

Management Overview Briefing: Q&A Session

Date/Time: Thursday, June 7, 2018, 10:00–11:30 a.m.

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Presentation Material:

https://www.ube-ind.co.jp/ube/en/ir/ir_library/presentation/pdf/keiei_change_challenge_2018_en_18071915.pdf

General Management

Q1. In the business portfolio, we just heard that polyimides and electrolytes are no longer restructuring businesses. Are there other businesses whose positioning in the portfolio is changing?

A1. We haven't yet changed the positioning in the business portfolio. However, the positioning of active growth businesses in the Chemicals segment is not the same as that of active growth businesses in the Cement & Construction Materials and Machinery segments. We are debating whether we should be using a simple matrix to indicate the positioning. The positioning might change in the process of reassessing the matrix.

Q2. Are there any businesses that seem likely to progress beyond developing fields?

A2. We want the businesses in developing fields to rapidly transition to active growth businesses. However, there isn't a definite business that will make this transition in the next fiscal year or during the next medium-term management plan.

We have conducted product development for lithium titanium oxide (LTO), and we are currently pursuing various activities to develop it into a commercial business. If these efforts produce results, we will see LTO move forward to become an active growth or platform business.

The timeline for Tyranno fiber is lengthy. Since this product is for jet engines, we must think of the business in 10-year spans. We are currently making steady progress with the product development and developing production technologies for mass production. The timelines in the aircraft industry are long. We think that it will take until the medium-term management plan after next for Tyranno fiber to become a true business.

For biomass fuels, we are constructing a demonstration facility (page 31 of the document) for torrefied pellets under the Energy & Environment business. The torrefied pellets will be used at our IPP facility as a fuel source. This will enable us to establish the technology and ensure that we recover our investment. We believe that biomass fuels will become an active growth business or a platform business by around 2020.

Q3. Are there any developing fields that UBE will withdraw from, after having spent a long time to develop them into a commercial business? Are there any businesses that might become restructuring businesses, or that might be spun into joint ventures?

A3. Not currently. There are no concrete developments in terms of establishing joint ventures, but we are always open to considering tie-ups with other companies.

During the current medium-term management plan, we will look at whether or not to continue with developing fields that we have spent a long time developing. We will continue to develop the project, if we truly think it can be commercialized. However, if that seems difficult, then we will shelve the project for now. Sometimes the technology is ahead of its time and the demand doesn't exist yet, so the strategic option is to shelve the project for now.

- Q4. UBE has currently identified four target business domains. What will happen with these domains in the next medium-term management plan? Will the Company expand the target business domains or further deepen the existing four target business domains? Or will the Company selectively concentrate its business resources?
- A4. The target business domains will not change. Society is shifting toward environmental and energy solutions. In the mobility domain, including the automotive and aeronautical fields, technologies such as automation that are outside of our domain are continuing to evolve. We think this will create opportunities if we can capitalize on the resulting changes. Construction materials are essential to the construction and infrastructure domain, so we will continue to pursue that business. In the healthcare domain, we supply pharmaceuticals as well as biomaterials. We are considering shipping samples of biomaterials to customers, so that they can evaluate the performance. We hope that this will get us on track in this domain.

- Q5. You said that it will take time for the developing fields to progress into businesses that produce steady revenues. Will the basic structure remain unchanged under the next medium-term management plan? Is UBE's strategy to increase profits through volume from existing businesses such as separators?

- A5. The medium-term management plan is a three-year plan. In the materials industry which UBE is part of, it isn't possible to make capital investments and create profitable businesses within the span of a three-year plan. This is also true of developing fields.

Since we started implementing the current medium-term management plan in 2016, we have been studying which businesses to concretely grow by 2025, looking 10 years ahead. By establishing concrete targets, each three-year span becomes a milestone in achieving the targets. We will take a different approach than before to formulating the three-year plan. While the contents of the next medium-term management plan might not differ significantly, we need to implement it as a three-year step toward 2025, in order to steer developing fields in the right direction.

Outlook for Chemicals Segment

- Q6. The operating profits from the Chemicals segment exceeded the projection under the medium-term management plan, but the numbers seem conservative. The segment forecast of lower profits for fiscal 2018 may be unavoidable, given that the synthetic rubber business generated large profits in fiscal 2017, but will profits from the caprolactam (CPL) chain decrease by approximately three billion yen? For example, UBE should be able to increase sales by adding nylon production capacity. The Company should also benefit from shifting to a different manufacturing process for CPL and focusing on large-crystal ammonium sulfate. Also, the Company is not projecting growth for polyimides, but volumes should increase for 2-metal COF, with thin bezel LCDs increasingly being used on smartphones.

- A6. While spreads for synthetic rubber temporarily increased in fiscal 2017, the negative impacts from this will definitely be felt in fiscal 2018. In addition, butadiene costs will rise due to conducting long-term regular maintenance at the industrial complex in Chiba.

For CPL, we expect benzene spreads to remain at fiscal 2017 levels. Currently, benzene spreads are hovering above fiscal 2017 levels. Because of this, I can understand why you might say that our numbers are conservative based on current spreads. However, it is difficult for us to project the full year trend of the spread based on past examples, so all we can do is closely watch the trend as time goes by. We will also conduct regular maintenance of the ammonia plant in fiscal 2018.

For polyimides, the smartphone market has currently declined more than we expected, which is incorporated into our projections to some extent. We plan to generate profits in other markets in fiscal 2018 to compensate for the larger-than-expected drop in the smartphone market, and expect profits to remain at fiscal 2017 levels. Looking at market trends, our impression is that markets are weaker than we expected.

Engineering Plastics, CPL and Industrial Chemicals

- Q7. Costs should decrease as a result of switching to a different manufacturing process for CPL. However, the projection for fiscal 2018 does not seem to factor in much benefit from this.
- A7. We are not expecting significant benefits from switching to a different manufacturing process for CPL. That is because we have structured the business to generate stable profits or losses even if raw materials procurement prices shift slightly due to CPL spreads. At the moment, the benefits from raw materials are decreasing because of good spreads for CPL.
- Q8. UBE added 40,000 tonnes of nylon production capacity in Spain. Is the Company benefitting from the increase in production volumes?
- A8. The additional capacity is not yet running at full capacity. Although the plant is operating, we are currently correcting some initial problems. Another factor is that we have not yet secured customers for all of the additional capacity.
- Q9. You said that the Company fell short of the global sales volume target for nylon compound for injection molding during fiscal 2016 to 2017. What are the reasons for failing to achieve the targets?
- A9. The global nylon compound business for injection molding is for the automotive sector. We have been shipping prototypes and samples to customers, but since we outsource the compounding, it is challenging. The compound industry is highly competitive, just as we had anticipated. While you could say that we set the targets too high, we think it is inadvisable to focus only on extrusion applications as a nylon manufacturer. Therefore, we will make sure to implement measures to address this and also further develop our business in injection molding applications.
- Q10. You said that the 40,000 tonnes of added capacity in Spain is not yet running at full capacity, and that this depends on finding customers for it. Is this additional capacity for extrusion applications? Is it to be sold in Europe?
- A10. The 40,000 tonnes of added capacity in Spain is for extrusion applications. We will mainly sell it in Europe, but we will also supply it to South America and North America. We will develop both the Europe and Americas markets.
- Q11. What marketing framework and sales offices will the Company establish to develop the South and North American markets?
- A11. We established UBE Latin America in Brazil with senior management picked from our Spain operations. Since the language isn't an issue, the Spain operations will control the market.
- For North America, we have a local subsidiary in New York. However, it is too far from our customer base, so we are considering transferring the marketing operations to one of our other offices located in the Detroit area, sometime around next year. We will expand the operations by picking people from our Spain operations to serve as president and fill other staff positions. Accordingly, the North American market will also be controlled from the Spain operations.
- Q12. When you say that the market for automotive applications is challenging, is it because of the pricing? Or is it because you are not able to adequately meet the specifications required by customers, because the compounding is outsourced?
- A12. Both. The volumes are quite large in the compounding industry and the price competition is quite severe. Furthermore, it is difficult for us to exert rapid control over the companies we outsource to.

Battery Materials: Separators

- Q13. What is behind the profit contributions from the separators business? Is it due to improvements in the manufacturing process for base films, or improvements in the product mix due to growth in coated films?
- A13. Coated films have begun to contribute profits. A lot of it is due to customers recognizing the value of the products. We can lower the cost of base films by deploying new manufacturing processes, and expect to generate profits roughly in line with our projections.
- Q14. You said that UBE will increase the production capacity by roughly 40% by fiscal 2020, compared with fiscal 2018 levels. What are your projections for demand? Will the Company continue to invest in production capacity at the same pace?
- A14. We will not make capital investments without a clear projection for demand. We will invest in additional capacity once we secure customers to some extent. We are able to talk about making investments only because we have nearly secured demand, although the timing for investment is still fluid. However, we do not know if demand will continue to increase exponentially every year.
- Q15. Has UBE secured multiple customers, for example in developed countries such as Japan, the United States, and Europe?
- A15. Yes. It is mainly for developed countries.
- Q16. UBE projects that the annual production capacity for separators will reach around 350 million square meters by 2020. You talked about implementing initiatives to derive greater benefits and increase efficiencies from unified management of the entire separators business, covering both base films and coated films. The Company currently manufactures base films in Sakai and Ube, while coated separators are distantly manufactured in Kyoto. Won't the Company need to structure the business so that the production bases are located closer together, as it works to increase production capacity toward 2020? Doesn't the Company need to increase its capacity for coated separators?
- A16. We will increase production capacity for base films at the Sakai Factory. Coated separators will be manufactured by Ube Maxell Co., Ltd. (our joint venture with Maxell Holdings, Ltd.) in Kyoto.
- Base films require a large plant, so if we add production capacity, it will probably be at the Sakai Factory. Since we shut down and dismantled the CPL plant, the Sakai Plant has a lot of free land.
- We are essentially using Maxell's idle facilities for magnetic tapes to manufacture coated separators. There is still plenty of room to add capacity there. Our technology combined with Maxell's coating technology gives our separators an advantage. Therefore, I don't think that the locations will change, as this is the lowest cost solution.
- Unified management means that we will study the overall structure of the separator business, to decide whether or not to keep the current structure of manufacturing base films at our factories in Sakai and Ube and having Ube Maxell manufacture coated separators. This also relates to the development of base films and development of production technologies for coated separators, which we will also take into consideration.
- Q17. So UBE will consider changing the structure of the companies as a possible idea, although nothing is concrete yet?
- A17. Yes.

Pharmaceuticals

Q18. How will you strengthen revenues from the pharmaceuticals business under the next medium-term management plan?

A18. The timeline for drug discovery is extremely long, and oftentimes results in pulling out in the very last phases of development. Consequently, we have chosen a strategy to license out compounds in our drug discovery pipeline in order to generate royalties at different phases. However, we can't generate revenues without generating compounds and identifying potential indications. Therefore, we can't avoid a drop in revenues under the next medium-term management plan. We will try to partly make up for the drop in revenues through the contract manufacturing business.

Page 25 of the document describes the supply chains for manufacturing of APIs and intermediates. If it is less costly to do so, we will shift the manufacturing to other companies while monitoring quality, and manufacture high added-value products in-house.

Cement & Construction Materials

Q19. There is quite a large gap between the earnings and the original forecast under the medium-term management plan. What is UBE's approach on price increases for cement? Does the projection for fiscal 2018 incorporate price increases to cancel out the price increases for coal?

A19. Ube-Mitsubishi Cement Corporation has proposed price increases of 1,000 yen or more per tonne, but it is difficult. The projection fully incorporates UBE's share of price increases for cement, so it will be difficult to reach the projection unless Ube-Mitsubishi Cement fully implements the price increases.

Q20. Is this based on implementing price increases starting from the April shipments?

A20. Yes, that is what we based it on.

Q21. The Cement & Construction Materials business is still mainly based around the Japanese market, while there is some international business. With cement demand in Japan expected to decline significantly after the Tokyo Olympics, isn't UBE worried that profits will decline through the next two medium-term management plans? Is the Company developing businesses in anticipation of this decline?

A21. One major reason why cement demand in Japan failed to increase as much as we originally projected was because of labor shortages in the construction industry. Many construction projects were planned and now one project after another is being rescheduled for later on. An additional factor is the shift we are seeing from reinforced concrete construction in buildings to steel frame construction that requires relatively less labor.

This means that there will still be construction projects that were rescheduled for after the Tokyo Olympics, so we don't expect cement demand in Japan to drastically decline. While cement demand in Japan will likely decline somewhat due to the shrinking population, few people are expecting a sharp decline in demand. Given these circumstances, we believe that the current business can continue for now as we streamline the business.

There are a number of measures that we will implement to get through the situation. The exhaust heat recovery facilities at the Isa Factory will begin operating in fiscal 2019, which will begin contributing profits from fiscal 2020. Additionally, we will expand the waste plastics processing facilities at the Isa Factory, which will increase revenues from waste recycling. We will continue to expand the waste recycling business moving forward.

Waste plastics will be affected by international regulatory trends, such as China restricting the importing of waste plastics. We also believe that the recovery rate for plastics will increase over the long term. Waste recycling will grow even stronger as a business.

- Q22. Will it take another five or 10 years for the international business to contribute profits? Or are there business projects that will contribute profits relatively soon?
- A22. In the Japanese cement industry, there is a gap between production capacity and cement demand. For the cement export business, we are diverting our excess production capacity for exports, to lower our total production costs and earn marginal profits. Because the unit prices for cement are low, it doesn't make sense to incur logistics costs in order to increase exports.

Improprieties in Quality Inspections

- Q23. While the improprieties were unacceptable, I understand that their overall impact is not significant. When something like this happens, there is a concern that the costs for recurrence prevention measures will become excessive, because of management failing to get the message through to its workers that they must keep business costs reasonable. I suppose that UBE's position is to restore its credibility at all costs, but I also think that the Company needs to take a balanced approach. What are your thoughts on this?
- A23. We are concerned that enhancing our inspection framework will lead to excessive costs. We are currently implementing corrective measures which to some extent sacrifice efficiency and rational process. So the current situation demonstrates what happens if we do things correctly, as they should be done. Looking beyond that, one of our strategies will be to automate the inspections and reduce the manual labor required, in order to prevent improprieties from happening. We will streamline the inspections while deploying these systems and equipment. We can't avoid the temporary cost of these measures.
- Q24. The investigation report found that departments had been implementing inspections that were not listed in the specifications under their own initiative, and entering arbitrary data. Rather than conducting inspections to exceed specifications, I think UBE needs to streamline the inspections, with the full agreement of customers on only conducting inspections that are appropriate to the product. What are your thoughts on this?
- A24. Of course, in order to meet our customers' requirements, we set internal standards that are stricter than the requirements and conduct trend management. However, over the course of doing the same things for a long time, the link, or communication of information, between customer requirements and the purpose of our inspections broke down. The biggest problem was that the inspections conducted by each department became compartmentalized. As the Investigation Committee pointed out, the inspections weren't organized under a system. The best solution is to establish a system that will ensure that customer requirements are properly communicated throughout, from order reception to the final logistics where the shipping inspections are implemented. We greatly regret the fact that we didn't focus enough on quality. We can improve this to some extent by changing the awareness of management and employees. The systems we will establish will also improve this.
- Q25. So you are saying that there will be short-term costs to establish systems for overall optimization, and long-term the Company will focus more on quality while streamlining costs.
- A25. Yes, that is our management vision.