

Q&A Summary for CEO Explanation Business Results & Outlook in November 2019

Date	November 15, 2019 15:00-16:30
Place	Meeting room at the Head Office of Mitsui Chemicals Inc.
Speakers and Respondents	Tsutomu Tannowa, President & CEO Masaharu Kubo, Executive Vice President & CFO Hideki Matsuo, Senior Managing Executive Officer & CTO
Reference	CEO Explanation Business Results and Outlook posted on November 15, 2019

Q&A

Q1. Please explain the reason why sales of PP compounds will decline only 0.6% while the number of automobiles produced in FY2019 is expected to decline 4.8%.

A1. While the number of automobiles produced has decreased significantly in China, sales of our PP compounds are expected to increase, because sales of Japanese automobile OEMs, our customers, remain firm. In addition, while automobile production has fallen significantly in Europe, mainly in Germany, sales of our PP compounds are expected to continue increasing due to our continued efforts to expand business in Europe. We will work on further expansion associated with the start-up of a production and sales site in the Netherlands next year. In addition, while there is a trend favoring larger vehicles such as SUVs mainly in North America, sales trends of PP compounds depend on whether they will be used in new models, including model changes. To be used in new models, differentiation by improving the function of products and strengthening technical support, among other means, is necessary, and we will continue to maintain higher growth than the growth of the number of automobiles produced by advancing these efforts.

Q2. Please explain your future prospect for EUV pellicles.

A2. The shift to EUV is accelerating more rapidly than expected because of progress of 5G. While the manufacturing of semiconductors without EUV pellicles is conceivable, we think that the need for pellicles, which will help improve the yield, is strong, given that the number of chips per wafer will increase with refinement of circuits. The development of pellicles requires a test using a lithography system, and difficulty owning an EUV lithography system has become an entry barrier because the price of EUV lithography systems is high, around a dozen billion yen. While we think that competitors will emerge in the future, we will continue to maintain our competitive advantage as we have entered into an exclusive license agreement on EUV pellicles with ASML, the manufacturer of lithography systems, and built a system where we will be able to carry out speedy development, including tests using the lithography systems of ASML.

Q3. Please explain your outlook for synergy with ARRK.

A3. We have been strengthening our capabilities to propose solutions by combining molds of Kyowa Industrial and the prototyping and evaluation functions of ARRK, along with the design function of our Mobility Development Center. Recently, automobile OEMs have begun moving toward the outsourcing of some of these development functions. This movement is progressing particularly in Germany, and P+Z Engineering, a subsidiary of ARRK, is responsible for part of the development of BMW. Automobile OEMs are believed to be concentrating their management resources on innovation in technology such as CASE, and there is also a possibility that the outsourcing of development functions such as design will accelerate going forward. We will continue to advance our efforts to steadily seize this opportunity.

Q4. Products in Mobility maintain high operation while automobile production is sluggish. Has your approach to investment changed, even in this environment?

A4. We will steadily proceed with investments on which we have already made a decision. Regarding TAFMER™, we are considering the establishment of a new facility in North America, but we have not made a decision at present because construction costs remain high in North America. However, because we use TAFMER™ for PP compounds as well, we also need to take into consideration risks

in cases where we do not make the investment, from the standpoint of the competitiveness of PP compounds. We will examine the establishment of a new facility from a more holistic perspective, including its repercussions for PP compounds, although it is necessary to fully assess its economic efficiency so that the initial investment will not be excessive.

Q5. If shale-related projects have run their course and the economic stagnation continues, construction costs in North America could decline down the road. Will that be an opportunity for investment?

A5. Because it is difficult to forecast the future trends of construction costs in North America, we are considering a method of controlling construction costs by minimizing the volume of plant construction works in North America through modularization by partially assembling plants in other regions. While construction costs could decline in the future, we think that we also need to prepare for cases where they will not decline.

Q6. Please explain your growth outlook for high refractive ophthalmic lens materials.

A6. The mainstream of ophthalmic lens materials is polycarbonate in the United States, but we think that there is the potential to roll out our high refractive ophthalmic lens materials if the good balance between their excellent optical property and strength is understood. In China, in addition to the large population, demand for high refractive ophthalmic lens materials is increasing due to rising incomes, and growth can also be expected there. In India, while it is expected to take time for high refractive ophthalmic lens materials to become widely used because the percentage of glass materials is still high, growth can be expected in the future. We will also take steps to roll out TouchFocus™ in China and the United States.

Q7. Please explain the trends of dental materials.

A7. With respect to dental materials, the rebuilding of Kulzer, which we acquired, had been a challenge, but we have become able to anticipate a certain profit through the restructuring of unprofitable businesses, among other measures. We feel that the awareness of its employees has also changed.

Q8. The business performance of Basic Materials has deteriorated significantly even excluding one-off factors such as facility issues. Please explain the main reasons.

A8. We have been pursuing measures to mitigate fluctuations in profits, such as using a formula to link raw material prices to product prices, but market conditions have a certain impact on butadiene. In addition, in the phenol chain, the market conditions for acetone are particularly volatile, and it is also difficult to use a formula to link raw material prices to product prices for acetone. Therefore, market conditions had an impact. While demand for phenol remained at a certain level, so that facilities were also operated at high levels at many companies this time, demand for acetone, a by-product of phenol, was weak, so that the market conditions deteriorated significantly due to the weakening supply-demand balance caused by the high operation of facilities, and this put pressure on profits. While we have been taking measures to deal with excess acetone, such as manufacturing acetone-based isopropyl alcohol (IPA) and using a recycling technology to return acetone to propylene, it is difficult to fully mitigate the fluctuations in profits. In addition, given that the oversupply of acetone is a problem common to many companies, we think that we need to consider new efforts such as licensing our technologies like the above in the future.

Q9. Please explain your medium- and long-term outlook for the business environment for Basic Materials and measures to improve its profits.

A9. Currently, product market conditions are continuing to fluctuate significantly due to the deterioration of market sentiment, in addition to sluggish demand associated with the trade conflict between the United State and China, among other factors. In the short term, it is difficult to anticipate a recovery of demand, and the number of quick-acting measures is also limited. Over the medium and long term, however, we expect that demand will increase because the population will increase, particularly in Asia. In this environment, we will continue to accelerate the shift to

high-performance products. In addition, although there is a threat from shale and other factors, we think that naphtha crackers still have their strength, because shale-based crackers mainly produce ethylene whereas naphtha crackers produce a higher ratio of non-ethylene fractions. Our naphtha crackers are competitive compared to those of other companies, but we will increase our total competitiveness, including derivatives in Mobility and other segments, by stepping up investment to further strengthen the competitiveness of our naphtha crackers.

Q10. Will investments to strengthen the competitiveness of Basic Materials you explained last time contribute to an improvement in ROIC even in the current deteriorated business environment?

A10. Of the investments to strengthen the competitiveness we explained last time, high investment efficiency is anticipated for the construction of new gas turbines and the addition of a cracking furnace. Regarding the construction of new gas turbines, it is possible to achieve energy efficiency of 90% or more by using gases discharged from gas turbines for crackers, and high economic efficiency can be expected by reducing electricity and fuel costs, etc. Regarding the cracking furnace, because crackers at Ichihara Works currently do not have a spare furnace, production will be cut back at the time of maintenance. However, high investment efficiency is anticipated through the avoidance of production cutbacks and an improvement in the olefin yield, etc. by adding a cracking furnace. In addition, with respect to the expansion of propane cracking ability to diversify raw materials, we think that economic efficiency is high, although it will fluctuate with raw material prices. These investments have a high degree of certainty as they are investments in rationalization, and we believe that they will also contribute to an improvement in ROIC.

Q11. Profits in the phenol business are deteriorating significantly. Is there any change in its positioning, etc., including facilities in Singapore?

A11. In the phenol business, we have reduced production capacity to a scale geared to domestic demand by disposing of equipment, among other means, since we made a decision on restructuring in FY2013. Also, regarding the facilities in Singapore, as we supply products to customers through pipelines, we think that we need to continue fulfilling our supply responsibility although domestic demand in Singapore itself is not large. We will continue to advance our efforts to improve profits.

Q12. Please explain your short-term initiatives to improve profits.

A12. There are relatively few quick-acting measures in the phase of business environment deterioration, but we have been working to reduce fixed costs at plants as well as expenses since the beginning of the year. We are also limiting the increase in personnel although we need to be careful not to hamper medium- and long-term growth. While we have so far actively hired mid-career professionals who can bring their experience and skills to expand our business, we currently recruit such professionals after carefully examining hiring needs. In addition, we are also working on right-sizing inventory levels and other measures to improve cash flows, although this will become a factor to reduce profits in the short term.

Q13. You have been stepping up your investments in recent years, but do you think about reducing investments following the deterioration of the business environment? Also, what is your outlook for ROIC?

A13. Our basic policy of carrying out necessary investments after fully assessing their economic efficiency remains unchanged, and we are not currently thinking about reducing investments. While ROIC is expected to decline following the deterioration of profits in Basic Materials, we are maintaining the profit level in the three targeted business domains, and therefore there is no major change in our outlook for ROIC in these domains.

Q14. Many facility issues have occurred, but is your repair budget sufficient? Please explain it together with your future measures.

A14. We regret that problems are continuing, but we have not reduced repair expenses and believe that the facility issues that have become a factor for the decline in financial results this time were

not caused by the deterioration of facilities. The ground fault of a cracker at Ichihara Works was attributable to a problem with installation of equipment 20 years ago, and we have inspected other facilities this time and completed our measures. Going forward, we will continue to fully conduct repair work and promote the digitalization of plants, including more sophisticated equipment diagnosis. We will work on safe and stable operation in a comprehensive way by pursuing measures such as the education of equipment and facilities operators, while introducing advanced technologies such as wireless sensors, highly sensitive cameras for gas detection, and failure prognosis using AI. As an example, we are currently working on global communication between a mother plant and another plant. This is a mechanism that enables operators to consult with each other about operation in real time through an AI translation function by connecting the mother plant in Japan with a plant in Singapore that manufacture the same products. We believe that with this mechanism operators will be able to operate equipment and facilities with an awareness of each other's presence, while using their sensitivity to safety.

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