Q&A for FY2020 2Q Results Briefing (Summary)

Yaskawa Electric Corporation

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[Speakers]

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(Note):

Motion Control: Motion Control segment AC servo: AC servo & controller business (Motion Control segment) Drives: Drives business (Motion Control segment) Robotics: Robotics segment System Engineering: System Engineering segment Other: Other segment

- Q With regard to the graph of quarterly orders on P. 26, please tell us the regional and groupwide rate of change in each business in 2Q FY2020.
- A •AC servo

YoY: -9% overall Breakdown: Japan -21%, the Americas -15%, Europe -7%, China +11%, and other Asia -1% QoQ: -18% overall Breakdown: Japan -10%, the Americas +11%, Europe +7%, China -40%, and other Asia -17% Drives YoY: -21% overall Breakdown: Japan -26%, the Americas -28%, Europe -4%, China -6%, and other Asia -31% QoQ: -5% overall Breakdown: Japan -8%, the Americas -1%, Europe +23%, China -15%, and other Asia -5% Robotics YoY: -16% overall Breakdown: Japan -29%, the Americas -35%, Europe -23%, China +34%, and other Asia -31% QoQ: -5% overall Breakdown: Japan -15%, the Americas +34%, Europe -24%, China +15%, and other Asia -20% *YoY=year-on-year, QoQ=quarter-on-quarter

Q What is the regional sales ratio in AC servo business and drives business for FY20 1H?

A AC servo: 32% in Japan, 15% in the Americas, 8% in Europe, 31% in China, 14% in other Asian countries

Drives: 19% in Japan, 34% in the Americas, 11% in Europe, 27% in China, 9% in other Asian countries

Q What is the percentage of AC servo and drives businesses in motion control sales for FY20 1H?

A 59:41

- Q What is the segment breakdown of each cause of change in supplemental material (P. 12) for analysis of changes in operating profit from FY 2019 1H to FY 2020 1H?
- A Effect of changes in forex rates: Motion Control -800 million yen, and Robotics -700 million yen.

Profit decrease due to revenue decrease: Motion Control -1.9 billion yen, Robotics -3.8 billion yen, and System Engineering -400 million yen.

Decrease in added value: Motion Control +400 million yen, Robotics -800 million yen and System Engineering +400 million yen, and Other -500 million yen.

Decrease in expenses: Motion Control +2.8 billion yen, Robotics +3.6 billion yen, System Engineering +600 million yen and Other +100 million yen

Other include such items as subsidies that were previously included in non-operating profit/loss and extraordinary profit/loss and are now included in operating profit due to the shift to IFRS, comprising Robotics +200 million yen, System Engineering – 200 million yen, and Other -300 million yen.

- Q What is the segment breakdown of each cause of change in supplemental material (P. 17) for analysis of changes in operating profit from FY 2019 to FY 2020?
- A Effect of changes in forex rates: Motion Control -900 million yen, and Robotics -800 million yen.

Profit decrease due to revenue decrease: Motion Control -4.3 billion yen, Robotics -5.2 billion yen, and System Engineering -1.5 billion yen.

Decrease in added value: Motion Control +1 billion yen, Robotics -1.5 billion yen and System Engineering +800 million yen, and Other -700 million yen.

Decrease in expenses: Motion Control +4.5 billion yen, Robotics +5.7 billion yen, System Engineering +800 million yen and Other +300 million yen

Other include such items as subsidies that were previously included in non-operating profit/loss and extraordinary profit/loss and are now included in operating profit due to the shift to IFRS, comprising Motion Control -100 million yen, Robotics +400 million yen, System Engineering – 300 million yen, and Other -200 million yen.

- Q How different were the 2Q actual orders from the original expectations?
- A It was more severe than expected. Although the outlook is not pessimistic, there is no major reason to dispel concerns. Recent orders (September) are recovering as expected. The recovery is not expected to be rapid, but all AC servo, AC drive and Robotics are expected to gradually recover.

Q What is the analysis of changes in operating profit from 1Q to 2Q and from 1H to 2H?

A From 1Q to 2Q: Effect of changes in forex rates 0; effect of changes in revenue +800 million yen; added value -300 million yen; expenses +900 million yen; other -500 million yen.

From 1H to 2H: Effect of changes in forex rates +300 million yen; effect of changes in revenue -2.4 billion yen; added value -700 million yen; expenses -900 million yen; other - 500 million yen.

- Q The operating profit rate of robotics has improved from less than 1% in the 1Q to more than 6% in the 2Q. What are the non-volume factors? Robotics levels off in revenue from 1H and to 2H, but wouldn't it be fair to expect more profits in 2H?
- A The 2Q Robotics profit turned out to be above our original plan. In the 1Q, people stopped moving, but in the 2Q, people started moving again, mainly in China, and the need for cars and 3C increased. This is partly due to the fact that we filled back orders and led it to revenue. Cost control was also carried out.

As for the outlook for the 2H of the fiscal year, there are some bright signs, such as a return of automobile sales in China and an increase in sales of used cars and houses in the United States, but we are cautious about the outlook.

- Q Globalization is reversing due to the coronavirus. The strength of capital investment that started in China had spread globally, but I don't think we can see that now. What do you think?
- A China has normalized its economy and plans to boost domestic demand through subsidies. Consumer activity is following, and automobiles, especially luxury cars, are selling well.

There are also moves to strengthen domestic semiconductor production. Performance improvements are also expected to progress over time. The move of China plus one and the shift to other Asian countries are expected to remain on the sidelines due to the upcoming presidential election.

- Q Please tell us about the trend of AC servo for semiconductors and smartphones.
- A The end markets for AC Servo are 20% for semiconductors, just under 20% for liquid crystal and electronic components, and around 30% for machine tools and metal processing. Semiconductor sales were solid. Smartphones have metal processing at the

foot of the market, and we have firmly secured the market.

The new coronavirus is causing people to spend more time at home, and demand for health equipment, home appliances and furniture is increasing. As for the outlook, the semiconductor market is expected to be robust, and we hope to gain orders for robots in the same market as well.

The new iPhone won't explode in volume, but we'd like to capture automation and laborsaving investments.

Q How's capacity utilization?

- A June-August situation is over 100% in AC servo. Shenyang is just under 200%. 110% for AC drive in total, and 130% in China. 70% for robotics, and 80% in China. 3Q capacity utilization will depend on the 2Q orders, but because of the balance with inventory management, the AC servo will be around 100%. The robotics is up a bit more overall than in the 2Q, and is currently at full capacity in China.
- Q Looking at page 11 of the supplementary material, the ratio of revenue in China is high. What do you think is the ideal ratio for China revenue in the future?
- A The ratio of China increased this time because China rose while the West did not follow. Japan, too, has yet to take off in terms of production. This is not the result of trying to increase the ratio in China, but rather the result of moving in accordance with customer needs. If the revenue ratio of China becomes 30 or 40%, it would be the result of the same ratio of global manufacturing gathered in China.
- Q Will customers evaluate the new AC servo drive series in China?
- A Regarding the new product, there is an evaluation period to verify how the machine containing Yaskawa products works in Japan. In China, machines are replaced at an early stage and products that have been verified in Japan are replaced at once.
- Q Are the agencies trying to build up their inventory?
- A They are currently not in a situation to accumulate inventory, nor are they trying to correct inventory. It seems buying trend is a little stronger, but there's no clear intent on that.
- Q What is the competitive landscape and strategy? Is the selling price going down?
- A There is a trade-off with the competition, but as the servo market in China is gradually expanding, we are growing by focusing on areas where we are good at. It's not in a competitive situation. At present, the selling price is not falling, but the production efficiency is gradually increasing, so it will be a plus for profit.

Q How is the competition in the servo market for semiconductors? A AC servo market for the semiconductor industry is not in a competitive situation because manufacturers are segregated in each production process.

- Q The company's 2Q profit forecast at the time of its 1Q earnings report was revised upward. How much of the cost reductions made with the effect of coronavirus will continue?
- A 2Q earnings were driven largely by growth in revenue and cost cutting. Sales and administrative expenses were cut by about 1.2 billion yen, the largest reduction being labor costs. The United States and European countries took aggressive measures, such as taking temporary leave and reducing working hours, to cope with the decline in the volume of work. In Japan, adopting remote work has improved efficiency and overtime work has been reduced. In addition, travel expenses have been reduced, and exhibitions have been virtually operated. In this way, we were able to control expenses without any negative consequences. We will continue to improve productivity. There is still room for further reductions, as the company is gradually repatriating employees stationed overseas and promoting in-house operations of previously outsourced tasks in Japan. While some costs will increase as travel restrictions are eased, we will meet the revenue expansion without increasing costs, while keeping costs at the same level as in the 1H.
- Q Compared to fiscal 2017, when production of about 94 million cars was recorded, production of about 80 million is now occurring. Are there any signs of a recovery in automobile capital investment in Robotics?
- A 60% of the world's robots are operating in the automobile market. As demand for automobiles in China and the United States recovers to some extent, investment begins to move as factories operate. Thanks to the introduction of new models, there has been considerable inquiries. Projects for EVs, including hybrids, are also being carried out in China. It can be said that they are surely returning, but the degree varies depending on the region. Automobile production in China has returned, but it will take some time in Japan. In the United States, automobile sales have been recovering, and the plants' operations are folloing. The brightness is visible, but the situation will not get back to normal at once.

Q How will the shift to EVs affect Robotics revenue in the medium term?

- A As the shift to EV progresses, welding robots for exhaust system parts such as engines are affected, while the body and painting remain. When the complete shift to EVs occure, robots are needed for the batteries, their peripherals, and the electronic components to control them, so the number of robots is not significantly reduced. But players in the market change. Because there is a period of time before the complete shift to EVs takes place, we take advantage of it to determine the effect.
- Q On page 27 of the supplementary material, you can see that sales in Japan declined for the 2nd consecutive quarter. Will Japan return in the future? Please explain this in

comparison with Europe and the United States.

- A Japan seems to have hit bottom. The recovery of the Chinese market is the reason why I don't think it will get any worse. The export of machine tools from Japan is also increasing. As for the United States, it is difficult to predict how they respond to the effects of the corona, but in Europe, the spread of the disease has become apparent again, and a sudden recovery cannot be expected.
- Q In China, new infrastructure is expected to contribute to the economy in the future, but the end market is likely to change from the time of "China Manufacturing 2025". Will the new infrastructure lead to demand as high as that created by "China Manufacturing 2025"? There may be markets where the production process changes completely.
- A The seven focus areas of new infrastructure are linked to "China Manufacturing 2025". Among the "China Manufacturing 2025" such as batteries, solar power and 5G, those that had been intended mainly for export have changed to those for domestic demand and domestic infrastructure. Yaskawa follows this move. China is currently focusing on environmental measures, and solar power is booming, and there is a shift to EVs and hybrids. Other than that, there is communication infrastructure, and I believe that we are catching up with the market related to AC servo.
- Q Isn't the solar generation and battery on new infrastructure a simple production process that doesn't require the highest performance servo?
- A It is necessary to ensure a certain level of quality and performance, and it cannot be easily replaced because it is cheap.
- Q FY 20 2Q robotics orders in China were up by 34% year on year. What is the breakdown?
- A The effect of the recovery in the automobile market was big. Sales of general-purpose robots for the general industrial use were also strong. However, orders for some of these projects were recorded late because the impact of coronavirus prevented us from setting them up in 1Q.
- Q Was AC servo business in China affected by a reaction to the inventory increase carried out by distributors in the 1Q?
- A There was certainly a movement to build up inventories in the 1Q. However, since actual demand rose after the lockdown in China, the accumulated inventory has been steadily digested, and the inventory level is currently at normal levels.
- Q According to monthly orders, September showed a recovery trend. Does this include the impact of fewer holidays and more working days for customers?
- A In Japan, there was a holiday in August, but the impact on the global orders is limited, and it seems that actual demand is on the way back overall. In particular, the recovery in

automobile-related demand continued to be strong in October, so we think 2Q was the bottom.

- Q You mentioned that you are developing a new series of AC servo drive in the 2H FY20. When will it be launched?
- A We will gradually switch to new products from the beginning of the next fiscal year, but there is no immediate plan to do so in China. We will conduct customer tests properly, monitor market trends, and roll out the product at a time when we can contribute to our customers' profits.
- Q How do you see the profit contribution of the new product compared to when you switched to the current mainstay " Σ -7"?
- A We believe that the introduction of new products with reduced costs and increased added value will contribute to profits, although there are some conditions such as the timing.
- Q What is the driving force behind the rise in orders from September?
- A If you look at it globally, it will be the robotics business. In the AC servo business, sales are expected to decline in the 2H compared with the 1H, due in part to holidays in China, but are expected to remain flat or slightly increase globally.
- Q Is investment in EV shift increasing in body manufacturers?
- A The investment is not actually increasing, but it is coming back to normal. Customers replace their robots with the state-of-the-art robots at regular intervals to increase their competitiveness. They are needed for new car launches and model changes, and investments are starting to move.
- Q Has the profitability and corporate structure changed due to changes in management, including changes in working styles?
- A Although it is difficult to quantify, the president has been working as a CIO for the past two years to improve IT infrastructure and achieved results. Because of the coronavirus, the shift to telework has been firmly established, and we have realized a return on our IT investment.

Travel and other expenses are incurred when people move. Many employees used to travel to China and other countries, but during the 1H, they were able to work almost without moving.

With regard to the reform of working styles, it has become possible to in-house carry out tasks that had been outsourced due to the busyness caused by business travels. In terms of manufacturing, it has become possible to increase in-house production, which leads to an increase in gross profit margins and a reduction in selling, general and administrative expenses, thus maintaining a strong system.

Q The 2H plan seems to have lower profit margins than the 1H.

- A In the 2H, the profit will decrease mainly in motion control, as operations will decrease due to the national holidays in China.
- Q How much did you invest in YDX?
- A People talk about large scale IT investments, but our investment is not so big, a few billion yen a year. The system has steadily been prepared as a business foundation. Yaskawa's YDX is different from the DX in the broad sense of the word, in that it only builds up a management base, with the aim of stabilizing management numbers and saving labor.
- Q What are the opportunities for Yaskawa's business in dealing with environmental issues on a global scale, including China?
- A More than half of AC drive business is meant to contribute to the environment through energy conservation, and energy saving of motors will continue to accelerate. PV inverters and wind power generation are directly involved, but they have their own challenges, so we will look at supporting businesses such as robots for manufacturing products for this purpose. I think AC drive has high potential as an environmental business.