

**【CMP Segment】**

Question	Answer
<p>The precision reduction gear business seems sluggish, posting a year-on-year decrease of 6% in orders received for June. Are there any changes in the current market environment?</p>	<p>We have currently observed no significant change in the market environment. We anticipate a strong trend in orders received for the current fiscal year. As far as monthly orders received are concerned, small changes may occur depending on the number of business days per month, which will generate a difference in orders received from the actual trend of demand. (The discrepancy is partly attributable to the high number recorded in the same month last year.)</p>
<p>With regard to the market environment of precision reduction gears, you explained at the beginning of the current fiscal year that you had a concern regarding the standing stock of industrial robots in the Chinese market. What is your evaluation of such a risk right now?</p>	<p>We once had a bitter experience during the period when market demand increased sharply whereby industrial robot manufacturers, our customers, placed a large-volume order as they had a concern about the limits of our production capability. Since then, we have never failed to check the production plans and inventories. We are not in a position to know the entire market inventory of industrial robots. While it is likely that some local sales agents, etc. have standing stock of robots, the growth trend remains unchanged as a whole. Therefore, this is not a big concern for us.</p>
<p>There are upward trends in both orders received and sales in tandem with future market growth as robot manufacturers, as customers of Nabtesco, have aggressively enhanced capabilities. In contrast, however, I have the impression that Nabtesco expects that future orders received and sales will remain flat. What is the reason for those forecasts?</p>	<p>We forecast future orders received and sales to grow, rather than remaining flat. At the beginning of the current fiscal year, we had estimated growth in sales for the industrial robot business at approximately 10% per annum, but we made an upward revision to approximately 25% per annum. From medium-term perspectives, the market growth rate of industrial robots up to 2020 is 15% per annum according to the forecasts made by the IFR (International Federation of Robotics). On the back of this market growth, our income will also continue to grow.</p>

Question	Answer
<p>We hear that advance order placement often occurs in the factory automation industry by customers who have a concern about incapability of supply. How do you manage and examine the risk of such advance order placement?</p>	<p>I would dare say that the supply of robot components of other companies may be delayed, but as far as our precision reduction gears are concerned, we believe that our supply and demands from robot manufacturers are well balanced as we conduct production adjustment very carefully. The risk of standing stock has not emerged so far as we communicate closely with our customers on this matter.</p>
<p>With regard to the plan to increase the production capacity for precision reduction gears, when do you plan to reach annual production of one million units? Please explain in detail your outlook and the investment schedule.</p>	<p>As of the beginning of 2017, the annual production capacity of the plants in Japan and China totaled 640,000 units. The Board of Directors already decided to increase this number to 760,000 at the end of 2017 and 840,000 at the end of 2018. These numbers, however, show the production capacity measured on the regular operation basis, and will be bigger, theoretically, if we increase the number of operation days. For example, if the annual capacity reached 840,000 on the basis of regular operation at the end of 2018, production can be increased to approximately one million per year. We plan to continue to increase production capacity in consideration of market demand, and, according to our estimate, we are likely to achieve one million units on a regular operation basis earlier than we initially assumed.</p>
<p>Please provide the approximate productivity per capita when the production capacity for precision reduction gears reaches one million units.</p>	<p>We are not in a position to disclose the productivity per capita of precision reduction gears only, but we aim to improve the productivity by 10% by 2020. Currently, in the precision reduction gear business, we focus on increasing production capability partly in order to meet the requirement for delivery period, but in the future, we will also improve productivity by investing in automatization, etc.</p>

FY2017\_2Q Results Briefing Q&A

Date : August 7<sup>th</sup>, 2017 10:00am~11:30am

Question	Answer
Can selling price be raised as the market demands for precision reduction gears and hydraulic equipment increase?	Basically, our price policy does not include the raising of selling price in response to an increase in market demand. We believe that we need to cooperate with our customers in terms of price in order to maintain excellent relationships with them and steadily increase our market share. On the other hand, it is our policy to set selling prices of new products in consideration of their added value.

**【TRS Segment】**

Question	Answer
<p>Please explain the sales plan and its breakdown of railroad vehicle equipment in China.</p>	<p>At the beginning of the current fiscal year, we had anticipated that annual sales of railroad vehicle equipment in China would reach 9.3 billion yen, of which high-speed railway vehicles and subway vehicles accounted for 60% and 40%, respectively. However, on the back of the slowdown of orders received in high-speed railway vehicles, we revised downward the annual sales plan to 7.7 billion yen, of which high-speed railway vehicles and subway vehicles accounted for 55% and 45%, respectively.</p>
<p>Do you see the possibility of achieving the sales target for the aircraft equipment business for the current fiscal year? Please explain the sales plan for the next fiscal year.</p>	<p>As to the sales target for the current fiscal year for the aircraft equipment business, we anticipate a decrease in sales compared with the previous fiscal year in line with the plan made at the beginning of the fiscal year, due to the impact of decreased production of the B777. In the next fiscal year, 2018, sales growth due to increased production and improvement of profitability can be expected compared with fiscal 2017 resulting from the increase in production of actuators for the B737 MAX, which was initiated from this year.</p>
<p>What are the factors of increase and decrease in operating income on a full-year basis? Please explain the impact of purchase price allocation (PPA) of OVALO, which was acquired in March 2017.</p>	<p>The negative factors in full-year operating income include the decrease in the railroad vehicle equipment for the Chinese high-speed railways, although the positive factors, including the increase in profit due to sales growth in the precision reduction gear business and hydraulic equipment business, exceeded the negative factors.</p> <p>The amortization arising from PPA of OVALO amounts to just several hundreds of million yen.</p>

**【MFR Segment】**

Question	Answer
What is the significance of holding CMET Inc., a 3D printer manufacturer, as a subsidiary of Nabtesco in the MFR segment?	For example, in the aircraft equipment business, we use CMET's technology in such cases as bringing trial products made using CMET's Stereo lithography systems to Boeing to explain our new design models. We also expect that the business of CMET Inc. has potential for future growth. Therefore, we will not exclude CMET from our portfolio.

**【Group-wide basis】**

Question	Answer
Please explain the trend of maintenance, repair and overhaul (MRO) compared with the assumption.	While MRO accounts for about 20% of sales of the entire Company, there are almost no sales recorded in MRO in both the precision reduction gear business and the hydraulic equipment business. Therefore, we see a trend in which the ratio of MRO sales to the total sales of the Company will decline if the ratio of sales for these businesses rises. At present, sales have been almost in line with the plan. On a full-year basis, we do not assume that there will be a significant difference in the ratio of MRO sales between the first half and the second half.
Please explain how the acquired companies have contributed to the improvement of income.	ITG, which Nabtesco acquired last year in the commercial vehicle equipment business, aims to demonstrate the effects of the acquisition mainly in the field of development, but it takes time to commercialize new products. With respect to OVALO, which was acquired in March 2017, we will manage it more closely through a European holding company established inside OVALO in May 2017 with the aim of realizing the effects such as the advancement of R&D as early as possible.
What are the short-term and long-term purposes of your work style reform?	The purposes of introducing the work style reform are as follows: By shortening business hours, the employees can carve out meaningful time away from work; they can enjoy their personal lives and feel refreshed when they perform their work. And as a result, the Company can expect increased income.

**【Productivity Improvement】**

Question	Answer
<p>Please explain the definition of “Productivity” in terms of “the improvement of productivity.”</p>	<p>In general, “Productivity” is often measured by the difference between the standard cycle time and the actual time, but we faced a challenge in uniformly defining “Productivity” because the Company operates many businesses of different types. However, after the Production Innovation Division was established, we worked on the unification of the index of “Productivity.” As a result, we have adopted “Per capita production added-value” as the common index for “Productivity.” If productivity can be improved by approximately 10% from now during the period of the Medium-term Management Plan, we expect that will be one of the factors underpinning the reference value of 12.7% for operating margin in 2020.</p>
<p>How do you expect ROIC (return on invested capital) to rise as a result of capital expenditure for the improvement of productivity?</p>	<p>Following the introduction of ROIC as an internal index this year, each department centering on the direct departments began to address the challenges to improve ROIC. As to capital expenditure, efforts have been made to contribute to the improvement of profitability.</p>
<p>What will be the impact of additive manufacturing on the “Monozukuri (Manufacturing) innovation” in innovative production technology development?</p>	<p>AM (additive manufacturing) will surely enable us to reduce manufacturing processes and the weight of products, but we still face challenges in terms of strength and accuracy. While we have already achieved success in the process of making prototypes for development, verification is needed to apply AM to the production phase and mass production of our products.</p>

Question	Answer
<p>What background factors were there for the growth in positive sentiment around manufacturing innovation within the Company?</p>	<p>About two years ago, when our businesses were sluggish, we had a renewed opportunity to search for possibilities for contributing to the improvement of profitability from the viewpoint of improving productivity as the starting point of manufacturing. That opportunity led us to launch new mechanisms to generate horizontal synergies in an effort to improve productivity, which until then had been carried out independently by each division and each plant.</p>
<p>Do you expect you will be able to reduce production facilities while maintaining production capability in the near future?</p>	<p>One of the viewpoints regarding the improvement of productivity is the output per unit area of a plant, which is significantly affected by the area in which machinery is located. For example, in the hydraulic equipment business, we improved the production line for higher efficiency four or five years ago, but we will pursue higher productivity by introducing machinery and facilities that occupy smaller space but are capable of higher production.</p>