

# Heavy and Power Equipment

## 1Q18 Orders, 2018 Sales Estimates Higher

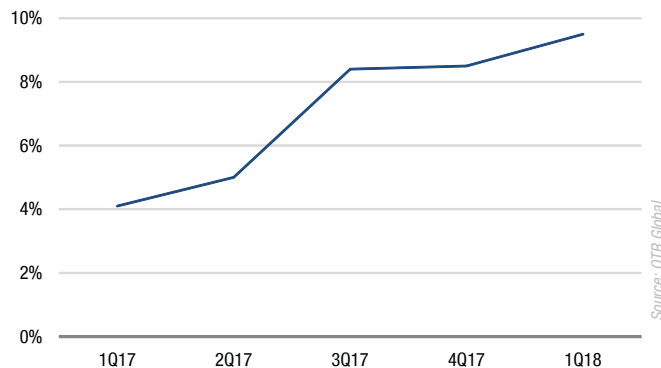
Strong demand in North America and EMEA drove 1Q18 orders and 2018 sales estimates higher, while tight supply supported increasing prices.

- Global new equipment orders up 8%–11% yy during 1Q18 (vs. up 7%–10% in 4Q17); North American new equipment orders back in positive territory
- 2018 global new equipment sales expected up 9%–12% yy (vs. expectations of up 6%–9% in December), driven by increased forecasts in North America, EMEA; 1Q18 sales up 10%–13% yy
- Pricing up 1%–4% during 1Q18 yy and expected higher July 1; new increases could apply to orders placed earlier because of long delivery times, CAT's pricing structure
- Areas to Watch: Sales in Latin America, Asia/Pacific still in line with or better than expectations for most sources but softer vs. 4Q17 yy growth; global supply constraints remain unresolved

### KEY DATA

#### Global Heavy Equipment Orders YY

(weighted average)



“We originally forecast the year to be flat–up 5%. Now, we think we could easily see up 10%. I don’t know where all this demand is coming from, but it is out there. We’ve ordered a couple mining shovels and D11s without customer orders. We could do five times more mining business this year versus last.”

*Executive at a leading North American Caterpillar dealer*

BY T. JARRETT HARRIS

### SOURCES & BACKGROUND

**44 Caterpillar equipment dealers** representing more than \$4.1 billion in 2017 new equipment sales

**NORTH AMERICA** 12 equipment dealers representing more than \$1.8 billion in 2017 new equipment sales; **EMEA** 14 equipment dealers (8 in Western Europe and 6 in Russia/CIS) representing more than \$950 million in 2017 new equipment sales; **LATIN AMERICA** 6 equipment dealers (3 in Brazil, 2 in Mexico and 1 in Chile) representing more than \$700 million in 2017 new equipment sales; **Asia/Pacific** 12 equipment dealers (10 in China and 2 in India) representing more than \$680 million in 2016 new equipment sales

**REPEAT SOURCES** 38 dealers (10 in North America, 12 in EMEA, 5 in Latin America and 11 in Asia/Pacific) from OTR Global’s December report

**INTERVIEWS** March through early April

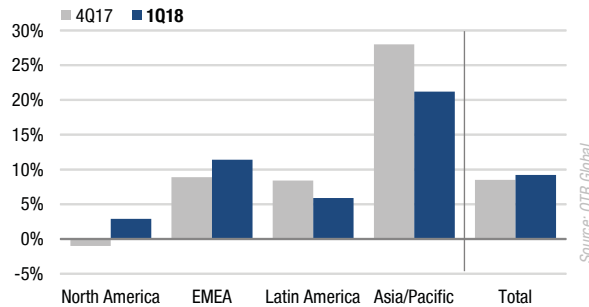
**AVERAGES** Regional averages weighted according to each source’s 2017 new equipment sales; global averages weighted according to each region’s percentage of Caterpillar’s 2017 machinery, energy and transportation sales and revenue

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## Orders Up, but Limited by Production Capacity

### New Equipment Orders YY

(weighted average)



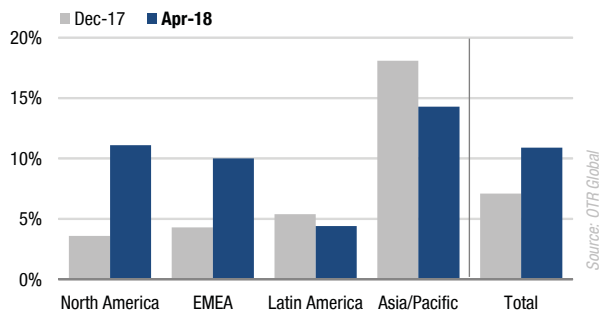
Global orders for new **Caterpillar Inc.** equipment increased an average 8%–11% during 1Q18 yy, slightly better than December levels. The most notable positive shift was in North America, where dealers reported orders up low single digits yy, following a dip into negative territory in 4Q17 caused by availability. “Most of the salesmen say it’s as busy as they remember. They don’t remember this level of quoting ever. The demand is huge,” one North American source said. Dealers in EMEA also reported an uptick. “We pre-ordered to be sure to be able to deliver, we worked very closely with Cat to avoid shortages,” one source said.

However, sources worldwide said order rates still were constrained by Caterpillar’s ability to produce to demand. “We’d order more if it wasn’t on allocation,” one North American dealer said. A source in Asia/Pacific said, “Our orders are about 30% up. But the problem now is that Caterpillar doesn’t have the machines in hand to meet the orders. To some extent we lose some orders.” While frustrating to dealers globally, several said current issues are evidence of Caterpillar trying to break the pattern of prior cycles when dealers over-ordered. “Cat is really trying to manage the over-ordering. This time they are really managing that better. They take a look — if you forecast X sales in February and you miss that, they adjust your future forecast down,” one source said. Another said, “We are guaranteed 50%–70% of our orders. It’s the other 30%–40% that’s the wild card.”

## Full-Year Sales Back to Initial Projections

### 2018 YY Sales Estimates

(weighted average)



Sources expect 2018 global new equipment sales to increase an average 9%–12% during 2018 yy, up from the 6%–9% increase expected in December and back in line with initial projections made in September 2017. The uptick was driven by increased forecasts in North

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America and EMEA. “We originally forecast the year to be flat—up 5%. Now, we think we could easily see up 10%. I don’t know where all this demand is coming from but it is out there,” one North American dealer said. “We’ve ordered a couple mining shovels and D11s without customer orders. We could do five times more mining business this year versus last.” Several North American dealers said they do not expect current demand levels to hold for the entirety of the year. “We’re ahead 15% now, but by 3Q it’ll level out some. It won’t continue to hold that all the way through year end.” But others expect another 18+ months of elevated activity. “I think we have a good 18 to 24 months more of this level of activity.” Sources in Western and Eastern Europe also reported increased expectations. “We have a good backlog and a positive visibility for the coming months,” a Western European source said. An Eastern European source said, “The construction market in Kazakhstan is expected to increase 30%–35% in 2018 yy.”

Growth rates tapered slightly in Latin America and Asia/Pacific, but sources remained mostly optimistic. “After the government’s two sessions, more construction projects will get started. And the ongoing infrastructure and property investment will continue to drive our equipment orders. After a strong 2017, it is still very possible to grow our business by 10%,” one Chinese dealer said. A Latin American source said, “The market in general will not grow, but we expect to have a 5% increase in our sales by gaining market share.”

## Prices Up, Mid-Year Increase Expected

Caterpillar dealers globally reported a 1%–4% price increase on average during 1Q18, in line with December levels. “I would say that there was a slight increase in the price of 75% of our products,” a Latin American dealer said. A Chinese dealer said, “Our new equipment prices have increased 1%–2% yy because of higher production costs and strong market demand.” In addition, a higher percentage of sources reported reduced incentives than in December. “They lowered list prices and then accordingly took away merchandising support. They said there’s no price increase, but now what was standard is extra.”

Many sources said the bulk of price increases are sticking, aided in part by the fact that competitors have also implemented increases. “Pricing is like three points higher. Right now we can pass it along,” one dealer said. Another said, “**Deere [ & Co.]** and **Komatsu [Ltd. (6301 JP)]** both had price increases. Deere in January and Komatsu followed soon after. We’ve got one coming in July of 1.5%. Cat has already announced that.”

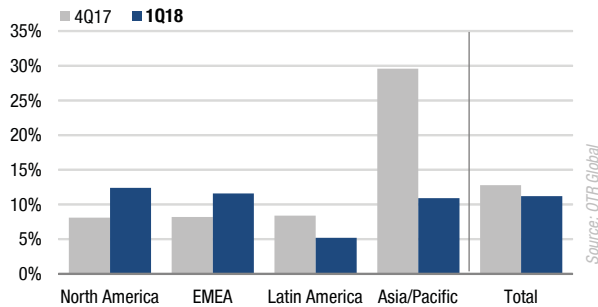
Several dealers said additional increases have been announced starting July 1. “Originally Cat kept the Jan. 1 increases fairly moderate. But there will be another 1.5% price increase effective July 1,” one dealer said. Another dealer said. “Cat has announced a July increase across the board. It wouldn’t surprise me if the tariffs drove it, but it’s not being billed as such.” Sources said Caterpillar — unlike other OEMs — determines pricing to dealers by factory ship date, not order date. “They announce price increases well in advance because we’re quoting products well in advance, and we don’t get any price protection. We have to pay for the day it leaves the factory, not the day we quoted it.” Given long lead times, dealers could see orders placed as early as 4Q17 reflect significantly higher prices than initially anticipated. “We haven’t had a midyear increase in a long time. As a dealer it’s painful.”

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## Sales Accelerate in North America, EMEA

### New Equipment Sales YY

(weighted average)



Demand for new Caterpillar equipment remained robust in North America during 1Q18 yy; sales were up 11%–14% yy, compared with up 7%–10% yy in 4Q17. “Last year the year started slow and this year it is starting much quicker. It’s definitely a better economy,” one source said. More North American sources reported sales exceeding expectations than in December, as residential, commercial and highway/bridge projects continued to drive demand. “We were expecting sales would be better [yy], and it’s double what we thought.”

Demand in EMEA also gained momentum, as 1Q18 sales increased an average 10%–13% yy, compared with up 7%–10% yy in 4Q17. Sources in Western Europe said sales were noticeably higher than anticipated despite Brexit uncertainty. “Right now, our customers’ workload is strong, and we have new tenders coming in,” one Western European source said. “The second half of the year might be a lot busier than this, if we win the tenders for large infrastructure works, especially HS2.” In Eastern Europe, Russian and Kazakh sources reported increasing strength from the mining and infrastructure sectors. “We see demand increasing because the government started financing the Silk Road project,” a Kazakh source said. A Russian source said, “Market conditions remain equally positive. We see demand coming from infrastructure projects as well as mining. Lead times remain long, though.”

**Growth Tapers in Latin America, Asia/Pacific:** Sales in Latin America and Asia/Pacific, however, grew at a slower pace in 1Q18 yy compared with 4Q17 than in December. Sources attributed the slowdown to a number of factors, including tough comps, political uncertainty, a shift in mix towards smaller projects and insufficient machine supply. Dealers in Asia/Pacific reported the most significant change in sales growth, up 9%–12% yy during 1Q18, significantly slower compared with up 28%–31% yy in 4Q17. “I expect 1Q18 sales of new Caterpillar equipment to increase by around 3% yy. Because of the large base number, the growth is limited,” one Chinese source said. Another said, “Our 1Q18 sales may increase less than 10% yy, lower than our expectations of an increase of 15%–20%. Government policy coming out of the two sessions is still unclear, and many new construction projects have not started.”

Sources in Latin America reported new equipment sales up an average 4%–7% during 1Q18 yy, down from the 7%–10% increase reported in December. “Demand has been affected by the uncertainty surrounding the presidential election. Sales could fall short of expectations because of that. We don’t know if there will be continuity or what kind of changes could take place,” a Mexican dealer said. A Brazilian dealer said, “In mining, I didn’t deliver any equipment in 1Q18 because I don’t have inventory for prompt delivery.”

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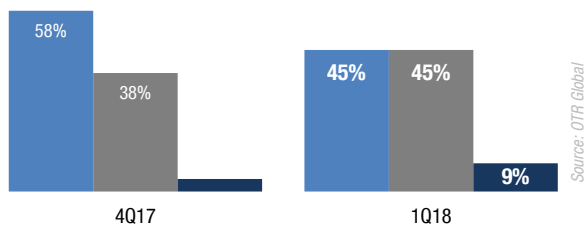
Sales during 1Q18 in these regions remained better than expected for most sources, but the compression in the growth rate partially offset the strength in North America and EMEA, resulting in global new equipment sales up 10%–13% during 1Q18 yy, compared with up 11%–14% in December.

## Lead Times Extend Even as Production Increases

### Lead Times Continue to Extend QQ

(percentage of responding sources)

■ Extended ■ Unchanged ■ Shortened



Fewer sources reported lengthening lead times during 1Q18 than in 4Q17, but long delivery windows remain a significant problem, and few sources see improvement on the horizon. In fact, many sources in North America reported worsening machine availability during 1Q18. “Lead times are the worst in my working career, and I’ve been in the business 40 years. We’ve always been able to scramble, but all the dealers are in the same boat. I’m worried about losing business as a result,” one North American dealer said. Another said, “We thought last year was ugly. Indications are that this year is going to be worse. The 349 excavator, the large one, we may not see one this year because of plant capacity.”

As in December, sources said the problem mainly lies with Caterpillar’s supply chain, as vendors continue to scramble to ramp production. “Most of the parts they are having problems with are third party: big engine components like engine heads, pistons and crank shafts,” one dealer said. Another said, “It’s enclosures and wiring harnesses on 600kw and below product.” Wiring harnesses were mentioned in the December check, and several sources again said the component is in short supply. “Wiring harnesses are huge. We’re looking to build our own wiring harness production line.”

**Contributors:** Mery Galanternick, Sylvain Gavard, Glauber Goncalves, Birgit Heitfeld, Denise Jordan, Azim Mamanov, Fabrice Pozzoli-Montenay, David Ren, Usha Somayaji, Jina Sun and Jason Tremble

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## ON 1Q18 DEMAND

“There is definitely more activity. There are things that people were talking about that they are now bidding.” *North America*

“There was a time we had little commercial, just healthcare and government. There’s a better mix now, more commercial, which is nice.” *North America*

“Bigger dollars are coming from frac sand mining, as well as sand and gravel operations.” *North America*

“Data centers continue to drive business. We have a fair amount of government projects, not an uptick but steady on things like treatment plants and pump stations.” *North America*

“We are up 35% for this quarter compared to the first quarter of 2017. The big dollars are coming mostly from frac sand operations.” *North America*

“We’ve had really dry and pleasant weather. So there are some subs saying they are already through their backlogs.” *North America*

“Through February our dollar volume was up about 35%. By end of Q1 it’ll be closer to 10%.” *North America*

“Equipment demand around Paris is historically huge.” *EMEA*

“Construction projects, including for the FIFA 2018 world cup, are generating demand in the region.” *EMEA*

“The situation improved slightly at the beginning of the year, with more activity in the construction industry. But I wouldn’t say there is more confidence in the market. Customers want to finish the projects before the presidential elections, since there’s uncertainty around it.” *Latin America*

“By the number of consultations I’ve been receiving, I’d say the market is better. But I have had no real transactions yet.” *Latin America*

“Some infrastructure projects are underway, including water infrastructure and road maintenance, and also commercial construction, such as residential buildings and shopping centers. None of them are large projects, though. And the mining industry is not generating much demand for us. There is investment underway in this area, but they are not multimillion-dollar projects.” *Latin America*

“Market conditions were slightly worse in February because of the Chinese New Year festival. But as we get into March, market conditions improved and demand recovered.” *Asia/Pacific*

“Because of the rainy weather and the strict pollution control policy, projects still haven’t resumed construction yet.” *Asia/Pacific*

“Coal prices remained stable and are expected to rise a little bit this year. This will continue to drive market demand for excavators.” *Asia/Pacific*

The main activity that has picked up is roads, highways. Several states have put out contracts for road building. Demand is also coming from irrigation, smaller airports, mining, mainly coal and quarrying.” *Asia/Pacific*

## ON 1Q18 NEW EQUIPMENT ORDERS

“Customer orders are up 20%. Our orders decreased 30%. Cat cannot supply what we’re asking for. It’s pretty much across the board. It’s terrible.” *North America*

“It’s down due to allocation. They’re not down terribly, and we’re in much better shape than some.” *North America*

“We may have more orders, but lead times are getting so long that customers have to be really motivated. It has an impact on our sales.” *EMEA*

“Orders and sales are generally equivalent in our case, so both fell.” *Latin America*

“Our mix of products is not the ideal because there is some equipment in managed distribution.” *Latin America*

“1Q18 orders have increased 20% yy because of more construction projects and increasing infrastructure investment.” *Asia/Pacific*

“We have plenty of orders in hand, but are unable to execute, so it has been on par with the same quarter last year.” *Asia/Pacific*

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## ON FULL-YEAR SALES EXPECTATIONS

"I expect our new sales to show a continued increase with steady oil prices. We are on target to be 30% higher over last year." *North America*

"Sales will increase as much as 10%, all because of data center projects." *North America*

"We're up about 8%–9%, almost 9% now. We think we'll most likely end up at up 5%–6%." *North America*

"Some of the things that differentiated us in the past are gone. Resale value is changing. The quality gap has narrowed. Tech has leveled that playing field quite a bit. Customers are asking, 'Why should I pay 15% or 20% more with no parts availability?' I'm in the 40-year club and I've never seen Cat like this. I don't know if they're ever coming back." *North America*

"I believe that demand will weaken a bit in Q3 and Q4 because of the Bauma fair in spring 2019. Some customers may wait until this important fair to invest. We have already observed this kind of behavior in the past." *EMEA*

"If there are more sanctions against Russia it might impact our 2018 sales." *EMEA*

"Our sales will be flat this year thanks to the demand from the mining industry. Otherwise, they would definitely fall." *Latin America*

"We feel that the demand in urbanization, new villages and water conservancy projects will become stronger in 2018, and small-size and medium-size excavators will be the key demand drivers." *Asia/Pacific*

"The government will continue to increase investment on infrastructure, municipal engineering and property projects. I expect 2018 new equipment sales to increase 10%–20% yy." *Asia/Pacific*

## ON PRICING

"They actually reduced prices on a lot, but also reduced the programs. The net effect to customers should be no change. They've already announced a midyear price increase." *North America*

"I think competitor prices are relatively stable or flat as well, but there is a bigger gap due to their financing options versus ours. Ours are not as competitive as Deere and Komatsu offerings." *North America*

"I think another increase may come, as demand is strong and little equipment is available. It would be normal to benefit from the situation." *EMEA*

"Caterpillar announced a 1.5% average price increase to start in July." *Latin America*

"There have been no price increases [by our competitors], but they are offering less discounts. So, I would say they are less aggressive. They were losing money." *Latin America*

"The price increases of steel have a bigger impact on domestic brands compared with Caterpillar because Caterpillar has a mature supply chain system to control the costs." *Asia/Pacific*

"1Q18 prices have increased slightly because of higher costs. Caterpillar widens its product line and adds more projects to the market, such as GC projects. We could say the prices are decreasing because of those are different products." *Asia/Pacific*

"All companies are saying that they are increasing prices. But according to what I know, Sany [Heavy Industry Co. Ltd. (600031 CH)] cut its prices for some models. For example, the price of Sany 75 was 355,000 yuan [\$56,000] last year, but now the price is only 330,000 yuan [\$52,000]." *Asia/Pacific*

"All companies are saying that they are increasing prices. But I think the real prices are actually similar because of competition. Maybe less incentives compared to before." *Asia/Pacific*

## ON LEAD TIMES

"There are much longer lead times. We are fortunate that our customers have mostly been patient on delayed deliveries. We have lost some deals and have had to loan or discount rental equipment to keep some deals together." *North America*

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“One of the challenges right now is wiring harnesses are really tough. Parts like that that historically we haven’t had problems with. The parts business is worse than the sales department in terms of getting what they need in a timely manner acceptable to the customer.”

*North America*

“It has gone from bad to bad. It’s on multiple fronts. They’ve fumbled a few systems changes. Decatur is a new home for some of the Aurora plant that’s shutting down. They struck out there. In Victoria, Texas, they’re having trouble staffing the place.”

*North America*

“Lead times are quite long, 12–16 weeks on average. This is more or less four weeks longer quarter to quarter. The reason is there is continuously strong demand in a robust market and economy.”

*EMEA*

“Lead times remain too long, around four to five months. For construction companies it’s critical because they are tied within specific timeframes to complete their projects.”

*EMEA*

“Equipment from USA and Japan needs more than six months to be delivered.”

*EMEA*

“After closing several plants in Europe, Cat is not able to increase production.”

*EMEA*

“It didn’t extend more than 4Q17, but still takes 10 months to deliver equipment, when the normal time would be six months.”

*Latin America*

“In spite of lead time improvement I lost a sale because Caterpillar was not able to deliver in time.”

*Latin America*

“Caterpillar is still struggling to restore its component chain of suppliers.”

*Latin America*

“Lead times have extended across equipment categories, but especially with trucks and dumpers. They have extended by at least three to four months now.”

*Asia/Pacific*

“Lead times have gone up considerably. Now you need to build in an extra three months to get equipment that was available off the shelf.

Inventory is almost nil for backhoe loaders, wheel loaders and motor graders.”

*Asia/Pacific*

“Component shortages are not serious in China now because Caterpillar has increased the production of its own components.”

*Asia/Pacific*



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## 1. Are conditions and demand in the machinery market better, the same or worse qq?

|                               | NORTH AMERICA | EMEA      | LATIN AMERICA | ASIA/PACIFIC | TOTAL     |
|-------------------------------|---------------|-----------|---------------|--------------|-----------|
| Better:                       | 7             | 5         | 2             | 7            | 21        |
| Same:                         | 4             | 8         | 2             | 3            | 17        |
| Worse:                        | 1             | 1         | 2             | 2            | 6         |
| <b>OTR Comparative Index:</b> | <b>50</b>     | <b>29</b> | <b>0</b>      | <b>42</b>    | <b>34</b> |
| <b>4Q17 Index:</b>            | <b>40</b>     | <b>13</b> | <b>60</b>     | <b>64</b>    | <b>40</b> |
| <b>1Q17 Index:</b>            | <b>57</b>     | <b>57</b> | <b>33</b>     | <b>80</b>    | <b>61</b> |

Note: The OTR Comparative Index is a quantitative representation of qualitative responses. The Index is calculated by subtracting the "worse" from the "better" responses, dividing by the total responses and multiplying by 100. An Index below zero indicates a negative trend; above zero indicates a positive trend.

## 2. What end markets and types of projects are driving your Caterpillar equipment orders?

|                               |   |   |   |   |    |
|-------------------------------|---|---|---|---|----|
| Public sector/infrastructure: | 2 | 3 | 2 | 6 | 13 |
| Mining:                       | 1 | 3 | 4 | 4 | 12 |
| Residential construction:     | 8 | 1 | - | 2 | 11 |
| General construction:         | 1 | 8 | - | 2 | 11 |
| Commercial construction:      | 7 | 2 | 1 | - | 10 |
| Highway/bridge:               | 6 | 2 | - | 1 | 9  |
| Industrial construction:      | 1 | 3 | - | 1 | 5  |
| Nonresidential construction:  | 1 | 4 | - | - | 5  |
| Quarries/aggregates:          | 1 | 3 | - | - | 4  |
| Oil and gas:                  | 4 | - | - | - | 4  |
| Data centers:                 | 1 | 1 | 1 | - | 3  |
| Rural infrastructure:         | - | - | - | 2 | 2  |
| Forestry:                     | 2 | - | - | - | 2  |
| Healthcare:                   | 1 | - | 1 | - | 2  |
| Pipeline industry:            | 2 | - | - | - | 2  |
| Other:                        | - | 1 | 1 | 4 | 6  |

Note: Some sources gave more than one answer.

## 3a. Have 1Q18 sales of new Caterpillar equipment increased, remained the same or decreased yy?

|                          |                   |                   |                  |                   |                   |
|--------------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| Up 31%–40%:              | 1                 | -                 | 1                | -                 | 2                 |
| Up 26%–30%:              | -                 | 1                 | -                | -                 | 1                 |
| Up 21%–25%:              | -                 | 2                 | -                | -                 | 2                 |
| Up 16%–20%:              | 1                 | -                 | -                | 4                 | 5                 |
| Up 11%–15%:              | 3                 | -                 | -                | -                 | 3                 |
| Up 6%–10%:               | 2                 | 2                 | 2                | 3                 | 9                 |
| Up 1%–5%:                | -                 | 3                 | -                | 1                 | 4                 |
| Up:                      | -                 | 2                 | -                | 1                 | 3                 |
| Flat:                    | 3                 | 3                 | 2                | 2                 | 10                |
| Down:                    | -                 | -                 | 1                | -                 | 1                 |
| Down 1%–5%:              | 1                 | 1                 | -                | -                 | 2                 |
| Down 6%–10%:             | 1                 | -                 | -                | 1                 | 2                 |
| <b>Weighted average:</b> | <b>Up 11%–14%</b> | <b>Up 10%–13%</b> | <b>Up 4%–7%</b>  | <b>Up 9%–12%</b>  | <b>Up 10%–13%</b> |
| <b>4Q17 average:</b>     | <b>Up 7%–10%</b>  | <b>Up 7%–10%</b>  | <b>Up 7%–10%</b> | <b>Up 28%–31%</b> | <b>Up 11%–14%</b> |

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## 3b. Are 1Q18 new equipment sales stronger, in line with or weaker than your expectations?

|           | NORTH AMERICA | EMEA | LATIN AMERICA | ASIA/PACIFIC | TOTAL |
|-----------|---------------|------|---------------|--------------|-------|
| Stronger: | 5             | 1    | 2             | 4            | 12    |
| In line:  | 5             | 13   | 4             | 4            | 26    |
| Weaker:   | 2             | -    | -             | 4            | 6     |

## 4. Have 1Q18 orders for new Caterpillar equipment increased, remained the same or decreased yy?

|                          |                     |                   |                  |                   |                  |
|--------------------------|---------------------|-------------------|------------------|-------------------|------------------|
| Up 31%–40%:              | -                   | -                 | 1                | -                 | 1                |
| Up 26%–30%:              | -                   | 1                 | -                | 1                 | 2                |
| Up 21%–25%:              | 1                   | 2                 | -                | 1                 | 4                |
| Up 16%–20%:              | -                   | -                 | -                | 2                 | 2                |
| Up 11%–15%:              | 2                   | -                 | -                | 1                 | 3                |
| Up 6%–10%:               | -                   | 2                 | 3                | 3                 | 8                |
| Up 1%–5%:                | 4                   | 3                 | -                | -                 | 7                |
| Up:                      | -                   | 2                 | -                | 1                 | 3                |
| Flat:                    | 1                   | 4                 | 2                | 3                 | 10               |
| Down 1%–5%:              | 1                   | -                 | -                | -                 | 1                |
| Down 6%–10%:             | 2                   | -                 | -                | -                 | 2                |
| Down 26%–30%:            | 1                   | -                 | -                | -                 | 1                |
| <b>Weighted average:</b> | <b>Up 1%–4%</b>     | <b>Up 10%–13%</b> | <b>Up 4%–7%</b>  | <b>Up 20%–23%</b> | <b>Up 8%–11%</b> |
| <b>4Q17 average:</b>     | <b>Flat–down 2%</b> | <b>Up 7%–10%</b>  | <b>Up 7%–10%</b> | <b>Up 26%–29%</b> | <b>Up 7%–10%</b> |

## 5a. Have 1Q18 lead times on new equipment orders extended, remained the same or shortened qq?

|                    |   |   |   |   |    |
|--------------------|---|---|---|---|----|
| Extended:          | 8 | 6 | 4 | 2 | 20 |
| Remained the same: | 4 | 7 | 1 | 8 | 20 |
| Shortened:         | - | 1 | 1 | 2 | 4  |

## 5b. Has Caterpillar increased, maintained or decreased equipment production during the past 90 days?

|              |   |   |   |   |    |
|--------------|---|---|---|---|----|
| Increased:   | 5 | 2 | 4 | 8 | 19 |
| Maintained:  | 6 | 6 | - | - | 12 |
| Decreased:   | 1 | - | - | - | 1  |
| Don't know:  | - | 6 | - | 4 | 10 |
| No response: | - | - | 2 | - | 2  |

## 6a. Have 1Q18 new equipment inventory levels increased, remained the same or decreased yy?

|                          |                   |                     |                     |                         |                     |
|--------------------------|-------------------|---------------------|---------------------|-------------------------|---------------------|
| Up 6%–10%:               | 1                 | -                   | -                   | -                       | 1                   |
| Up 1%–5%:                | 1                 | -                   | -                   | 1                       | 2                   |
| Up:                      | -                 | -                   | -                   | 2                       | 2                   |
| Flat:                    | 3                 | 13                  | 2                   | 6                       | 24                  |
| Down:                    | 1                 | -                   | 1                   | 1                       | 3                   |
| Down 6%–10%:             | 4                 | -                   | -                   | -                       | 4                   |
| Down 11%–15%:            | 1                 | -                   | -                   | -                       | 1                   |
| Down 31%–40%:            | -                 | -                   | 1                   | -                       | 1                   |
| Down 51%–60%:            | -                 | -                   | 1                   | -                       | 1                   |
| Down 91%–100%:           | -                 | -                   | -                   | 2*                      | 2*                  |
| No response:             | 1                 | -                   | -                   | -                       | 1                   |
| Not applicable:          | -                 | 1                   | 1                   | -                       | 2                   |
| <b>Weighted average:</b> | <b>Down 4%–7%</b> | <b>Flat</b>         | <b>Down 11%–14%</b> | <b>Flat–up slightly</b> | <b>Down 3%–6%</b>   |
| <b>4Q17 average:</b>     | <b>Down 6%–9%</b> | <b>Not averaged</b> | <b>Not averaged</b> | <b>Flat–down 3%</b>     | <b>Not averaged</b> |

\*Two outlying sources in India excluded from the averages.

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## 6b. Are new equipment inventory levels excessive, adequate or insufficient relative to demand?

|                 | NORTH AMERICA | EMEA | LATIN AMERICA | ASIA/PACIFIC | TOTAL |
|-----------------|---------------|------|---------------|--------------|-------|
| Excessive:      | -             | -    | -             | -            | -     |
| Adequate:       | 2             | 5    | 5             | 6            | 18    |
| Insufficient:   | 9             | 8    | -             | 6            | 23    |
| Not applicable: | 1             | 1    | 1             | -            | 3     |

## 7. Do you expect your 2Q18 new equipment inventory to be higher, unchanged or lower qq?

|                 |   |    |   |   |    |
|-----------------|---|----|---|---|----|
| Higher:         | 2 | -  | 2 | 2 | 6  |
| Unchanged:      | 4 | 11 | 2 | 7 | 24 |
| Lower:          | 5 | -  | 1 | 3 | 9  |
| Don't know:     | - | 1  | - | - | 1  |
| No response:    | 1 | 1  | - | - | 2  |
| Not applicable: | - | 1  | 1 | - | 2  |

## 8a. Have 1Q18 new equipment prices increased, remained the same or decreased yy?

|                          |                 |                 |                   |                 |                 |
|--------------------------|-----------------|-----------------|-------------------|-----------------|-----------------|
| Up 6%–10%:               | -               | -               | -                 | 1               | 1               |
| Up 1%–5%:                | 8               | 10              | 4                 | 3               | 25              |
| Up:                      | -               | -               | 1                 | 4               | 5               |
| Flat:                    | 3               | 4               | 1                 | 2               | 10              |
| Down:                    | 1               | -               | -                 | 1               | 2               |
| Down 1%–5%:              | -               | -               | -                 | 1               | 1               |
| <b>Weighted average:</b> | <b>Up 1%–4%</b> | <b>Up 1%–4%</b> | <b>Flat-up 3%</b> | <b>Up 3%–6%</b> | <b>Up 1%–4%</b> |
| <b>4Q17 average:</b>     | <b>Up 2%–5%</b> | <b>Up 1%–4%</b> | <b>Flat-up 3%</b> | <b>Up 1%–4%</b> | <b>Up 1%–4%</b> |

## 8b. Has Caterpillar's 1Q18 incentive activity increased, remained the same or decreased qq?

|                    |   |    |   |   |    |
|--------------------|---|----|---|---|----|
| Increased:         | - | 1  | 1 | 3 | 5  |
| Remained the same: | 3 | 13 | 4 | 9 | 29 |
| Decreased:         | 9 | -  | 1 | - | 10 |

## 8c. Have competitors raised or lowered pricing during the past 90 days?

|             |   |   |   |   |    |
|-------------|---|---|---|---|----|
| Raised:     | 3 | 3 | 1 | 2 | 9  |
| Maintained: | 4 | 6 | 4 | 3 | 17 |
| Lowered:    | 4 | 4 | 1 | 4 | 13 |
| Don't know: | - | 1 | - | - | 1  |
| Other:      | 1 | - | - | 3 | 4  |

## 9a. Which manufacturers gained market share in your territory during 1Q18?

|              |   |   |   |   |    |
|--------------|---|---|---|---|----|
| Caterpillar: | 6 | 7 | 1 | 9 | 23 |
| Sany:        | - | - | - | 6 | 6  |
| Xugong:      | - | - | - | 4 | 4  |
| Komatsu:     | 2 | 1 | - | 1 | 4  |
| XCMG:        | - | - | 1 | 2 | 3  |
| Deere:       | 3 | - | - | - | 3  |
| Volvo:       | - | 2 | - | - | 2  |
| Other:       | 1 | 1 | 4 | 4 | 10 |
| None:        | 3 | 5 | 2 | - | 10 |

Note: Some sources gave more than one answer.

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## 9b. Which manufacturers lost market share in your territory during 1Q18?

|                   | NORTH AMERICA | EMEA | LATIN AMERICA | ASIA/PACIFIC | TOTAL |
|-------------------|---------------|------|---------------|--------------|-------|
| Komatsu:          | 6             | 2    | -             | 6            | 14    |
| Caterpillar:      | 3             | 1    | -             | 2            | 6     |
| Deere:            | 4             | -    | -             | -            | 4     |
| Hitachi:          | -             | 1    | -             | 3            | 4     |
| Hyundai:          | -             | 1    | -             | 2            | 3     |
| Volvo:            | -             | -    | 1             | 1            | 2     |
| Japanese brands:  | -             | -    | -             | 2            | 2     |
| Doosan Infracore: | -             | -    | -             | 2            | 2     |
| Other:            | 3             | 4    | 4             | 6            | 17    |
| None:             | 3             | 5    | 2             | -            | 10    |

Note: Some sources gave more than one answer while others did not respond.

## 10a. Has the availability of used equipment tightened, remained the same or loosened during the past 90 days?

|                    |    |   |   |   |    |
|--------------------|----|---|---|---|----|
| Tightened:         | 10 | 6 | 2 | 4 | 22 |
| Remained the same: | 2  | - | 2 | 7 | 11 |
| Loosened:          | -  | - | 1 | - | 1  |
| No response:       | -  | 6 | - | - | 6  |
| Not applicable:    | -  | 2 | 1 | 1 | 4  |

## 10b. Have used equipment prices increased, remained the same or decreased during the past 90 days yy?

|                          |                  |                   |                     |                     |                     |
|--------------------------|------------------|-------------------|---------------------|---------------------|---------------------|
| Up 16%–20%:              | 1                | -                 | -                   | -                   | 1                   |
| Up 6%–10%:               | 5                | -                 | -                   | -                   | 5                   |
| Up 1%–5%:                | 1                | 3                 | -                   | -                   | 4                   |
| Up:                      | 3                | 1                 | 1                   | 6                   | 11                  |
| Flat:                    | 2                | 2                 | 3                   | 6                   | 13                  |
| Down:                    | -                | -                 | 1                   | -                   | 1                   |
| No response:             | -                | 6                 | -                   | -                   | 6                   |
| Not applicable:          | -                | 2                 | 1                   | -                   | 3                   |
| <b>Weighted average:</b> | <b>Up 7%–10%</b> | <b>Up 1%–4%</b>   | <b>Not averaged</b> | <b>Not averaged</b> | <b>Not averaged</b> |
| <b>4Q17 average:</b>     | <b>Up 3%–6%</b>  | <b>Flat–up 3%</b> | <b>Up 1%–4%</b>     | <b>Not averaged</b> | <b>Up 2%–5%</b>     |

## 11. Do you expect your 2018 new equipment sales to increase, remain the same or decrease yy?

|                          |                   |                  |                 |                   |                  |
|--------------------------|-------------------|------------------|-----------------|-------------------|------------------|
| Up 31%–40%:              | -                 | 1                | -               | -                 | 1                |
| Up 26%–30%:              | 1                 | 1                | 1               | 1                 | 4                |
| Up 16%–20%:              | -                 | -                | -               | 1                 | 1                |
| Up 11%–15%:              | 1                 | 1                | -               | 3                 | 5                |
| Up 6%–10%:               | 6                 | 1                | 2               | 2                 | 11               |
| Up 1%–5%:                | 4                 | 3                | 1               | 1                 | 9                |
| Up:                      | -                 | 1                | -               | 1                 | 2                |
| Flat:                    | -                 | 4                | 2               | 3                 | 9                |
| Down 1%–5%:              | -                 | 1                | -               | -                 | 1                |
| Don't know:              | -                 | 1                | -               | -                 | 1                |
| <b>Weighted average:</b> | <b>Up 10%–13%</b> | <b>Up 9%–12%</b> | <b>Up 3%–6%</b> | <b>Up 13%–16%</b> | <b>Up 9%–12%</b> |
| <b>4Q17 average:</b>     | <b>Up 2%–5%</b>   | <b>Up 3%–6%</b>  | <b>Up 4%–7%</b> | <b>Up 17%–20%</b> | <b>Up 6%–9%</b>  |

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12. If the U.S. implements tariffs on steel and aluminum, would that have a positive, neutral or negative impact on your full-year sales outlook?

|                 | NORTH AMERICA | EMEA | LATIN AMERICA | ASIA/PACIFIC | TOTAL |
|-----------------|---------------|------|---------------|--------------|-------|
| Positive:       | -             | -    | -             | -            | -     |
| Neutral:        | 5             | 9    | 4             | 10           | 28    |
| Negative:       | 2             | -    | -             | -            | 2     |
| Don't know:     | 2             | 4    | 1             | 1            | 8     |
| No response:    | 3             | -    | -             | 1            | 4     |
| Not applicable: | -             | 1    | -             | -            | 1     |
| Other:          | -             | -    | 1             | -            | 1     |

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