

Minutes of Briefings on Operating Results for FY2021
(for analysts and institutional investors)

Corporate Communications & Investor Relations Div.

[Overall company]

Q: Operating profit for the fiscal year ending December 2021 exceeded the revised earnings forecast of ¥200 billion. I think that the overshoot was mainly in Chemicals, but which sectors beat plan?

A: Market conditions for chlor-alkali were stronger than we had expected. The peak in the chlor-alkali market due to China's electric power restrictions made a significant contribution.

Q: You have presented an image of operating profit for core and strategic businesses by 2030. But why the core businesses stay flat? And the strategic businesses are expected to grow from ¥53.8 billion in 2021 to ¥100 billion in 2025. Do you have an image of the breakdown between CDMO and other businesses?

A: The chlor-alkali business in 2021 may have done better than warranted, and due to softening market conditions, operating profit is expected to fall by ¥15 billion from 2021 to 2022 and from 2022 to 2023, for a total of ¥30 billion. The core businesses has been kept flat in order to make up for this in the automotive glass business and the fluorochemicals business. After 2023, we believe a little more bullish evaluation is justifiable. One of the reasons for this is the impact of the investment in the expansion of the chlor-alkali business in Thailand becoming apparent. The fluorochemicals business also slowed down due to the impact of the coronavirus after a major ramp-up, but it is on the way to recovery from that and will still grow. As for the Glass business, it will be difficult to grow the commodity portion of the business, but operating profit can be maintained through the development of energy-saving type glass and high performance automotive glass. As a minimum target, we envision being able to generate about ¥150 billion after 2025 as well. I believe that we are on the right track, and if our efforts steadily bear fruit, we could do even better. With regard to the strategic businesses, we can assume that roughly half of the ¥100 billion in operating profit from strategic businesses in 2025 will come from Electronic Materials and the other half from Life Science.

Q: You have raised your operating profit target for 2023 to ¥230 billion. What are your assumptions for the chemicals market and the speed of growth in strategic businesses?

A: We expect the chemical market to gradually soften, and we project profits to decline by ¥15 billion each in 2022 and 2023. Meanwhile, we believe strategic businesses can expect to increase profits by more than ¥10 billion in each year. In particular, we expect strategic businesses to grow with a high degree of certainty.

Q: You have increased investment in strategic businesses from ¥200 billion to ¥280 billion, which was announced in the previous year's medium-term plan, but which areas of investment are likely to increase? In addition, you have earmarked ¥480 billion for core

businesses and shared investments. How much investment will be required in what areas for environmental measures in the future?

A: The strategic business in which we will increase our investment the most is the biopharmaceutical CDMO in Life Science. In addition to the fields of microorganisms and animal cells, gene and cell therapy are also entering a growth phase. EUV mask blanks and optoelectronics will still grow in Electronics, but the big investment will be in biopharmaceutical CDMO.

We would like to show the investment in environmental measures in our core businesses at some point, but it is difficult to compile only environmental measures. For example, in the chlor-alkali business, investment in energy saving is factored in when updating electrolysis facilities. The combustion efficiency of glass furnace is also improved every time there is a cold repair, but it is difficult to distinguish which part of this is an environmental measure. In addition, the CEO explained about ammonia combustion, but it is not included in the investment amount up to 2023 because it is a future story that requires technological innovation for practical use.

Q: For a higher share price valuation, I think it is necessary to improve asset efficiency as well as profit growth. Are you not aiming to increase ROE to 12% or 15%?

A: In materials businesses, it takes time from R&D to commercialization, and we believe it is important to continue to provide such products in a stable manner over the long term. Therefore, we believe that financial stability is important as well as the continued achievement of high ROE. So, we do not intend to achieve higher ROE in combination with other financial measures. We are considering a stable ROE of 10% and D/E of 0.5 or less to be a set.

Q: What is the effect of each of the impairment losses announced today on reducing fixed costs in 2022?

A: The impairment booked on the automotive glass business in Europe will have an impact of about ¥1.5 billion per year, as the impairment loss is mostly incurred on fixed assets. On the other hand, in the PCB materials business, a certain amount of the impairment loss comes from goodwill, so the impact of the decrease in fixed costs is smaller than the former, which expect to be more than 100 million yen but less than 1 billion yen.

Q: The forex impact of a 1% yen appreciation has increased from ¥200 million to ¥700 million. Why is that?

A: This is due to an increase in the number of products manufactured in Japan and exported, and an increase in profits from products manufactured and sold overseas.

Q: You mentioned differentiation through unique material solutions, but what are AGC's unique strengths that other companies cannot match?

A: AGC was originally founded as a glass company, but soon became unable to import raw materials due to the war and started a chemical business to produce its own products. It also started the ceramics business to obtain castable refractories. In this way, we have a history of business diversification leading to technological diversification. AGC's chemicals business is very distinctive, focusing on chlor-alkali, and for inorganic materials, glass itself is a niche and distinctive material. Our strength is having both inorganic and organic materials with distinctive characteristics, and

this combination has improved the value of our products. For example, optoelectronic products are also characterized by the combination of inorganic glass and organic surface coatings. Our automotive cover glass is also made of chemically tempered glass, an inorganic material, coated with a fluorochemical product that is effective in preventing fingerprints. By supporting such unique material technologies with common infrastructure technologies, we would like to provide products that no other company can imitate.

Q: What kind of useful products can be created by having both inorganic and organic technologies? Are there other companies that have both inorganic and organic technologies?

A: Among inorganic materials, glass and ceramics are niche materials, and we recognize that the number of companies that have a combination of these and organic materials is quite limited. In this context, the use of glass as a base material and organic materials for surface treatment is one of the sources of our added value. The optoelectronic products and automotive cover glass discussed earlier are examples of this. We believe that the integration of inorganic and organic materials in terms of process will also advance in the future. We have been and will continue to promote differentiation, not only in terms of products, but also in terms of manufacturing.

Q: DX was one of the three pillars of the medium-term plan announced last year. What is the current situation?

A: Please understand that DX has already been incorporated into many of the activities we've described. In the past, we have aimed to digitize each business process and transform it within that process, but now we are promoting DX within a complex process. For example, DX has been incorporated into structural reforms in the production of automotive glass and high productivity in displays. In the strategic businesses, we are also promoting transformation using digital technology not only in manufacturing, but also in the areas of development and simulation.

[Glass]

Q: The glass segment operating profit target of ¥50 billion for 2023 is a level that has not been achieved since 2007. How do you expect to reach it?

A: The glass business peaked in 2007, but since then structural reforms have continued due to the economic downturn and other factors. Now the architectural glass business has settled down, with the structure of the industry changing considerably. Automotive glass used to be a more profitable business than architectural glass, but it has not been profitable at present.

In the architectural glass business, there is little cause for concern due to gradual progress in the development of high-functionality products amid the continued tight supply-demand in Europe and the U.S. At the same time, Japan and Asia had been struggling in comparison, but are now showing signs of recovery. There is also the issue of energy costs, but so far we have been able to compensate through higher prices.

The automotive glass business is currently undergoing restructuring, and if sales volume recovers from here, the business will recover from almost no profit to a normal profit level. If we do so, we believe that we will be able to achieve profit at the ¥50 billion level for the entire Glass segment without any problem. If automobile production returns to its original level in 2023, I do not believe

there will be any hurdles in achieving the target.

Q: What are the 2021 results and prospects for structural reform of the Glass business? How do you plan to raise the price of automotive glass?

A: We believe that we could improve by about ¥12 billion per year in 2020-2021 compared to 2019. In addition to this, an additional reduction of more than ¥3 billion is expected in 2022-2023. The automotive glass business is almost unprofitable due to the rising cost of raw materials and fuel and the shortage of semiconductors, and although it is difficult to say by name, we are considering our pricing policy in light of these circumstances.

Q: To what extent do you expect costs to increase due to the price of natural gas in Europe, and how much of this is factored into your 2021 results and 2022 plan?

A: Natural gas prices rose from just under €20/MWh in the first quarter of 2021 to over €90/MWh by the end of the year. That said, this does not directly affect our earnings as is. The company has been able to recover its negative impact due to its hedging activities and rising prices. If prices continue to spike, it will create tough business conditions, but after winter, the peak of gas demand in Europe will pass and the usually high prices will gradually subside.

Q: In the aim for net zero carbon in 2050, can ammonia combustion be an alternative to petrochemical energy?

A: One of the efforts to achieve net zero carbon for glass business is to convert the fuel to electricity, but we believe it is difficult at this point to convert all the energy sources for large furnace to electricity. In order to turn natural gas into clean energy, natural gas could be converted into hydrogen or ammonia. At the moment, there is no proof that this technology can be put to practical use because it is not cost effective at all, but basic technology development is underway so that it can be used for mass production when ammonia and hydrogen are mass-produced as clean energy in the future and the cost comes down.

[Electronics]

Q: In the display glass business, isn't your market share decreasing due to the production facility problems in South Korea in early 2021?

A: There was a problem with the Korean production facility in 2021, resulting in a lost opportunity, but this furnace has already been restarted. Volume is expected to grow year on year in 2022 due to increased demand from customers. Therefore, it does not mean that the market share has dropped.

Q: What are the changes in the market environment, demand outlook, and competitive environment for EUV mask blanks?

A: The EUV lithography process is now being used for memory applications, and shipments of lithography equipment are steady. There is no cause for concern, but rather a great deal to be hopeful for. We are aware that there are companies that are trying to enter the market, but the barriers to entry are high due to the increasing technological difficulties, so there is no change in the competitive environment.

[Chemicals]

Q: How have the market conditions for vinyl chloride resin and caustic soda been factored into the 2022 plan?

A: It is difficult to directly answer how much, but the combined impact is expected to be a ¥15 billion decrease in operating profit from 2021. The PVC market has fallen from the level of \$1,600 at the end of last year, but caustic soda remains high. We expect the impact to be about ¥15 billion, based on the assumption that they will fall gently toward the end of the year.

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