Advantest Corporation Briefing Session on Second Mid-Term Management Plan (FY2021-FY2023) Q&A Summary

May 24, 2021

- Q: You said that we may be able to expect to see growth in the tester market similar to that of front-end equipment market going forward. If, like the market for front-end equipment, the tester market were to grow by around 30% over a two-year span going forward, what level do you think your operating income and ROE would reach?
- A: Demand for front-end semiconductor equipment and demand for testers are not necessarily in synch. For example, we believe that the tester market grew more than the front-end equipment market over the past three years. Meanwhile, some front-end equipment has lead times of a year or more, suggesting to us that it will take some time for the tester market to see the ripple effects of the recent sizeable round of front-end investment.

We have shared our new sales target of ¥350-380 billion, but we would not find it odd if our sales were to reach ¥400 billion in the last year of our mid-term management plan, provided that the scale of front-end investment proves to be in line with current plans. If that were to happen, our ROE and EPS would naturally be higher in the year. That said, this is what we are targeting as an average over three years rather than for a single year, so at present we also expect profit growth to be within the range we indicated along with our sales target.

- Q: Under your new mid-term management plan, you are calling for sales of ¥35-40 billion from new businesses, including the system level test (SLT) division. This seems somewhat lackluster compared to your previous calls for potential annual growth of around 20-30%. Do you have anything to add about your outlook for the SLT division, including as regards the business environment or orders?
- A: The two SLT business we have acquired had limited customer bases, and we have expanded those businesses by offering their solutions to our customers. That said, our progress has been a bit slower than what we had initially anticipated because expanding the customer base requires addressing the needs of each individual customer. We nonetheless still maintain our ambition to be able to achieve the growth rates that we previously called for. We have high expectations for the growth potential of SLT over the next three years given ongoing semiconductor performance gains.

- Q: You said that you expect to see less cyclicality in the tester market going forward. What sort of changes in the market are driving that?
- A: In the past, our tester sales would fluctuate as semiconductor production volumes swung due to major shockwaves created by economic crises like the bursting of the dot-com bubble and the Great Recession, which were accompanied by volatility in the sales of such end products as PCs and feature phones. Since 2017, however, our sales curve has been practically as regular as that for other semiconductor production equipment (SPE), largely because the range of applications for semiconductors has broadened. Tester demand no longer waxes and wanes due to fluctuations in demand for any one application. Semiconductor demand is now a complex mosaic to which a wide variety of industries contributes, and this has made tester demand notably less volatile. While we would not say there will be no more volatility, we do expect the tester market to be less cyclical going forward.
- Q: Do you not think that greater recurring sales and expansion in the data analytics business will also help reduce volatility in your earnings?
- A: We have launched a data analytics service called "AT Cloud Solutions," but we believe that it is going to take a little time for it to generate earnings. We are striving to provide our customers with high-value solutions that help them manufacture semiconductors, raise their yields, and shorten their time to quality and time to volume. Our current vision is to provide solutions that fuse software with hardware (i.e., testers) by collaborating with our customers, which are among the world's top innovators. However, we expect to be investing more than we earn for the next few years. We will have a better idea of when these efforts will yield earnings in roughly 18 to 24 months, so please look forward to more information then.
- Q: When do you expect to see the millimeter-wave device test market get off the ground in a meaningful way? Also, what are your expectations in terms of the scale of demand for millimeter-wave testing?
- A: We are working with customers to develop millimeter-wave test technologies even as we speak. This year will be devoted to validating technologies, but we expect to see the launch of a variety of devices starting in the latter half of next year and for mass production to begin roughly between the latter half of 2022 and into 2023. At present, we expect an annual market of around \$200-300 million.

- Q: The transfer of data between the memory and the CPU is what is keeping semiconductors from consuming less power and achieving greater performance. Is there anything being done on the semiconductor side to address this issue that has attracted your attention, and do you anticipate tester demand to benefit in any way from that?
- A: As you have noted, the transfer of data between the memory and the CPU has become a hinderance as data volumes have grown. In response, the industry has been proposing applications that integrate the CPU and the memory, such as via the processing-in-memory (PIM) concept. It has also been working to bolster the processing power of the CPU itself as well as on the memory side. In graphics applications, for example, we expect to see adoption of high-speed transfer technologies that incorporate PAM4 into GDDR6 and the like going forward. We expect the tester industry to benefit in the future as these technologies evolve and spur faster advancement in semiconductor test capabilities.
- Q: Semiconductor capex at North American foundries looks poised to grow going forward. Given that foundries are being enticed to build capacity in that region due to economic security considerations, they may give priority to US testers as well. How do you view that risk?
- A: Your question concerns national economic security. The US, for example, may be reshoring manufacturing, but it is not able to manufacture semiconductors solely with US technology. It is using materials and equipment from other countries. We do not believe that it will necessarily stop working with other regions. We intend to address developments based on solid information gathering and analysis and to make ourselves more adaptable.
- Q: I would like to ask about shareholder return. You say you are targeting a total return ratio of 50% or more, but you also say that you look to return ¥150 billion or more over three years.
 ¥70 million is the upper end of the average net income you look for over the next three years, so even if you were to consistently deliver at the upper end of the range, your total return ratio would be quite a bit above 50%. Is the 50% you are targeting not for your dividend payout ratio?
- A: Our intention is to set a minimum annual dividend of ¥100, and we hope to gradually increase it from there. We may repurchase shares to make up any difference. In addition, the ¥150 billion or more in shareholder return that we anticipate under our new mid-term management plan would be funded not only by our net income but also by surplus cash generated during the course of our previous mid-term business plan, so our total return ratio could exceed 50%.

- Q: Your view that cyclicality has diminished thanks to the expansion of semiconductor applications is compelling. At the same time, though, there are concerns in the capital markets about the possibility of a correction in the Chinese smartphone market going forward. Furthermore, your peer in the back end for SPE is saying that cyclicality will not disappear from the market. This is a hot topic at the moment, and I am hoping that you could elaborate again on your thinking regarding cyclicality in SPE demand.
- A: The SPE industry will continue to see demand fluctuate, and while there will be good periods marked by substantial demand, they may be followed by pauses or retreats. The semiconductor industry is bustling at present, and production capacity is being built up, but we believe that we need to remain mindful of what will happen once conditions have calmed. Despite this, we believe that the tester market has become structurally less cyclical.

Note

This document is prepared for those who were unable to attend the information meeting and is intended only for reference purposes. The original content has been revised and edited by Advantest for ease of understanding.

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