

Advantest Corporation
FY2020 1Q (Three months ended June 30, 2020) Financial Briefing
Q & A Summary

July 30, 2020

Q: The entire semiconductor industry is beginning to see positive signs about the current market environment. Do you have the impression that the Taiwanese foundries are going to recover earlier than had been expected?

A: Both the Taiwanese foundries and Taiwanese OSATs are busy at present, but the OSATs expect less business going forward because of the tensions between the US and China. If that proves to be the case, we believe it will take a bit of time before the resulting excess tester capacity at the OSATs is filled. Of course, there is no doubt that tester demand will ultimately more than make up this last ground once the correction is over, but it is very difficult to predict when that might be. Given that semiconductor supply chains are more dispersed the farther downstream that you go, we believe that it will take OSATs longer to rebuild their supply chains than it will take front-end players. This is a point of distinction between our business environment and that of the front-end SPE manufacturers and the reason for our conservative outlook.

Q: I imagine that a decoupling in the semiconductor market could divide supply chains and result in less efficient investment in a way that increases demand for testers. In addition, I believe that over the medium to long term, greater investment in the front-end is likely to lead to investment in testers as well. What do you think?

A: We believe that it will take a bit of time for things to settle down in the tester market. Declines in demand will begin to subside first at the upper end of the supply chain. The correction at the OSATs will eventually end, but while we know that the decline in demand is a temporary one, we are concerned that it will take a bit of time for the correction to wind down.

Q: Could you specify what sort of benefits or output you expect from the partnership with PDF Solutions that you announced today?

A: I am afraid I cannot as it would impact our business strategy, but I can say that PDF Solutions is a data analytics solutions company that provides tools and environments for collecting and analyzing a wide range of SPE data. We will build what we are calling the *Advantest Cloud* on top of their environment. Our long-term goal is to help improve designs

and yields by combining data generated by our testers and data parameters from each process to identify why some semiconductors turn out well while others do not.

Q: Could you describe the factors that led to the QoQ change in the profits at each of your segments?

A: Profits improved at the Services, Support and Others Segment because of less amortization of intangible assets than in 4Q. Essai's contribution for the full three months of also provided a boost to quarterly profits. However, 1Q profits at the Services, Support and Others Segment struck us as somewhat high, in part because of a favorable product mix. Profits were down at the Mechatronics System Segment because COVID-19 delayed installations at the nanotechnology business, leading to lower sales. Margins deteriorated at the Semiconductor and Component Test System Segment because weaker sales of SoC testers, which are the top profit contributor, resulted in a less favorable mix.

Q: Could you describe how you expect demand for SoC testers and memory testers to trend quarter by quarter?

A: We look for an uptrend in SoC tester demand to begin in 4Q and continue throughout FY2021 given that our customers are planning to go into mass production at advanced process nodes in 2021. This especially applies to customers in the HPC space, where we excel.

Both orders and sales for memory testers are very strong at the moment, but we look for them to slow over 2H. However, we see multiple potential drivers in 2021 for memory testers as well. These include robust tester demand related to data center investment, LPDDR5 for high-end smartphones going into full-fledged mass production after having been disrupted in 2020 by COVID-19, pilot runs of DDR5, and fab capacity builds for DRAM and NAND in China and South Korea. Because of these drivers, we expect demand to recover starting in 4Q and continuing through FY2021 in the case of memory testers as well.

Q: Generally speaking, would it be fair to expect that the size of the tester market in 2021 will be back to what it was in 2019?

A: While that hinges to some degree on what happens with COVID-19, we do believe that the semiconductor market will grow in 2021 given the likelihood that that year should see a variety of technological advancements as well a fair degree of positive impact from

economic stimulus moves by governments around the world. We are therefore upbeat on what our business environment will look like in 2021 and beyond.

Q: Your views on the size of the SoC and memory markets seem to differ from those of your peer. Could you share your views on those markets and your share of them? Also, roughly speaking, what do you think the size of those markets will look like in 2021?

A: We believe that the size of the SoC tester market will be down in 2020 due to tensions between the US and China, but we think that the market will be up by an equal amount in 2021. We suspect that our peer views the market differently because it has seen strong enough inquiries from its customer as to suggest that the impact on its business from US-China tensions will be partially offset. We believe that our peer will be at an advantage in terms of market share this year due to customer mix. However, we think that the two of us will split the growing market going forward with one or the other of us being in the lead in any given year.

The memory tester market meanwhile underwent a correction in 2019, but the momentum this year is such that we expect it to make up that lost ground. Then, 2021 is likely to bring growth in smartphones, growth in LPDDR5, and the DDR5 wave, so we do not envision any downturn in the market. While market shares are influenced somewhat by dual-sourcing policies at customers, we have established strong relationships with our customers over a long period of time and therefore believe that we will be able to continue to maintain a market share of around 60%.

Q: You say that 2Q will likely represent the bottom for orders and that you expect over 120 billion yen in orders in 2H. What do you expect the split between 3Q and 4Q to look like?

A: Please picture a gradual rise, with 3Q orders coming in slightly higher than in 2Q at just under 60 billion yen and 4Q orders coming in higher than 3Q at just over 60 billion yen. We are hoping that orders grow more in FY2021 1Q.

Q: You expect the correction in excess capacity to take between six months and one year. What are the assumptions that underly that expectation?

A: We derive our estimates of how long it will take our customers to fill their excess capacity based on trends in semiconductor production volumes, tester demand, and capacity utilization across our customers' supply chains. We also work with our customers to help them find ways to use their excess capacity. How long it takes our customers to fill their excess capacity will depend on how well those initiatives go.

Q: How long does the full-year guidance you released today assume that the correction in excess tester capacity will take?

A: Six months. The correction is already underway, and our guidance assumes that it will take half a year, continuing until December or early 2021.

Q: You changed your estimate of the size of the SoC tester market from the 2.7 billion dollars you had cited in January to 2.4 billion dollars now. How does that 300-million-dollar difference break down?

A: We reduced our estimate by roughly 300 million dollars because of the hit we believe COVID-19 will deliver to automotive- and industrial machinery-related demand. We cut it by a further approximately 200 million dollars because of the impact we expect from US-China tensions. Meanwhile, we also reflected a boost of around 200 million dollars from stronger demand for testing at advanced process nodes. The net result is therefore a cut of roughly 300 million dollars.

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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