

Date: 12/22/2016

Zuken (6947, JP)

Exchange: Tokyo Stock Exchange 1
Sector: CAD software development
Market Cap: JPY27.8 billion
P/B: 1.0x (3/16 act)

Recommendation: BUY

Share Price: JPY1,195 (12/22/2016)

Target Price: JPY1,955

P/E: 27.8x (3/17 CE)

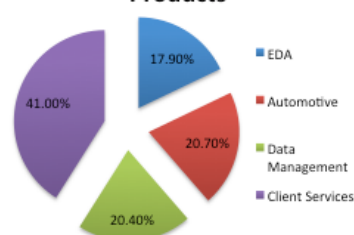
Div. Yield: 1.6% (3/17 CE)

Highlight

Titlis recommends buying at current price, as current share price does not seem to reflect intrinsic value fully. The share price has been in range between JPY900 and JPY1,300 for 2 years, but it would move higher from the range on earnings momentum in 4Q that is expected to hit recent high revenue and improve profit margin further based on analysis of 4Q sales and BoJ Tankan survey. Albeit severer global competition is a concern, its valuation looks much lower than that of competitors. The share price should be revalued at this time when profit margin improves further due to lower development cost after new product has been launched for FY03/2017.



Revenue source by Products



Business Description

Japan's largest PCB CAD developer was founded in 1976 by Mr. Makoto Kaneko, president and operates worldwide in Asia, US and Europe. Its technology develops products in 3 areas of electronic design automation (EDA) like PCB CAD, Automotive wire harness design and Engineering data management. Of total sale of FY03/2016, EDA accounts for 17.9%, Automotive does for 20.7%, Engineering data management does for 20.4% and client services and other accounts for 41.0%.

EDA

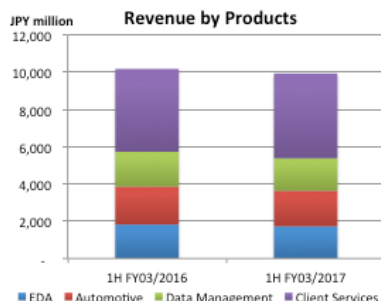
EDA sale was down 5% YoY to JPY1,727 million for 1H mainly due to slower growth of CapEx in Japan's consumer electronics makers. But Zuken expects 3D CAD 'CR-8000' to develop automotive electronics makers, as JVC Kenwood has started its CAD operation using CR-8000 in virtual environment. 6% growth is expected until FY03/2019 in its mid-term management plan (MTP).

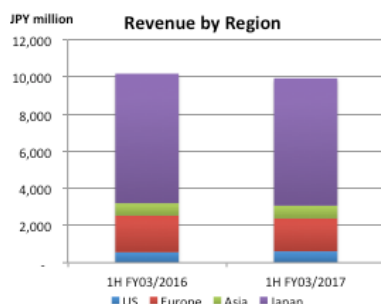
Automotive Harness

The sale of automotive wire harness design was down 6% YoY to JPY1,907 million for 1H. Newly released 'Architecture Planner' is selling at solid pace to wire harness maker, while CapEx in Japan remains slow. The mid-term sale is expected to grow 8% in MTP.

Engineering Data Management

Engineering data management sale was down 7% YoY to JPY1,743 million for 1H. Zuken received orders of 'E3 series' from a large machine tool maker in 2H and is expected to gain orders for next few years. The sale is expected to grow 10% for 3 years.





Client & Other

The sale was up 2% to JPY4,549 million for 1H. Client service is mainly from EDA products and the profit margin is pretty high. Zuken anticipates the sale to increase 3% per annum.

Revenue by Region

On sales by geographic region for 1H, sale in Japan accounts for 69.0% (JPY6,855 million), and overseas sale in Asia, US and Europe were 7.0% (JPY692 million), 6.2% (JPY613 million) and 17.8% (JPY1,765 million) respectively.

Industry Overview and Competitive Positioning

Industry Overview

The market is comprised of 3 areas such as CAD, PLM and EDA. Zuken was only provider that offers solution for all 3 areas. However, the environment has changed. World CAD market is moving toward oligopoly, as consolidation of companies is accelerating. Big players, PTC, Dassault Systems and Siemens are expanding by employing acquisitions. On 14th November 2016, Siemens announced its acquisition of US CAD developer, Mentor Graphics for USD4.5billion. This transaction will enable the German company to expand to automotive area. In wire harness business, Mentor is a rival of Zuken. This might affect its automotive business in particularly in Europe. Zuken recognizes the impact of its business but seems to maintain its independent position at this moment, watching business environment closely.

Global Competitors by Sector

	CAD	PLM	EDA
PTC	Creo	Windchill	-
Dassault Systems	CaTiA	Enovia	-
Siemens	NX	Teamcenter	Mentor Graphics

Global Competitors by Customer Base

	Semi-conductor	PCB	Automotive	Data Mgmt
Synopsys	○	X	X	X
Mentor Graphics	○	○	○	△
Cadence	○	○	X	X
Altium	X	○	X	△
Zuken	X	○	○	○

Competitive Positioning

Domestic Market - Strong

Its competitive position in Japan is strong as a largest CAD company as a pioneer in the market with tight relationship with clients for 40 years. For recent 3 years from FY03/2013 to FY03/2016, the sale in Japan had a solid growth at 5.5% per annum, but slower than that of overseas markets., and is expected to keep 5% growth for next 3 years. This expectation would be an upper limit for the growth, while real GDP in Japan grows 0.6-0.7% annually and many manufacturers are unlikely to return CapEx from overseas to Japan.

Overseas Market - Mixed

Its competitiveness in overseas is not strong enough. On sales growth for past 3 years, Asia, US and Europe expanded 13.7%, 7.0% and 14.3% per annum respectively. Zuken expects sale of each region to gain 10%, 14% and 3% respectively. Asia is the most promising market and its position is relatively competitive, as a number of Japanese manufactures have shifted production in China and other Asia, and India is accelerating its business opportunity for raising its position as a production base in the world. On the other hand, US and European market is different. As mentioned in above Industry Overview, global rivals are based in Europe and US. For instance, Mentor Graphics is likely to expand its business backed by financial support by German giant,

Siemens. However, market penetration strategy of Zuken is sprouting, as the company received order from Qualcomm and Microsoft. One reason of increasing business in US is acquisition of CAETEK Inc. in December 2015. For further acceleration in US market, additional M&A should be an alternative strategy, as the market growth in this region will exceed other region such as Europe and Japan.

Investment Summary

Business Outlook

In short-term view, OP is expected to jump to close its ambitious guidance but less likely to achieve it. However, OP margin improves substantially to 6% for this year from 3% a year ago and this is very positive on projection from the next year. Currently stock market does not seem to discount full year earnings fully. OP for 1H was JPY309 million and looks far from full year guidance of JPY1,500. However, 4Q is its busiest season and CapEx need of customers remains positive now, as large manufacturers business attitude is upbeat. On our analysis, correlation between BoJ Tankan Index and 4Q sales is significantly explained. 4Q revenue is expected to hit recent high to JPY7.2 billion.

Competitive Positioning and Risks

Zuken is a pioneer of CAD market in Japan but the domestic market is likely to grow at slower rate, although the company is developing markets, shifting from consumer electronics to automotive and factory automation. Key of growth is overseas expansion, as increasing number of Japanese companies promote product development and designing in overseas bases, while they are shifting production lines to overseas. Another risk of global competition is getting severer year by year, as rivals are getting bigger through repeated acquisitions. Industry is changing much faster than before.

Valuation

Examining peer comparison, Zuken's valuation is left significantly lower. It would be reasonable if its valuation expands a little more, as Mentor Graphics was recently acquired at much higher valuation such as 20x of market cap/EBITDA or 20x of EV/EBITDA. Due to its lower profitability than peer applying the lowest of 4 competitors in multiples of market cap to EBIT, EBITDA and FCF to Zuken, the share price would be rise to JPY1,955 for FY03/2017. Future value would go up to JPY2,237 for FY03/2020, assuming approximately 6% organic sales growth. Other key ratios such as EV/EBITDA, liquidity NAV and P/B are also supported.

Financial Stability

Zuken's financial position is pretty sound and its balance sheet is very strong. As this industry does not need employing heavy intangible asset and CapEx, free cash flow will keep growing at solid pace if revenue increases. Due to peaking out of development cost for this year, OP margin will move to improve and its financial position gets much stronger.

Business Outlook

2Q FY03/2017

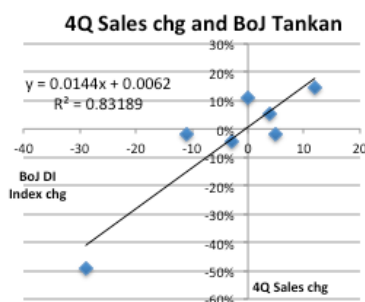
Total sale was down 2.4% YoY to JPY9,928 million but OP and NP surged 94.9% YoY and 83.4% YoY to JPY309 million and JPY89 million for the 6-month period, as operating expense in overseas fell more than the decrease in sale led by appreciation of JPY. Recurring profit was down 5.3% YoY to JPY185 million due to currency loss. USD/JPY fell to 105 from 122 for the same period of the previous year and EUR/JPY also drop to 118 from 135 a year ago. In local currency base, total revenue slightly gained from the previous year.

Full Year FY03/2017

Zuken kept its previous outlook and dividend on hold for full year FY03/2017. Revenue is expected to gain 3.4% YoY to JPY22,700 million, OP, RP and NP are expected to grow 93.3% YoY to JPY1,500 million, 106.3% YoY to JPY1,550 million and 269.1% YoY to JPY1,000 million respectively. Dividend will be paid JPY10 a share for semiannually (annually JPY20 a share).

4Q revenue analysis using BoJ Tankan Index

Revenue and profits tend to rise in 4Q, as orders from Japanese manufactures tend to concentrate on 4Q of the fiscal year and profit margin of 4Q is the much higher than other quarter periods. Therefore, 4Q revenue is the most important for the company and significantly affects its whole year earnings. For instance, revenue in 4Q of the previous year decelerated due to sudden cool down of CapEx by Japanese makers. For forecasting 4Q sales, Titlis tries to use Bank of Japan Tankan survey. The 3-month survey for large manufacturers (DI Index) is useful to find their investment attitude in near term. Thus, we analyzed the change in DI Index for 6 months from June to December and change in 4Q revenue for 8 years. According to the analysis the positive correlation between 2 factors is explained, excluding outlier of FY03/2010 due to extraordinary effect by financial crises after 2008. The revenue change in 4Q is 83% explained by DI Index surveyed by the central bank (see left scatter chart). Based on this analysis, coming 4Q revenue is expected to gain 6.4% YoY, as DI Index improved 4 points to 10 from 6 for 6 month.



Titlis forecast for FY03/2017

Sales are expected to rise 2.2% YoY to JPY22,434 million. OP, RP and NP are expected to rise 79.8% YoY to JPY1,393 million, 71.0% YoY to JPY1,284 million, 169.0% YoY to JPY729 million for the full year. 4Q sale in FY2017/3 is expected to grow to JPY7,258 million, exceeding its recent high of JPY7,139 million in 4Q FY03/2015. Due to lower development cost after CR-8000 was launched, SGA/Sales will decline to 54.3% for the quarter period from 58.1% of the same period of the previous year and OP will improve further.

FY2015/3	JPY million	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit	EPS	P/E
1Q (act)		4,143	-1,031	-24.9%	3,111	-3,568	-86.1%	-456	-11.0%	-428	-435	45	26	-364		
2Q (act)		5,336	-1,482	-27.8%	3,854	-3,435	-64.4%	419	7.9%	476	476	-171	-28	277		
3Q (act)		4,679	-1,183	-25.3%	3,497	-3,642	-77.8%	-146	-3.1%	-79	-80	-31	35	-76		
4Q (act)		7,139	-2,005	-28.1%	5,134	-3,941	-55.2%	1,192	16.7%	1,197	1,169	-455	-41	673		
Full Year		21,297	-5,701	-26.8%	15,596	-14,586	-68.5%	1,009	4.7%	1,166	1,130	-612	-8	510	21.92	46.40
FY2016/3		Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit		
1Q (act)		4,480	-1,111	-24.8%	3,368	-3,670	-81.9%	-302	-6.7%	-224	-222	-2	14	-210		
2Q (act)		5,694	-1,547	-27.2%	4,148	-3,687	-64.8%	460	8.1%	420	427	-141	-27	259		
3Q (act)		4,955	-1,340	-27.0%	3,615	-3,803	-76.8%	-187	-3.8%	-166	-163	1	29	-133		
4Q (act)		6,823	-2,054	-30.1%	4,768	-3,963	-58.1%	804	11.8%	721	674	-280	-39	355		
Full Year		21,952	-6,052	-27.6%	15,900	-15,123	-68.9%	775	3.5%	751	716	-422	-23	271	11.65	92.83
FY2017/3 (E)		Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit		
1Q (act)		4,590	-1,200	-26.1%	3,389	-3,576	-77.9%	-186	-4.1%	-284	-343	50	42	-251		
2Q (act)		5,338	-1,393	-26.1%	3,945	-3,449	-64.6%	495	9.3%	469	473	-136	3	340		
3Q (E)		5,247	-1,363	-26.0%	3,884	-4,019	-76.6%	-134	-2.6%	-119	-119	42	8	-69		
4Q (E)		7,258	-2,099	-28.9%	5,160	-3,941	-54.3%	1,219	16.8%	1,219	1,219	-432	-77	709		
Full Year (E)		22,434	-6,055	-27.0%	16,379	-14,985	-66.8%	1,393	6.2%	1,284	1,229	-476	-24	729	31.35	38.12
Full Year (CE)		22,700						1,500	6.6%	1,550				1,000	43.01	27.78

Valuation

Based on the analysis below, target price is JPY1,955 for FY03/2017(E) that is 38% upside potential from the closing price of JPY1,206 as of December 21st 2016. The TP would be supported by EV/EBITDA, liquidity NAV and P/B, too.

Peer Comparison

Examining peer comparison, Zuken remains lower valuation, in terms of Market Cap/EBIT, Market Cap/EBITDA, Market Cap/FCF as well as EV/EBITDA. Referring latest acquisition of Mentor Graphics (MENT, US), the share price is traded at 30x of EBIT/Market Cap, 20x of EBITDA/Market Cap and 36x of FCF/Market Cap. Lower valuation of Zuken would be mainly due to comparably lower profitability in OPM and ROE as well as EBIT growth rate (see table below). Considering its lower profitability, if the lowest multiples of 4 competitors are applied to the valuation for business value normalized from FY03/2013 to FY03/2017(E), Zuken's share price is estimated to be JPY1,955 a share based on the business value of JPY1,068 added by net cash plus long-term investment and land (25% discount) as of FY03/2017(E). The share price is traded at 38% discount from the NAV as shown table on the next page. Additionally, exploring the future value for FY03/2020(E), NAV would rise to JPY2,237 that is 46% higher than closing price as of December 21st 2016. The sales and profit projection assumes approximately 6% organic growth from FY03/2017 to FY03/2020 (see the financial statements in Appendix).

Peer Comparison	Mentor (MENT, US)	Cadence (CDNS, US)	Altium (ALU, ASX)	Synopsys (SNPS, US)	Zuken (6947, JP)
Market Cap/EBIT	30x	25x	43x	27x	20x
Market Cap/EBITDA	20x	18x	36x	16x	12x
Market Cap/FCF	36x	27x	56x	30x	20x
EV/EBITDA	20x	19x	34x	15x	5x
OPM	11.4%	15.3%	27.6%	13.1%	6.2%
ROE	7.3%	20.4%	18.2%	8.6%	2.5%

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NAVs:			NAVs:		
Sum of the parts NAV FY2017/3 (E):			Future NAV 2020/3 (E):		
Business	1,068	16x EBITDA	Business	1,264	16x EBITDA
Cash	857	1x Book	Cash	943	1x Book
Investment	72	0.75x Book	Investment	72	0.75x Book
Land	97	0.75x Book	Land	97	0.75x Book
Debt	(119)	1x Book	Debt	(119)	1x Book
Minority Interest	(20)	1x Book	Minority Interest	(20)	1x Book
Total SOTP NAV	JPY 1,955	61.1%	Total Future NAV	JPY 2,237	53.4%

Adjusted EV/EBITDA

EV/EBITDA for FY03/2017(E) is estimated to be 5x far behind of that of peer. Zuken has investment securities and land (located in Yokohama). Including them as quasi cash, adjusted EV/EBITDA will go down to 2.7x for FY03/2017.

	Mar-14	Mar-15	Mar-16	Mar-17(E)	Mar-18(E)	Mar-19(E)	Mar-20(E)
Avg. Mkt. Cap	JPY 19,997	JPY 23,647	JPY 26,646	JPY 27,785	JPY 27,785	JPY 27,785	JPY 27,785
EV	JPY 3,493	JPY 7,445	JPY 10,327	JPY 11,083	JPY 10,447	JPY 9,768	JPY 9,076
EV/EBITDA	2.41	4.02	6.58	4.98	4.51	4.05	3.69
*EV (+Land+LT	(JPY 443)	JPY 1,943	JPY 5,076	JPY 5,832	JPY 5,196	JPY 4,517	JPY 3,825
*EV/EBITDA	-0.30	1.05	3.24	2.62	2.24	1.87	1.56
EV/EBIT	-0.70	1.93	6.55	4.19	3.51	2.87	2.36
EV/FCF	-0.69	2.01	-10.13	5.40	4.72	3.95	3.30

Liquidity NAV and P/B

The share price is traded at book value of shareholders' equity, as P/B is 1x. Subtracting intangible assets from shareholders' equity, liquidity NAV will be just 3% premium of the current share price. This shows the share price does not seem to be expensive.

Financial Analysis

As shown key financial ratios in table below and financial statements summary in Appendix, Zuken has strong balance sheet, as net cash and net working capital are positive backed by relatively stable free cash flow over years. On the other hand, profitability is high enough. Lower ROE is caused by lower financial leverage and in particular lower profit margin. CAD software development business does not need so much capital and intangible asset. Consequently, simply as revenue increases, FCF expands. Stably upbeat FCF from FY03/2017 will continue improving financial ratios.

Financial Ratios:	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17(E)	Mar-18(E)	Mar-19(E)	Mar-20(E)
ROE	0.25%	0.62%	1.82%	0.95%	2.55%	3.08%	3.21%	3.25%
Gross Margin	72.44%	73.44%	73.23%	72.43%	73.01%	73.00%	72.99%	72.98%
EBITDA Margin	6.08%	7.34%	8.70%	7.15%	9.93%	9.81%	9.70%	9.40%
EBIT Margin	1.98%	3.19%	4.74%	3.53%	6.21%	6.28%	6.34%	6.21%
Return on Assets	0.19%	1.20%	1.26%	0.69%	1.85%	2.21%	2.29%	2.30%
Return on Fixed Assets	1.46%	13.05%	14.67%	7.86%	21.23%	25.97%	27.56%	28.37%
Revenue / Assets	11.38%	50.90%	52.63%	56.19%	56.84%	58.51%	60.16%	61.84%
Depreciation / Capex	100.62%	122.39%	122.62%	88.75%	166.67%	166.67%	166.67%	166.67%
Depn / Sales	3.63%	3.73%	3.56%	3.23%	3.34%	3.18%	3.02%	2.87%
Capex / Sales	3.61%	3.05%	2.91%	3.64%	2.01%	1.91%	1.81%	1.72%
Depn / Net FA	3.13%	20.67%	21.87%	20.68%	21.84%	21.84%	21.84%	21.84%
Asset / Equity	1.27	1.40	1.43	1.37	1.37	1.38	1.39	1.40
Equity / Asset	78.75%	71.25%	70.13%	72.90%	72.75%	72.35%	71.95%	71.54%
Total Debt / EBITDA	4.93	3.01	2.33	1.77	1.24	1.20	1.15	1.13

Investment Risks

Zuken is a leading company in Japan but has to expand more rapidly to overseas market from limited upside growth of domestic market. However, global competitors are much larger than Zuken and are keep growing levered by M&A. Business environment is harder and related risk is possibly medium to high.

Domestic Market (Very Likely, Middle Risk)

Zuken is a top company in this business and has tight relationship with customers for many years, but 69% of revenue comes from Japan. This is a risk for the company. GDP growth in Japan is pretty low and very likely to decrease domestic market in decreasing population. Large manufacturers have already shifted their production to overseas that is close to customers and market and less likely to move back to spend large investment in Japan. Although Zuken developed business demand shifting to automotive and factory automation areas from consumer electronics for years, slower growth in domestic market would be inevitable. Furthermore, Zuken would come under downward pressure on price by client manufacturers if Japan's economy goes into recession or further decrease, although we do not expect severe depression such as financial crises at the moment.

Overseas market (Likely, Middle-High Risk)

Global economy has been in recovery phase for 6-7 years, but the growth is not strong enough across the world. Only US economy is relatively growing at solid pace. If the engine had any problem, global economy would fall into recession soon. In case of global recession, CAD business would be affected negatively, too. Meanwhile, technology innovation cannot stop at all and ADAS and IoT are accelerating backed by steady society demand. CAD is supporting technology for promoting such innovation and demand will expand in line with the pace of innovation.

Global Consolidation (Very Likely, Middle-High Risk)

Competitors are getting bigger, as Altium (ALU, ASX) accelerated M&A and is growing very rapidly. As mentioned case of Siemens, the company would expand this business at faster pace. Even Japanese manufactures are more likely to promote develop product and design at outside Japan alongside global strategy. In case, key would be a global designing and global bases in Asia, US and US. Of course, Zuken has already built basis in those areas but has to strengthen its network and connection with local customers and facility to grasp needs in global and local market. In this trend, Zuken should accelerate expanding overseas markets faster than before to minimize the threat.

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Appendix

FY2013/3	JPY million	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit	EPS	P/E
	1Q (act)	3,773	-980	-26.0%	2,792	-3,041	-80.6%	-248	-6.6%	-253	-258	73	34	-151		
	2Q (act)	4,371	-1,173	-26.8%	3,198	-3,002	-68.7%	196	4.5%	217	222	-85	-21	116		
	3Q (act)	4,119	-1,104	-26.8%	3,016	-3,194	-77.5%	-179	-4.3%	-109	-111	33	20	-58		
	4Q (act)	5,624	-1,672	-29.7%	3,952	-3,366	-59.9%	585	10.4%	634	537	-175	35	397		
	Full Year	17,887	-4,929	-27.6%	12,958	-12,603	-70.5%	354	2.0%	489	390	-154	68	304	13.08	47.44
FY2014/3	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (act)	4,134	-905	-21.9%	3,228	-3,381	-81.8%	-152	-3.7%	-113	-101	-23	15	-109		
	2Q (act)	4,621	-1,281	-27.7%	3,341	-4,032	-87.3%	-20	-0.4%	27	96	-88	3	11		
	3Q (act)	4,579	-1,332	-29.1%	3,247	-2,840	-62.0%	-265	-5.8%	-185	-186	23	32	-131		
	4Q (act)	6,438	-1,733	-26.9%	4,705	-3,637	-56.5%	1,067	16.6%	1,119	1,119	-353	-70	696		
	Full Year	19,772	-5,251	-26.6%	14,521	-13,890	-70.3%	630	3.2%	848	928	-441	-20	467	20.08	42.83
FY2015/3	JPY million	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit	EPS	P/E
	1Q (act)	4,143	-1,031	-24.9%	3,111	-3,568	-86.1%	-456	-11.0%	-428	-435	45	26	-364		
	2Q (act)	5,336	-1,482	-27.8%	3,854	-3,435	-64.4%	419	7.9%	476	476	-171	-28	277		
	3Q (act)	4,679	-1,183	-25.3%	3,497	-3,642	-77.8%	-146	-3.1%	-79	-80	-31	35	-76		
	4Q (act)	7,139	-2,005	-28.1%	5,134	-3,941	-55.2%	1,192	16.7%	1,197	1,169	-455	-41	673		
	Full Year	21,297	-5,701	-26.8%	15,596	-14,586	-68.5%	1,009	4.7%	1,166	1,130	-612	-8	510	21.92	46.40
FY2016/3	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (act)	4,480	-1,111	-24.8%	3,368	-3,670	-81.9%	-302	-6.7%	-224	-222	-2	14	-210		
	2Q (act)	5,694	-1,547	-27.2%	4,148	-3,687	-64.8%	460	8.1%	420	427	-141	-27	259		
	3Q (act)	4,955	-1,340	-27.0%	3,615	-3,803	-76.8%	-187	-3.8%	-166	-163	1	29	-133		
	4Q (act)	6,823	-2,054	-30.1%	4,768	-3,963	-58.1%	804	11.8%	721	674	-280	-39	355		
	Full Year	21,952	-6,052	-27.6%	15,900	-15,123	-68.9%	775	3.5%	751	716	-422	-23	271	11.65	92.83
FY2017/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (act)	4,590	-1,200	-26.1%	3,389	-3,576	-77.9%	-186	-4.1%	-284	-343	50	42	-251		
	2Q (act)	5,338	-1,393	-26.1%	3,945	-3,449	-64.6%	495	9.3%	469	473	-136	3	340		
	3Q (E)	5,247	-1,363	-26.0%	3,884	-4,019	-76.6%	-134	-2.6%	-119	-119	42	8	-69		
	4Q (E)	7,258	-2,099	-28.9%	5,160	-3,941	-54.3%	1,219	16.8%	1,219	1,219	-432	-77	709		
	Full Year (E)	22,434	-6,055	-27.0%	16,379	-14,985	-66.8%	1,393	6.2%	1,284	1,229	-476	-24	729	31.35	38.12
	Full Year (CE)	22,700						1,500	6.6%	1,550				1,000	43.01	27.78
FY2018/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (E)	4,774	-1,248	-26.1%	3,525	-3,719	-77.9%	-194	-4.1%	-181	-181	64	11	-105		
	2Q (E)	5,605	-1,463	-26.1%	4,142	-3,621	-64.6%	521	9.3%	533	533	-189	-34	310		
	3Q (E)	5,510	-1,431	-26.0%	4,078	-4,220	-76.6%	-141	-2.6%	-129	-129	46	8	-75		
	4Q (E)	7,723	-2,233	-28.9%	5,489	-4,193	-54.3%	1,296	16.8%	1,309	1,309	-464	-83	762		
	Full Year (E)	23,611	-6,375	-27.0%	17,236	-15,753	-66.7%	1,482	6.3%	1,532	1,532	-544	-97	892	38.35	31.16
	Full Year (CE)	24,000						1,900	7.9%							
FY2019/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (E)	4,965	-1,298	-26.1%	3,666	-3,868	-77.9%	-201	-4.1%	-189	-189	67	12	-110		
	2Q (E)	5,885	-1,536	-26.1%	4,349	-3,803	-64.6%	547	9.3%	559	559	-198	-35	325		
	3Q (E)	5,785	-1,503	-26.0%	4,282	-4,431	-76.6%	-148	-2.6%	-136	-136	48	9	-79		
	4Q (E)	8,217	-2,376	-28.9%	5,841	-4,462	-54.3%	1,379	16.8%	1,392	1,392	-494	-88	810		
	Full Year (E)	24,852	-6,712	-27.0%	18,138	-16,562	-66.6%	1,576	6.3%	1,626	1,626	-577	-103	947	40.71	29.36
	Full Year (CE)	26,000						2,600	10.0%							
FY2020/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	RP	EBT	Tax	Minority	Net Profit			
	1Q (E)	5,163	-1,350	-26.1%	3,813	-4,033	-78.1%	-220	-4.3%	-207	-207	74	13	-121		
	2Q (E)	6,179	-1,613	-26.1%	4,567	-4,005	-64.8%	562	9.1%	574	574	-204	-36	334		
	3Q (E)	6,074	-1,578	-26.0%	4,496	-4,664	-76.8%	-168	-2.8%	-155	-155	55	10	-90		
	4Q (E)	8,743	-2,528	-28.9%	6,215	-4,765	-54.5%	1,450	16.6%	1,463	1,463	-519	-92	851		
	Full Year (E)	26,160	-7,068	-27.0%	19,091	-17,467	-66.8%	1,624	6.2%	1,674	1,674	-594	-106	974	41.91	28.52
	Full Year (CE)															

(Source) Zuken, titlis

Assumption USD/JPY=110 and EUR/125.

Cash Flow Analysis:	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17(E)	Mar-18(E)	Mar-19(E)	Mar-20(E)
Net Income	304	466	509	270	729	892	947	974
Dep.	650	738	759	710	750	750	750	750
Amortization	99	79	118	142	150	150	150	150
Other non-cash charges	(1,403)	723	651	(1,435)	0	0	0	0
Changes in WC	688	(763)	(453)	612	(98)	(240)	(253)	(266)
Op. Cash Flow	338	1,243	1,584	299	1,531	1,552	1,594	1,608
Per share	JPY 14.54	JPY 53.46	JPY 68.12	JPY 12.86	JPY 65.84	JPY 66.74	JPY 68.54	JPY 69.15
Capex	(646)	(603)	(619)	(800)	(450)	(450)	(450)	(450)
Free Cash Flow	(308)	640	965	(501)	1,081	1,102	1,144	1,158
Per share	(JPY 13.25)	JPY 27.52	JPY 41.50	(JPY 21.55)	JPY 46.48	JPY 47.39	JPY 49.19	JPY 49.80
Beginning Cash	12,463	11,766	12,306	14,046	12,671	19,930	20,566	21,245
Net cash used	(697)	540	1,740	(1,375)	7,259	636	678	693
Ending cash	11,766	12,306	14,046	12,671	19,930	20,566	21,245	21,937

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corporate governance, investment research & solutions

	2013/3	2014/3	2015/3	2016/3	2017/3 (E)	2018/3 (E)	2019/3 (E)	2020/3 (E)
Assets								
Current Assets								
Cash and Cash Equivalents	4,552	5,071	5,252	5,371	5,754	6,390	7,069	7,761
Short-Term Investments	16,013	16,188	15,696	14,176	14,176	14,176	14,176	14,176
Notes and Accounts Receivable,	4,087	4,895	5,705	5,166	5,279	5,556	5,848	6,156
Allowance for Doubtful Receivables	(28)	(30)	(35)	(34)	(35)	(37)	(38)	(41)
Inventories	231	226	341	293	299	315	332	349
Deferred Income Taxes	416	341	333	340	347	366	385	405
Other Current Assets	1,139	1,525	1,662	1,786	1,825	1,921	2,022	2,128
Total Current Assets	26,410	28,216	28,954	27,098	27,646	28,688	29,793	30,936
Property, Plant and Equipment								
Land	3,009	3,009	3,009	3,009	3,009	3,009	3,009	3,009
Buildings	9,019	9,102	9,156	9,276	9,644	10,011	10,379	10,747
Machinery and Equipment	1,918	2,105	2,147	2,075	2,157	2,240	2,322	2,404
Construction in Progress	-	4	2	-	-	-	-	-
Total	13,946	14,220	14,314	14,360	14,810	15,260	15,710	16,160
Accumulated Depreciation	(7,418)	(7,641)	(7,835)	(7,917)	(8,231)	(8,545)	(8,859)	(9,172)
Net Property, Plant and Equipment	6,528	6,579	6,479	6,443	6,579	6,715	6,851	6,988
Software & Other intangible assts	860	759	724	715	715	715	715	715
Goodwill	986	997	836	1,004	854	704	554	404
	1,846	1,756	1,560	1,719	1,569	1,419	1,269	1,119
Other Assets								
Investments in and Advances to	-	-	-	-	-	-	-	-
Investment Securities	955	927	2,493	2,242	2,242	2,242	2,242	2,242
Software & Others	(15)	(9)	(14)	(17)	(17)	(17)	(17)	(17)
Deferred Income Taxes	721	787	498	580	580	580	580	580
Other	653	589	492	1,002	1,002	1,002	1,002	1,002
Total Other Assets	2,314	2,294	3,469	3,807	3,807	3,807	3,807	3,807
Total	37,098	38,845	40,462	39,067	39,602	40,629	41,721	42,849
Liabilities and Stockholders' Equity								
Current Liabilities								
Bank Loans	-	-	-	-	-	-	-	-
Notes and Accounts Payable, Trade	681	705	938	953	974	1,025	1,079	1,136
Accrued Expenses	-	-	-	-	-	-	-	-
Income Taxes	136	315	373	236	241	254	267	281
Other Current Liabilities	4,980	5,575	6,257	6,373	6,513	6,855	7,215	7,595
Current Portion of Long-Term Debt	-	-	-	-	-	-	-	-
Total Current Liabilities	5,797	6,595	7,568	7,562	7,728	8,133	8,561	9,012
Long-Term Debt								
Deferred Income Taxes	-	-	-	-	-	-	-	-
Termination and Retirement Benefits	2,879	4,370	4,308	2,771	2,771	2,771	2,771	2,771
Other Long-Term Liabilities	168	201	210	256	256	256	256	256
	-	-	-	-	-	-	-	-
Total Liabilities	8,844	11,166	12,086	10,589	10,755	11,160	11,588	12,039
Stockholders' Equity								
Common Stock	10,117	10,117	10,117	10,117	10,117	10,117	10,117	10,117
Additional Paid-in Capital	8,657	8,657	8,657	8,657	8,657	8,657	8,657	8,657
Legal Reserve	8,845	8,986	9,314	8,888	9,617	10,509	11,455	12,429
Retained Earnings	-	-	-	-	-	-	-	-
Treasury Stock	(12)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Total Stockholders' Equity	27,607	27,747	28,075	27,649	28,378	29,270	30,216	31,190
Accumulated other Comprehensive								
Income	279	(452)	(136)	373	12	(258)	(541)	(837)
Warrant	0	0	0	0	0	0	0	0
Minority Interests in Subsidiaries	368	385	438	457	457	457	457	457
Total Stockholders' Equity	28,254	27,680	28,377	28,479	28,847	29,469	30,133	30,811
Total	37,098	38,846	40,463	39,068	39,602	40,629	41,721	42,849