

# Global Trade At A Crossroads: U.S. And China Exchange Tariff Blows

May 14, 2019

## Key Takeaways

- Credit impact: While the tariffs compound the economic slowdown challenges currently facing issuers, its impact should be limited.
- U.S. issuers: Even if all Chinese goods imports were tariffed, we expect the effect on our issuers would be low to moderate.
- Chinese issuers: Similarly, we believe rated issuers in China could absorb an all-goods hike, given their focus on domestic markets.

The trade dispute between China and the U.S. has reignited with an exchange of tariff impositions. On May 10, 2019, the U.S. raised the tariff rate to 25% from 10% on \$200 billion of goods imported from China effective immediately, excluding goods-in-transit. On May 13, 2019, China responded by announcing four tiers of 25%, 20%, 10% and 5% tariff rates on \$60 billion of goods imported from U.S. effective June 1, 2019. The same day the U.S. Trade Representative requested for public comments on a proposal to impose up to 25% duty on further imports from China valued around \$300 billion.

We reiterate our view that the first-order impact on credit is generally low to moderate for issuers in both countries. We hold this view even in the scenario of both countries imposing 25% tariffs in all goods imported from each other. Both countries have diversified export markets. Their own domestic markets are very large and businesses still cater to them; and a large number of rated corporates still have some flexibility in managing their costs, including, in some cases, the option of passing on the additional expense from tariffs to customers.

However, while the short-term impact of higher tariffs is manageable for both countries, the longer-term effects on growth prospects may be underestimated. The impact on business confidence has been quite significant as reflected in the recent reaction in equity markets. This in turn could dampen the investment appetite and have a flow-on effect on upside credit prospects.

A timeline of the one-and-a-half year trade dispute between the two countries is shown in chart 1.

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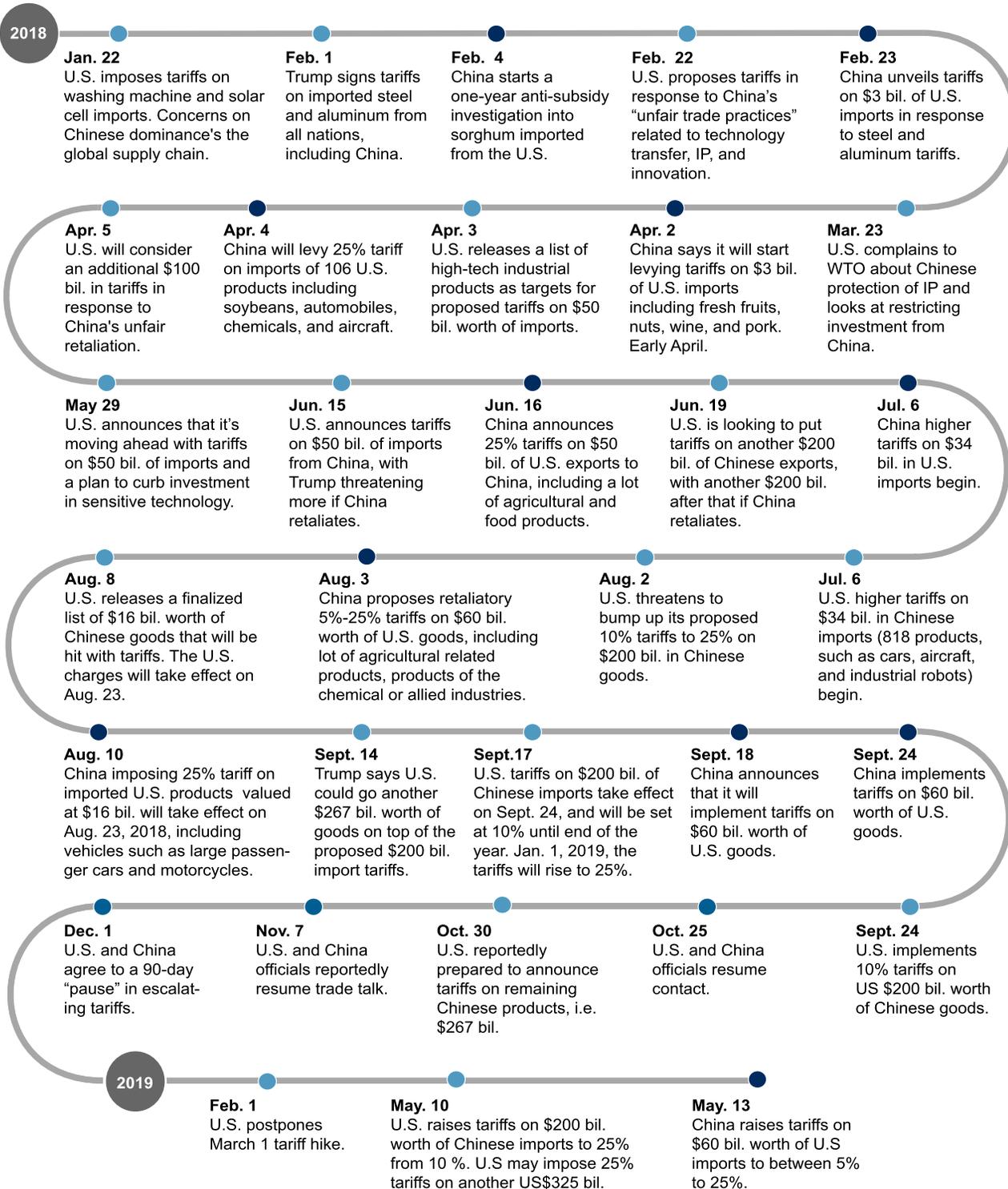
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Chart 1

U.S./China 2019 Trade Dispute

● U.S. ● China ● Both



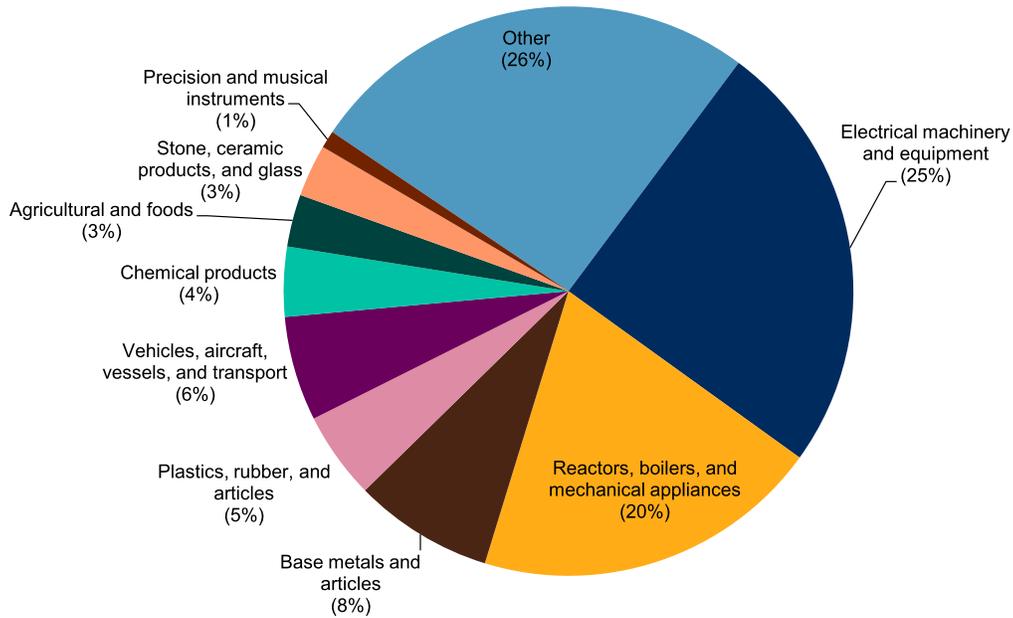
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The charts below show the Chinese imports into U.S. subject to tariffs (chart 2) and U.S. imports into China subject to tariffs (chart 3).

Chart 2

### Breakdown Of Tariffed Chinese Imports By Product Type

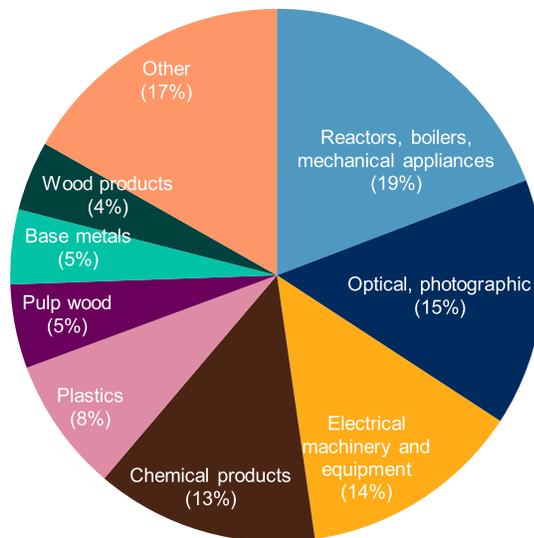


Source: U.S. Trade Representative.

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Chart 3

### Breakdown Of U.S. Imports Into China That Are Subject To Tariffs



Source: China's Ministry of Finance, U.S. International Trade Commission Dataweb.  
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## Impact On China's Economy

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Moving China's macro needle through bilateral trade with the United States is hard. We estimate that China's value-added exports to the U.S. were worth a little over 3% of GDP in 2018. In turn, we estimate that the direct impact of the latest round of tariff hikes on \$200 billion of China's exports to the United States will be to shave just 0.1 percentage points off China's GDP growth over the next 12 months.

We assume full pass-through and gradual substitution by U.S. consumers. Our estimate assumes that Chinese exporters fully pass the tariffs on and that U.S. consumers (both firms and households) are slow to replace higher priced Chinese goods with substitutes (specifically, we assume a short-term price elasticity of demand of 0.5). We also assume that of China's exports to the U.S., about 90% is value added domestically with 10% coming from imported intermediate goods. This would mean a decline in exports to the U.S. also reduces China's need for imported inputs. To keep things simple, we have not incorporated any retaliatory measures by China.

Effects could be broader than trade however. The short-term impact on China's economy may be amplified if higher tariffs weaken confidence and reduce spending by firms and households. The

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impact on firms' investment plans is especially important because expected future returns on capital are likely to be highly sensitive not only to the level of tariffs but also the lingering uncertainty surrounding trade policies.

Manufacturing investment should be a key focus. Manufacturing investment growth, particularly in sectors exposed to tariffs including electrical machinery and computer equipment, has already started 2019 quite weak. Lower investment would mean a larger short-term demand hit to the economy, given manufacturing accounts for about 30% of total fixed asset investment and an estimated 15%-20% of GDP.

Weaker manufacturing investment would affect jobs and future potential output. If manufacturing investment growth fell to just under 3% over the next 12 months—from near 10% last year and close to recent mid-2016 lows—this would shave a further 1ppt off GDP growth. This would also likely lead to job losses in manufacturing which would impact household incomes and consumption. Weaker manufacturing investment would also lower future output capacity, particularly in the faster growing technology sectors of the economy.

We expect a gradual adjustment in firms' investment plans. While the implications of weaker manufacturing investment are serious, a hard landing for capital expenditure is unlikely unless financial conditions also tightened substantially. Instead, we would expect the impact on manufacturing investment to be gradual as firms take time to diversify their supply-chain risks. Finding alternatives to the scale and sophistication of China's manufacturing ecosystems will be hard.

China's policymakers should be able to offset the impact of tariffs without resorting to major stimulus. We estimate that allowing the real effective exchange rate to depreciate by about 2%-3% would improve China's competitiveness and cover much of the hit to net exports. The renminbi may have to weaken somewhat more against the U.S. dollar if the currencies of partners that participate in China's supply chain also depreciate. If policymakers wished to avoid the currency carrying the full burden of adjustment, perhaps to keep exchange rate expectations well-anchored, depreciation could also be combined with moderate fiscal stimulus.

Our broader view remains that while the short-term impact of higher U.S. tariffs is manageable for China, the longer term effects on its growth prospects are more serious and underestimated in many aspects. The impact will be felt mainly through the technology sector, though only to the extent that tariffs will be placed on the major tech products: PC, servers, smartphones, CPUs, etc. It is here where the combined effects of investment restrictions, export controls, and tariffs will be felt. And China's prospects for a smooth rebalancing depend precisely on technology enhancements and their ability to lift China's stumbling productivity growth.

## Impact On China's Industry Sectors

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Even if the U.S. were to impose 25% tariffs on all goods imported from China, we generally believe our rated issuers could absorb the immediate impact of such a hike given their focus on domestic markets. But the indirect impacts--such as disruptions to supply chains, eroded market confidence, and currency volatility--could become significant negative credit factors if the trade friction is prolonged.

In performing sensitivity analysis on China-focused companies, we assumed a 25% tariff on all exports. We estimate that about 8% of the Chinese companies we rate have direct exposure through exports to the U.S., and the contribution to revenue ranges from 2% to 32%. Most have

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sufficient buffers or alternative revenue options to offset the direct impact of higher tariffs without affecting the ratings.

State-owned enterprises (SOEs) make up 46% of our rated China portfolio and the property sector comprises 22%. SOEs are predominantly in sectors with limited direct U.S. exposure such as commodities, utilities, infrastructure, and transport; while the property sector relies on domestic demand. The export sector is most exposed to trade tensions, many of which are foreign owned or small private companies, which we don't rate.

Within our rated portfolio, the sectors with the highest exposures to the U.S. market are consumer products, business and consumer services, technology, capital goods, and auto suppliers. We expect revenues and margins to decline for companies in these sectors if 25% tariffs are applied to all Chinese goods exported to the U.S.

However, prolonged trade tensions would likely weaken consumer confidence, business investment plans and market sentiment. This in turn could create higher uncertainties for businesses, weaken profitability, and make it harder for Chinese companies to refinance debt.

## Impact On U.S. Economy

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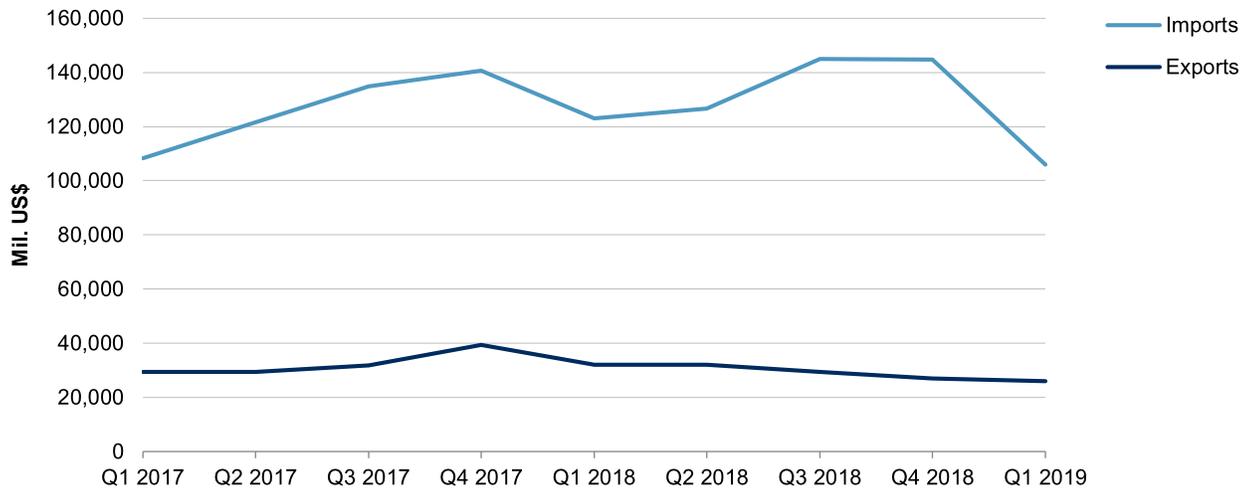
The latest tariff hike (to 25% from 10%) on \$200 billion of imports from China will have minimal direct macroeconomic impact in the U.S. We estimate a modest inflation risk at the consumer level--not more than a 20 basis point (bp)-30 bp boost to annual CPI inflation over the next 12 months. Relative to a no-tariff baseline, the imposition of 25% tariffs on \$200 billion imports from China--combined with reciprocal retaliation by China--would likely shave off about 30 bps from growth in the next 12 months from direct effects and perhaps a bit more from the secondary effects of working through tighter financial conditions.

What would the Fed likely do? It would likely look through any temporary increase in inflation that is caused by a one-off increase in tariff rates. However, if there is a meaningful slowdown in domestic demand from the trade dispute, it increases chances of a Fed rate cut. For now, the Fed is in wait-and-see mode, but chance of an "insurance" rate cut has increased.

In a trade stress scenario that we ran last year, an escalation of the current U.S-China trade dispute to a trade war that adds a 25% tariff on all nonfuel goods between the two largest economies could shave roughly 1 percentage point off U.S. GDP by 2021 (see more in "Global Trade At A Crossroads: It's Hard To See Any Winners In A U.S.-China Trade War," Sept. 5, 2018). Moreover, in a calibrated scenario with an extra confidence shock such that global GDP growth is 1 percentage point lower than it would normally be, an additional two-tenths of 1 percentage point could be shaved off the American economy by 2021. In our exercise, we assumed the Fed cuts rates to the lower bound once it realizes the global demand shock has led to significant slowdown in inflation that more than offsets cost-push inflation directly from tariffs; the Fed's response helps cushion the negative impact to some extent. By 2021, cumulative GDP loss would reach 1.3% in the U.S.

Chart 4

### U.S. Imports And Exports To China



Source: U.S. Census Bureau.

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### Impact On U.S. Industry Sectors

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In general, even if the U.S. were to impose 25% tariffs on all goods imported from China, we expect the impact on various U.S. industries to be no more than low to moderate (see table).

## Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries

<b>Sector</b>	Aerospace and defense
<b>Analytical contact</b>	Philip Baggaley, (1) 212-438-7683
<b>U.S. tariffs</b>	So far, the impact of tariffs on commercial aerospace has been minor, due in part to pricing agreements with materials suppliers, escalation clauses in contracts with airlines, and only modest imports of parts from China. On the defense side, firms are generally required to buy American, they can't sell to China, and higher material costs can often be passed on to the customer (the U.S. government), so there is no impact.
<b>Chinese retaliation and potential further U.S. tariffs</b>	The impact on both commercial aerospace and defense will likely be low for the same reasons that the effects of the current tariffs are limited. If China were to add a tariff on commercial aircraft, we do not expect any order cancellations. This is because Airbus does not have the capacity to replace the canceled Boeing orders, and if the orders were canceled, Boeing would be able to keep any deposits (which can be significant). In the long term, more orders could go to Airbus. Furthermore, aircraft sales in China are to a government agency, not individual airlines, so the government might absorb the higher costs and not pass them along to the ultimate airline user. China's quick grounding of the 737 MAX after the Ethiopian airlines accident appears to have been at least partially related to the trade negotiations, so it could well take a long time to approve the updated software. This would delay the resumption of MAX deliveries to China, but the impact on Boeing would likely be temporary.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Medium
<b>Sector</b>	Agribusiness
<b>Analytical contact</b>	Chris Johnson, (1) 212-438-1433
<b>U.S. tariffs</b>	Tariffs so far have not meaningfully affected credit metrics, and this will likely remain the case. Last year was a net positive year for grain and oilseed processors, as a drought in Argentina and less U.S. soybean imports by China (because of the Trade War) helped global soybean crush margins. The industry took advantage of the favorable conditions to maximize crush volumes. Tariffs on livestock, particularly pork, have had a minor impact on credit measures by depressing cut-out margins for fresh pork producers, leading to higher leverage. Still, the sector is not suffering a significant erosion in EBITDA and credit measures because growers and producers have been careful not to oversupply markets. Moreover, export markets outside of China continue to buy U.S. pork, keeping overall livestock pricing fairly healthy, albeit with modestly lower margins.
<b>Chinese retaliation and potential further U.S. tariffs</b>	New tariffs will not likely change the current profit outlook because the African Swine Flu has hit substantial amounts of China's domestic hog supply. In addition to China needing to import more pork from around the world (including from the U.S., even with tariffs), this will likely lead to less soybean crushing in China for feed, as its pork herds need to be culled to prevent further contagion. This could hurt companies that are exposed to China crush, but our U.S. rated issuers are not heavily concentrated in this business. Lower soybean meal demand in China will also likely lead to less incentive by China to restore historical levels of soybean imports from the U.S., which would further hurt U.S. farmer income. Still, similar to last year, fewer China soybean purchases could keep U.S. crush margins healthy, with cheaper soybean input costs for U.S. processors. Feed producers and distributors could be more affected by new tariffs, as U.S. farmer income is under a lot of pressure, and farmers will likely opt to purchase more commodity, lower-margin feed offerings. Nevertheless, credit measures and ratings are unlikely to be materially affected by this development because most companies in the feed sector are well diversified.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	High

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Auto OEMs and auto suppliers
<b>Analytical contact</b>	Nishit Madlani, (1) 212-438-4070
<b>U.S. tariffs</b>	We currently incorporate only a limited ratings impact for Ford and General Motors because of their lower reliance on exports and higher level of localized content relative to foreign automakers. However, these tariffs will add significant incremental margin pressure for Tesla. After incorporating Tesla's overseas transport costs and import tariffs, the company operates at a 55%-60% cost disadvantage compared with the same car produced in China. This will further intensify, and consumers might postpone or choose another vehicle brand subject to lower tariffs or no tariffs. Also, this increases the likelihood for higher import duties on certain components used in Tesla's products that are sourced from China, which will further pressure margins. We see increasing downside risks for some aftermarket suppliers in the 'B' category that rely extensively on inputs from China. For the Tier 1 auto suppliers, most production inputs are sourced locally. So far, though, while tariffs raise the cost of doing business, their credit impact is still incremental.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be moderate to high because China is the largest growth market in the world. Western OEMs--particularly Ford and GM--could see increased challenges to growth due to tariff pressures and potential nationalism leading to anti-American sentiments. So far, we have already seen consumers' wait-and-see attitude, delaying purchases. This could also affect German automakers' long-term profitability targets, as they have invested billions to expand U.S. factory production with the goal of exporting. It is too early to assume that this will be passed on successfully. An escalation in trade tensions could lead to the regionalization of supply chains; this will push up costs for the entire industry. More expensive auto parts would likely raise the price of new vehicles and weaken their demand. At the same time, consumers would more likely purchase used cars. Also, escalating trade tensions and nationalism could intensify policies that favor local Chinese suppliers over foreign ones.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	Limited
<b>Sector</b>	Building materials
<b>Analytical contact</b>	Donald Marleau, (1) 416-507-2526
<b>U.S. tariffs</b>	Trade friction has had only a modest effect on our rated issuers in this sector, largely because of good pricing power and operating flexibility. Products sourced from China can be a significant component for many building products, but these often constitute a small fraction of overall project costs, which gives many manufacturers adequate room to raise prices. The industry regularly demonstrates this pricing power because swings in commodity input prices are often larger than any tariffs so far, but the magnitude of a 25% tariff would be difficult to pass through the value chain. Also, issuers are often capable of sourcing components from other countries, which helps protect against tariffs or other operating issues. Toolmakers Stanley Black & Decker and Apex Tool are affected because both import from China finished hand and power tools or components for assembly in the U.S.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be low. Further trade friction could affect margins in 2019 because these higher tariffs will be more difficult to pass along quickly to end buyers. Building materials companies that have a significant manufacturing or assembly component--such as plumbing and kitchen product makers Fortune Brands and Masco and, to a lesser extent, door lock and hardware company Allegion--likely face near-term margin pressure. Retaliatory non-tariff factors shouldn't have much effect because China imports few building materials from the U.S.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	High

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Capital goods
<b>Analytical contact</b>	Ana Lai, (1) 212-438-6895
<b>U.S. tariffs</b>	Cost increases related to tariffs have been manageable, and issuers generally have the ability to pass these on to customers. We expect higher tariffs to remain one of the headwinds that could contribute to some margin pressure. Companies have responded to tariffs by increasing prices, implementing surcharges, and--to a lesser degree--changing suppliers.
<b>Chinese retaliation and potential further U.S. tariffs</b>	The impact from the next round of tariffs--including tariffs on an expanded basket of products and retaliatory actions from trading partners--could intensify pressure on costs and revenue growth, particularly if revenue growth slows, limiting the ability to pass on higher costs. China's retaliatory tariffs on agricultural products (soybeans) could have a meaningful impact on agricultural equipment demand, farmers' income, and farmer sentiment, but order books look relatively healthy for 2019, and production shifts to other regions could partially mitigate the impact.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	Medium
<b>Sector</b>	Chemicals
<b>Analytical contact</b>	Paul Kurias, (1) 212-438-3486
<b>U.S. tariffs</b>	Tariffs implemented and considered by both countries will negatively affect credit metrics when viewed holistically. We already have evidence that uncertainty and concern among buyers/sellers have led to what is for now considered a temporary pullback in demand. That was before this current escalation, which heightens this uncertainty for most chemical companies. The specific products tariffed by both sides will directly hurt only subsections of the chemical sector. The combination of this direct impact and indirect impact is negative for the sector, and it will weaken credit metrics more or less across the board. The extent of weakening will vary.
<b>Chinese retaliation and potential further U.S. tariffs</b>	The overall impact will likely be moderately negative. The impact on direct costs will likely be low because of the somewhat limited chemicals and limited number of U.S. companies that import these chemicals from China. However, the related slowdown in demand and the uncertainty will likely add up to an overall moderately negative impact. One example of such an impact is the ongoing and proposed petrochemical investments on the U.S. Gulf Coast. Large investments are expected to increase U.S. petrochemical capacity well in excess of domestic demand. The export of U.S. petrochemicals is an important factor in determining new investment. Tariffs could change the economics of these projects and slow down investment in U.S. petrochemical manufacturing. Margins will certainly decline at petrochemical companies. However, petrochemical margins have nearly doubled since 2008 and even with a slight reduction would not be in a downturn. Still, a reduction in margins is a credit negative, even if it does not result in an immediate impact on credit ratings, because companies have cushions in their credit metrics. An additional risk is a reduction in volumes caused by demand compression from end markets such as auto. Non-tariff retaliation could exacerbate the negative impact on U.S. chemicals and hurt Chinese companies that rely on low cost imports from the U.S. for input chemicals, such as polyethylene and polypropylene resins (precursors to plastic production). There are specific, but limited, instances where the higher landed cost of competing Chinese chemicals will benefit U.S. producers of such chemicals. Nitrogen fertilizer is a good example of this.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Consumer durables
<b>Analytical contact</b>	Diane Shand, (1) 212-438-7860
<b>U.S. tariffs</b>	The tariffs have hurt the sector. Companies cannot offset the inflation that has occurred because of tariffs on steel and aluminum. They are raising prices--but with a three- to six-month lag--and reducing costs. We expect margin pressure.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be moderate. Most companies in this sector are speculative grade and are struggling with existing tariffs. If steel and aluminum prices rise further, these companies will not be able to offset the rising costs.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	Limited
<b>Sector</b>	Consumer nondurables
<b>Analytical contact</b>	Diane Shand, (1) 212-438-7860
<b>U.S. tariffs</b>	There have been price declines in pork and beef. Exports have not declined because U.S. producers found other countries to absorb the supply that would have gone to China. Pork and beef producers are coming off a cyclical bottom. Chicken producers have come under the most pressure because chicken prices have declined to remain competitive with pork and beef, and these companies have not been coming off a cyclical bottom. Campbell's Soup and beverage companies have been pressured by rising aluminum and steel prices because of packaging costs. Apparel manufactures can shift non-technical manufacturing to other areas in Asia. However, products that require detailed sewing and highly skilled labor will likely remain in China. Companies will try and price to absorb the increased costs.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We believe they would affect demand, as consumer spending would likely fall if the consumer is faced with broad-based price increases.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Medium

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Forest products
<b>Analytical contact</b>	Donald Marleau, (1) 416-507-2526
<b>U.S. tariffs</b>	Trade in lumber is a long-standing U.S.-Canada trade irritant, but trans-Pacific trade in paper and wood products is fairly small. Many products have a fairly low value to weight, so transportation costs can overwhelm other costs and keep long-distance trade to a minimum.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be low. Only small amounts of paper and wood products are traded between China and the U.S. Our rated issuers have been exposed to sharp trade-related swings in profitability for many cycles, but we doubt that tariffed forest products volumes are significant enough to alter the profitability in the North American sector. Although highly commoditized and fungible, most forest products serve regional markets and are not exposed to major trade considerations; friction in forest products generally follows a north-south, Canada-U.S. axis. Nevertheless, we believe that Potlatch, Weyerhaeuser, and even Rayonier Inc. could feel some impact if retaliatory tariffs affect Pacific Northwest log exports. Even if companies like Potlatch do not export logs, lower demand from China could affect log prices.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Low
<b>Sector</b>	Health care
<b>Analytical contact</b>	Arthur Wong, (1) 416-507-2561
<b>U.S. tariffs</b>	The credit metrics of lower-rated services companies could be hurt if expenses increased due to higher costs of medical supplies sourced from China. However, companies can counter by switching to equally low cost suppliers from, for example, India. For higher-margin medical device manufacturers, margins could be hurt due to tariffs given the number of components sources from China that might not be able to be switched to another source in the near term. However, medical device manufacturers could have more capacity to pass along the cost increases to payors given that they are a fairly small portion of the national health care spending and have thus far not received the same scrutiny on pricing as the pharmaceutical and health care services subsectors.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect a higher, but still relatively low, impact to the credit quality of services providers, which tend to be rated low speculative grade. Costs of medical supplies could go up, and it is uncertain how successful service providers can be in campaigning for higher reimbursement. For medical device and equipment manufacturers, we expect a low impact, similar to that to pharmaceuticals, given the relatively high ratings, margins, and credit cushion at larger manufacturers. However, smaller suppliers could be hurt a little more. We see retaliation by China, in terms of imposing tariffs, as limited given that China has limited home-source equivalents to life-saving devices.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Homebuilders
<b>Analytical contact</b>	Donald Marleau, (1) 416-507-2526
<b>U.S. tariffs</b>	Trade would only affect homebuilder credit quality if higher input costs for materials coincided with a slide in U.S. housing prices and starts. That said, it appears homebuilders are adjusting product compositions on the margins to preserve volumes amid somewhat slower conditions in early 2019.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be low. Further trade friction will not likely affect homebuilder credit quality directly. Materials imported from China make up a small share of a new home costs (after land, labor, wood, and other commodities), and homebuilders have deftly managed pricing and unstable costs to preserve margins.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	High
<b>Sector</b>	Leisure and sports
<b>Analytical contact</b>	Emile Courtney, (1) 212-438-7824
<b>U.S. tariffs</b>	Primarily leisure goods manufacturers are exposed, with the toy sector being most exposed because it manufactures a majority of its volumes in China. Gaming, lodging, cruise, and other recreational sectors are not meaningfully exposed. However, we understand that last year, the toy industry got the United States Trade Representative to agree to remove a significant number of juvenile product categories from the list of targeted products. We are less sure of the status of the current list, but a quick search of List 3 indicates only a few items that appear to be juvenile products. We believe toy manufacturers and other leisure goods manufacturers can move some production away from China over time. However, over the near term, there could be a moderate increase in input costs that could probably only be partially passed on to consumers given that leisure goods are largely discretionary. As a result, credit measures could worsen modestly compared to our base-case forecasts this year.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect a low impact to the overall leisure sector, except toys. Unless the U.S. and China come to a compromise, we believe risks are heightened that the Trump Administration could place tariffs on another \$300 billion-plus in goods manufactured in China, at which point nearly every Chinese product sold in the U.S. would be subject to tariffs, including toys. Mattel and Hasbro have significant exposures to tariffs targeting goods manufactured in, materials sourced from, or sales in China. In the event that a subsequent list of tariffs targets toys, or materials used in the production of toys, on a sustained basis--and if this leads to increasing toy costs that cannot be passed to consumers and lower toy demand--we could again revise our forecast downward and review the credit impact. A current hypothetical non-tariff retaliatory action is if China decided to target U.S. companies doing business in China. This could specifically hurt a few high-profile gaming companies given how much cash flow comes from Macau. China could also target gaming companies by telling customers not to visit or by putting more scrutiny on the casinos and their patrons (potentially frightening customers away).
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Media and entertainment
<b>Analytical contact</b>	Naveen Sarma, (1) 212-438-7833
<b>U.S. tariffs</b>	The impact will likely be low to moderate. The U.S. media industry is primarily a domestic market; however, revenue from international content distribution, tax credits, and foreign investment financing supports content production, financing, and profitability. In the event that tariffs lower economic activity, we expect U.S. corporates to reduce their marketing and ad spending. Newspaper and printing companies depend on foreign-sourced paper and ink and are vulnerable to commodity input cost inflation. Lower levels of financing or restrictions or reduced film distribution revenue have the potential to reduce content production and profitability. U.S. social media companies could experience business retaliation overseas, which could result in increased regulatory fines or restrictions and provide an opportunity for local competitors to strengthen their market position. In addition, higher technology hardware import costs (such as smartphones, computer services, and batteries) have the potential to slow new device/product adoption and the pace of technology innovation.
<b>Chinese retaliation and potential further U.S. tariffs</b>	Not material over the short term -- While studios are not directly affected by potential trade war with China, ongoing film industry discussion between US and China (re: number of foreign films that the Chinese will allow into the country) will be held hostage to the overall trade war. Quota will not likely get worse; just any likelihood of an increasing in that quota will be delayed until the trade war is resolved. Over the intermediate term, limitations in accessing the China market will impact growth and profitability and could cause certain U.S. based companies to change their Chinese strategy.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	High
<b>Sector</b>	Metals and mining
<b>Analytical contact</b>	Donald Marleau, (1) 416-507-2526
<b>U.S. tariffs</b>	Trade friction is occurring amid steady prices, good volumes, and improving profitability, which have muted the effects of tariffs. The most obvious effects are on U.S. metals consumers, which are contending with higher costs for imported and domestic metal. For example, almost half of the aluminum consumed in the U.S. is supplied by Canadian smelters. As a result, many buyers are compelled to accept tariff pass-throughs because insufficient primary aluminum exists in the U.S. to fill the gap, and little incremental capacity is likely. On the other hand, steel producers are using the margin boost from tariff protection to ramp up domestic output and capital spending to build new capacity.
<b>Chinese retaliation and potential further U.S. tariffs</b>	China imports little upstream or downstream metals from the U.S., which likely precludes the trade situation from being aggravated. China's proposed retaliatory tariffs include coal and some wire and pipe products, but we expect these will have only a minimal effect on the operations, profitability, and credit quality of U.S. producers. We believe that less than 5% of total U.S. coal exports go to China, and this is falling as U.S. producers diversify their export markets. Some steel pipes and copper wire could be directly affected by tariffs, but we estimate that these products affect 5%-10% of revenue for only a few issuers. Non-tariff measures in this sector appear limited given the high degree of commoditization, such that retaliatory trade friction almost necessarily extends to other industries.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	Medium

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Midstream energy
<b>Analytical contact</b>	Michael Grande, (1) 212-438-2242
<b>U.S. tariffs</b>	This is having some effect related to steel needed for pipelines, which generally comes from other countries. Higher steel prices have caused new project costs to increase 10%-15%. We expect the effect on credit measures for midstream companies to be negligible.
<b>Chinese retaliation and potential further U.S. tariffs</b>	A more significant effect of retaliatory tariffs by China will be to dampen demand for liquid petroleum gas exports, which will have a moderate effect on midstream partnerships with sizable export facilities. To some extent, this has already occurred since the trade fight began, with much lower demand from China, which previously imported about 25% of its needs from the U.S. Midstream companies have sought other Asian markets like Korea, Japan, and Taiwan, which has offset some of the lost volume. However, this is still a nascent part of U.S. midstream companies cash flow, so we do not expect meaningful impact on ratings. The increased cost of steel from China could have a moderate effect on midstream credit if it delays new projects.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Medium
<b>Sector</b>	Oil and gas
<b>Analytical contact</b>	Thomas Watters, (1) 212-438-7818
<b>U.S. tariffs</b>	Crude oil has largely been spared from tariffs. There have been some nominal increases on material costs, particularly in steel tubing products and steel for pipelines. While these are commodity-based industries, and they have no pricing power, we do not believe the increase in steel-related material costs will have much of an impact on credit metrics or a delay much of the needed pipeline capacity. The costs are just a fraction of the overall cost to drill.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be low. Some Chinese refineries have reduced oil purchases in anticipation of U.S. oil imports being taxed, but because oil is a globally traded commodity that is efficiently traded globally, U.S. oil will find new markets.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited
<b>Sector</b>	Oil refineries
<b>Analytical contact</b>	Michael Grande, (1) 212-438-2242
<b>U.S. tariffs</b>	The actions so far have had limited to no effect on the refining sector. Companies are still enjoying strong results, and credit measures have not deteriorated.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be low. The most important factors for the sector are the price of crude oil and demand for products. Both have held up since the trade war began, and IMO 2020 will create an opportunity for U.S. refiners that are advantaged globally. Refined product exports are available to the global market and other demand centers (Latin America and Europe) will mute any impact from China.
<b>Impact of cost inputs from China?</b>	None
<b>Sector able to pass on increased costs?</b>	Limited

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Pharmaceuticals
<b>Analytical contact</b>	Arthur Wong, (1) 416-507-2561
<b>U.S. tariffs</b>	The impact should be minimal. A large number of active pharmaceutical ingredients (API) is sourced from lower-cost China. However, pharmaceutical inputs remain excluded from the tariff list. Also, for the large, branded pharmaceutical companies--such as Big Pharma and biotech companies, where margins remain very high--the cost component is relatively low.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect a low impact to credit quality given the high ratings, margins, and credit cushion at a majority of the branded pharma and biotech industries and the relatively low-cost components. Retaliation by China will likely be limited, especially on critical, life-saving drugs.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited
<b>Sector</b>	REITs
<b>Analytical contact</b>	Ana Lai, (1) 212-438-6895
<b>U.S. tariffs</b>	We expect limited trade risks, as these companies are not engaged in import/export activities in any meaningful way. However, industrials REITs could see some impact if global trade is disrupted.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect limited trade risks, as these companies are not engaged in import/export activities in any meaningful way. However, industrials REITs could see some impact if global trade is disrupted, though tailwinds from the continued expansion of e-commerce facilities would provide support for growth. Impact of cost inputs from China?
<b>Sector able to pass on increased costs?</b>	Low
<b>Sector</b>	Retail
<b>Analytical contact</b>	Dan Picciotto, (1) 212-438-7894
<b>U.S. tariffs</b>	So far, tariffs have not been a large issue for performance. We believe companies will attempt to pass on any increases and could be partly successful given solid consumer sentiment. We assume all are looking at geographic supply-chain shifts, but this cannot be done very quickly. Few retailers have commented in detail as to tariff impact, but they are addressing the question on a high level on earnings calls.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect the impact to be moderate. Key questions that remain include how much can be passed on and how much relocation of sourcing can be done. Companies that have commented point to more widespread tariffs as a looming risk, more than those that have been implemented so far, especially with regard to the impact in 2019. The bigger issue is what the macroeconomic impact of the escalating trade war is.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	High

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Technology
<b>Analytical contact</b>	David Tsui, (1) 212-438-2138
<b>U.S. tariffs</b>	We do not find the tariff actions/retaliations that have been implemented so far to have a significant impact on technology firms' credit metrics. Many technology firms have commented that they are able to either avoid the higher cost from tariffs by further optimizing their supply chains (allocating higher manufacturing volume to other facilities in South East Asia or Mexico or broadening their supplier bases to include non-China manufacturers) or mitigate it by passing along some of the higher costs from tariffs to customers. That said, tech firms are prepared for a downside scenario where political tension between U.S. and China to persist and tariffs are permanent. In such a case, tech firms will have to rethink their supply chain, which we believe involves relocating resources away from China and should lead to a higher cost base initially.
<b>Chinese retaliation and potential further U.S. tariffs</b>	If tariffs were imposed on all goods imported from China, we expect that it would have a meaningful impact on the technology sector, especially in consumer electronics (such as smartphones and PCs) and semiconductor products (such as CPUs and GPUs). Most global semiconductor manufacturing and assembly is based in China. It would be unrealistic to move manufacturing and assembly operations outside of China because it is too costly to relocate such established and integrated supply chains and difficult to find the large pool of skilled resources required. Furthermore, further escalation of U.S-China trade tensions could risk China retaliating with non-tariff actions, such as Chinese consumers boycott of American goods or limitations on foreign investments or operations in China. While tech firms could consider relocating their manufacturing and assembly operations outside of China, it would 1) be a long process to ramp up and 2) hamper their relationships with Chinese suppliers and customers. So while the economic benefits are a factor, the longer-term China strategy is also an important consideration. The negative impact could be exacerbated by a global economic downturn, stronger dollar, and other nontariff-related actions (further protectionism/regulatory restrictions). Regarding rating sensitivities in the tech sector, many tech companies have conservative balance sheets, and they have earmarked their excess cash flow and free operating cash flow for shareholder returns. As such, we believe many high-profile tech companies, though possibly negatively affected by additional tariffs, have the flexibility to preserve their credit quality by scaling back shareholder returns.
<b>Impact of cost inputs from China?</b>	Medium
<b>Sector able to pass on increased costs?</b>	Medium
<b>Sector</b>	Telecom
<b>Analytical contact</b>	Allyn Arden, (1) 212-438-7832
<b>U.S. tariffs</b>	There could be some second- and third-layer input cost increases, but there's been little commentary from issuers on the potential impact. The telecom and cable sector derives most of its revenue domestically, so tariff retaliation is unlikely to materially affect financial results.
<b>Chinese retaliation and potential further U.S. tariffs</b>	We expect a limited impact.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited

**Sector-By-Sector Discussion Of The Impact Of Tariffs On U.S. Industries (cont.)**

<b>Sector</b>	Transportation
<b>Analytical contact</b>	Philip Baggaley, (1) 212-438-7683
<b>U.S. tariffs</b>	China tariffs so far have not had a material effect on transportation companies, but a broadening of the U.S. tariffs to more goods could have a more noticeable impact. As these are service companies rather than manufacturers, it is not a question of raising prices to offset tariffs but rather gauging the direct and indirect effect of lower demand for transportation. Marine cargo container lessors, which quickly feel the effect of lower global trade, can and do quickly cut capital expenditures when demand weakens (and some China-based demand could shift over time to other regions of Asia). To some extent, airlines can move planes from routes where traffic softens and replace them with smaller planes.
<b>Chinese retaliation and potential further U.S. tariffs</b>	If tariffs rise and widen and China retaliates, which could slow global growth, that hurts many transportation companies to some extent. Marine cargo container lessors would probably see some pressure on earnings (though, as noted, they can react quickly, and some trade they carry may just migrate to elsewhere in Asia over time), as would package express companies that are involved in complex global supply chains. China is a significant market for them but is still much smaller than North America or Europe. They, and passenger airlines, are somewhat at risk of Chinese countermeasures that look beyond tariffs to other regulatory actions to make life difficult for--or to stir up popular reaction against--U.S. brands. For example, FedEx's intra-Asia hub is in Guangzhou, in China, so new limits on flying or processing of shipments could make that less efficient or profitable. The actual rating outcomes also depend on how much cushion is in the current ratings. And there could well be a popular reaction against flying on United Airlines and Delta Air Lines, the two leading U.S. airlines to Asia (though U.S.-China traffic contributes less than 10% of their totals) and fewer visits to the U.S. generally. That alone is unlikely to have a rating impact, but it could be noticeable. More indirectly, railroads could see somewhat lower shipments of agricultural exports to China (such as soybeans) and imports from China (intermodal containers). But these companies have diverse traffic bases and plenty of room to trim share buybacks if they choose. Thus, the impact on transportation overall will likely be low unless the trade war is accompanied by general global economic slowdown (not necessarily an outright recession), in which case the impact could be medium.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	Limited
<b>Sector</b>	Unregulated (merchant) power
<b>Analytical contact</b>	Aneesh Prabhu, (1) 212-438-1285
<b>U.S. tariffs</b>	The power industry is largely self contained but relies on Europe and Asia for most of its equipment and components. Of the major commodities, 65% of steel and 57 of aluminum are imported from Canada, Mexico, and the EU.
<b>Chinese retaliation and potential further U.S. tariffs</b>	The power sector is regional. Any impact would be from construction equipment purchased from China. The solar sector has already experienced about a 10%-12% cost increase because of Chinese tariffs. There are no production sales to the country. We expect some costs to be passed through in rates. The largest impact would likely be in the solar generation segment, where up to 40% of the capital costs of building a solar farm will be subject to a 25%-30% tariff. However, the capital cost curve has been declining rapidly, so we see that as a slowdown in the dramatic increase in solar deployment but not a dramatic decrease.
<b>Impact of cost inputs from China?</b>	Low
<b>Sector able to pass on increased costs?</b>	High

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