

Shin-Etsu Chemical Co., Ltd.

Summary of Financial Results Briefing for the First Half ended September 30, 2018

Date	Friday, October 26, 2018 16:00 - 17:00
Venue	Asahi Seimei Otemachi Building, 27 th Floor
Attendees from the Company	<ul style="list-style-type: none">• Yasuhiko Saitoh, Representative Director-President• Toshinobu Ishihara, Senior Managing Director, In charge of New Functional Materials, Special Functional Products• Susumu Ueno, Senior Managing Director, General Manager of Silicone Division• Masahiko Todoroki, Senior Managing Director, In charge of Semiconductor Materials• Toshiya Akimoto, Managing Director, In charge of Public Relations• Toshiyuki Kasahara, Director, General Manager of Finance & Accounting Department• Yukihiro Adachi, General Manager of Public Relations Department
Reference material	Financial Summary for the First Half ended September 30, 2018

* This memo is a summary of the presentations made and the Q&A session held at the financial results briefing meeting.

[Greeting and summary of financial results (President Yasuhiko Saitoh)]

- The Company achieved record-high results for all items: net sales, operating income, ordinary income, and net income.
- Sales and profit increased in all segments compared to the first half (April to September) of the previous fiscal year. Record-high profits were driven by two business segments: Semiconductor Silicon (up 60% year on year) and PVC/Chlor-Alkali (up 47% year on year).
- Improved sales prices of Semiconductor Silicon and higher spreads for PVC/Chlor-Alkali were the key contributing factors.
Silicones saw primarily positive volume-based effects in the April-June quarter plus positive price-based effects in the July-September quarter. In the Electronics & Functional Materials Business segment, mainly positive volume-based effects were evident.
- Net income per share was ¥372, with ROIC (annualized) of 22.5%, up 5.2 percentage points and ROE (annualized) of 13.2%, up 3.0 percentage points.
- The Company has set an interim dividend of ¥100, up ¥35 from ¥65 in the first half of previous fiscal year.
- The financial results announced were achieved not as a result of various timely measures

implemented but as a natural outcome of economic factors. The Company will continue to take steps to maintain the upward trend in earnings. One of those steps is a series of capacity reinforcement plans. The Company works to surely implement each plan consecutively in order to attain earnings.

- Considering the results for the first six months, the operating forecasts for the full-year ending March 31, 2019 are revised upward as follows: Net sales ¥1,560.0 billion, operating income ¥390.0 billion, ordinary income ¥400.0 billion, net income ¥290.0 billion, and annual dividend per share ¥200.

[Financial results briefing in detail (Toshiyuki Kasahara, Director, General Manager of Finance & Accounting Department)]

- Capital investments in the first half of the year amounted to ¥97.7 billion, including ¥32.6 billion in Semiconductor Silicon and ¥29.0 billion in PVC/Chlor-Alkali (primarily for the construction of an ethylene plant at Shintech).
- Depreciation and amortization in the first half of the year totaled ¥61.8 billion (up ¥11.1 billion year on year), including ¥23.1 billion in Semiconductor Silicon, up ¥10.1 billion year on year.
- There is no change to the initial full-year plan for capital investments of ¥250.0 billion and depreciation and amortization of ¥135.0 billion.
- The average exchange rate during the fiscal year: for overseas subsidiaries (January to June average) US\$1/¥108.70; for domestic companies (April to September average) US\$1/¥110.3.
- Assumed exchange rates from October: US\$1/¥105, €1/¥130.
- FX sensitivity of operating income for the year: US\$ ¥2.6 billion, €¥0.3 billion.

[Consolidated Statements of Income]

- Selling, general and administrative expenses increased due to higher transportation costs, caused mainly by an increase in sales volume.
- Of non-operating income/expenses, equity in gains/losses of affiliates: ¥2.4 billion as of September 30, 2018 compared to ¥1.8 billion as of September 30, 2017.
- Tax rates: 25.6% (first half ended September 30, 2018) compared to 29.8% (first half ended September 30, 2017) due to a lowering of the US federal tax rate. Given the current earnings structure, generally around 26%.

[Consolidated Balance Sheets]

- Total assets as of September 30, 2018 were ¥2,997.3 billion, up ¥94.2 billion from the end of the previous fiscal year. Conversion amount is declining due to the stronger yen (December 31, 2017: US\$1/¥113; June 30, 2018: US\$1/¥110.50) in the yen conversion process for overseas subsidiaries. If this factor is eliminated, total substantial assets have increased ¥133.5

billion (including an increase of ¥59.5 billion in cash & time deposits, an increase of ¥36.2 billion in notes and accounts receivable-trade, and an increase of ¥36.5 billion in property, plant and equipment.) Notes and accounts receivable-trade increased mainly due to higher sales.

- There is generally no change in liabilities. Net assets increased ¥136.9 billion.

[Q&A Session]

<Company-wide>

Q	How do you feel about overall market trends?
A	<ul style="list-style-type: none"> • In the semiconductor industry, rather pessimistic views of the market are increasing, which are reflected on semiconductor-related stock prices. We continue to pay attention to the financial results of firms announced so far and of those to be released. Looking at the most recent results announced, it is true that not all areas of the industry are favorable. However, we are not comfortable with pessimistic views. • In the PVC market, while growth in the US has been about 1% this year, overall sales volume, including exports, continues to be steady with 5% growth. Global demand for PVC is evident, that is, products are selling and prices are stable, despite US-China trade friction and further trade issues involving European countries, the slowdown of China's economy and other factors. In the US market, prices were raised at the beginning of the year and the level has been maintained since then. It is unusual for prices to be so stable in the PVC sector. Also, for silicones, demand remains strong and we have only recently been able to finally catch our breath.
Q	What measures are you taking to continue the upward trend in earnings?
A	The Company will be sure to carry out its investment plans. This means that we will appropriately implement plans not yet released in addition to plans announced. Pricing had considerable positive effects on this year's results. We will maintain this trend, while aiming to increase profits by achieving positive volume-based effects next year and beyond.
Q	How do you plan to use cash?
A	The Company strives to reinvest cash earned from business activities to expand its business as well as strengthen its business foundation. Every investment is carefully considered. Our policy is to effectively pursue investments, while ensuring their certainty. Furthermore, we work to provide stable dividends over the long term. We are aware that share buybacks is one means of distributing returns to shareholders, and are

	looking into it.
Q	What are the factors behind the lower profit (forecast) for the second half?
A	Please simply accept our forecast that ordinary income will cross the ¥400 billion mark. Please recognize the fact that while many people did not expect the forecasts to be revised upward at this time, the Company did revise the forecasts. We revised the forecasts in consideration of the latest results, without dismantling our conservative posture. If we take the full-year forecasts and deduct the first half-results, we will indeed have a lower profit in the second half, but our projections are not necessarily based on such a perspective (by taking into account all potential risks).

<PVC/Chlor-Alkali>

Q	What trends are expected in the caustic soda market in the second half and the next fiscal year?
A	We find the caustic soda market to be large and resilient. Recently, market conditions have become somewhat volatile due to issues in India and Brazil. However, the slump in demand in those countries did not cause oversupply due to demand in other regions. Overall, the demand-supply balance is stable.
Q	When will the ethylene plant in the US be completed?
A	Our schedule is to complete construction work at the end of this year and then launch trial operations.
Q	How do you view conditions in the US ethylene market and the profitability of in-house produced ethylene?
A	The Company is not been fully convinced with explanations on why ethylene prices have fallen since the beginning of this year. I personally take the view that because in the phase prior to establishing new ethylene manufactures debottlenecking investments were made and capacity was added, and while ethylene investments involve securing 1.0 to 1.8 million tons of ethylene per plant, new and incremental facilities for ethylene derivatives are implemented in phases, a temporary imbalance has occurred. In addition, while the capacity of new ethylene derivatives mainly covers exports, the market is not yet open. We will monitor how these issues are resolved as we move forward into the new year. The capacity of our own ethylene plant to be launched accommodates approximately half of the Company's current usage. We will make a balance between internal and external procurement of ethylene by considering the manufacturing costs of in-house ethylene.

Q	What do you know about the plan for constructing a new facility in China, including its capacity?
A	In fact, there are plans to establish facilities for PVC using the carbide method. We are currently monitoring whether construction will in fact be initiated. Meanwhile, it is also a fact that old and small plants, and those that are not in compliance with environmental regulations, are closing. We will continue to keep an eye on when any new plants will be launched, but we expect that the growth of global demand will be just enough to absorb the capacity increase.
Q	What are conditions in the PVC and caustic soda markets?
A	Prices in the US has been stable. PVC prices in the Asian market dropped in the November negotiations, but considering that PVC for November shipment were sold out within three days, we take the view that a price reduction wasn't necessary and that PVC price can bounce back. We consider that caustic soda prices have also hit bottom.

<Silicone resin>

Q	Please describe the operating environment for silicone resin.
A	<ul style="list-style-type: none"> • Certainly, we take the view that there are some competitors who are facing challenges. We are not yet sure how a competitor that has implemented a new structure will proceed, but we will continue to monitor the situation. The Company will focus on handling functional products primarily in new markets. • Silicone is impacted by China's environmental regulations. In terms of the Company's genre, there has been an impact on general-purpose products, but not so much on functional products. • We are paying attention to whether China's environmental regulations might be relaxed with the slowdown of China's economy. So far, we have not seen any such signs. One point to note is that with the waste collection regulations in place, recycled products are not as prevalent as before, which is creating demand for silicone.

<Semiconductor silicon>

Q	What is the supply-demand environment?
A	<ul style="list-style-type: none"> • The wafer market in the July-September quarter experienced 9% growth overall, compared to the same period last year. 300-mm wafers up 12%, 200-mm wafers up 5%, and 150-mm wafers down 1%.

(Current supply-demand environment)

- With respect to the size, demand for 300-mm wafers is steady and we continue to be operating at full capacity. We expect this status to remain throughout the first half of next year. We are not certain about the second half, but given the contracts in place, we expect to be operating at full capacity.
- As for 200-mm wafers, while some point out a slight volatility in demand in some sectors and for smartphones, 200-mm wafers are coming to be applied in a wider range of devices. In addition to demand related to autonomous driving and more electric vehicle controls, as well as EVs, demand for IoT-related areas is slowly but gradually growing, although it may not be easy to spot. Furthermore, in the area of power devices, we have the impression that the energy-saving trend among other factors is contributing to generating demand. The Company is operating at full capacity for its 200-mm wafers and expects to be operating at full capacity also next year. Because circumstances can obviously fluctuate depending on macro-economic conditions, it is too early to tell whether the market will suddenly weaken next year.
- Demand for 150-mm or smaller wafers normally declines from early autumn, but there was no decline at all over the past year and a half. Wafers of 150 mm or less showed the highest market growth in 2017. This was because device manufacturers applied 150-mm wafers to some products that couldn't be produced using 200-mm wafers, while wafer manufacturers had some leeway in the production of 150-mm wafers. Demand has dropped somewhat since October in reaction to the previous trend. This is in line with the Company's expectation that the market for small wafers is on a gradual decline year on year.

Q What are your plans for green field investments?

A The data industry is growing at a significant speed, and supporting this growth are memory products such as DRAM and NAND. From a mid-to-long term perspective, memory products using 300-mm wafers are on an expanding trend. Considering that 300-mm wafers might see a lack of capacity under current brown field investments, we are conducting various simulations. Because green field investments involve a larger investment and higher price increases, we are currently continuing to hold discussions with customers.

Q What is the status of depreciation?

A The Company continues to adopt the three-year declining-balance method for depreciation. Therefore, when making an investment, the burden is large in the initial year. Our policy for 300-mm wafers investment remains unchanged, that is, to increase

	capacity by expanding facilities whenever necessary. We will carry out step-by-step increase of capacity from the second half of a fiscal year, therefore the amount of depreciation will also be on the rise for the portion of expansion.
Q	What about the production of 300-mm capacity?
A	The current supply capacity for 300-mm wafers is projected to be 6.3 million wafers per month on a worldwide basis. While the level of capacity in the subsequent year is unknown because there are other players to consider, all wafer manufacturers are investing based on their contracts in place with customers. We expect these investments will look ahead to the year 2020 and beyond. Therefore, it is unlikely that prices will drop due to an imbalance of supply and demand. The Company has contracts (volumes, prices) in place for next year, so it will proceed steadily accordingly. For both our 300-mm and 200-mm wafers, we will not take the stance of lowering prices to secure volume even if the market weakens. Considering the circumstances of the past two years, we believe our competitors are in similar positions.
Q	What is the pace of 300mm capacity expansion, and are there any concerns over shortages?
A	<p>In the past, we were able to achieve reinforcements within a year. But currently expansion can take up to two years because delivery time of wafer-related equipment has been increasing over the past two years. Therefore, all silicon manufacturers are setting plans by having discussions with their customers looking ahead toward 2020 and 2021. Adjustments for 300-mm wafers will depend mostly on how much the data industry grows. We will need to see how memory manufacturers respond to growth. And, if AI logics are launched, our society might go through drastic changes. We must make judgments based on these factors.</p> <p>As shown in the reference data on page 12 of Financial Summary for the First Half ended September 30, 2018, the magnitude of the impacts semiconductors have on society is rising significantly. We take the view that as with the case of PVC, semiconductors are coming to play a key role in the infrastructure of society. And, wafers serve as a base for semiconductors. While things can happen in the short term, we expect to see stable growth in the medium- to long term. We might even come to experience a shortage of wafers.</p>
Q	What factors contributed to the QoQ (1Q → 2Q) increase in profit and what is the forecast for 3Q and beyond?

A	The profit increase was attributable to three factors: 1) price adjustments, 2) volume effects, and 3) rationalization. The biggest factor was price increases, followed by volume and rationalization effects. We expect to see no major changes to this trend also in the next quarter.
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