Global Corporate Capital Expenditure Survey 2013

Primary Credit Analyst:
Gareth Williams, London +44 (0)20 7176 7226; gareth.williams@standardandpoors.com

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Global Corporate Capital Expenditure Survey 2013

Capital expenditure (capex) has never seemed so important, nor controversial. Along with research and development, it is, ordinarily, the long-term lifeblood of many companies and a key determinant of the ability to generate cash flows to service debts. Capex is also hard to get right: excess or lack both bring their own risks in terms of cash flow, competitive position, and pricing power. What is true at the company level also applies at the broader, systemic level. Current perceptions of overinvestment in Asia and underinvestment in Europe are both examples of capex trends being linked to broader credit conditions.

In the current climate of austerity and deleveraging, capex has taken on a more controversial role. How much is being, and ought to be, spent is the subject of intense debate. This is particularly so given that many companies have been accumulating healthy cash balances and benefiting from declining effective corporate tax rates globally. Capex is therefore increasingly seen as an area where companies can give back these perceived benefits and contribute to boosting global demand.

Overview

- The global capex cycle appears to be stalling even before it has fully got under way. In real terms, capex growth for our sample of nonfinancial companies slowed in 2012 to 6% from 8% in 2011. Current estimates suggest that capex growth will fall by 2% in 2013. Early indications for 2014 are even more pessimistic, with an expected decline in real terms of 5%.
- Worldwide, capex growth has become increasingly reliant on investment in the energy and materials sectors. Together, these sectors account for 62% of capex in the past decade. This reliance creates risks. If the global commodity "super cycle" is fading, global capex will struggle to grow meaningfully in the near term. Sharp cutbacks in the materials sector are a key factor in the projected slowdown in capex for 2013 and 2014.
- North America has seen a resurgence in its share of global capex from a low of 24% in 2009 to a projected 36% share in 2013, which bodes well for its relative competitive position. Energy and material investment has been a major part of this turnaround. This contrasts with the long-declining share of Western Europe in global capex, which has slipped from one-third in 2003 to one-quarter in 2013.
- Emerging markets are showing signs of capex fatigue. Latin America seems to be suffering from a crisis of confidence, with the weakest projected capex growth across all regions in 2013 and capex forecasts subject to aggressive downward revision. Utility spending is a key area where forecast growth is negative and falling.
- Asia-Pacific is similarly showing signs of capex strain. Current estimates for Australia point to real capex declines of 12% in 2013 and more than 20% in 2014. These mining-led declines exceed those seen the global financial crisis of 2007-2009.
- Chinese mainland nonfinancial corporates are currently forecast to cut capex by 4% in real terms in 2013 and by 6% in 2014. While corporate investment is only a subset of China's investment picture, these figures would, if realized, mark a major transition to a phase where capex no longer rises relentlessly.
- Drivers of global capex remain broadly supportive, particularly cash balances and the age of the capital stock, but profit margin pressures and the general lack of confidence are inhibitors. In our view, capex has the potential to reinforce a well-established recovery but is unlikely to trigger recovery in itself. A downturn in commodity-linked investment is likely to severely hinder a broader recovery.

Yet capex trends are not necessarily well understood, for a variety of reasons. Globalization has blurred the differences
between macroeconomic measures and those aggregated from company accounts. The former neglect the growing share of capex being directed outside of home markets while the latter are rarely presented in real terms, making long-term and cross-country comparisons misleading at best. The rapid industrialization of many emerging markets means that developed market trends are only part of the overall capex picture.

For these reasons, we are launching our annual corporate capital expenditure survey to track, assess, and help form a view on global capex trends. The survey makes use of S&P Capital IQ data to inform our analysis. It tracks a rolling universe of 2,000 global nonfinancial companies (rated and unrated, public and private) that spend the most on capex. For 2012, this refers to a range of capex between $100 million and $50 billion. Key trends and forecasts are shown in U.S. dollar terms, using International Monetary Fund inflation data to deflate financial line items and determine trend and cross-country analysis. We base our capex projections on a combination of recent company guidance, where available, and consensus estimates from S&P Capital IQ.

For further details on our survey methodology, please see the Appendix.

The Global Capex Recovery Stalls

Our survey suggests that the near-term outlook for capital expenditure is poor, with the modest upturn in global capex seen in the past few years showing signs of stalling (see chart 1). The pace of real growth ebbed in 2012 to 6% from 8% in 2011, a rate far lower than those seen in the boom years of 2006-2007—arguably a period of overinvestment—but also weaker than those seen in the more directly comparable early stages of the 2004-2005 recovery. Current projections based on company guidance and S&P Capital IQ consensus estimates suggest that global capex in 2013 will fall in real terms by 1.5%. Early indications for 2014 are worse still with a fall of 5%. The capex recovery appears to be ending before it has really begun.

Chart 1 | Global Non-Financial Corporate Capital Expenditure Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Capex Growth (YOY%, Real Terms, USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>+11.8</td>
</tr>
<tr>
<td>2005</td>
<td>-7.0</td>
</tr>
<tr>
<td>2006</td>
<td>+20.1</td>
</tr>
<tr>
<td>2007</td>
<td>+17.4</td>
</tr>
<tr>
<td>2008</td>
<td>-2.7</td>
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<tr>
<td>2009</td>
<td>-10.1</td>
</tr>
<tr>
<td>2010</td>
<td>+3.2</td>
</tr>
<tr>
<td>2011</td>
<td>+6.1</td>
</tr>
<tr>
<td>2012</td>
<td>+6.4</td>
</tr>
<tr>
<td>2013</td>
<td>-15</td>
</tr>
<tr>
<td>2014</td>
<td>-5.4</td>
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</tbody>
</table>

Recent capex growth has been even worse without the contributions of the energy and materials sectors (see chart 2), two areas that have been prime beneficiaries of the rapid industrialization underway in emerging markets and, consequently, pivotal drivers of global capex over the past decade. Excluding those two sectors, real capex growth was a mere 2% in 2012, and is projected to decline 2% in 2013.

One positive feature is that 2012 did see inflation-adjusted global capex convincingly exceed the previous cyclical high recorded in 2008 (see chart 3). In 2012, companies in our Global Capex 2000 universe spent just under $3.1 trillion on capex, 7% more than the previous high. Moreover, despite its projected decline in 2013, capital spending in real terms will remain above the 2008 high. Again though, the picture is worse if we exclude energy and materials. On this basis, nonfinancial global capex has yet to return to pre-recession levels.
We use S&P Capital IQ consensus estimates to get a sense of how analysts’ expectations regarding capital spending have been changing. Chart 4 shows the evolution of 12-month forward consensus estimates of capex for the current constituents of our Global Capex 2000 universe. The data show trends for nonfinancials including and excluding energy and materials. The series are indexed to 100, with a December 2011 base. Note that these figures refer to non-inflation-adjusted forecasts.

Forward expectations for capex improved strongly in the final quarter of 2012. But since then, they have levelled off for nonfinancials as a whole and fallen back significantly when the energy and materials sectors are excluded.
There are signs that the pace of deterioration may be easing in the revisions balance indicator for 12-month forward capex (see chart 5). The revisions balance indicates the number of positive capex estimate changes less the number of negative estimate changes as a percentage of the total number of consensus capex estimates available. It is shown on a three-month moving average basis to smooth out volatility. This is essentially a breadth indicator – a summary of the common trend of a group - as it ignores the magnitude of a forecast change and the relative size of the company involved.

The revisions balance indicator paints a similar picture of last year’s final-quarter optimism withering away in the early part of 2013. The pace of downward capex forecast adjustments may be easing, but our survey shows that there is no resumption of positive forecast momentum yet, despite growing confidence that the global economy is on a recovery tack.
With respect to survey data, slight grounds for optimism can be seen in the capex questions that form part of the Ifo Institute's World Economic Survey (see chart 6). While pessimism remains around current levels of capex, the past two quarters point to improving expectations over the next six months.
Capex Growth Is Now Acutely Sensitive To An Energy And Materials Downturn

Looking at the sector composition of capex reveals just how important the contribution of energy and materials has become (see chart 7). In 2003, capex in sectors other than these two represented 73% of the total. By 2012, that figure had fallen to 58%. Put another way, energy and materials accounted for 42% of the capex undertaken by our sample universe in 2012. Energy and resource-related investment has underpinned global capex growth in recent years, but this reliance implies greater vulnerability to a downturn in these industries. If, as industry commentators suggest, the global commodity "super cycle" is drawing to an end, this decade-long shift in the growth-arithmetic means that capex growth rates could remain depressed for several years.

![Chart 7 | Share Of Global Non-Financial Corporate Capex By Sector](chart7.png)

This is a clear illustration of the shift in economic gravity seen over the past decade with the demand for raw materials and power from China and other rapidly industrializing nations decisively altering the sector composition of capital spending. By contrast, the consumer discretionary sector (which is more important in consumer-led developed economies) has seen its share of global nonfinancial capex almost halve since 2003. In real value terms, consumer discretionary capex is broadly unchanged since 2003. For energy, it has tripled from a similar starting point (see chart 8).
Over the past decade (2003-2013, based on current estimates), capital spending among our Global Capex 2000 universe has risen by 83% in real terms. The energy sector alone accounts for 46% or nearly one-half of this (see chart 9). Add materials and the proportion explained rises to 62%.

This reliance on energy and materials is apparent at the company level, too. Table 1 shows the top 60 capital spenders
in 2012 as measured in U.S. dollar terms. Energy and materials companies make up eight out of the top 10—with Samsung and Toyota the sole representatives from other industries—and 28 of the top 60. Emphasizing the growing importance of emerging markets, the top two on the list are oil majors from China and Brazil.

Table 1

<table>
<thead>
<tr>
<th>Top 60 Global Capex Spenders* - Energy Dominates</th>
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<tbody>
<tr>
<td><strong>Company</strong></td>
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<tr>
<td>--------------------------------------------------</td>
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<tr>
<td>PetroChina Company Limited</td>
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<td>Petrobras</td>
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<td>Exxon Mobil</td>
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<td>Royal Dutch Shell</td>
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<td>Chevron</td>
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<td>Total</td>
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<tr>
<td>China Petro &amp; Chem.</td>
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<tr>
<td>BP PLC</td>
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<td>Samsung Electronics</td>
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<td>Toyota</td>
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<td>BHP Billiton</td>
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<td>Statoil</td>
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<tr>
<td>China Mobile</td>
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<td>Rio Tinto</td>
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<td>Vale</td>
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<td>Petroleos Mexicanos</td>
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<td>Rosneft</td>
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<td>General Electric</td>
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<td>Honda</td>
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<tr>
<td>Chesapeake Energy</td>
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<tr>
<td>China UtdNtwkComms</td>
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<tr>
<td>ConocoPhillips</td>
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<tr>
<td>China Unicom (HK)</td>
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<tr>
<td>Volkswagen</td>
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</tbody>
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*Universe is Global Capex 2000 companies. FY--Financial year. USD--U.S. dollars. HK--Hong Kong. Source: S&P Capital IQ, Standard & Poor's Ratings Services' calculations.
Most Sectors Are Likely To See Capex Fall In 2013

The risks to global capex posed by an ever-greater reliance on commodity- and energy-driven growth looks set to become a serious issue in 2013, and even more so in 2014. Chart 10 shows capex growth for the global materials sector. In 2011-2012, the industry resumed the double-digit real-terms growth seen for much of the earlier part of the century. Current estimates point to an abrupt downturn over the next two years, however, with materials capex shrinking 4% in 2013 and 14% in 2014.

Chart 10 | Global Materials Capital Expenditure Growth

Turning to the broader industry outlook, chart 11 shows actual capex growth in 2012 by global GICS (Global Industry Classification Standard) sector, as well as the prospective growth rate for 2013. The sectors are shown in descending order in terms of their prospective 2013 capex growth. To put these growth rates into a longer-term context we have overlaid the compound annual growth rate for 2003-2012.

Three trends emerge:

- Broad-based contraction. Whereas as in 2012 only one sector—IT—saw capex decline, current estimates suggest 2013 will be a year of broad-based declines, with six out of nine sectors experiencing a fall in capex.
- Lost leadership. Crucially, three sectors—materials, energy, and utilities—that delivered relatively strong capex growth in 2012, and which have delivered the highest compound rates over the past decade, look likely to see negative (materials, utilities) or barely positive (energy) capex growth.
- Long-term laggards. Telecommunications, consumer staples, IT, and industrials all saw poor capex growth in 2012 relative to their long-term averages, and are expected to see capex fall in 2013. In our view, it is these sectors that will need to invest more if capex growth overall is to return to a more consistently positive rate.
Applying the same analysis at the industry level (see chart 12) gives some more detail around trends. There is arguably an early cycle bias to the six industries expected to deliver positive capex growth. They include software, autos, media, and energy. Similarly, among the 13 industries expected to see capex fall, the weaker end has a late-cycle bias because it includes capital goods, technology hardware, and materials. What is most striking, though, is that only three industries have forecast capex growth that is in excess of the compound annual growth rate seen over the past decade. This serves to emphasize just how broadly based the weakness in expected capex spend is.
As the growth rates imply, there have been some significant downward shifts in forecasts for some sectors. Utilities, for instance, is an example of a sector that made a significant contribution to positive capex growth in 2012, but which is now expected to see aggregate capex fall in 2013. Chart 13 illustrates how sentiment regarding utilities' capex has turned for the worse, with forward-looking expectations subject to regular downward revision over the past eight months.

We use contribution analysis—which combines the share of total capex with growth rates—to show the effect of individual sectors on overall historic and prospective capex growth (see chart 14). Specifically, this gives the percentage point contribution of each sector to global capex growth each year. For the sake of visual clarity, we have combined some sectors (IT with telecoms, energy with materials, and consumer discretionary and consumer staples). This analysis clearly illustrates how growth in 2012 relied almost solely on energy, materials, and utilities. It contrasts with the broad-based growth seen in 2012 when the consumer, industrials, IT, and telecoms sectors also added significantly to capex growth.

For 2013, current projections point to a broad-based, if mild, decline in real-terms capex spending. The energy sector looks set to provide another positive contribution of 0.4%, although this is substantially down from 3.4% in 2012. But that contribution is more than offset by the 0.5% decline in the materials sector. Similarly, while the consumer discretionary sector (heavily weighted toward autos) is projected to contribute 0.3%, consumer staples offsets much of this with a 0.1% decline. Industrials and utilities are big drags on growth, with negative contributions of 1.1% and 0.4%, respectively.
The majority of sectors continue to see more negative than positive capex forecast revisions as measured by their current revisions balances (see chart 15). Only three sectors have positive balances—health care, energy, and consumer discretionary. The rest are negative, including capital-intensive sectors such as telecoms, materials, and utilities.
So, based on current estimates, it seems likely that the sectors that have provided much of the impetus behind capex spending over the past few years are facing capex cutbacks in 2013-2014. Although the outlook for energy capex may be showing signs of resilience, little improvement is apparent for utilities and materials companies are cutting back sharply. Nor is there much evidence of other sectors taking over capex leadership, even those that appear to be investing at a rate below their long-term trend.

**Regional Analysis Reveals A Resurgence In North America And Emerging Market Woes**

Regional capex growth trends also suggest a broad-based decline in 2013 (see chart 16), with every region bar Western Europe currently estimated to be facing a decline in real terms, and Europe's capex is only marginally positive. This is almost a mirror image of 2012, when all regions bar Japan (affected by post-Fukushima comparisons) recorded relatively healthy capex growth.

Three clear themes emerge from a regional analysis of capex trends, namely the resurgence of North America, the surprising weakness in Asia-Pacific and Latin America, and the long-term decline in Western Europe.

**The resurgence of North American capex**

Contribution analysis (see chart 17) shows just how important this region has been for the recovery in global capex growth since 2010. Similar contribution levels from 2005-2007 were matched or exceeded in other regions; in this cycle, North America has been pivotal.
This is apparent when examining shares of global nonfinancial capex by region (see chart 18). The chart tells a number of stories, amongst them how the rapid growth seen in emerging markets over the past decade has begun to decisively alter the regional composition of capex. Asia Pacific’s share (excluding Japan) reached as high as 24% in 2011, from 15% in 2003. Western Europe’s share, meanwhile, has ebbed from around one-third to one-quarter. But perhaps most striking is how North America (principally the U.S.) has recovered from a sharp loss in share in 2009 to reach its highest level in a decade at 34% in 2012, and a new projected high of 36% in 2013.
Viewed in its own terms (see chart 19), this surge is all the more remarkable. The U.S.’ decisive move out of recession had placed it relatively favorably compared with other developed economies, uncertainties around fiscal policy notwithstanding. These capex trends suggest that this recovery has also boosted North America's relative investment position, something that may well bode well for its competitive position in coming years.

That said, it is interesting to look at the sector contributions to North America's capex growth (see chart 20). The chart shows how the energy and materials sectors have consistently been leading drivers of capex growth in that region. This brings the same risks of overreliance highlighted globally: a decline in growth in these areas—as occurred in 2009 and which could potentially occur in 2013-2014—has gone hand-in-hand with an overall decline in capex.

It would also be interesting to examine in more detail the extent to which the recent surge in investment in energy and materials has been linked to shale oil and gas. The falling oil and gas prices result may be a factor in the estimated decline in energy and materials investment in 2013-2014. Equally, of course, lower energy prices have been a key stimulant contributing to the region's economic recovery. Access to relatively cheaper power than competitors may well provide an ongoing boost to rates of investment in other sectors.
In terms of recent revision trends, it is worth noting the consistently positive pattern of forecast revisions apparent in recent quarters (see chart 21). If this persists, it could pull prospective North American capex back toward positive capex growth in real terms.

A downturn in Latin American capex

While North American capex has enjoyed a relative resurgence, the same is not true for Latin America, where there appears to be something of a crisis of confidence. Consensus forecasts for corporate capex in the region have fallen sharply in recent months (see chart 22). We should stress that we are looking here solely at nonfinancial corporate investment. Public sector infrastructure projects, such as those linked with the Football World Cup and Summer Olympics in Brazil, are not included other than indirectly through construction companies, for example.

The downturn in Latin American corporate capex appears to be broadly based. The capex revisions balance is currently close to minus 40% (see chart 23)—the worst figure across all the regions we have looked at. The unsmoothed monthly figure is currently minus 74%, suggesting that a wholesale reduction of capex plans is taking place in the region.
Contribution analysis (see chart 24) shows that Latin America's nonfinancial capital investment is dominated by energy, materials, utilities, and telecoms. And it is the utilities sector where capex growth prospects for 2013 appear to be under most duress. More generally, the data suggest that the confidence apparent in the years running up to the financial crisis (2004-2007) has largely failed to return. The resilience apparent in 2009—in contrast with what was going in elsewhere in the world—has proved to be the exception rather than the rule.
The long-term decline of Western European capex

Unlike North America, Western Europe has not been able to preserve its share of global capex, slipping from a one-third share to one-quarter in 2012 (see chart 25). Nor has it managed to return capex to pre-crisis levels, with 2012 expenditure still 8% below that for 2008 in real terms. Moreover, European companies have also shown a growing willingness to invest outside of their home region to seek stronger growth opportunities. Our analysis of trends for Europe’s largest 1,000 companies in terms of total debt outstanding (see “Cash, Caution, And Capex – Why A Trillion Euro Cash Pile Is Unlikely To Drive A European Capex Boom,” published Feb. 5, 2013, on RatingsDirect) suggests that some 42% of capex was directed outside of Europe in the last 12 months, up from 28% in 2008. This will be offset to some degree by investment made in Europe by companies from other regions. Even so, Europe’s ongoing recession and weak growth prospects are clearly taking their toll on the corporate sector’s willingness to invest.

In this light, it might seem strange that Western Europe is the only region currently expected to deliver positive real-terms capex growth in 2013. The sector contribution analysis (chart 26) offers one explanation for this, namely the expectation of positive capex growth from the energy and materials sectors. Europe’s relative reliance on these industries for capex is less than that in North America, but is still significant.

Two observations: First, we have allocated companies such as Rio Tinto and BHP Billiton to Australia rather than the U.K. While they both have dual stock market listings, this allocation reflects the reality of where the bulk of their capex takes place. This means that there is less drag from the materials sector in Europe than there would be if we treated these companies as European stocks. Second, current expectations are that Europe’s largest energy companies—BP, Total, Royal Dutch Shell, and Statoil—will increase their capital spending in 2013. We believe the impact of the widening spread between Brent and West Texas Intermediate (WTI; affected by rising domestic North American output) crude oil prices and U.S. versus European natural gas prices (affected by shale gas) may well have a bearing on
relative investment trends.

The European picture is less positive away from the energy sector. Utilities and industrials look set to record capex declines this year, while the upswing from a period of auto sector investment is starting to fade (with the potential to fall further) as volume pressures suggest continued industry overcapacity. Positive revisions to capex projections in June (see chart 27) offer some better news after a run of downward adjustments, but the prognosis for European capex remains weak. In our view, there is nothing to suggest that it could be a trigger factor to lift the region out of its current economic malaise.
Surprising weakness in Asia-Pacific

A final surprising element of our regional capex trend analysis is the weakness apparent in Asia-Pacific. The reversal of capex growth in the energy and material sectors is—as with other regions—part of the story (see chart 28). But there appears to be downward pressure on industrial capex, too, and little sign of the strongly positive contribution from IT and telecoms that has been a feature throughout most of the past decade.
The fact that the commodity “super cycle” has, at the very least, paused for breath is a major factor explaining negative capex expectations for 2013-2014. This is best illustrated by the capex outlook for Australia, which is central to emerging Asia’s energy nexus. Here, the scaling back of mining investment is projected to bring an abrupt reversal of the strong capex growth seen in 2011-2012 (see chart 29). Current estimates suggest a decline in capex in real terms of 12% in 2013 and more than 20% in 2014, caused primarily by a sharp reduction in investment intentions by the major mining corporations. These growth rates, if realized, would be the worst capex growth figures for Australia in the 10-year period for which we have data, exceeding the downturn that followed the financial crisis.

Perhaps even more surprising are our current estimates for China. We should stress that China’s financial structures are rather different from fully developed markets, so trends for the subset of nonfinancial corporates that provide financial data, and for which consensus forecasts are available, will not tell the whole story. This is especially true given the importance of residential housing investment and local government spending, for example. Even so, our sample includes projections for 91 mainland Chinese companies and 24 from Hong Kong. It includes global behemoths such as PetroChina, China Petroleum & Chemical, CNOOC and China Mobile. Remarkably, capex for the mainland Chinese companies in our sample is forecast to fall by 4% in 2013 and 6% in 2014. This follows relatively weak growth in 2012 (see chart 30). The inclusion of Hong Kong-domiciled companies pushes the 2013 figure back into positive territory. But, even so, this forecast, if realized, would mark a dramatic transition in Chinese corporate trends.

Investment growth has been a core part of China’s economic rise. In our view, if its leading companies are as uncertain about their capex intentions as their peers in fully developed markets, this could be a sign of a transition to a more mature growth phase, one that will have an important bearing on global credit conditions.
As with Europe and the U.S., there is some evidence of improving sentiment in recent Asia-Pacific capex forecast revisions (see chart 31). Twelve-month forward consensus capex estimates have risen strongly in June, having been largely unchanged this year.

Speculative-Grade Volatility Points To Future Trends

In assessing the outlook for capex, our data suggests that paying attention to trends and revisions for speculative-grade companies (that is, those rated ‘BB+’ and below) may be of value. In recent years, capex among this category of companies has tended to be significantly more volatile than among investment-grade companies (rated ‘BBB-’ and above; see chart 32). For example, current expectations for 2013 are for flat real-terms capex for investment-grade companies and a 5% decline for speculative-grade companies.

There is no obvious lead or lag relationship between these two groups. But if expectations were to reverse or worsen for 2013, it seems likely that we would see some significant revision activity among the speculative-grade companies.

In terms of driving overall trends, however, investment-grade companies are crucial. In 2012, they accounted for 85% of the capex undertaken by rated companies in our sample (see chart 33). It is companies in this category that really "move the needle" in terms of global capex.
Fundamental Capex Drivers Deliver Mixed Messages

For much of this survey we have focused on capex trends and forecasts. It is also important to set these in the context of the fundamental determinants of capital spending, particularly given the view held by some market commentators that the corporate sector as a whole is displaying unwarranted conservatism with respect to investment.

In our opinion, the fundamental drivers of capex include:

- The relationship with, and expectations for, top-line growth (capex to sales) and profitability (margins);
- The average age of the capital stock;
- Depreciation rates;
- Capacity utilization (and broader competitive dynamics within industries);
- Access to finance (cash balances and ability to borrow); and
- Expectations and confidence about future returns (so-called "animal spirits").

Our primary concern is to question the main assumptions that have emerged from our survey. In other words, are there reasons to think that capex could be substantially better—or indeed worse—than the current mix of corporate guidance and consensus estimates suggest?

Capex to sales
The relationship with sales (total revenues) is critical for capex, both as part of the ultimate purpose of investing and as the primary source of internal funds. Chart 34 shows the relationship between global nonfinancial capex and sales (and EBITDA) for our Global Capex 2000 universe since 2004.

A couple of points emerge. First, capex spending lags or, at best, is contemporaneous with improvements in revenues...
and profitability. It is not a lead indicator. For a stronger pick-up in global capex to occur, we would need to see improved operating performances. Although this may seem obvious, it does emphasize that it is wishful thinking to expect capex to lead the recovery, in our view.

Second, there appears to be a shift pre and post financial crisis with regard to the ratio of capex growth to revenue and operating profit growth. From 2005-2007, capex outpaced revenue and EBITDA growth, but since then it has broadly lagged.

This can be seen in the global capex-to-sales ratio (see chart 35), which confirms these broad trends. The chart also highlights the growing gap between investment rates that include the energy and materials industries (which remain above the whole period average) and those excluding them (which have fallen back toward 2003 levels). There is clearly a strong cyclical element to the ratio, which makes the decline in 2012 (excluding energy and materials) to 7.7% from 8.2% in 2011 all the more troubling.
The chart demonstrates how the uncertainty surrounding the durability and magnitude of the global recovery—exacerbated by the euro crisis and lingering questions around U.S. fiscal policy—has led to investment plans being reined in, choking off a potential support to recovery and delaying the point at which the global economy can be weaned-off loose monetary policy. That said, recognizing that a 10-year history gives limited context, there is nothing to suggest that the global capex-to-sales ratio is abnormally low. Excluding energy and materials, we are at a cyclical low point, but one that is similar to the post-recession low of 2003.

Another way to assess capex levels is to see how they have kept up with the actual long-term growth in sales (see chart 36). Taking 2005 as a base year (assuming that this was about the mid-point of the 2002-2008 cycle) and projecting the actual compound annual average growth rate in revenues recorded over the whole period that we have data for (2003-2012) gives a context for current levels of capex spend. The chart highlights the overinvestment seen in 2006-2008 and suggests that current levels are only a little below where long-term sales trends suggest they ought to be (by $200 million or 4%).
**Capex to depreciation**

The capex-to-depreciation ratio tells a similar story (see chart 37). Investment has fallen in response to recession, but a 1.7x ratio (excluding energy and materials) implies an expanding capital stock globally and is in line with average levels seen over the past decade.
Age of the capital stock
Estimates of the age of the capital stock do suggest potential for a recovery in capex. In the U.S., the Bureau of Economic Analysis’ estimate of the current-cost average age of the capital stock suggests that it is approaching peak aging levels, based on post-1970 trends (see chart 38).

Profitability
Another regularly cited reason why capex ought to be higher than it is at present is elevated levels of corporate profitability. Many regions returned to 2007 levels of profitability in 2010-2011. However, 2012 data for EBITDA margins for our global Capex 2000 suggest that this recovery in profitability has faltered (see chart 39). Limited visibility with respect to the magnitude and timing of global recovery, allied to weakening profit margins, give grounds for suggesting that companies will remain relatively cautious with capex.
Cash balances

Access to finance is a key driver of capex plans, and the scale of cash accumulation by the corporate sector in recent years is often highlighted as a reason why there is potential for strong capex growth. We have calculated the value of cash and equivalents held on the balance sheet by our Global Capex 2000 universe on a regional basis and adjusted for inflation to allow meaningful time and cross-region comparison (see chart 40). We have overlaid this with cash and equivalents as a percentage of total assets.

Chart 40 | Global Non-Financial Cash Holdings And Cash / Total Assets

The figures confirm the build-up in cash holdings—to more than $4 trillion for the past three years. As a share of the balance sheet this is running at just over 9.5%. These are substantial holdings of cash, suggesting plentiful internal funding for capex in aggregate. That said, it is notable that the greater shares are held by North American and Western European companies, which operate in relatively low-growth regions and—certainly in the case of Europe—with a growing propensity to invest outside of their home markets. By contrast, Asia’s share slipped back markedly in 2012.

It is clear that the proportion of cash held on the balance sheet has risen post the global financial crisis. This may appear a significant potential source of funding for capex, but that has to be set against the ongoing deleveraging of the financial system. This means more limited access to loan funding and consequently a tendency for companies to hoard cash to avoid the risk of being denied access to liquidity.

"Animal spirits"

However, it is not clear that access to finance is the main factor inhibiting capex. The U.K. Confederation of British Industry’s (CBI’s) latest quarterly industry survey explicitly asks firms to state whether they expect certain factors to limit capex over the next 12 months. The latest survey for the second quarter of 2013 (see chart 41) suggests that uncertainty around demand and low net return prospects are more problematic than access to, or the cost of, finance. As we illustrate above, capex is generally coincident with revenue and profit trends. Cash may be plentiful and interest rates low, but this is unlikely to translate into stronger capex overall in the absence of improving operating performance.

**Overall picture is mixed**

The broad message from the fundamental capex drivers is mixed. Relatively high cash balances, an aging capital stock, and a cyclical low in the capex-to-sales ratio (excluding energy and materials) all point to the potential for an upturn in capex. But pressure on profit margins, uncertainty about growth and access to finance, and a subdued operating
environment all make the opposite case. Our considered opinion is that while capex is unlikely to be a catalyst for recovery, it has the potential to bolster any recovery that takes hold.

**Conclusion: Capex Is At Stall Speed**

Our survey presents a troubling picture for capex trends globally. A modest post-crisis recovery appears to be stalling before it has really begun. The loss of economic momentum—prompted by factors such as the euro crisis, fiscal austerity, and U.S. budget problems—is part of the story. But there are more structural concerns, too. The energy and materials sectors' shares of total capex have risen dramatically over the past decade, creating a fair degree of dependency. If the global commodity cycle is turning decisively down, then overall capex growth will likely be weak for some years to come given just how important these industries have become. Downward pressure on corporate capex in Australia is a troubling harbinger in this regard, with the scale of the projected decline in 2013-2014 suggesting that mining and commodity companies are anticipating a major downswing.

Similarly, a fall in corporate capex in China would also represent a major shift in trend if borne out. While only a subset of overall Chinese investment, our figures suggest that the Chinese corporate sector is moving into a more mature phase of growth, where capex does not keep on rising relentlessly. This may be a welcome transition in terms of financial discipline, but it does bring with it the potential for greater economic volatility as growth rebalances away from investment. With Latin America also showing signs of capex fatigue, it seems likely that emerging market investment intentions are entering into a period of greater uncertainty.

Some strong fundamental supports for global capex are in place, including plentiful aggregate cash balances, an aging capital stock, and cyclically depressed ratios relative to sales and depreciation. But these are balanced by uncertainty around demand and pressures on profitability.

In our view, there is little to suggest capex could, of itself, drive recovery. It has the potential to reinforce a well-established turnaround, but, given the likely downturn in commodity-linked capex, an upturn in capex in other industries may be less beneficial for overall growth than generally assumed. Newer technologies may offer new areas of secular growth—capital spending on fourth-generation mobile telecoms networks is starting to come through and areas such as environmentally-friendly autos and energy, quantum computing, and biotechnology all offer longer-term potential. It is also important to stress that the capital intensity of developed economies continues to decline due to the increasing importance of service industries and new technology driven by research and development.

Nevertheless, capex remains a vital component of economic growth and credit conditions and, for now, the capex outlook is weak and uncertain.

**Related Criteria And Research**

The articles listed below are available on RatingsDirect.

Appendix: Survey Methodology

Data sources

**Financial data.** All financial data used in this report has been derived from S&P Capital IQ. This includes financial statement line items, country and sector identifiers, ratings data, and currency adjustments. Growth rates, ratios, and real-terms adjustments have then been calculated by Standard & Poor's Ratings Services.

**Economic data.** Inflation data comes from the International Monetary Fund (IMF) World Economic Outlook database via Thomson Reuters Datastream.

Universe selection

**Ranking.** The selected universe represents—for each financial year—the top 2,000 companies ranked globally in terms of U.S. dollar-denominated capital expenditure (capex). Currency conversion is performed on a historical basis (that is, using the exchange rate applicable at the date of the financial statement).

**Data definition.** Capex is defined as S&P Capital IQ-standardized capital expenditure taken from the cash flow statement.

**Size of the universe.** We have chosen a constant universe of 2,000 companies to ensure good geographic coverage, deep enough to capture meaningful global, country, and industry trends. Chart 42 shows the maximum, minimum, and median capital spending undertaken by our universe constituents between 2003 and 2012.

**Global coverage.** A universe of this size also ensures broad and representative geographic coverage. Chart 45 shows the proportion of companies headquartered in each region in 2012. North America and Asia are the dominant regions by numbers of companies, followed by Europe. But there are also meaningful numbers of Latin American and Emerging Europe, Middle East, and African companies represented, too.
**Weighting.** All figures are aggregated on a summed basis (rather than being equally weighted or averaged). The biggest capex spenders will have the most bearing on overall growth rates. Chart 44 illustrates the cumulative value of capex from the biggest spenders to the smallest in our universe. For example, the top 100 companies account for 40% of total capex and the top 500 account for more than 70%.

**Type of company.** The universe selection includes both publicly listed and private nonfinancial companies. It also covers both operating companies and subsidiaries. Including subsidiaries raises the risk of double-counting, as dual stock market listings often refer to the same financial data. However, there are a significant number of large companies where the overall operating or holding company provides no financial information, with capex recorded at the subsidiary level. There are many examples of this in China, for instance. Consequently, we have included both types of company and taken care to exclude duplicate operations on a case-by-case basis.

**Calculations**

**Real-terms adjustment.** When looking at longer-term trends, particularly when including economies where relatively high inflation rates are prevalent, it is important to express values in real terms. We have achieved this by restating all individual corporate financial items in present-value terms using the IMF's annual inflation series for the country of incorporation. For forecast capex data, we've utilized the IMF's own inflation projections. The difference this makes to annual growth rates is illustrated in chart 45.

**Forecasts.** Forward-looking estimates have been constructed from a combination of company guidance and the S&P Capital IQ consensus estimates. If company guidance for capex has been issued or reiterated since May, we have used that in the projection; otherwise, we have used the S&P Capital IQ consensus if available.

**Additional Contacts:**
Blaise Ganguin, Paris (33) 1-4420-6698; blaise.ganguin@standardandpoors.com
Alexandra Dimitrijevic, Paris (33) 1-4420-6663; alexandra.dimitrijevic@standardandpoors.com
Paul Watters, CFA, London (44) 20-7176-3542; paul.watters@standardandpoors.com
David C Tesher, New York (1) 212-438-2618; david.tesher@standardandpoors.com
David P Wood, New York (1) 212-438-7409; david.wood@standardandpoors.com
Terry E Chan, CFA, Melbourne (61) 3-9631-2174; terry.chan@standardandpoors.com
Eduardo Uribe-Caraza, Mexico City (52) 55-5081-4408; eduardo.uribe@standardandpoors.com