Full Year Ended December 31, 2020

Conference Call (Held February 10, 2021) Presentation and Question & Answer Summary

Presentation

Moderator: Thank you very much for taking the time out of your busy schedule to join Renesas Electronics Corporation 's financial results briefing for 4Q and for the full fiscal year ending December 31, 2020 today.

Hidetoshi Shibata, President and CEO, will participate in today's briefing. Senior Vice President and CFO, Shuhei Shinkai; Tomomitsu Maoka, Senior Vice President and Deputy General Manager of the Automotive Solution Business Unit; Takeshi Kataoka, Deputy General Manager of the Automotive Solution Business Unit; in addition to the accounting and IR staff are attending the meeting.

Shibata, our CEO, will give a short speech, and then Shinkai, our CFO, will explain the financial results for 4Q, followed by a question-and-answer session. The entire briefing is scheduled to last approximately 60 minutes.

The materials to be used in today's briefing are the same as those just posted on the IR site of the Company's website.

Now, Shibata, please.

Shibata: Hello, everyone. Thank you for your time. I'm Shibata.

In retrospect, the first half of last year was particularly tormented by anxiety about what was going to happen. On the other hand, in the latter half of the year, the economy and demand, especially for automobiles, began to pick up considerably. I look back on it as a year of very rapid change, a year of changing scenery.

As a result, in Non-GAAP-base, the gross profit margin, the amount of operating income, and the operating income ratio were the highest ever recorded. After this, Shinkai will talk to you all about the details based on the materials.

Thus, this time, demand is very strong, so we are putting all our efforts into how we can meet that demand for our customers as quickly as possible, but I think this situation is likely to continue for a while longer. We will continue to keep our heads up and do our best.

Shinkai, please explain the results.

Shinkai: I'm Shinkai, the CFO. I will now explain the details of the financial results for 4Q, as well as for the full year of the fiscal year ending December 31, 2020, based on the presentation materials posted on the IR website.

Non-GAAP

4Q/FULL-YEAR 2020 FINANCIAL SNAPSHOT

IFRS, NON-GAAP*1*2

YoY and QoQ revenue as well as the changes from FCTs of the revenue are rounded off to one decimal place.

(B yen)	2019		2020								
	4Q (Oct-Dec)	Full Year (Jan-Dec)	3Q (Jul-Sep)	4Q (Oct-Dec) Forecast	4Q (Oct-Dec) Actual	YoY	QoQ	Change from Oct 29 FCT*3	Full Year (Jan-Dec) Actual	YoY	Change from Oct 29 FCT*3
Revenue	192.0	718.2	178.7	183.0 to 191.0	191.6	-0.2%	+7.2%	+2.4%	715.7	-0.4%	+0.6%
Gross Margin	45.1%	42.9%	47.5%	47.0%	47.0%	+2.0pts	-0.5pt	+0.0pt	47.3%	+4.4pts	+0.0pt
Operating Profit/loss (Margin)	31.4 (16.4%)	92.5 (12.9%)	36.5 (20.4%)	34.6 (18.5%)	37.2 (19.4%)	+5.8 (+3.1pts)	+0.7 (-1.0pt)	+2.6 (+0.9pt)	137.5 (19.2%)	+45.1 (+6.3pts)	+2.6 (+0.2pt)
Profit/loss Attributable to Owners of Parent	21.4	75.9	33.6	-	24.2	+2.8	-9.4	-	111.5	+35.6	-
EBITDA*4	56.0	192.9	57.3	-	57.5	+1.4	+0.2	-	223.2	+30.4	-
1 US$=	108 yen	109 yen	107 yen	104 yen	105 yen	3 yen appreciation	2 yen appreciation	1 yen depreciation	107 yen	2 yen appreciation	0 yen depreciation
1 Euro=	119 yen	123 yen	123 yen	123 yen	124 yen	5 yen depreciation	1 yen depreciation	1 yen depreciation	121 yen	1 yen appreciation	0 yen depreciation

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This page is about the summary of the financial results for 4Q.

See the dark blue column in the middle for this result. Sales revenue was JPY191.6 billion. The gross profit margin is 47%. Operating income is JPY37.2 billion. Operating profit margin is 19.4%. Net income was JPY24.2 billion. This resulted in an EBITDA of JPY57.5 billion.

For full-year results for January to December, please refer to the dark blue column on the right.

For 4Q, I would like to briefly explain how it compares to our guidance. Please see this forecast ratio.

Revenue came in at 2.4% above the median of our guidance and slightly above the upper end of our range. In general, the impact of foreign exchange rates is about half, and the impact of sales is about the other half.

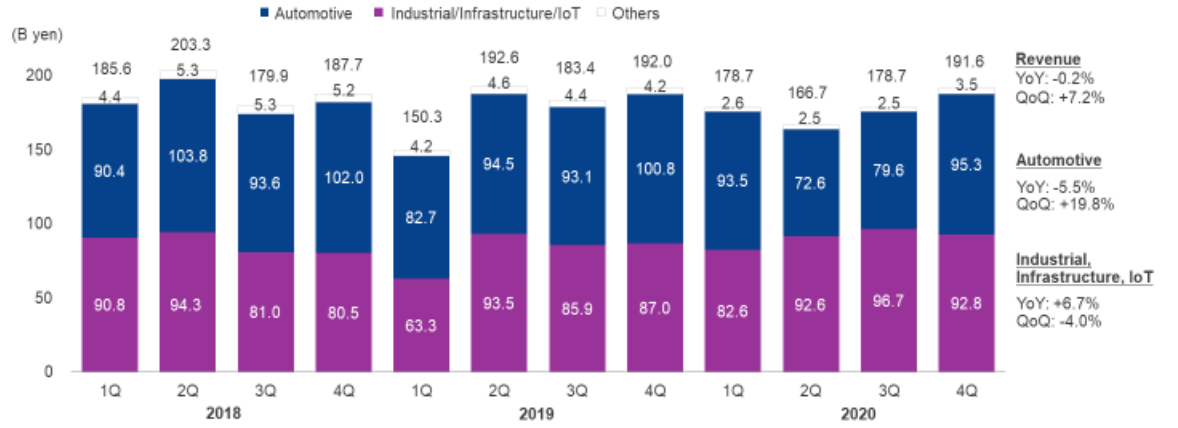
The yen landed about one yen weaker than expected against both the dollar and the euro.

In terms of sales impact, the majority of the impact is in the Industrial, Infrastructure, and IoT Segment. The major factors in these segments are improvements in supply, procurement of parts and materials, and adaptation of the production mix, which led to shipments.

Gross profit margin landed in line with guidance. Operating income was JPY2.6 billion higher than the median, or 0.9 percentage points above the median. More details will be provided later.

Non-GAAP

QUARTERLY REVENUE TRENDS
IFRS, NON-GAAP*1*2



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This shows the quarterly trend of sales revenue by segment. For 4Q, please refer to the far right.

First of all, companywide, overall sales revenue decreased by 0.2% in YoY, and increased by 7.2% in QoQ.

In the Automotive Segment, sales were negative 5.5% in YoY and plus 19.8% in QoQ.

In the Industrial, Infrastructure and IoT Segment, sales were positive 6.7% in YoY terms and negative 4% in QoQ terms.

Non-GAAP

4Q 2020 GROSS/OPERATING MARGIN
IFRS, NON-GAAP*1

	3Q 2020 Actual (Jul-Sep 2020)	4Q 2020 Forecast (Oct-Dec 2020)	4Q 2020 Actual (Oct-Dec 2020)
Gross Margin vs FCST: +0.0pt QoQ: -0.5pt	47.5%	47.0%	47.0%
Operating Margin vs FCST : +0.9pt QoQ: -1.0pt	20.4%	18.5%	19.4%

Operating Margin vs FCTS +0.9pt
- Gross Margin
  - Currency Impact
  - Product Mix
  - Production Recovery
  - Production Costs, etc.
- Operating Expenses

Operating Margin QoQ -1.0pt
- Gross Margin
  - Currency Impact
  - Product Mix
  - Production Recovery
  - Production Costs, etc.
- Operating Expenses

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Next is the gross profit margin and operating income margin for 4Q. The percentages were 47% and 19.4%, respectively.

As you can see in the upper right-hand corner, the operating income margin was up 0.9 percentage points, or JPY2.6 billion, from the forecast.

Let's start with the gross profit margin, that was flat compared to the forecast. The improvement in gross profit due to foreign exchange, sales, and product mix was offset by a decrease in production recovery, resulting in a flat performance compared to the forecast.

This decrease in production recovery is due to the impact of the COVID-19, which led to the temporary limited production operations at our back-end plants in Malaysia.

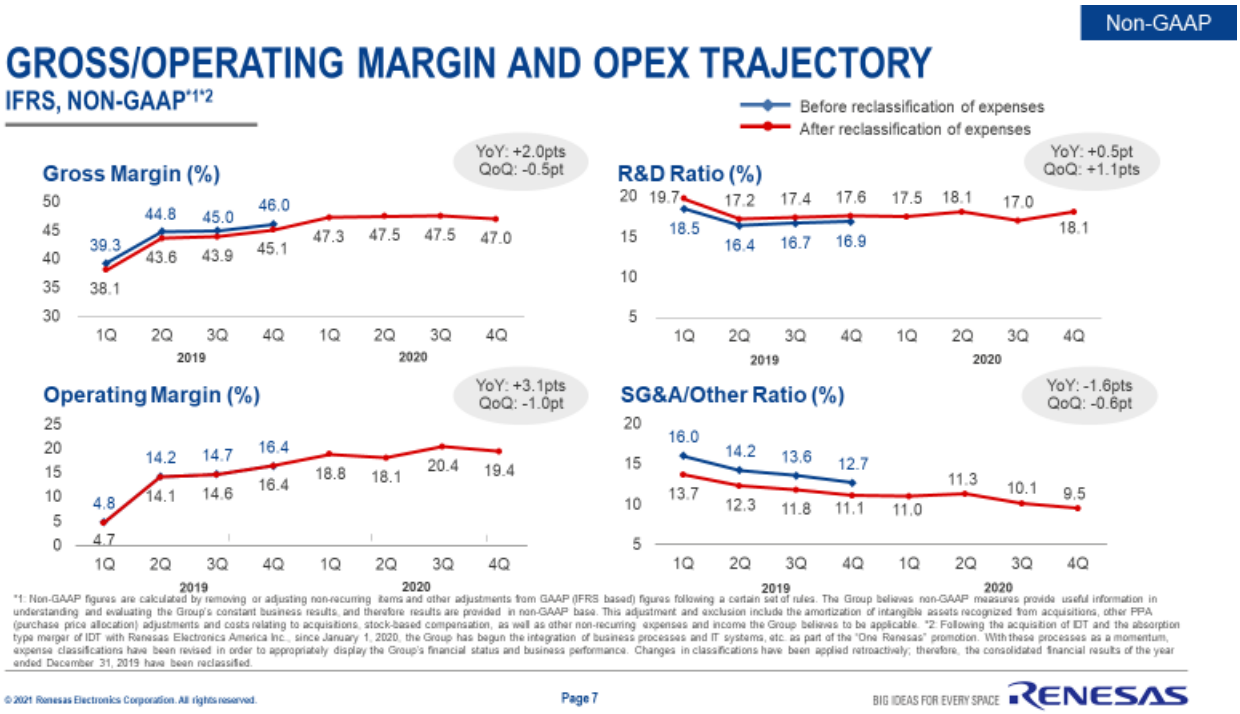
Operating expenses were almost in-line, and the operating income margin was overshoot 0.9 percentage points, or JPY2.6 billion compare to our guidance, as I mentioned.

The lower part of this section is about QoQ. The operating margin for the QoQ was negative 1 percentage points, while the actual amount was positive JPY700 million.

First of all, the gross profit margin was negative by 0.5 percentage points from previous quarter. In addition to the worsening of the product mix, and the relative increase in sales of products for the automobile industry in the QoQ, the increase in production recoveries, and the increase in expenses, generally offset these factors, resulting in a negative net rate.

Operating expenses increased in QoQ. OpEx, especially R&D, but in addition to seasonality, some of 'pulled-in' expence to be used in 1Q of this fiscal year 2021, were included.

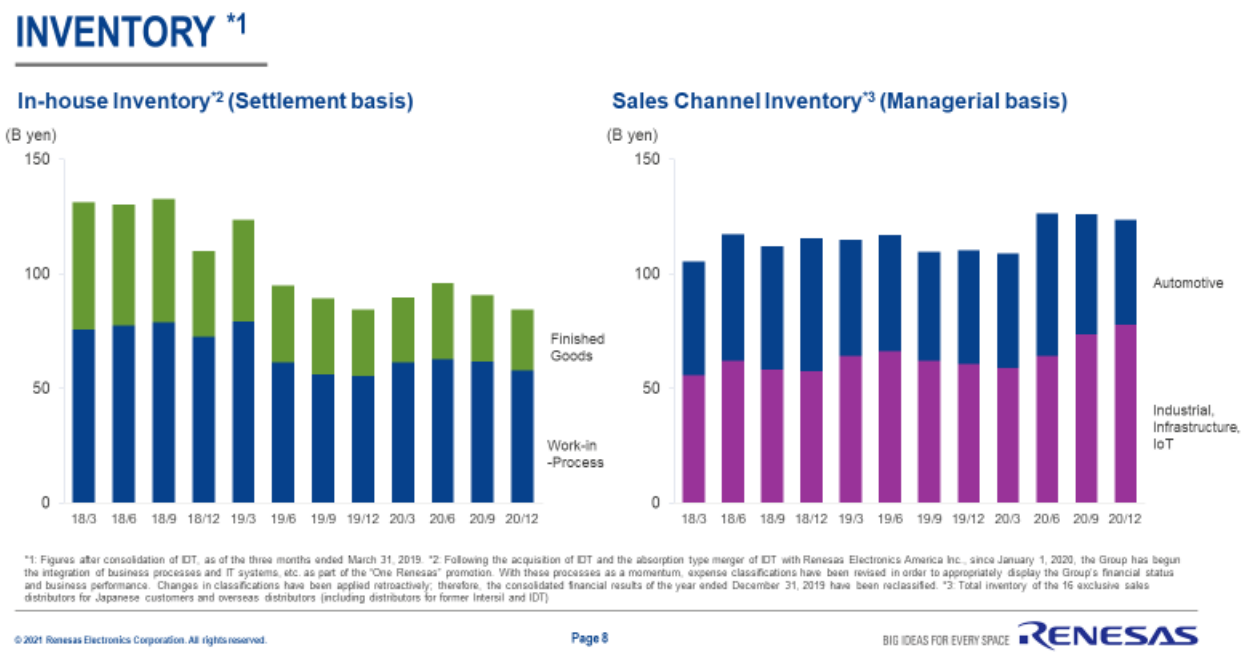
As a result, the operating income margin decreased by 1 percentage point by QoQ.



The next page, page seven, shows the historical data for the major indicators.

If you look at the SG&A at the bottom right, you can see the trend of gradual or percentage reduction.

In 4Q, although there were some temporary factors, we were able to achieve a level of less than 10%.



Next, on page eight, is the inventory status.

On the left is our inventory, by finished goods and work in progress. The right side shows the channel inventory, with a distinction between Automotive and those for Industrial, Infrastructure and IoT.

First, on the left is our inventory. Inventories of finished products for the Automotive, Industrial, Infrastructure, and IoT Segments all decreased.

Additionally, sales channel inventory for automobiles decreased in QoQ. In terms of sell-through as a percentage of sales, this is well below the level of the second half of 2019 or 1Q of 2020.

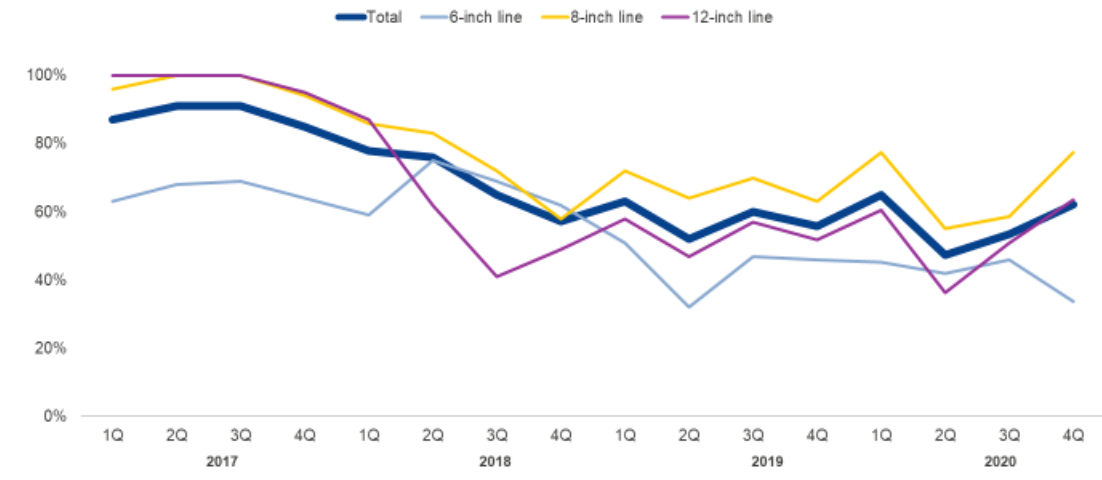
On the other hand, sales for Industrial, Infrastructure and IoT increased in QoQ. About half of the increase is due to technical factors, and the other half is due to demand factors.

The former is mainly due to the reorganization of overseas channels, which I talked about a little in the explanation of 3Q eaenings call, and the accounting factor of the increase in the value of inventory in the channels as a result of the introduction of ship and debit transactions.

One of the reasons I mentioned regarding the other half was that the customer could not assemble the product due to a shortage of parts, and therefore, we could not ship our products. There is also the need to build up buffer stocks to meet the increased demand.

Because of these factors, the QoQ, and actual value of this industrial, infrastructure, and IoT market is on an upward trend.

QUARTERLY TRENDS IN FRONT-END UTILIZATION RATE
WAFER INPUT BASIS



Next is the factory utilization rate. This is the utilization rate of the front-end process and is shown on the basis of wafer input volume.

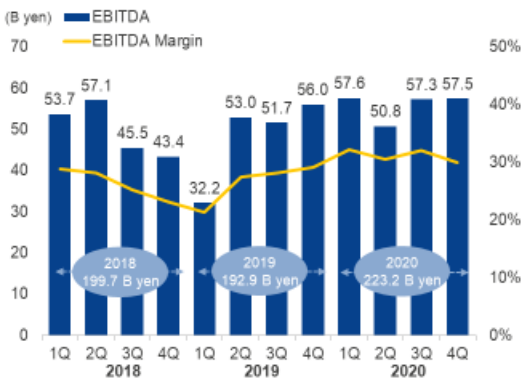
The utilization rate on an input volume basis for 4Q increased by nearly 10 percentage points in QoQ, which was in line with our expectations.

If you look at the results by line, the mainstay 8-inch are operating at a high level. On the contrary, 6-inch sales were low in 4Q due to low-capacity utilization because including the Shiga plant, which is scheduled for consolidation.

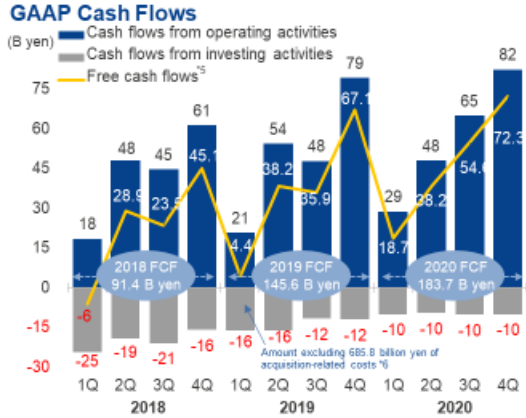
Non-GAAP (EBITDA)
GAAP IFRS (Cash Flows)

NON-GAAP*1 EBITDA *2*3 AND GAAP*4 CASH FLOWS

Non-GAAP EBITDA



GAAP Cash Flows



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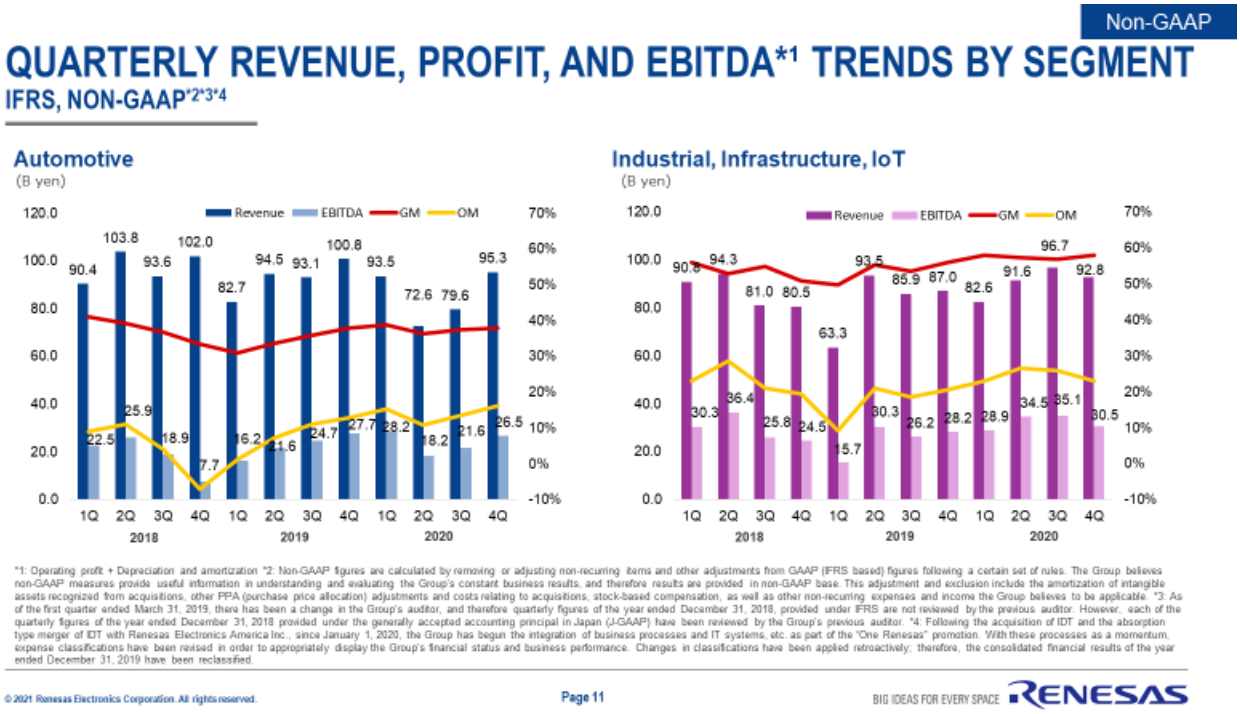
Next is the status of EBITDA and cash flow.

EBITDA for 4Q was JPY57.5 billion, 30% of sales. The total for 2020 is JPY223.2 billion, which is 31% of total sales.

On the right, operating cash flow for 4Q was 82.4 billion. Free cash flow was JPY72.3 billion, 38% of sales. The year-to-date total was JPY183.7 billion, 26% of sales, and we finished the year with a very high level.

Free cash flow for 4Q includes some special factors, such as the impact of inventory reduction, and the concentration of accounts payable at the end of the fiscal year, which is associated with the concentration of R&D at the end of the fiscal year. Also, the one-time cash-in impact of the introduction of ship and debit and other factors were included, and we landed at a slightly higher level than usual.



On page 11, here are the sales revenue and profit by segment.

Let's start with the left side, the Automotive Segment. Gross profit margin in 4Q was about 38%. Operating profit margin is 16.2%. EBITDA totaled JPY26.5 billion.

On the right, the business for Industrial, Infrastructure, and IoT. Gross profit margin in 4Q was around 58%. Operating profit margin is 23%. This resulted in an EBITDA of JPY30.5 billion.

If you look at EBITDA for the year, it is JPY223.2 billion for the entire company as shown on the previous page. The total for the Automotive Segment, as shown on this page, is JPY94.5 billion. The Industrial, Infrastructure and IoT Segment accounted for JPY129 billion. Finally, roughly 60% of the total was from the industrial, Infrastructure and IoT Segment.

In 2019, this segment-balance has generally changed from being 50-50. EBITDA for Industrial, Infrastructure and IoT increased by around 30% YoY, and excluding the consolidated profit of IDT, it increased by about 20%,,thanks to sales growth and also an improvement in gross margins. In YoY, we have improved by about 280 basis points in gross margins

Non-GAAP

1Q 2021 FORECAST
IFRS, NON-GAAP*1

YoY and QoQ results of the revenue are rounded off to one decimal place.

(B yen)	2020		2021		
	1Q (Jan-Mar)	4Q (Oct-Dec)	1Q (Jan-Mar) Forecast	YoY	QoQ
Revenue	178.7	191.6	**197.0 to 205.0**	**+10.2% to +14.7%**	**+2.8% to +7.0%**
Gross Margin*2	47.3%	47.0%	**48.5%**	**+1.2pts**	**+1.5pts**
Operating Margin*2	18.8%	19.4%	**22.0%**	**+3.2pts**	**+2.6pts**
1 US$ =	110 yen	105 yen	**103 yen**	7 yen appreciation	2 yen appreciation
1 Euro=	121 yen	124 yen	**125 yen**	4 yen depreciation	1 yen depreciation

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*2: Each figure represents comparisons of the midpoint in the sales revenue forecast range.

Page 12 is about the forecast for 1Q FY2021. Look at the dark blue row in the middle.

In terms of sales revenue, the midpoint was JPY201 billion, or a 4.9% increase in QoQ terms. Gross profit margin improved to 48.5%, up 1.5 percentage points in QoQ. The operating income margin is expected to improve by 22%, or 2.6 percentage points in QoQ.

GAAP
IFRS

STATEMENT OF FINANCIAL POSITION
GAAP (IFRS)*1

(B yen)	19/3	19/6	19/9	19/12	20/3	20/6	20/9	20/12
Total Assets	1,876.7	1,697.9	1,666.3	1,668.1	1,657.8	1,634.5	1,620.4	**1,609.0**
Cash and Cash Equivalents*2	196.7	116.5	124.3	146.5	136.9	148.5	175.9	**219.8**
Inventories	129.7	100.8	95.5	90.8	95.7	101.8	96.9	**89.8**
Goodwill	633.2	614.9	615.7	625.0	620.9	614.6	603.6	**590.5**
Intangible Assets	478.0	445.8	427.7	414.6	430.3	409.8	386.7	**364.8**
Total Liabilities	1,237.5	1,105.4	1,068.1	1,043.7	1,030.5	1,005.1	988.3	**989.3**
Interest-Bearing Liabilities*3	965.3	852.7	828.8	785.9	764.2	740.2	717.1	**693.7**
Total Equity	639.1	592.4	598.2	624.4	627.3	629.4	632.2	**619.7**
D/E Ratio (Gross) *4	1.52	1.45	1.39	1.26	1.22	1.18	1.14	**1.12**
D/E Ratio (Net) *5	1.21	1.25	1.18	1.03	1.00	0.94	0.86	**0.77**
Equity Ratio Attributable to Owners of Parent *6	33.9%	34.7%	35.7%	37.3%	37.7%	38.3%	38.8%	**38.3%**

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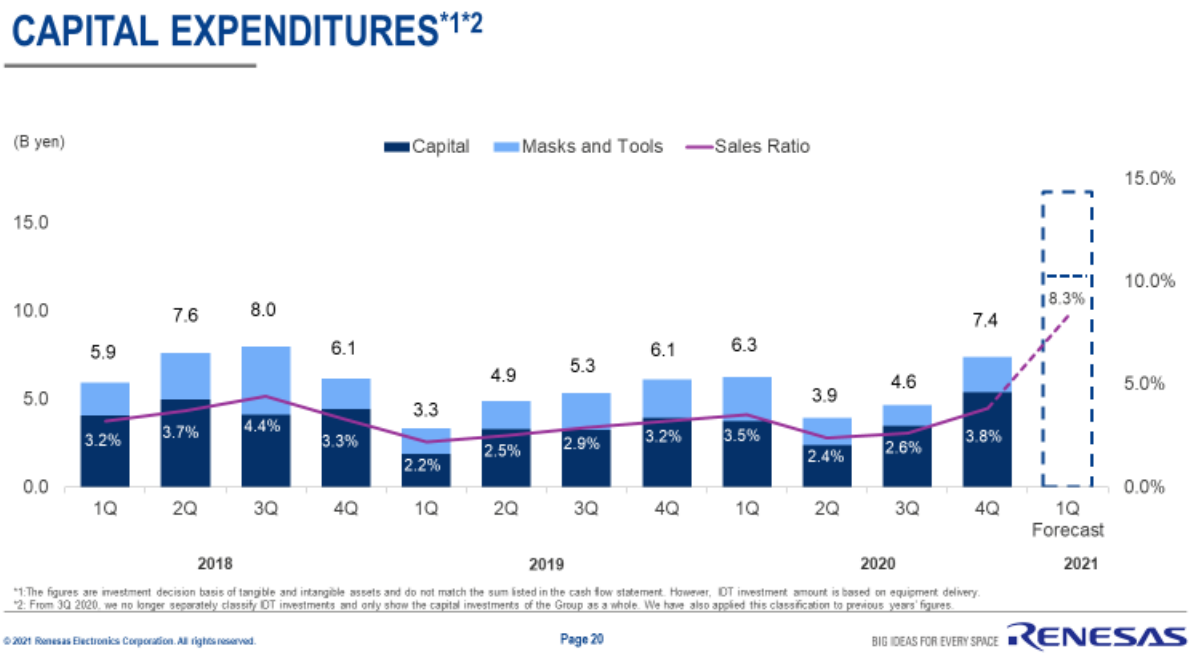
*2: Sum of Cash and deposits and Short-term investment securities minus Time deposits with maturities of more than three months and securities with maturities of more than three months.
*3: Borrowings (current and non-current liabilities) + Lease Liabilities (current liabilities) + Lease Liabilities (non-current liabilities) + Bonds.
*4: Interest-Bearing Liabilities / Equity attributable to owners of parent.
*5: (Interest-Bearing Liabilities - Cash and Cash Equivalents) / Equity attributable to owners of parent.
*6: Equity attributable to owners of parent / Total liabilities and equity.

Next, on page 19 of the supplementary materials, I would like to talk about the status of the balance sheet.

Gross debt at the end of 4Q was JPY693.7 billion, resulting in a gross leverage of 3.1 times.

On the other hand, net debt was calculated from here to be JPY473.9 billion, resulting in a net leverage of 2.1 times. As of the end of 2019, our net leverage was 3.3x, which means that we were able to decrease our leverage by 1.2 over the past year.



Page 20 shows the status of capital investment.

From 4Q of FY2020, we have been conducting operations to restore a little bit of capital investment. In 1Q of the current fiscal year in particular, we plan to make strategic investments for production increase and development. As shown by the dotted line here, we plan to make capital investments that are a little more advanced than in the past.

This concludes my explanation.

Moderator: Thank you very much.

Question & Answer

<Questioner 1>

Q: I would like to ask for two things. First, I would like to know about the current situation. According to media reports, the market is very active and price increases are occurring. I would like to know how much of the impact of this price hike has contributed to 4Q sales or 1Q sales plan, and what impact this has on the gross margin.

The second is the market outlook. In the January to March period, the median sales figures in the guide show a 5% increase in QoQ, but I would like to know if you could break this down into automobiles and industry/infrastructure. If possible, I would like to know how you see the demand now through 2021. These are the two questions.

A: The topic about prices is very sensitive, so I have to be careful about what I say. First, there is no such effect at all in 4Q FY2020. In terms of guidance for 1Q, I think it is safe to say that it is on the lower side of the JPY1 billion range.

We don't do what's called across-the-board price increases. We take a different approach for automotive and non-automotive.

For automotive, the price of raw materials, such as gold and base materials, has risen significantly. Also, as has been reported in some media reports, our outsourced suppliers have requested and accepted a substantial price increase, so we will pass on the increased costs. We've just started working on something similar to the surcharges they do at airplane.

In addition, for non-automotive products, we are basically raising the prices of legacy products to encourage customers to move to new products as soon as possible.

We will see incremental prices of a certain scale throughout the year, but for 1Q, as I mentioned earlier, we are still expecting very limited effects. That's the thing about the price.

The second point is about the demand outlook. We have a lot of channel business flow, so depending on whether you are talking about us selling into the channel, or selling through from the channel to the customer, you may see things a little differently, especially on a quarterly basis. So please be careful.

The question was more about our guidance, so now I will talk about it on a sell-in basis. Automotive sales are about high single-digit and non-automotive sales are low single-digit, or about 5% in total sales. We are anticipating such a demand transition.

Our competitors are generally saying the same thing, but demand has been quite strong during the first half of the year. Of course, we don't know what the future holds, but from what we can see right now, it looks like 2Q will be even stronger than 1Q.

Therefore, the important thing rest is about supply-side. This is related to what Shinkai mentioned earlier, but of course, even if we supply only ourselves, our customers will not be able to produce goods, so the industry as a whole must keep up with supply. I believe that this will be the case for electronic components other than semiconductors as well, but the demand will be realized when the overall supply catches up. We are now seeing a bit of tightness in supply in many places, so it looks like this situation may continue for a while.

In fact, when I look back at our performance figures for this 4Q, I don't know how you all took it, but we landed pretty close to the guidance.

On the other hand, a backlog of work accumulated. Therefore, we ourselves are in a situation where supply is not quite keeping up with demand, and demand itself is strong. As I mentioned, the amount of order backlogs that we have is increasing rapidly. I feel that this situation will continue for a while from both sides. Sorry, this is a bit long, but that's all for now.

<Questioner 2>

Q: I have two questions. First of all, I would like to ask you about the current demand and supply. I think we are in a tight squeeze, especially for cars, but under these circumstances, I think the occupancy rate is getting quite high. In terms of increasing the supply, I think it is very difficult to increase the supply in a short period of time, but what are the bottlenecks, and how are you working to increase the supply by eliminating the bottleneck processes?

Also, in areas where demand for cars is strong, I would like to know if there is any risk of customers procuring too many cars. This is the first one.

Secondly, while the occupancy rate has been high, sales have also been increasing. For example, to what extent can you increase sales for the full year at your current capacity? What is the maximum value that you are looking at? These are the two points. I'm looking forward to your answers.

A: Regarding bottlenecks in production and supply: If you look at the occupancy rate of our front-end factories, you can get the general idea. 'Bottle-necks' are not necessarily in-house factories. For the front-end, the bottleneck is the foundry, and for the back-end, the bottleneck is OSAT.

They seems to have already reached the limit of our physical capacity. You all already know this, but even if they wanted to increase our physical capacity, it would take a very long time.

Therefore, if we look at the current time frame of the first half of this year, or even the end of this year, I think the reality is that we cannot foresee the effects of such a massive increase in physical capacity.

Therefore, we should try to increase the throughput, shorten the turnaround time, or shorten the downtime, even if it is just a little here and a little there. The industry as a whole is now taking the approach of increasing output by really going a little bit here and a little bit there, so I think we will continue to do that for a while.

This may not be the purpose of your question, but in our case, we are trying to increase our intermediate inventory, as Shinkai mentioned, in order to anticipate the future.

As I mentioned earlier, the backend also has a bottleneck, so if the backend is clogged up, that will dampen the effect a bit. Aside from that, the backend is more agile and responsive in many ways. Since the time required for the back-end process itself is short, we have been working steadily since last year to make it easier to respond to fluctuations in demand by having a little extra inventory in the intermediate inventory. It will take some time, but we are steadily working on it. In terms of bottleneck response, that is the situation.

Q: Also, regarding the demand for vehicles, what about the risk of receiving too many orders?

A: As far as I can see at the moment, the sense of excess is not so strong, at least in terms of the visible future.

As we mentioned earlier in Shinkai's part about inventory, it has become very scarce right now. This is the case for our in-house inventory, as well as for China inventory. Of course, this needs to be brought back to the level of the run rate, so that's a start. One point is that we need to manufacture additional things according to the actual demand.

In addition, although this will probably be a topic for discussion after things have settled down a bit, I think that the semiconductor industry and the industries on the demand-side will probably be involved in discussions about what the supply chain and inventory management should be like in the future.

As a result, I think one of the actions that will probably be taken is to raise the level of inventory held by the supply chain as a whole. If we take this into consideration, we will need to manufacture products to an even greater extent in addition to the current strong real demand. If we include all of these factors, I think that the level of demand that we are seeing in the first half of the year will not lead to a sense of excess yet.

Q: Thank you very much. In terms of profitability, I think the margins were quite good this time as well, even though production has been quite high. In addition, I would like to know how much upside there is in terms of recovery of fixed production costs.

Also, as you explained earlier, with sales coming out to roughly JPY200 billion per quarter, I would like to know how much is likely to be the cap.

A: Talking about caps is difficult. At the moment, the industry, as a whole, is reaching its limit in terms of capacity, so it may be difficult to significantly swing upward from here. However, as I mentioned in the previous question, we are not just trying to increase the supply, but we are also working on various initiatives.

And, in the automotive business, ASP is continuously shifting to products with higher unit prices. I think it is better to think that there is still a certain amount of upside left when you mix all of these factors together.

As for the upside of margins, we can naturally expect the effects of various initiatives that I have mentioned several times. Also, our Fabs are still expected to increase their occupancy rates, so that will naturally have an effect on margin expansion.

However, for the entire company, if sales of automotive products increase for a while, there will be a bit of pressure on margins, so I think it would be better to look at the pluses and minuses of that as well. That's all.

<Questioner 3>

Q: I would like to ask two questions. First, I would like to ask you to explain the degree of the shortage. It would be helpful to know the current capacity of the industry as a whole if the final sale of a car would be a value of 100.

If this is difficult, I would like to know how much your customers are demanding, and how much Renesas can deliver, including details such as you being 10%, 20%, or 5% short on deliveries. This is the first point.

A: Well, since Maoka and Kataoka are on the line, I'll ask them to answer. First, Maoka, please.

A: I am Maoka from the Automotive Solution Business Unit.

To be honest, it is difficult to determine the degree of insufficiencies. The inventory itself is becoming very scarce. This is the way we see it, but of course, our distributors, Tier 1 customers, and OEM customers also

see it that way. In this context, it is difficult to answer the question of how the demand we see in the supply chain is actually structured for the final sales, or the final run rate.

The first thing we have to do is to secure the run rate, and that is what we are working on. We are always investigating which quantity is necessary to maintain the line. We are aware that it is very difficult to verify these figures because our customer may still want to have safety stock. To be honest, the degree of this is quite difficult to answer.

Regarding the question of how insufficient it is to meet, not just the final sales, but our demand in general, there are also many shades of gray, depending on the product.

Earlier, I showed you the occupancy rate of the front-end process of our in-house factory, and if you look at it from there, you will see that it has not yet naturally reached 100. If the product is made in-house, it will look like this.

On the other hand, as Shibata mentioned earlier, some subcontracted factories, foundries, and OSATs are very crowded depending on the line. If we consider these as well, then yes, the current situation is that delinquency, the order backlog is accumulating rapidly, and of course it is over 100%. However, I think it would be better to say that there is a lot of variation in this area.

A: Mr. Kataoka, do you have anything to add?

A: This is Kataoka. In the case of cars, as you know, there are hundreds of electronic components inside the car, and it is difficult to know how much is really missing. In other words, even if one part is missing, it means that we can no longer manufacture a car, so it is difficult to see what is really going on.

Therefore, we have been communicating well with our customers to prioritize the shipment of the products that are most critical to them, so that we can minimize the so-called line down for our customers, in the case of car manufacturers. This is the current situation. So it's hard to say what percentage is missing overall, really.

But one hint, for example, is the demand for overseas OSAT, the so-called back-end factories, against the overall capacity. This is not only for auto, also including demand for non-auto. For example, in December, demand was 130%, but in January, it was already 150%. Of course, this is partly due to the fact that it's hard for everyone to meet the capacity, so there's a lot of demand in the form of rush demand.

In any case, I think it is clear that there is an overall shortage of significant percentage. I think it's in the double-digits percentage range. However, we believe that this includes non-auto. That's all from me.

Q: Thank you very much. The second point of my question is that we are now in FY2021, I would like to know if you can talk about the cost variables that can be improved through your company's self-help efforts in 2021, compared to 2020. That's all from me.

A: This question will be answered by Shinkai. Shinkai, please.

A: In 2021, there is about JPY10 billion in amortization expenses that will naturally decrease YoY. For OpEx, we are planning to invest slightly more in R&D compared to2020.

On the other hand, for SG&A, we will continue our activities this year to lower the actual amount and further lower the percentages.

So, total OpEx,I would rather assume that it will increase through R&D. That's all.

Q: I'd like to add something else, but in your presentation material, you mentioned that capital investment is quite large in 1Q, so I would appreciate it if you could include this in your explanation of what is likely to happen over the next year.

A: Let's talk about capital investment. The forecast for 1Q is quite large.

For the normal year, we set roughly 5% of sales. But FY2021 will bit higher than normal level, and when combined with 2020, (two-years-average) is roughly the same as the normal level.

<Questioner 4>

Q: First of all, please tell us how you plan about how to utilize the 8-inch line in the future. Probably, globally, the most difficult area to increase capacity in the future will be 8-inch. I think that power or mixed-signal process nodes are the areas where we are consuming a lot, including Dialog, which was just announced for acquisition. How will you utilize it? Will you gather up used machines to increase production? Or will you do partnerships with foundries? Please give me a hint. This is the first point.

A: The microcontrollers we are making at our plant, especially the 130-nanometer ones, are being migrated to the 300-milimeter ones.

Also, this may be a little off the time axis, but as the previous question, investments into the migration to 300-milimeter IGBTs are a large portion of the CapEx jump in 1Q. If this goes well, we'll be able to migrate from 8 inches to 300 millimeters. Of course, there will be an increase in the number of devices, but we also expect a certain number of devices to shift. So, I think I will be able to make it work by coming and going.

Q: Just to confirm, I think it's correct to say that we will probably increase production by transferring what can be transferred, so that we can increase the number of 180-nanometer products.

A: Whether it's 180 nanometers or not, yes, there are some things that can be opened space to make, as well as some things that can make on that space.

Q: I understand. Thank you. Secondly, in response to the tightening of supply and demand for semiconductors, what are your thoughts on what to do about products regarding customers with small lot sizes? If you want to increase TAT, you can probably reduce the number of setups by mass-producing products in large quantities, so you can produce more products. There are many methods, including aggregation by proceeding with EOL.

Or there is the thought that people should pay more for the time and effort it takes. In light of this supply and demand, please tell us how you plan to change your semiconductor product strategy. This is the second point.

A: In terms of direction, I think it's the sense of direction that you just mentioned. However, the question of “how”, or the method, is a little different from what we had in mind. I already mentioned this earlier, but I think the best way to make everyone happy is to ask them to switch to a new product.

Therefore, the first step is to promote migration by providing incentives to use the new one, rather than making it unusable with so-called EOL.

Then, by expanding the intermediate inventory, ‘die bank’, we can keep the inventory in a state where it doesn't go to the finished product, because if it goes to the finished product, it becomes a very costly inventory. We are trying to shorten the lead time and the supply chain from the customer's point of view, so that if necessary, they don't have to wait for the wafers to come out of the factory after they are put in. Thus, we

can make the product and deliver it in a much shorter period of time. I think we can expect significant improvement in the immediate future with these two methods.

Q: I have a follow-up question, but do you have an idea of how much the profit margin will improve as a result of these activities, even if it's just a rough estimate? Time frame of two or three years?

A: This varies a lot depending on the scale of the top line, so I'm sorry, I don't have any estimates according to a basis of 10 or 100 points right now.

<Questioner 5>

Q: I would also like to mention two points. Let me make the first point. Regarding the insufficiencies in the foundries: In the matrix, there are MCUs, SoCs, and analog devices for automotive and non-automotive products. Can you tell us about the insufficiencies in each area, and where these are more pronounced or less pronounced? For example, in MCU, it could be line width. For analog, what areas are you not able to produce? I hope you can tell me about these things. This is the first point.

A: For example, the foundry and OSAT are changing their allocations according to the degree of tightness at the time. So it's not a very static story, we cannot say which one is lacking, and which one is not. It's dynamic and changing rapidly.

As for the process, even so, it requires investment, so naturally there is a certain limit, and if you want to change something, it will take a lot of time.

In the case of digital, it's more like a real fine pitch, for example, in the case of SoC, it's 16 nanometers or less than that. In terms of microcomputers, I think there is a strong sense of urgency, mainly in the 40-nanometer or less than that.

Around here, things that used to be made with more and more lugging nodes are being migrated to fine pitch.

On the other hand, we are not making any new investments, including in foundries. The investment will be in the more advanced 7 nanometers and 5 nanometers, so I think the current reality is that we are pushing towards the original limit. Kataoka, do you have anything to add?

A: Yes, it's just as Shibata just said. For example, in the case of 40-nano, we're talking about something very specific. Products that used to be made at 90-nano or 65-nano will now be made at 40-nano or lower. The bottleneck for microcomputers is around 40-nano, so it doesn’t go as far as 16-nano or 28-nano.

SoCs are becoming more and more advanced, but 7 nanometers and 5 nanometers are extremely advanced, so think the bottleneck will be at around 16 nanometers.

Foundries are well aware of this, and although it is difficult to invest, they are making efforts to increase their capacity as much as possible under these circumstances. I can't go into specific numbers, but we are gradually increasing our capacity. However, if investment is involved, the capacity will not increase immediately, so it will be a gradual process.

A: Also, analog mixed signals are tighter around 8 inches, like 0.15, or 0.18.

As has been mentioned in various reports, I think the current situation is that we are under a lot of pressure regarding the processes that we use for power management and such. That's all.

Q: Thank you very much. Second, I want to confirm on the following. In 4Q, I think the cost of taxes has increased a bit. I would appreciate it if you could give me some background on this and whether or not this trend will continue. This is the second point. I'm looking forward to working with you.

A: This question will be answered by Shinkai. Shinkai, please.

A: Let's talk about the tax expense for 4Q. In conclusion, we believe that it will not continue. A few one-time items are included, but this does not mean that the run rate will increase. I would like to add that. That's all.

<Questioner 6>

Q: I would like to ask particularly about the automotive sector. In 4Q, there were general explanations about not being able to keep up with demand and about scarce inventories, we have heard that demand for your products increased significantly in October and November of last year. I would like to know how much pressure you were under during this period of October and November.

I would like to know how many times or how much the volume of orders at this time was higher than usual. That's one point, thank you very much.

A: Maoka and Kataoka will answer your questions now, but before that -- actually, it is not necessarily the case that automobiles only are in demand, and demand for non-automobiles is very strong. In terms of our figures, the backlog at the end of last year's 3Q and at the end of the year, the so-called order backlog, if you just look at the increase, there are more non-automotive items than automotive.

I think it would be a good idea for analysts to have a sense of the numbers in some corner of their minds before listening to the discussion. It's not all about automobiles. With that preamble, Maoka and Mr. Kataoka, please go ahead.

A: I would like to comment first. Shibata made a comment by putting numbers on the table, but on top of that, I would like to stress that answering the question through numbers could be difficult.

First of all, you mentioned October and November, but it is not limited to October and November. Last year, demand for automobiles sank significantly in 2Q due to the impact of the coronavirus.

Then the demand came up in 3Q and 4Q. At this point, the demand is catching up with the reduced capacity, inventory. The cycle continues to turn as we try to complement it.

The same is true for 3Q, 4Q, and this 1Q 2021, and I see that the level of demand that we are asking for continues to increase.

Therefore, it does not appear that there was a sudden concentration of demand in any single month or limited period. Kataoka, what do you think?

A: It's difficult to give a specific number. To put it in perspective, last year's demand in 2Q dropped by half or 40% QoQ, due to the impact of the coronavirus. However, with the recovery of coronavirus, I think there will be a move to recover the annual production volume, including the fallen demand. So accordingly, we have to make up in 3Q, 4Q, as well as 1Q of this year, for the loss in 2Q last year.

It depends on the customer, so it's difficult to give a specific number. Between the values of 1.0x and 2.0x, there are customers, for example, some of whom are 1.5, and some of whom are 1.3. I am not sure how much longer this will continue, but that is the situation we are in right now.

Q: Thank you very much. And now for the follow-up. Isn't there any indication that orders for semiconductors for the automobile industry have been concentrated in your company during this period? In other words, other companies were not able to produce as much as they wanted, so orders flowed to your company and you were able to concentrate them.

A: With semiconductors, it's not possible to use different products from right to left. So the customers who use our products can only continue to use our products. At least in the short term. This is similar for other companies' products.

So, for example, our competitor cannot say, "Well, let's buy from Renesas today because supplies are tight."

<Questioner 7>

Q: I have two points. The first point is about the current shortage of semiconductors for automobiles. With the shortage of foundry capacity, there has been a lot of talk about increasing the ratio of in-house production, but is this a temporary measure? Will it be restored after the confusion is over? I would like to know a little bit about the direction of your production system in the medium to long term. This is the first point.

A: The medium- to long-term plan for production has not changed in any way, and we have no intention of changing it. It is not realistic to manufacture 7 nanometers or 5 nanometers products in-house, so we will let foundries take on these products.

The so-called fablite strategy remains unchanged, which is to produce what our factories can produce without difficulty.

Q: For example, for the 40 nanometers and other products that were outsourced, will you be doing them in-house in the future as well, or will you be returning to outsourcing?

A: Even though we were able to do it ourselves, there was only a very small capacity in our factory. So, we will not be able to take on and integrate all the processes into our factory in the first place.

Q: Thank you. Now, I want to mention the second point.

Right now, there is quite a bit of talk about Apple and other companies from different industries entering the automotive industry, and I think there is a lot of talk about how the EV market is going to take off. Do you have any comments on your company's stance in this area and how you are going to tackle this issue in order to capture the market?

A: Kataoka's division is probably the most likely to have an impact on this field, and even if the companies you just named were to enter the field, or even if other companies were to enter the field, I don't think that so-called analog or power semiconductors would be affected.

I also think that the impact of the so-called microcomputers will be relatively limited. I think that if there is going to be an impact, it will probably be in the area of high-compute parts such as so-called application processors, so Kataoka, who is in charge of the digital automotive area, will answer this question. Kataoka, please.

A: Well, I don't think this will have any impact on conventional automobile control, such as engine control, body control, and chassis control.

On the other hand, in the field of SoC, which requires high computing, such as IVI, there is a possibility that companies from other industries will come to us.

However, one thing that has happened is the evolution of EE-architecture, where the central computer in the middle of the car and the so-called zone computers around it share the same functions. For example, in one car, the application is placed on the microcontroller side, but in another car, it is placed on the SoC side, and so on.

In this EE-architecture, one of our strengths is that we have a scalable product line from low-end to high-end, from microcontrollers to SoCs. In this regard, I think we have an advantage because we have assets from the past, such as software assets of our customers.

On the other hand, there will inevitably be areas that require very high computing power, so we will need a lot of computing power. How we address these issues is certainly a challenge, but we are working on it.

One of our strengths is not only the actual performance of the car, which is very high, but also the fact that the car actually works reliably for many years. For example, low power consumption, high quality, and so on. Also, there is what is called functional safety, FSA, and security. We have a comprehensive range of such things, and we will use our experience in these areas as our strength.

In addition, our customers are software developers, including companies from other industries. When they use our products, they find that Renesas products are easy to use. If you use Renesas products, after developing the software, you can be sure that it will work properly in the actual car. The development environment as well as the simulator environment will ensure this. We would like to differentiate ourselves in these areas.

<Comments from CEO Shibata>

As always, thank you very much for your participation. Today, during the question-and-answer sessions, the emphasis was a little more on the automotive side. Again, the demand is not only for automotive, but also for data centers, computing, and white goods. This is especially true in China. So, overall, we foresee that demand will continue to strengthen for a while.

In addition, if discussions on the state of the supply chain, and the way to hold inventory, lead to a change in behavior, I believe that this will be an additional factor in increasing demand. Of course, there may be things that are unforeseeable, including the coronavirus situation, but from the way I see it now, I feel that this year is going to be a good year.

On the other hand, if it turns out to be a good year for investors, but a bad year for customers. Thus, in that sense, it will not be good in the long run. We have to ensure that as many products as possible are delivered to actual end users. We are willing to spare no effort or investment to achieve this.

Therefore, I am relieved that the financial results were good, even though there was a sense of uncertainty for a while last year.

From here on, the closing and integration of dialog's transactions, which was announced two days ago, will begin in this year. In addition, we will provide you with appropriate information and update opportunities as needed without delay, and we look forward to working with you as much or more than ever before.

Thank you very much for your time today. Mr. Moderator, please.

Moderator: With this we will conclude the briefing session for 4Q of the fiscal year ending December 31, 2020. Thank you for your participation.