ULVAC

ULVAC, Inc.

Q&A for FY2020 1H business results presentation (held on Feb 15, 2021) and Analyst meetings

【First Half Results, Full Year Forecast】

① What specific orders were brought forward from 3Q to 2Q? Will you revise the full-year orders forecast to reflect the upward revision?

A : In the FPD-related business, approx. 6-7 billion yen was brought forward, including approx. 5 billion yen for the second half of the investment in a production plant for large-size LCD TVs in China, and in the semiconductor electronics business, approx. 3 billion yen for investments related to Optical devices, for a total of about 10 billion yen was brought forward.

② With 1H sales exceeding the initial forecast, do you expect full-year sales to also exceed the initial forecast?

A : We will not revise our full-year sales forecast at this time, but there is a possibility of an upward trend of about 5-6 billion yen from the upward orders in 1H.

③ If we subtract 5.8 billion yen (7.0%) in operating income (ratio) for the 1H from the full-year initial forecast, operating income (ratio) for the 2H will increase significantly to 9.2 billion yen (11.3%), but is it achievable? The operating profit margin exceeded 10% in the 2Q, but will it be possible to keep it above 10% in the 2H ?

A: Operating income (ratio) is expected to improve compared to 1H and 2H
(+3.4 billion yen compared to 1H)

In the second half of the year, we expect an improvement compared to the first half due to three factors: Increased sales, Improved sales mix, and efforts to improve profit margins.

(a) Upward sales growth of about 5-6 billion yen (+4 billion yen from 1H)

(b)Improved sales mix (compared to 1H)

Improved sales mix due to an increase of approx. 9.0 billion yen in high-margin semiconductor electronics sales and approx. 1.5 billion yen in component sales, and decrease in sales of FPDs, which have relatively low profit margins, by approximately 6 billion yen

(c) Efforts to improve profit margins through productivity improvements

We would like to achieve an operating profit of 15 billion yen in FY2020, although we have factored in sales growth to some extent.

④ What are the likely trends in orders, sales, and profits for the 3Q and 4Q of the 2H?

A: Orders, sales, and operating profit in 3Q are expected to be lower, partly because orders and sales planned for 3Q were brought forward.

⑤ What was the breakdown of orders and sales of FPDs and semiconductor electronic components by application in the 1H?

A : As in the Exhibit.

⑥ What was the ranking of the operating profit margin by category in the 1H？

A : As in the Exhibit.

⑦ With regard to the rankings of operating profit margins by product category, why were components ranked down while general industries were up?

A: The decline of the component sales largely affected the sales level.

【Semiconductor & Electronics】

⑧ What are the factors behind the 2Q increase in semiconductor electronics? What are the future investment trends?

A : As for semiconductors, orders increased in 2Q due to investments in equipment for the metal hard mask process of logic, equipment for DRAM and NAND, as well as PCRAM mass production development equipment. There are signs of resumption and active investment in memory mainly by Korean manufacturers, and active investment in logic are planned mainly by two foundries, and we expect investment to expand and continue over the medium to long term.

As for electronics, orders received in 2Q increased due to active investment in power devices and communication devices, etc., mainly in Japan and China, in addition to optical device-related orders that were brought forward from 3Q. Particularly in China, investment in domestic production of various electronic devices has been active throughout the country, and several of our general manager-level engineers started full-scale technical sales activities around November, which led to an increase in orders and inquiries.

In November of last year, China announced a large-scale investment plan for communication networks such as 5G and data centers, and energy networks such as EVs. On January 29th this year, China also announced the "Action Plan for the Development of the Electronic Components Industry," reiterating its policy of domestic production, and it is expected that local governments will become more active in attracting and providing

financial support, and active investment in various electronic device-related areas will continue.

⑨ What are the future trends in logic orders?

A : Two major foundries are aggressively investing in cutting-edge miniaturization processes that utilize EUV. More than 70% of future capital investment by logic foundries is expected to be EUV-related, and we can be sure to receive orders for the metal hard mask process, which is necessary to maintain the patterns made possible by EUV miniaturization. As further miniaturization progresses in the future, the metal hard mask process (number of equipment) is expected to increase by about 1.7 times, and we hope to double this number in the next fiscal year and onward.

⑩ The market environment for semiconductors is improving, but how will it grow in the future?

A : As the volume of data is increasing at an accelerating rate in line with the development of 5G and smart society, the demand for memory and logic is expected to continue expanding.

In addition to the increase in orders received in existing processes due to the resumption of investment and aggressive investment in memory, ULVAC has received high evaluations in the metal hard mask process for logic, and expectations from the customer for ULVAC as a second vendor who does not like to purchase from a single vendor are increasing.

Therefore, joint development projects in logic, DRAM, and other fields are increasing, and the company will strive to gain a competitive advantage in performance and technology to increase its market share in new processes.

⑪ What are the investment trends in PCRAM?

A : U.S. logic manufacturers, who are at the forefront of the field, are actively introducing the product to the public, saying that it has a wide range of applications and is highly evaluated. Although the timing of investment is not yet clear, we are expecting investment in the next fiscal year and beyond. Other memory manufacturers have also started mass production development using ULVAC's sputtering equipment, and the scope of the business opportunity is expanding.

⑫ What are the investment trends in the electronics industry? What specific types of investment are the most common? What kind of equipment lineup do you have?

A : As for power devices, investment in Japan is focused on IGBTs, while in China, which has recently become more active, business negotiations are focused on SiC. Chinese power

device manufacturers will start with low-end products such as those for home appliances, and then move on to middle- and high-end products, with mass production and construction of new plants expected to increase from next fiscal year onward. Investment in opto-devices is increasing in a wide range of fields, including μOLEDs for AR/VR, biometrics, and automotive displays. In the area of electronics, the company provides sputtering equipment, etching equipment, ashing equipment, CVD, and ion implantation equipment.

⑬ Isn't China also promoting domestic production of equipment? What are the capabilities of Chinese equipment manufacturers? Are they any threat?

A: Some Chinese equipment manufacturers are already making almost all of the equipment. There is a system in place for the government and device manufacturers to cooperate in improving the performance of equipment, such as the government covering the cost of Chinese equipment manufacturers' demonstration equipment during the evaluation period, and there is a possibility that electronics-related equipment will catch up in three to five years. At present, the most advanced electronic devices are about two generations behind, and for the time being, they have no choice but to buy equipment from overseas, but in the medium to long term, this could become a threat.

【FPD】

⑭ What is the market outlook for FPD and what are the medium- to long-term sales prospects?

A： The trend of shifting from LCDs to OLEDs will remain unchanged, and OLEDs will be the focus of future investment. In addition to smartphones, OLED panels are expected to expand to tablets, medical and game monitors, and TVs, and efforts to develop mass production of large substrate OLEDs are in full swing. We will continue to contribute with sputtering equipment for backplanes and deposition equipment.

In addition, demand for LCD panels is increasing due to staying at home demand associated with the new coronavirus, and there are signs of continued investment. For the time being, it will be difficult for FPD sales to return to the 100 to 120 billion yen level as in the past, and we believe that sales will be in the 50 to 70 billion yen range in the future.

⑮ With LCD panel prices on the rise, what are the investment trends?

A : With the staying at home demand associated with the new coronavirus, the demand for high quality LCD panels for monitors such as PCs, large TVs, game, medical, and high graphic applications is increasing, and additional investment in existing factories is continuing in China. As of August last year, we have said that LCD investments would come to a halt, but the investment competition to secure market share in China is heating

up in the condition of brisk demand for panels recently, and also the Korean manufacturer has postponed to close their factories. There are also some movement to build new LCD production plants for large substrates for tablets.

⑯ Please tell us about the status of orders and competition for sputtering equipment for small- and medium-sized OLEDs.

A : With the increasing demand for high-definition OLEDs, our technology is being reevaluated and our share of sputtering equipment for backplanes is increasing. Although the competitive environment will continue to be severe, we will continue to improve our low particle technology and secure our market share.

⑰ What is the status of large OLED initiatives?

A : In addition to smartphones, OLED panels are expected to expand to tablets, medical and game monitors, and TVs, and efforts to develop mass production of large substrate OLEDs are in full swing and we expect investment to increase from next fiscal year onward. We expect investment to become more active from the next fiscal year. We will continue to contribute to the development of sputtering for backplanes equipment, etc. by leveraging our strength in large-scale equipment.

⑱ Please tell us about the business development of R to R (Roll-to-Roll film deposition system) film capacitors and batteries.

A: We have been providing roll-up type film forming equipment for touch panels and optical films, and recently we have been doing business of about 1 to 1.5 billion yen per year for film capacitors for hybrid vehicles.

In the next generation of lithium-ion batteries, while improvements are being made to the components in order to increase battery capacity (energy density) and safety, attention is being focused on metallic lithium as the material for the anode, and expectations are rising for our vacuum deposition technology and coiling film deposition technology. We believe that investment will begin to increase from around 2023, with the aim of bringing the product to market in 2025.

【Component】

⑲ What are the factors behind the 2Q recovery in components? What is the market share of OLED cryopumps?

A: Orders for components were low in 1Q due to the postponement of capital investment in the automotive industry and a small number of FPD-related cryopump projects, but orders for vacuum pumps and other components increased in 2Q due to the recovery of capital

investment in the semiconductor electronics industry.
However, in 2Q, orders for vacuum pumps increased due to the recovery of capital investment in the semiconductor electronics industry. We expect orders to increase in the second half of the fiscal year due to a large order for OLED-related cryopumps.
The OLED cryopumps have been highly evaluated for their anti-vibration performance and have almost 100% market share.

【Progress of Medium-term Management Plan】

⑳ Six months have passed since the announcement of the medium-term management plan, but how is the progress? What are the results and progress of your efforts to improve the profit margin through manufacturing reforms？

A: In the mid-term management plan, the company is working on management reforms with the goals of "investment in development for growth (growth in semiconductors and electronics)" and "profit-oriented management through constitutional change."
In the semiconductor business, our entry into the metal hard mask process, which is the most advanced logic process, has enabled us to be approached for joint development for other logic processes and new processes such as DRAM, and we are now able to share customer roadmaps and work on development for medium- to long-term growth.
Since this is a joint development project, it will take some time, but we will be able to show the results gradually during the mid-term management plan period.
In the area of electronics, in addition to Japan's investment in electronic components, we have been quick to respond to China's vigorous investment in power devices, optic d devices, communication devices, sensors, etc., which has taken a major step toward domestic production, and are beginning to see results. Specifically, the company is working on (1) extensive technical sales in China by our general manager-level engineers, (2) collaboration with China's top-class research institutes, and (3) strengthening the local sales support system, and these efforts are beginning to show results. In addition, in order to strengthen the semiconductor electronics field, the company has established a global development system to develop products close to customers, and flexibly allocating management resources by integrating laboratories.

With regard to productivity improvement and profit margin improvement through manufacturing reforms, based on the recognition that 80% of equipment costs are determined at the design stage, we have decided to work on shortening lead times and reducing procurement costs from the design stage through reforms in technical design, such as improving the completeness of technical drawings. This has been started sequentially for each product.

In the area of procurement, we have unified our global procurement system to improve

efficiency and reduce costs.
We are also working to improve productivity and reduce lead time by increasing the specialization and concentration of our equipment manufacturing bases.
The effects of manufacturing reforms are hard to see in one fell swoop because of the accumulation of steady improvements, but they are steadily leading to improvements.
Particularly in the FPD business, we started working on improving the profit margin in the previous fiscal year by referring to the good example of our electronic business unit, and we have started to see some results by steadily shortening the lead time and consolidating the global procurement system, especially for our main standard models.
Other business units have also started their initiatives, and we will gradually link them with results.
We will accomplish management reforms, achieve growth, and aim to increase corporate value.

＜Exhibit＞

●Breakdown for Order Received

Order Received	FY2020 1H
Semiconductor/ Electronics(1billion¥)	**27.9**
・Memory	less than 30%
・Logic	more than 10%
・Electronics Device	mid-30%
・Power Device	less than 20%
・Packaging	less than 10%
FPD(1billion¥)	**23.3**
・LCD	more than 50%
(for large-sized)	(Mostly for large-sized)
・OLED	more than 40%
・Others	mid-single digit

●Breakdown for Net Sales

Net Sales	FY2020 1H
Semiconductor/ Electronics(1billion¥)	**22.6**
・Memory	less than 40%
・Logic	less than 10%
・Electronics Device	more than 30%
・Power Device	mid-20%
・Packaging	less than 10%
FPD(1billion¥)	**24.5**
・LCD	more than 30%
(for large-sized)	(more than 80%)
・OLED	around 50%
・Others	less than 20%

●Operating Profit Margin Rank of FY2020 1H

Rank	Segment
1	Semiconductor and Electronics
2	General Industries
3	Others
4	FPD
5	Component
6	Materials

Overall average is between
2) General Industries and 3) Others