

## **TSUBAKI** CORPORATE REPORT 2017

Celebrating Our Centennial Aiming Beyond Manufacturing

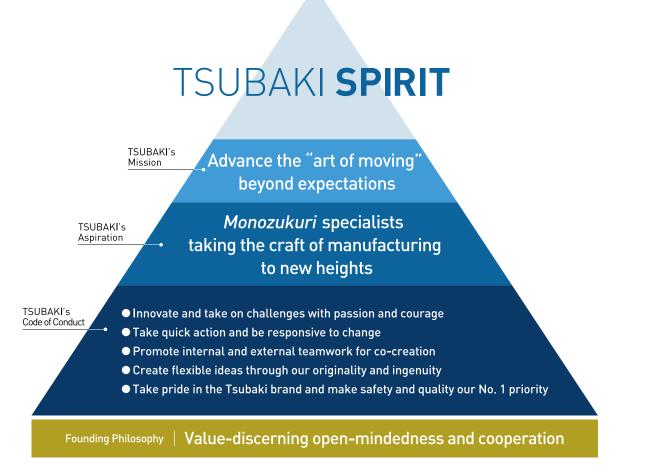


## The Tsubaki Group's New Corporate Philosophy

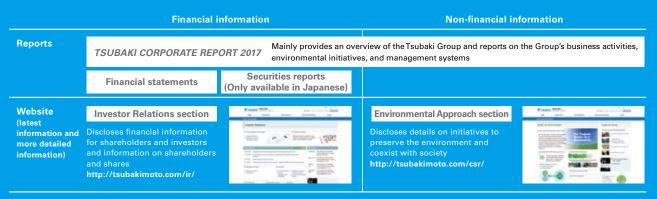
To mark the 100th anniversary of its foundation, in 2017 the Tsubaki Group reevaluated what it does and for whom it does this, and established the "Tsubaki Spirit" to provide a common corporate philosophy and code of conduct for the Group.

The formulation of this new corporate philosophy entailed reevaluating the Tsubaki Group DNA inherited from predecessors as well as the value that we can offer society going forward. We then clearly expressed and systemized the attributes that we should continue to value—as well as new challenges we should tackle—in the form of Tsubaki's Mission, Tsubaki's Aspiration, Tsubaki's Code of Conduct, and a Founding Philosophy.

We will provide real value that customers and society want by continuing to be a *monozukuri* (manufacturing) specialist and by using our capabilities to provide solutions that transcend the boundaries of *monozukuri*. In the motion and control field, we will remain a company that society needs by honing our technology and skills and taking on new initiatives to provide value that surpasses society's expectations.



## **Main Disclosure Tools**



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#### Forward-Looking Statements

In certain cases, the information in this report is based on estimates and forecasts made by the Tsubaki Group. The accuracy of data from external sources, including statistics, is not guaranteed. As a general rule, figures less than one unit have been rounded down to the nearest whole number. Also, unless otherwise specifically stated all numerical values relating to Company performance and its financial position have been calculated on a consolidated basis.

#### **Data Regarding Environmental and Social Initiatives**

This report was prepared with reference to the Ministry of the Environment of Japan's "Environmental Reporting Guidelines 2012," the Ministry of the Environment of Japan's "Environmental Accounting Guidelines 2005," and the Global Reporting Initiative (GRI)'s "Sustainability Reporting Guidelines, Third Edition (G4)."

Reporting Period: April 2016 to March 2017 (includes some activities after the reporting period)

#### Scope of Data Collection

Tsubakimoto Chain Kyotanabe Plant, Nagaokakyo Plant, Okayama Plant, and Saitama Plant, and major Tsubakimoto Chain subsidiaries and affiliates

F Tsubakimoto Custom Chain, Tsubakimoto Sprocket, Tsubakimoto Bulk Systems,

Subakimoto Mayfran, Tsubakimoto Iron Casting, and Tsubaki Yamakyu Chain

#### Notes on the Production of this Report

The Company realizes that corporate value is based on a comprehensive evaluation of the operating results of a company and a variety of other factors, including its social responsibility. Based on this understanding, the Company compiled its various information transmission tools for stakeholders, including its annual report and environmental and CSR reports, into a single corporate report. This report contains explanations of Tsubaki's corporate philosophy, strategies for strengthening foundations, performance, and policies for conducting environmental and social contribution activities as well as the results of these initiatives. We believe this form of corporate report will assist stakeholders in developing a more comprehensive understanding of the Company's potential for ongoing growth.

## **To Our Stakeholders**



Yasushi Ohara President and COO, Representative Director **Isamu Osa** Chairman and CEO, Representative Director

We are a *monozukuri* (manufacturing) specialists that is taking the craft of manufacturing to new heights. With its sights set on the next 100 years, the Tsubaki Group has embarked upon a new beginning.

## **Celebrating Our Centennial**

In 2017, the Tsubaki Group celebrated the 100th anniversary of its foundation.

We would like express our sincere gratitude to our stakeholders, whose support has enabled us to reach this milestone.

In 1917, the Group was founded as a bicycle chain manufacturer. Anticipating the growth of the machine industry, we subsequently switched to the manufacture of industrial-use chains. Since then, by evolving chain technology, we have expanded our operations to encompass materials handling systems, automotive parts, and power transmission units and components. Consequently, we have grown into a comprehensive manufacturer in the fields of motion and control as well as conveyance and storage.

Moreover, we have been proactively developing operations overseas. As a result, we have taken large strides toward becoming a global corporate group, with our percentage of overseas sales surpassing 50% in the fiscal year ended March 31, 2014.

### **Realizing Our Target Corporate Profile**

In the fiscal year ended March 31, 2015, the Group established Long-Term Vision 2020, which sets out a target corporate profile for the fiscal year ending March 31, 2021. As the second action plan aimed at realizing this vision, we launched Mid-Term Management Plan 2020 (from the fiscal year ending March 31, 2018, through the fiscal year ending March 31, 2021) in April 2017.

Following on from the first action plan, Mid-Term Management Plan 2016, the new plan calls on the Group to transition to a market-oriented corporate culture and to utilize the collective strengths of the Group. In accordance with these basic policies, we will step up the pace of new product development and marketing. Further, we will mobilize our organization and personnel under the "One Tsubaki" slogan. These efforts will heighten our ability to execute strategies and enable us to achieve the numerical targets of Mid-Term Management Plan 2020, which are consolidated net sales of ¥300.0 billion, an operating income margin of 10%, and a percentage of overseas sales of 70%.

In conjunction with such efforts, we will strengthen a multifaceted range of initiatives focused on the environment, society, and governance (ESG) to enhance our trustworthiness in the eyes of stakeholders and society.

## **Remaining a Company that Society Needs**

For the Tsubaki Group, the centennial also marks the beginning of a new phase focused on the coming century. The Group has used this juncture to reevaluate what it does and for whom it does this and established the "Tsubaki Spirit" as a new corporate philosophy.

Reflecting this corporate philosophy, over the next 100 years we will remain a company that society needs by continuing our century-old evolution as a *monozukuri* specialists while incorporating outside expertise and technology to create and provide unprecedented value.

As we move forward, we would like to ask our stakeholders for their continued support and understanding.

**Isamu Osa** Chairman and CEO, Representative Director Yasushi Ohara

President and COO, Representative Director Tsubaki at 100

# Advancing Nonstop Into Our Next Century

OUR NUMBERS

FYE 2017 Net Sales ¥**198.7**billion We began as a bicycle chain manufacturer in 1917.

Subsequently, we changed our business model to concentrate on industrial-use chains. Today, the Group underpins "motion" worldwide through four business segments: Chain Operations, Power Transmission Units and Components Operations, Automotive Parts Operations, and Materials Handling Systems Operations. Manufacturing DNA and a pioneering mind-set passed down through the generations since our foundation drive us forward.

We will evolve and innovate chain-derived "motion technologies" to overturn conventional wisdom. At the Tsubaki Group, we want to help create a future that amazes.

Our goal is to set the world and the future in motion.

As a manufacturer, we intend to surpass society's expectations over the next century.

FYE 2017 ROE 9.9%

Overseas Bases (As of October 1, 2017)



Number of Employees (consolidated) (As of March 31, 2017) 7,8866

Became a de nated plant o

Ministry of t

Navy of Japa

1931

1930s

1928

#### 1920s

**Chain Operations** 

Our Chain Operations trace their origins to bicycle chain manufacturing in 1917. A decade later, we retooled and changed over entirely to the manufacture of industrialuse chains. Currently, the Group provides various industries, including the machine tool, shipbuilding, steel, and LCD / semiconductor industries, with diverse drive chains, conveyor chains, and other chains optimized for each industry's needs.

Established in Nishinari-gun, Osaka (currently Kita-ku, Osaka) and began manufacturing bicycle chains

1917 Foundation

Ceased bicycle chain production to concentrate exclusively on manufacturing industrial-use chains

Chain

Operations

## Power Transmission Units and Components Operations

Begun with the development of chain reducers in 1958, this business segment provides optimal power transmission products by utilizing a diverse lineup of reducers, actuators, clutches, and other products in the motion and control field and by combining the technologies related to these products.

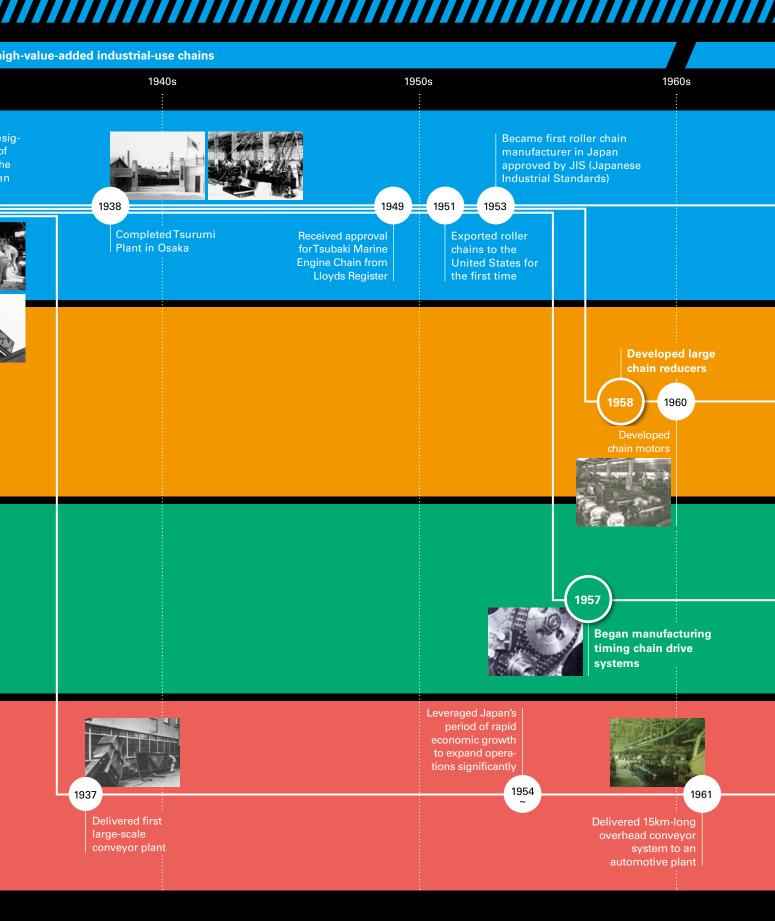
## **Automotive Parts Operations**

In 1957, mass production of automotive engine timing chain drive systems inaugurated these operations. We not only develop chains but also independently develop timing chain drive systems that heighten the performance of automobile engines and help make them lighter and more environment-friendly. This business segment provides timing chain drive systems to automobile manufacturers around the world and boasts the leading share of the global market.

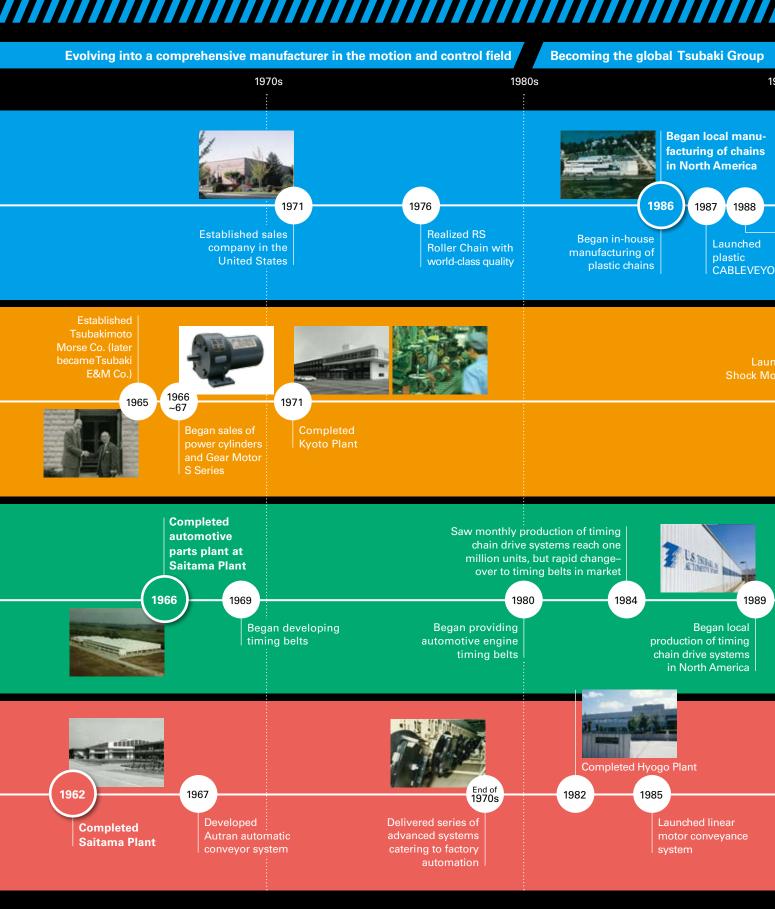
## **Materials Handling Systems Operations**

The Group's 1937 turnkey installation of a conveyor plant that used conveyor chains launched this business segment. Our Materials Handling Systems Operations provide sophisticated solutions that improve customer productivity by controlling the flow of objects and information through sorting, conveyance, and storage systems.

# A Century of Transformations and Challenges

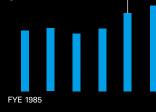


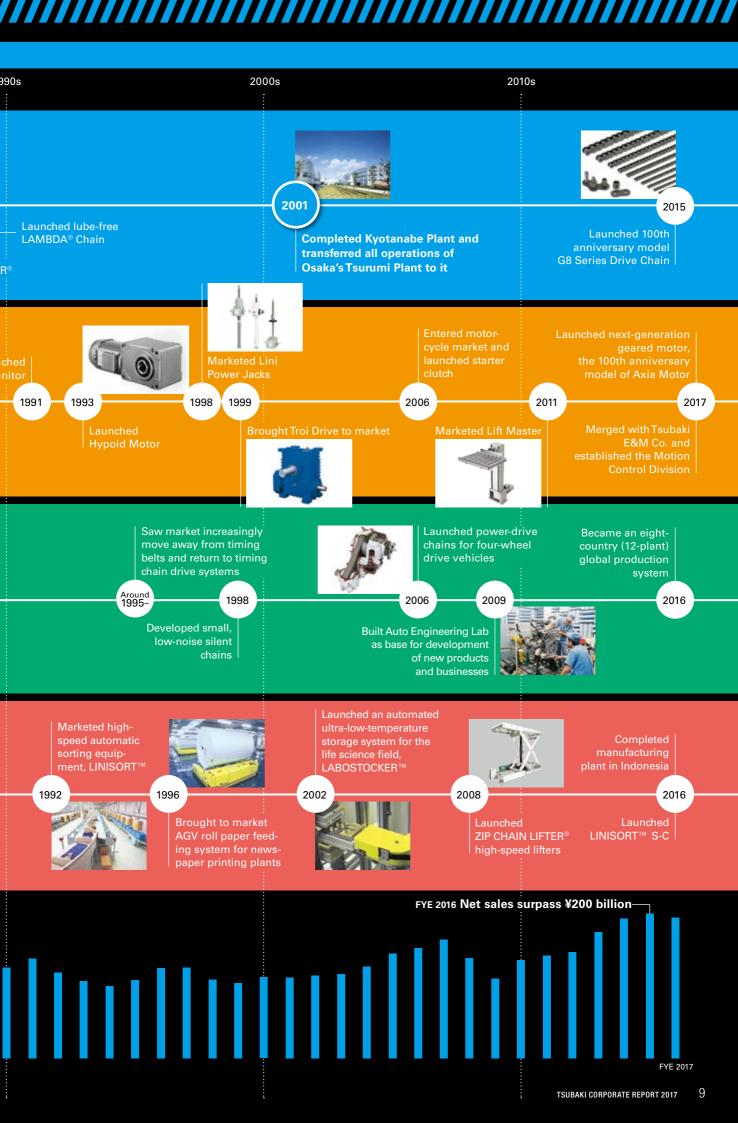
Since its foundation, the Tsubaki Group has heightened competitive advantages by concentrating on three fundamental areas. Specifically, we have consistently strengthened our technology and manufacturing base, bolstered efforts to develop personnel and pass on technological skills, and reinforced the foundations of management while increasing its focus on corporate social responsibility (CSR). At the same time, the Group has steadily extended the business fields and regions in which it operates. Tirelessly forging ahead in this way has brought us to our 100th anniversary in 2017.



#### The Tsubaki Group's Business Results (since beginning consolidated accounting)

FYE 1989 Net sales surpass ¥100 billion -



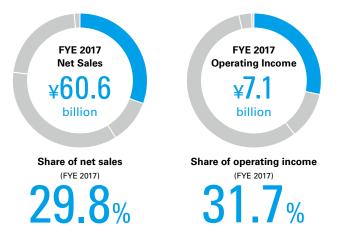


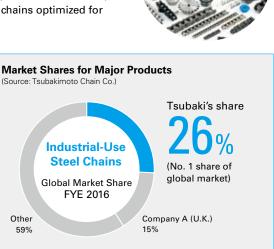
## The Tsubaki Group At a Glance

## **Business Overview**

## **Chain Operations**

We provide various industries, such as the machine tool, automobile, steel, LCD/semiconductor, and food industries, with diverse drive chains, conveyor chains, and other chains optimized for their needs.

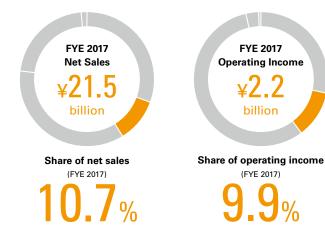


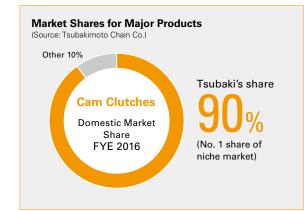


## **Power Transmission Units and Components Operations**

We provide optimal power transmission products by utilizing a diverse lineup of reducers, actuators, clutches, and other products in the motion and control field and by combining the technologies related to these products.







#### r subaki Group's Challenges and Strate

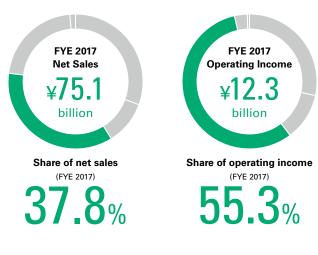
## The Tsubaki Group will provide value that surpasses society's expectations by offering solutions that transcend the boundaries of manufacturing.

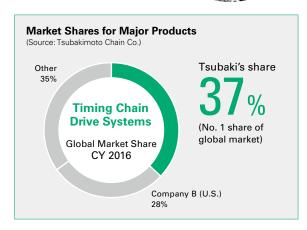
Since its foundation in 1917 as a chain manufacturer, the Tsubaki Group has increased its business lines to include Materials Handling Systems, Automotive Parts, and Power Transmission Units and Components operations. As a result, we have become a comprehensive manufacturer in the "art of moving" field, providing a diverse range of machinery parts and units as well as systems comprising these items. We create an array of products with leading market shares, such as industrial-use steel chains and timing chain drive systems.

To cement its foundations as a manufacturer, the Group has been increasing its competence in product development and production technology. At the same time, we have been enhancing our ability to offer solutions that transcend the boundaries of manufacturing and to respond to needs globally. Through these efforts, we aim to provide value that surpasses society's expectations.

### **Automotive Parts Operations**

These operations provide automobile manufacturers around the world with timing chain drive systems that heighten the performance of automobile engines and help make them lighter and more environment-friendly.

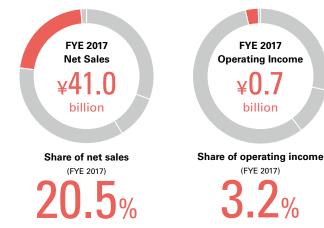


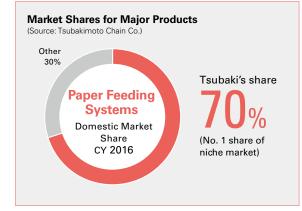


#### **Materials Handling Systems Operations**

Our Materials Handling Systems Operations provide sophisticated solutions that improve customer productivity by controlling the flow of objects and information through sorting, conveyance, and storage systems.







## **Chain Operations**



Drive chains

2



Plastic top chains



Small-size conveyor chains



Large-size conveyor chains



Support and guidance systems for cables and hoses (CABLEVEYOR®)



Chain meshing type actuators (ZIP CHAIN ACTUATOR®)

## **Power Transmission Units and Components Operations**



Reducers / Variable speed drives



Locking devices (POWER-LOCK®)



Linear actuators (Electric cylinders / jacks)



Shaft couplings



See pages 50-51 for details.

Clutches



Overload protectors



Our strengths include an extensive lineup of products with superior durability, environment-friendliness, and quality in the fields of power transmission units (drive systems) and materials handling systems (sorting, conveyance, and storage) as well as our ability to supply products and services that solve customers' issues.

## **Automotive Parts Operations**



Timing chain drive systems



Timing chain drive system parts



Roller chains



Silent chains



Tensioners



Power drive chains

## **Materials Handling Systems Operations**



Conveyance system for automobile manufacturing line



AGV roll paper feeding systems for newspaper printing plants



Automatic sorting equipment (LINISORT™)



Bulk handling systems



See pages 54-55 for details.

An automated ultra-low-temperature storage system for the life science field (LABOSTOCKER™)



Metalworking chip handling / coolant processing systems (Chip conveyors)

# Setting the World and

## **CASE 1** Setting a Glove Plant in Motion

Smart Glove Corporation Sdn Bhd manufactures rubber gloves for surgery and other medical purposes. The Tsubaki Group's large conveyor chains (rubber glove chains) are essential components of the company's production line. From the dipping of special hand molds into liquid rubber through to drying and completion, we custom built the entire production line, which is linked by a single chain and operates very smoothly and precisely. Thus, our advanced technology enables Smart Glove to meet the exacting requirements of hospitals, where even the slightest error cannot be permitted.



#### Fakhri Yusope

Tsubaki Power Transmission (Malaysia) Sdn. Bhd. (TMYS)



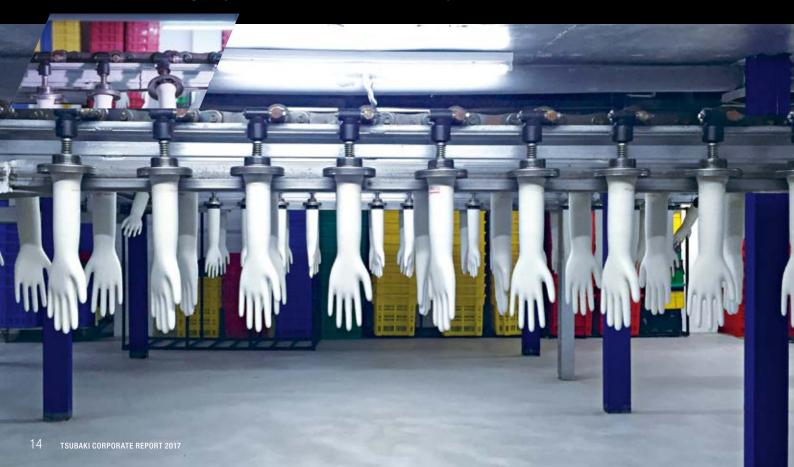
TMYS personnel with Fakhri Yusope on the far left

## Emphasizing the Merits of Quality Products and Unique Engineering Services

The client chose our rubber glove chains because of their quality. The wearinduced stretching and rattling of the chains that the client previously used gave rise to defective gloves. In response to these problems, we told Smart Glove about our product quality and unique engineering services. Since installing the production line, we have regularly inspected it as well as a production line installed by another company. Reporting analysis results to the client maintains a relationship of trust with them.

## Large-size conveyor chains

The medical-use rubber glove production line of Smart Glove in Malaysia



TheTsubaki Group's Challenges and Strategies

Since its foundation in 1917, the Tsubaki Group has evolved continuously by advancing initiatives in the motion and control field. Our products perform crucial functions in an array of different places around the world, supporting economies and day-to-day life. This section focuses on the vital roles the Group's products play worldwide.

## **CASE 2** Setting a Biomass Power Plant in Motion

Biomass is attracting attention as a natural, environment-friendly energy. Particularly promising is woody biomass power generation, which uses timber from forest thinning and wood chips as fuel. As well as curbing CO<sub>2</sub> emissions, this type of power generation makes effective use of Japan's rapidly deteriorating forests as a new supply of resources. At the biomass power plant of EF-ON Bungo-Ono Inc., our bucket elevators and conveyor chains for bucket elevators are used in silica sand circulation equipment, which removes iron scrap from the silica sand that is used for power generation and then returns the silica sand to boilers. In extremely harsh usage conditions, the Tsubaki Group's products are supporting an energy of the future.



**Toshihiro Ogura** Tsubakimoto Machinery Co.



From the left, Toshihiro Ogura and Tetsuro Imai of TBS

## Winning through Strong Teamwork between Production and Sales

Thanks to the information gathering capabilities of Tsubakimoto Machinery Co. (TMC) and the technological capabilities of Tsubakimoto Bulk Systems Corp. (TBS), the client adopted a turnkey system, which included the bucket elevators and Aprovators\* of TBS. I think we earned the client's trust through strong teamwork between production (TBS) and sales (TMC) that transcended the boundaries of Group companies and divisions.

\* Bucket-type conveyor chains used for difficult-to-handle materials

## A bucket conveyor materials handling system

The biomass power plant of EF-ON Bungo-Ono in Oita Prefecture



3

## **CASE** 3 Setting a Newspaper Printing Plant in Motion

Oita Godo Shimbun Inc. wanted its new newspaper printing plant to be a showcase plant the likes of which had never been seen before. Our AGV roll paper feeding system played a part in realizing this goal. Fully automated, the system has advanced roll paper feeding performance and automatically loads and unloads roll paper and residual cores. In addition, the system saves energy and helps reduce the time and labor needed for simple daily inspections. In this way, the Tsubaki Group's AGV roll paper feeding system enables the delivery of newspapers that arrive "as a matter of course" every day.



### Shinji Murashima

Newspaper Business Department Materials Handling Division



## **Providing Solutions that Surpass Customers' Needs**

After learning that the newspaper printing plant was to be established, we made an aggressive sales pitch emphasizing our long installation track record. As a result, we received orders for the installation of a roll paper feeding system and a sorting system. Newspaper printing plants must be very reliable. Therefore, we stressed that our systems have outstanding quality and performance and help create a comfortable work environment. Also, we added a "study tour mode" to the AGV roll paper feeding system. By designing the system so that visitors to the plant are always able to see the system in operation, we successfully came up with a solution that realized the client's concept.

## AGV roll paper feeding system

The AGV roll paper feeding system in operation at Oita Godo Shimbun's newspaper printing plant



# the Future in Motion

## **CASE 4** Setting an Apple Plant in Motion

An apple orchard in New Zealand has a highperformance system that uses image processing to select and sort apples based on their size, shape, blemishes, color, and sugar content and removes imperfect apples instantly. This system uses our small-size conveyor chains. In other words, the Tsubaki Group's small-size conveyor chains play a part in delivering only the most delicious apples to consumers.

## VOICE

Gary Griffiths

Tsubaki Australia Pty. Limited



## **Replacing the Products of Our Biggest Rival!**

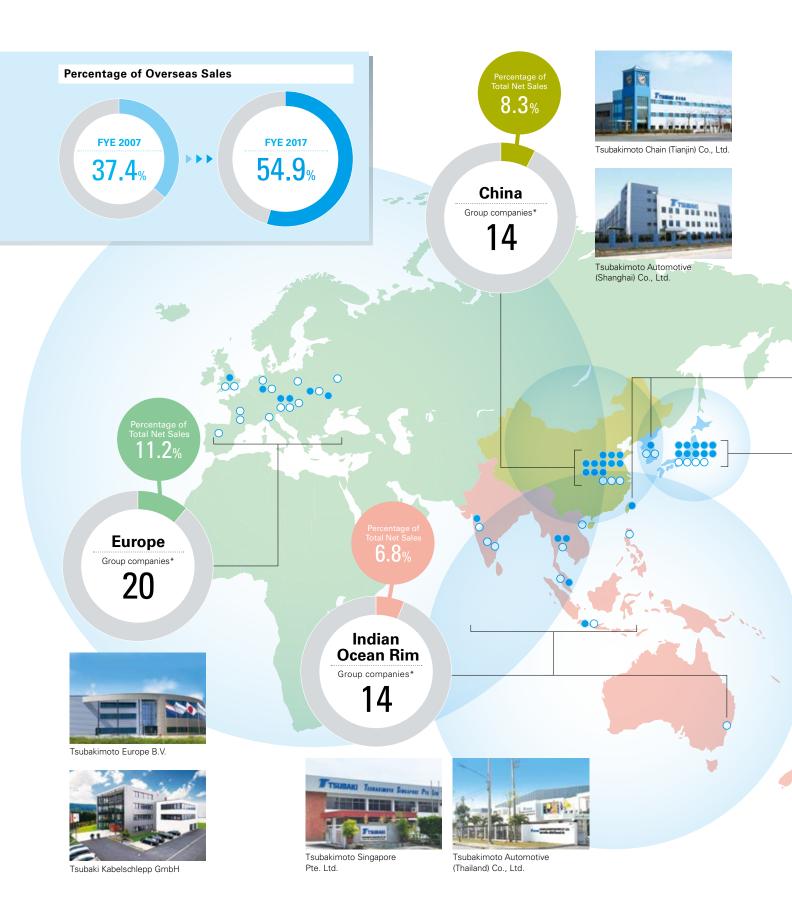
Initially, Compac Sorting Equipment used the chains of a competitor. We explained to the client that, because quality affects production efficiency, the price of conveyor chains should not be the primary consideration. Also, we arranged for the client to visit Japan to see our manufacturing and evaluation testing firsthand. This experience gave the client an appreciation of the technological superiority of our products, which resulted in the client replacing our biggest rival's small-sized conveyor chains with our products. It is important to not only be well versed in the client's general business but also to know about the existing conditions and issues in client's operations and then show the client what we can do for them. We have a good relationship with Compac Sorting Equipment, which has become a Tsubaki fan.

## Small-sized conveyor chains

Compac Sorting Equipment's selection and sorting system



4



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Another strength of the Tsubaki Group can be found in its global network, which consists of 40 manufacturing subsidiaries and 35 sales companies in 26 countries across the globe. This network enables us to maintain an accurate understanding of customer needs while promptly developing and providing products based on these needs.

In the fiscal year ended March 31, 2017, 54.9% of total net sales came from overseas while 43.8% of production was conducted outside of Japan.



Nagaokakyo Plant

Hyogo Plant

Okayama Plant

## Numerical Overview of Six Years Fiscal years from April 1 to March 31 -

For the year (Millions of yen)	FYE 2012	FYE 2013	FYE 2014	FYE 2014	FYE 2016	FYE 2017
Net sales	144,896	150,002	178,022	196,738	203,976	198,762
Chain Operations*1	51,692	50,250	55,828	61,721	63,998	60,600
Power Transmission Units and Components Operations*1	21,364	19,664	21,612	22,557	21,975	21,563
Automotive Parts Operations*1	43,509	49,397	60,674	66,978	73,473	75,147
Materials Handling Systems Operations*1	27,977	30,246	39,565	45,169	44,354	41,043
Others*1	2,911	2,846	2,719	2,968	3,186	3,001
Operating income	12,081	12,579	17,354	21,427	21,570	21,647
Chain Operations	3,462	3,586	3,763	5,002	6,172	7,102
Power Transmission Units and Components Operations	2,512	1,955	2,273	2,400	2,428	2,218
Automotive Parts Operations	4,846	6,494	10,119	11,916	12,258	12,385
Materials Handling Systems Operations	878	531	1,192	1,940	659	706
Others	170	143	63	123	84	(1)
Ordinary income	12,140	12,813	17,993	22,263	22,109	22,004
Profit attributable to owners of parent	6,814	7,428	10,213	14,153	12,766	14,596
Net cash provided by operating activities	11,626	15,350	19,761	22,189	19,090	25,434
Net cash used in investing activities	(10,487)	(18,401)	(17,166)	(14,306)	(13,593)	(13,420)
Free cash flow	1,138	(3,050)	2,594	7,882	5,496	12,013
Capital expenditures	9,518	11,833	11,372	10,466	15,677	13,995
Depreciation and amortization	7,403	7,360	8,745	9,476	10,402	10,342
R&D costs	4,231	4,319	4,061	4,048	4,300	4,341
At year-end (Millions of yen)						
Total assets	191,766	215,837	228,840	258,742	254,106	267,215
Shareholders' equity	89,923	102,019	118,433	140,439	142,041	152,473
Interest-bearing debt	27,405	36,507	36,538	36,907	34,817	34,634
Net interest-bearing debt	13,488	16,312	15,246	9,547	8,394	492
Indexes						
Operating income margin (%)	8.3	8.4	9.7	10.9	10.6	10.9
ROE*2 (%)	7.9	7.7	9.3	10.9	9.0	9.9
Equity ratio*3 (%)	46.9	47.3	51.8	54.3	55.9	57.1
D/E ratio (net)*4 (Times)	0.15	0.16	0.13	0.07	0.06	0.00
Profit attributable to owners of parent per share (Yen)	36.60	39.69	54.58	75.65	68.24	78.03
Net assets per share (Yen)	480.46	545.14	632.94	750.63	759.27	815.10
Dividends per share (Yen)	7.0	7.0	10.0	16.0	20.0	24.0
Payout ratio (%)	19.1	17.6	18.3	21.2	29.3	30.8
CO2 emissions (t-CO2) (Per million yen of output)*5	0.670	0.665	0.670	0.642	0.629	0.643
		6 700	7.000	7 000	7 570	7 000
Employees*6	6,160	6,792	7,068	7,398	7,579	7,886

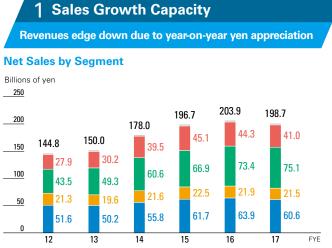
Amounts less than one million yen have been truncated.

\*1 Net sales includes intersegment sales and transfers. \*2 ROE = Profit attributable to owners of parent + Average shareholders' equity

\*3 Equity ratio = Shareholders' equity ÷ Total assets \*4 D/E ratio (net) = Net interest-bearing debt ÷ Shareholders' equity

\*5 The scope of the calculation is the Group's nine manufacturing bases in Japan. \*6 Including contracted staff and temporary staff, etc.

## Trends as Seen by Graphs

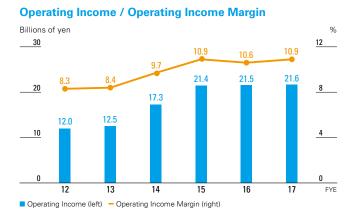


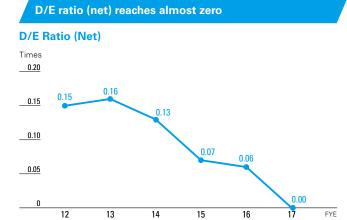
Chain Operations Power Transmission Units and Components Operations

Automotive Parts Operations Materials Handling Systems Operations Others

## **2** Profitability and Capital Efficiency

New record for operating income



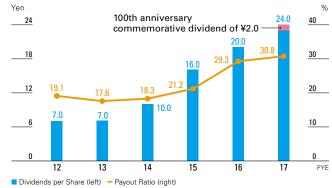


## **5** Shareholder Returns

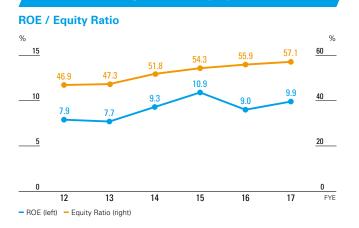
**4** Financial Soundness

Commemorative dividend marks centennial and dividends rise

#### **Dividends per Share / Payout Ratio**



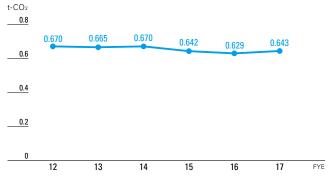
3 Capital Efficiency Maintenance of high ROE and equity ratio



## 6 Environmental Footprint

Level rises slightly year on year but remains steady

**CO2 Emissions per Million Yen of Output** 



TSUBAKI CORPORATE REPORT 2017 21

# The Tsubaki Group's Growth Mechanism

The Tsubaki Group heightens corporate value by strengthening its management foundations to sustain growth while reinvesting earnings and returning them to stakeholders.

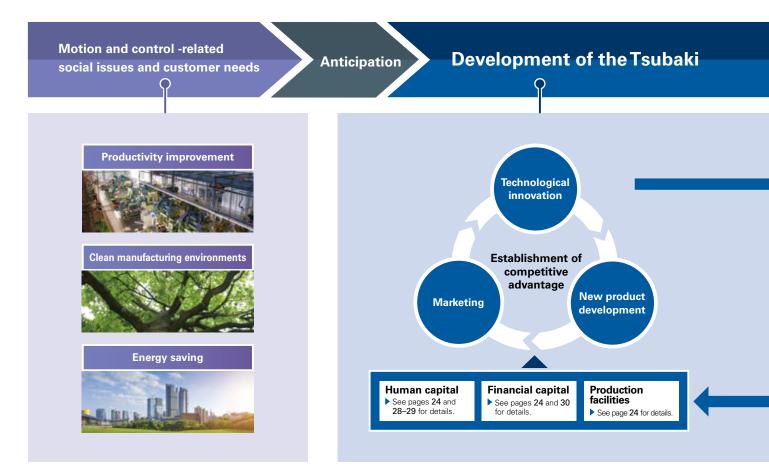
## **Basic Policies for Sustainable Growth**

The "Tsubaki Spirit" corporate philosophy sets out advancing the "art of moving" beyond expectations as Tsubaki's Mission. To realize this mission, we invest continuously to reinforce our three management foundations as a manufacturer: technologies, or technology capital; human resources, or human capital; and production facilities, or production capital. At the same time, we actively return earnings to such stakeholders as local communities, shareholders, and investors.

Thanks to these efforts, since the turn of the millennium we have increased our growth potential and reduced the volatility of business results.

The Tsubaki Group has established a virtuous cycle. We reinvest capital in a modulated manner and allocate it to stakeholders, thereby increasing our ability to sustain growth. This growth produces further benefits, which we reinvest and allocate to stakeholders.

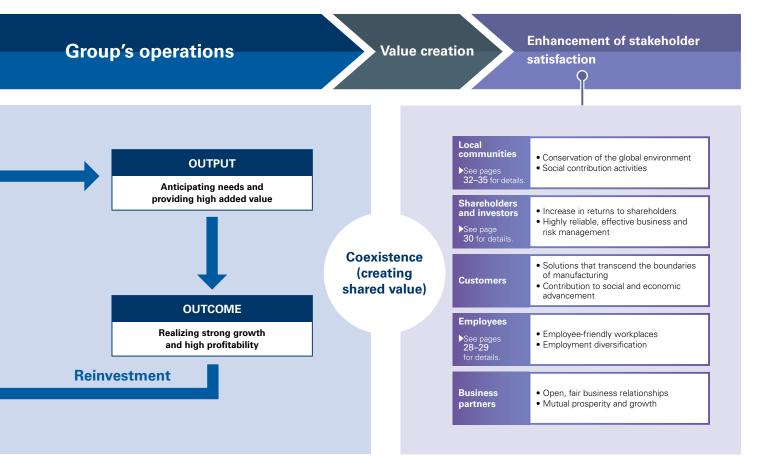
## **Value Creation Process**



Net Sales (left) - Operating Income Margin (right)



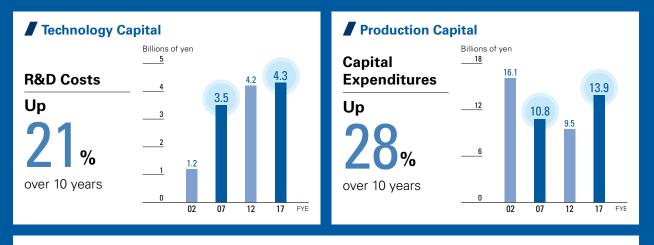
## Operating Results of the Group with Increased Growth Potential from the 2000s and on -

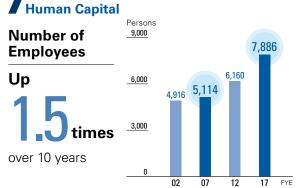


# Usage of Capital for Growth

2

## Strengthening of Technologies, Human Resources, and Production Facilities



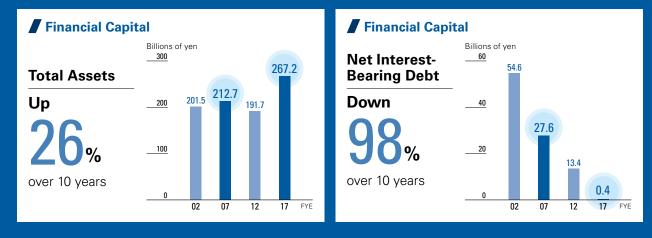


South Korea and Taiwan 3% China 11% Indian Ocean Rim 7% Europe 13% 7,886 Japan 48%

The Americas 18%

Distribution of Employees by Region (As of March 31, 2017)

## Limiting Increases in Total Assets and Reducing Interest-Bearing Debt



The Tsubaki Group has concentrated financial capital allocation on the strengthening of technologies, human resources, and production facilities, and has thereby been successful in improving growth potential, profitability, and capital efficiency while simultaneously reinforcing its financial base.

## OUTPUT

**Resulting Growth** 

## **Rate of Performance Growth that Exceeds Rate of Increase in Total Assets**



Improved Profitability and Energy Efficiency and More Robust Financial Capital -ROE Edges Down But Remains High-



\*1 D/E ratio (net) = Net interest-bearing debt ÷ Shareholders' equity \*2 The scope of the calculation is the Group's nine manufacturing bases in Japan.

\*3 Omitted from graph because prior to beginning of aggregation

## Tsubaki's Technologies (Technology Capital) and Measures for Bolstering this Capital

By continually enhancing its technologies (technology capital), the Tsubaki Group has maintained a strong product lineup capable of winning out against fierce global competition.

## Ongoing Strengthening of Technological Foundations from a Medium- to Long-Term Perspective

Technologies (technology capital) are one of the most important management foundations for manufacturers and a major factor underpinning competitiveness. To further enhance competitiveness and sustain growth, the Tsubaki Group has continued to strengthen its technologies without being influenced by short-term economic fluctuations.

Amid the dizzying changes in external conditions and in technological evolution, the Tsubaki Group will continue proactively investing in research and development with the aim of realizing product development and manufacturing that anticipates demand in the markets (regions and industries) of countries worldwide. Proactive and Ongoing Investment in R&D Uninfluenced by Operating Environment Changes



## Accelerated Product Development and Manufacturing Reforms

The Development & Technology Center leads efforts to strengthen Groupwide technological capabilities. The center enhances foundation technologies, which comprise surface treatment, processing, lubricant, evaluation, electrical, and control technologies. In addition, the center coordinates with the technology departments of business divisions to develop new products matching market needs and to reinforce production technologies with a view to improving productivity.

Further, we are accelerating the introduction of new 100th anniversary models that offer even higher added value than existing products. For example, we have launched renewed drive chains in Chain Operations; the Axia Motor geared motor for lightweight conveyors in Power Transmission Units and Components Operations; and the automatic multi-stage sorter LINISORT<sup>™</sup> S-C, which is installable in small spaces, in Materials Handling Systems Operations.

In the field of manufacturing reform, in recent years the Development & Technology Center has made several major

contributions. For example, it has helped such achievements as a substantial improvement in productivity in Automotive Parts Operations as well as a large reduction in product defect reoccurrences and complaints from outside the Group in Power Transmission Units and Components Operations.



## **Global Advancement of Aggressive Intellectual Property Strategies**

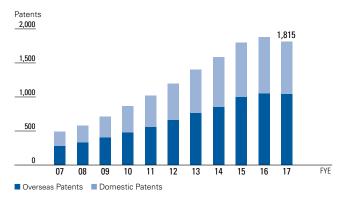
The Tsubaki Group is globally advancing aggressive intellectual property strategies by accelerating patent application and acquisition of industrial property rights in Japan and overseas through an approach aimed at strengthening product competitiveness. As a result of this strategy, the number of patents held by the Group overseas was increasing rapidly until recently. As of March 31, 2017, patents held overseas decreased from 1,050 at end of the previous fiscal year to 777 as a result of selection based on reassessment of effectiveness. In Japan, as of March 31, 2017, we held a total of 1,038 patents. As the Group has been promoting the swift expansion of its business in emerging countries, there remains an urgent need to step up patent



application efforts and implement measures to prevent violation of intellectual property rights in these countries. For this reason, we applied for 33 patents in emerging countries during the fiscal year ended March 31, 2017, and increased our coordination with overseas patent offices.

Meanwhile, acting in accordance with internal regulations on managing confidential business information, Tsubakimoto Chain's legal affairs divisions spearhead Groupwide management of information on technologies and confidential business information.

#### Upward Trend in Number of Patents Held by the Group



## VOICE

The Quality Implementation Committee, responsible for advancing the Group's quality improvement initiatives

## From Reoccurrence Prevention to Predictive Prevention—Fostering a Quality-Focused Mind-Set and Culture through the Participation of All Personnel

The Tsubaki Group aims to eliminate defective products. Accordingly, we not only improve operations on an business division basis but also actively implement Groupwide activities, which entail sharing and arriving at solutions to quality issues.

In recent years, we have improved productivity dramatically through *dantotsu* activities tasked with eliminating all types of defects. In addition to eliminating defective products, these activities eliminate such issues as temporary problems with equipment. Our reoccurrence prevention activities have reduced defective products greatly. These activities focus on eliminating the reoccurrence of defects by rigorously unearthing their causes, taking comprehensive countermeasures, and embedding day-to-day management measures in maintenance activities.

Recently, however, our rates of improvement in relation to productivity and product defects have plateaued. In fact, we are wrestling with defects associated with changes. These changes result from the advancement of things, personnel, systems, and methods as well as the use of different manufacturing sites.

To overcome this situation, we aim to reform and strengthen the core of our manufacturing. With a view to developing vigilant, adaptable personnel and flexible systems, we will implement predictive prevention activities focused on anticipating issues and foster a quality-focused mind-set and culture through the participation of all personnel.

Leveraging its collective strength, the Group will continue improvements so that it not only manufactures safe, reliable products that satisfy clients but also delivers products that surpass expectations of the Tsubaki brand.

# 4

## Cultivation and Strengthening of Tsubaki's Human Resources

The Tsubaki Group recognizes that the cultivation and strengthening of human resources is paramount to the enhancement of sustainable growth capacity as is the invigoration of the organization. For this reason, we remain earnestly committed to developing a comfortable workplace environment and improving employee motivation.



## Safety Measures and Health Management at Manufacturing Sites

As a manufacturer, we view safety as our highest priority and take measures to prevent work-related accidents. In February 2009, the Group established the Tsubaki Group Safety Committee, which focuses on risk assessment and occupational health and safety education and advances activities aimed at enhancing occupational health and safety throughout the Group.

Also, in August 2012 the president began visiting the sites of previous accidents in Japan to confirm safety measures.

In the fiscal year ended March 31, 2017, the Group established a flow chart for Groupwide responses in the event of accidents and strengthened preventive measures for various types of contingencies. Thanks to these efforts, for the first time the Group reduced accidents requiring time off work to zero. Moreover, we are continuing to strengthen efforts aimed at eliminating industrial accidents. The most effective way of increasing employees' safety awareness is to heighten sensitivity to danger by having employees experience danger with all five senses. Therefore, we are using simulation equipment to conduct training that gives employees a tangible sense of the risks hidden in various types of work. As for health management, we are expanding and improving stress checks and mental health care activities to ensure that employees remain in good physical and mental health. Also, our initiatives to promote good physical health through walking events and other activities are producing results. Going forward, we will advance initiatives to conduct health management in a strategic manner that reflects business management perspectives.



Tsubaki Group Safety Committee meeting



Enforcing the use of a defined set of hand gestures and calls

## **Advancement of Employee Diversity and Fulfillment**

The Group's operations are expanding due to globalization, and labor laws are becoming stricter. Mindful of these changes, in the fiscal year ended March 31, 2016, we began reforming our personnel system with our sights set on securing our work force through diversified employment formats as well as improving job satisfaction. Moreover, these reforms will incorporate our traditional emphasis on capabilities and results.

We are proceeding with reforms focused on four aims: diversifying employment formats, enhancing the understandability of employee evaluations and compensation, developing personnel in a planned manner, and empowering female employees.

Our main initiatives are the introduction of a direct employment system for those aged 65 and above; the reform of the qualification, wage, and evaluation systems for regular service employees; and efforts to increase the percentage of female employees in management positions. Specifically, using the fiscal year ended March 31, 2017, as a base year, we aim to raise the percentage of female employees from 7.7% to 10% and the percentage of female employees in management positions from 2.4% to 5%. Increasing employees' fulfillment and motivation with respect to their jobs will strengthen the capabilities of each employee, boost the capabilities of the Group as an organization, and contribute to its expansion. Further, as part of efforts to foster personnel in a planned manner, we will acceler-

ate development through the establishment of career paths and development plans while continuing to strengthen education for general managers and managers.



## Ongoing Strengthening of Manufacturing Capabilities and Passing On Technical Skills and Expertise to Young Engineers

Tsubaki's manufacturing capabilities are exemplified by its proficiency at developing and customizing products as well as its production and foundation technologies. We aim to strengthen these capabilities while also steadily passing on Tsubaki's superb technical skills and expertise to the next generation of young engineers. Initiatives to this end will be explained in the sections that follow.

### 1. Tsubaki Techno School

The Tsubaki Techno School is an education program launched in 1998 to cultivate young engineers and bestow upon them Tsubaki's superb technical skills and expertise. This program has a robust curriculum that includes courses for specific job types and ranks. Courses range from those for beginners, which teach foundation and processing technologies, to intermediate courses, where engineers learn material, control, and information engineering. The school emphasizes linkage between training and on-site operations. Employees apply what they have learned to their respective duties, thereby creating a virtuous cycle that enhances on-site operations as well as employees' awareness and skills.

Further, the Tsubaki Techno School helps the Group secure the next generation of personnel. When we hire new gradu-



Tsubaki Techno School

ates, students increasingly value well-developed education and training programs and cite the school as a reason for wanting to work with us.

#### 2. Tsubaki Technical Skills Olympics

The Tsubaki Technical Skills Olympics is a unique technical competition consisting of a total of eight events that test employees' technical skills in areas that underpin the Group's manufacturing operations. Events include engine lathe operation, welding, and measuring. Elite employees from domestic Group companies are selected to compete in this event, with awards presented to those with the best performance. The Tsubaki Technical Skills Olympics are designed to facilitate the improvement of employees' technical skills and to help these skills be passed on, as well as encourage techniques to be shared between different business divisions. In this manner, the event is helping to invigorate the organization.

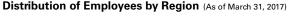


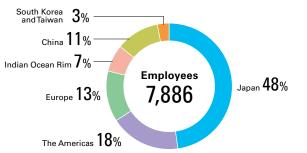
Engine lathe operation competition at the Tsubaki Technical Skills Olympics

## Strengthening and Cultivation of Human Resources Compatible with Globalization

In the fiscal year ended March 31, 2017, 54.9% of the Group's total net sales came from overseas, a substantial increase from 37.4% in the fiscal year ended March 31, 2007, demonstrating the rapid globalization of our operations. In addition, the number of Group employees positioned overseas has increased greatly; on March 31, 2017, 52% of the Group's 7,886 employees (consolidated basis) were at overseas subsidiaries.

This situation has made the cultivation and strengthening of human resources compatible with globalization a task of extreme





importance for the Group. For this reason, we introduced the global trainee system in the fiscal year ended March 31, 2011.

This system allows young employees to be dispatched to overseas subsidiaries for training, and is designed to teach them foreign languages and international business manners as well as help them to better understand other cultures.

In addition to dispatching domestic employees overseas, we have also begun inviting employees from overseas subsidiaries to undergo training in Japan.



Tsubaki Group Global IT Summit

## Tsubaki's Financial Capital and Measures for Bolstering It

To become a truly global corporate group, the Tsubaki Group will enhance returns to shareholders and strengthen its financial base while continuing to expand operations.

The Tsubaki Group's cash generation capabilities have been strengthening steadily. This strengthening is clear from the continuous increase in net cash provided by operating activities over the past seven fiscal years, which reflects favorable business results. Specifically, net cash provided by operating activities averaged ¥14.4 billion during Medium-Term Management Plan 2012 (between the fiscal year ended March 31, 2011, and the fiscal year ended March 31, 2013); ¥19.7 billion in the fiscal year ended March 31, 2014; and ¥22.2 billion during Mid-Term Management Plan 2016 (between the fiscal year ended March 31, 2015, and the fiscal year ended March 31, 2017).

Meanwhile, due to stepped-up investment, net cash used in investing activities has been trending upward. Nonetheless, because we have followed a selection and concentration strategy and invested in fields that contribute directly to growth in revenues and earnings, we generated a cumulative cash surplus, or free cash flow, of ¥25.3 billion during the three fiscal years of Mid-Term Management Plan 2016.

The Tsubaki Group is using this cash surplus to increase returns to shareholders and strengthen its financial base even further.

## **Proactive Shareholder Returns**

We have increased dividends for four consecutive fiscal years, paying dividends per share of ¥70 in the fiscal year ended March 31, 2013, and ¥24.0 in the fiscal year ended March 31, 2017, which included a 100th anniversary commemorative dividend of ¥2.0 per share.

As a result, the Group recorded a consolidated dividend payout ratio of 30.8%, thereby meeting the target of Mid-Term Management Plan 2016.

The Group's basic policy is to maintain the consolidated dividend payout ratio at 30% or higher. At the same time, in light of a comprehensive consideration of cash flow trends and progress in the implementation of mergers and acquisitions (M&As) and capital investments, we would like to consider the realization of shareholder returns that are even more positive.

Simultaneously, the Group will implement steady capital

investment aimed at reaching Mid-Term Management Plan

2020's numerical targets-net sales of ¥300.0 billion and oper-

ating income of ¥30.0 billion-while strengthening its financial

## 2 Strengthening Financial Base Further

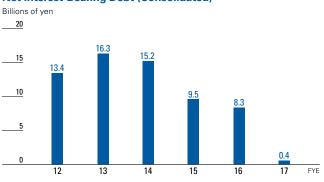
After peaking at ¥59.0 billion on March 31, 2002, the Group's interest-bearing debt decreased and was ¥0.4 billion on March 31, 2017. As a result, the D/E ratio (net) was 0.003 times on March 31, 2017, and the Group's financial base became even stronger.



■ Net Cash Provided by Operating Activities ■ Net Cash Used in Investing Activities - Free Cash Flow

**Net Interest-Bearing Debt (Consolidated)** 

base and continuing to enhance shareholder returns.



1

## **Acceleration of CSR Activities**

To help develop a sustainable society, we will step up environment-focused business management.

## Contributions to Society through Manufacturing Operations

## The Tsubaki Group's Basic Stance toward CSR Activities

The Tsubaki Group defines CSR activities as initiatives that simultaneously realize social contributions and corporate profits. Moreover, we believe that corporate profits can be generated by faithfully advancing CSR activities related to the promotion of good corporate ethics and strict legal compliance, contributions to society through manufacturing operations, risk management, and social contribution and environmental activities.

## From Environmental Preservation to Environment-Focused Business Management

The Tsubaki Group complies with environmental laws and regulations while preserving the environment through manufacturing activities. For example, we have been developing and marketing eco-products for many years. Going forward, however, to intensify our efforts as a manufacturer that are aimed at addressing environmental and social issues, we intend to strengthen the environmental focus of business management so that we preserve the environment while generating profits.

With this in mind, we adjusted our environmental stance in April 2017. Our main steps were to update the Tsubaki Group's Fundamental Environmental Policy, identify the reduction of CO<sub>2</sub> emissions as our highest priority environmental task, and then set long-term targets accordingly. We will encourage Group companies in Japan to develop new eco-products and increase sales of eco-products. Meanwhile, we plan to switch over to production equipment that uses energy and resources efficiently and increases productivity. Further, we will reduce costs and environmental burden by eliminating production equipment idling through changes in employee mind-sets.

Through the above initiatives, in Japan we will entrench a model for environmental activities. Then, we will build an integrated environmental management system (EMS) globally and rigorously execute environment-focused business management.

## The Tsubaki Group's CSR Promotion System and Examples of Activities

Masahiko Yamamoto Senior Executive Officer

Manager, Social Responsibility Development Office

As businesses globalize rapidly, developing CSR globally has become a pressing task throughout the Group.

The department leading the Group's CSR activities is the Social Responsibility Development Office, which comprises the Legal Affairs, Administrative Affairs Department, and Occupational Health and Safety departments as well as Group environmental activity and eco-product promotion representatives. With overall responsibility for Groupwide risk, the office integrates and optimizes the management of governance, risk, and compliance across the Group's organizations. In addition, the office establishes management capabilities for risks that are difficult to assess, such as M&As and the development of new businesses.

One of the Social Responsibility Development Office's main activities entails requiring subsidiaries to develop internal control systems pursuant to amendments to the Companies Act of Japan. Another of the office's important roles is strengthening the internal control of overseas Group companies in step with changes in the Group's social or business conditions arising from such factors as the addition of Group companies. Given the different legal systems and business conditions in each country, we plan to conduct a survey about risk management and, in light of the results, establish policies that reflect the situations in respective countries and regions.

Also, we will give priority to tackling the management of health and safety, which are essential for generating corporate profits. With respect to safety, we are strengthening efforts to eliminate industrial accidents. By spreading industrial accident countermeasures throughout the Group and strengthening followup activities, we were able to reduce accidents requiring time off work to zero in the fiscal year ended March 31, 2017. As for health, to ensure that employees stay physically and mentally healthy, we support the management of their physical and mental health by conducting stress checks.

Each division and the Social Responsibility Development Office promote the abovementioned initiatives in unison. This cross-divisional advancement ensures reliable implementation of CSR activities.

## Environmental Preservation

Preservation of the environment is recognized as one of the most important issues shared by humanity, and the Tsubaki Group is well aware of the impact that its operations, products, and services have on the environment. With this in mind, the Group is actively reducing its environmental impact from a medium- to long-term perspective while proactively developing eco-products with less environmental burden.

#### **Environmental Philosophy**

The Tsubaki Group believes that environmental conservation is a critical challenge facing humanity. We will remain mindful of the environment in our global operations and pursue manufacturing that creates environmental and economic value, thereby contributing to the development of a sustainable society.

Long-Term Objectives: Reduce CO<sub>2</sub> emissions in Japan by 30% by FYE 2031 (Benchmark year: FYE 2014)

#### **Environmental Preservation Activities**

## Renewal of Our Environmental Philosophy and Fundamental Environmental Policy

As the paradigms of environmental measures change significantly worldwide, we took our centennial as an opportunity to renew the Tsubaki Group's Environmental Philosophy and Fundamental Environmental Policy. The renewed philosophy and policy are befitting for a group that aspires to become one of the world's corporate leaders.

Aiming to steadily reach targets based on our long-term vision for environment-focused business management, we will continuously improve our EMS and preserve the Earth's environment as a responsible corporate citizen.

#### The Tsubaki Group's Fundamental Environmental Policy

#### 1. Reduce environmental impact

We will utilize energy and resources efficiently, reduce CO<sub>2</sub> emissions, and manage or recycle waste materials and hazardous chemicals appropriately and reduce the environmental impact of our products and services throughout their lifecycles.

#### 2. Develop and spread eco-products

We will achieve both environmental conservation and economic benefits by actively developing and spreading eco-products that realize outstanding ecological and economic performance.

#### 3. Observe laws and other requirements

We will observe applicable laws, agreements, and other requirements to which we have agreed.

#### 4. Improve environmental awareness

We will improve environmental awareness through environmental education, internal communications, and other measures and promote environment-friendly activities in our workplaces and homes.

#### 5. Promote environmental communication

We will disclose environmental information appropriately to our stakeholders to earn further social trust.

## Actively Changing Over to LED Lighting

In accordance with the Kyoto Protocol on greenhouse gas emission prevention measures and Japan's Act on the Rational Use of Energy, the Kyotanabe Plant is curbing CO<sub>2</sub> emissions and lowering its power use during peak demand periods by reducing the power that the plant uses for lighting, air-conditioning, and manufacturing.

We are introducing light-emitting diode (LED) ceiling lighting, which is steadily reducing the power needed for lighting. In the main factory, replacing 500 metal halide lamps with 200 LED lights has reduced  $CO_2$  emissions by approximately 180 tons per year. Moreover, the new lights are brighter, which contributes to safety.

The Kyotanabe Plant will replace the lighting in all factory buildings with LED lights by the fiscal year ending March 31, 2018. Also, the plant is steadily replacing office buildings' fluorescent lights with LED lights.



The main factory building after changing over to 200 LED lights

#### **Environmental Data**

#### Flow of Energy and Materials

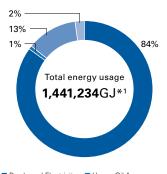
IN	PU	IT
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Raw	materials	68,097t
Energy	Electricity	121,172,000/kWh
	Heavy oil	383 kL
	Gasoline	78kL
	Kerosene	21 kL
	Diesel oil	4kL
	City gas (excluding cogeneration)	3,502,000 m <sup>3</sup>
	City gas (for cogeneration)	663,000 m <sup>3</sup>
	Butane gas	548t
	Propane gas	68,000 m <sup>3</sup>
Water		449,000 m <sup>3</sup>

OUTPUT	
Total product manufacturing	¥90,220 million
Valuables	23,228t
Industrial waste 6,084t Recycle	6,530t
Non-industrial waste 533t _ Other	87t
Hazardous chemical substances under the PRTR Law	/
Release/transfer	132t
Release into the atmosphere	
CO <sub>2</sub>	58,040t-CO2
Release into the water	449,000 m <sup>3</sup>

## INPUT

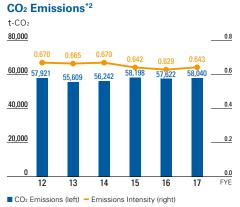
## Breakdown of Energy Usage



Purchased Electricity
 Heavy Oil A
 City Gas (Including Electricity from Cogeneration)

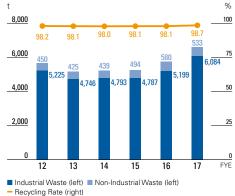
\*1 Gigajoule (GJ): Unit of energy equivalent to one billion (10<sup>9</sup>) joules





\*2 CO<sub>2</sub> emissions from electricity usage calculated using fixed conversion coefficient of 0.378

Waste Emissions / Recycling Rate (Fiscal year average)



## **Environmental Preservation Costs (Business Activity Classification)**

			The	ousands of yen
Classification			FYE 2017	
		Details of major initiatives	Amount invested	Costs
(1) Bus	siness area costs		358,196	440,794
	(1) - 1 Pollution prevention costs	Introduction, operation, and management of air pollution prevention facilities and wastewater treatment facilities	37,838	133,737
Break- down	- (1) - 2 Global environmental preservation costs	Introduction, operation, and management of electricity control systems	320,358	158,996
	(1) - 3 Resource recycling costs	Waste processing/recycling expenses, improvement of industrial waste storage facilities	0	148,062
(2) Ups	stream/downstream costs	Outsourcing analysis costs, such as for substances with environmental impact	598	181
(3) Adr	ninistration costs	Establishment and operation of environmental management systems (EMSs), worksite greening and maintenance, installation of air and water measurement equipment	113	244,670
(4) R&L) costs		R&D of environment-friendly products (reduction of environmental burden during product use)	2,128	126,591
(5) Soc	cial activity costs	Regional environmental preservation initiatives	0	1,277
(6) Env	vironmental remediation costs	Groundwater purification measures, etc.	0	0
Total			361,035	813,513

For environmental data from the fiscal year ended March 31, 2017, such as information on energy expenditures and the benefits of environmental preservation activities, please refer to the Company's website. http://tsubakimoto.com/csr/

Butane Gas

## Coexistence with Local Communities and Pursuit of Mutual Growth

Acting as a member of local communities, the Tsubaki Group is working to build trusting relationships with the communities in which it operates by conducting social contribution and environmental preservation activities, tailoring these activities to meet the needs of each individual community.

## Basic Policy

The Tsubaki Group's Mission Statement inspires us to act as a good corporate citizen based on an accurate understanding of the customs in the regions and countries in which we operate. In accordance with this mission, we are working to build trusting relationships with the communities through social contribution activities matched to their needs. In the future, we will incorporate creating shared value concepts into our CSR initiatives as we conduct ongoing social contribution activities.

## Initiatives in Japan

The Tsubaki Group does not limit itself simply to complying with laws and social rules. Rather, we go a step further, working to build strong partnerships with local communities. Tertiary industries account for nearly 70% of Japan's working population. In recognition of this fact, we are encouraging people to find out more about and feel more familiar with the manufacturing industry by providing factory tours as well as work experience programs for elementary and junior high school students. In addition, we are forging bonds by acting as a member of local communities, opening factory grounds for local residents during seasonal events and otherwise reaching out to the community.

## Opening a Famous Cherry Blossom Viewing Site to the Public the Kyotanabe Plant's One Thousand Cherry Blossom Trees

In early April, we open the grounds of the Kyotanabe Plant to the public so that the local community can enjoy viewing our cherry blossoms. At the fifth such event in 2017, we held an exhibition and displayed demo equipment related to our four business segments at the plant's entrance, which we have renewed to commemorate our 100th anniversary. All visitors were able to view the exhibition and equipment, both of which proved popular.

Thanks to good weather and the cooperation of the city of Kyotanabe, roughly 600 visitors came to the plant and had a relaxing time in the main viewing area, a small soccer field. The Tsubaki Group will continue opening its famous cherry blossom viewing site to the public.



The renewed plant entrance

## Opening of the Saitama Plant's Tsubaki Chain Entertainment Facility for a Walking Event

Centered on the city of Hanno, the Hanno Shinryoku Two-Day March walking event is held every May. In 2017, the route passed by the Group's Saitama Plant. In response, we made available our entertainment facilities, which include benches for resting and other amenities. At the entertainment facilities, the plant's personnel and volunteers from a junior high school provided hospitality with a smile as they offered participants beverages and original candy. Many of the participants expressed their gratitude.

We are considering helping with the above event next year, and we intend to continue working in partnership with and making further contributions to the local community.



The "rest stop" at our entertainment facilities

**Conducting Summer Vacation Child and Parent Factory Tours** 

As a plant that is open to the local community, the Kyotanabe Plant conducts many different activities aimed at heightening local residents' interest in the Tsubaki Group. These activities include our annual summer vacation factory tours for local elementary school students and their parents. The plant held factory tours for the ninth time in the fiscal year ended March 31, 2017. During two days, 100 elementary school students and their parents took part in the factory tours.

Experienced with all five senses, the factory tour includes chain assembly competitions, and participants have lunch at the factory canteen.



A summer vacation child and parent factory tour

#### Overseas Initiatives

Viewing contributions to the development of local communities as a social responsibility, the Group conducts various charity activities through overseas Group companies in addition to initiatives in Japan.

#### Taking Part in Disaster Relief and Charity Activities in the United States

In December 2016, forest fires in Gatlinburg, Tennessee, significantly damaged the surrounding area, forcing local residents to live in shelters. Our locally based subsidiary, USTA, collected from its personnel funds and goods that the disaster victims needed and delivered the goods and funds to the disaster area.

Also, continuing from last year, the subsidiary's employees donated to organizations that support patients with cancer or heart disease. In addition, USTA donates school supplies to local children as well as clothing to people who need support. Through such efforts we intend to continue contributing proactively to the development of the local community.



Netherlands Tsubakimoto Europe B.V. (TEU)

Thailand Tsubakimoto Automotive (Thailand) Co., Ltd. (TAT)

## Contributing to Society in the Netherlands through a Marathon

Fifteen employees of TEU ran for charity in the 37th NN Marathon Rotterdam, the largest sports event in the Netherlands, and gave the donations they received to a local hospice. Further, other employees supported the event's organizers by volunteering to help supply runners with food and drink.



#### Supporting a Royal Project in Thailand

United States U.S.Tsubaki Automotive,

LLC (USTA)

In Thailand, the royal family propose and advance a variety of development projects aimed at enriching the lives of the nation's people. TAT participates in one such project, which is tasked with preserving ecosystems. The subsidiary's employees participate in a range of activities, including advancing efforts to use water resources effectively, creating bio-fertilizer to improve soil, and planting trees to prevent soil erosion. Further, we contribute to Thailand's sustainable development by providing donations to support ecosystem preservation efforts.



Web For more information on CSR activities, please refer to the Company's website. http://tsubakimoto.com/csr/

#### **Strengthening of Investor Relations Activities**

By pursuing steady earnings growth, the Tsubaki Group aims to maximize shareholder value and realize enhanced dividend payments. At the same time, we place great value on reciprocal communication with shareholders and investors and therefore strive to disclose information proactively.

#### **Basic Policy**

6

The Tsubaki Group aims to fulfill its mission of creating value for customers and contributing to society. To accomplish this aim and achieve sustained growth, it is essential that we deepen mutual understanding between members of the Company, such as our senior management team and employees, and stakeholders, such as shareholders and investors, in order to create strong bonds of trust. From this perspective, we work to practice sincere and transparent management that is flexible enough to incorporate outside opinions. In addition, we endeavor to improve the quality and frequency of information disclosures and other communications.

#### Disclosure Policy

Our basic disclosure policy is to repay society's trust by adhering to laws and sound corporate ethics and disclosing impartial, appropriate information continuously to our shareholders, investors, and other stakeholders. This policy can be viewed on the Company's website.

#### Investor Relations Activities

Presentations for institutional investors and securities analysts are held twice a year following interim and full-year earnings announcements, and the materials used in these presentations are posted to the Company's website. In addition, financial statements, press releases, and other materials that contain information crucial to making investment decisions are disclosed on the Company's website in a timely and fair manner. Further, we actively disclose information in English and Chinese in addition to Japanese. In addition, the Company's website includes a "Tsubaki at a Glance" section for private investors. We are enhancing the content of this section, which provides easy-to-understand explanations of the Tsubaki Group's vision, business, and strengths.

#### General Meeting of Shareholders

At the General Meeting of Shareholders, information is not merely transmitted from the Company in a one-sided manner. Rather, we regard these meetings as an opportunity for reciprocal communication. Accordingly, we mail convocation notices for these meetings as early as possible to give attendees ample time to consider the matters to be discussed. We also choose the site for the meeting in consideration of attendee convenience. In addition, we hold shareholders' discussions after the conclusion of meetings so that opinions may be exchanged between Company officers and shareholders. Moreover, we set up a display that introduces the Group's products at the meeting site and take other steps to foster an enhanced understanding of the Company's manufacturing endeavors.



Shareholders' discussion

### **Corporate Governance System**

The Tsubaki Group recognizes that corporate governance must form the foundation based on which it strives to accomplish its mission. For this reason, we position strengthening corporate governance among our top management priorities.

#### Board of Directors, Audit & Supervisory Board Members, and Executive Officers (As of October 1, 2017)



#### 1 Isamu Osa

Chairman and CEO Representative Director

2 Yasushi Ohara President and COO Representative Director

#### 3 Tadasu Suzuki

Director & Senior Managing Executive Officer Global Automotive Parts Operations / Automotive Parts Division / Engineering Management

#### 4 Hideaki Haruna Director & Senior Managing Executive Officer Materials Handling Division Mayfran Business Management

#### 5 Tetsuya Yamamoto

Director & Managing Executive Officer Headquarters Operations / Motion Control Division / President, U.S. Tsubaki Holdings, Inc.

#### 6 Hiromasa Kawaguchi

Director & Senior Executive Officer East Asia Sales

#### 7 Kenji Kose

Director & Senior Executive Officer Chain Manufacturing Division

8 HidetoshiYajima Outside Director

9 Shuji Abe Outside Director

10 Keiichi Ando Outside Director



Audit & Supervisory Board Members (Standing) Kikuo Tomita Hitoshi Kobayashi

Audit & Supervisory Board Members (Outside) Shozo Seki Hidefumi Naito

Senior Executive Officers Masahiko Yamamoto Shigeru Ito

#### Executive Officers

Nobuaki Haga Atsushi Kumakura Takatoshi Kimura Kevin Richard Powers Masaki Miyaji Isao Sato Futoshi Tanyama

#### **Basic Approach to Corporate Governance**

The Tsubaki Group regards strengthening corporate governance to realize its mission of creating value for customers and contributing to society as one of the most important tasks of business management. The Group has formulated this basic approach into the basic policy stated below and is working to realize this policy and enhance corporate governance.

#### **Basic Policy**

#### **Ensuring the Rights and Equality of Shareholders**

We will respect the rights of shareholders, ensure the equality of shareholders, and establish conditions to facilitate the appropriate exercise of rights.

## Appropriate Cooperation with Stakeholders Other than Shareholders

We will maintain and enhance relationships of trust with all stakeholders based on the "Tsubaki Spirit" corporate philosophy.

#### **Ensuring Appropriate Disclosure and Transparency**

We have defined our basic disclosure policy as providing our shareholders, investors, and other stakeholders with timely, impartial, accurate, and continuous disclosure of information. This policy can be viewed on the Company's website.

Web http://www.tsubakimoto.jp/ (in Japanese only)

## Responsibilities of the Board of Directors and Other Matters

Aiming to heighten competitiveness amid volatile business conditions and to ensure the legal compliance, efficiency, and transparency of business management, we introduced an executive officer system. Under this system, we have been working to enhance and expedite the decision-making of the Board of Directors, strengthen the execution and oversight of operations, and increase the efficiency of business management.

Further, through the appointment of outside directors and outside Audit & Supervisory Board members, we are endeavoring to strengthen the oversight of business management, heighten the transparency of business management, and enhance corporate value.

#### **Dialogue with Shareholders**

Code

We work to practice sincere and transparent management that is flexible enough to incorporate outside opinions. In addition, we endeavor to improve the quality and frequency of information disclosures and other communications.

#### **Initiatives to Enhance Corporate Governance**

The number of outside directors rose from two to three on June 29, 2017.

Percentage of outside directors: 30%



Strengthening corporate governance even further and enhancing transparency of business management

#### Initiatives to Enhance Governance System

FYE 2010	FYE 2012	FYE 2014	FYE 2016	FYE 2018
Designated outside Audit & Supervisory Board members as independent	Introduced the Strategy Committee	Increased the number of outside directors from one to two	• Reformed management system to separate the roles of CEO and COO	Increased the number of outside directors from two to three
officers			<ul> <li>Responded to Japan's</li> </ul>	(June 29, 2017)
			Corporate Governance	

#### **Decision-Making and Strategy Advancement**

At the Tsubaki Group, managerial decisions are conducted by the Board of Directors. In addition, we employ an executive officer system to ensure that measures approved by the Board of Directors are quickly and effectively put into action. Further, in the fiscal year ended March 31, 2016, we undertook a management reform that separated the functions of the CEO and the COO.

While the number of members of the Board of Directors can be changed based on business conditions, the Company maintains the policy of operating with a small number of elite directors, and the Board of Directors had 10 members in the fiscal year ended March 31, 2017. The compactness of the Board of Directors is intended to enable rapid responses to dramatic changes in business conditions.

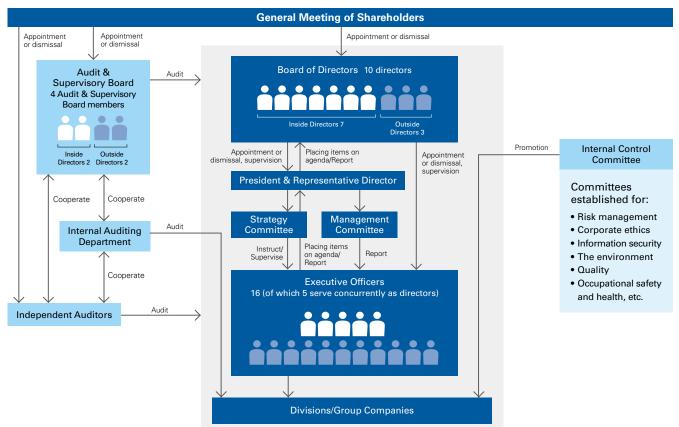
The Strategy Committee has been positioned as the second highest authority in the Company after the Board of Directors. This committee deliberates on and makes decisions regarding important Groupwide business strategies and management policies.

The Company has appointed 16 executive officers, five of which serve concurrently as directors and all of whom possess extensive insight into their respective business field. The extensiveness of the operational execution body compared with the decision-making body is intended to enable executive officers to utilize their expertise in respective fields to quickly and appropriately execute the strategies formulated by the Board of Directors.

#### **Overview of Corporate Governance System** (As of June 29, 2017)

Organization system	Company with Auditors
Chairman of the Board of Directors	President
Number of directors	10 (of which 3 are outside directors)
Number of Audit & Supervisory Board members	4 (of which 2 are outside Audit & Supervisory Board members)
Independent officers	3 outside directors and 2 outside Audit & Supervisory Board members
Meetings of the Board of Directors in the fiscal year ended March 31, 2017	16
Meetings of the Audit & Supervisory Board in the fiscal year ended March 31, 2017	16
Total compensation paid to directors in the fiscal year ended March 31, 2017 (excluding outside directors)	¥317 million paid to 10 directors*
Total compensation paid to Audit & Supervisory Board members in the fiscal year ended March 31, 2017 (excluding outside Audit & Supervisory Board members)	¥65 million paid to 5 Audit & Supervisory Board members* (decided by the Audit & Supervisory Board)
Total compensation paid to outside directors and outside Audit & Supervisory Board members in the fiscal year ended March 31, 2017	¥29 million paid to 5 individuals*

\* The abovementioned compensation includes compensation paid to a director and an Audit & Supervisory Board member, both of whom retired following completion of their terms of service at the conclusion of the 107th General Meeting of Shareholders held on June 29, 2016.



#### Corporate Governance System (As of October 1, 2017)

#### Systems to Ensure Management Transparency and Flexibility

Systems to ensure management transparency and flexibility include appointing three of 10 directors as outside directors. The Tsubaki Group added one of these outside directors in 2017. The Group's outside directors meet the requirements for outside directors pursuant to the Companies Act of Japan as well as the independence criteria for outside directors (independent officers) that a financial instruments exchange stipulates.

Further, two of the Group's four Audit & Supervisory Board members are outside Audit & Supervisory Board members (independent officers). The Group has appointed outside Audit & Supervisory Board members who have expertise and extensive experience as attorneys.

#### Reasons for Appointing Outside Directors (Independent Officers) and Their Attendance at Meetings of the Board of Directors

Name	Reason for appointment	Attendance at meetings of the Board of Directors in the fiscal year ended March 31, 2017
Hidetoshi Yajima	The Group appointed Mr. Yajima to receive objective advice concerning its focus on tech- nologies, development, and manufacturing as three core areas based on his wealth of in- sight and experience as the manager of a manufacturing company.	Attended 15 of 16 meetings
Shuji Abe	The Group appointed Mr. Abe to receive objective advice concerning its focus on technolo- gies, development, and manufacturing as three core areas based on his wealth of insight and experience as the manager of a manufacturing company.	Attended all 16 meetings
Keiichi Ando	The Group appointed Mr. Ando to receive objective advice concerning its overall business manage- ment based on his wealth of insight and experience as the manager of a financial institution.	Not applicable because assumed position on June 29, 2017

#### Reasons for Appointing Outside Audit & Supervisory Board Members (Independent Officers) and Their Attendance at Meetings of the Board of Directors and the Audit & Supervisory Board

Name	Reason for appointment	Attendance at meetings of the Board of Directors and the Audit & Supervisory Board in the fiscal year ended March 31, 2017		
Shozo Seki	The Group appointed Mr. Seki so that its audit system could benefit from his independent perspective as well as his expertise and knowledge as an attorney.	Board of Directors Attended all 13 meetings * Number of meetings held following his appointment on June 29, 2016	Audit & Supervisory Board Attended all 26 meetings	
Hidefumi Naito	The Group appointed Mr. Naito so that its audit system could benefit from his independent perspective as well as his expertise and knowledge as an attorney.	Not applicable because assumed position on June 29, 2017		

#### System for Heightening the Motivation of Directors

The Group has strengthened linkage between the compensation of directors and corporate performance to heighten directors' motivation to improve it. Under this system, we evaluate the contribution of each director to the improvement of consolidated management benchmarks, the level of market capitalization, and the achievement of priority goals. In addition, the Group abolished bonuses for directors on June 29, 2006, and abolished retirement benefits for directors on June 27, 2008.

#### **Effective Audits**

Directors and executive officers make reports to Audit & Supervisory Board members whenever deemed necessary. Reports are issued on matters that can seriously impact the Company or Group companies and the status of internal audits in addition to issues that are legally required to be reported. Further, employees are encouraged to quickly submit reports on the execution of their business duties to Audit & Supervisory Board members when requested. In addition to participating in meetings of the Board of Directors, Audit & Supervisory Board members attend meetings of the Strategy Committee and Management Committee and other important meetings to maintain an understanding of the status of operational execution and supervise proceedings in order to ensure sound and proper management.

#### Internal Control System

For the Company and Group companies, we have formulated internal control regulations and established the Internal Control Committee in accordance with basic policies on internal control. Under the guidance of the president and representative director, the Internal Control Committee is responsible for advancing ongoing initiatives in the following areas that are inclusive of the entire organization and participated in by all employees.

- (1) Internal control initiatives stipulated by the Companies Act
- (2) Internal control initiatives described in the Financial Instruments and Exchange Act
- (3) Internal control initiatives conducted by the Group on a voluntary basis

Through these initiatives, we promote legal compliance, corporate ethics, and risk management, while also working to ensure reliable disclosure in financial statements and other releases. In addition, such activities are used to improve operational efficiency.

#### **Tsubaki's Corporate Work Ethics**

We have formulated the Corporate Work Ethics, which are a clearly defined set of ethical guidelines and a code of conduct for all directors, executive officers, and employees. Based on these guidelines, we are working to raise the awareness of corporate ethics throughout the Group by means of training and other initiatives. The progress of these initiatives is periodically reported to the Board of Directors. The Ethics Committee has been established to develop and institute measures to prevent violations of the Corporate Work Ethics. This committee also administers penalties to violators as appropriate, and is thus helping strengthen compliance systems. Further, we have established the Corporate Work Ethics. This hotline can be used to receive consultation from or report issues to either an internal consultant or an outside lawyer.



Tsubaki Corporate Ethics Handbook translated into six languages

#### **Risk Management**

In accordance with the Risk Management Basic Strategy, the Tsubaki Group has established several committees in relation to such matters as risk management, corporate ethics, information security, the environment, quality, and occupational safety and health. These committees are managed by the Internal Control Committee. They coordinate among one another to advance various ongoing measures geared toward identifying and evaluating risks as well as preventing the actualization of these risks, and are thereby raising Groupwide risk management awareness. Should a risk materialize, we will respond by strengthening risk management through the development of systems for reducing the related losses and the conducting of initial response training for the relevant staff members.



A meeting on global quality (Chain Operations)



A meeting on global quality assurance (Automotive Parts Operations)

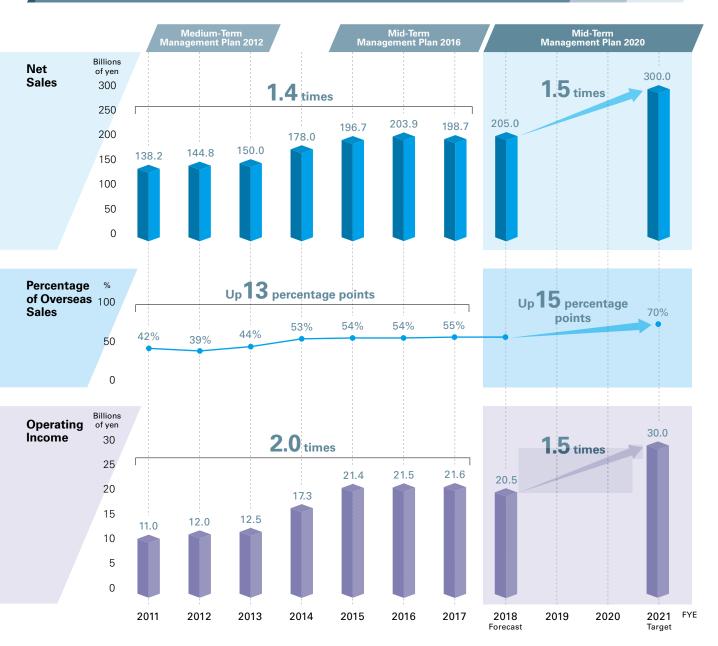
# The Tsubaki Group's Challenges and Strategies

This section explains how the Tsubaki Group will sustain growth by taking on challenges, implementing growth strategies, and advancing initiatives.

## Striving to Become a Global Leader

Taking another step toward realization of Long-Term Vision 2020, the Tsubaki Group established a four-year action plan, Mid-Term Management Plan 2020, in April 2017.

#### Numerical Targets and Performance



#### Becoming a Global Leader through Mid-Term Management Plans

#### Medium-Term Management Plan 2012 (FYE 2011 through FYE 2013)

External factors, such as the global recession following the collapse of Lehman Brothers, affected the Group. Therefore, the Group concentrated efforts on establishing stable business foundations by improving productivity and stepping up product development. In addition, the Group advanced globalization. Materials Handling Systems Operations implemented M&As overseas. Meanwhile, Chain Operations and Materials Handling Systems Operations established manufacturing bases in China and Indonesia, respectively.

#### Mid-Term Management Plan 2016 (FYE 2015 through FYE 2017) and Mid-Term Management Plan 2020 (FYE 2018 through FYE 2021)

Given that Medium-Term Management Plan 2012 had strengthened its foundations, the Group looked beyond its 2017 centennial year and set out a target corporate profile for the fiscal year ending March 31, 2021. This target corporate profile envisions the Group becoming a global leader by establishing an unshakable position (share) in target markets. Accordingly, Mid-Term Management Plan 2016 was an action plan aimed at making the Group a global leader by advancing globalization even further. Based on the plan, each business segment accelerated the development of new products that rigorously reflected market demand. At the same time, the Group increased and expanded overseas manufacturing bases. For example, Automotive Parts Operations built new plants in Tianjin, China; the Czech Republic; and South Korea. Similarly, Chain Operations laid the foundations for local production by concluding technical assistance agreements with Italian manufacturers.

As for performance, although net sales and operating income did not reach the final fiscal year targets of Mid-Term Management Plan 2016 due to yen appreciation, the Group made steady progress in the implementation of measures aimed at becoming a global leader.

In April 2017, the Group launched Mid-Term Management Plan 2020. The Group will achieve its numerical targets and become a global leader through accelerated, all-out efforts to transition to a market-oriented corporate culture and utilize the collective strengths of the Group.



## An Interview with the COO



Q1 You became president two years ago. How do you feel the Group has progressed?

#### Achieved Record Operating Income for the Third Consecutive Fiscal Year

I feel that the benefits of clarifying the tasks of each business and then implementing strategies accordingly are emerging steadily. In the fiscal year ended March 31, 2017, net sales declined 2.6% year on year, to ¥198.7 billion, due to yen appreciation and the slowdown of China's economy. Nonetheless, thanks to improved productivity operating income rose 0.4% year on year, to ¥21.6 billion, reaching a new record for the third consecutive fiscal year.

In particular, I feel that we made progress in improving the profitability of Chain Operations. Following the global recession

triggered by the collapse of Lehman Brothers, our founding business saw a slow recovery in production volume, and its profitability decreased as a consequence. However, profitability has been improving steadily since we built a compact, flexible production line that quickly delivers many types of products in varying lot sizes under the Manufacturing Innovation in Kyotanabe 2018 (MIK2018) initiative in the fiscal year ended March 31, 2015. In the fiscal year ended March 31, 2017, the operating income margin of Chain Operations was 11.7%, up 5.0 percentage points compared with that of the fiscal year ended March 31, 2014, before MIK2018 began. As a result, the business segment's profitability has improved significantly.

#### **Highlights of Consolidated Settlement of Accounts**

	FYE 2016	FYE 2017	YoY Change
Consolidated Operating Results (Millions of yen)			
Net sales	203,976	198,762	-2.6%
Operating income	21,570	21,647	+0.4%
Profit attributable to owners of parent	12,766	14,596	+14.3%
Dividends per share (Yen)	20	<b>24</b> (including 100th anniversary commemorative dividend of ¥2.0)	+4
Equity ratio	55.9%	57.1%	+1.2 points
D/E ratio (net)	0.06 times	0.00 times	Improved 0.06 point

O2 What tasks remain from Mid-Term Management Plan 2016? Also, what measures will the Group take to accomplish these tasks?

## 1. Establish a Manufacturing Base for Chain Operations in Europe

Of the remaining tasks, the one that should take first priority is the establishment of a manufacturing base for Chain Operations in Europe. This business segment has large shares of the domestic and U.S. markets. We have a significant presence in the United States because at an early stage we established a manufacturing base in the country through M&As. Having this base has enabled us to increase price competitiveness. However, as we do not have manufacturing bases in China and Europe, we have struggled to grow our shares of these markets.

In China, we established a manufacturing subsidiary in Tianjin and started up local production in the fiscal year ended March 31, 2014. Initially, the subsidiary recognized operating losses due to inadequate production volume. However, operating losses have shrunk significantly thanks to efforts to improve production and the beginning of exports to the Indian Ocean Rim. Therefore, we expect the company to grow. Meanwhile, in Europe progress toward the establishment of a production base has been slow, and we have yet to map the way forward to future development in the region. I intend to assume responsibility for this task and expedite its accomplishment.

#### 2. Put Materials Handling Systems Operations on a Growth Trajectory

The next task that we must tackle is putting Materials Handling Systems Operations on a growth trajectory. In the fiscal year ended March 31, 2017, although the business segment increased earnings, its operating income margin remains unsatisfactory.

Over the past three years, the business segment has reduced costs by improving design productivity and proactively developed new products that reflect market demand. For example, we developed a new space-saving product, LINISORT<sup>™</sup> S-C, by using a multi-stage structure for our LINISORT<sup>™</sup> automatic sorting equipment. We have been seeing a favorable rise in business inquiries about and orders for this product from the distribution industry, which is struggling to cope with a severe labor shortage as the volume of goods distributed increases in step with growth of the e-commerce market. Further, in the life science field

LABOSTOCKER<sup>™</sup> is gradually establishing itself as the industry's leading product, and the benefits of this progress are emerging steadily. However, both of the above products cater to demand in small-scale domestic markets. This means that significant sales growth is difficult, and profitability enhancement is unlikely.

In other words, even if we develop competitive products, we cannot realize significant growth going forward as long as we target the Japanese market. For this reason, we will focus on expanding businesses overseas, where the scale of demand is on a different order of magnitude from that in Japan.

#### 3. Strengthen the Growth of Power Transmission Units and Components Operations

Another major task is strengthening the growth of Power Transmission Units and Components Operations. The business segment has robust core technologies in the areas of gears for reducers, screws for actuators, and cams for clutches. However, technological innovation has fallen behind as a result of developing the business based on a strategy of curbing capital investment to maintain profit margins. Consequently, although it has comparatively stable business results and a high profit margin, the business segment has flagging sales.

On the other hand, the business opportunities for Power Transmission Units and Components Operations are increasing. For example, due to growing environmental awareness, demand for actuators is shifting from hydraulic and pneumatic cylinders, which produce large amounts of CO<sub>2</sub> emissions, to electric cylinders, a product category in which the Tsubaki Group has particular competence. Further, in response to the increasing introduction of movable safety fences as a measure to prevent passengers falling off railway station platforms, demand for our lightweight, compact DC brushless motors is rising.

To ensure that we exploit such opportunities for heightening growth even further, we merged with wholly owned subsidiary Tsubaki E&M Co. and established it as the Motion Control Division. As well as concentrating on new product development, the division will advance integration with such control technologies as the Internet of Things (IoT) to strengthen competitiveness. O3 Mid-Term Management Plan 2020 calls for strengthening of existing businesses and leveraging of M&As to develop new businesses. Which field will these efforts focus on?

#### **Expansion of Overseas Businesses**

Overseas markets are the key to the Group's growth going forward, with expansion of businesses in China and Europe being particularly crucial. Of course, we will continue to grow sales in Japan. However, the scope for growth is larger overseas given our small share of the global market. Consequently, our efforts will concentrate on strategic investments to strengthen manufacturing and sales capabilities overseas.

#### Establishment of Overseas Bases for Chain Operations and Materials Handling Systems Operations

As I mentioned earlier, Chain Operations will establish a local production base to increase market share in Europe. We still do not know whether we will achieve this through an M&A or by establishing our own plant, but we will reach a conclusion very shortly.

Similarly, to expand overseas business and put Materials Handling Systems Operations on a growth trajectory, we will conduct M&As and capital investment that help strengthen local manufacturing and sales capabilities.

#### Investment in New Product Development in Power Transmission Units and Components Operations

As for power transmission units and components, which combine a variety of technologies, there is a limit to the growth achievable through the upgrading of core technologies alone. Technological innovation is the key to stepping up growth. With this in mind, I believe that, while establishing overseas production bases is important, a more urgent task is investment that contributes to the development of high-value-added new products.

#### Prudence and Speed with Investment Efficiency Enhancement as a Priority

With a view to realizing M&As, we will conduct investigations with the enhancement of investment efficiency as our first priority. If agreements are reached, implementing them rapidly is necessary. Aiming for future growth, the Group will, of course, make independent efforts to expand existing businesses while realizing M&As that increase competitive advantages and business scale.



Q4 From the perspectives of strategies and missions going forward, what message would you like stakeholders to take away from this interview?

#### **Transformation into a Market-Oriented Corporate Culture**

The target corporate profile of the Tsubaki Group and the task it must tackle to realize this profile are clear. We must transform into a corporate group with a market-oriented corporate culture. Specifically, we must rigorously analyze demand in terms of its attributes, location, and amount and proceed with new product development and manufacturing that comprehensively caters to such demand. Moreover, we should go beyond manufacturing to provide the type of value that each client really seeks.

#### **Realization of the Group's Collective Strengths**

Personnel and organizations implement growth strategies. If personnel do not remain motivated and organizations are not energized, accomplishing tasks becomes challenging. Accordingly, I view creating an organization that enables the Group to realize its collective strengths and make concerted efforts to accomplish tasks as one of my important roles. For this reason, I will emphasize the "One Tsubaki" slogan as we continue strengthening the Group's ability to grow.

## Major Advances through a Virtuous Cycle that Sustains Growth

The Group's unification to realize collective strengths will lead to sustained growth. Further, returning to society, personnel, shareholders, and other investors the profit generated through this growth will increase employees' motivation and mobilize organizations. Through this virtuous cycle, I will strengthen the ability of the Tsubaki Group to sustain growth and lead it toward major advances.

40k

Yasushi Ohara President and COO, Representative Director

#### Taking On New Technologies and Fields Tirelessly

TheTsubaki Group has grown by developing new technologies and fields. With our sights set on realizing Mid-Term Management Plan 2020, we will actively take on new businesses while growing existing businesses. Always thinking about what it can do for society going forward, theTsubaki Group will benefit society through manufacturing.

#### **Examples of New Businesses**

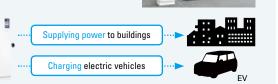
#### **Agribusiness**

Developed in collaboration with Osaka Prefecture University, the world's first automated seedling selection system, which increases plant factories' productivity by selecting superior vegetable seedlings at an early stage



#### EV power system

Tsubaki eLINK, an electric vehicle (EV) power system enabling efficient use of EVs' power for various purposes



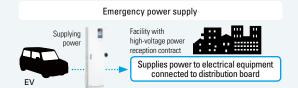
#### **Monitoring business**

The MitaMon remote monitoring platform, which uses the  $\operatorname{IoT}$  to enable monitoring at anytime

 Cloud server MitaMon
 Image: Cloud server MitaMon

 Farms or plant factories
 Varies types of factories
 Power plants, water purification plants, and other public utility plants
 Large facilities and buildings



## **Review of Operations**

### **Chain Operations**

We will establish and expand production bases to increase our share of the global market.

Kenji Kose

Director & Senior Executive Officer



#### **Review of Performance and Business Conditions**

The market for chains, which are indispensable for conveyance and power transmission, has expanded in step with global economic growth. For over 100 years, we have honed technologies and accumulated expertise, enabling us to provide products with outstanding wear resistance, strength, and transmission capacity. Among the world's major manufacturers, we have established a reputation for uncompromising quality and differentiated technology. As a result, we boast the No. 1 share of the market for industrial-use steel chains (source: Tsubakimoto Chain Co.).

The average annual growth in the net sales of Chain Operations

fiscal year ended March 31, 2017. In the fiscal year ended March 31, 2017, partly due to yen appreciation, net sales decreased 5.3% year on year. However, the operating income margin increased 2.1 percentage points year on year, to 11.7%, in the fiscal year ended March 31, 2017, and increased 5.2 percentage points over the above five-year period. Profitability has improved due to higher production volume and a significant improvement in labor productivity resulting from advancement of the Manufacturing Innovation in Kyotanabe 2018 (MIK2018) initiative.

was 3.2% between the fiscal year ended March 31, 2013, and the

#### **Challenges and Growth Strategies Going Forward**

#### Expand Our Share of the Global Market for Roller Chains Centered on the G8 Series

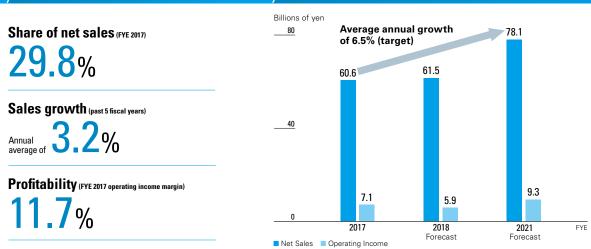
In 1953, the Tsubaki Group obtained the first certification under Japanese Industrial Standards for roller chains in Japan. Since then, we have established an unshakable position by developing and launching new models roughly every 10 years. Since 2015, we have expanded and improved the product lineup through launches of G8 Series Drive Chain 100th anniversary models. These models include Super-H, a heavy-duty chain with dramatically increased fatigue strength; NEPTUNE CHAIN<sup>®</sup>, an environment-resistant chain with added corrosion and chemical resistance; and LAMBDA<sup>®</sup> Chain and RS Roller Chain, which do not require lubricant and have better wear resistance. Going forward, the Tsubaki Group will market new products incorporating further technological innovations to heighten competitive advantages and grow its share of target markets.

#### Accelerate the Development of Overseas Markets and Establish Globally Optimal Production

Although the Tsubaki Group has large shares of the markets in Japan and North America, its shares of markets in China, Southeast Asia, and Europe remain small. For this reason, opening up the markets of these regions is the key to increasing our growth. Efforts to develop the Asian market are progressing well, particularly in the Indian Ocean Rim. In Asia, we will grow our share of markets in the palm oil, sugar, rubber glove, and cement areas further. The quality and price competitiveness of the products of our manufacturing subsidiary in Tianjin, China, have increased markedly, and we aim to boost sales in the markets of China and Southeast Asia. The Kyotanabe Plant will promote the establishment of globally optimal production. Also, as the mother plant for the Group's chain manufacturing bases worldwide, the plant will focus efforts on developing new products based on market demand. **Chain Operations** 

**Performance Trends and Outlook** 

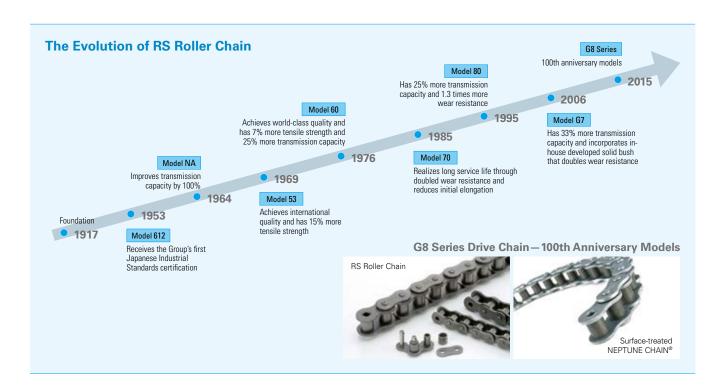
## OUR NUMBERS



Further, given that increased local production is needed to extend our share of the European market, we will establish a chain production base in Europe as soon as possible.

#### Enhance Productivity Even Further

To strengthen growth, Chain Operations need to add cost advantages to technological advantages. With this in mind, we began MIK2018 at the Kyotanabe Plant in the fiscal year ended March 31, 2015. In this initiative, we are (1) realizing higher efficiency in the conveyance of items, (2) consolidating and downsizing production lines, and (3) introducing integrated mass production lines for certain products. Initially, our target was to raise productivity 30% by March 31, 2019. However, we have almost reached this target by completing the required measures two years ahead of schedule. Looking forward, the Kyotanabe Plant will reform production flows and enhance productivity even further to become a plant based on innovative manufacturing systems.



### **Power Transmission Units and Components Operations**

We will transform into a growth business by strengthening our core technologies for power transmission units and components while advancing integration with such control technologies as the IoT.

Tetsuya Yamamoto

Director & Managing Executive Officer



#### **Review of Performance and Business Conditions**

In tandem with the global economic growth, the markets for reducers, actuators, and clutches are expanding favorably. The Tsubaki Group is the leading manufacturer of power cylinders (actuators) and cam clutches in Japan. Also, our technologies for right-angle-shaft-type reducers and worm gear reducers, both of which save space, have earned an impressive reputation.

Nonetheless, the growth of Power Transmission Units and Components Operations is sluggish. The business segment's average annual growth has only been 0.2% over the past five years. One of the main reasons for this lackluster growth is that new product development is lagging behind because the business segment has pursued a prudent strategy of maintaining its profit margin by curbing capital investment. Another important factor is a significant decline in local sales in China as the country's economy slows down.

#### **Challenges and Growth Strategies Going Forward**

#### Increase Share of Reducer Market

The highest priority task of the business segment is to increase its share of the reducer market. We will grow market share by stepping up new product development to further increase advantages, concentrating on fields where our products are already highly competitive, such as right-angle-shaft-type reducers. As part of these efforts, in April 2017 we launched the Axia Motor geared motor for lightweight conveyors. This new rightangle-shaft-type reducer caters to an area of rapidly growing demand. Also, DC brushless motors for automatic platform gates, which domestic railway operators are introducing to improve safety, are selling briskly. We will increase sales by strengthening the development of new products that add control functions to "gear technology."

#### Grow Sales of Actuators

We will focus efforts on growing sales of actuators. Power cylinders are a category in which the Group can bring to bear technological prowess. Moreover, heightening environmental awareness has initiated a shift from hydraulic and pneumatic cylinders toward power cylinders, which do not consume power when on standby. To ensure that we tap into this trend and increase actuator sales, we will concentrate on developing new products that stimulate demand for the replacement of hydraulic and pneumatic cylinders.

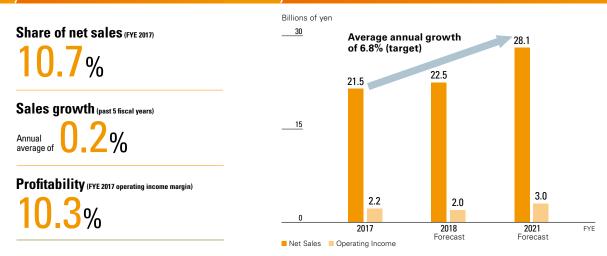
In June 2017, we brought to market the U Series Power Cylinder, a large-size power cylinder that is environment-friendly as well as economical. Compared with our previous model, we have reduced the mass and size of this power cylinder while maintaining the same performance as its predecessor. We have also made it easy to replace hydraulic cylinders with our new cylinder. In this way, in the large-size cylinder area we are helping to make equipment more compact and energy-efficient.

#### Reinvigorate Control Technologies

With the advent of the IoT era, control technologies are gaining in importance. Given this trend and the Tsubaki Group's longstanding expertise in control technologies—a field that had been contracting until recently—the Group will reinvigorate control technologies. We will focus on unearthing dormant technology

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assets and increasing product appeal by adding IoT-compatibility. As the first step in this initiative, we have developed the Shock Monitor Processing-Tool Breakage Detector, a power sensor for processing machinery that eliminates the inclusion of defective products caused by tool breakage, which are difficult to detect during continuous processing.

#### Step Up Development of New Products for Overseas Markets

Under Mid-Term Management Plan 2020, the business segment aims to grow net sales 6.8% per year on average in the four fiscal years through to the fiscal year ending March 31, 2021. While business opportunities are increasing for power transmission units and components in Japan, expansion in the global market is indispensable if Power Transmission Units and Components Operations are to increase growth dramatically. Our clutch-manufacturing subsidiary in Thailand—which as of the fiscal year ending March 31, 2018, has been included in consolidation—has seen substantial growth in sales of starter clutches for use in motorcycle manufacturing in Thailand and India. In China, the liquid crystal display (LCD) industry is buoyant, and sales of reducers to this industry have been trending upward since the fiscal year ended March 31, 2017. To maintain this upward trend, we plan to market new products.

Further, regarding the DC brushless motors and the power cylinders mentioned earlier, the business segment will develop new products reflecting market demand and step up overseas rollouts.

#### Improve Productivity

Power Transmission Units and Components Operations completed a reorganization of plants that consolidated three domestic plants into two plants in the fiscal year ended March 31, 2017. Going forward, it is important to use the benefits of this reorganization to improve productivity and the profit margin. For domestic plants, we are targeting a 30% improvement in productivity by the fiscal year ending March 31, 2019.

In addition, to strengthen core technologies of the business segment and boost its global growth, the Company merged with wholly owned subsidiary Tsubaki E&M Co.—which was the business segment's main operating company—and established it as the Motion Control Division on October 1, 2017.





TTERANU SHOCK MONTOR MISE OUT OUT

Axia Motor

U Series Power Cylinder

Shock Monitor Processing-Tool Breakage Detector, a power sensor that eliminates the inclusion of defective products

### **Automotive Parts Operations**

We will leverage a worldwide presence to make our "No. 1 global market share" position undisputable.

#### Tadasu Suzuki

Director & Senior Managing Executive Officer



#### **Review of Performance and Business Conditions**

The main focus of the automotive industry is on developing compact, lightweight engines that maintain output performance while enhancing environmental performance. The Tsubaki Group has developed new timing chain drive systems—its mainstay products—that realize impressive reductions in wear resistance and friction. In this way, by providing products with differentiated performance and quality, we have steadily grown market share. Today, we are the leading manufacturer of timing chain drive systems, boasting a 37% share of global market for these products (source: Tsubakimoto Chain Co.).

Automotive Parts Operations grew net sales at an average annual rate of 11.5% between the fiscal year ended March 31, 2012, and the fiscal year ended March 31, 2017, thereby becoming the Group's largest business segment. In recent years, an upward trend in depreciation and amortization has accompanied aggressive capital investment aimed at increasing global production capacity. Nonetheless, the operating income margin has remained high thanks to cost reduction benefits resulting from increased production volume and efforts to enhance productivity. In the fiscal year ended March 31, 2017, the operating income margin was 16.5%.

#### Challenges and Growth Strategies Going Forward

In accordance with Mid-Term Management Plan 2020, by the fiscal year ending March 31, 2021, which is the plan's final fiscal year, the business segment aims to make its "No. 1 global market share" position undisputable by achieving net sales of ¥100 billion and elevating its share of the global market for timing chain drive systems to approximately 42%.

## Continue Leveraging Technological Advantages to Keep Orders Buoyant

#### Strengthen Cost Competitiveness in Europe

Reflecting automotive manufacturers' favorable evaluation of the environmental performance enabled by the technological advantages of our products, new adoption of our timing chain drive systems is increasing steadily. In particular, as well as brisk orders in Japan, the United States, and South Korea, new adoption of our products is rising in China. Meanwhile, in Europe, which is a priority strategic region for us, we face intense competition from other manufacturers. Therefore, if we are to increase our share of the European market we must strengthen cost competitiveness.

The Tsubaki Group will carve out a larger share of the European market through utilization of its newly built plant in the Czech Republic to reduce costs. Specifically, we will reduce costs by increasing the percentages of components assembled and materials procured locally to lower import duties and transport costs.

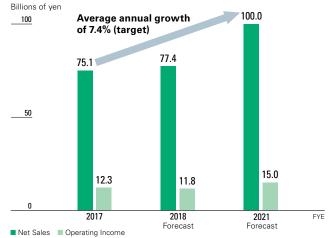
#### Increase Production Steadily

Given that production volume is expected to rise each year due to buoyant orders, Automotive Parts Operations will proceed with planned increases in global production capacity. In Tianjin, China, as well as starting up its second automotive parts plant in the fiscal year ended March 31, 2017, the business segment

## OUR NUMBERS



Automotive Parts Operations Performance Trends and Outlook



is currently building a third plant in the city. In the United States, we have significantly expanded our plant in Massachusetts. Also, the business segment has completed its second plant in South Korea. Further, in Europe the abovementioned new plant in the Czech Republic began operations in the fiscal year ending March 31, 2018. As a result of the above efforts, we expect to essentially secure the production capacity needed to meet the ¥100 billion net sales target for the fiscal year ending March 31, 2021. Moreover, we have begun measures to expand operations in preparation for production increases in the fiscal year ending March 31, 2021, and beyond. For example, we plan to relocate and expand our plant in Tennessee in the United States.

#### Begin to Foster New Mainstay Products in Preparation for the Future

Beyond the timing chain drive systems field, the Tsubaki Group is concentrating on increasing the development and sale of power drive chains used in the transfer cases of four-wheeldrive vehicles. Further, amid a growing consensus that, due to the diversification of power trains, the production of automobiles with engines is likely to peak between 2035 and 2040, we have begun developing new power drive chains that will play a central role in the coming generation. Automotive Parts Operations will continue growing by constantly taking farsighted measures based on production technology fostered through the development of timing chain drive systems.



Timing chain drive system

Our plant in the Czech Republic

Silent chain with better wear resistance and lower friction

## **Materials Handling Systems Operations**

We will expand businesses in overseas markets and heighten growth potential and profitability.

Hideaki Haruna

Director & Senior Managing Executive Officer



#### **Review of Performance and Business Conditions**

In developed countries, the demand for automation of production and conveyance lines is expected to increase steeply as labor shortages emerge with the aging of societies and as the volume of goods distributed increases with development of the e-commerce market. Further, eyeing this expected market growth, many companies from other fields, such as the industrial robotics field, are entering the automation market. Consequently, competition among manufacturers over technology and pricing is becoming fierce.

The Group's Materials Handling Systems Operations enjoy advantages in comparatively niche fields. For example, we provide automatic sorting equipment to the distribution industry, roll paper feeding systems to newspaper printing plants, and bulk handling

#### **Challenges and Growth Strategies Going Forward**

#### Use New Products as a Foothold to Enter Overseas Markets

Undertaken as part of measures to enhance profitability, our efforts to develop new products are bearing fruit steadily. One such product is the SYMTRACK chassis conveyor line for automotive manufacturing plants. Orders for installation in automotive manufacturing plants, including plants overseas, have begun to increase for this product, which is compact, lightweight, and easily installed. Moreover, it can be adapted flexibly to suit each plant's layout.

Further, September 2016 saw the launch of new high-speed automatic sorting equipment for the distribution industry—a product category in which we have particular competence. By incorporating a multi-stage structure, LINISORT<sup>™</sup> S-C saves space at operating sites. The equipment's compactness and high-performance have also attracted interest from small and systems to various industries.

During the period from the fiscal year ended March 31, 2012, through the fiscal year ended March 31, 2017, the business segment's net sales grew at an average annual rate of 8.0%, which reflected the implementation of M&As overseas. Meanwhile, the operating income margin has remained unchanged. However, we have been laying foundations that will enable the enhancement of profitability going forward. These foundations include improvement in design productivity, the introduction of a business management system organized around each client industry, efforts to cater to society's needs, and the development of new products that are able to survive amid intense price competition.

medium-sized operators, and we received almost 100 business inquiries in the first six months after launching the product.

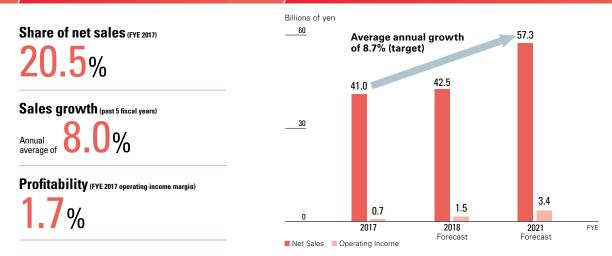
To get on a growth trajectory, the business segment must not only grow sales in Japan but also increase sales of products that have been well received domestically in much larger overseas markets. For instance, LABOSTOCKER<sup>™</sup> is an automated ultra-low-temperature storage system for biological samples and DNA, which are essential for the development of pharmaceuticals. In Japan, this product has established an overwhelming position, claiming 85% of the market. Aiming to increase sales, we are rapidly developing a product to suit the U.S. market, which obviously is larger than the Japanese market.

#### Continue Initiatives to Enhance Profitability

While pursuing new product development even more proactively than before, the business segment will continue initiatives

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to enhance productivity, such as increasing design productivity and shortening construction periods at installation sites. Also, anticipating a rise in demand for automation in the distribution industries of China and Southeast Asia, we will step up the pace of initiatives to grow sales overseas.

Further, the business segment will increase the profitability of Mayfran Holdings, Inc., acquired in the fiscal year ended March 31, 2013, by introducing the Tsubaki Group's production technology and productivity enhancement activities throughout the company.

#### Construct a Plant that Will Strengthen Manufacturing and New Product Development Capabilities

To ensure that competitors' introduction of new products does not diminish the Group's competitive advantages, it is important to increase products' overall strength by developing new products and reducing costs. Accordingly, in the precincts of the Saitama Plant the business segment is constructing a new plant, which is due to start operations in June 2018, with the aim of strengthening manufacturing capabilities and new product development capabilities and increasing the showcasing of products to boost orders. Based on the concept of a "fascinating factory," the new plant will include product exhibition spaces that give clients a tangible sense of the performance and user friendliness of our products. The plant will also include a manufacturing workshop, and the plant's greater range of production equipment will strengthen competitiveness.

Through the abovementioned initiatives, based on Mid-Term Management Plan 2020, the business segment aims to grow net sales at an annual average rate of 8.7%. The benefit of higher net sales together with measures to increase profitability are expected to improve the business segment's operating income margin to 5.9% by the fiscal year ending March 31, 2021.



SYMTRACK, compact, lightweight, and easily installed

 $\mathsf{LINISORT}^{\scriptscriptstyle{\mathrm{TM}}}$  S-C, saves space at operating sites

LABOSTOCKER<sup>™</sup>, an automated ultra-low-temperature storage system for the life science field

## **Consolidated Financial and Non-Financial Summary**

TSUBAKIMOTO CHAIN CO. and Consolidated Subsidiaries Fiscal years from April 1 to March 31

For the year (Millions of yen)	FYE 2007	FYE 2008	FYE 2009
Net sales	155,746	167,202	141,517
Operating income	16,008	19,805	9,095
Ordinary income	14,545	18,051	9,328
Profit attributable to owners of parent	8,541	10,371	6,188
Capital expenditures	10,893	10,225	10,041
Depreciation and amortization	5,948	7,301	7,344
R&D costs	3,595	3,681	3,847
Net cash provided by operating activities	10,107	20,873	7,263
Net cash used in investing activities	(5,879)	(11,481)	(9,723)
Net cash (used in) provided by financing activities	(647)	(5,582)	(3,540)
Cash and cash equivalents at end of the year	14,618	17,744	11,269
At year-end (Millions of yen)			
Total assets	212,739	202,316	178,455
Shareholders' equity	81,033	81,605	78,422
Interest-bearing debt	42,313	39,314	37,600
Net interest-bearing debt	27,694	21,570	26,330
Indexes			
Operating income margin (%)	10.3	11.8	6.4
ROE*1 (%)	10.8	12.8	7.7
Equity ratio*2 (%)	38.1	40.3	43.9
D/E ratio (net)*3 (Times)	0.34	0.26	0.31
Profit attributable to owners of parent per share (Yen)	45.55	55.70	33.26
Net assets per share (Yen)	432.20	438.56	421.53
CO2 emissions (t-CO2) (Per million yen of output)*4	0.662	0.672	0.659

\*1 ROE = Profit attributable to owners of parent  $\div$  Average shareholders' equity \*2 Equity ratio = Shareholders' equity ÷ Total assets

\*3 D/E ratio (net) = Net interest-bearing debt ÷ Shareholders' equity

\*4 The scope of the calculation is the Group's nine manufacturing bases in Japan.

\*5 Including contracted staff and temporary staff, etc.

FYE 2010	FYE 2011	FYE 2012	FYE 2013	FYE 2014	FYE 2015	FYE 2016	FYE 2017
112,759	138,243	144,896	150,002	178,022	196,738	203,976	198,762
4,737	11,022	12,081	12,579	17,354	21,427	21,570	21,647
4,990	11,111	12,140	12,813	17,993	22,263	22,109	22,004
3,175	6,093	6,814	7,428	10,213	14,153	12,766	14,596
3,988	5,807	9,518	11,833	11,372	10,466	15,677	13,995
7,390	7,544	7,403	7,360	8,745	9,476	10,402	10,342
3,543	4,144	4,231	4,319	4,061	4,048	4,300	4,341
14,508	16,293	11,626	15,350	19,761	22,189	19,090	25,434
(5,020)	(8,281)	(10,487)	(18,401)	(17,166)	(14,306)	(13,593)	(13,420)
(373)	(10,578)	(5,460)	6,325	(3,196)	(2,647)	(5,476)	(4,084)
20,379	17,308	13,916	20,194	21,291	27,360	26,422	34,142
182,641	184,206	191,766	215,837	228,840	258,742	254,106	267,215
80,847	83,413	89,923	102,019	118,433	140,439	142,041	152,473
38,910	31,240	27,405	36,507	36,538	36,907	34,817	34,634
18,531	13,931	13,488	16,312	15,246	9,547	8,394	492
4.2	8.0	8.3	8.4	9.7	10.9	10.6	10.9
4.0	7.4	7.9	7.7	9.3	10.9	9.0	9.9
44.3	45.3	46.9	47.3	51.8	54.3	55.9	57.1
0.21	0.17	0.15	0.16	0.13	0.07	0.06	0.00
17.07	32.76	36.60	39.69	54.58	75.65	68.24	78.03
434.59	448.43	480.46	545.14	632.94	750.63	759.27	815.10
0.740	0.701	0.670	0.665	0.670	0.642	0.629	0.643
5,271	5,891	6,160	6,792	7,068	7,398	7,579	7,886

### Report and Analysis of Financial Condition and Results of Operations for the Fiscal Year Ended March 31, 2017

#### **1** Factors Influencing Performance and Initiatives for Enhancing Sustainable Growth Capacity

The Tsubaki Group conducts the manufacture and sale of machinery parts and units as well as systems made up of these. For this reason, the Group's performance is heavily influenced by changes in (1) economic trends in the regions to which products are to be supplied (industrial production, private-sector capital investment, etc.), (2) foreign exchange rates, and (3) prices of steel materials and other raw materials\*. It is impossible to completely eliminate the risk of downturns in performance due to these factors. However, the Group has been taking the following steps to reinforce its constitution in order to reduce the potential impact of these risks and enhance sustainable growth capacity.

#### 1. Diversification of Operations and Dispersion of Customer Base

The Company was originally founded as a chain manufacturer, but it has since diversified its operations to include materials handling systems, automotive parts, and power transmission units and components. As a result, its customer base has become dispersed among a wide range of industries, including the machinery, energy and resource, food, LCD and IT, automotive, distribution, and life science industries.

#### 2. Diversification of Supply Regions

The Tsubaki Group began proactively advancing globalization in the late 1980s. As a result, 54.9% of the Group's total net sales came from overseas in the fiscal year ended March 31, 2017, and we are now targeting a ratio of 70% in the fiscal year ending March 31, 2021. By pursuing global expansion centered on countries and regions with significant growth potential, such as China, we aim to further enhance the Group's capacity for sustainable growth.

#### 3. Promotion of Globally Optimized Production

While the aforementioned diversification of supply regions has its merits, it also entails increased exposure to the influence of foreign exchange rate fluctuations. For this reason, as we proceed with the diversification of supply regions, we are simultaneously decentralizing production (43.8% of production was conducted overseas in the fiscal year ended March 31, 2017). This pursuit of globally optimized production helps mitigate the impacts of foreign exchange rate fluctuations while also reducing manufacturing costs, allowing for the utilization of a wider range of material suppliers, and contributing to improved customer satisfaction through shortened delivery times.

#### 4. Expansion of Market Share

The Tsubaki Group's lineup includes numerous products that have established leading shares of their respective markets and which realize such characteristics as superior durability, energy efficiency, and environmental performance. The fundamental strategy of the Group is to increase its market share by stepping up initiatives aimed at reducing quality defects to zero and offering products with differentiated performance and quality. This strategy reduces economic downturn risks and sustains growth of the Group's business.

#### **GDP Growth Rates Worldwide**

_			(%)
	CY 2014	CY 2015	CY 2016
Japan, United States, and Europe	1.7	2.2	1.6
Japan	0.3	1.1	1.0
United States	2.4	2.6	1.6
Eurozone	1.2	2.0	1.8
Asia	6.3	6.2	6.2
China	7.3	6.9	6.7
NIEs*2	3.5	2.0	2.3
ASEAN-5	4.6	4.8	4.9
India	6.9	7.5	7.5
Australia	2.8	2.4	2.4
Brazil	0.5	-3.8	-3.6
Mexico	2.3	2.6	2.3
Russia	0.7	-2.8	-0.2

\*2 Newly industrializing economies: South Korea, Taiwan, Hong Kong, and Singapore Source: Mizuho Research Institute Ltd.

#### Automotive Vehicle Production of Seven Major Countries

				(Thousands)
	CY 2014	CY 2015	CY 2016	ΥοΥ
China	23,731	24,503	28,118	14.8%
United States	11,660	12,100	12,198	0.8%
Japan	9,774	9,278	9,204	-0.8%
Germany	5,907	6,033	6,062	0.5%
India	3,844	4,125	4,488	8.8%
South Korea	4,524	4,555	4,228	-7.2%
Mexico	3,368	3,565	3,597	0.9%

Source: Global Note

\* In addition to these three factors, the Company's performance may also be affected by product defects; earthquakes, fires, and other natural disasters; violations of intellectual property rights; or political unrest overseas. For more information, please refer to the business risks section of the Company's annual securities report (*Yukashoken Hokokusho*, in Japanese only). http://www.tsubakimoto.jp/fileadmin/ja/ir/pdf/16\_4q.pdf

#### 2 Detailed Analysis of Consolidated Financial Condition and Results of Operations for the Fiscal Year Ended March 31, 2017

#### 1. Review of Management Performance

- 1. Automotive Parts Operations continued to expand, and Chain Operations benefited from initiatives to increase productivity.
- Key Points

2. The Group absorbed yen appreciation, higher depreciation and amortization, and other negative factors for earnings to post record operating income and profit attributable to owners of parent.

#### **Net Sales**

Consolidated net sales declined 2.6% year on year, to ¥198,762 million.

In Chain Operations, net sales decreased 5.3% year on year, to ¥60,600 million. This decrease in revenues was mainly attributable to yen appreciation, which outweighed a recovery in sales of drive chains and hose and cable carrier systems in Japan and steady sales of drive chains in the Americas.

In Power Transmission Units and Components Operations, net sales decreased 1.9% year on year, to ¥21,563 million. This decrease in revenues reflected the adverse effect of China's economic slowdown on consolidated subsidiaries in Tianjin and Shanghai, which counteracted steady sales of actuators and clutches in Japan.

In Automotive Parts Operations, net sales increased 2.3% year on year, to ¥75,147 million. Revenues rose because, although revenues in Japan declined due to lower automotive vehicle production, sales of timing chain drive systems rose steadily at overseas bases.

In Materials Handling Systems Operations, net sales declined 7.5% year on year, to ¥41,043 million. The business segment posted lower revenues because a significant decrease in sales of systems for the life science field and the automotive industry in Japan counteracted a recovery in sales for metalworking chip handling and coolant processing systems in the United States and Europe.

#### **Operating Income**

Despite lower net sales, consolidated operating income edged up 0.4% year on year, to ¥21,647 million, reaching a record for the third consecutive fiscal year.

The Group achieved earnings growth through higher production volume, centered on chains and automotive parts, and through improvements in costs resulting from enhanced productivity, which absorbed an approximately ¥3,300 million increase in personnel costs, depreciation and amortization, and other fixed costs as well as a roughly ¥800 million reduction in earnings due to yen appreciation. The operating income margin improved 0.3 percentage point year on year, to 10.9%.

In Chain Operations, operating income increased a significant 15.1% year on year. The business segment's operating income margin improved (by 2.1 percentage points) thanks to higher production volume, enhanced productivity, and reduction in the deficit of manufacturing subsidiaries in Tianjin, China.

In Power Transmission Units and Components Operations, operating income declined 8.6% year on year. The business segment's operating income margin edged down 0.7 percentage point year on year, to 10.3%, reflecting the lackluster business results of consolidated subsidiaries in Tianjin and Shanghai in China as well as an increase in expenses, which arose from plant reorganization in Japan.

As for Automotive Parts Operations, operating income grew 1.0% year on year. Earnings are continuing to trend upward due to higher production volume and to improvements in costs resulting from enhanced productivity. Although an increase in depreciation and amortization that accompanied higher capital investment caused a deterioration of 0.2 percentage point in the business segment's operating income margin year on year, it remained at the high level of 16.5%.

Materials Handling Systems Operations saw operating income increase 7.2% year on year. The business segment's operating income margin improved 0.2 percentage point year on year, to 1.7%, because the steadily emerging benefits of productivity-improvement efforts and profitability-focused sales measures more than offset a year-on-year decline in net sales, which stemmed from a lull in major orders in Japan.

#### Report and Analysis of Financial Condition and Results of Operations for the Fiscal Year Ended March 31, 2017

#### **Profit Attributable to Owners of Parent**

Profit attributable to owners of parent rose 14.3% year on year, to ¥14,596 million. Operating income grew, but net non-operating income deteriorated ¥181 million due to increases in foreign exchange loss, net, and other expenses.

However, the absence of the previous fiscal year's impairment losses recognized for manufacturing subsidiaries in Tianjin, China, led to a significant improvement in net extraordinary loss. As a result, the Group posted a double-digit increase in profit attributable to owners of parent. Further, the manufacturing subsidiary in Tianjin, China, for which the Group recognized impairment losses in the previous fiscal year has begun exporting conveyor chains to the Asia market, and the subsidiary's production and business results are on a recovery trajectory.

As a result of the above, profit attributable to owners of parent per share was ¥78.03. Dividends per share were ¥24.0, which included a commemorative dividend of ¥2.0 per share for the Company's centennial.

As a result, the Group achieved a consolidated dividend payout ratio of 30.8%, thereby meeting the 30% target of Mid-Term Management Plan 2016.

(Millions of yon)

#### Performance by Geographic Segment

				(IVIIIIons of y
		FYE 2016	FYE 2017	YoY Change
	Net sales*	121,347	117,795	-2.9
Japan	Operating income	12,621	11,351	-10.1
	Operating income margin (%)	10.4	9.6	
	Net sales*	51,671	50,830	-1.6
The Americas	Operating income	4,496	4,853	+7.9
	Operating income margin (%)	8.7	9.5	
	Net sales*	24,219	23,181	-4.3
Europe	Operating income	531	687	+29.2
	Operating income margin (%)	2.2	3.0	
	Net sales*	12,626	12,763	+1.1
ndian Ocean Rim	Operating income	1,680	1,744	+3.8
	Operating income margin (%)	13.3	13.7	
	Net sales*	16,494	18,186	+10.3
China	Operating income	273	925	+238.8
	Operating income margin (%)	1.7	5.1	
	Net sales*	8,578	8,378	-2.3
South Korea and Taiwan	Operating income	405	273	-32.4
	Operating income margin (%)	4.7	3.3	

\* Net sales includes intersegment sales and transfers.

#### 2. Review of Financial Condition and Cash Flows

1. While interest-bearing debt decreased, liquidity in hand\* increased, and the D/E ratio (net) was almost zero.

**Key Points** 

2. Positive free cash flow rose, despite the continuing high level of capital investment.

\* Liquidity in hand = Cash and cash equivalents

#### **Financial Condition**

Total assets on March 31, 2017, stood at ¥267,215 million, up ¥13,108 million from the previous fiscal year-end. Reflecting business expansion, trade notes and accounts receivable increased ¥2,034 million and cash and deposits increased ¥6,136 million from the previous fiscal year-end. Consequently, total current assets rose ¥8,864 million from the previous fiscal year-end. Further, property, plant and equipment, net, was up ¥2,657 million from the previous fiscal year-end due to proactive capital investment focused on Automotive Parts Operations.

Total liabilities on March 31, 2017, amounted to ¥110,997 million, up ¥2,706 million from the previous fiscal year-end. Deferred tax liabilities increased ¥1,136 million. Also, a ¥475 million increase in payables accompanied the rise in trade notes and accounts receivable. Meanwhile, interest-bearing debt was ¥34,634 million, down ¥182 million from the previous fiscal year-end.

As a result of the above, net assets totaled  $\pm$ 156,218 million, up  $\pm$ 10,402 million from the previous fiscal year-end. The D/E ratio (net) on March 31, 2017, was 0.00 times, an improvement from 0.06 times a year earlier, and the equity ratio was 57.1%, up from 55.9%.

#### **Cash Flows**

Net cash provided by operating activities was ¥25,434 million, an increase from ¥19,090 million in the previous fiscal year. This rise reflected a decrease in income taxes paid, higher profit before income taxes, and increase in inventories.

Net cash used in investing activities amounted to ¥13,420 million, compared with ¥13,593 million in the previous fiscal year, and mainly stemmed from ¥14,151 million used to pay for automotive parts production facilities and chain production facilities.

As a result of the above, free cash flow in the fiscal year ended March 31, 2017, was a positive ¥12,013 million, up significantly compared with positive free cash flow of ¥5,496 million in the previous fiscal year.

Net cash used in financing activities totaled ¥4,084 million, compared with ¥5,476 million in the previous fiscal year. This was primarily attributable to cash dividends paid of ¥3,928 million.

#### **Cash Flow-Related Indexes**

	FYE 2013	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Equity ratio*1 (%)	47.3	51.8	54.3	55.9	57.1
Equity ratio (market-based)*2 (%)	41.9	60.3	72.4	51.3	65.0
Debt repayment periods*3 (Years)	2.4	1.9	1.7	1.8	1.4
Interest coverage ratio*4 (Times)	30.6	41.3	60.4	58.0	93.7

\*1 Equity ratio = Shareholders' equity ÷ Total assets

\*2 Equity ratio (market-based) = Market capitalization of stock ÷ Total assets

\*3 Debt repayment periods = Interest-bearing debt ÷ Net cash provided by operating activities

\*4 Interest coverage ratio = Net cash provided by operating activities ÷ Interest paid

## **Principal Tsubaki Group Companies**

As of October 1, 2017

\*1 Consolidated subsidiary \*2 Specified subsidiary \*3 Equity-method affiliate \*4 Unconsolidated subsidiary

	Paid-in Capital	Equity Owned by Tsubakimoto Chain Co.	Principal Business
Japan		TSubakimoto chain co.	
Tsubakimoto Custom Chain Co.*1	¥125 million	99.6%	Manufacture of small-pitch conveyor chains and specialty chains
Tsubakimoto Sprocket Co.*1	¥126 million	100.0%	Manufacture and sales of sprockets and couplings
Tsubaki Yamakyu Chain Co.*1	¥126 million	100.0%	Manufacture and sales of various types of plastic chains and automated equipment
Tsubakimoto Iron Casting Co.*1	¥50 million	100.0%	Casting, processing, and sales of iron and steel products
Tsubakimoto Bulk Systems Corp.*1	¥150 million	100.0%	Manufacture and sales of bulk materials handling systems
Tsubakimoto Mayfran Inc.*1	¥90 million	100.0%	Manufacture and sales of conveyors for chips and scraps
Tsubakimoto Machinery Co.*1	¥139 million	100.0%	Domestic sales of Tsubaki Group products
Tsubaki Support Center Co.*1	¥80 million	100.0%	Building maintenance service and insurance agency, etc.
The Americas			
U.S. Tsubaki Holdings, Inc.* <sup>1,2</sup> (United States)	US\$33,500,000	100.0%	Manufacture and sales of materials handling systems Management of subsidiaries and affiliates
U.S. Tsubaki Power Transmission, LLC*1 (United States)	US\$2,000	100.0%	Manufacture and sales of chains and power transmission products
U.S. Tsubaki Automotive, LLC*1 (United States)	US\$2,000	100.0%	Manufacture and sales of automotive parts
Isubaki Kabelschlepp America, Inc.*1 (United States)	US\$100	100.0%	Manufacture and sales of cable carriers
Mayfran International, Inc.*1 (United States)	US\$1,000	100.0%	Manufacture and sales of conveyors for chips and scraps
Tsubaki of Canada Limited*1 (Canada)	CAN\$6,295,000	100.0%	Manufacture and sales of chains and power transmission products
Tsubakimoto Automotive Mexico S.A. de C.V.*1 (Mexico)	MXN173,000,000	100.0%	Manufacture and sales of automotive parts
Tsubaki Brasil Equipamentos Industriais Ltda.*1 (Brazil)	R\$2,458,000	100.0%	Sales of chains and power transmission products
Europe			<u></u>
Tsubakimoto Europe B.V.*1 (Netherlands)	EUR17,422,000	100.0%	Sales of chains, power transmission products, and automotive parts
Mayfran Limburg B.V.*1 (Netherlands)	EUR226,000	100.0%	Manufacture and sales of conveyors for chips and scraps
Mayfran International B.V.*1 (Netherlands)	EUR45,000	100.0%	Sales of conveyors for chips and scraps
Tsubaki Kabelschlepp GmbH*1 (Germany)	EUR2,600,000	100.0%	Manufacture and sales of cable carriers and materials handling system:
Tsubaki Ibérica Power Transmission S.L.*1 (Spain)	EUR1,600,000	100.0%	Sales of chains and power transmission products
Tsubaki Deutschland GmbH*1 (Germany)	EUR100,000	100.0%	Sales of chains, power transmission products, and automotive parts
Kabelschlepp GmbH-Hünsborn*1 (Germany)	EUR51,000	100.0%	Manufacture and sales of materials handling systems Manufacture and sales of chains, power transmission products, and
Tsubakimoto U.K. Ltd.*1 (U.K.)	STG£550,000	100.0%	automotive parts
Metool Products Limited <sup>*1</sup> (U.K.)	STG£203,000	100.0%	Sales of chains
Kabelschlepp France S.A.R.L.*1 (France)	EUR165,000	100.0%	Sales of cable carriers and materials handling systems
Mayfran France S.A.R.L.*1 (France)	EUR16,000	100.0%	Sales of conveyors for chips and scraps
Kabelschlepp Italia S.R.L.*1 (Italy)	EUR350,000	90.0%	Sales of cable carriers and materials handling systems
Tsubaki Automotive Czech Republic s.r.o.*1 (Czech Republic)	CZK549,340,000	100.0%	Manufacture and sales of automotive parts
Kabelschlepp Systemtechnik spol. s.r.o.*1 (Slovak Republic)	EUR49,000	100.0%	Manufacture and sales of materials handling systems
000 Tsubaki Kabelschlepp*1 (Russia) Indian Ocean Rim	RUB6,000,000	100.0%	Sales of cable carriers
Tsubakimoto Singapore Pte. Ltd.*1 (Singapore)	¥960 million	100.0%	Manufacture and sales of chains, power transmission products, and
PT. Tsubaki Indonesia Manufacturing <sup>*1, 2</sup> (Indonesia)	US\$19,200,000	100.0%	materials handling systems Manufacture and sales of materials handling systems
PT. Tsubaki Indonesia Trading*1 (Indonesia)	US\$520,000	100.0%	Sales of chains, power transmission products, and materials handling systems
Tsubakimoto (Thailand) Co., Ltd.*1 (Thailand)	THB4,000,000	95.1%	Sales of chains and power transmission products
Tsubakimoto Automotive (Thailand) Co., Ltd.*1 (Thailand)	THB202,000,000	100.0%	Manufacture and sales of automotive parts
Tsubaki Motion Control (Thailand) Co., Ltd.*1 (Thailand)	THB65,000,000	100.0%	Manufacture and sales of power transmission products
Tsubaki Power Transmission (Malaysia) Sdn. Bhd.*1 (Malaysia)	MYR1,500,000	100.0%	Sales of chains, power transmission products, and materials handling systems
Tsubakimoto Vietnam Co., Ltd.*1 (Vietnam)	VND7,120,000,000	100.0%	Sales of chains and power transmission products
Tsubakimoto Philippines Corporation (Philippines)	PHP9,840,000	100.0%	Sales of chains, power transmission products, and
			materials handling systems
Tsubaki India Power Transmission Private Limited*1 (India)	INR20,000,000	100.0%	Sales of chains and power transmission products
Kabelschlepp India Private Limited*1 (India)	INR8,897,000	100.0%	Sales of cable carriers
Mahindra Tsubaki Conveyor Systems Private Limited*4 (India)	INR313,775,000	51.0%	Manufacture and sales of materials handling systems
Tsubaki Australia Pty. Limited*1 (Australia)	A\$300,000	100.0%	Sales of chains and power transmission products
China		100.0%	Max fortune and also after terret's contra
Tsubakimoto Automotive (Shanghai) Co., Ltd.*1 (China) Tsubakimoto Chain (Shanghai) Co., Ltd.*1 (China)	US\$20,692,000 US\$400,000	100.0%	Manufacture and sales of automotive parts Sales of chains, power transmission products, and
			materials handling systems
Tsubaki E&M (Shanghai) Co., Ltd.*1 (China) Tsubakimoto Bulk Systems (Shanghai) Corp.*1 (China)	US\$5,200,000 RMB6,000,000	100.0% 100.0%	Manufacture and sales of power transmission products Sales of bulk materials handling systems
Tsubakimoto Chain Engineering (Shanghai) Co., Ltd.*4 (China)			Provision of engineering services in relation to chains, automotive
I subakimoto Chain Engineering (Shangnai) Co., Ltd. ** (China) Tsubakimoto Chain (Tianjin) Co., Ltd. *1. <sup>2</sup> (China)	US\$1,000,000	90.0%	parts, and materials handling systems
······	US\$77,000,000	90.0%	Manufacture and sales of chains and automotive parts Manufacture and sales of reducers, variable speed drives, actuators,
Tsubaki Everbest Gear (Tianjin) Co., Ltd.*1 (China)	RMB87,496,000	59.4%	clutches, and their related products
Kabelschlepp China Co., Ltd.*1 (China)	RMB13,866,000	100.0%	Manufacture and sales of cable carriers and materials handling system:
Tianjin Tsubakimoto Conveyor Systems Co., Ltd.*3 (China)	RMB8,314,000	47.0%	Manufacture and sales of bulk materials handling systems
Tsubaki CAPT Power Transmission (Shijiazhuang) Co., Ltd.*4 (China)	RMB104,289,000	51.0%	Manufacture and sales of sprockets and couplings
South Korea and Taiwan			Manufacture and sales of chains, power transmission products, and
Taiwan Tsubakimoto Co.*1 (Taiwan)	NT\$70,000,000	100.0%	automotive parts
Tsubakimoto Automotive Korea Co., Ltd.* <sup>1,2</sup> (South Korea)	WON29,500,000,000	100.0%	Manufacture and sales of automotive parts

### **Corporate Data and Stock Information**

As of March 31, 2017

#### **Corporate Data**

Tsubakimoto Chain Co.	
December 1917	
January 31, 1941	
¥17,076 million	
3-3-3, Nakanoshima, Kita-ku, Osaka	
530-0005, Japan	
+81 (6) 6441-0011 (Receptionist)	
March 31	

Number of Consolidated 59 Subsidiaries\*1 Number of Unconsolidated 9 Subsidiaries\*1 Number of Affiliates\*1 8 (including 1 equity-method affiliate) Number of Employees\*2 7,886 (consolidated) \*1 As of October 1, 2017 \*2 Including contracted staff and temporary staff, etc.

#### **Stock Information**

Shareholder Register	Sumitomo Mitsui Trust Bank, Limited
Stock Listing	Tokyo
Common Stock	
Authorized:	299,000,000 shares
Issued:	191,406,969 shares
Number of Shareholders	9,028

#### Major Shareholders (Top 10 Companies)

Name	Number of Shares Held (Thousands)	Percentage of Total Shares Issued
Taiyo Life Insurance Company	17,798	9.51
Japan Trustee Services Bank, Ltd. (Trust account)	12,481	6.67
The Master Trust Bank of Japan, Ltd. (Trust account)	10,998	5.87
Nippon Life Insurance Company	9,850	5.26
Toyota Motor Corporation	7,722	4.12
Sumitomo Mitsui Banking Corporation	7,034	3.76
Kyoeikai Members Stock Ownership Association	6,318	3.37
Tsubakimoto Kogyo Co., Ltd.	5,294	2.83
National Mutual Insurance Federation of Agricultural Cooperatives	4,766	2.54
Sumitomo Mitsui Trust Bank, Limited	4,245	2.26

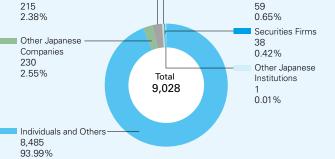
 I. Numbers less than 1,000 have been rounded down.
 Z. The Company owns treasury stock of 4,345,450 shares; however, these shares are not included in the above list of major shareholders

3. Percentage of total shares issued has been calculated excluding the treasury stock of 4,345,450 shares.

## Foreign Institutions -

Number of Shareholders

**Shareholder Composition** 



#### Number of Shares Held



Treasury stock of 4,345,450 shares is included in "Individuals and Others."

Contact for Inquires with Regard to the Corporate Report

TEL: +81 (6) 6441-0054 EMAIL: pr-sec@gr.tsubakimoto.co.jp

**Financial Institutions** 



## **TSUBAKIMOTO CHAIN CO.**

http://tsubakimoto.com

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