

 Hiroshi Yokota The President and Executive Officer	Tokuyama Corporation (4043)
	

Company Information

Exchange	TSE 1st Section
Industry	Chemicals
The President and Executive Officer	Hiroshi Yokota
Address	FRONT PLACE AKIHABARA, 1-7-5, Sotokanda, Chiyoda-ku, Tokyo
Year-end	End of March
URL	https://www.tokuyama.co.jp/

Stock Information

Share Price	Number of shares issued		Total market cap	ROE(Actual)	Trading Unit
¥2,473	69,934,375 shares		¥172,947 million	12.4%	100 shares
DPS (Est.)	Dividend yield (Est.)	EPS (Est.)	PER (Est.)	BPS (Actual)	PBR (Actual)
TBD	-	¥316.75	7.8 times	¥2,431.21	1.0x

*The share price is the closing price on June 12th. Each figure was taken from the brief report on results for the term ended Mar. 2020. The interim dividend is to be 35 yen/share, unchanged from the previous term, but the term-end dividend is still to be determined. It will be disclosed as soon as it is determined, while considering the future business performance trend.

Earnings Trends

Fiscal Year	Net Sales	Operating Income	Ordinary Income	Net Income	EPS	DPS
Mar. 2017 (results)	299,106	39,720	33,998	52,165	147.78	0.00
Mar. 2018 (results)	308,061	41,268	36,196	19,698	259.81	30.00
Mar. 2019 (results)	324,661	35,262	33,400	34,279	493.26	50.00
Mar. 2020 (results)	316,096	34,281	32,837	19,937	287.05	70.00
Mar. 2021 (estimates)	310,000	28,000	28,000	22,000	316.75	TBD

*Unit: Yen, one million yen. The forecast is from the company. Net income is profit attributable to owners of the parent. Hereinafter the same applies. On Oct. 1, 2017, Tokuyama Corporation changed its trading lot from 1,000 shares to 100 shares, while conducting 1-for-5 reverse split. DPS is total annual dividend taking mergence in consideration. EPS as well as DPS has not been recalculated retroactively. Dividend will be disclosed as soon as it is determined, while considering the future business performance trend.

This report outlines an overview of Tokuyama Corporation earnings results for the fiscal year ended March 2020, progress of the medium-term management plan, and an interview with President Yokota.

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Key Points

- The sales for the term ended Mar. 2020 were 316 billion yen, down 2.6% year on year. The sales of chemicals, specialty products, and cement declined. Operating income was 34.2 billion yen, down 2.8% year on year. The drop in costs for raw materials and fuels, such as domestic naphtha, contributed, but the sales volume of semiconductor-related products decreased. While the export price of caustic soda and the prices of petrochemical products were soft, depreciation, R&D costs, and advertisement expenses augmented. The impact of COVID-19 in the 4th quarter (Jan. to Mar.) was minor, but the sales volume of core products did not reach the estimate, and both sales and profit fell below the estimates.
- For the term ending Mar. 2021, sales are estimated to be 310 billion yen, down 1.9% year on year. The sales of specialty products are projected to grow, but the sales of chemicals and cement are estimated to drop. Operating income is forecasted to decline 18.3% year on year to 28 billion yen. The decrease in costs for raw materials and the increase in sales volume of thermal management materials, etc. will contribute, but fixed costs, including expenses for repair, depreciation, R&D, and personnel, will augment. It is assumed that the impact of the novel coronavirus will subside gradually from the 2nd quarter (Jul. to Sep.) and the business environment will start recovering in the 3rd quarter (Oct. to Dec.). The dividend amount is still to be determined. It will be disclosed as soon as it is determined, while considering the future business performance trend.
- We interviewed the president Yokota about the overview of the financial results in the previous term, the points of the earnings forecast for this term, the progress of the medium-term management plan, messages to shareholders and investors, etc. He mentioned, “I strongly hope that our company will keep walking with shareholders and investors to be demanded by society. We would like to return appropriate profits to shareholders who agreed with our ambition. We would appreciate your support from the mid/long-term viewpoint.”
- Unfortunately, the financial results in the previous term did not reach the estimates, and sales and profit are projected to fail to reach the goals set in the medium-term management plan, whose final year is this term, but as mentioned by the president Yokota during the interview, the initiatives the company had taken mainly for commodities underpinned sales, and are expected to keep contributing to the fortification of the business base in this term and following terms.
- On the other hand, the company improved its financial standing one term earlier than expected, and it is having the capacity to invest. While petrochemical fuels came under public scrutiny, we would like to pay attention to where they will find business opportunities in the environmental field, what kinds of investments they will carry out, and what kind of state they aim to achieve in their next mid-term plan.

1. Company Overview

Tokuyama Corporation is a chemical manufacturer, which produces basic chemicals used for a variety of applications, including soda ash and caustic soda; semiconductor-related products, including polycrystalline silicon; cement, whose production volume is the 4th largest in Japan; materials for eye glasses, generic medicine ingredients, etc. It was founded in 1918. Its major strengths include cutting-edge products created with a wide array of unique technologies and the competitiveness of Tokuyama Factory, which has accumulated and integrated technologies in an advanced manner.

【1-1 Corporate history】

In 1918, the founder Katsujiro Iwai established “Nippon Soda Industry Co., Ltd.” with the aim of producing soda ash (sodium carbonate), which is a raw material for glass, inside Japan. The company is still the only Japanese manufacturer that keeps manufacturing soda ash.

In 1938, it started producing cement with the wet method from the byproducts in the soda ash manufacturing.

After the Second World War, it grew the inorganic business, and during the rapid economic growth period, it expanded the petrochemical business handling vinyl chloride, polypropylene, etc.

After the two oil shocks, it entered the high added value field, including electronic materials and fine chemicals. In 1984, the company launched the polycrystalline silicon business, which is now ranked in the top 3 in the world. In 1985, it started producing aluminum nitride powder, which is used for cooling down electronic parts, with its original reduction-nitridation method.

Since then, the company has expanded its business domains, including the fields of living and medicine handling materials for eye glasses, dental apparatus, etc., and environment and energy.

The revenue of the polycrystalline silicon business of “Tokuyama Malaysia,” which is a consolidated subsidiary established in Malaysia in 2009, dropped considerably due to the market downturn. Then, significant impairment losses were posted in the term ended Mar. 2015 and the term ended Mar. 2016, and no dividends were paid.

To cope with that situation, the company procured funds by issuing class shares in May 2016, for the purpose of “reconstructing its financial base.”

Under the vision of “new foundation,” the company produced and announced the 5-year Medium-Term Management Plan “Cornerstone of the Group's Revitalization,” and is working on important projects for reforming its corporate culture, redeveloping business strategies, etc. In the term ending Mar. 2018, it paid a dividend for the first time in 4 terms.

【1-2 Corporate ethos, etc.】

Tokuyama Corporation thoroughly revised its “corporate ethos” and “course of action,” which were enacted in 1989, and set the “Tokuyama’s vision” for new foundation, composed of “mission,” “aspirations,” and “values,” when designing the Medium-Term Management Plan “Cornerstone of the Group's Revitalization” in 2016. As we celebrate the 100th anniversary of our founding in 2018, to build the “Cornerstone of the Group’s Revitalization” and achieve sustainable growth for the coming 100 years, it is necessary to clarify its missions and aims.

Corporate activities, ranging from business strategies, are mostly linked to this vision.

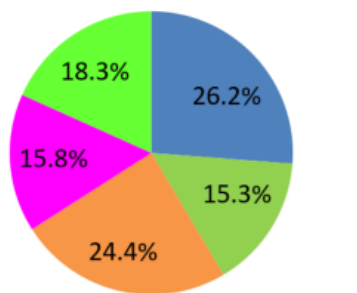
Tokuyama’s vision

Mission	Centered on the field of chemistry, the Tokuyama Group will continue to create value that enhances people’s lives
Aspirations	Shift from a focus on quantity to quality (Fiscal 2025) *Global leader in advanced materials *Leader in its traditional businesses in Japan
Values	*Customer satisfaction is the source of profits *A higher and broader perspective *Personnel who consistently surpass their predecessors *Integrity, perseverance, and a sense of fun

【1-3 Business Description】

The business segments are “chemicals,” “specialty products,” “cement,” “life & amenity,” and “others.” (The first four segments are to be reported.)

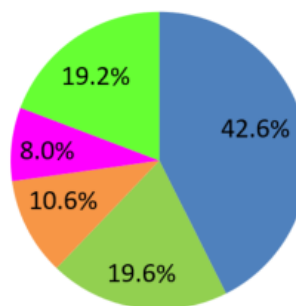
Sales composition
(term ended Mar. 2020)



■ Chemicals ■ Specialty products ■ Cement
■ Life & Amenity ■ Others

*Ratio to the total amount before adjustments

Operating income composition
(term ended Mar. 2020)



■ Chemicals ■ Specialty products ■ Cement
■ Life & Amenity ■ Others

*Ratio to the total amount before adjustments

◎ Chemicals

<Outline and major products>

Tokuyama Corporation handles basic chemicals that are indispensable for a broad range of applications in each industry, such as soda ash, caustic soda, and calcium chloride.

The company also operates business efficiently, for example, by using the chlorine and hydrogen produced during the process of manufacturing caustic soda for producing polycrystalline silicon.

With the goal of “becoming a company that will be chosen by customers forever,” the company strives to offer products and services that satisfy the needs of individual customers in a stable and timely manner.

Business	Characteristics	Major products
Soda and calcium chloride	<p>Since competition is fierce due to the sluggish domestic demand and the increase of imported products, the business environment is severe, and so Tokuyama Corporation is the only manufacturer of soda ash in Japan. Its missions and responsibility as a Japanese manufacturer are more significant than before, and it aims to maintain or enhance its competitiveness and establish a firm position in the domestic market based on its technologies and trusting relationships with customers, which have been nurtured since the establishment of the company.</p> <p>For silicate soda cullet, the company boasts the lion’s share in Japan, by taking advantage of the competitiveness in producing the cullet from soda ash and caustic soda and high production capacity.</p>	Soda ash, calcium chloride, silicate soda, and sodium bicarbonate

BRIDGE REPORT



Chlor-alkali and vinyl chloride	<p>The company produces 490,000 tons of caustic soda per year, which is the third largest in Japan. In addition, it manufactures a wide array of products by using chlorine, which is generated as a byproduct. This backs up its competitiveness. As another characteristic, its business performance is hardly affected by the consumption trend in a specific field, because its products are diverse. Vinyl chloride resin is derived 40% from petroleum and 60% from salt. From the viewpoint of the dependence on petroleum, vinyl chloride resin is a plastic that can save natural resources. Multilayered glass sashes made from vinyl chloride excel at keeping housing warm, and are effective for reducing the emissions of greenhouse gases by saving the energy for air-conditioning.</p>	Caustic soda, vinyl chloride monomer, propylene oxide, methylene chloride
New organic chemicals	<p>The industrial isopropyl alcohol (IPA) of Tokuyama Corporation can be characterized by its pollution-free manufacturing process, which does not emit air pollutants or industrial wastes.</p> <p>Its original direct hydration method for propylene received the Technological Advance Award of the Japan Petroleum Institute in 1974, the Mainichi Industrial Technology Award in 1975, and the Chemical Technology Award of the Chemical Society of Japan in 1976. In addition to energy-saving and low-cost features, the company can supply high-purity products, and so the quality of its products is highly evaluated.</p>	Industrial isopropyl alcohol (IPA)

Major products	Purposes of use
Soda ash	Materials for glass, glass wool, soap and detergent; brine water; water treatment agents, etc.
Calcium chloride	Anti-freezing agents, dust control, dehumidifying agents, waste liquid treatment, food additives



(Provided by Tokuyama Corporation)

<Basic policy and measures>

By offering basic chemical materials and services that have high quality and cost competitiveness and satisfy the needs of customers, the company aims to contribute to the business growth of each customer and the stable, continuous increase in revenue for its core business.

Business	Primary measures
Soda and calcium chloride	*To maintain stable supply and quality as the only manufacturer in Japan *To increase the production amount of granular calcium chloride for melting snow
Chlor-alkali and vinyl chloride	*To enhance in-house power generation and quality of electrolysis for further reducing costs for caustic soda and chlorine *To expand the export of vinyl chloride monomer, and keep operating plants fully *To increase the profitability of chlorine-induced substances, such as vinyl chloride, propylene oxide, and chloromethane

◎ Specialty products

<Outline and major products>

Tokuyama Corporation handles products in a broad range of fields, including energy, electronics, and the environment. For high-purity polycrystalline silicon used for semiconductors, the company has a remarkable share in the world. In addition, fumed silica, which is produced from byproducts, is used for silicone rubber, copier's toner, etc. Aluminum nitride, which is excellent in heat release, is used for energy-saving products, such as inverters and LEDs, in addition to semiconductor manufacturing equipment, and high-purity chemicals for the electronic industry are used for producing semiconductors, liquid crystal panels, etc.

Business	Characteristics	Major products
Electronic materials	Tokuyama Factory can produce 8,500 tons of polycrystalline silicon per year. This output is the highest in Japan.	Polycrystalline silicon for semiconductors
Fumed silica	REOSIL, which was developed with the original technology of Tokuyama, is manufactured by hydrolyzing refined gases in oxyhydrogen flame at high temperatures under thoroughgoing management with a fully closed system for all processes from reactions to packaging. Accordingly, it is characterized by high purity, high dispersibility, and high-specific surface area, and used for various applications of use. The company has production facilities in not only Japan, but also China, strives to supply its products stably and continuously while optimizing its business, and aims to expand its business further while considering the global market.	Fumed silica
Thermal management material	Tokuyama Corporation handles products for each purpose of use, which includes ceramics made by sintering granules and powder from aluminum nitride powder. With its original manufacturing and reduction-nitration methods, the company produces high-quality products with few impurities, and manufactures 840 tons of aluminum nitride products, the largest in the world. For aluminum nitride powder, it has over 70% global share.	Aluminum nitride
IC chemicals/cleaning system	The company operates manufacturing and sales footholds for supplying products with higher purity to growing markets in Asia.	High-purity chemicals for the electronic industry, and positive photoresist developer

Major products	Purposes of use
Polycrystalline silicon	Semiconductors and wafer
Fumed silica	Elastomers, sealants, liquid resin products, powder products
Aluminum nitride	Thermal management materials for electronic parts
High-purity chemicals for the electronic industry	Precise cleaning and drying for wafers, electronic devices, etc.

(Polycrystalline silicon)



(Provided by the company)

(Ceramics “SHAPAL”)

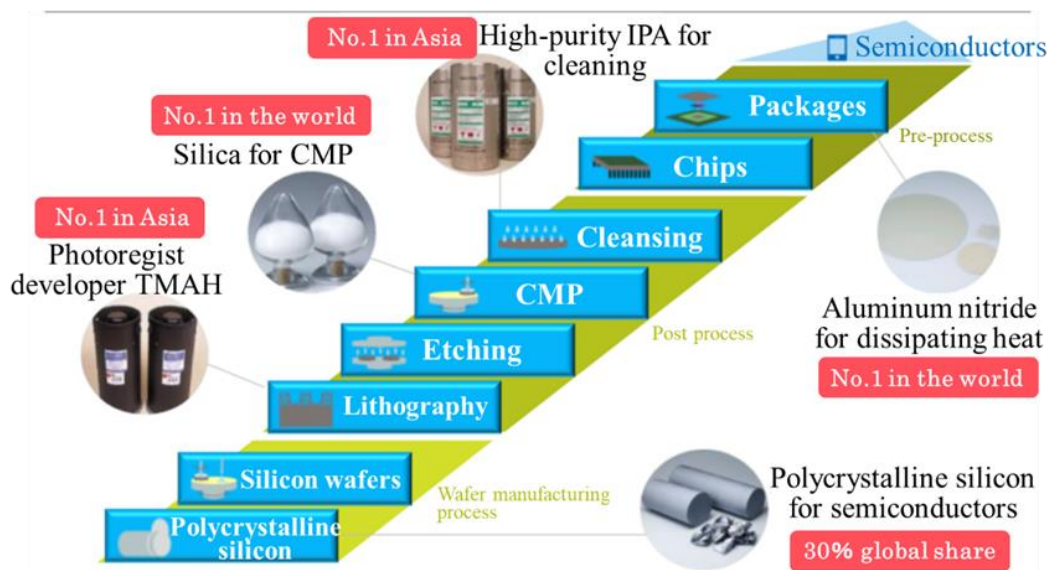


<Basic policy and measures>

To expand its business and revenue by supplying products that will be chosen by customers forever and proposing newly developed products.

Business	Primary measures
Polycrystalline silicon	*To achieve the world’s highest quality and minimize cost by accurately grasping the most advanced products and the quality demanded by customers
Fumed silica	*To enrich highly functional products following those for silicone and CMP *To reduce cost and add high value to products at Tokuyama Chemicals, which is subsidiary in China
IC chemicals	*To pursue the better quality of products for cutting-edge semiconductors, and promote sales
Thermal management material	*To enhance the output of aluminum nitride powder (from 480 tons/year to 600 tons/year; operation has started in Apr. 2018) *To commercialize silicon nitride, boron nitride and aluminum nitride fillers

A wide array of semiconductor-related products that are indispensable for manufacturing semiconductors, such as polycrystalline silicon, for which the company has a 30% global share, and aluminum nitride for dissipating heat, are the cutting-edge materials created by combining a variety of element technologies, which have been developed and accumulated by the company for many years, and all of them are outstandingly competitive in the world.



(Taken from the reference materials of the company)

In the semiconductor manufacturing field, more miniaturized and three-dimensional semiconductors are being developed rapidly, as the capacity of semiconductors is increasing and their size is shrinking.

The “high-purity polycrystalline silicon for semiconductors” and “high-purity chemicals for the electronic industry” of Tokuyama Corporation are ultrahigh-purity materials for which impurities and residues, which would worsen yield, have been reduced to the maximum degree, and highly evaluated by semiconductor manufacturers, which are developing more miniaturized and three-dimensional products.

In addition, Tokuyama’s thermal management materials, which are indispensable for the stable operation of semiconductors, are highly evaluated.

As the power devices for in-vehicle apparatus, industrial equipment, and electric railways are having higher output and smaller size, the demand for thermal management materials is growing rapidly. Tokuyama Corporation supplies thermal management materials with high thermal conductivity and an extremely small amount of impurities developed with its original reduction-nitridation method, such as aluminum nitride powder and ceramics, and boron nitride.

As shown in the above figure, the company plans to create larger business opportunities and meet demand by supplying a wide array of cutting-edge products rather than only specific products, which are used in the process of manufacturing semiconductors from raw materials.

◎ Cement

<Outline and major products>

In 1938, Tokuyama Corporation started this business for the purpose of utilizing the byproducts generated at Tokuyama Factory. The cement and related products, such as cement solidifying agents, produced at Nanyo Plant of Tokuyama Factory are used as ready-mixed concrete and secondary concrete products for constructing structures, ports, bridges, roads, etc. that support housing, buildings, and lifelines for the living of people.

The company receives a large amount of wastes, including waste plastics and ash from the combustion of household garbage, from the inside and outside of the company, and uses them as raw materials and thermal energy for manufacturing cement, contributing to the development of a resources recycling society.

Business	Characteristics	Major products
Cement	<p>Nanyo Plant of Tokuyama Factory has the largest scale as an independent factory in Japan.</p> <p>The cement business is the 4th largest in Japan, and community-based sales activities are conducted mainly in Tokyo, Osaka, Hiroshima, Takamatsu, and Fukuoka. The company built a cement testing laboratory in Tokyo, Osaka, Hiroshima, and Fukuoka. For the use of cement and cement solidifying agents, the company gives meticulous support to users by conducting a blending test before work and a management test after work.</p> <p>In addition, Tokuyama M Tech Corp. manufactures and sells building materials made of cement and mortar. Tokuyama Corporation offers “Shikkui Lemarge,” an interior material produced with the original technology for producing a plaster sheet, “Fresco Graph,” the latest fresco technique developed by combining the classical fresco panting technique and the three-dimensional shaping technique with plaster, and so on. The company is pursuing new business opportunities with its technologies nurtured in the cement and building material fields.</p>	Portland cement, blast furnace slag cement, cement solidifying agents
Recycling and environment	A variety of recycling facilities, including low and high-water-content sludge and jagged waste treatment facilities, accept a broad range of wastes, including waste plastics, sludge, and glass wastes.	Waste treatment

<Basic policy and measures>

The company will develop optimal systems for manufacturing, selling, and distributing products while flexibly responding to the changes in the business environment. It aims to enhance its competitiveness by maximizing the revenue from waste treatment by expanding export and reducing costs.

Business	Primary measures
Cement	<p>*To reduce costs by streamlining production processes, improving basic units, and increasing the capacity of receiving wastes</p> <p>*To secure revenue by expanding export while taking full advantage of Kiln No.4 (used for sintering cement)</p> <p>*Tokuyama M Tech will improve the infrastructure repair and reinforcement business</p>
Recycling and environment	<p>*To use the most appropriate raw materials, promote the use of combustible wastes, and optimize the fuel plant business</p> <p>*To stably operate the existing business of recycling waste plasterboards, and create a new recycling business</p>

Tokuyama New Caledonia, which was acquired in Jun. 2013, serves as an exporter of clinker (chunks generated during the cement manufacturing process, from which cement is produced through pulverization), contributing to the increase in the revenue of the cement section.

In the mid to long-term, domestic demand will inevitably shrink due to the decline in population. Accordingly, the company will increase sales amounts by securing stable importers, improve the operation rate of cement factories, and accept more wastes, while discussing and proceeding with the operation of overseas pulverization plants following those of Tokuyama New Caledonia.



Clinker ship loader (Tokuyama Factory)



Tokuyama New Caledonia

(Taken from the reference material of the company)

◎ Life & amenity

<Outline and major products>

This segment is constituted by the fine chemical and NF businesses operated by Tokuyama Corporation, and ion exchange membranes, dental materials, clinical testing systems, polyolefin films, resin sashes, etc. developed, manufactured, and sold by group companies.

In the fine chemical business, the company handles mainly materials for eye glasses, generic medicine ingredients and intermediates, which were developed with its organic synthesis technology. In the NF business, the company manufactures and sells films that block water, but allow air and moisture to penetrate.

Its overseas group companies include Shanghai Tokuyama Plastics, which manufactures and sells breathable films for disposable diapers, whose demand is growing rapidly in emerging countries, including China.

Business	Major products
Fine chemicals	Medicine ingredients and intermediates (amino group protection agents and condensation agents), plastic lens-related materials (photochromic dye materials and hard coating agents)
NF	Microporous films
Tokuyama Dental Corporation	Manufacturing, import, export, and sale of dental materials
A&T Corporation	Development, manufacturing, and sale of clinical testing reagents, devices, and systems
SunTox Co., Ltd.	Manufacturing and sale of polyolefin films
ASTOM Corporation	Manufacturing and sale of ion exchange membranes for desalination and concentration and electro-dialysis
EXCEL SHANON Corporation	Manufacturing and sale of resin sashes, related products, and building materials for housing

(Pharmaceutical products)



(Provided by the company)

<Basic policy and measures>

The company will secure an advantageous position inside and outside Japan, by establishing and fortifying customer-oriented development, manufacturing, and sales systems. It aims to expand its business, to contribute to the improvement of the living and health (quality of life) of people.

Business	Primary measures
Fine chemicals	To expand the company's share for photochromic dye materials for eye glasses, and cultivate the applications of use
NF	To revitalize the Chinese business
Dental device business	To accelerate the overseas business expansion mainly for esthetic restorative filling
Medical diagnosis system business	To fortify the production system by enlarging Esashi Factory
Polyolefin film business	To improve productivity by dismantling decrepit production equipment and constructing new equipment (from Oct. 2017)
Ion exchange membranes	To deal with large-scale projects outside Japan
Resin sashes	To promote the sales of zero energy houses

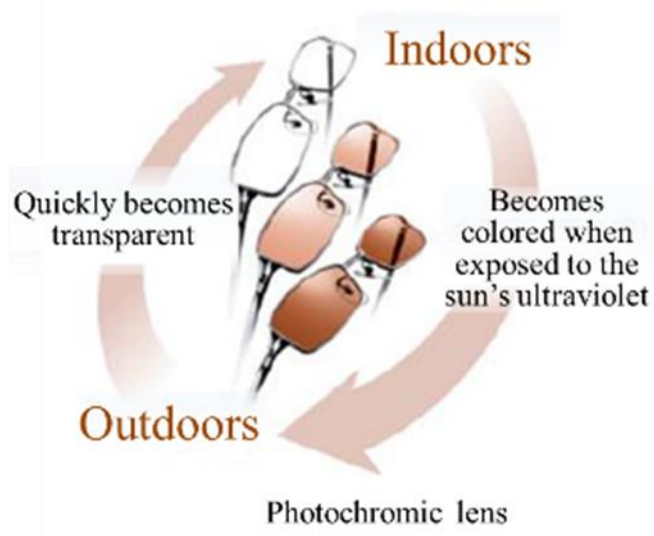
In this segment, the company concentrates on the development of photochromic dye materials.

Photochromic dye materials are resin materials that change colors from colorless to gray, brown, etc., when illuminated by sunlight (ultraviolet rays), and return to the colorless state when the illumination stops.

Recently, the usage for sports-wear and driving wear has spread, the awareness of harmful ultraviolet rays has grown, and the cases of eye diseases, such as glaucoma, have increased due to aging population. In these circumstances, the use of photochromic dye materials is increasing.

The products of Tokuyama Corporation are characterized by “plenty of color variation based on the three primary colors: red, blue, and yellow,” “rapid coloration and de-coloration speeds,” “sufficient coloration performance even at high temperatures in the summer,” “excellent durability,” and “the capability of blocking over 99% of ultraviolet rays.”

The company will advertise these characteristics, aim to expand its share by meticulously meeting customer needs about product specifications and enriching its product lineup, improve visibility, and cultivate new applications of use by utilizing its product features, such as the blocking of ultraviolet rays.



(Taken from the reference material of the company)

◎ Others

This is the segment other than the segments to be reported: “chemicals,” “specialty products,” “cement,” and “life & amenity,” and includes overseas distributors, transportation business, and real estate business.

【1-4 Research and development】

Under the R&D slogan of “creating helpful value for living with chemical technology,” the company engages in R&D with the aim of (1) conducting R&D for customer-oriented business, (2) creating an only-one, No.1 technology by improving unique technologies and fusing them with new technologies, and (3) creating original products while emphasizing customer needs based on its technologies.

Tokuyama Corporation aims to carry out R&D for cutting-edge materials by utilizing its unique technologies for synthesizing inorganic and organic materials, increasing purity, inducing crystallization and deposition, controlling powder, and sintering materials, which have been nurtured by the company as a chemical manufacturer, and is actively engaged in open innovation with universities, while expecting the aging of society and the drastic growth and diffusion of environmentally friendly and ICT technologies, and by fusing these technologies with new technologies.

As R&D facilities in western and eastern Japan, the company has Tsukuba Research Laboratory in Tsukuba City, Ibaraki Prefecture, and Tokuyama Research Laboratory in Shunan City, Yamaguchi Prefecture.

Tsukuba Research Laboratory is developing cutting-edge technologies from the medium to long-term viewpoint and analysis technologies as basic technologies, conducting R&D in the dental material field, which is characterized by composite materials, and the organic fine chemical field, which is targeted at high value-added products.

Tokuyama Research Laboratory located in Tokuyama Factory is a foothold for R&D in the Tokuyama district.

There are some significant merits, such as the synergy of the development group in the Tokuyama district and various R&D teams and the easy exchange of information with the manufacturing section.

【1-5 Competitors】

Code	Corporate name	Sales	Growth rate	Operating income	Growth rate	Operating margin	ROE	ROA	Market cap	PER	PBR
4005	Sumitomo Chemical	-	-	-	-	-	3.2	3.8	557,885	-	0.6
4042	Tosoh	-	-	-	-	-	10.1	9.7	493,472	-	0.9
4043	Tokuyama	310,000	-1.9	28,000	-18.3	9.0%	12.4	8.6	172,947	7.9	1.0
4063	Shin-etsu Chemical	-	-	-	-	-	12.3	13.3	5,409,224	-	2.0
4118	Kaneka	-	-	-	-	-	4.2	3.1	195,364	-	0.6
4183	Mitsui Chemicals	1,145,000	-	37,000	-	3.2%	7.0	4.4	486,696	22.7	0.9
4185	JSR	423,000	-10.4	23,000	-30.1	5.4%	5.7	4.8	458,583	29.0	1.1
4205	Zeon	-	-	-	-	-	7.9	6.9	244,424	-	0.9
5711	Mitsubishi Materials	-	-	-	-	-	-12.8	2.6	316,363	-	0.6

*Sales and operating income are the estimates for this term. The unit for them is million yen. ROE and ROA are the results for the previous term in units of %.

The market cap, PER (forecast), and PBR (results) are the closing values on June 12. The unit is in millions of yen and the unit is two-fold.

Sumitomo Chemical, Tosoh, Shin-etsu Chemical, Kaneka, Zeon, Mitsubishi Materials is undecided on its forecast for the current fiscal year. Mitsui Chemicals will voluntarily apply IFRS from this fiscal year.

While many companies refrain from making the earnings forecast for this term due to the impact of the novel coronavirus, Tokuyama has disclosed the forecast while putting importance on the obligation to disclose information to investors.

【1-6 Characteristics and strengths】

①Cutting-edge products created with a variety of unique technologies

By fusing new technologies with unique technologies for synthesizing organic and inorganic materials, increasing purity, controlling powder, inducing crystallization and deposition, sintering, electrolysis, refining, reprocessing resources, and so on, which have been accumulated and polished for many years, Tokuyama Corporation has developed cutting-edge products, including inorganic chemicals, cement, silica, silicon, aluminum nitride, high-purity chemicals for semiconductors, lens materials, ion exchange membranes, films, resin, sensor materials, and dental materials.

For example, the company possesses an original reduction-nitridation technology for producing aluminum nitride powder, which is broadly used as a thermal management agent.

Its aluminum nitride powder, which has an extremely low amount of impurities, boasts a 70% or more global share because of its high competitiveness.

At present, its purity is at the world's highest level. The company started producing polycrystalline silicon for the purpose of utilizing the hydrogen and chlorine generated at its electrolysis plant, and it is now ranked in the world's top three. It can be said that its broad, profound technological base helped realize these achievements.

②Competitiveness of Tokuyama Factory, which has integrated and accumulated technologies in an advanced manner

Tokuyama Factory is indispensable for manufacturing products with its unique technologies at low cost and supplying them to customers around the world. It has one of the greatest port infrastructures in Japan and an in-house generation plant, with the following characteristics:

- ◇ With the in-house power generation plant, whose output is the 7th largest in Japan, it can use electric power at competitive cost.
- ◇ Factories for producing inorganic and organic chemicals, cement, electronic materials, etc. are integrated, so as to utilize raw materials, products, by-products, and wastes mutually.
- ◇ The company has achieved zero emissions by using its wastes at a cement kiln (used for sintering cement). It also receives wastes from external enterprises in the Shunan industrial complex, making a social contribution for the environment.

Strengths since the establishment of the company



(Taken from the reference material of the company)

Since it has a natural harbor with a water depth of over 10 m, where large shipping vessels can be docked, it is possible to carry in and out large amounts of raw materials and products.

The highly efficient production and supply systems integrated and accumulated sophisticatedly at Tokuyama Factory boost the competitive advantage of Tokuyama Corporation.

Tokuyama Factory is the source of competitiveness of Tokuyama Corporation, but they recognize that the CO₂ produced through the power generation using fossil fuels would affect the future of the company, as the ESG investment is now globally mainstream.

Then, they organized CO₂ Project Group in November 2019 and implement various measures, to attain the goal: “to reduce CO₂ emissions by 15% from the case in which any measures are not taken by fiscal 2030 with the reference year being fiscal 2013.”

(Primary measures)

(1) New technology development: Collection and utilization of CO ₂	To develop technologies for collecting the CO ₂ emitted from Tokuyama Factory, technologies for utilizing the collected CO ₂ , etc. in cooperation with external research institutes, such as universities.
(2) Production of hydrogen with electric power derived from renewable energy	For the development of large-scale hydrogen production equipment compatible with electric power generated from fluctuating renewable energy, they will develop and demonstrate commercial-sized electrolytic cells and its process.
(3) Adoption of renewable energy	<p>*Biomass co-firing To start discussions to increase the use of biomass fuels at the company’s own thermal power generation equipment and reduce the consumption of fossil fuels.</p> <p>*Energy mix To produce scenarios about future environmental administration, energy situation, etc. and discuss the energy mix (power source composition) at factories in fiscal 2030.</p>

(4) Optimization of energy efficiency at Tokuyama Factory

To optimize the overall energy efficiency at Tokuyama Factory, by saving energy at each plant in the factory, achieving the flexible energy distribution among plants, and supplying heat and energy to the outside.

As for the hydrogen production with electric power derived from renewable energy mentioned in the above section (2), the company aims to commercialize it in the future, and introduce the developed model inside and outside its region as one of measures for mitigating global warming.

As for the energy mix mentioned in the above section (3), the company started surveys and discussions based on the comprehensive partnership with Yamaguchi University in November 2019.

In June 2020, Tokuyama Factory was equipped with a stationary fuel-cell generator utilizing a fuel-cell system, which is mounted on the fuel-cell car “MIRAI” of Toyota Motor, and demonstrative driving with by-product hydrogen was started in cooperation with Toyota Motor Corporation.

A characteristic of this demonstrative driving is to use by-product hydrogen as fuel for a fuel-cell generator. Also, by-product hydrogen is produced secondarily when Tokuyama manufactures caustic soda with brine electrolysis.

Tokuyama takes the role of supplying by-product hydrogen stably, and the electric power generated by a fuel-cell generator is supplied to Tokuyama Factory with a rated output of 50 kW.

After this demonstrative research, Tokuyama will discuss the regional contribution model business utilizing by-product hydrogen as a leading Japanese comprehensive chemical maker with the capacity of supplying high-purity by-product hydrogen.

2. Fiscal Year March 2020 Earnings Results

(1) Overview of consolidated results

	FY 3/19	Ratio to sales	FY 3/20	Ratio to sales	YoY	Difference from the initial estimate	Difference from the revised estimate
Sales	324,661	100.0%	316,096	100.0%	-2.6%	-7.8%	-1.8%
Gross profit	97,996	30.2%	98,650	31.2%	+0.7%	-	-
SGA	62,733	19.3%	64,359	20.4%	+2.6%	-	-
Operating income	35,262	10.9%	34,281	10.8%	-2.8%	-12.1%	-2.1%
Ordinary profit	33,400	10.3%	32,837	10.4%	-1.7%	-15.8%	-3.4%
Net income	34,279	10.6%	19,937	6.3%	-41.8%	-34.6%	-23.3%

* Unit: million yen. Net income belonging to its parent company. The same applies hereafter.

Sales and profits declined due to the sluggish sales of the company's main products.

Sales were 316 billion yen, down 2.6% from the same period of the previous year. Sales of chemical products, specialty products, and cement declined.

Operating income fell 2.8% year on year to 34.2 billion yen. Lower costs of raw materials, such as domestically produced naphtha, contributed to income, but Sales volume of semiconductor-related products declined and prices of caustic soda exports and petrochemical products sagged, and depreciation, R&D, and advertising expenses increased.

The impact of the new coronavirus in the fourth quarter (Jan-Mar) was minimal, but sales of core products Volumes fell short of the plan and sales and profits were lower than expected.

BRIDGE REPORT



(2) Trend in each segment

Sales	FY3/19	Composition ratio	FY3/20	Composition ratio	FY3/19	Difference from the initial estimate	Difference from the revised estimate
Chemicals	983	30.3%	937	29.7%	-4.7%	-9.0%	-2.4%
Specialty products	596	18.4%	544	17.2%	-8.7%	-18.8%	-4.6%
Cement	923	28.4%	872	27.6%	-5.5%	-7.2%	-3.1%
Life & amenity	552	17.0%	563	17.8%	+2.0%	-2.9%	-2.9%
Others	613	18.9%	652	20.6%	+6.4%	+1.9%	+3.5%
Adjustment	-424	-	-409	-	-	-	-
Total	3,246	100.0%	3,160	100.0%	-2.6%	-7.8%	-1.8%
Operating income							
Chemicals	168	17.1%	153	16.3%	-8.9%	-17.3%	-7.3%
Specialty products	99	16.6%	70	12.9%	-29.3%	-36.4%	-6.7%
Cement	32	3.5%	38	4.4%	+18.8%	+8.6%	-5.0%
Life & amenity	32	5.9%	28	5.0%	-12.5%	-30.0%	-30.0%
Others	43	6.9%	69	10.6%	+60.5%	+53.3%	+38.0%
Adjustment	-23	-	-18	-	-	-	-
Total	352	10.8%	342	10.8%	-2.8%	-12.1%	-2.1%

* Unit: 100 million yen. The composition ratio for profit means profit rate. The business categories of several subsidiaries were changed in the first quarter of the term ending March 2020, and those changes are reflected in the above chart.

* Chemicals

Sales and profits declined.

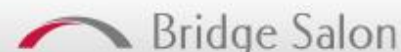
Caustic soda	Sales volume was steady, but profits fell due to rising raw material prices and a decline in overseas market conditions.
Vinyl chloride resin	Profit increased due to maintaining the spread between the price of raw materials and sales prices.
Propylene oxide	The sales volume for urethan for major purposes decreased, and profit dropped.
Calcium chloride	Profit dropped, due to the decline in sales volume and the augmentation of logistic costs caused by the shortage of snow.

* Specialty products

Sales and profits declined.

Polycrystalline silicon * radiant material	Inventory adjustment of clients and as a result, profits fell due to lower sales volumes.
High purity chemicals for electronics industry	Sales volume recovered, particularly in overseas markets, and was unchanged from the same period of the previous term.

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* Cement

Sales decreased, and profit increased.

Cement	Due to the drop in coal price, the manufacturing cost decreased, but sales volume was sluggish and fixed costs, including repair expenses, augmented. As a result, profit declined.
Resources and environmental business	Profit grew, due to the increase in the volume of waste received.

* Life & amenity

Sales increased, and profit decreased.

Plastic lens-related materials	Profit rose due to increased sales volume of photochromic materials for eyeglass lenses.
Dental materials	Sales volume increased, particularly overseas. Profit declined due to an increase in advertising expenses accompanying the launch of new products.
Medical diagnostic system	Profit grew, as transactions for equipment and systems for clinical tests increased.
Ion-exchange membranes	Profit fell due to a decrease of large-scale orders.

(3) Financial standing and cash flows

◎Primary balance sheet

	End of Mar. 2019	End of Mar. 2020		End of Mar. 2019	End of Mar. 2020
Current assets	202,936	203,849	Current liabilities	93,248	95,241
Cash and deposits	68,613	81,524	Trade payables	47,268	42,795
Trade receivables	80,358	72,929	Noncurrent liabilities	122,856	107,775
Inventories	43,474	44,645	Total liabilities	216,104	203,017
Noncurrent assets	176,693	179,597	Net assets	163,525	180,429
Property, plant and equipment	116,104	123,192	Shareholders' capital	150,095	165,874
Intangible assets	1,973	1,657	Retained earnings	121,901	137,665
Investments and other assets	58,614	54,747	Total liabilities and net assets	379,630	383,447
Total assets	379,630	383,447	Balance of interest-bearing debts	128,964	116,341

*Unit: one million yen. Interest-bearing debts include lease obligations.

Total assets up 3.8 billion yen year on year to 383.4 billion yen due to an increase in cash and deposit, property, plant and equipment, etc.

Total liabilities were 203.0 billion yen, down 13 billion yen from the end of the previous term, due to a decrease in interest-bearing debts.

Net assets rose 16.9 billion yen year on year to 1804 billion yen due to an increase in retained earnings.

As a result, equity ratio rose 3.8 points from the end of the previous term to 44.0%.

DE ratio fell from 0.84 at the end of the previous term to 0.69.

By the end of March 2021, the final year of the medium-term management plan, the company aims to have an “interest-bearing debt of 120 billion yen, an equity capital of 140 billion yen, cash and deposits of 80 billion yen, and a DE ratio of 0.9,” most of which they successfully reached in the end of this fiscal.

BRIDGE REPORT



◎ Cash Flow

	FY3/19	FY3/20	Increase/decrease
Operating CF	38,531	52,364	+13,833
Investing CF	-16,174	-20,548	-4,374
Free CF	22,357	31,816	+9,459
Financing CF	-21,104	-18,348	+2,756
Cash and equivalents	67,991	80,918	+12,927

*Unit: million yen

The surplus of operating CF grew due to a decrease in accounts receivable.

The deficit of investing CF grew due to an increase in purchases of plant, property and equipment but the surplus of free CF increased.

The balance of long-term borrowings decreased, and the deficit of financing CF shrank.

The cash position improved.

3. Fiscal Year March 2021 Earnings Estimates

(1) Full-year earnings estimates

	FY 3/20	Ratio to sales	FY 3/21 (Forecast)	Ratio to sales	YOY
Sales	316,096	100.0%	310,000	100.0%	-1.9%
Operating income	34,281	10.8%	28,000	9.0%	-18.3%
Ordinary income	32,837	10.4%	28,000	9.0%	-14.7%
Net income	19,937	6.3%	22,000	7.1%	+10.3%

*Unit: million yen. The forecasts were announced by the company.

Sales and profits declined

Sales are expected to be 310 billion yen, down 1.9% from the previous term. Sales of special product increased but chemical products and cement declined.

Operating income is forecasted to be 28 billion yen, down 18.3% from the previous term.

Lower costs of raw materials and upper sales volume of thermal management materials contributed to income but fixed costs such as repairs, depreciation, research and development, and personnel costs will be increased.

Exchange assumptions rate is 110 yen/USD (109 yen for the first half) and 43,000 yen/kl for domestically produced naphtha (42,700 yen for the first half).

The impact of the new coronavirus gradually waned from the second quarter (Jul-Sep), and in the third quarter (Jul-Sep), the impact of the new coronavirus was reduced. We expect the business environment to recover from October-December (Oct-Dec) onwards.

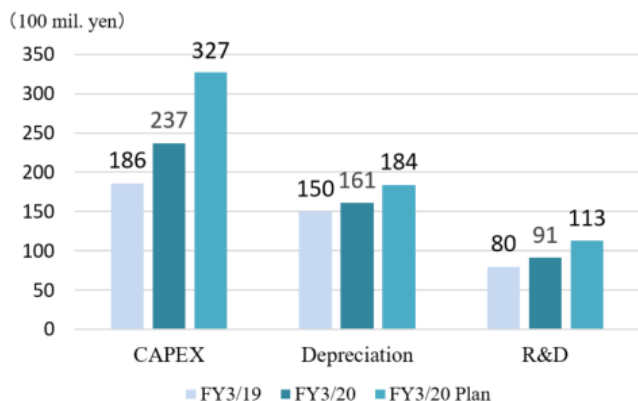
The impact on each segment is discussed below.

The company has yet to announce a dividend forecast. The company will release a dividend as soon as it is decided, based on future trends.

BRIDGE REPORT



(2) Investment plan



(Major investment projects in this term)

*Output increase and quality improvement of semiconductor-related products

*Output increase of healthcare-related products

*Development of new thermal management materials

*Development of port infrastructure

The company will increase repair expenses, which have been curtailed over the past few year, and flexibly adjust its investment schedule, etc. while monitoring the trend of demand for products, although the company will not revise the basic investment plan while expecting the recovery of demand in the future.

(2) Trend in each segment

Sales	FY 3/20	Composition ratio	FY 3/21 (Forecast)	Composition ratio	YOY
Chemicals	937	29.7%	870	28.1%	-7%
Specialty products	544	17.2%	610	19.7%	+12%
Cement	872	27.6%	860	27.7%	-2%
Life & amenity	563	17.8%	580	18.7%	+3%
Others	652	20.6%	480	15.5%	-26%
Adjustment	-409	-	-300	-	-
Total	3,160	100.0%	3,100	100.0%	-1.9%
Operating income					
Chemicals	153	16.3%	130	14.9%	-15%
Specialty products	70	12.9%	75	12.3%	+6%
Cement	38	4.4%	35	4.1%	-9%
Life & amenity	28	5.0%	30	5.2%	+4%
Others	69	10.6%	40	8.3%	-42%
Adjustment	-18	-	-30	-	-
Total	342	10.8%	280	9.0%	-18.3%

*Unit: 100 million yen

(Outlook for each segment)

Field	Initiatives	Impact of the new coronavirus
Chemicals	To secure the shipment volume of core products and enhance cost competitiveness by reducing costs per product and fixed costs, to earn profit.	The company assumes a broad range of impacts in the fields of construction, paper production, automobiles, etc. such as the suspension of import of vinyl chloride due to the lockdown in India and the drop in sales volume of petrochemical products caused by the decrease in production output of automobiles.
Specialty products	As terminal device manufacturers tend to increase stocks for the stable supply of materials, demand remains strong. For polycrystalline silicon for semiconductors, the company will pursue better quality and aims to expand revenue by promoting high value-added products differentiated from competitors' products. For high-purity chemicals for the electronic industry, the company will concentrate on the establishment of a supply system in response to the expansion of demand by operating the newly enlarged plant in 2020 on a full-scale basis. For thermal management materials, the company will fortify the supply system and concentrate on product development for enriching the product lineup.	It had been expected that the Chinese economy would recover from slowdown mainly thanks to the demand for 5G, but it is now anticipated that the spread of COVID-19 will delay the introduction of 5G. Demand grew as users increased their stocks, but it is noteworthy that demand may drop due to its recoil.
Cement	To make efforts to receive orders after the resumption of construction and secure profit by reducing manufacturing costs thoroughly	The sales volume of cement inside and outside Japan declined, due to the suspension of construction, the closure of workshops, etc.
Life & amenity	To expand revenue by developing new products and conducting sales activities while responding to the changes in customer needs and markets of healthcare-related products.	The export volume of products, such as dental materials, for Europe and the U.S. declined due to the lockdowns there.

4. Progress of the medium-term management plan

(1) Progress toward goals

The progress toward the target figures for the term ending Mar. 2021, which is the final year of the 5-year medium-term management plan, is as follows.

Sales did not reach the target sales, because the demand for semiconductors was weaker than expected and there was the impact of the novel coronavirus as mentioned above.

The reasons why operating income did not reach the goal are the increase of investments as well as the drop in sales in this term.

On the other hand, the company attained the goals of “an interest-bearing debt of 120 billion yen, an equity capital of 140 billion yen, cash and deposits of 80 billion yen, and a DE ratio of 0.9” for improving its financial standing at the end of the previous term, one term earlier than planned.

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	FY 3/16	FY 3/20	FY 3/21 forecast	FY 3/21 Target	Progress evaluation
Net sales (billion yen)		316	310	335	They did not reach the goals, due to the augmentation of fixed costs
Operating profit (billion yen)	23.0	34.2	28.0	36.0	
ROA	5.7%	9.0%	-	10%	They did not reach the goals, because the improvement of total asset turnover did not progress
Operating margin	7.5%	10.8%	9.0%	10%	
Total asset turnover	0.77 times	0.83 times	-	1.0 times	
Financial Indicators					
CCC	69 days	64 days	-	55 days	It failed to reach the target value
D/E ratio	4.7	0.7	-	1	It achieved the target value
Exchange rate (¥/US\$)	120	109	110	110	
Domestic naphtha price (¥/kl)	42,800	42,700	43,000	58,000	

Over the past 5 years, operating income grew 5 billion yen, and its breakdown is as follows.

◎ Each segment

Positive factors	Capital increase	Overview
Specialty products	+86	The transfer of TMSB in Malaysia was completed, but the performance was slightly stagnant, due to the augmentation of depreciation through investment for growth and the slowdown of the semiconductor market in the past few years.
Chemicals	+41	The performance improved considerably, due to the rise in the price of caustic soda, the improvement in the spread of petrochemical products, the rise in the price and sales volume of soda ash, etc.
Negative factors		
Life & amenity	-32	The company strived to grow the healthcare-related business, but profit declined due to the decrease of group companies, the expenses for reforming the business structure, etc.
Cement	-23	The company made efforts to improve revenue, but profit dropped due to the rise in costs for raw materials, the failure of equipment due to deterioration, and the augmentation of repair expenses

*Unit: 100million yen

◎Each factor

Positive factors	Capital increase	Overview
Improvement of TMSB	+102	Transfer of TMSB in Malaysia
Difference in quantity	+85	The performance of chemical products, cement, and life & amenity improved, while that of specialty products decline. The novel coronavirus affected the performance.
Changes in units, operation degree, etc.	+28	Cost reduction at Tokuyama Factory, etc.
Difference in selling price	+10	Improved in all segments
Negative factors		
Fixed costs, etc.	-157	Depreciation, R&D costs, and personnel expenses augmented
Difference in unit prices of raw materials and fuels	-19	Costs for raw materials and fuels increased

*Unit: 100million yen

(2) Outcomes of intensive efforts to cope with problems

The company steadily proceeded with measures for solving problems.

	Progress of the medium-term management plan	Outcomes in fiscal 2019
Change the Group's organizational culture and structure	The company finished reforming personnel systems for all of managers, senior employees, and general employees. From now on, the company will aim to further motivate employees and brush up their abilities while work styles and values are diversifying.	*Reform of a comprehensive human resources system *Active recruitment of external personnel *Promotion of reform of ways of working
Rebuild the Group's business strategies	The company laid a foundation for businesses related to ICT and healthcare, to accelerate their growth in the period of the next mid-term plan. The efforts for solving environmental issues, including the reduction of CO ₂ emissions, which was started in the period of this mid-term plan, will be continued in new businesses.	*Healthcare-related business operation *Streamlining of business operation utilizing IoT and AI and plant operation *Strengthening of the environmental business (hydrogen utilization, water treatment, and CO ₂ -related)
Strengthen Group management	The company reestablished the resin sash business, which was causing concerns, and restructured group companies for allocating functions.	*Capital alliance of EXCEL SHANON Corporation *Logistics streamlining and cost reduction by cementing the cooperation among logistics-related group companies
Improve the Company's financial position	The company made its financial standing better than planned, based on its great earning capacity	*Return to Rank A

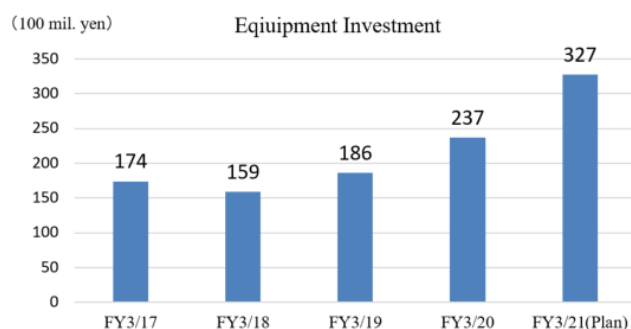
(3) Investment plan

Major investments in growing businesses during the past 4 years include the installation of the cutting-edge equipment for films, the improvement of aluminum nitride powder, the development of new thermal management materials, the enhancement of TMAH, the improvement in quality of semiconductor-related materials, and the construction of the second factory in Taiwan.

In the traditional industry, the investments include the enlargement of Shunan Bulk Yard and the development of port infrastructure.

This term, the company will concentrate on growth, infrastructure, maintenance, renewal, etc.

The estimated cumulative equipment investment for 5 years from fiscal 2016 to fiscal 2020 was 96 billion yen, but if investment amount in this term is as planned, the actual amount for 5 years is estimated to 108.3 billion yen, exceeding the estimate.

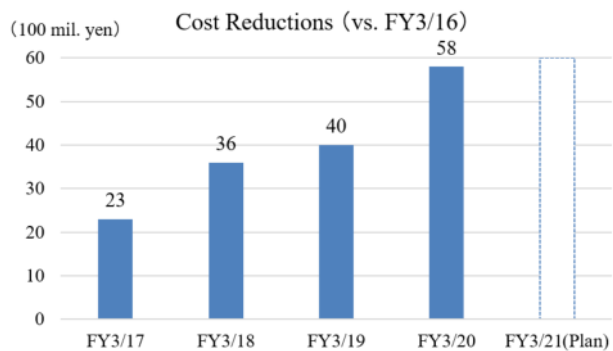


(4) Efforts in the traditional business

In the traditional industry, where the company's primary goal is to improve profitability, the cost reduction in the term ended Mar. 2020 exceeded that in the previous term, and the cost reduction amount was much larger than the goal in the term ending Mar. 2021, which is the final fiscal year of the medium-term management plan: 4 billion yen.

In the term ending Mar. 2021, the company will keep striving to reduce costs.

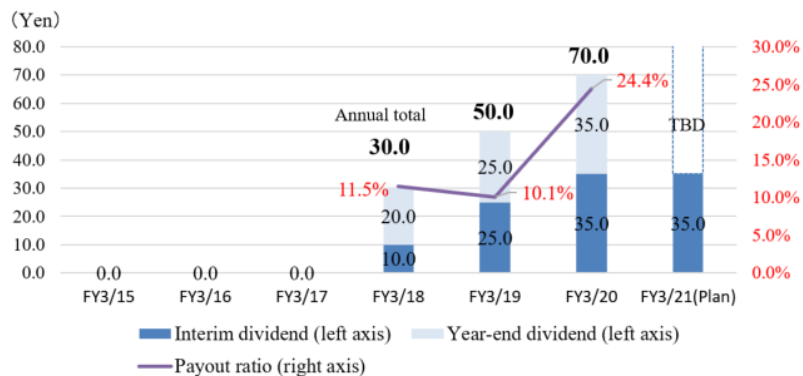
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(5) Dividends

Since the resumption of dividend payment in the term ended Mar. 2018, the company has raised the dividend amount and payout ratio.

For the term ending Mar. 2021, the interim dividend is to be 35 yen/share, but the term-end dividend is still to be determined, because there remain uncertainties over the spread of COVID-19.



5. Interview with President Yokota

We asked President Hiroshi Yokota about the overview of the previous term, points of the forecast for this term, the progress of the medium-term management plan, and his message to shareholders and investors.

Q: “First of all, we would like to ask you to look back at the results of the previous term. Please tell us about your view of the business environment, what your company did well, and what it lacked.”

A: “We believe that we performed well as a result of various efforts, despite the overall decline in sales and profit.”

Although the overall market slowed down and the business environment was tough, we made persistent efforts in earning as much as possible from our commodities such as chemicals and cement.

Particularly for our cement business, we recognize the capacity of our front-line sales operations as we were able to increase the market share, while maintaining its price despite the harsh market conditions.

Meanwhile, specialty products, semiconductors, and electronic parts, which we consider to be growing businesses, did not make a progress in the first half due to the effects of trade friction between the United States and China, and we fell short of the estimates. However, in the second half, the logic semiconductor recovered even though the overall market fell, and we were able to keep the minimum figures.

Although overall sales and profits decreased, we believe that we put up a good fight with various efforts in tough situations.

For example, when it comes to cement, we have been aggressively carrying out sales activities targeting general contractors, which are key customers, for the past two years. Instead of just providing cement, we worked on developing various materials together with them. Our organizational efforts bore fruit, as the general contractors recognize our efforts and are now introducing many projects to us.

In terms of chemicals, we have focused on Japanese customers, but over the past four years, we expanded our sales base to the overseas markets centered on Asia. Consequently, even when domestic demand stagnated, we were able to capture the overseas demand and maintain the operating rate of our factories. Furthermore, since we were directly dealing with customers, we were able to grasp the demand, establish contracts and ship products in a timely manner.

The persistent accumulation of efforts underpinned us in the difficult situation this time.

Q: “Concerning the forecast of this term, your company disclosed it including the segment forecast, while many companies have not decided forecasts yet for this term due to the coronavirus pandemic. How did you disclose your earnings forecast?”

A: “We wanted to show investors some reasonable thought. While gathering information on the customers’ situation, we accumulated figures with certain validity.”

Although we could choose not to determine the forecast, that would not be appropriate for a listed company. We wanted to give investors some reasonable thought.

Since it is a very difficult environment to predict, there is no choice but to disclose the forecast based on assumptions. We accumulated figures with certain validity that we can think of, while gathering information on the customers’ situation.

For example, the price of raw fuel is very hard to predict for both oil and coal, but we have set higher numbers than the actual ones, making them solid numbers.

Also, of the specialty products, we made a conservative assumption for electronic parts, while demand for 5G, data centers, personal computers, etc. is firm.

As a whole, it is unlikely that we will encounter a large downward swing from our forecast.

Q: “Next, we would like to ask about the progress of the medium-term management plan. Please tell us about your progress and self-evaluation regarding “Changing the Group’s organizational culture among the four key challenges.”

A: “Of the four challenges, changing the organizational culture remains the most important challenge. In the growing businesses, a sense of speed has emerged, although it is still partial. Although the awareness changing in the traditional businesses has not progressed as much as the growing business. I believe we must change the way we think of things and develop people in the process of changing the way we work. Furthermore, the appointment of external personnel has been very effective. We will keep on placing the right person at the right place, including foreigners and women, and implement transformation of the organizational culture in the medium to long term span.”

Of the four challenges, changing the organizational culture remains the most important challenge.

The greatest asset of Tokuyama to date and in the future is “people,” and “changing the organizational culture” is truly the most important mission for me as the president.

As a result of various efforts, in the growing businesses, a sense of speed has emerged, although it is still partial.

I believe that employees in the growing businesses have changed their awareness considerably, as we have seen very fast moves in the pipeline construction for new businesses, research and development, and business creation.

In the growing businesses, since it is important to hire talented people in various ways, we are actively working on it.

In our most recent recruitment, the number of technical staff exceeded the administrative staff, and we are working to secure people with technical competence necessary for new businesses and excellent human resources who can fill the personnel composition gap.

Meanwhile, awareness change is not as advanced in the traditional businesses as in the growing businesses, because the traditional businesses have a long-standing tradition of more than 100 years, and the market is relatively stable.

I believe we must change the way we think of things and train people in the process of changing the way we work.

Our factory, which is a site of the traditional businesses, is basically working in 3 shifts 24 hours a day, 365 days a year. Given that it is difficult to secure high-quality human resources in a stable manner over the medium to long term, the key to strengthening competitiveness will be how to efficiently operate the factory by utilizing ICT and AI.

However, our factory has adopted the division of labor system, including outsourcing to subcontractors, in order to keep costs low and operate with a small number of employees. The division of labor system is beneficial from the efficiency perspective, but there are almost no employees who understand the entire manufacturing process, which is an issue.

In order to build a highly competitive factory operation system that uses IoT and AI to consistently create high-quality products, it is necessary to grasp the entire process, identify bottlenecks and areas that do not match the times, and rebuild the system. We will first understand our current situation and then develop human resources by persistently exploring how to provide them with new knowledge.

Although we actively provide opportunities for our employees to grow, we are not satisfied with the speed.

But it is not easy to find alternatives for commodities like our cement, and demand will increase proportionately as the global economy expands. This means as long as we have competitiveness, we can certainly continue to consider them as a cash cow. Therefore, we will work hard to keep our competitiveness.

Both businesses will require people for immediate competitiveness and people who make up the depth of human resources in the medium to long term. Therefore, we will proceed with hiring while looking at the balance rather than focusing on regular hiring.

Furthermore, the appointment of external personnel has been very effective. We will keep on placing right person at right place, including foreigners and women, and implement transformation of the organizational culture in the medium to long term span.

Q: “You have been focusing on open innovation in restructuring your business strategy. Please tell us about the specific actions.”

A: “By deepening cooperation with universities and research institutions, new development pipelines and themes have increased considerably. I strongly feel that the great potential will be created by receiving various wisdom in collaboration with academia through open innovation, and devising and utilizing that wisdom.”

By deepening cooperation with universities and research institutions, new development pipelines and themes have increased considerably.

We are working to nurture new technologies while supporting development costs so that basic research can be done thoroughly, although the amount is not so large.

Furthermore, professors from other universities are often introduced to us, and the depth of the network is increasing, leading to a virtuous cycle in various ways, including recruitment of fulltime employees.

In the future, we plan to expand relations with universities and research institutions not only in Japan but also overseas so that we can improve the quality and speed of our work while experiencing advanced technologies.

Specifically, as a result of open innovation, in the field of fine ceramics, there is a case where good technology, which had been dormant and never been industrially put to practical use, has progressed to practical use through joint development.

For example, ceramics require a lot of energy for firing, but we have developed a technology that allows firing without additional energy. This technology is energy-saving, competitive and high in quality, and we will expand the heat dissipation material business using it.

We also developed a new process for chemical composition in collaboration with universities in the field of healthcare.

This process enables us to produce drug substances, etc. at lower cost and higher quality than before. Thanks to this, we launched a new supplement in the current term. It is also becoming possible for us to enter the drug discovery field by providing this process to other companies.

I strongly feel that a great potential will be created by receiving various wisdom in collaboration with academia through open innovation, and devising and utilizing that wisdom.

Q: “How about improving your financial position?”

A: “We were able to achieve the target for the end of March 2021 one year ahead of schedule at the end of the previous term. Therefore, from the previous term, we have been focusing on investing in remaining assets such as repair costs that had not been achieved since the 2010s.”

ROA and CCC are anticipated to fall short, but we were almost able to achieve the targets of “an interest-bearing debt of 120 billion yen, an equity capital of 140 billion yen, cash and deposits of 80 billion yen, and a DE ratio of 0.9” one year ahead of schedule. This shows improvement of our financial position.

Because the financial structure has improved considerably, since the previous term, we have been focusing on investing in remaining assets such as repair costs that had not been achieved since the 2010s.

Aiming for a shareholders’ equity ratio of about 50%, we will make aggressive investments taking into account surrounding environment and cash flow conditions, while considering raising leverage as necessary.

Q: “The efforts to revitalize foundation are over in this term, but does it mean the direction and measures toward the vision for 2025 will not change basically?”

A: “The main course will not change. However, in the process of building a globally sustainable society, it is necessary to reconsider how we should be from a larger perspective, and we have just begun to work on it.”

The main course will not change. The current medium-term management plan is for 10 years. With 2025 as the landing point, the first half and the latter half of the plan are divided into five years, and the first half of the race is about to end in the current fiscal year, but I feel that 5 years are not sufficient for the next medium-term plan.

In the process of building a globally sustainable society, we should be aware that we cannot survive unless we position our business in the perspectives and stories of 2030, 2050, etc. and review how our business should be from a larger perspective. We have just begun to work on it.

Q: “Since the keyword of building a sustainable society came up, please tell us about your ESG initiatives and your thoughts.”

A: “While the global environment is going to occupy an even greater weight, we need to re-examine the use of electricity generated by our own coal-fired power generation plant, which was the source of our competitiveness, and develop specific targets concerning CO₂ emissions, energy reduction, and shifting to alternative energy from a medium- to long-term perspective. At the same time, we will make efforts to create business opportunities. Along with opening up new environmental businesses, reforming the business portfolio will also be a major point in the next medium-term management plan.”

We set 9 themes as materiality among the SDGs. The global environment occupies even larger weight than it did when the current medium-term management plan was formulated.

The use of electricity from our own coal-fired power generation plant was the source of our competitiveness, but we need to significantly shift our mind. We develop specific targets of CO₂ emissions, energy reduction, and shifting to alternative energy from a medium- to long-term perspective.

While disclosing and responding to the risks, we will work on creating business opportunities.

We will also develop new environmental businesses, such as a hydrogen business utilizing our technology and a business with the world’s most advanced electrolysis technology. Together with these new businesses, reforming our business portfolio will also be a major point in the next medium-term management plan.

In addition, globalization is an important initiative.

Currently, the overseas sales ratio is only about 20%, and development of overseas markets is indispensable for future growth. Not only that, we need to choose places where renewable energy can be procured inexpensively and stably to construct our new factories. Inevitably, they will be overseas.

Globalization is necessary in all aspects of procurement, production, sales, and securing human resources.

In terms of governance, we believe that it is necessary to realize diversity such as appointing female external directors and foreign directors in association with globalization, although it may happen a while later.

Q: “What are your thoughts on the various impacts of the coronavirus pandemic?”

A: “I felt that combining both telework and on-site work style could improve efficiency considerably. This experience will be very useful in terms of creating a comfortable working environment through diversification of work styles.

Meanwhile, with the coronavirus pandemic greatly accelerating the division and cooperation in the world, I strongly believe that it is important to accept not only Western standards but also Asian cultures and standards in order to achieve true globalization.”

I tried teleworking myself. I felt that it was possible to improve efficiency considerably by combining and balancing the teleworking when doing research and on-site work when finding hints and seeds of business while interacting with customers and people outside our company.

This experience will be very useful in terms of creating a comfortable working environment through the diversification of work styles.

One of the bigger issues of the impact of the coronavirus pandemic is that the pandemic may greatly accelerate the trend of division and cooperation in the world.

I think this is a very important issue in our company’s globalization in terms of how we operate our business in which region.

Japan has been carrying out businesses facing the Western industrial countries. Of course, in recent years, Asia is becoming a business target, but I doubt that we have been truly facing Asia for business by accepting Asia as a culture.

We are basically thinking about everything using Western standards. However, if we want to achieve true globalization, it is important to truly face Asia by accepting Asian culture and standards, considering the future market and the size of the population. We will not be able to achieve true globalization with Western standards alone.

The power balance mainly between the United States and China is changing significantly due to the impact of the coronavirus pandemic. In this environment, I strongly feel that we need to study how to behave as a country where the only assets are “people.” Our company also must think of globalization from this perspective.

Q: “Thank you very much. Finally, please give a message toward your shareholders and investors.”

A: “My strong desire is to work with shareholders and investors in order to become the presence that is wanted by the world. We would like to give an appropriate return to everyone who concurred with this idea and became a shareholder. We would ask our shareholders and investors to support us from medium to long-term perspectives.”

Tokuyama is a company that has emphasized the development of the company from a long-term perspective, and has grown as a “manufacturing” company with a focus on technological development.

Therefore, our basic idea is to make an appropriate investment while making as much profit as possible, and make an appropriate allocation to employees and shareholders as well.

In an extremely uncertain environment, in order for us to survive, it is necessary to appropriately plan businesses that meet the expectations of the world, make investments, and make sure that outcomes can be achieved. My strong desire is to work with shareholders and investors in order to become the presence that is wanted by the world.

We would like to give an appropriate return to everyone who concurred with this idea and became a shareholder.

We would ask our shareholders and investors to support us from medium to long-term perspectives.

6. Conclusion

Unfortunately, last year's results fell short of the company's forecasts, and sales and profits are not expected to be achieved under the mid-term management plan, which is now in its final year. But as President Yokota touched on in his interview, we have been working on various initiatives centered on commodities for some time and it will continue to contribute to the strengthening of its business base from this year and beyond.

On the other hand, the company's financial position has been improved a year ahead of schedule, and it has the capacity to invest.

Given the current severe focus on fossil fuels, we are looking for business opportunities in the environmental field in our next medium-term plan, and we are looking for ways to improve our business performance. It will be interesting to see what kind of investments they implement and what kind of shape they aim to achieve.

<Reference1: the Medium-Term Management Plan “Cornerstone of the Group’s

Revitalization”>

The company was forced to pass its dividend as it recorded heavy impairment losses in the terms ended Mar. 2015 and Mar. 2016. Needing a new driver for profit growth, the company drew up the 5-year Medium-Term Management Plan entitled “Cornerstone of the Group’s Revitalization” in May 2016 under the vision of “New foundation.”

With this plan, the company is tackling various important issues such as reforming its corporate culture and reconstructing business strategies.

(1) Outline of the Medium-Term Management Plan: “Cornerstone of the Group’s Revitalization”

① Assessment of the present state

- ◇ The company has its business base in nonorganic and organic chemistry. Having endured the oil crisis of the 1970s, it has since been constantly growing its businesses by expanding into the field of specialty chemicals and overseas expansion.
- ◇ While the profitability of specialty product business increased during the second half of the 2000s, its general-purpose product business centered on chemicals and cement suffered a profitability decrease due to the shrinking domestic market.
- ◇ Since its founding, the company has always enjoyed its high-efficiency factories and one of the best in-house power generation capacities in Japan. On the back of these qualities, it has built a business based on chemicals and cement, and also been nurturing new fortes in the field of specialty chemicals such as high-purification, powder control, organic and nonorganic synthesis, crystal precipitation, and sintering.
- ◇ On the other hand, the company was not able to successfully relay its technological prowess built up through the specialty chemicals business onto business expansion, apart from the polycrystalline silicon for semiconductors. Therefore, there was a blank period in its creation of new businesses.
- ◇ In 2009, its net interest-bearing debts practically decreased to the no-debt level; however, it swelled rapidly due to the fundraising for its massive investment into its Malaysian business and its financial structure deteriorated drastically, marking a D/E ratio of 4.7 in FY2015.

Assessing its present state like this, and with the shrinking of domestic general-purpose product market for its traditional businesses and slowdown of growth rate of its electronic materials business forecast, the company believes it is essential to create a new driver for profit growth by overcoming the points listed below.

“Overconfidence and dependence on Tokuyama Factory”

“Inward and passive posture spread among employees”

“Corporate governance”

“Uncertainty surrounding the strategic direction of the Group and each department”

② Management policies

With the “Tokuyama’s vision” below, the company will place changing its business culture and a fundamental overhaul of business operations as its core business strategies, and aim to achieve these by FY 2025.

(Tokuyama’s vision)

Mission	Centered on the field of chemistry, the Tokuyama Group will continue to create value that enhances people’s lives
Aspirations	Shift from a focus on quantity to quality (Fiscal 2025) • Global leader in advanced materials • Leader in its traditional businesses in Japan

Values	<ul style="list-style-type: none"> ▪ Customer satisfaction is the source of profits ▪ A higher and broader perspective ▪ Personnel who consistently surpass their predecessors ▪ Integrity, perseverance, and a sense of fun
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(Medium to Long Term Business Strategies)

Transition toward a robust business structure that is resilient against changes in the Company’s operating environment and is capable of sustainable growth

Transition to a Group-wide low-cost structure by undertaking a comprehensive review of existing work practices

(Restructuring business strategies)

	Aspirations	Methods	Key Indicators
“Growth businesses” • Specialty Products • Life & Amenities • New businesses	“Become a global leader in advanced materials through unique technologies” • Thoroughly understand customers’ needs, and meet requirements through unique technologies	<ul style="list-style-type: none"> ▪ Adhere strictly to customer-oriented business activities ▪ Utilize open innovation ▪ Leverage alliances ▪ Review the research and development structure 	EBITDA growth rate
“Traditional businesses” • Chemicals • Cement	“Become a leader in Japan through strengthening competitiveness” • Overcome competition in the general-purpose products market • Become an entity that maintains a thirst for increased efficiency	<ul style="list-style-type: none"> ▪ Adopt a stringent approach toward maintaining and renewing investments; undertake strategic investments aimed at strengthening competitiveness ▪ Increase the efficiency of repairs and maintenance expenses by shortening the periods of periodic maintenance ▪ Strengthen cross-departmental improvement activities ▪ Leverage alliances 	ROA, CCC

(Drivers for growing businesses)

In the growing businesses, the company endeavors to utilize its unique technologies nurtured in the cutting-edge areas to develop products to respond to the society’s needs.

ICT and healthcare are the prospective fields.

In the ICT field, the company will expand the production line of aluminum nitride for thermal management materials, put boron nitride production into operation, and increase production of polycrystalline silicon.

In the healthcare field, the dental equipment and diagnostic medicines will occupy the company’s core business, while seeking further growths and not ruling out the possible M&A.

(Cross-departmental cost reduction activities)

The company will perform non-conventional, cross-departmental approaches and strategic capital investments to reduce the costs of principal items such as raw material and fuel, repair costs and logistics costs.

(Research & development)

To achieve the expansion of existing businesses and expand into the new business fields to utilize its unique technologies, the company will change its R&D structure so it is more in line with the general customer needs.

Also, it will embrace a more outward-looking R&D, involving a higher ratio of R&D personnel from operations department and group companies rather than from within.

(Capital investment plan and setting strategic investments)

The company plans to spend a cumulative total of 96 billion yen on capital investments from 2016 to 2020 (5 years). Of the total, 26% will be earmarked for new business extensions such as responding to demands for refinement of polycrystalline silicon and enhancing the thermal management materials, to lay down a stronger foothold.

At the same time, the 20 billion yen strategic investment will be set aside to expand the growth businesses and strengthen the competitiveness of traditional businesses, with the breakdown of 65% towards the traditional businesses and 35% for the growing businesses.

③Key challenges and countermeasures

The company identifies the following 4 key challenges and the measures.

Key challenges	Measures
1. Change the Group's organizational culture and structure	Steps will be taken to review personnel evaluation systems, actively promote the exchange of human resources between Group companies, and drastically reform structures and systems through a variety of initiatives including the vigorous introduction of outside personnel.
2. Rebuild the Group's business strategies	The Group will strictly adhere to a customer-oriented approach on the conduct of its business activities. At the same time, the Group will transition to a research and development structure that is in tune with customers' needs. Through these means, energies will be channeled toward cultivating new business domains that employ unique technologies. The Group will reinforce management resources including personnel and information through alliance with other companies.
3. Strengthen Group management	Each company of the Tokuyama Group will once again clarify its role and position. Seeking to contribute to the Group's growth strategy as well as the reduction of costs, particular emphasis will be placed on further strengthening the management of the Group as a whole.
4. Improve the Company's financial position	Every effort will be made to restore the Company's shareholders' equity by steadily building up profits. Tokuyama will issue classified stock (preferred stock) to quickly stabilize the Company's financial position, thereby ensuring that the Group is well positioned to flexibly pursue opportunities including M&As that are designed to accelerate the pace of growth.

<Reference2: Regarding Corporate Governance>

◎ Organization type and the composition of directors and auditors

Organization type	Company with audits committee
Directors	8directors, including 3 outside ones

◎ Corporate Governance Report

Last update date: Jun. 24, 2019

<Basic approach>

Under “Tokuyama’s Vision” set in 2016, our company defined the mission of the Tokuyama Group as “Centered on the field of chemistry, the Tokuyama Group will continue to create value that enhances people’s lives.” With the chemical technology that has been nurtured by the Tokuyama Group, we will create new value and keep offering it, to contribute to the happiness of people and the growth of society. We can create new value and keep offering it, only when we have trust and cooperation from stakeholders, including shareholders, customers, business partners, employees, and local communities, and this will lead to sustainable growth and the mid/long-term improvement in corporate value. To do so, it is necessary to constantly enrich corporate governance, which is an important managerial issue. This is our basic policy.

As a basic policy, the company follows the corporate governance code, respects the rights and equality of shareholders, cooperates with stakeholders in an appropriate manner, discloses information properly, secures transparency, ensures the independence of the board of directors, upgrades the supervisory function, streamlines the decision making process, clarifies responsibilities, conducts constructive dialogue with shareholders, and so on.

<Reasons for Non-compliance with the Principles of the Corporate Governance Code >

Principles	Main reasons for not implementing
Supplementary Principle 4-1-3 【Succession plan for a chief executive officer】	We carefully select a chief executive officer (president / executive officer), based on our corporate ethos and managerial strategies, but we think it is necessary to adopt a succession program for developing successors in a planned manner, and we will keep discussing it. As for the procedures, in order to secure fairness and transparency, the personnel committee first conducts deliberations carefully, submits proposals to the board of directors, and then the board of directors makes a resolution.
Supplementary Principle 4-11-1 【Policy for the diversity of members of the board of directors】	As mentioned in “Principle 3-1 (iv) Policy and procedures for selecting and dismissing executives and appointing directors,” we care for the balance and diversity of members of the board of directors, but consider that it is necessary to secure diversity with respect to gender and internationality. We will keep discussing this matter.

<Disclosure Based on the Principles of the Corporate Governance Code (Excerpts)>

Principles	Disclosure contents
Principle 1-4 【the so-called strategically held shares】	As part of its management strategy, the Company may strategically hold shares in listed companies according to its needs for maintenance and development of business relations, funding, and stable procurement of raw materials on business activities. As for these strategically held shares, we will reduce as many shares as possible with the aim of achieving efficient business administration. Every year, the board of directors examines economic rationality by comparing capital cost including risks and benefits, and checks whether it is appropriate to hold such shares, while considering the future outlook. Our company will exercise voting rights, while considering the contribution to corporate value of our company and invested enterprises.

BRIDGE REPORT



<p>Principle 5-1 【 Policy for the constructive dialogue with shareholders】</p>	<p>Our company makes efforts to disclose not only the managerial and financial information of our company, but also non-financial information, such as our products and services, their environmental and social aspects, timely, appropriately, and understandably, in order to win the understanding and trust of shareholders and investors. For our basic stance for disclosing information and timely disclosure system, please see “V-2. Other items regarding the corporate governance system, etc. (Outline of the timely disclosure system)” of this report. The section chief of the Publicity and IR Group will take the role of promoting and managing the constructive dialogue with shareholders and investors.</p> <p>Talks are planned and carried out by the Public Relations and IR Div., which work closely with other internal departments such as the Corporate Planning Div., the Finance and Accounting Div., the Corporate Social Responsibility Div., the General Affairs Div., the Research and Development Div., and the Sales Div.</p> <p>As IR activities in which executives communicate with shareholders and investors directly, we hold a result briefing session for analysts and institutional investors 4 times a year, and participate in the conferences and small meetings held by securities firms when necessary. The Publicity and IR Group, which is in charge of IR activities, holds the interviews with institutional investors inside and outside Japan, a session for introducing our company to individual investors, and so on. For the details of other IR activities, please see “III-2. Situation of IR-related activities of this report.</p> <p>The opinions, etc. of shareholders and investors received through dialogue are checked and shared at our IR meetings, which are attended by executives and relevant section chiefs, and distributed to each section of our company in the form of IR reports, to improve our corporate value by referring to them when designing our managerial and business strategies and adjusting our course of business operation.</p> <p>Concerning management of insider information, the Company has established company regulations with the aim of thoroughly managing information through non-disclosure agreement, etc.</p> <p>As for the management of insider information, we set in-company rules and manage such information thoroughly by producing a confidentiality pledge, etc.</p>
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