

**TOYO TANSO**  
**First Half Results for the Fiscal Year Ending May 31, 2010**

**January 2010**  
**Toyo Tanso Co., Ltd.**

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# 1-1. Remarks on First Half Results for the Fiscal Year Ending May 31, 2010

## ● Remark 1

**Dragged down by the effects of the global recession, demand continues to stagnate, and even though we focused all our energy on the unearthing and uptake of demand, we have seen significant reductions in income and profits.**

## ● Remark 2

**However, we have covered the situation partially with efforts to reduce costs, ensuring a profit ratio of at least 5%. As a result, we have ended up clearing our forecast figures.**

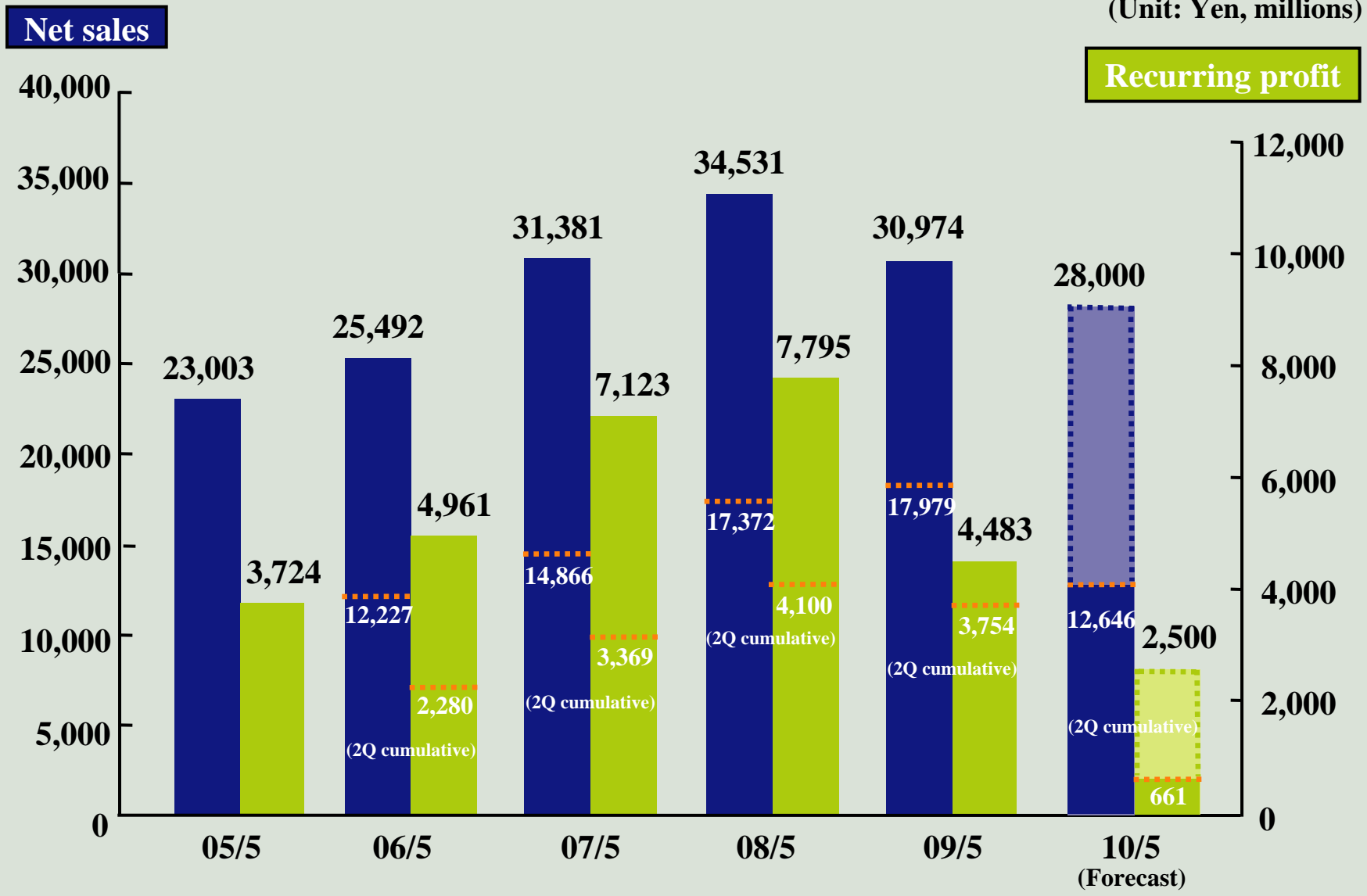
## ● Remark 3

**Taking the first quarter as the bottom, we are now recovering slowly, mainly in products for solar cells and semiconductors. (Results for products for compound semiconductors were particularly positive.)**

## ● Remark 4

**Even though the future continues to be uncertain, trends in both the sure-footed return of demand and prices were as initially anticipated and we will make no changes to forecasts for the full term.**

# 1-2. Business Results



# 1-3. Results for the First Half of the Fiscal Year Ending May 31, 2010

(Unit: Yen, millions)

	09/5 First Half	10/5 First Half	Change	% Change
<b>Net sales</b>	17,979	12,646	(5,333)	(29.7%)
<b>Operating profit</b>	4,154	817	(3,337)	(80.3%)
(Ratio of operating profit to net sales)	(23.1%)	(6.5%)		
<b>Recurring profit</b>	3,754	661	(3,092)	(82.4%)
(Ratio of recurring profit to net sales)	(20.9%)	(5.2%)		
<b>Profit before income taxes</b>	3,747	782	(2,965)	(79.1%)
<b>Net income</b>	2,379	369	(2,009)	(84.5%)
<b>Net income per share</b>	114.76 yen	17.84 yen		
<b>Exchange rate</b>	104.6 yen/\$ 162.7 yen/€	92.9 yen/\$ 133.2 yen/€		

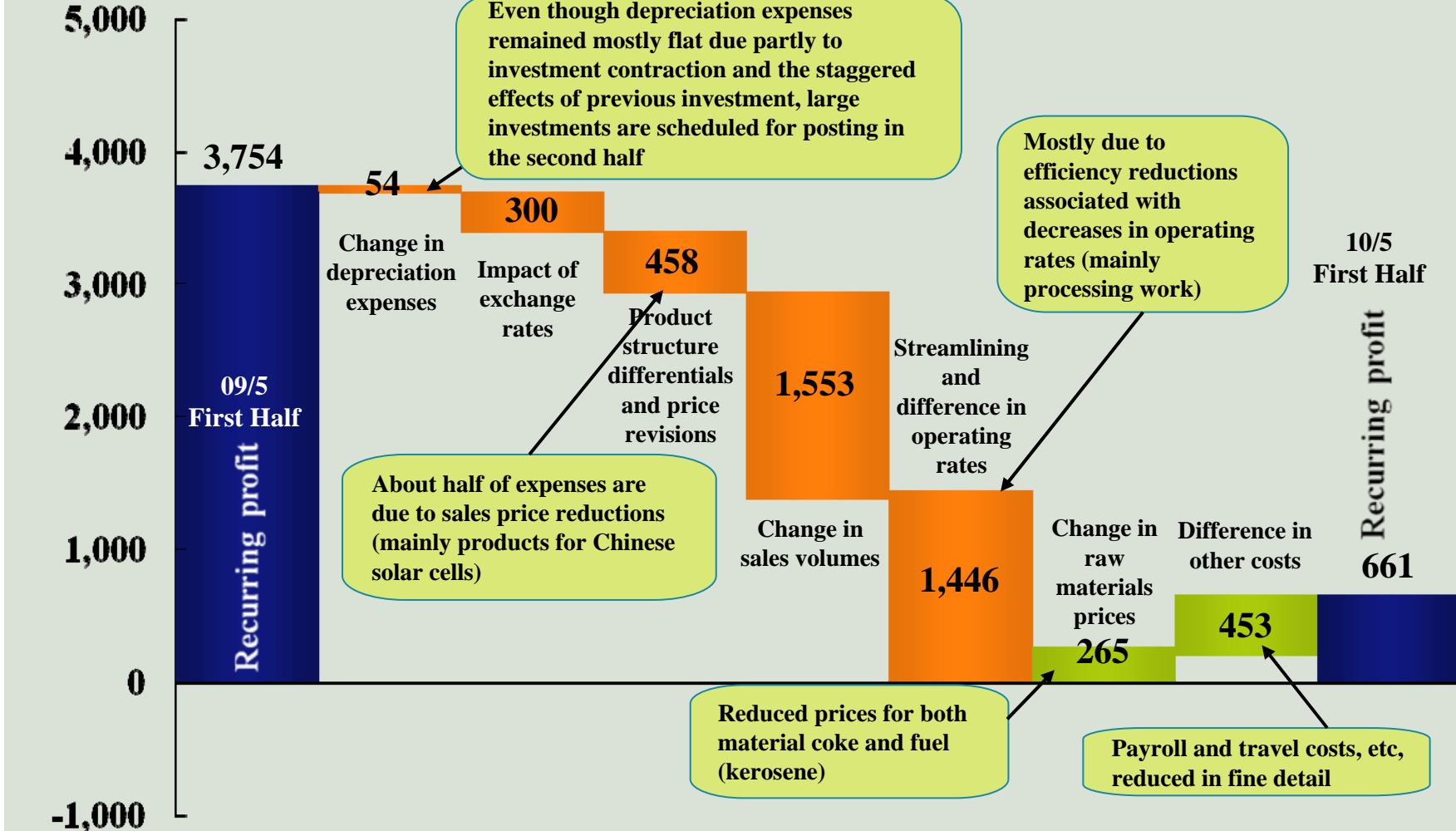
## Points

- In almost all applications and regions, income is being dragged down significantly under the impact of substantial production and inventory adjustment.
  - While prices are within the expected range, they have fallen slightly centered on Chinese solar cells.
  - However, in comparison to the first quarter, second quarter results are on the road to recovery with an 11% increase in income even though there were losses on currency options.
- 
- Echoing the fall in marginal profits associated with the weakening of sales and production, operating and recurring profits declined significantly.
  - Even though there were negative factors such as the strong yen, these were covered by efforts to reduce costs and the fall of raw material prices.
  - As a result, while the situation is difficult, we have secured profit rates of at least 5%.

# 1-4. Factors Affecting Changes Recurring Profits

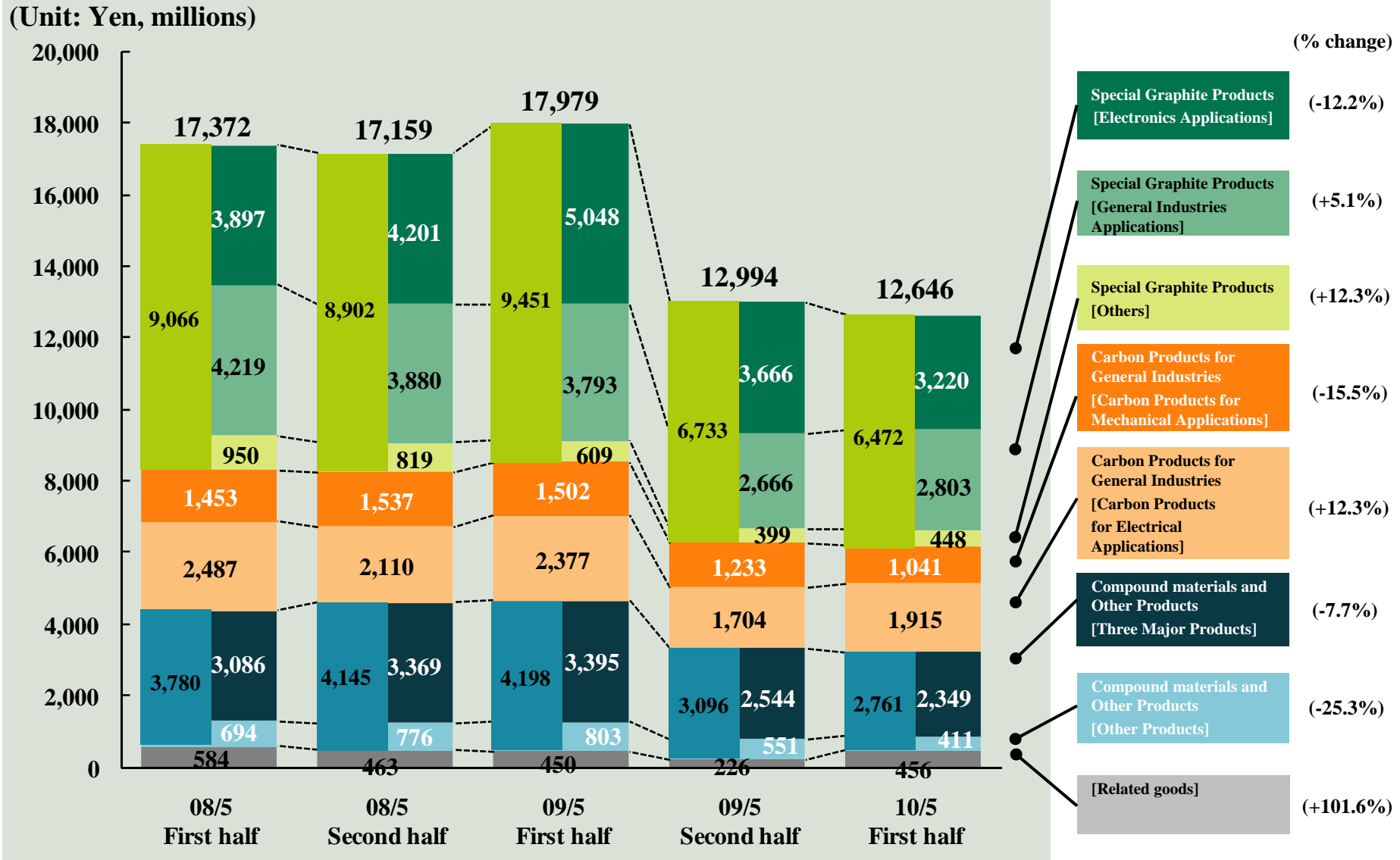
**The main factor is the fall in marginal profits associated with the weakening of sales and production.**

(Unit: Yen, millions)



# 1-5. Overview of Operations by Product and Segment

## (1) Net Sales



# 1-5. Overview of Operations by Product and Segment

## (2) Remarks and Future Outlook (1/2)

	Application	Sales image by application			Remarks and future outlook	
		09/ 5 term Second half	10/ 5 term First half	10/ 5 term Second half		
Special graphite products	Electronics applications	Products for the manufacture of solar cells				<ul style="list-style-type: none"> <li>- Still feeling the impact of the rapid decline and disruption of the market beginning in autumn 2008, demand is stagnating, centered on the core markets of China and Europe.</li> <li>- In the first half of this term, the level of demand was slightly more than 60% of that at the peak (first half of the previous term). Demand slumped in the first quarter in particular, but turned around in the second quarter and is on the road to recovery.</li> <li>- Towards the second half of the term, the macro environment is also improving, including measures in various countries to support the spread of solar cell technology. Disruption is also coming gradually to an end and demand continues to recover steadily centered on China.</li> <li>- Along with concentrating on the incorporation of new demand in Japan and the countries of Asia, demand for thin film and compound systems (including C/C) is also covering the situation and we are currently planning sales expansion and advancing plans for the second half (about 30% increase in comparison to the first half).</li> </ul>
		Products for the manufacture of single crystal silicon				<ul style="list-style-type: none"> <li>- The effects of customer inventory adjustments continue to drag out and demand is stagnating. Due in part also to time lag, demand remains at slightly less than 60% of the level in the first half of the previous term.</li> <li>- However, the operating rate for 300 mm wafers in particular has improved and with the progress in consumption of graphite material inventories, demand is currently recovering mildly towards the second half.</li> <li>- Because the macro environment surrounding semiconductors has brightened to this point, graphite is also expected to improve further from the second half on.</li> </ul>
		Products for the manufacture of compound semiconductors				<ul style="list-style-type: none"> <li>- Demand increased centered on products for white LEDs for use as LCD backlights, with products for South Korea and Taiwan driving growth due mainly to new and expanded facilities.</li> <li>- In addition, although small in scale, products for LEDs grew by a little less than 30% in comparison to the first half of the previous term. Against the backdrop of good results for products such as notebook PCs, flat-screen TVs and mobile phones, the outlook for the future is positive. (See the "LED Feature" below.)</li> </ul>
	General industries applications and others	Products for electrical discharge machining (EDM) electrodes				<ul style="list-style-type: none"> <li>- Although demand both in Japan and overseas continued to be weak due mainly to the decline of the automobile and household appliance industries, the recovery has become clearer in China, where recovery has been quick. In the second half, we managed to hold on to about 70 - 80% of demand during the peak period (first half of the previous term).</li> <li>- Competition is also intensifying under difficult business conditions in the die industry, but we are concentrating on expanding market share armed with differentiated products (ultrafine particle structure graphite materials)</li> </ul>
		Products for continuous casting and metallurgy, etc				<ul style="list-style-type: none"> <li>- Against the backdrop of decreased capital investment associated with the economic recession, demand for products for metallurgy, including continuous casting and industrial furnace-related products continued to move on a weak note.</li> <li>- However, the recovery following the bottoming out of the slowdown has been relatively quick. Business turned to upswing in the second half of the first quarter and demand for the first half overall was at a slightly higher level than the second half of the previous term. China in particular made strenuous efforts and products for optical fiber, electronic materials and continuous casting drove growth.</li> </ul>
		Other special applications				<ul style="list-style-type: none"> <li>- Material shipments and the start of processing are scheduled from next term for high temperature gas reactors in China (3 - 4 billion yen). (Sales postings are scheduled for the 12/5 term.)</li> </ul>



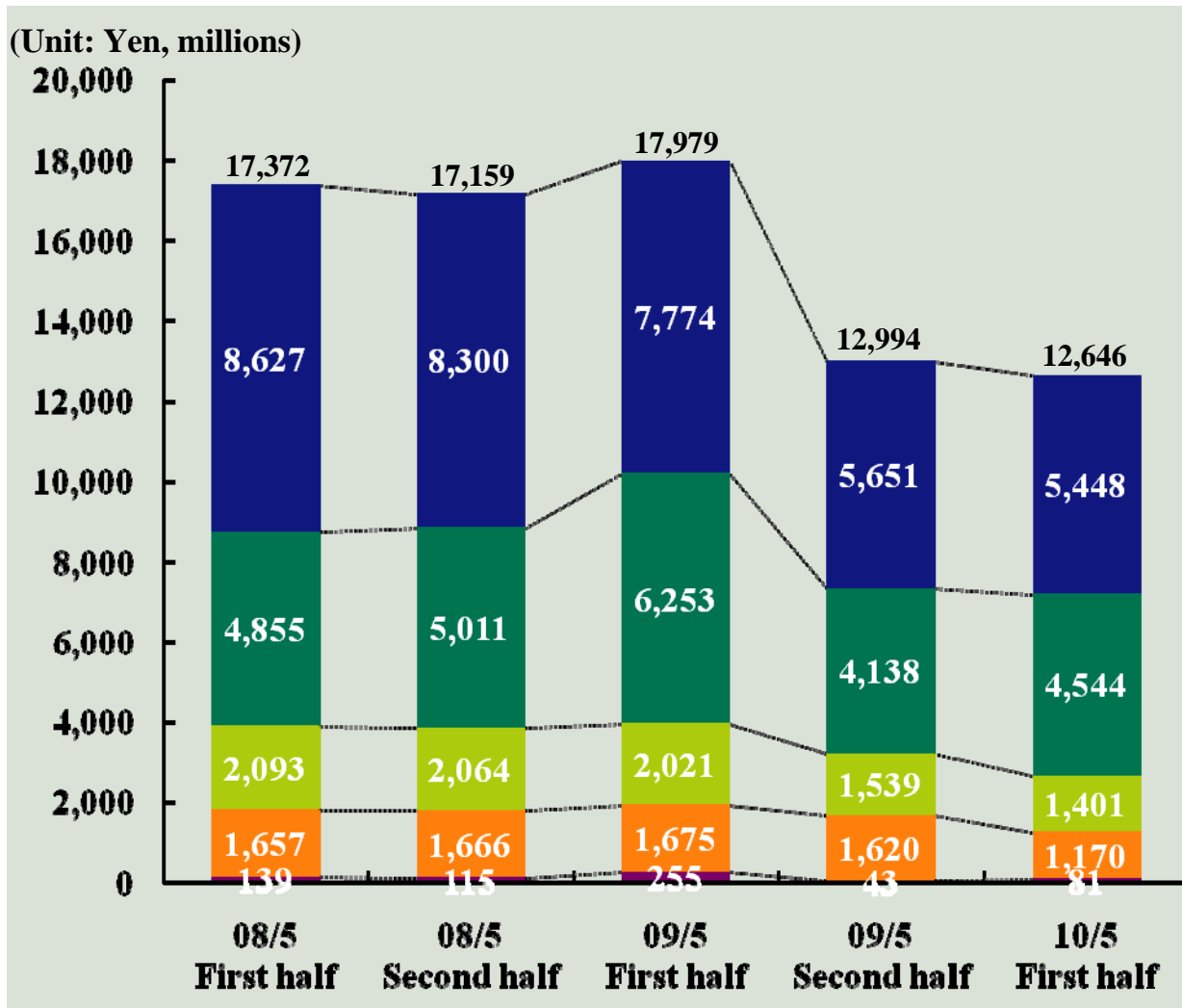
# 1-5. Overview of Operations by Product and Segment

## (2) Remarks and Future Outlook (2/2)

	Application	Sales image by application			Remarks and future outlook	
		09/ 5 term Second half	10/ 5 term First half	10/ 5 term Second half		
Carbon products for general industries	Carbon products for mechanical applications	Products for general industries				<ul style="list-style-type: none"> <li>- Demand for core products such as bearings and seals declined as a result of capital investment controls in relation to petrochemical plants and pumps. We anticipate that more time will be required for recovery.</li> <li>- We are concentrating on increases in overseas sales that was behind and getting a result.</li> </ul>
	Carbon products for electrical applications	Products for transportation				<ul style="list-style-type: none"> <li>- Demand for pantograph sliders, which are affected only slightly by economic fluctuations, remained solid although the market is small in scale. Increased sales to private railways also developed gradually. Recovery in products for overseas markets is still a matter for the future.</li> </ul>
		Products for small motors				<ul style="list-style-type: none"> <li>- Although demand in China, the production base, was stagnating under the impact of the economic downturn in Europe and America, demand is recovering quickly centered on products for household appliances following the bottoming out of the recession. In Japan, the situation continues to be relatively difficult.</li> <li>- In the second quarter, demand recovered to a level of about 90% that of the peak period (first half of the previous term). We will promote a global strategy centered on China and aim for further increases in sales.</li> </ul>
		Products for industry and automobiles, etc				<ul style="list-style-type: none"> <li>- The uphill battle in the area of products for industrial use continues, but the decline in products for automobiles (fuel pumps, etc) was small and with the excellent condition of hybrid vehicle products and product adoptions in motorbikes also providing support, recovery in this sector has become clear.</li> </ul>
Compound materials and other products	Three major products	SiC coated graphite products				<ul style="list-style-type: none"> <li>- Although demand for mainstay products for semiconductors (Si-Epi, etc) continues to be weak, there are signs that the market is gradually bottoming out.</li> <li>- As noted above, demand for products for compound semiconductors is steady. We are planning on further increases in sales armed with consistent competitiveness all the way through from materials to processing to coating.</li> <li>- Total sales for the first half remained equivalent to the second half of the previous term, but we expect better results in the second half against the backdrop of the expansion of products for compound semiconductors and the recovery of semiconductor-related demand.</li> </ul>
		C/C composite products				<ul style="list-style-type: none"> <li>- In the area of large crucibles for the manufacture of 300 mm wafers we faced very difficult going due to the prolongation of operating reductions and inventory adjustment at our main customers. Products for solar cells also slumped, dragged down by the disorder of market conditions.</li> <li>- A little more time will be needed for recovery in demand for crucibles, including customer inventory adjustment, but we do anticipate a gradual recovery in solar cell related products, including products for thin-film type solar cells and new projects.</li> <li>- Deliveries of the products for nuclear fusion reactors that were ordered last year have also started and from the fourth quarter onwards in particular, this sector will once again be on a growth track.</li> </ul>
		Graphite sheets				<ul style="list-style-type: none"> <li>- Mainstay products for automobiles and semiconductors took the lead in turning towards recovery and have returned to a level slightly less than 90% of that at the peak (first half of the previous term). Demand for graphite sheets appears likely to continue performing steadily in the future.</li> </ul>

# 1-6. Overview of Net Sales by Region

**Although the scale of sales has contracted overall, our presence in the Asia region in particular has improved and our overseas sales ratio continues at a high level (56.9%)**



## Composition ratio

**Japan**

**(43.1%)**

Sales continue to stagnate under the impact of production and inventory adjustment, mainly in the semiconductor industry

**Asia**

**(35.9%)**

Although core products for solar cells are performing weakly, brushes and compound semiconductors are performing solidly and the ratio of sales for the region is expanding

**Europe**

**(11.1%)**

Sales are stagnating in almost all applications, centered on solar cells

**North America**

**(9.3%)**

In addition to the stagnation of products for the manufacture of semiconductors and polysilicon, products for solar cells are also stalling and the immediate future looks difficult

**Other regions**

**(0.6%)**

## 2-1. Forecast for the Fiscal Year Ending May 31, 2010

(Unit: Yen, millions)

	09/5	10/5 (Forecast)	Change	% Change
<b>Net sales</b>	30,974	28,000	(2,974)	(9.6%)
<b>Operating profit</b>	4,741	2,500	(2,241)	(47.3%)
(Ratio of operating profit to net sales)	(15.3%)	(8.9%)		
<b>Recurring profit</b>	4,483	2,500	(1,983)	(44.2%)
(Ratio of recurring profit to net sales)	(14.5%)	(8.9%)		
<b>Net income</b>	2,566	1,500	(1,066)	(41.6%)
<b>Net income per share</b>	123.80 yen	72.34 yen		
<b>Exchange rate</b>	99.6 yen/\$ 143.5 yen/€	(2 <sup>nd</sup> half) 90 yen/\$ (2 <sup>nd</sup> half) 130 yen/€		

### Remarks

- Underlying demand is heading for recovery centered on core products related to solar cells and semiconductors.
- In addition, although small in scale, sales of products for compound semiconductors centered on products for LEDs are growing and becoming more noticeable.
- Although prices are tending to fall, they are forecast to trend largely within the initially anticipated range.

- Marginal profits are increasing in association with the return of sales and production (structurally high marginal profit rates).
- Despite the impact of the strong yen, the situation is being covered with ongoing efforts towards cost reductions, etc.

- The US\$ is expected to fall against the yen (93 yen to 90 yen) (the Euro will not change).

- Although the future remains uncertain, there will be no changes to the results forecast for the full term in view of the situation described above.

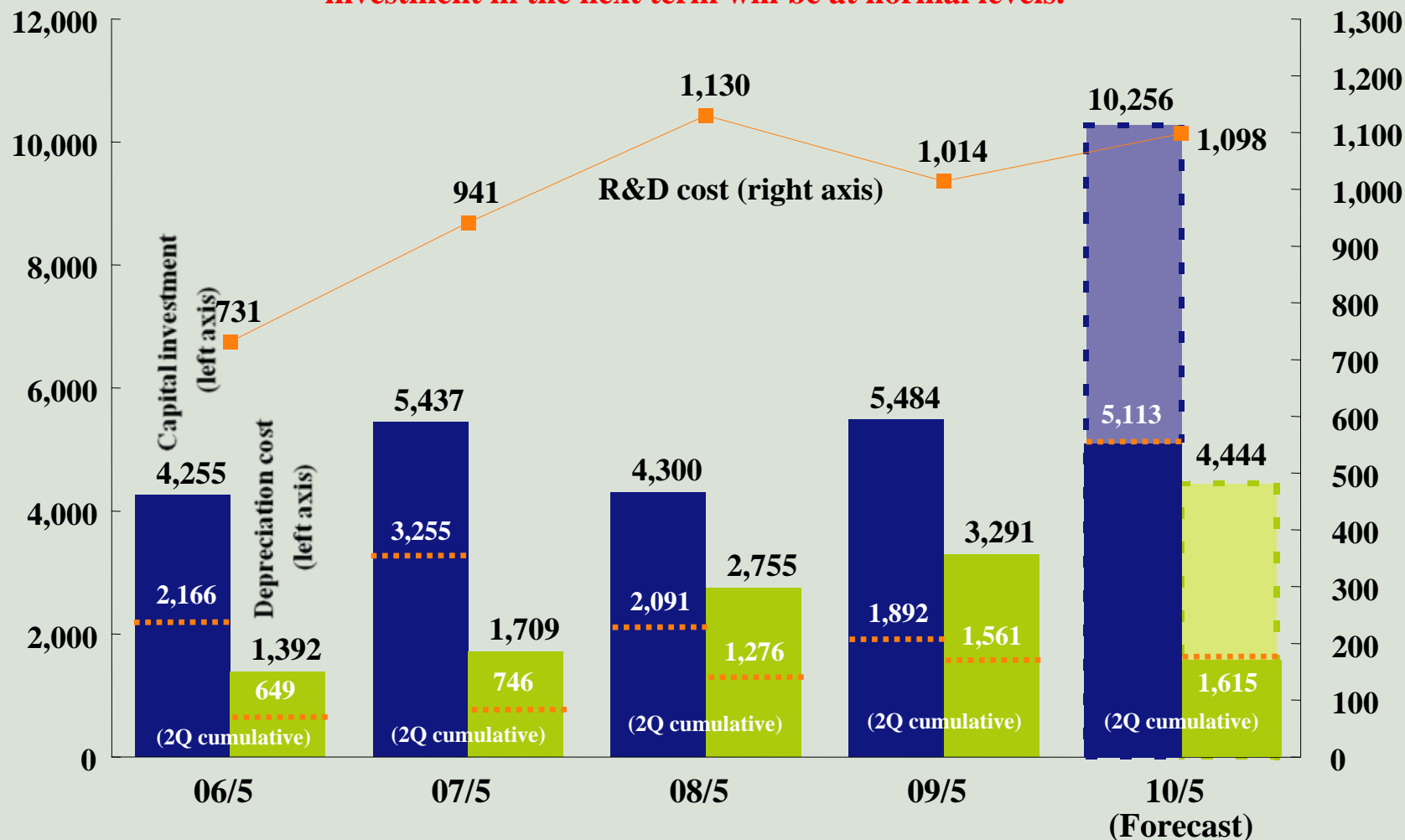
## 2-2. Investments in the Future (Capital Investment, Depreciation Cost, R&D Cost)

**Investment will be largely as initially planned. The new factory for isotropic graphite at Takuma is currently progressing as planned.**

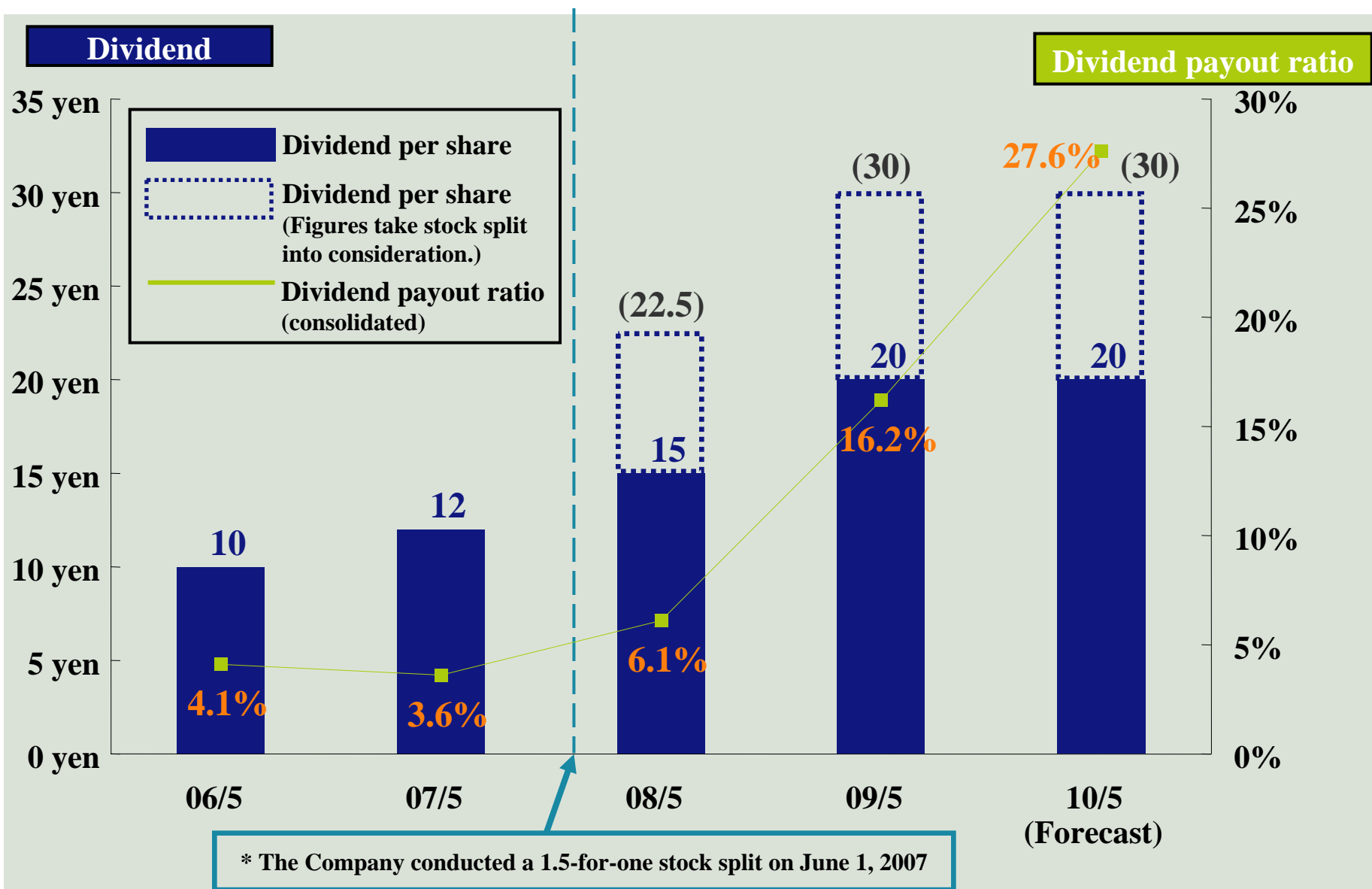
**Large scale investment has come full circle and the value of investment in the next term will be at normal levels.**

(Unit: Yen, millions)

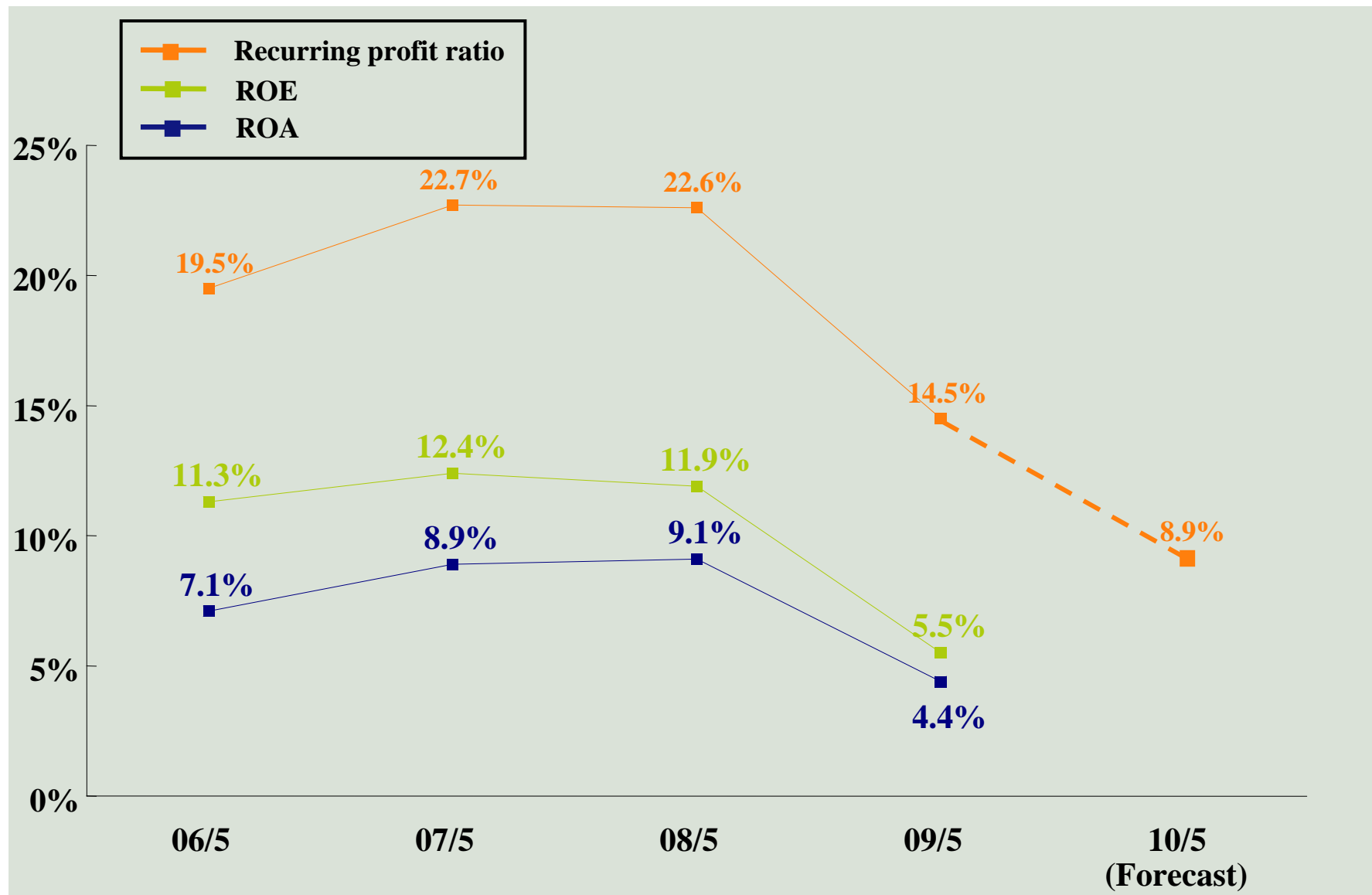
(Unit: Yen, millions)



## 2-3. Return to Shareholders Changes in Dividend



## 2-4. Major Business Indexes



### New factory construction progressing at overseas subsidiaries

New factory construction is progressing at various overseas subsidiaries in order to respond to the business expansion associated with the broadening of the areas of use of graphite products.

In China, Shanghai Toyo Tanso is currently constructing a new factory aiming to start operations in spring this year. This will reinforce the company's ability to process high performance materials, for which demand is expected to increase, such as materials for solar cells and high temperature gas reactors.

In Germany, starting with the new factory completed and relocated to last year, GTD GRAPHIT TECHNOLOGIE GmbH is currently progressing development towards a wide range of industries including solar cells, semiconductors and automobiles.

The company will continue to promote responses to increasingly sophisticated and diversifying user needs after determining the economic situation and industry trends, etc.



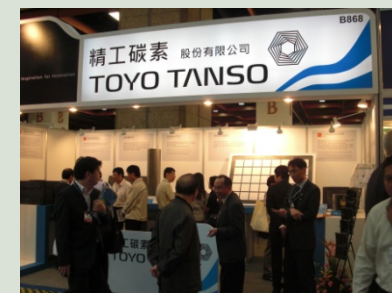
The new factory at Toyo Tanso's German subsidiary

### Drawing attention to the technological prowess and track record of the company group through participation at exhibitions

Toyo Tanso is participating proactively in exhibitions in various countries in order to draw the attention of the outside world to the technological prowess and track record of the company group

At the 2<sup>nd</sup> International Business Forum for Fusion/ Fission Energy held in Sapporo, Hokkaido in September last year, we introduced visitors to our efforts over many years in the nuclear power field as well as our high technological capabilities in the area.

At the Taiwan International Photovoltaic Forum and Exhibition (PV Taiwan 2009) held in Taiwan in October, Toyo Tanso Taiwan, the company's Taiwanese subsidiary, exhibited various solar cell-related products. Toyo Tanso plans to participate positively in exhibitions held in various countries in the future too, aimed at the further global development of the group.



The Taiwan International Photovoltaic Forum and Exhibition

**Toyo Tanso will also participate this year in the 3rd International Photovoltaic Power Generation Expo PV EXPO 2010. PV EXPO is the largest exhibition in the solar cell industry in Asia, and provides a venue for the powerful companies of the world to come together under the same roof.**

**Toyo Tanso will also participate this year in 3rd International Photovoltaic Power Generation Expo PV EXPO 2010 (March 3 - March 5, 2010; Tokyo Big Site).**

**We plan to appeal to our results and experience as well as the superiority of our technology through an exhibition of actual solar cell-related graphite products and panels.**

## 3-2. LED Applications, where Significant Steps forward Are Expected

### (1) LED Overview

#### About LEDs

The term “LED” is an abbreviation of “Light Emitting Diode.” Known also as luminescent diodes, an LED releases energy when a voltage is applied = an LED is a type of light-emitting compound semiconductor.

- P** Power saving ⇒ Consumed electricity is 1-tenth that of incandescent bulbs
- L** Lighter, reduced environmental burden ⇒ LEDs are smaller and lighter in comparison to conventional light sources, and contain none of the mercury found in fluorescent lights
- L** Long-life ⇒ LEDs have operating lives 40-times longer than incandescent bulbs

LEDs are available in all 3 primary colors (red, green, blue) since the development of the blue LED in 1993



To enable the realization of white LED light

#### <<White LED color rendition method>>

White LED light cannot be realized using an LED element alone

- 1) Blue LED + yellow fluorescent light
- 2) Red LED + green LED + blue LED
- 3) Ultraviolet LED + red/ green/ blue fluorescent light

#### Use of graphite in the LED manufacturing process

The color of LED light is different depending on the compound used, but graphite materials are used in the LED manufacturing process whether the color is red, green or blue, and Toyo Tanso products are also used in the LED manufacturing process of each color.

LED color	Compound	Main graphite material used
Blue	GaN	With coating
Green	GaP	Without coating
Red	GaAs	With coating

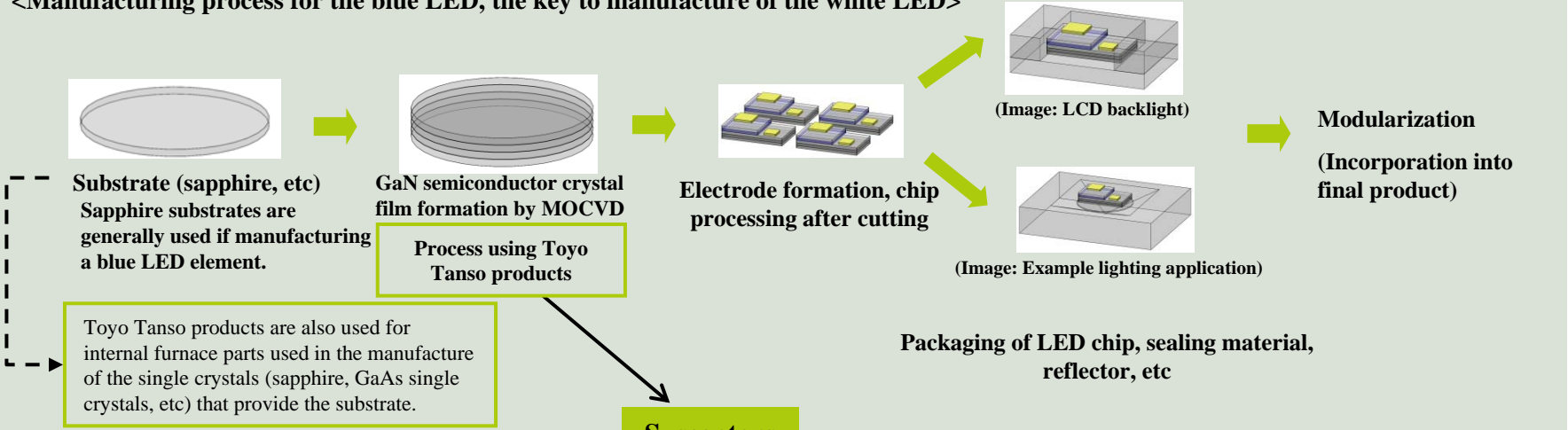


# 3-2. LED Applications, where Significant Steps forward Are Expected

## (2) The Roles of Toyo Tanso Products

### GaN LED manufacturing process

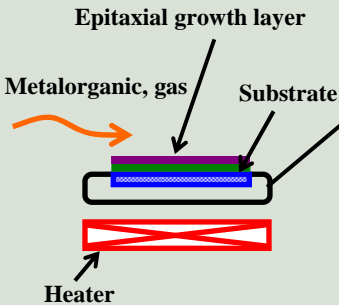
<Manufacturing process for the blue LED, the key to manufacture of the white LED>



### MOCVD (metal organic chemical vapor deposition)

MOCVD is a crystal film growth (epitaxial growth) method that uses metalorganics and gas for raw materials.

The raw materials are vaporized under high temperature and pressure, and semiconductor crystals are formed on a substrate by initiating a chemical reaction upon it. It is said that if the temperature of a sapphire substrate differs by 1°C, the wavelength of the LED (its color) will differ by 1 nm, so this is a process that exerts a significant impact on the quality of the LED.



<Diagram of MOCVD equipment>



The material used as the substrate pedestal when forming a crystal film by MOCVD

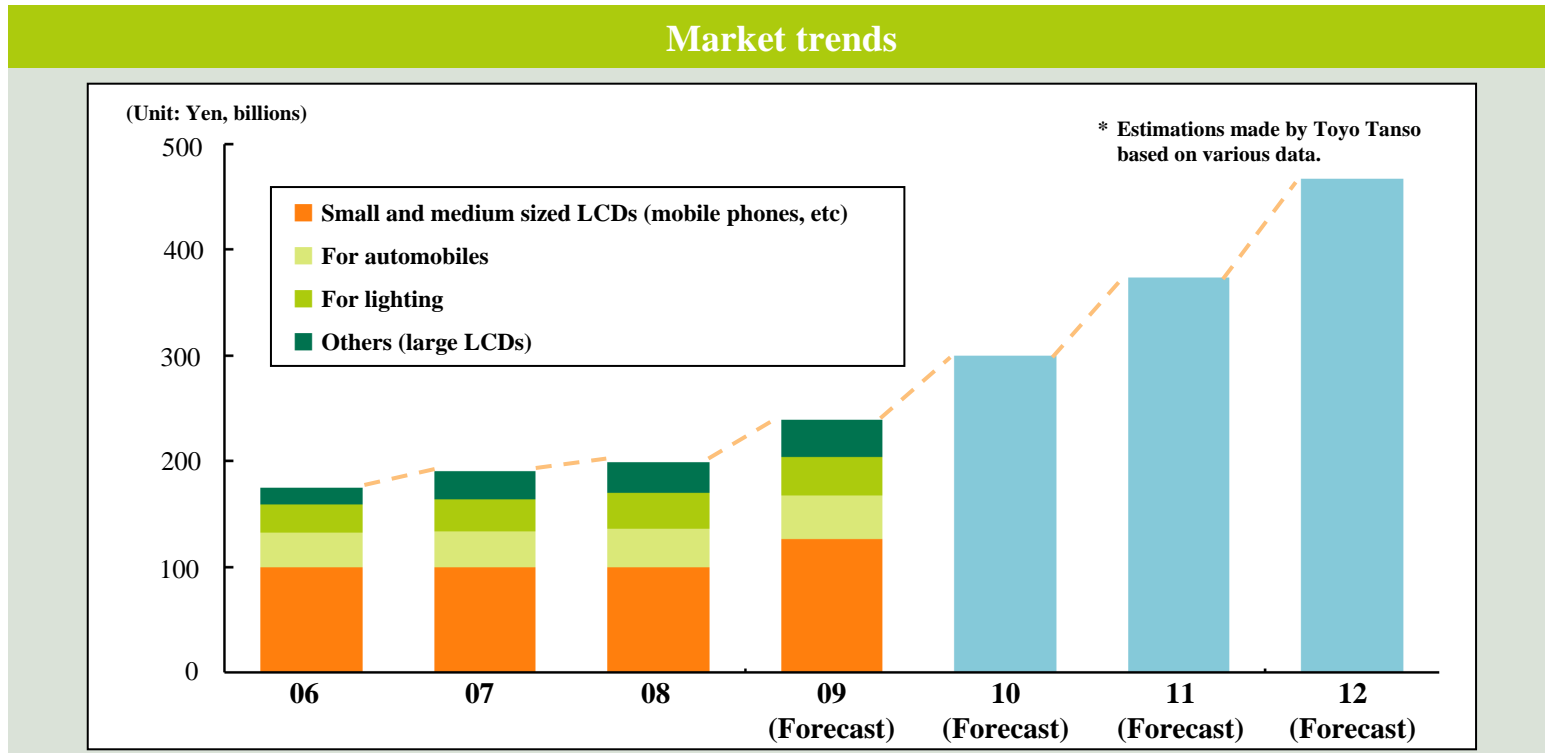
High purity, heat stability and conductivity are called for.  
⇒Adoption of graphite materials

Graphite degrades easily in the high temperature ammonia atmosphere present when forming GaN semiconductor crystal films.

**SiC coated graphite materials are used**

Technology is required that is strong in areas such as durability against ammonia, dimensional accuracy and the realization of smooth SiC films.

### (3) Market Trends



### Overview of the market

#### (Expectations for 2009)

- While the difficult economic environment will continue, the LED market is scheduled to achieve positive growth in 2009 in comparison to the previous year.
- The growth driver has switched from mobile phones to backlights for LC TVs.

#### (Expectations for the future)

- LED adoption as backlights for LC TVs and lighting equipment will start in earnest with an annual rate of increase of about 20%.
- Market size for 2012 is estimated to be about double that for 2008.

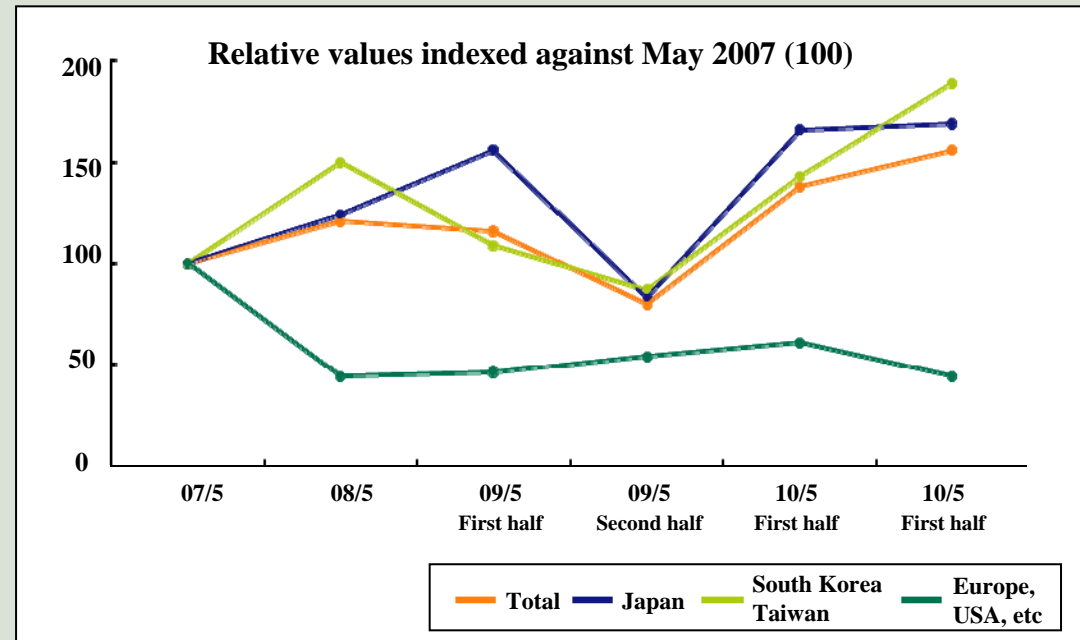
## 3-2. LED Applications, where Significant Steps forward Are Expected

### (4) The Toyo Tanso Development Situation and Strategy

#### The Toyo Tanso development situation (Overview)

- Sales to South Korea and Taiwan in particular centered on products for backlights for LCDs have increased rapidly since the first quarter in association with the new and expanding construction of MOCVD facilities.
- Sales for the last fiscal year were a few percent of overall sales (of those, about half were overseas sales)
- The proportion of coated products is increasing rapidly.
- Market share in the area of compound semiconductors is top at an estimated 40 - 50% (excluding pure products)

#### Sales trend by region for products for LED applications



#### Development strategy and issues

- Further reinforcement of competitiveness in consistency from materials to processing to coating (costs, quality, technological services)
- Expansion and upgrading of production capabilities (coating)
- Promotion of multifaceted development (including investigation of collaboration with equipment manufacturers) and promotion of customer retention
- Promotion of globally-responsive proposals and sales activities by global specialist units that transverse the organization, regions and company
- Concentrated input of management resources in Japan and Asia, where further growth is expected

# (Reference 1) Balance Sheet for the First Half of the Fiscal Year Ending May 31, 2010

	(Unit: Yen, millions)			Remarks
	08/11	09/5	09/11	
<b>Total assets</b>	60,097	58,821	59,624	
Trade notes and accounts receivable	10,731	8,257	8,519	- Increased 769 million yen compared to the end of 09/5 due to factors including the planned accumulation of intermediate inventories.
Inventory	8,496	9,520	10,289	
Tangible fixed assets	21,547	23,208	25,807	- Increased 2,599 million yen compared to the end of 09/5 due to factors including the reinforcement of isotropic graphite and value added processing.
<b>Total liabilities and net assets</b>	60,097	58,821	59,624	
Interest-bearing debt	1,604	1,394	1,911	
Paid-in capital	7,692	7,692	7,692	
Net assets	48,641	48,606	47,726	
<b>Equity ratio</b>	79.0%	80.6%	78.2%	

# (Reference 2) Statement of Cash Flows for the First Half of the Fiscal Year Ending May 31, 2010

	(Unit: Yen, millions)		<b>Remarks</b>
	09/5 First Half	10/5 First Half	
<b>Cash and cash equivalents at the end of the period</b>	7,770	4,678	
<b>Changes in cash and cash equivalents</b>	(2,721)	(1,734)	
<b>Cash and cash equivalents at the beginning of the period</b>	10,491	6,412	
<b>CF from operating activities</b>	4,384	1,703	Increase due to refunds of depreciation expenses, corporation taxes, etc.
<b>CF from investing activities</b>	(6,687)	(3,349)	Expenditures due to the acquisition of tangible fixed assets
<b>CF from financing activities</b>	(369)	48	



**Note: This presentation contains “forward-looking statements” and forecasts of business results. These statements are not historical facts but instead represent the Company’s beliefs regarding future events, many of which, by their nature, are inherently uncertain and out of the Company’s control. It is possible that the Company’s actual results may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.**

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