

MEC CO., LTD (4971 JP)

FY21 GROWTH CATALYST WILL BE A RISE IN SERVER DEMAND. CZ SERIES CONTINUE TO LEAD THE EARNINGS GROWTH

FY20 EARNINGS RESULTS

MEC (4971 JP) reported FY20 (Dec year-end) earnings with operating profit [OP] of ¥2,370mil (+44.8% YoY) on sales of ¥11,956mil (+10.0% YoY). Earnings overshoot the firm's full-year guidance by 2.2% in sales and 3.0% in OP. FY20 gross profit margin [GPM] improved by 1.0ppt YoY to 61.9% thanks to an improved sales mix.

Earnings Summary (Cumulative)

(¥mil)	FY19		FY20					
	IH	FY	IQ	IH	FY20 CE	FY Actual	vs. CE	YoY (%)
Sales	4,976	10,865	2,809	5,701	11,700	11,956	2.2	10.0
OP	610	1,637	498	1,133	2,300	2,370	3.1	44.8
OPM (%)	12.3	15.1	17.7	19.9	19.7	19.8	+0.1pp	+4.7pp
RP	638	1,722	463	1,126	2,300	2,388	3.8	38.7
RPM (%)	12.8	15.9	16.5	19.8	19.7	20.0	+0.3pp	+4.1pp
NP	457	1,236	317	794	1,500	1,595	6.3	29.1
EPS (¥)	24.09	65.16	n/a	41.85	79.03	84.09	6.4	29.1
DPS (¥)	12.00	26.00	n/a	12.00	26.00	26.00	0.0	0.0

Source: Nippon-IBR based on MEC's results presentation material

Chemicals division sales, which comprises more than 90% of the firm's total revenue, rose 8.8% YoY to ¥11,596mil and sales volume increased 8.2% YoY. Of the ¥733mil YoY gain in FY20 OP (+44.8% YoY), ¥541mil was generated from increases in sales and sales volume of the Chemicals division. The company also got a further ¥237mil boost in OP from the division's improved GPM, thanks to a 13.5% YoY rise in sales of the CZ-series (¥6,260mil) – an adhesive-enhancing chemical – which improved the sales mix.

A boost in server demand at data centres, bolstered by the increase in data transmission on the back of COVID-led remote working, was a key driver behind sales growth of MEC's sales growth. Sales of Copper Surface Treatment Chemicals improved 9.9% YoY to ¥11,147mil. These products can be divided into the following two segments:

1) Adhesive Enhancer

FY20 Adhesive Enhancer sales rose 12.4% YoY to ¥7,213mil thanks to a boost in sales of CZ-8101, supported by the rapid surge in demand for servers. In Q4 alone, segment sales reached ¥1,970mil (+16.2% YoY / +7.8% QoQ) – yet another quarterly sales record.

EXECUTIVE SUMMARY

- MEC's FY20 earnings overshoot the guidance which was revised up at the time of Q3 results, by 2.2% in sales and 3.1% in OP, respectively.
- Sales of CZ series, an adhesive-enhancing chemical used in packaging saw sales rise 13.5% YoY to ¥6,260mil, hitting a record level in annual sales.
- Throughout the year, what triggered sales growth was higher demand for servers on the back of booming remote working and distant learning. CZ-8101 – MEC's core product – saw record sales and contributed to a better sales-mix.
- In Q4 alone, in addition to continued strength of CZ-8101 sales, recovery in automobile production helped recover sales of CZ-8100 and V-Bond, both of which have exposure to packages used in autos.
- FY21 guidance calls for OP of ¥2,500mil (+5.5% YoY) on sales of ¥12,800mil (+7.1% YoY). However, GPM is expected to fall 1.8ppt YoY to 60% due to higher labour costs associated with increased production capacity.
- CZ-8101 will continue to lead growth thanks to continued strength in demand for servers. New generation CZ-8201 will also be used in package makers' chiplet packaging such as EMIB.
- MEC has sufficient capacity to generate sales of ¥17,000~18,000mil, equivalent to 10% CAGR over the next 5 years. Since package makers will likely continue to invest on production capacity through to 2023, MEC will likely invest on capacity expansion within the next 5 years.
- Basic principle of shareholder return remains at pay-out ratio of 30%. The cash on the balance sheet (¥5,579mil as of FY20) will be kept for future growth investment.

Usually, Q4 tends to be seasonally low. However, the segment sales continued to be strong throughout Q4 thanks to:

- i. Delays to the production start of the high-end smartphone, hence the associated shipment of packages was pushed back to Q4,
- ii. Demand for PCs and tablets continued to remain strong on the back of an increase in remote working and distant learning,
- iii. A recovery in automobile production,
- iv. Package makers shifting to chiplet technology, such as EMIB, has gradually begun.

FY20 sales of CZ-8101 hit a historical record of ¥3,294mil (+16.7% YoY). In Q4 alone, CZ-8101 sales hit yet another quarterly sales record of ¥865mil (+14.9% YoY / +5.2% QoQ). CZ-8101 was the main contributor to MEC's strong earnings momentum. The need for data centre servers remained strong throughout the year due to a rapid surge in data transmission volume on the back of increase in remote working. CZ-8101 sales were further enhanced as the package makers started to shift to chiplet technology such as EMIB. Due to a delay in the miniaturisation of package substrate's line and space (L&S), CZ-8101 was still used over the next generation CZ-8201.

CZ-8100 sales remained lacklustre until Q3, partly due to a weak automobile production – the product is used in some auto-use packages. In Q4 alone, CZ-8100 reported quarterly sales of ¥314mil (+16.7% YoY / +18.9% QoQ). However, full year FY20 sales fell 1.9% YoY to ¥1,089mil.

V-Bond, another adhesive-enhancing chemical used in multilayer substrates for autos, also saw a slight improvement in Q4, with sales reaching ¥190mil (-16.3% YoY / +11.8% QoQ), though FY20 sales were down 3.2% YoY to ¥663mil.

While the new generation CZ-8201 sales began in Q4, as the packaging makers' shift to a chiplet technology, FY20 sales were still less than ¥100mil. The server demand will likely be the growth driver for chiplet packaging, which subsequently will drive demand for CZ-8201.

2) Etching Chemicals

FY20 sales of Etching Chemicals was ¥3,931mil (+4.0% YoY). In Q4 alone, sales picked up to ¥1,099mil (+22.5% YoY / +10.3% QoQ) thanks to a boost in Q4 sales of SF. SF, a key material used in touch panel sensors, saw annual sales of ¥1,091mil, +11.4% YOY. Quarterly sales trend bottomed in Q3 and in Q4 alone, sales were ¥362mil (+46.6% YoY/ +63.1% QoQ). Throughout the year, SF sales were boosted on the back of strong demand for tablets but in Q4, sales improved because the production of the high-end smartphones – whose touch panel sensors use SF – was pushed back to Q4. Even tough tables sales remained strong, one of two new high-end smartphone models did not use touch panel sensors due to a new technology that replaces the need for touch panel sensor. However, MEC has already expected this change, therefore, it did not present as a negative surprise.

EXE, another of MEC's etching chemical products, saw FY20 sales of ¥1,307mil (+1.1% YoY). Demand for use in chip-on-film [COF] remained solid thanks to strong demand for laptops and displays. However, overall sales of middle-end smartphones remained sluggish, which affected EXE sales. Testing of the subtractive method using EXE as an etching chemical in smartphones' HDI motherboards was delayed due to COVID.

FY21 OUTLOOK

MEC is guiding for FY21 1H OP of ¥1,150mil (+1.4% YoY) on sales of ¥6,100mil (+7.0% YoY) and full-year OP of ¥2,500mil (+5.5% YoY) on sales of ¥12,800mil (+7.1% YoY). The firm expects GPM of 60% (-1.8ppt YoY) because of estimated increases in labour cost related to production capacity increases over the past two years.

1) Adhesive Enhancer

FY21's earnings growth driver will likely continue to be server-related demand. The firm forecasts 9.9% YoY sales growth in CZ series to ¥6,883mil. CZ-8101, mainly used in packaging for servers, is estimated to grow 14.6% YoY to ¥3,775mil. Furthermore, the newer generation CZ-8201 will likely grow by 2.5x YoY to ca. ¥300mil, thanks to packages makers' shift to chiplet packaging technology which requires adhesive chemicals suited for higher density packages. Package makers continue to increase CAPEX to meet potential 5G infrastructure development-led demand from data centre servers. It is said that by 2025, 50% of packages for servers will likely use chiplet packaging, which enables the size of a package to be larger and more layered, therefore, will require ca. 8x more CZ chemicals than the current technology used to produce packages for PCs.

On the other hand, the firm forecasts FY21 sales of CZ-8100 to be flat YoY. Although automobile production has been recovering, and the shift to EVs will likely require more semiconductor packages, MEC has not reflected such demand in its forecast. V-Bond, another adhesive enhancing chemical used in multilayer substrates for autos, as well as in middle-end smartphones, is estimated to grow 15.0% YoY to ¥770mil on the back of a recovery in sales of Chinese mid-range smartphones as well as a recovery in automobile production.

FY 20 sales of the Adhesive Enhancer segment, as a result, will likely be ¥7,837mil (+8.6% YoY). Sales of the latest product in the CZ series, CZ-8401, will likely be small in FY21, but show sharp growth; MEC is guiding for sales of ¥46mil (+31.1% YoY). CZ-8401 is developed for a use in Antenna-in-Package [AiP] which will likely be mounted in high-end millimetre-wave smartphones. The global launch of millimetre-wave smartphone handsets will likely be from 2022 (one was launched in 2020 but only in the US). It is said that it will take until 2025 before we see any meaningful penetration of millimetre-wave smartphones.

2) Etching Chemicals

MEC is guiding for +6.1% YoY growth in FY21 Etching Chemical sales. Sales of SF will likely decline 12.0% YoY to ¥960mil due to new versions of high-end smartphone no longer requiring touch panel sensors. MEC had already expected sales to decline, however, the COVID-related boost in tablet sales during FY20 unexpectedly supported SF sale. While demand for tablets remains strong under the prolonged impact of the pandemic, the company is not assuming it continues into FY21. Moreover, one of the 2 new high-end smartphone models launched during FY20 Q3 did not use touch panel sensors, hence, it is inevitable to expect continued a decline in SF sales.

Sales of EXE is forecast to rise 8% YoY on the back of a recovery in Chinese smartphone production as the chemical is used in COF for mid-range smartphones. However, sales from HDI motherboards in the high-end smartphone are not expected to contribute much to FY21 sales.

USE OF CASH

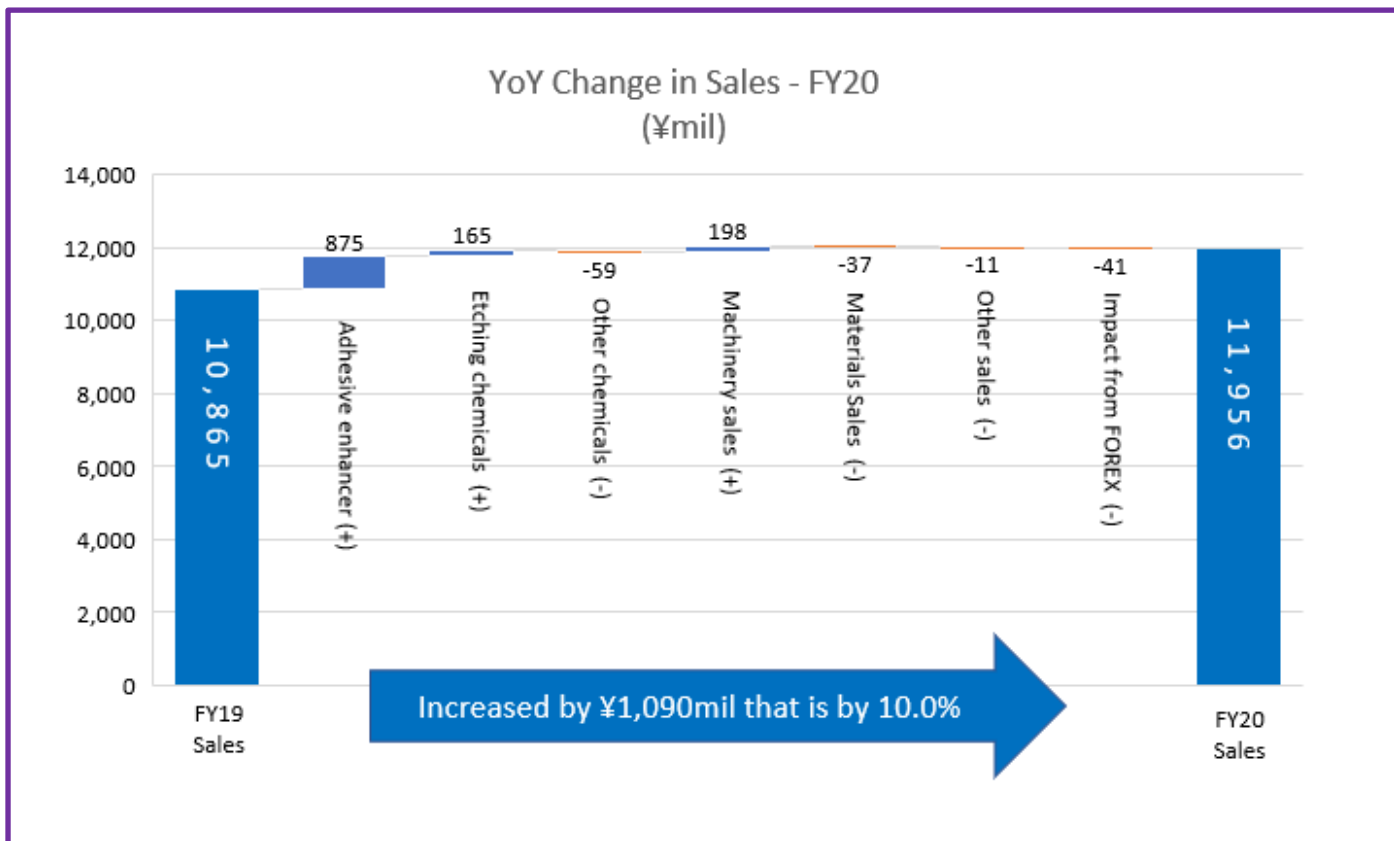
MEC has made a relatively large investment on its production capacity in Thailand which is planned to replace the capacity at the Nishinomiya factory, and R&D facilities in Japan. The shift was postponed last year due to the pandemic and the accreditation process of the Thai factory by customers was also delayed. After relatively large CAPEX in FY19 and FY20, ¥1,362mil and ¥847mil respectively, FY21 CAPEX is estimated at ¥700mil. Depreciation costs, on the other hand, increased to ¥784mil in FY20 and the firm is guiding for a small decline in FY21 to ¥749mil.

MEC reckons the current global production capacity can generate ¥17,000~18,000mil sales. Assuming top line sales growth remains at 10% p.a., the firm's production will likely reach the full capacity within 5 years. Therefore, amid the package makers – MEC's direct customers – will likely continue expanding their own production capacity through to 2023, MEC plans to increase its own capacity to meet these needs. The next big CAPEX cycle will likely be around 2025. Currently, there is cash of ca. ¥5,600mil on the books and there is no interest-bearing debt. The past 5-year free cash flow average is estimated at ca. ¥700mil.

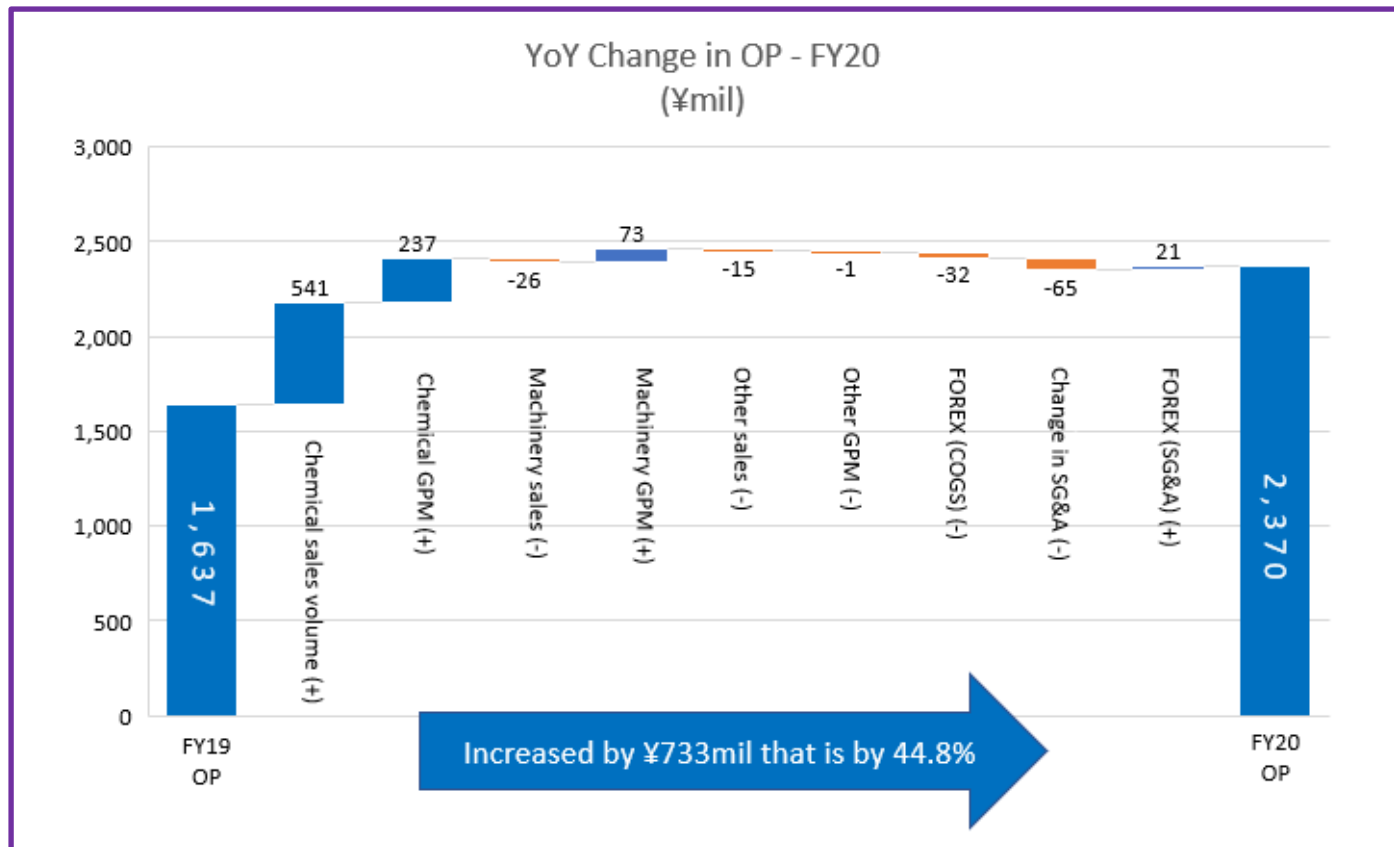
Although MEC has sufficient cash and enough stable free cash flow after covering a normal year's CAPEX, it prefers keeping the cash to meet the future growth investment requirements. Therefore, the fundamental shareholder return policy will likely stay at dividend pay-out ratio of 30%. MEC's free float is currently ca. 8% i.e., ¥3,800mil. Currently, ca. 8.5% of the shares are cross-held with customers and the peer companies.

Applications and trend for MEC's main chemicals						
Chemicals	Applications	Trend	FY20 (¥mil)	YoY (%)	FY21 (¥mil)	YoY (%)
CZ series	PC, Tablets, Servers, AiP, packages for automobile.	The continued trend from FY20 is a strong demand for servers due to an increase in demand for tablets and laptops on the back of increasing remote work and distant learning, which boost demand for servers. CZ-8101 is used in chiplet technology such as EMIB. The newer generation CZ-8201 is also used in chiplet technology. The latest generation, CZ-8401, will likely be used in AiP (Antenna-in-Package) that will be loaded on the millimetre-wave 5G version of high-end smartphone.	6,260	13.5	6,883	9.9
EXE	COF (Chip-on-Film) for smartphones and tablets. Currently tested for a used in the high-end smartphone motherboard.	FY20 sales were led by increase in tablet and laptop demand. FY21 growth relies on recovery of Chinese smartphone production. Increasing enquires for the subtractive wire forming method, in which EXE is used, in HDI motherboard	1,307	1.1	1,412	8.0
V-Bond	Pre-lamination treatment for multilayer substrates. Used in packages for autos and middle-end smartphones	Sales recover in line with automotive and Chinese smartphone production.	668	-2.5	768	15.0
SF	Touch panel sensor	Decline in sales because of a new technology that does not require a touch panel sensor will be deployed in the new model of the high-end smartphone.	1,091	11.4	960	-12.0

Source: Nippon-IBR



Source: MEC FY20 earnings results material



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Chemical Sales by Products (Quarterly)										
(¥mil / Dec year-end)	FY2019				FY20					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	QoQ (%)	YoY (%)
Copper surface treatment chemicals	2,134	2,497	2,919	2,592	2,551	2,701	2,824	3,069	8.7	18.4
Adhesive Enhancer (CZ,V-Bond etc.)	1,360	1,588	1,718	1,695	1,720	1,695	1,828	1,970	7.8	16.2
CZ Series Total	1,185	1,379	1,484	1,468	1,507	1,491	1,562	1,700	8.8	15.8
CZ-8100	232	260	257	269	246	225	264	314	18.9	16.7
CZ-8101	540	789	752	753	787	820	822	856	4.1	13.7
Other CZ chemicals	413	330	475	446	474	446	476	530	11.3	18.8
Etching Chemicals (EXE, SF etc.)	773	909	1,200	897	830	1,006	996	1,099	10.3	22.5
SF	145	205	407	222	182	298	247	362	46.6	63.1
EXE	297	349	369	278	301	362	316	326	3.2	17.3
Other surface treatment chemicals	132	125	133	122	109	127	121	91	-24.8	-25.4
Chemical Sales Total	2,266	2,623	3,052	2,715	2,661	2,829	2,946	3,160	7.3	16.4

Source: Nippon-IBR based on MEC's earnings presentation material

Chemical Sales by Products (Cumulative)										
(¥mil / Dec year-end)	FY2019				FY20					YoY (%)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Copper surface treatment chemicals	2,134	4,631	7,550	10,142	2,551	5,252	8,076	11,147	9.9	
Adhesive Enhancer (CZ,V-Bond etc)	1,360	2,948	4,666	6,361	1,720	3,415	5,243	7,213	13.4	
CZ Series Total	1,185	2,564	4,048	5,516	1,507	2,998	4,560	6,260	13.5	
CZ-8100	232	492	749	1,018	246	471	735	1,049	3.0	
CZ-8101	540	1,329	2,081	2,834	787	1,607	2,429	3,285	15.9	
Other CZ chemicals	413	743	1,218	1,664	474	920	1,396	1,926	15.7	
Etching Chemicals (EXE, SF etc.)	773	1,682	2,882	3,779	830	1,836	2,832	3,931	4.0	
SF	145	350	757	979	182	480	727	1,089	11.2	
EXE	297	646	1,015	1,293	301	663	979	1,305	0.9	
Other surface treatment chemicals	132	257	390	512	109	236	357	448	-12.5	
Chemical Sales Total	2,266	4,889	7,941	10,656	2,661	5,490	8,436	11,596	8.8	

Source: Nippon-IBR based on MEC's earnings presentation materials

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