see Related Research [30]).

Utilities

Karl Nietvelt, Paris +33-1-4420-6751 karl.nietvelt@spglobal.com

Mature markets should see low power demand growth, caused by important energy-saving trends (which is more than offsetting potential upside from electric vehicles) and the medium-term trend of more decentralized production. In contrast, growth markets, such as China and Latin America, should see robust single-digit growth in power demand in 2018. We generally foresee limited upside for power prices after some recovery took place in some markets last year on the back of the recovery in oil and gas and coal prices in 2017; U.S. power price levels remain constrained by continuing low U.S. gas prices. Over the medium term, the global rise in renewable capacities remains a structural headwind to price upside. (see Related Research [31]).

Related Research

[1] Default, Transition, and Recovery: 2016 Annual Global Corporate Default Study And Rating Transitions, April 13, 2017.

[2] Default, Transition, and Recovery: BIS Industries Brings The 2018 Global Corporate Default Tally To Four, Jan. 18, 2018

[3] Industry Top Trends 2018: Overview, Nov. 29, 2017

[4] Global Corporate Capital Expenditure Survey 2017, July 31, 2017

[5] Global Corporate Analyst Survey 2018, Dec. 11, 2017

[6] Global Credit Conditions Are Broadly Favorable Going Into 2018, Dec. 6, 2017

[7] Rising Profits Won't Rescue China's Riskiest Companies As Liquidity Tightens, Jan. 30, 2018

[8] Can China Close Its Credit Gap Without A Painful Adjustment? Oct. 9, 2017

[9] Asia-Pacific Credit Conditions November 2017: Better Prospects, Fatter Tail Risks. Nov. 30, 2017

[10] Credit Conditions: Hope Overcomes Fears As The Fundamentals Propel Europe Forward, Dec. 5, 2017

[11] Credit Conditions: Favorable Conditions In Latin America Should Remain, But Elections Loom, Nov. 30, 2017

[12] U.S. Tax Reform: An Overall (But Uneven) Benefit For U.S. Corporate Credit Quality, Dec 19, 2017

[13] Credit Conditions: North America November 2017: As Favorable Conditions Persist, All Eyes Are On Washington, Dec. 1, 2017

[14] Industry Top Trends 2018: Aerospace and Defense, Nov. 15, 2017

[15] Industry Top Trends 2018: Autos, Nov. 15, 2017

[16] Industry Top Trends 2018: Capital Goods, Nov. 15, 2017

[17] Industry Top Trends 2018: Metals and Mining, Nov. 13, 2017

[18] Industry Top Trends 2018: Oil and Gas, Nov. 13, 2017

[19] Industry Top Trends 2018: Building Materials, Nov. 15, 2017

[20] Industry Top Trends 2018: Homebuilders, Nov. 16, 2017

[21] Industry Top Trends 2018: Real Estate, Nov. 16, 2017

[22] Industry Top Trends 2018: Chemicals, Nov. 13, 2017

[23] Industry Top Trends 2018: Consumer Products, Nov. 14, 2017

[24] Industry Top Trends 2018: Healthcare, Nov. 16, 2017

[25] Industry Top Trends 2018: Hotels, Gaming and Leisure, Nov. 14, 2017

[26] Industry Top Trends 2018: Media and Entertainment, Nov. 14, 2017

[27] Industry Top Trends 2018: Retail and Restaurants, Nov. 14, 2017

[28] Industry Top Trends 2018: Technology, Nov. 16, 2017

[29] Industry Top Trends 2018: Telecommunications, Nov. 16, 2017

[30] Industry Top Trends 2018: Transportation, Nov. 15, 2017

[31] Industry Top Trends 2018: Regulated and Unregulated Utilities Jan. 26, 2018

Appendix

Notes

1. What do we mean by highly leveraged

In our opinion, cash flow/leverage analysis is the foundation for assessing a company's financial risk profile. We assess cash flow/leverage as (1) minimal; (2) modest; (3) intermediate; (4) significant; (5) aggressive; or (6) highly leveraged. To arrive at these assessments, we average the percentage assessments of two credit ratios: debt-to-earnings before interest, tax and depreciation and amortization expense (EBITDA) and funds from operations (FFO) -to-debt ratios. These ratios are debt-weighted. FFO is computed by deducting net interest expense and income tax expense from EBITDA. Adjusted debt is computed by deducting 75% of cash and equivalent from reported debt. For each ratio, there is an indicative cash flow/leverage assessment that corresponds to a specified range of values as shown in Table 1.

Table 1

Cash Flow/Leverage Analysis Ratio Thresholds

	Real Estate		Utilities		Other Sectors	
	FFO/debt (%)	Debt/EBITDA (x)	FFO/debt (%)	Debt/EBITDA (x)	FFO/debt (%)	Debt/EBITDA (x)
Minimal	Greater than 20	Less than 2.5	35+	Less than 2	60+	Less than 1.5
Modest	15-20	2.5-4.5	23-35	2-3	45-60	1.5-2
Intermediate	9-15	4.5-7.5	13-23	3-4	30-45	2-3
Significant	7-9	7.5-9.5	9-13	4-5	20-30	3-4
Aggressive	Less than 7	9.5-13	6-9	5-6	12-20	4-5
Highly leveraged		Greater than 13	Less than 6	Greater than 6	Less than 12	Greater than 5

Source: S&P Global Ratings' "Criteria | Corporates | General: Corporate Methodology," tables 17 and 19, Nov. 19, 2013; and "Criteria | Corporates | Industrials: Key Credit Factors For The Real Estate Industry," table 1, Nov. 19, 2013.

Admittedly, basing any analysis on two ratios is a simplification (for example it does not take into account other quantitative and qualitative factors) which is effectively a ceteris paribus (all other things being equal) assumption. To avoid under- or over- representing some countries, we have where appropriate re-weighted financial ratios using debt amounts as estimated by the Bank for International Settlements (“BIS-reweighted”).

2. Should we consider median or mean?

We would argue that both have their uses. Chart 5 shows the median ratios tend to be better than the mean ratios. In other words, a large number of small borrowers have lower leverage ratios than a small number of large borrowers – the former cohort causes the count-weighted median to be better than the mean and the latter cohort causes the debt-weighted means to be worse than the median. Conceptually, the median is important when we speak about the number of borrowers at risk (corresponding to default percentages) and the mean, the debt amount at risk (corresponding to nonperforming loan rates).