

# Advanex Inc.

**5998**

Tokyo Stock Exchange First Section

6-Aug.-2019

FISCO Ltd. Analyst

**Ken Segawa**



FISCO Ltd.

<http://www.fisco.co.jp>

## ■ Index

<b>■ Summary</b> .....	<b>01</b>
1. Provides support for production transfers related to US-China trade friction and Brexit .....	01
2. FY3/19 results and FY3/20 forecasts .....	01
3. Arrival of a turning point from an upfront investment phase to recouping investments .....	01
<b>■ History and company overview</b> .....	<b>02</b>
1. History .....	02
2. Business description .....	03
<b>■ Business strategy</b> .....	<b>04</b>
1. Follows a “blue ocean” strategy as a top global niche supplier .....	04
2. Structural changes in the automotive industry and the Company’s measures .....	05
3. Strategic products and priority areas .....	08
<b>■ Business trends</b> .....	<b>09</b>
1. Summary of operating results in FY3/19 .....	09
2. Financial conditions and cash flow statement .....	10
<b>■ Forecasts</b> .....	<b>11</b>
1. Outlook for FY3/20 .....	11
2. Income improvement initiatives by plants .....	12
3. Changes in production allocation .....	14
4. Comparison of productivity by plants .....	15
5. Instant Lock (new product) .....	16
<b>■ Shareholder return policy</b> .....	<b>17</b>
<b>■ Comparison of productivity by plants</b> .....	<b>18</b>

## ■ Summary

### Capable of minimizing impacts from US-China trade friction and Brexit

Advanex Inc. <5998> is a major specialty manufacturer of precision springs. With growing disruption from the widening trade conflict between the US and China, which account for 40% of the global economy, and the UK's exit from the European Union, manufacturers urgently need to move production out of China and the UK. The Company is capable of a quick and efficient response with 17 overseas production sites and global parallel manufacturing operations. We expect the Company to enter a full-fledged phase of recouping investments from FY3/21 following completion in June 2019 of its expansion plan to double global plant size that began in 2015.

#### 1. Provides support for production transfers related to US-China trade friction and Brexit

The Company's global production operations consist of five domestic sites and 17 overseas sites. It stands out as the precision spring industry's leader in the number of overseas sites. Since 2015, it steadily expanded areas with operations as outlined in the mid-term management plan. This initiative finished with the opening of its Czech plant and an addition to the Saitama plant in June 2019. Besides Japan, it opened plants or used M&A deals to establish capabilities in Indonesia, Vietnam, India, Czech, the United States, and Mexico as production transfer sites. The Company operates global parallel production. It prepares equipment, dyes, tools, and other items used for volume output in Japan and transports them to overseas sites. It also has support operations that help in ramping up production and hence is capable of guaranteeing uniform product quality. Since the Company has arranged a global orders placement system that provides a unified sales contact point for procurement teams at customers with global operations, it is capable of promptly responding to changes in regional mix of production activities.

#### 2. FY3/19 results and FY3/20 forecasts

In FY3/19, the Company reported ¥20,967mn in net sales (+3.3% YoY) and ¥66mn in operating profit (-74.4%). It had a ¥107mn net loss attributable to parent shareholders due to taking a ¥121mn extraordinary loss mainly on a goodwill impairment loss related to its Indonesian subsidiary. In FY3/20, it guides for ¥21,900mn in net sales (+4.4% YoY), ¥330mn in operating profit (+396.1%), and a ¥50mn net profit attributable to parent shareholders (restoring profit). Operating margin is just 1.5%, despite the large projected increase in operating profit. While the Company lowers its capital investment budget from the ¥4,144mn peak in capex spending from FY3/19 to ¥2,118mn, it expects a rise in depreciation costs from ¥1,008mn to ¥1,215mn.

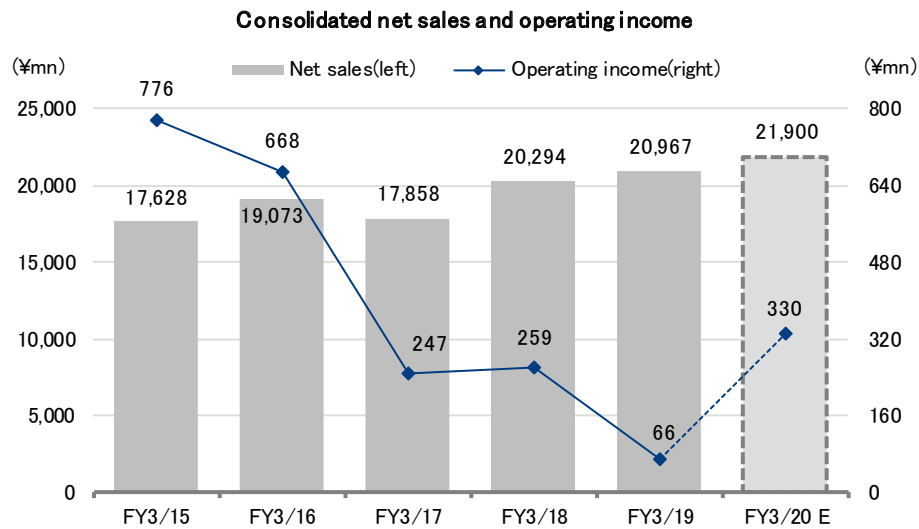
#### 3. Arrival of a turning point from an upfront investment phase to recouping investments

Although the Company only posted ¥66mn in FY3/19 operating profit, its earnings from profitable plants totaled ¥1.3bn. Immature plants operating for less than five years are still incurring losses. The Mexican plant, which incurred the largest deficit, holds IATF16949 automotive-industry quality management certification and is likely to reach breakeven income in the latter half of FY3/20 and be a profit driver in FY3/23. The Saitama plant, which the Company built as a smart plant for automotive business, needed extra time initially to obtain quality management certification, but starts volume production of next-generation automobile core parts in FY3/20. It received more new order deals than anticipated and thus accelerated plant expansion. The Company expects profitability at the Saitama plant within two years. We think profits should continue to increase substantially from FY3/20 thanks to shrinkage of losses at "immature" plants.

Summary

**Key Points**

- Expecting strong profit growth after the start of a phase of recouping investments in FY3/20
- Capable of rapidly and efficiently supporting production transfers by customers
- Handling large upswing in minimum wages by transplanting Japan's high labor productivity to overseas locations



Note: Figures for FY3/15 exclude most plastic products  
 Source: Prepared by FISCO from the Company's financial results

## History and company overview

### Precision spring maker with a global network

#### 1. History

The first-generation president founded a spring factory in Tokyo in 1930. In 1946, this factory was incorporated as Kato Spring Works Co., Ltd., and in 2001, the company name changed to Advanex Inc.

In 1964, the Company listed its shares on the Second Section of the Tokyo Stock Exchange, and in 2004, the shares were elevated to the First Section.

Since the 1980s, Advanex has released many products that have become global hits and has gained top shares of the markets for these products. Advanex has held a 70% share of the Japanese market for tape pads for audiotapes, a 50% share of the global market for flat springs for videotapes, an 80% share of the global market for shutters for 3.5-inch floppy discs, a 50% share of the global market for hinges for cellular phones, and a 90% share of the Japanese market for center hubs for optical discs. Advanex also holds a 60% share of the Japanese market for springs to protect needles implanted in the human body.

We encourage readers to review our complete legal statement on "Disclaimer" page.

History and company overview

Japanese electric equipment manufacturers dominated the global market for audiovisual equipment and other related products in past years, but advances in digital technology, appearance of smartphones and other new products, and advances by emerging countries led to shrinkage of business scale and exits. In response to this market change, the Company has been focusing on automotive business that offers stable demand opportunities, requires production technology, product quality, supply capabilities, global supply operations, and continuous cost reduction efforts, and enables utilization of competitive advantages in precision springs.

The Company was early in entering overseas markets and set up its first overseas subsidiary in 1971 in the US. In following years, it established subsidiaries in Singapore, the UK, Hong Kong, Thailand, China, Vietnam, Mexico, Germany, Czech, Indonesia, and India.

## 2. Business description

The Company is a specialty manufacturer of precision springs after the sale of the plastics business in FY3/15. It operates a single business segment, but discloses breakdowns of consolidated net sales by application and location. Net sales composition by market in FY3/19 was automotive (transportation equipment) at 47.9%, OA equipment at 16.3%, medical equipment at 8.8%, precision equipment at 5.0%, infrastructure and household at 4.1%, airplane equipment at 3.4%, audiovisual equipment and electrical appliances at 3.1%, information and communication at 2.9%, and others at 8.5%. In three-year CAGR (compound annual growth rate) through FY3/19, automotive (transportation equipment) significantly outpaced overall sales (+3.2%) at +12.9%. OA equipment and precision equipment, meanwhile, weakened at paces of -6.5% and -3.8% respectively. The automotive market has been the largest destination since FY3/15.

### Breakdown of consolidated sales and segment income by geographical market

	(¥mn)										
	Sales				FY3/16 → FY3/19		Ratio to sales				FY3/16 → FY3/19
	FY3/16	FY3/17	FY3/18	FY3/19	Change	CAGR	FY3/16	FY3/17	FY3/18	FY3/19	Change
Automobiles (transportation equipment)	6,984	7,278	9,449	10,047	3,063	12.9%	36.6%	40.8%	46.6%	47.9%	11.3pt
OA equipment	4,186	3,631	3,633	3,425	-761	-6.5%	21.9%	20.3%	17.9%	16.3%	-5.6pt
Medical equipment	1,794	1,290	1,539	1,847	53	1.0%	9.4%	7.2%	7.6%	8.8%	-0.6pt
Precision equipment	1,183	1,144	1,093	1,054	-129	-3.8%	6.2%	6.4%	5.4%	5.0%	-1.2pt
Infrastructure and household	910	832	924	850	-60	-2.2%	4.8%	4.7%	4.6%	4.1%	-0.7pt
Airplane equipment	634	519	535	710	76	3.8%	3.3%	2.9%	2.6%	3.4%	0.1pt
Audiovisual equipment and electrical appliances	539	537	704	641	102	5.9%	2.8%	3.0%	3.5%	3.1%	0.3pt
Information and communication	509	862	693	601	92	5.7%	2.7%	4.8%	3.4%	2.9%	0.2pt
Others	2,334	1,765	1,724	1,792	-542	-8.4%	12.2%	9.9%	8.5%	8.5%	-3.7pt
<b>Total</b>	<b>19,073</b>	<b>17,858</b>	<b>20,294</b>	<b>20,967</b>	<b>1,894</b>	<b>3.2%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0pt</b>

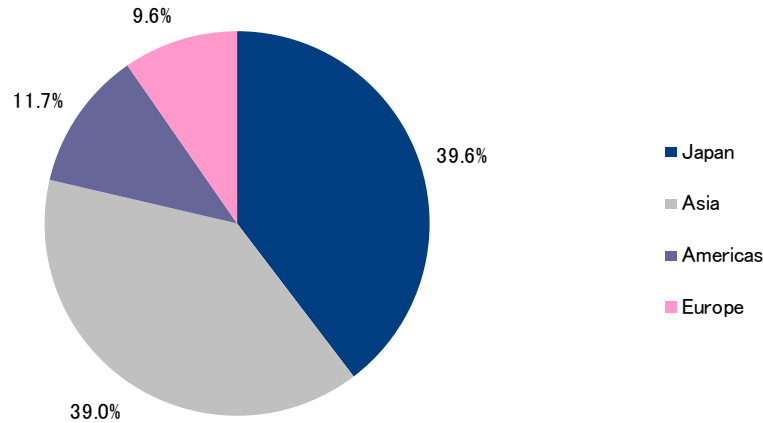
Source: Prepared by FISCO from the Company's results briefing materials

Advanex has about 2,000 business counterparts and handles roughly 15,000 product types. It engages in transactions with German and Japanese auto parts manufacturers battling for global No.1 and No.2 positions.

Net sales composition by location consists of Japan at 39.6%, Asia at 39.0%, the Americas at 11.7%, and Europe at 9.6%.

History and company overview

Consolidated net sales composition by region (FY3/19)



Source: Prepared by FISCO from the Company's financial results

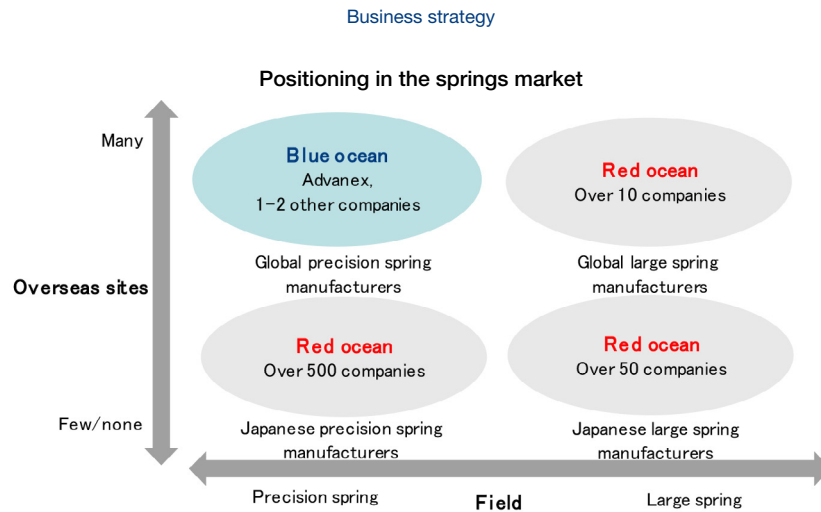
## Business strategy

### Follows a “blue ocean” strategy as a top global niche supplier

#### 1. Follows a “blue ocean” strategy as a top global niche supplier

Advanex is the only maker of many of its products, which has allowed it to earn high market shares in Japan and globally. Initially venturing into overseas business in 1971, the Company now has many plants and sales offices in the Americas, Europe and Asia. It has developed its automobile products business and medical equipment businesses globally, and it targets global manufacturers in a timely fashion. Advanex identifies areas where it can obtain a global niche top position, and extracts target customers. It formulates the business strategy by area, customer, field, and processing technology and product in order to strengthen its positioning. The Company is now stressing four businesses in which it is very competitive and for which the markets are growing rapidly: automobile products, medical equipment, housing equipment, and infrastructure products.

Advanex pursues a blue ocean strategy of priority development of markets with few rivals where it can leverage strengths. In the automotive spring market, major domestic spring firms specialize in chassis springs and other large products and have minimal direct competition with Advanex in precision springs. Advanex's rivals are over 500 small and very small firms. These companies generally lack the resources to enter overseas markets.



## Global Tier 2 parts manufacturer accommodating mega suppliers

### 2. Structural changes in the automotive industry and the Company's measures

#### (1) Mega-suppliers and global Tier 2 parts manufacturers

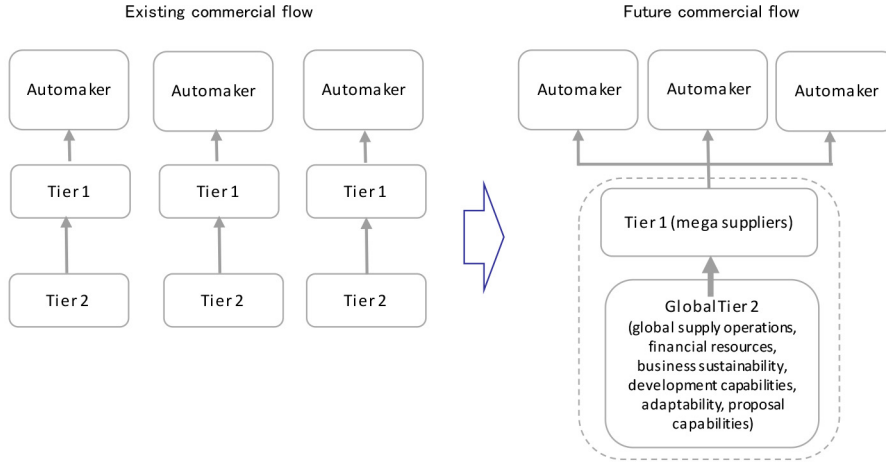
Electronic equipment production shifted from “coordinated technology” in the analog era to “combined technology” with interface standardization in PCs and digital home electronics. This change enabled emerging economies with little technology accumulation to manufacture electronic equipment. In the automotive industry with electronic systems making steady inroads, we expect advances in combinations of standardized modular parts as the mainstream production format for electric vehicles (EVs). Developing and producing individualized parts by model faces issues in the development period, capital investments, and manufacturing costs. To simultaneously diversify auto models and lower costs, auto firms are likely to standardize and share platforms, develop common components (parts), standardize designs, and extensively adopt modules that can be shared. With component sharing, usage of modular parts will transcend chassis sizes and types.

Discussions are taking place toward industry standardization of technologies used in automated driving and connected cars. Automobiles utilize about 30,000 parts, and commodity parts comprise half of overall costs. Commodity parts offer low pricing because of the large production volume. Wider usage hence contributes to cost savings. Automakers have unique parts on the scale of a few hundreds of thousands versus a much larger order of a few million for commodity parts. Added value from parts is shifting from automakers to parts firms through standardization and modularization. Global Tier 1 parts firms are emerging as mega-suppliers to multiple car manufacturers, in contrast to their previous role as sub-contractors to specific firms. Mega-supplier formation is more advanced in the US and Europe than in Japan. Global No.1 and No.2 Germany-based Robert Bosch and Continental have sales at 2.1x and 1.7x the level at top Japanese supplier Denso <6902> respectively.

Advanex aims to be a Tier 2 supplier that deals directly with Tier 1 mega-suppliers. The Company thinks that while a certain number of the few hundred Tier 1 firms have 10 or more overseas sites, very few of the few thousand Tier 2 firms possess this type of presence.

Business strategy

Supply chain changes in the automotive market



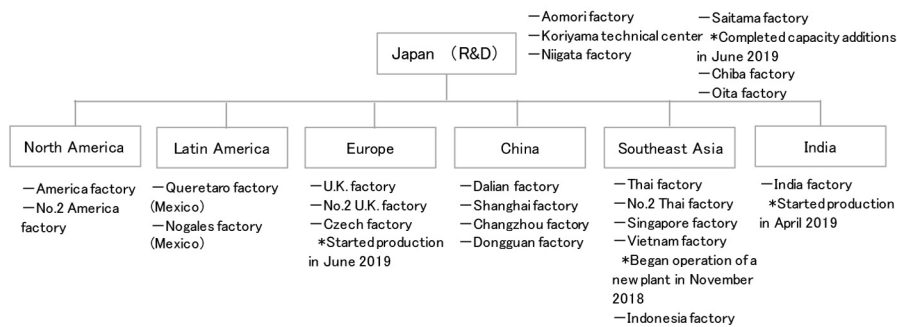
Source: Prepared by FISCO from the Company's results briefing materials

(2) Advanex's global production operations

Advanex's global production operations consist of five domestic sites and 17 overseas sites. It is expanding domestic and overseas production capacities and opening new sites to bolster the sales network in accordance with the medium- to long-term plan.

The Company has aggressively opened new plants and conducted M&A from FY3/16 through FY3/20. Besides Japan, it established production sites in the US and Mexico for North and Central America, Indonesia, India, and Vietnam for Asia, and Czech for Europe.

Advanex's global production operations



Source: Prepared by FISCO from the Company's results briefing materials



Business strategy

**Expansion of the site network in recent years**

Date	Country	Details
2014	April Japan	Acquired shares in Funabashi Electronics and converted it to a subsidiary, started operating plants in Chiba and Miyagi
2016	January Japan	Launched the Saitama plant (floor space: 5,000sqm) in Honjo (Saitama)
	February Germany	Started operating the new sales company, Advanex Deutschland GmbH
	April Mexico	Launched a plant in Queretaro (floor space: 3,038sqm)
	September US	Acquired a business from a US-based press manufacturer and utilizing it as the US No.2 plant (floor space: 4,000sqm)
2017	January Indonesia	Acquired additional shares in PT. Yamakou Indonesia (now, PT. Advanex Precision Indonesia), which mainly makes precision metal presses, and converted it to a subsidiary
	October Mexico	Established the Queretaro plant as a local entity (Advanex de Mexico S. de R.L. de C.V.) and expanded the plant (floor space: 6,000sqm)
2018	November Vietnam	Moved to a new plant (floor space: 8,000sqm; four times larger than the former plant)
2019	April India	Launched the Indian plant in Chennai (floor space: 2,157sqm)
	June Czech Republic	Launched the Czech plant in the Prague suburbs (floor space: 7,700sqm)
	June Japan	Expanded the Saitama plant (floor space: 8,670sqm)

Source: Prepared by FISCO from the Company's materials

## Increase in sales value per vehicle to 1.25 times the level from conventional vehicles with EVs

### (3) Automotive parts and the Company's field

Advanex pursues a business strategy of extending reach in areas, customers, fields, and processing technology and products and thereby expanding its business "coverage." It has broadened scope in the automotive market by entering areas where it can leverage strengths and with a high difficulty and quality strictness hurdles.

When it first entered the automotive market in 2000, Advanex was supplying products only to optional car navigation systems and other car electronics and antennas. Its area scope was Japan and Thailand. Advanex broadened market areas to instruments and interior from 2005, powertrains from 2010, and safety and control (advanced driver assistance system; ADAS), HVs and EVs, and automated driving from 2015.

Potential demand for the Company's products viewed in terms of the vehicle drive format is larger per vehicle for HVs than existing internal combustion engine (ICE) vehicles and even more for EVs. Based on use of the Company's products in ICE vehicles as 100, the estimated level expands to 120 in HVs and 125 in EVs. Engines, radiators, crankshafts, frames, suspensions, seats, and bodies required by ICE vehicles do not come under the Company's scope. Safety and control ADAS, meanwhile, is a common feature in ICE vehicles, EVs, and EVs and offers demand for the Company in all of the drive formats. While ICE vehicles mainly utilize wire springs and other simpler products, EV products have higher added value since many of them use multiple processing technologies, such as forming and insert mold.

The Japanese government views wider adoption of next-generation vehicles as an important issue in automotive industry policy. In the "Japan is BACK Revised Strategy 2015," it sets a goal of raising the next-generation vehicle percentage of new vehicle sales from 50% to 70% by 2030. In particular, it is putting emphasis on EVs and PHVs because of the high CO2 reduction effect and ability to be used as emergency power sources in a disaster. METI's "Automobile Industry Strategy 2014," presents goals of lowering the conventional (ICE) vehicle share of new vehicle sales from 65.2% in 2016 to 30-50% in 2030 and raising hybrid vehicles from about 30% to 30-40% and EVs and PHVs from less than 1% to 20-30%.

Business strategy

**New vehicle sales results and targets for next-generation vehicles**

	2016	2030 goals
Conventional vehicles	65.2%	30~50%
Next-generation vehicles	34.8%	50~70%
Hybrid vehicles (HVs)	30.8%	30~40%
Electric vehicles (EVs)	0.37%	20~30%
Plug-in hybrid vehicles (PHVs)	0.22%	
Fuel cell vehicles (FCVs)	0.03%	~3%
Clean diesel vehicles (CDVs)	3.5%	5~10%

Source: Prepared by FISCO from "2014 Automobile Industry Strategy" from the Ministry of Economy, Trade and Industry, etc.

**3. Strategic products and priority areas**

**(1) "Insert collars"**

Insert collars are used to strengthen plastic fastenings. As global regulations on fuel efficiency have been tightened, automakers have increased their use of plastic components to lighten automobiles. Insert collars are metallic components used to strengthen the parts of plastic components into which bolts are affixed. A single automobile uses hundreds of insert collars. Insert collars are the main strategic product made at the Company's new Saitama factory. Insert collars are important strategic products at the Saitama plant that specializes in automotive parts.

**(2) Medical equipment parts**

Advanex's sales of products for the medical equipment market in FY3/19 were ¥1,847mn, 8.8% of total sales, making them the Company's third largest selling products. The medical equipment market seems appropriate for the Company, as it aims to be a top provider for global niche markets. As the global population and global medical expenditures are increasing, the global market for medical equipment is likely to grow steadily. Furthermore, the trend of increase in self-administered health care indicates that the demand for disposable medical products is likely to increase. Medical equipment has a long product life cycle, few model changes, and provides large profits. On the other hand, the cost of developing medical equipment and producing it on a trial basis is high, this equipment must be tested for a long time before it can be commercialized, it requires government approval and license and the plan for developing and commercializing a piece of medical equipment may be abandoned. If these negative factors, which constitute barriers to entry, can be overcome, medical equipment can provide large profits consistently.

**(3) Standardized parts**

Advanex focuses on sales of standardized parts with broad applications and large demand potential. Its main standardized parts are tangless inserts used to strengthen screw holds in soft materials, such as aluminum, and LockOne devices that prevent loosening of bolt-nut connections. Advanex developed these items leveraging its technology advantages. They offer better cost performance and operational efficiency than existing products and cannot be easily replicated by other firms.

**a) Tangless wire inserts for strengthening screw holes**

Tangless wire inserts are used to strengthen screw holes in soft materials, such as aluminum. Airplanes are made of light materials, such as aluminum. Screw holes in these materials must be reinforced, and a single airplane may require reinforcement for several tens of thousands of screw holes. Tangless wire inserts are much easier to handle than conventional products and this aspect justifies higher prices. They are also profitable because they do not use more materials or steps to produce than conventional reinforcements. They are projected to grow at a roughly 10% annual pace.

Business strategy

**b) LockOne device to prevent loosening of bolt-nut connections**

A promising product for housing equipment and infrastructure is the “LockOne” spring that prevents loosening of nut-to-bolt connections and failures. The “LockOne” spring targets use in railways, condominiums and other buildings, highways, electric power equipment, and other areas. However, the spring must be certified, which lengthens time to adoption. It is already being used by subway systems. The “LockOne” acquired written recognition from The Building Center of Japan in October 2017, and the product is now being used in buildings. Specialty trading companies for each market handle sales.

## Business trends

### Profits down sharply in FY3/19 due to new plant ramp-up costs

#### 1. Summary of operating results in FY3/19

In FY3/19, the Company reported ¥20,967mn in net sales (+3.3% YoY), ¥66mn in operating profit (-74.4%), ¥69mn in ordinary profit (-70.7%), and a ¥107mn net loss attributable to parent shareholders (vs. a ¥49mn profit). While it lowered profit guidance at the 1H announcement, final results were even weaker. Besides higher ramp-up costs from opening new plants, the Company also incurred setbacks from US-China trade friction and an upswing in materials costs. The Indonesian subsidiary confronted decline in transaction volume because of quality control issues prior to the acquisition. Deployment of the Company’s production management and quality control knowhow is restoring customer confidence and also contributing to earnings recovery. Nevertheless, the Company still took an impairment charge for ¥67mn in goodwill value due to delay in the initially anticipated volume production plan plus impacts from higher materials costs and local currency weakness. Extraordinary losses reached ¥121mn and pushed net income attributable to parent shareholders into a deficit. Chinese operations were almost entirely engaged in domestic business and thus not directly affected by trade friction. Slower economic activity and other trends, however, had an indirect impact. US plants faced higher raw material costs because of expensive tariffs on imported steel materials. As a longer-term factor, even though plant launches and M&A deals proceeded in line with the plan, full-fledged operations lagged and this resulted in a higher burden from ramp-up costs.

#### FY3/19 consolidated results

	FY3/18		Forecast	FY3/19		YoY		vs. forecast % change
	Result	Ratio to sales		Result	Ratio to sales	Change	% change	
Sales	20,294	-	21,200	20,967	-	672	3.3%	-1.1%
Gross income	4,859	23.9%	-	4,875	23.3%	16	0.3%	-
SG&A expenses	4,599	22.7%	-	4,808	22.9%	209	4.5%	-
Operating income	259	1.3%	100	66	0.3%	-192	-74.4%	-33.5%
Ordinary income	237	1.2%	180	69	0.3%	-167	-70.7%	-61.4%
Net income attributable to the owners of the parent company	49	0.2%	30	-107	-0.5%	-157	-	-

Source: Prepared by FISCO from the Company’s financial results

## Business trends

**(1) Trends by location**

For Japan, sales rose 6.4% YoY on upbeat automotive business, but the segment loss widened from ¥87mn in FY3/18 to ¥115mn. The Company struggled to raise utilization rates at Chiba and Saitama plants. In the Americas, sales climbed 11.9% and the segment loss slightly narrowed from ¥369mn a year earlier to ¥360mn. While medical-related sales improved, infrastructure and housing equipment business contracted. The start-up costs of a plant in Mexico and considerably higher raw material expenses weighed on profits. In Europe, sales increased 8.1%, thanks to healthy automotive and aircraft equipment businesses, but profit was down 21.4% because of launch preparation costs for the Czech plant and upswing in raw material costs. In Asia, sales fell 2.9% and profit dropped 26.3%.

**Breakdown of consolidated sales and operating income by geographical market**

		FY3/18		FY3/19		YoY	
		Amount	Ratio to sales/ profit margin	Amount	Ratio to sales/ profit margin	Change	% of change
Japan	Sales	7,808	38.5%	8,312	39.6%	503	6.4%
	Operating income/loss	-87	-1.1%	-115	-1.4%	-28	-
Americas	Sales	2,193	10.8%	2,454	11.7%	260	11.9%
	Operating income/loss	-369	-16.9%	-360	-14.7%	8	-
Europe	Sales	1,871	9.2%	2,023	9.7%	152	8.1%
	Operating income/loss	238	12.7%	187	9.2%	-50	-21.4%
Asia	Sales	8,421	41.5%	8,177	39.0%	-244	-2.9%
	Operating income/loss	489	5.8%	360	4.4%	-128	-26.3%
Total	Sales	20,294	100.0%	20,967	100.0%	672	3.3%
	Operating income/loss	259	1.3%	66	0.3%	-192	-74.4%
Forex rate (¥/USD)		¥110.8		¥110.7		¥0.1 in yen appreciation	

Source: Prepared by FISCO from the Company's financial results

**(2) Trends by market**

Markets with sales gains (YoY) were airplane equipment at 32.7%, medical equipment at 19.9%, automotive (transportation equipment) at 6.3%, and others at 4.2%. Those with declines were information and communications equipment at 13.4%, audiovisual and electric appliances at 8.9%, infrastructure and housing equipment at 8.0%, OA equipment at 5.8%, and precision equipment at 3.7%. The Company delivered stronger sales in markets where it successfully developed products, built supply operations, and steadily carried out sales activities. Main impacts that led to declines were market trends and competitiveness of finished product manufacturers. Infrastructure and housing equipment sales weakened on one-time impact from completion of initial inventory purchases of standard products by trading companies and other parts of the distribution network.

**2. Financial conditions and cash flow statement**

Total assets at end-FY3/19 were up ¥2,390mn YoY to ¥22,705mn with a decline of ¥238mn in current assets and an increase of ¥2,628mn in fixed assets. Tangible fixed assets climbed by ¥3,019mn due to plant renovations and other factors. In liabilities, interest-bearing debt amounted to ¥10,079mn out of ¥16,625mn in total liabilities. Capital investments in FY3/19 totaled ¥4,144mn, exceeding the ¥1,008mn in depreciation costs. The Company plans to reduce FY3/20 capital investments to ¥2,118mn. The liquidity ratio, a measure of financial soundness, eased to 120.0%, and the capital ratio was down to 26.6%.

## Business trends

**Consolidated balance sheet**

	(¥mn)			
	FY3/17	FY3/18	FY3/19	Change
Current assets	10,957	12,190	11,951	-238
(Cash and deposits, securities)	3,906	4,346	3,727	-619
Fixed assets	7,790	8,125	10,753	2,628
<b>Total assets</b>	<b>18,747</b>	<b>20,315</b>	<b>22,705</b>	<b>2,390</b>
Current liabilities	7,445	8,824	9,962	1,138
Fixed liabilities	5,004	5,257	6,663	1,405
<b>Total liabilities</b>	<b>12,449</b>	<b>14,081</b>	<b>16,625</b>	<b>2,544</b>
(Interest-bearing debt)	6,629	8,177	10,079	1,902
<b>Net assets</b>	<b>6,298</b>	<b>6,233</b>	<b>6,079</b>	<b>-153</b>
[Stability]				
Current ratio	147.2%	138.1%	120.0%	
Equity ratio	33.3%	30.5%	26.6%	

Source: Prepared by FISCO from the Company's financial results and results briefing materials

Cash and cash equivalents were down ¥668mn YoY to ¥2,864mn at end-FY3/19. Cash flow from operating activities amounted to ¥1,278mn and was not enough to offset the ¥3,589mn outflow in cash flow from investing activities. The Company covered the gap with higher loans in cash flow from financing activities.

**Consolidated cash flow statement**

	(¥mn)		
	FY3/18	FY3/19	Change
Cash flows from operating activities	311	1,278	967
Cash flows from investing activities	-1,496	-3,589	-2,092
Cash flows from financing activities	1,436	1,656	219
<b>Balance of cash and cash equivalents at the end of the fiscal year</b>	<b>3,533</b>	<b>2,864</b>	<b>-668</b>

Source: Prepared by FISCO from the Company's financial results

## Forecasts

### Expecting strong earnings growth from FY3/20 on entry into a recouping phase

#### 1. Outlook for FY3/20

In FY3/20, the Company guides for ¥21,900mn in net sales (+4.4% YoY), ¥330mn in operating profit (+396.1%), ¥260mn in ordinary profit (+274.1%), and a ¥50mn net profit attributable to parent shareholders (restoring profit). While the initial investment in new plants was a heavy burden, we expect narrower losses and then profitability as utilization rates improve.

## Forecasts

**Consolidated outlook for FY3/20**

	FY3/19		FY3/20		YoY	
	Result	Ratio to sales	Forecast	Ratio to sales	Change	% change
Net sales	20,967	-	21,900	-	933	4.4%
Operating income	66	0.3%	330	1.5%	264	396.1%
Ordinary income	69	0.3%	260	1.2%	191	274.1%
Net income attributable to the owners of the parent company	-107	-0.5%	50	0.2%	157	-

(¥mn)

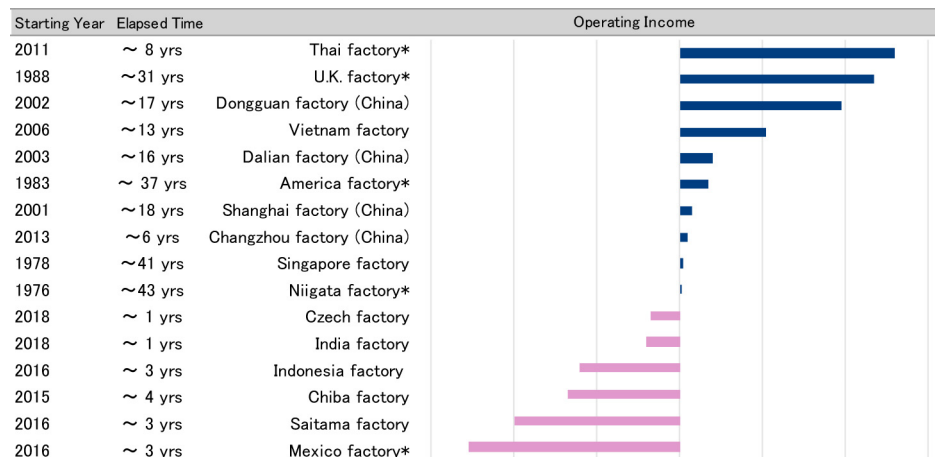
Source: Prepared by FISCO from the Company's financial results

The Company finished its plant expansion initiative from the mid-term management plan with completions of the Czech plant and Saitama plant's phase-2 addition in June 2019. It reduced opening losses at the Czech plant by curtailing initial investments and hiring. The Saitama plant, a dedicated site for automotive business, is finally beginning volume production for next-generation core automobile parts.

## Combined operating income from plants that are profitable is ¥1.3bn

### 2. Income improvement initiatives by plants

We find a clearly defined trend in domestic and overseas plant incomes based on the number of years from a launch or acquisition. Plants operating for five or more years are generally profitable, excluding special factors. "Immature" plants at less than five years, meanwhile, are largely booking losses.

**Operating profit situation by plants and regions in FY3/19**


Note: Opening year for the larger site in the case of multiple sites; combined values for multiple plants

Does not include Japan headquarter costs of overseas subsidiaries

Source: Prepared by FISCO from the Company's results briefing materials

Plants located in Thailand and the UK are leading sources of earnings, and China has profits too (despite being distributed regionally). Longstanding plants in Japan (Niigata, Oita, and Aomori) deliver positive income as well. Combined operating from the Company's profitable plants in FY3/19 was roughly four times the level projected this fiscal year at ¥1.3bn.

## Mexican plant close to profitability

### (1) Saitama plant

The Saitama plant, which was opened in January 2016, is a core plant for automotive-related business dedicated to automotive parts. It still incurs hefty losses since only three years have passed since the launch. It finally obtained IATF16949 certification in July 2018. This certification adds quality management system requirements for the automotive industry to ISO9001:2015 and replaces ISO/TS16949. The Company initially aimed to acquire ISO/TS16949 approval, but the standard shift to IATF16949, a major revision that alters definitions and doubles requested items, led to a longer approval period than expected.

The Company aims to realize profitability within two years by improving quality and cost competitiveness and promoting volume output for new products. It purchased and installed machinery and equipment, hired people, conducted training, and handled prototyping, customer evaluations, and customer approval audits through FY3/18. It plans to begin volume output of many core parts for next-generation automobiles, including power control units, inverters, and batteries in FY3/20. Profitability will improve as the plant's utilization rate increases with pick-up in new product output. The Company completed an addition of 3,670sqm of plant floor space in June 2019 aimed at accommodating growing demand from 2020.

### (2) Mexican plant

The Mexican plant, which supplies automotive-related products for 75% of its business, acquired IATF16949 quality management certification. With rivals showing hesitancy toward operations in Mexico due to policy changes by the US government, inquiries from Japanese companies, in particular, are concentrating more than expected at the Company. Sales are steadily rising, and this activity is likely to bring the plant to breakeven income in the latter half of FY3/20. Major projects begin in FY3/21. Profitability should arrive with subsequent ramp-up. We think the Mexican plant should become an earnings driver in FY3/23. It is also slated to export products to South America, Japan, and Europe.

### (3) Indonesian plant

The Indonesian plant relies on automotive-related business for about 95% of its income and targets breakeven income in the latter half of FY3/20 and profitability in FY3/21. Inquiries and orders volume rose on restoration of customer trust, and this plant is headed for an expansion phase from FY3/21. Substantial increase in Indonesia's minimum wage, meanwhile, is a limiting factor.

### (4) Vietnam plant

The Company moved the Vietnam plant to a new facility with four times as much floor space (8,000sqm) as the previous location in November 2018. It has mainly manufactured and sold wire springs for OA equipment in the Vietnam business since 2006. At the new facility, it also installed press processing and will begin production of flat springs. Future plans call for expansion to insert molds and deep-drawn processed items too. The Company wants to recruit demand for OA equipment products transferred from Japan and China. While it anticipates needing 2-3 years to surpass the former plant's profitability, the Company hopes to double profits after a period of four years.

### (5) Indian plant

The Company started operating the Indian plant that makes wire springs, mainly for automotive use, in April 2019. In light of sluggish ramp up of other new plants opened in recent years and incomes below targeted levels, it decided to lease the Indian plant and begin with a relatively small floor space for its plants at 2,157sqm. The Company secured work volume for the ramp-up period through transfers of production items from Singapore and Thailand, and the plant has been receiving many inquiries from major US and European, Japanese, and Indian customers. The Company's outlook calls for profitability within one year of operation.

Forecasts

**(6) Czech plant**

In Europe, while the Company has a production site in the UK, it opened its first mainland plant in Czech. It completed the plant in June 2019, but does not intend to fully utilize the 7,700sqm in leased floor space from the outset. To avoid repeating the situation in Mexico where it faced heavy ramp-up costs from investments, it is alleviating negative impact by arranging initial production volume through transfers of medical springs from the UK and deep-drawn products from the Chiba plant. It ultimately hopes to expand automotive-related business in Europe. There are many Japanese and US and European auto and automotive parts firms with facilities in Czech, and the country is attracting interest as a hub for the auto industry. The location of this plant also offers good access to Germany. The Company aims to achieve profitability within two years of beginning operations.

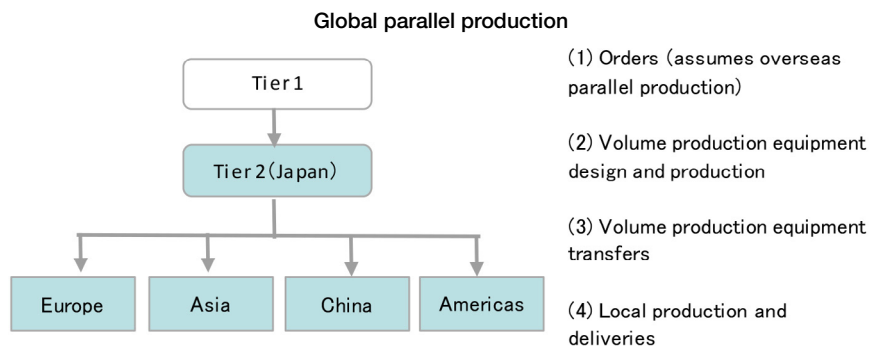
**Capable of responding quickly and efficiently to customer production transfers**

**3. Changes in production allocation**

**(1) Global parallel production**

Automakers are pursuing development efficiency based on a design concept of unified vehicle production through joint development of multiple models using a shared platform and increased sharing of parts and units. Parts sharing increases the Company's output volume per product. Compared to FY3/15 levels, planned output volumes for specific products in FY3/20 have risen by 2.6 times for insert moldings, 3.4 times for flat springs, and 2.5 times for insert collars that strengthen plastic fastenings.

The Company stands out by far in the precision springs industry with its 17 manufacturing sites worldwide. Its many overseas sites are an advantage in the global orders placement system. Global parallel production means that orders for a single product could begin in Japan and then spread to Thailand, China, and India. Automotive parts move through inquiry, estimate, repeated design and prototyping, and other processes prior to the start of volume output. Orders at overseas sites that are simultaneous with Japan or additions remove the design and prototyping step. The Company can smoothly ramp up production by transferring dyes and other volume production equipment from Japan to overseas plants. A reason given by the Company for likely robust improvement of profit margin in the mid-term management plan is SG&A expenses and other costs not rising as much as the sales growth pace.



Source: Prepared by FISCO from the Company's results briefing materials



Forecasts

## (2) Changes in production allocation

US-China trade friction and Brexit are making production transfers from China and the UK an urgent issue for manufacturers. Finished product firms and Tier 1 firms favorably assess Tier 2 firms capable of handling changes in production sites in a short amount of time. The Company has ramped up new sites in Mexico, the US, Vietnam, India, and Czech over the past few years and is able to accommodate production transfers.

In the medical market, a highly profitable area, the Company started volume production at the US plant in FY3/19. It also plans to start operations at the Czech plant during FY3/20. It expects to begin volume production of self-injector springs and deep-drawn parts in FY3/21. Global production provides significant cost benefits. PC, mobile phone, and camera parts have annual outputs ranging from 100,000 units to 10mn units and thus are suited to concentrated output at one location. Disposable medical kits with outputs in the range of 10mn and 100mn units, meanwhile, realize savings through dispersed production in areas of consumption in light of tariffs, domestic production incentives, and transport costs.

### Main changes in production allocation

Application	Local site	Transfer site	Reason
OA equipment	Japan, China	Vietnam	Cost-cutting measures
	Europe	Mexico	Tariff measures
Automobiles	Europe	India	Cost-cutting measures
	UK	Americas	Switch to local production
Medical equipment	UK	Czech	Switch to local production
	Japan	China	Cost-cutting measures
Electronic equipment	Japan	China	Cost-cutting measures
Toys	China	India	Cost-cutting measures

Source: Prepared by FISCO from the Company's results briefing materials

## Responding to upswing in minimum wages by transplanting Japan's high labor productivity in overseas markets

### 4. Comparison of productivity by plants

Japan's labor productivity per hour was \$47.5 (¥4,733 using conversion on a purchasing power parity (PPP) basis) in 2017, putting it at about two-thirds of the US level and 20th out of the 36 OECD countries. Labor productivity per person (added value per employee) was \$84,027 (¥8.37mn), ranking it at 21st out of the 36 countries, and the same value for just manufacturing was \$99,215, which is 15th out of 31 major countries.

In the Company's case, productivity by plant measured in terms of sales per manufacturing employee is extremely high in Japan at about 1.7 times the level in Thailand, roughly double levels in the UK, US, and Shanghai (China), and more than six times the level in Indonesia. The Saitama plant launched in January 2016 is a new plant dedicated to automotive products with a smart factory concept that focuses on energy and labor savings. While it still runs a loss due to lengthy lead time and investment burden, there have been more new order deals than expected and the Company accelerated installation of additional capacity. Automated products are volume output items. Increase in production volume per item through parts sharing also promotes automation. The Company is reengineering visual inspections with machinery.

Forecasts

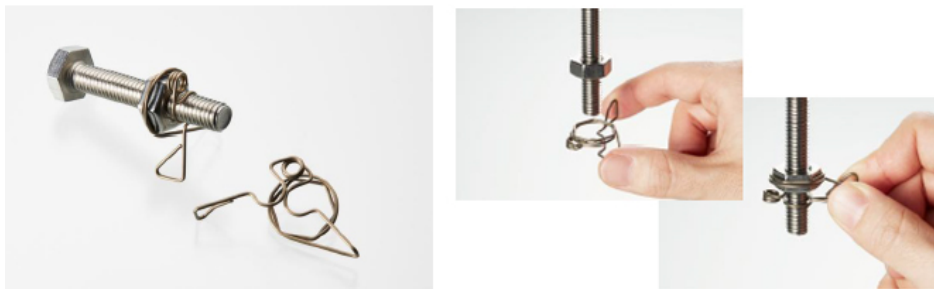
The Niigata plant plays the role of mother plant for production technology. To address upswing in Chinese and ASEAN country wages, the Company intends to transfer advanced production technology from Japan. Japanese sites facilitate deployment of automation technologies at overseas locations in various ways - engineer dispatches (local office), direct-visit assistance, technology inquiry responses, acceptance of trainees, acceptance of plant tours, and exports of dyes and production equipment. At the Czech plant, the Company plans to manufacture products that utilize Japan's top-level deep-draw technology. The UK plant, a regional site, will supply dyes and give technology assistance.

**5. Instant Lock (new product)**

The Company announced Instant Lock as a new product in April 2019. This is a derivative product from LockOne and other springs that prevent nuts from falling out. It is a device that utilizes spring restoring force to keep things from falling out, just as LockOne, and has already cleared performance tests complying with US aerospace standard NAS3350 and confirmed a reliable locking effect. The Company sees opportunities for Instant Lock to prevent hanging bolts that support building ceilings (ceiling base) from loosening and falling out. Ceiling collapse accidents occurred at gymnasiums, which serve as refuge locations for major earthquakes, in the Great East Japan Earthquake and Kumamoto Earthquake. The product contributes to better safeness in offices, workplaces, stores, residences, and tunnels by alleviating risk of ceiling collapses.

Instant Lock is attached just by inserting it with one hand from the bottom of a hanging bolt with the same force used to pinch a clothespin. It can be attached and removed in an instant. It offers excellent handling features without needing force, technique, tools, or torque management. Kirii Construction Materials Co., Ltd., a comprehensive supplier of seismic-resistant ceilings and interior materials capable of withstanding earthquakes, cooperated in the development and sells Instant Lock. Potential market size for office buildings nationwide works out to more than 100mn units based on using 1.5 units per square meter of floor space. The Company is looking at overseas opportunities too. It has displayed Instant Lock at overseas exhibitions and is planning to develop markets in other countries.

**Instant Lock (new product)**

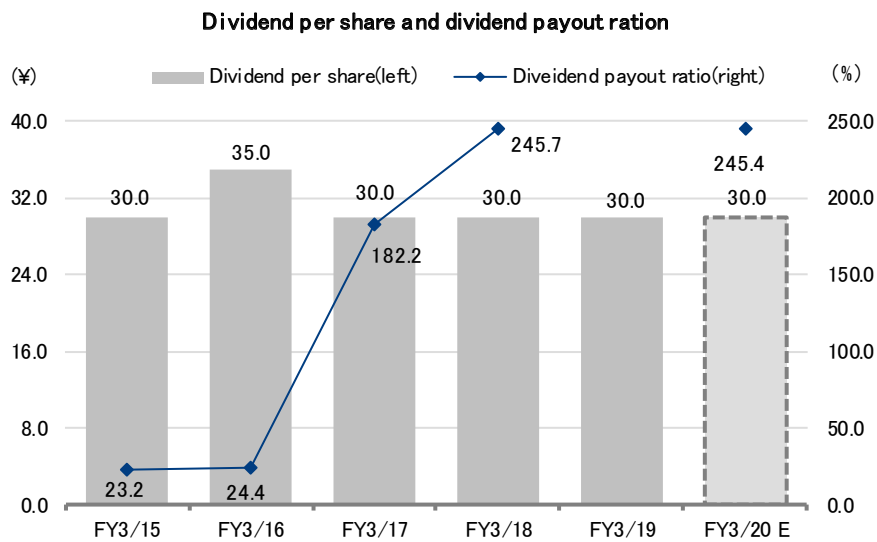


Source: The Company's results briefing materials

## Shareholder return policy

### Keeping the dividend at ¥30 per share

The Company's dividend policy aims to provide suitable and stable profit distribution while ensuring a balance with enough retained profit to stabilize and expand the business foundation. It presented a 30% dividend payout ratio goal in the mid-term management plan. In FY3/19, despite booking a net loss attributable to parent shareholders, it still paid the ¥30 dividend per share from period-start guidance. In FY3/20, the Company only expects ¥50mn in net profit attributable to parent shareholders, versus ¥330mn in operating profit. The implied dividend payout ratio hence works out 245.4%, exceeding 100%.



Source: Prepared by FISCO from the Company's financial results

Dividend payments take place once a year for shareholders at the end of the fiscal year. The shareholder benefit program, meanwhile, gives QUO cards to shareholders who own the Company's stock for a period of over a year at the end of 2Q with the aim of promoting long-term ownership. QUO cards sent to shareholders at end-September 2018 were worth ¥1,000 for owning one unit to less than five units of the stock, ¥3,000 for owning five or more units to less than 10 units, and ¥5,000 for owning 10 units or more.

## ■ Information security policy

The Company takes an organizational approach to information security measures. It utilizes anti-virus software, intrusion detection, firewalls, and other functionality as the system-level response and educates employees and conducts periodic tests as personnel and organizational efforts. It has not incurred major trouble over the past year. The dividend handling security participates in external seminars and acquires knowledge. Society as a whole, including customers, is requiring more information security, and the Company intends to make necessary investments. While the Company uses data centers designed to withstand earthquakes and makes other disaster-related preparations, it wants to further improve safety, such as storing data at a remote site.



## Disclaimer

FISCO Ltd. ("FISCO") offer stock price and index information for use under the approval of the Tokyo Stock Exchange, the Osaka Stock Exchange and Nikkei Inc.

This report is provided solely for the purpose of offering information, and is not a solicitation of investment nor any other act or action.

FISCO prepared and published this report based on information which it considered reliable; however, FISCO does not warrant the accuracy, completeness, fitness nor reliability of the contents of this report or the said information.

The issuers' securities, currencies, commodities, securities and other financial instruments mentioned in this report may increase or decrease in value or lose their value due to influence from corporate activities, economic policies, world affairs and other factors. This report does not make any promises regarding any future outcomes. If you use this report or any information mentioned herein, regardless of the purpose therefor, such use shall be made based on your judgment and responsibility, and FISCO shall not be liable for any damage incurred by you as a result of such use, irrespective of the reason.

This report has been prepared at the request of the company subject hereto based on the provision of information by such company through telephone interviews and the like. However, the hypotheses, conclusions and all other contents contained herein are based on analysis by FISCO. The contents of this report are as of the time of the preparation hereof, and are subject to change without notice. FISCO is not obligated to update this report.

The intellectual property rights, including the copyrights to the main text hereof, the data and the like, belong to FISCO, and any revision, reprocessing, reproduction, transmission, distribution or the like of this report and any duplicate hereof without the permission of FISCO is strictly prohibited.

FISCO and its affiliated companies, as well as the directors, officers and employees thereof, may currently or in the future trade or hold the financial instruments or the securities of issuers that are mentioned in this report.

Please use the information in this report upon accepting the above points.

■ For inquiry, please contact: ■

FISCO Ltd.

5-11-9 Minami Aoyama, Minato-ku, Tokyo, Japan 107-0062

Phone: 03-5774-2443 (Financial information Dept.)

Email: [support@fisco.co.jp](mailto:support@fisco.co.jp)