

5713

2nd Quarter of FY2016 Progress of Business Strategy

November 17, 2016



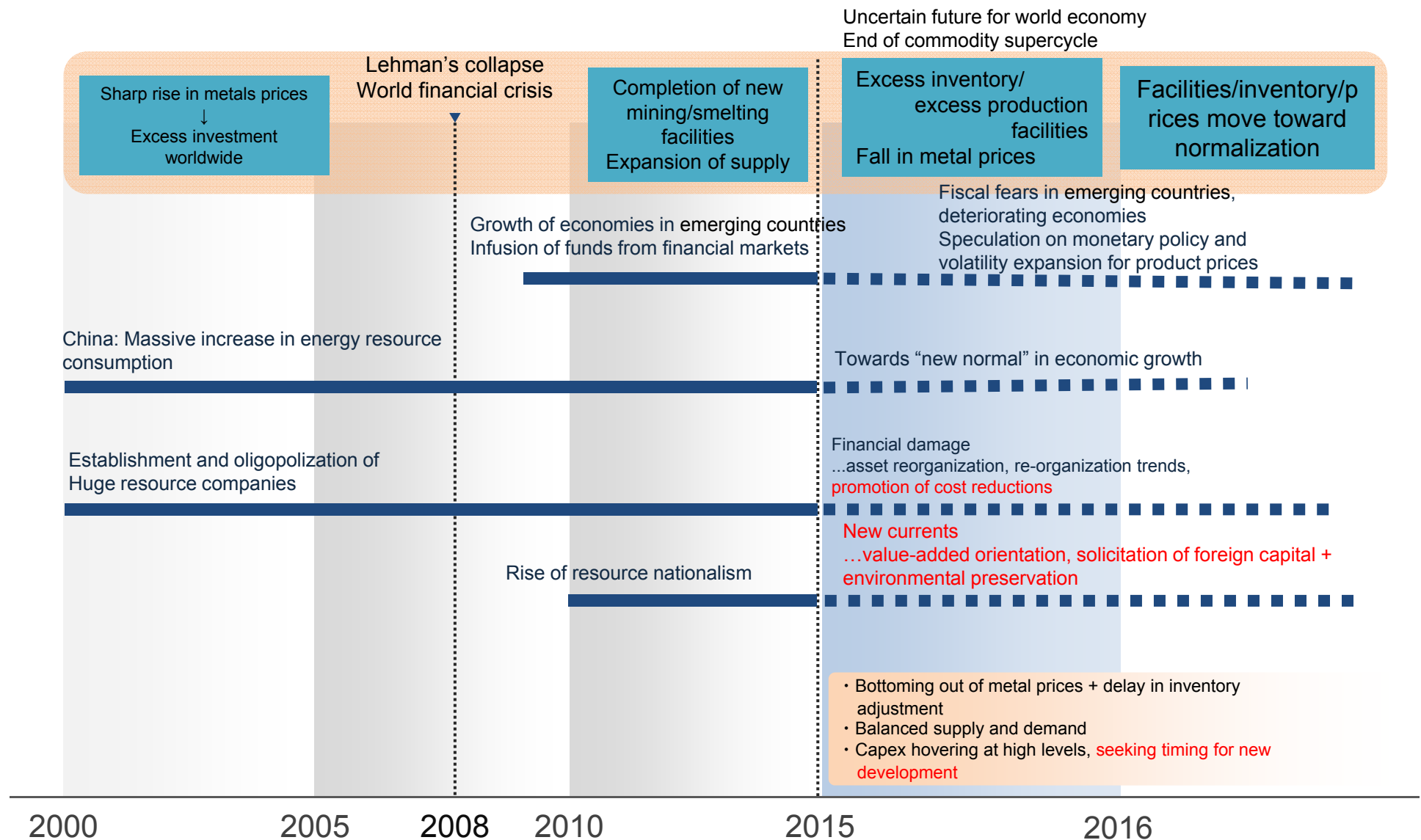
Yoshiaki Nakazato
President and Representative Director

SUMITOMO METAL MINING CO., LTD.

I. Addressing Management Issues and Future Markets

- I** Addressing Management Issues and Future Markets
- II** Trends in Business Performance
- III** Progress and Promotion of the 15 3-Yr Plan Strategy
- IV** Business Environment
- V** Financial Highlights and Information Materials

1) Business Environment



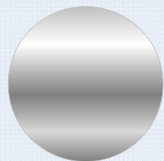
2) Long-Term Vision

Aiming to be a World Leader in the Non-Ferrous Metals Industry
and an Excellent Company of Japan

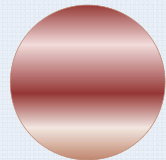
Targets

World Leader in the Non-Ferrous Metals Industry

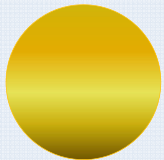
FY2021



Nickel
150 kt



Copper interests
300 kt



Gold
30 t



New materials
Recurring profit
¥5 billion

Excellent Company of Japan

Net Sales ¥1 trillion

Net Income* ¥100 billion
(Recurring profit ¥150 billion)



Head Office building entrance

Monument presented by Freeport-McMoRan Inc. to commemorate
acquisition of additional interest in the Morenci Copper Mine

- Grow steadily to achieve on our Long-Term Vision
- Reconsideration of strategy based on external business environment changes

* Profit attributable to owners of parent

3) Top Priorities in the 15 3-Yr Business Plan

Mineral Resources / Smelting & Refining Metals market conditions: Adjustment phase → all companies focusing on cost reductions and productivity improvements

Materials Business Active investment in growth areas and markets

Batteries: Further reinforcement from 1,850 t/mo. → **3,550 t/mo. capacity in FY 2017**

Crystals: Certain implementation of 300K substrates/mo. → **400K substrates/mo. capacity in FY 2017**

Lead frames: Decision on **transfer of / withdrawal from business**

Mineral Resources

- Full-scale production at the Sierra Gorda Copper Mine
- Acquire new Gold mine interests

Materials

- Profit contribution from expanded battery material and LT/LN substrate production
- Continuously create and adapt new products

Smelting & Refining

- Expand Taganito HPAL
- Advance growth strategies using HPAL peripheral technologies
- Enhance competitiveness of copper smelting business

R&D

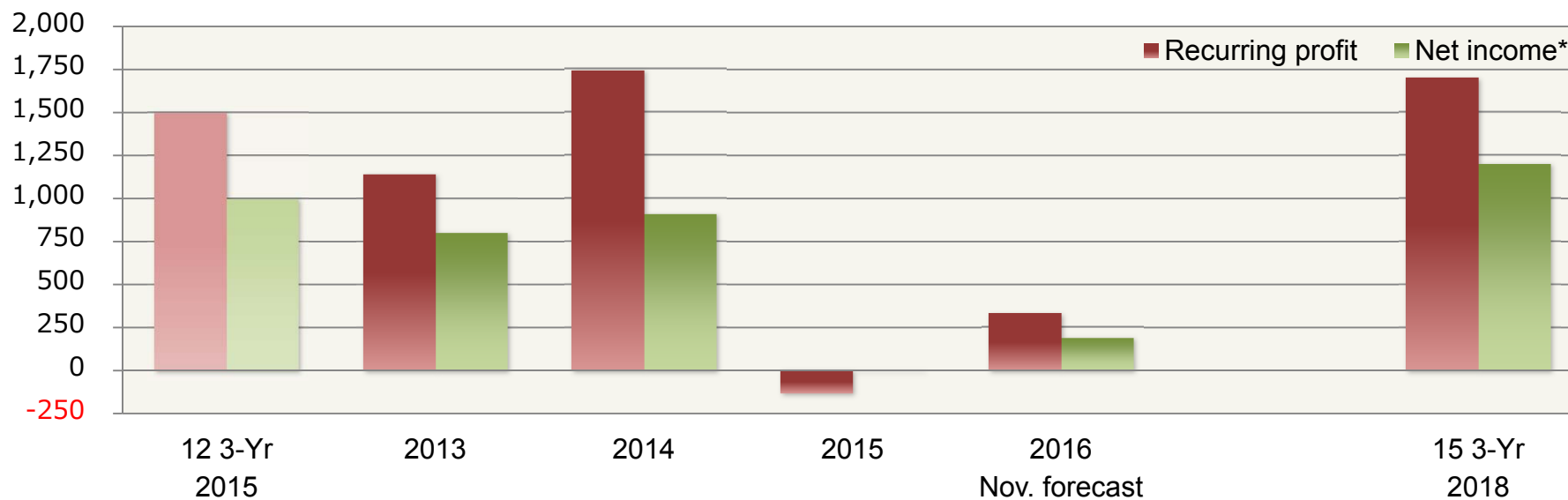
- Develop new products and processes

In FY2016:

Make efforts to secure profits under low metals prices

4) Recurring Profit

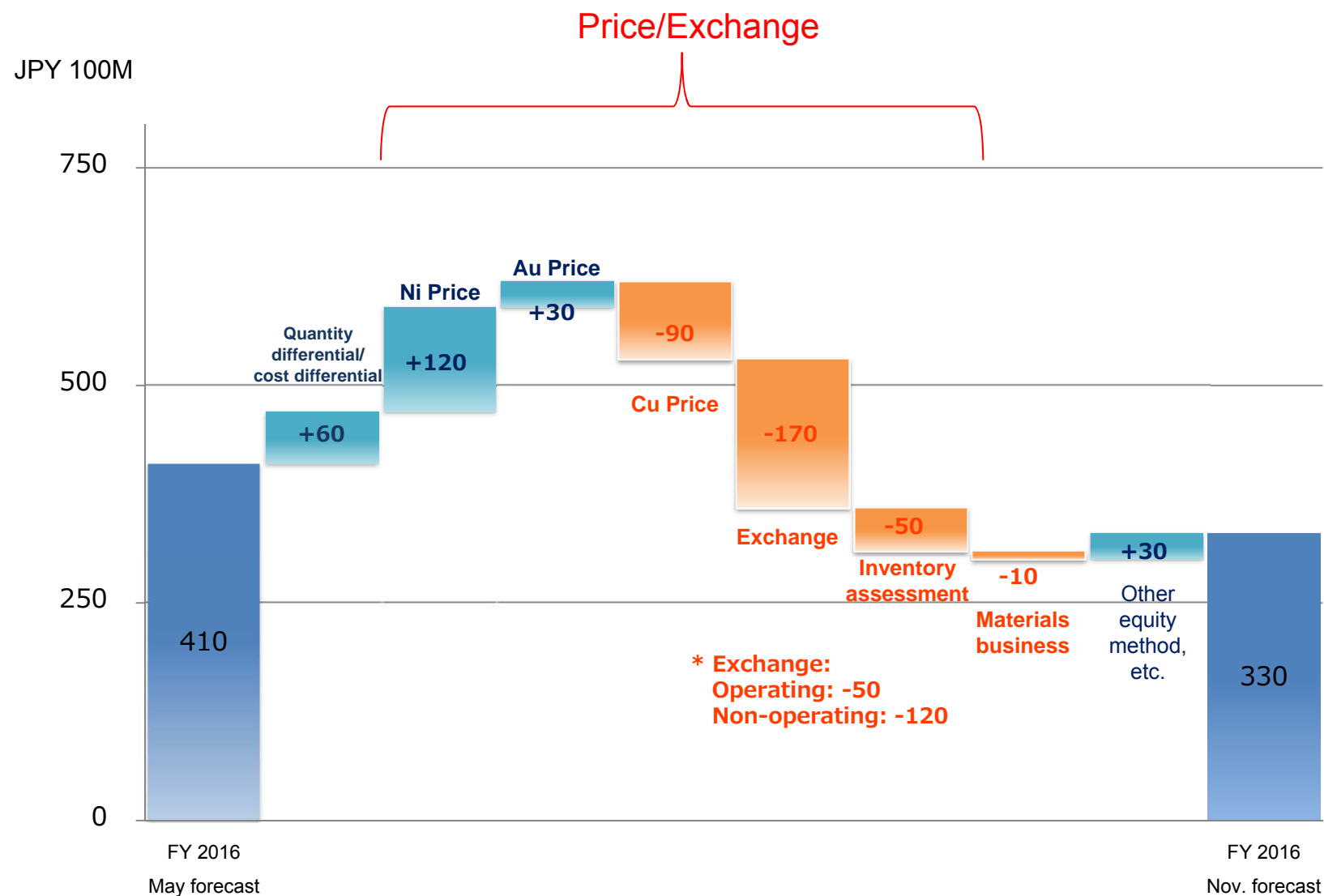
(¥100 million)



(¥100 million)

	12 3-Yr Plan 2015	2013	2014	2015	2016 May forecast	2016 Nov. forecast	15 3-Yr Plan 2018
Recurring profit (¥100 million)	1,500	1,144	1,742	-128	410	330	1,700
Net income* (¥100 million) *Profit attributable to owners of parent	1,000	803	911	-3	230	190	1,200
Cu price (\$/T)	7,500	7,104	6,554	5,215	5,000	4,726	6,000
Ni price (\$/lb)	9.0	6.5	7.6	4.7	3.75	4.5	7.0
Au price (\$/toz)	1,550	1,327	1,248	1,150	1,200	1,273	1,150
Forex (¥/\$)	80.0	100.2	109.9	120.2	110.0	102.7	120.0

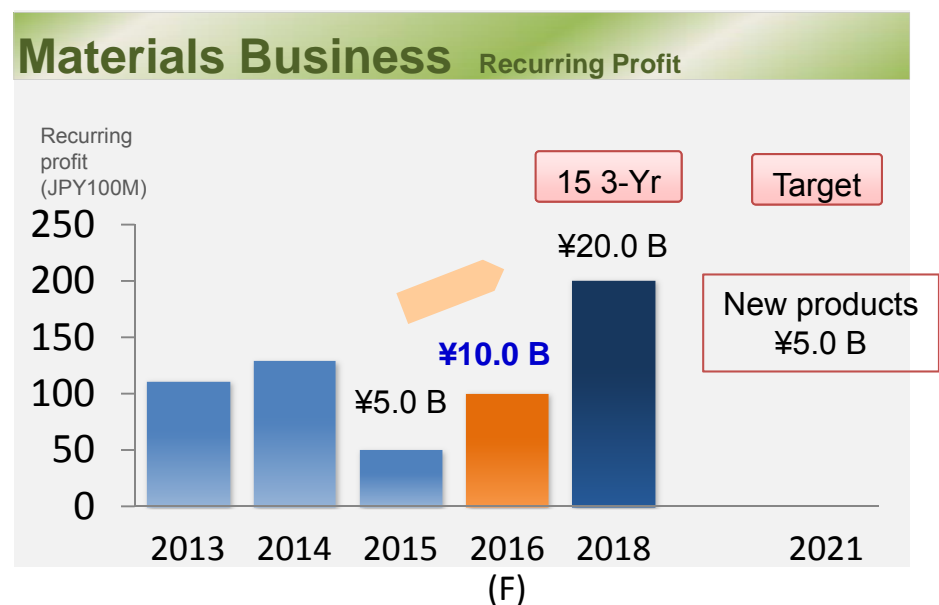
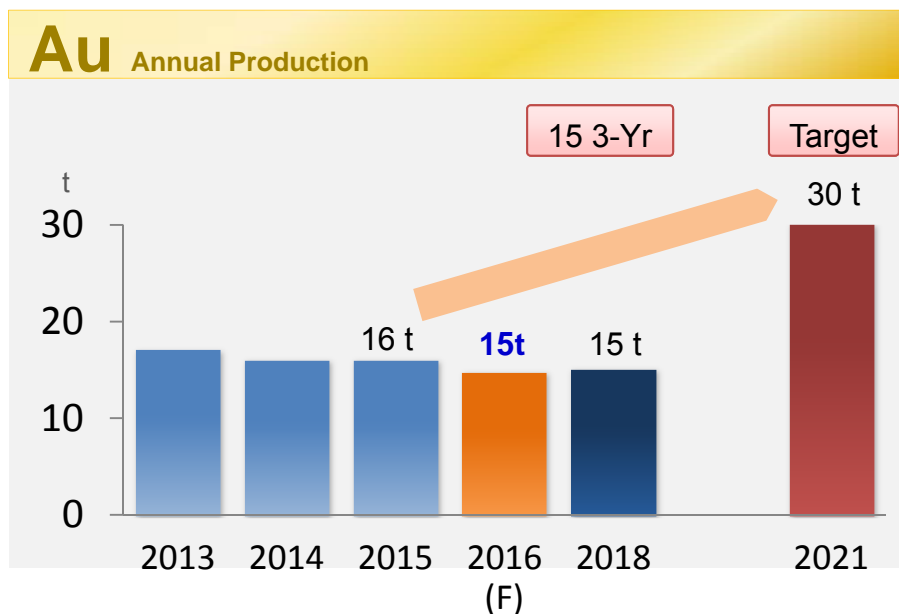
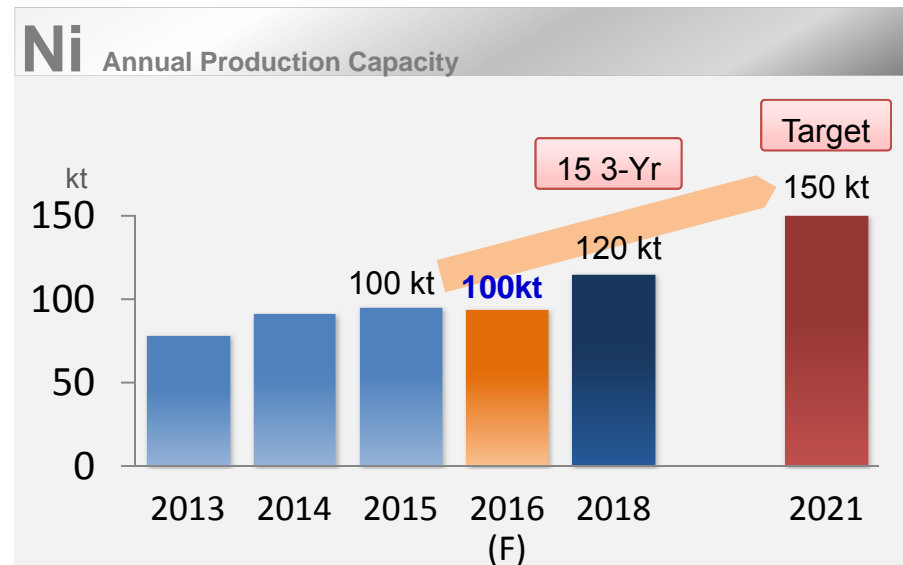
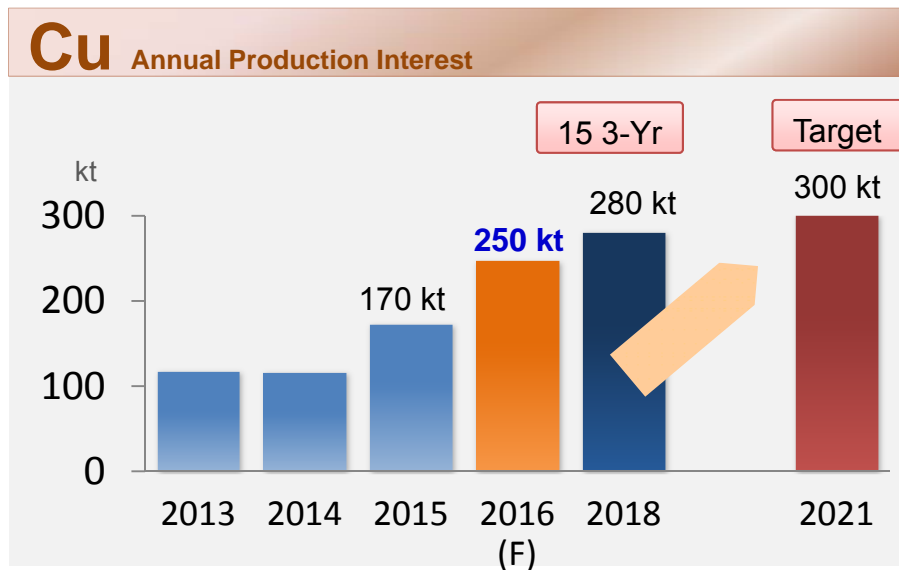
5) Recurring Profit Analysis FY 2016 November forecast vs May forecast



6) Major Projects in 2015 3-Yr Business Plan

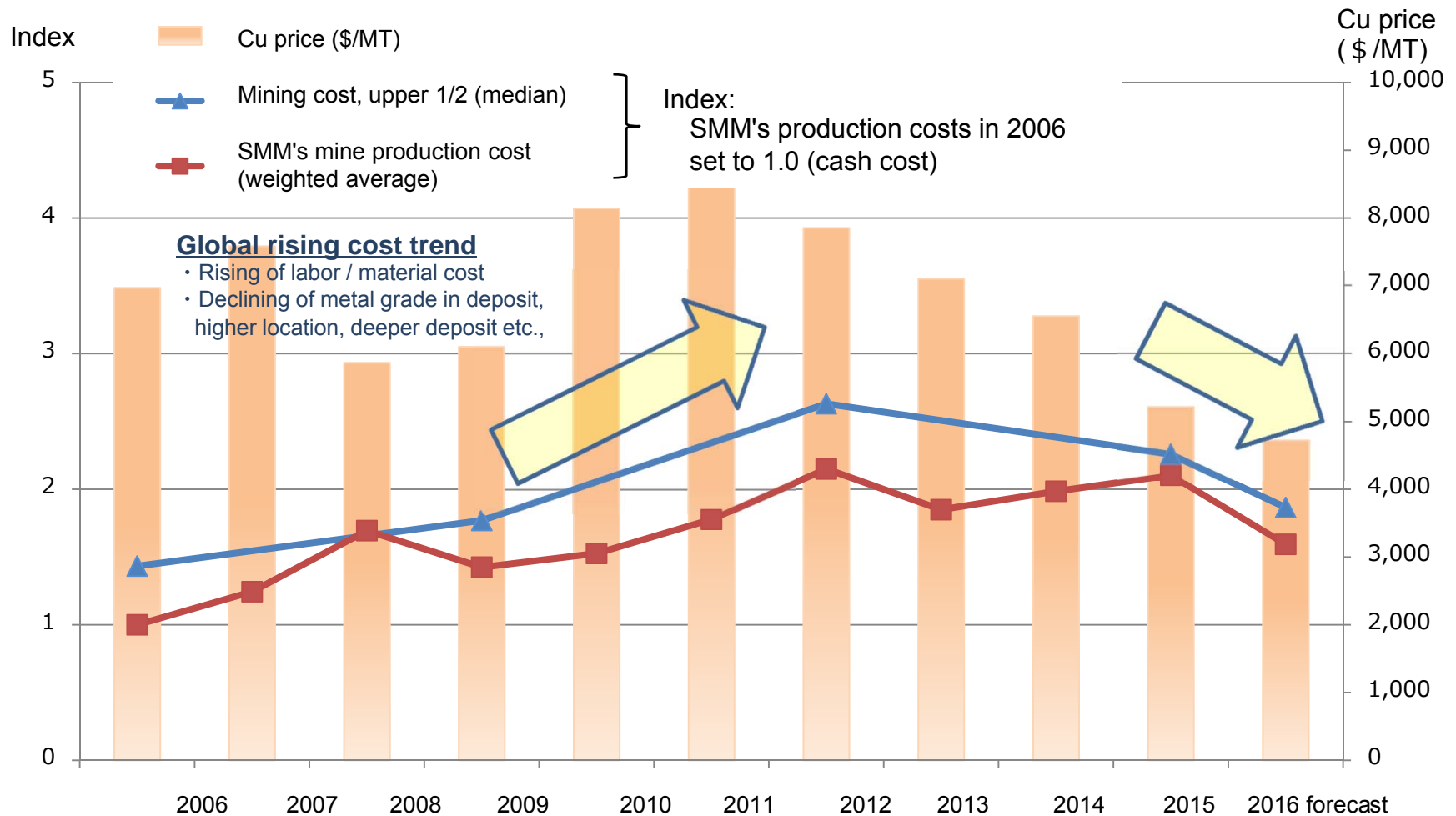
		Project name	FY 2015	FY 2016	FY 2017 onward
Mineral Resources	Cu	Sierra Gorda Mine	● Start commercial production	● 110 kt production structure	● Phase 2: project to increase production
	Cu	Morenci Mine	● Start expanded full-scale production	● Completion of acquisition of additional interests	
	Cu	Cerro Verde Mine		● Start expanded full-scale production	
	Ni	Solomon			2018~ ● Consideration of operation start
Smelting & Refining	Ni	Taganito HPAL			2018 ● 36 kt production structure
	Ni	Pomalaa Project			● Conduct FS ● Decision on investment
	Ni	Harima Refinery Nickel sulfate		● Second line launch	
Materials	Battery materials		● NCA 1,850 t structure		2018 ● NCA 3,550 t structure ● Ternary type Increase production
	Crystal materials (LT/LN)		● Decision on production increase	● 300k pieces production structure	2017 ● 400k pieces production structure

7) Status of Long-Term Vision Achievement



8) Addressing Future Markets (1) Mineral Resources: Change in costs at SMM's overseas copper mines

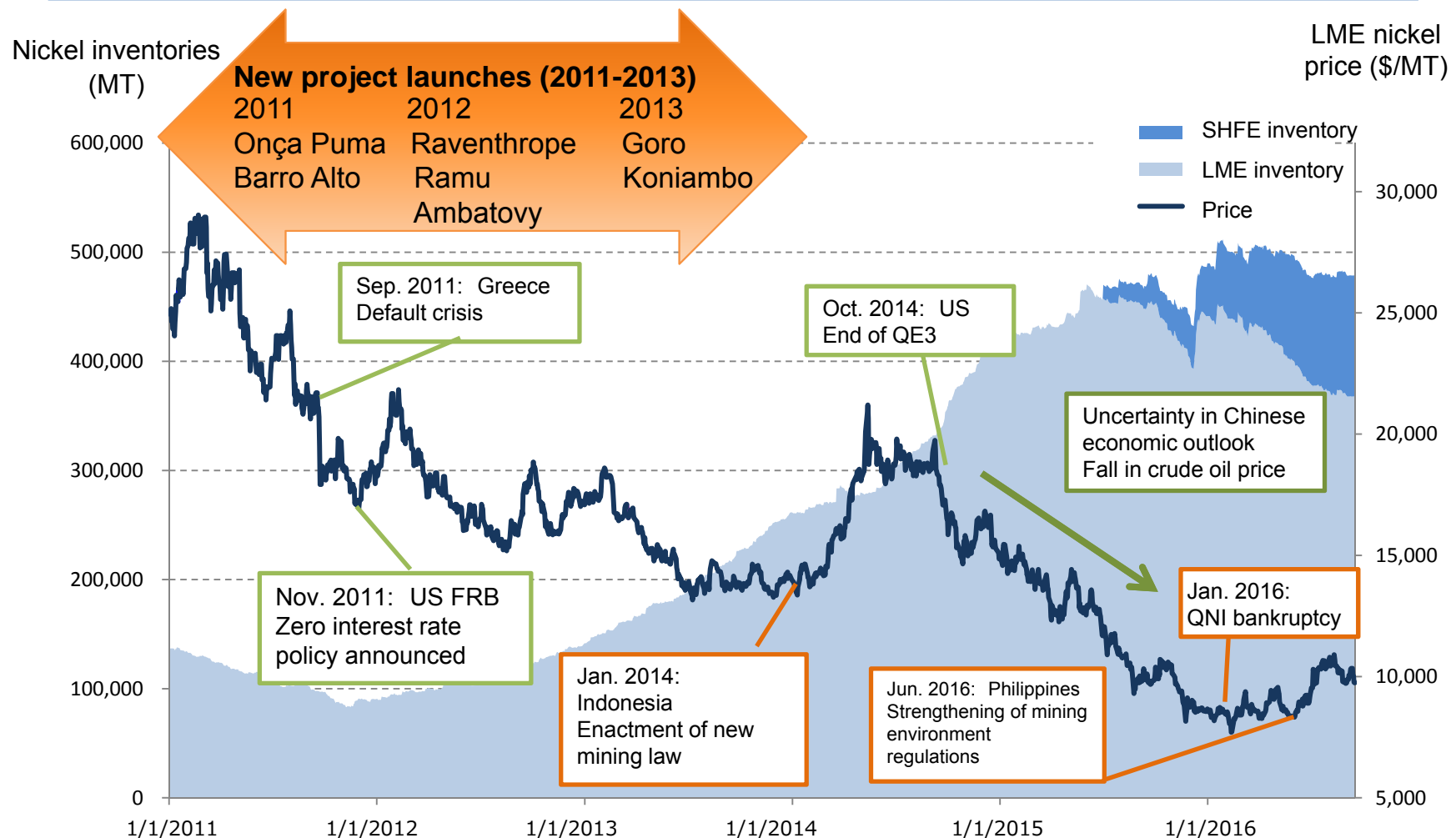
Stay within lower-cost half of global copper producers
Ensure competitiveness through increased production effects and cost reductions



(Source: SMM)

9) Addressing Future Markets (2) Smelting & Refining: The environment surrounding nickel markets

Continued weak nickel prices; uncertain outlook in the supply market due to environmental regulations in the Philippines



10) Addressing Future Markets (3) Materials: EV market growth and NCA production capacity

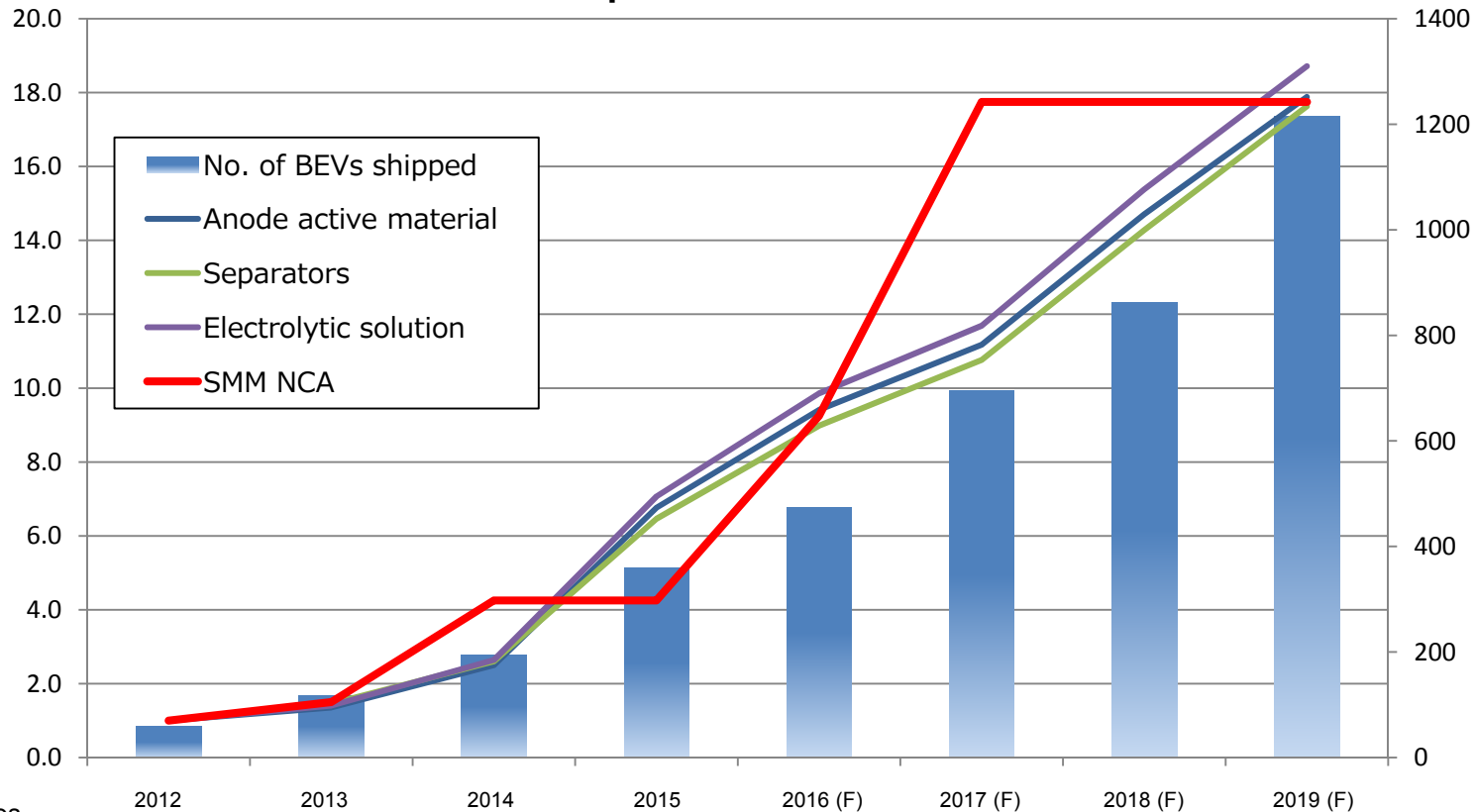
Expansion in the market for electric automobiles overall
SMM is promoting investment for increased production of NCA

Index:

Changes in supply volume, with
volume (quantity basis) in 2012
set as 1

Movement in major materials for LIB and electric automobile shipments

Number shipped
1,000/year



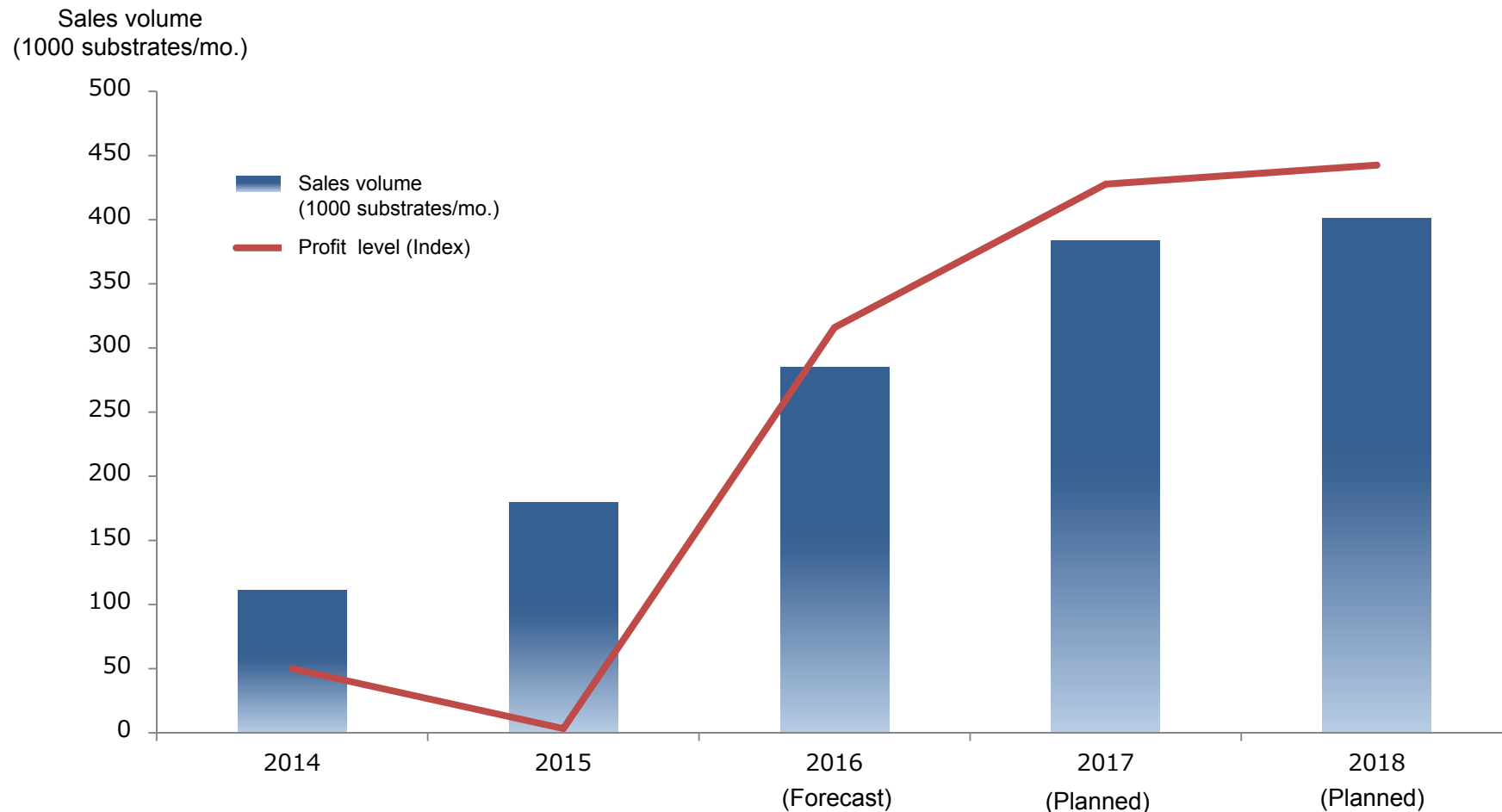
Data sources

BEV shipped units: B3 Report 16Q2

Major materials trends: Created based on "2014-2016 General Survey of Battery-Related Market Conditions," Fuji Keizai Co., Ltd.

11) Addressing Future Markets (4) Materials: LTLN sales volume and change in profit

Sales volume is also increasing along with expansion operations
Growth in products that support profit in the Materials Business



12) Strengthening of Corporate Governance

Corporate governance structure

Multiple outside directors and increased ratio of outside directors
(2015~ two independent outside directors among eight of all directors
→ 2016~ three independent outside directors among eight of all directors)

The Governance Committee regarding nominating and compensation of executive was established 2015 and started operation
Effective evaluation of the Board started in 2015, and improved the Board's function based on results of the evaluation

Engagement

Strengthening of engagement with shareholders, etc. by company management

Continue explanation of business strategy to investors, etc. by persons responsible for businesses

Non-financial information

Integrated report

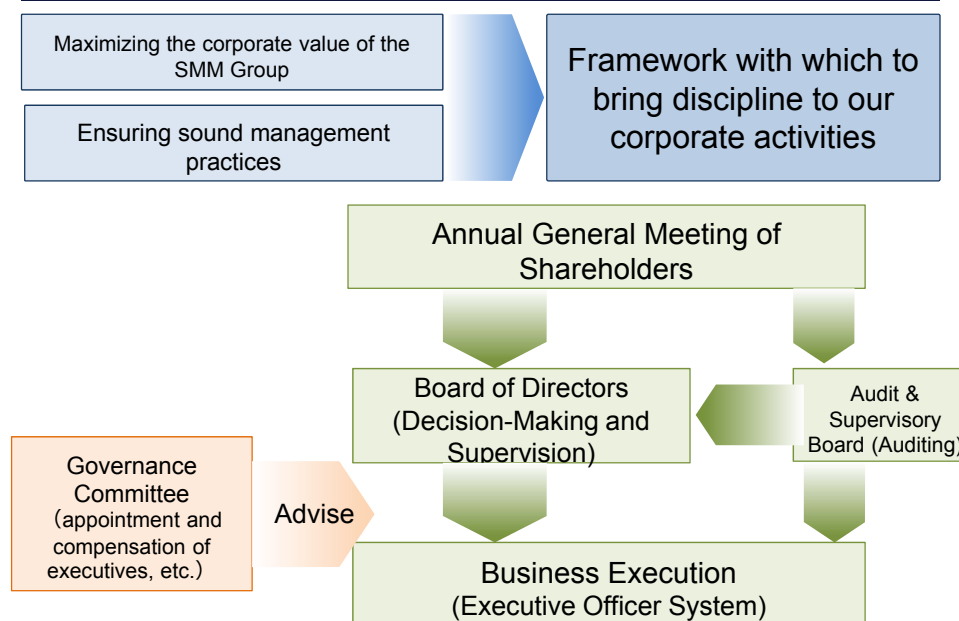
Oct. 1, 2016: Japanese version issued

Nov. 11, 2016: English version issued

Accounting standards

International Financial Reporting Standards (IFRS)
FY 2018: Start of implementation scheduled

SMM's corporate governance structure



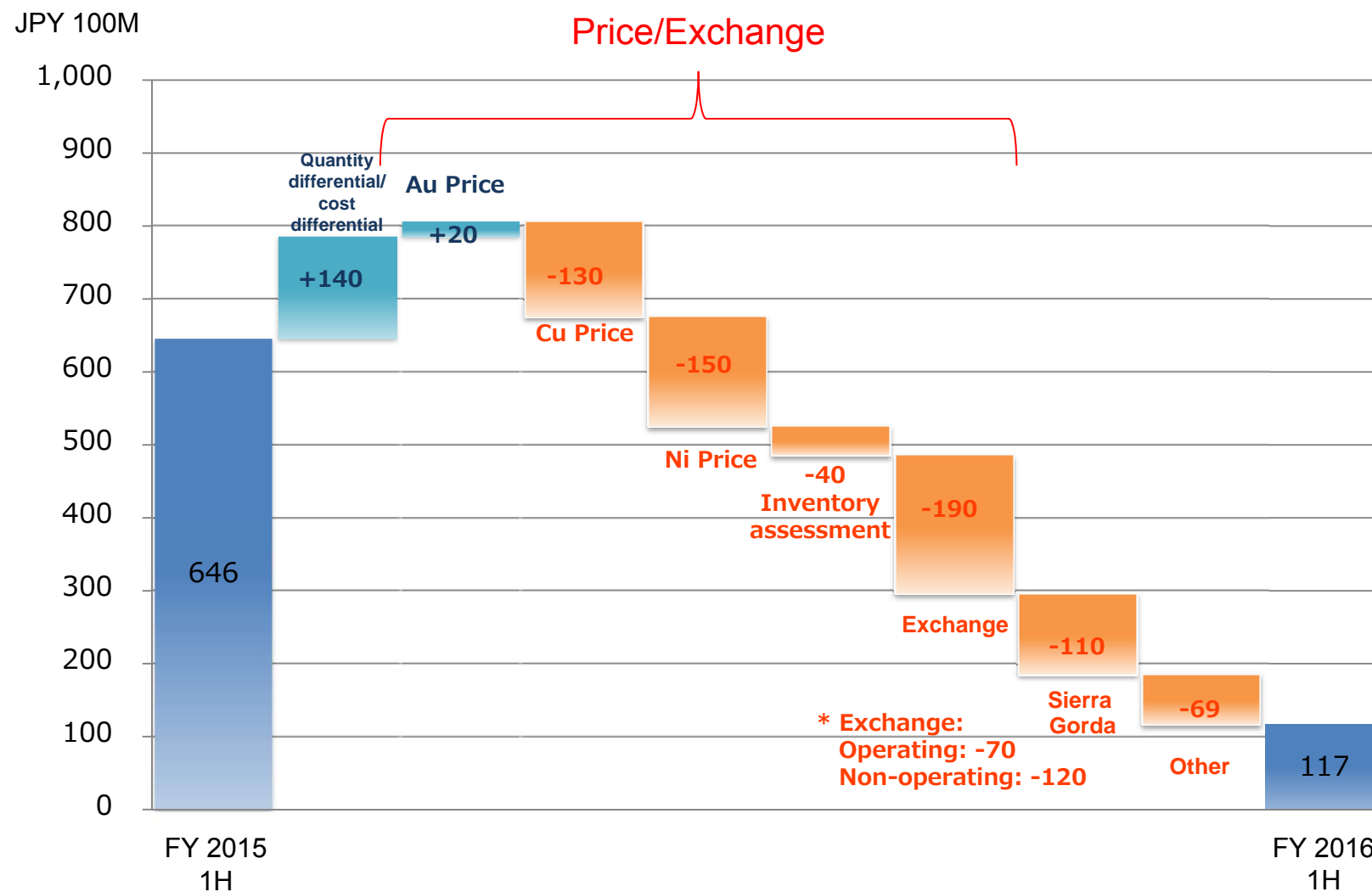
Increase the ratio of Outside Directors on the Board of Directors to 1/3
Strengthen corporate governance

II. Trends in Business Performance

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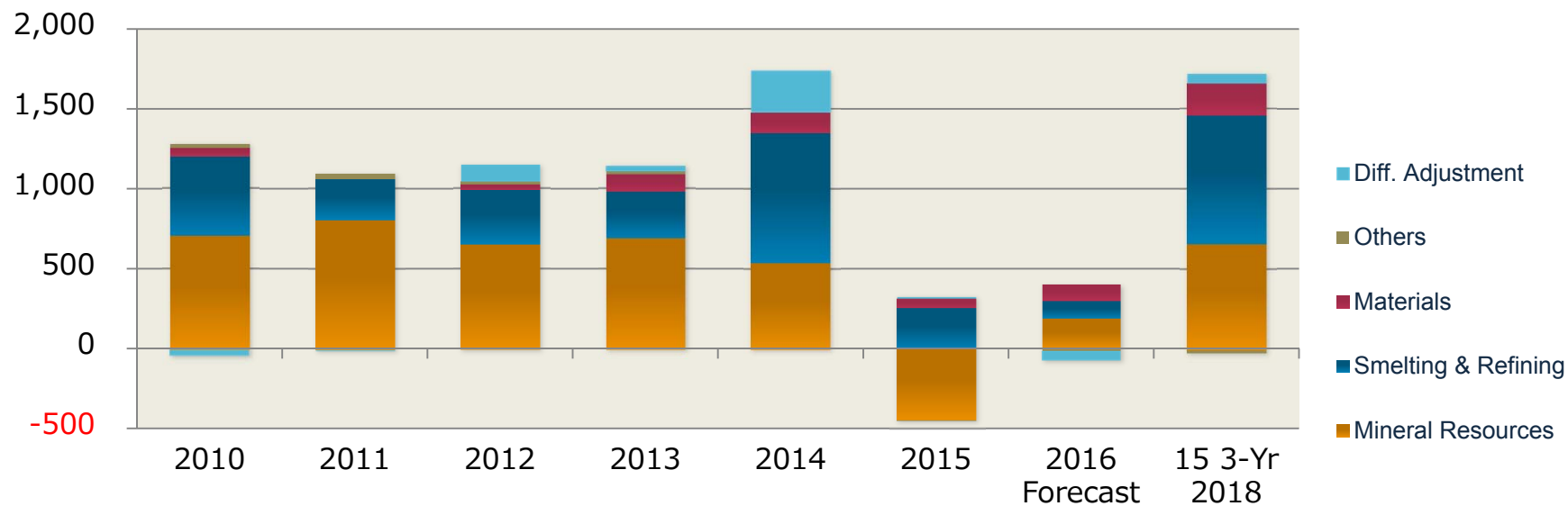
1) Recurring Profit Analysis

FY2016 1H vs FY2015 1H



2) Profit Trends by Segment

(¥100 million)

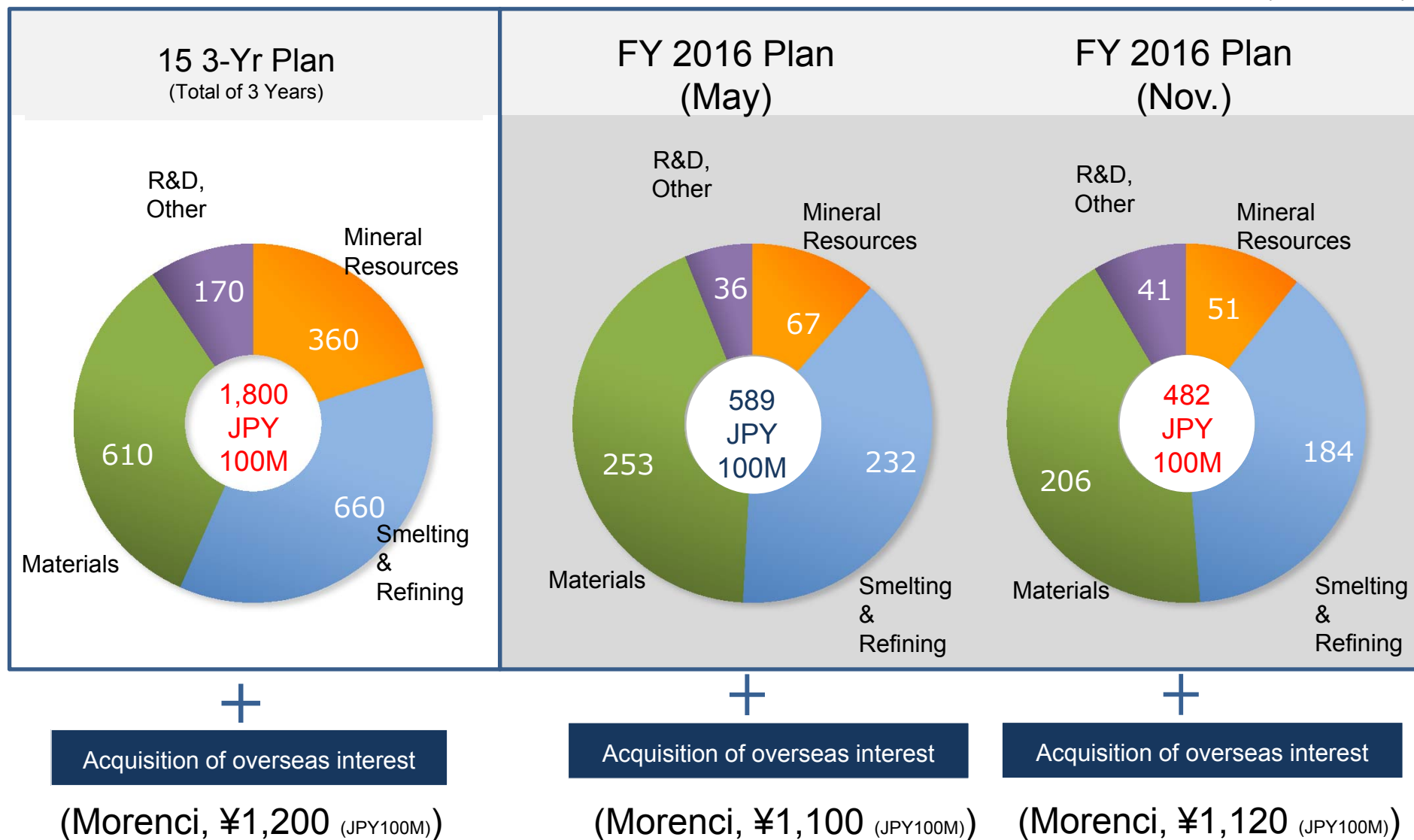


(¥100 million)

		2010	2011	2012	2013	2014	2015	2016 Forecast	15 3-Yr 2018
Segment profit	Mineral Resources	704	806	652	691	538	-443	190	660
	Smelting & Refining	495	256	339	291	813	253	110	800
	Materials	54	-3	38	111	129	60	100	200
	Others	23	34	16	16	-1	-8	-10	-20
Adjustment		-39	-5	105	35	263	10	-60	60
Recurring Profit		1,237	1,088	1,150	1,144	1,742	-128	330	1,700

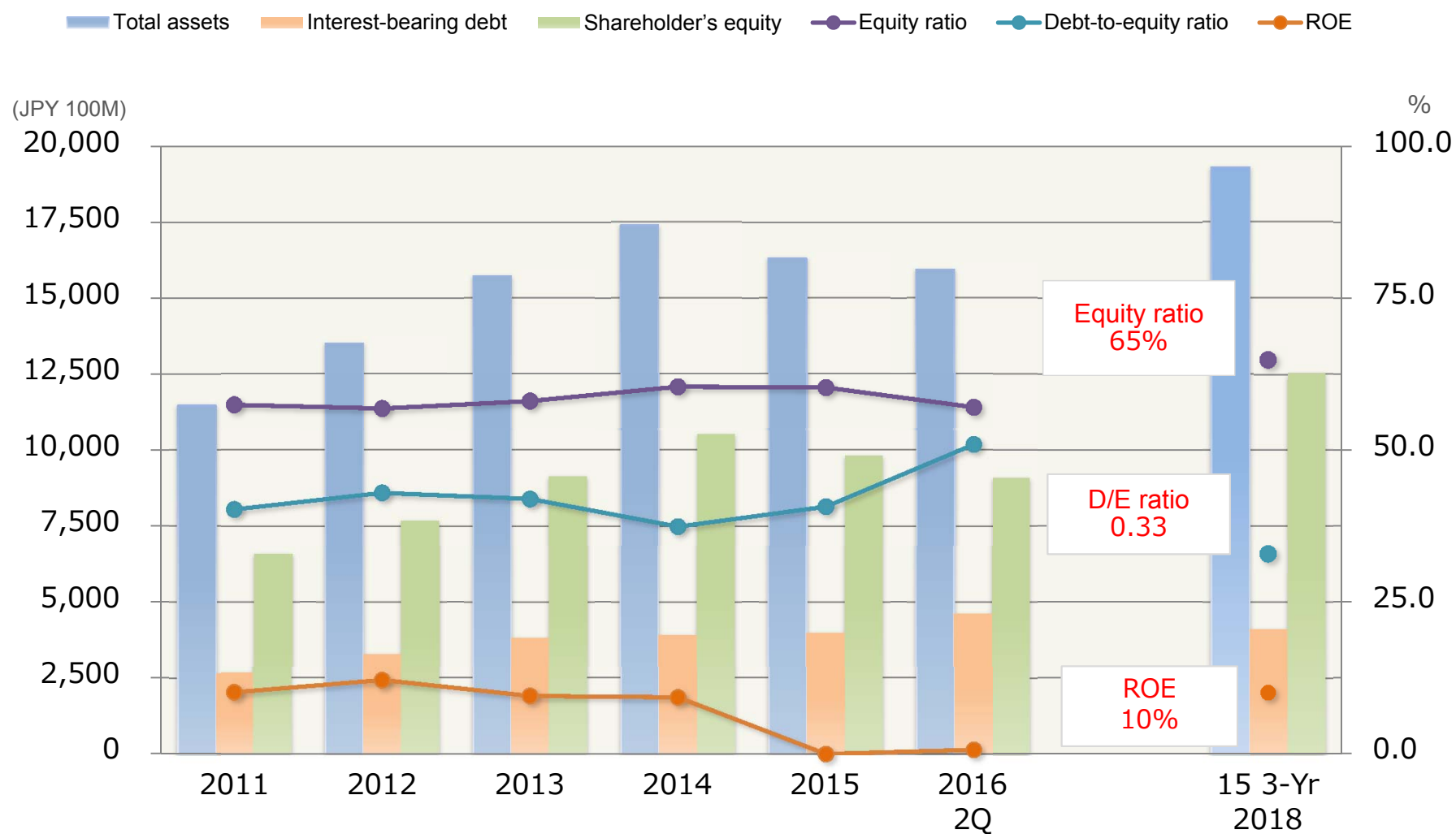
3) Capital Expenditure

(¥100 million)

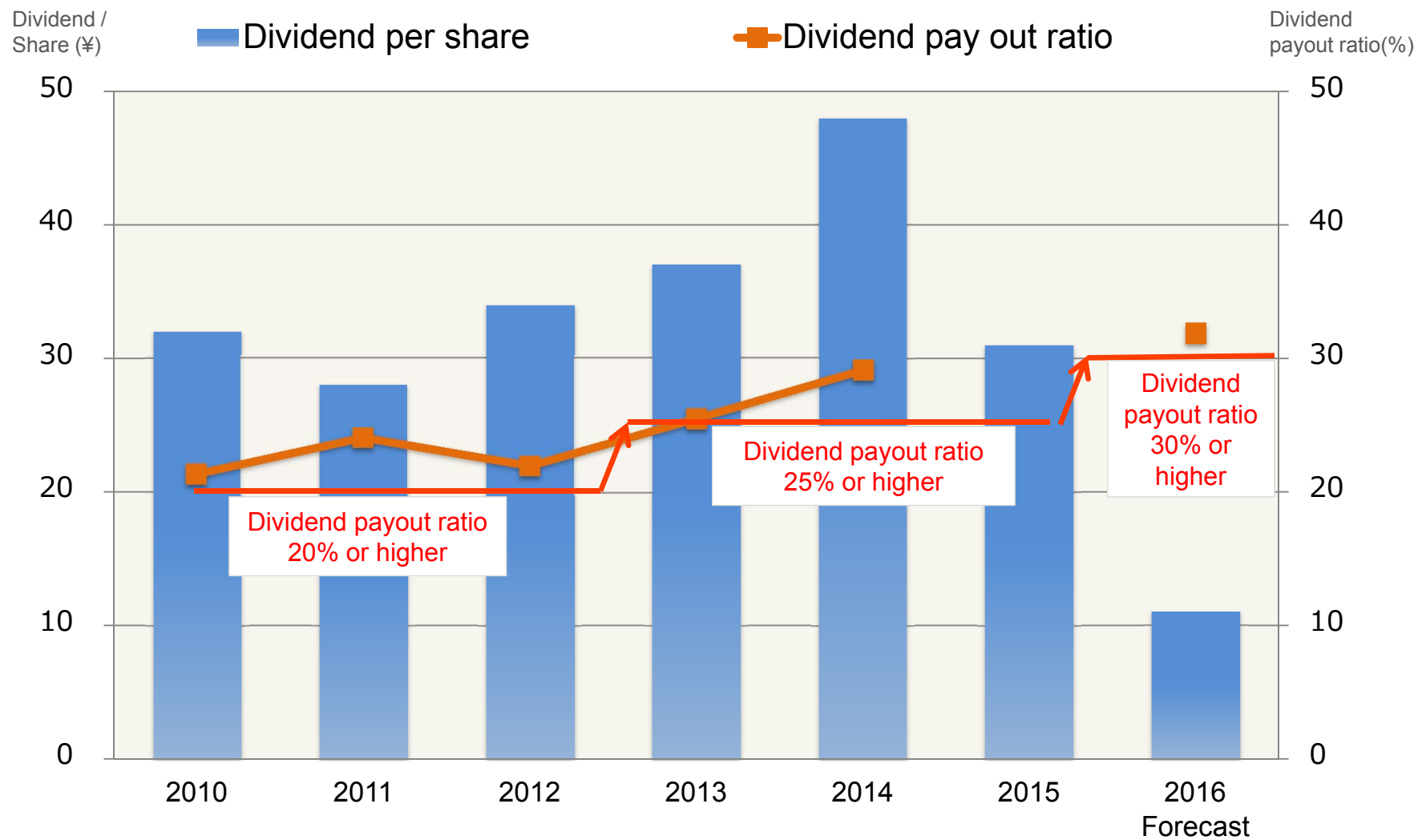


4) Financial Strategies




Maintenance of a Sound Financial Structure



5) Trend of Dividend



III. Progress and Promotion of the 15 3-Yr Plan Strategy

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1) Mineral Resources

(1) Cu: Development Project Completion: Sierra Gorda Mine

Sierra Gorda Mine (Chile)

Equity interest ratio	KGHM	55%
	SMM	31.5%
	Sumitomo Corp.	13.5%



Progress in FY 2016

Production volume

FY2015 86 kt → FY2016 92 kt (forecast)

Cost reductions

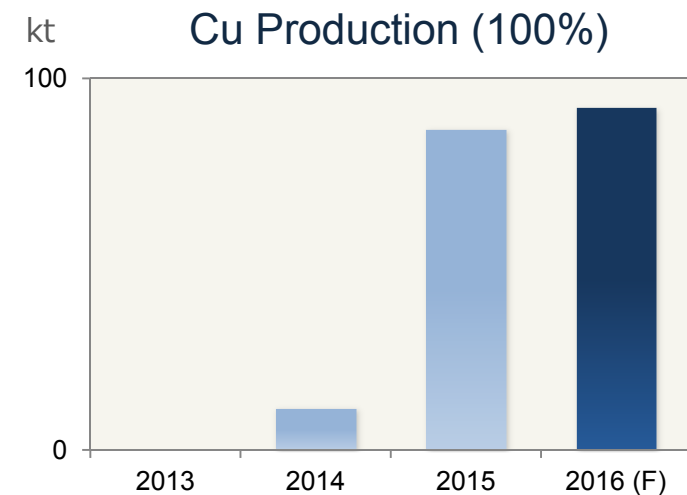
Implement significant cost reductions with subcontracting expense reductions and other measures

Annual target of ¥10.0 billion reduction, move toward cost-minimum operations

(equivalent to 45% on SMM's equity method basis; projection by SMM)

=> At present, profit/loss is remaining at expected levels

Quickly establish structure aimed at becoming cash-neutral



1) Mineral Resources

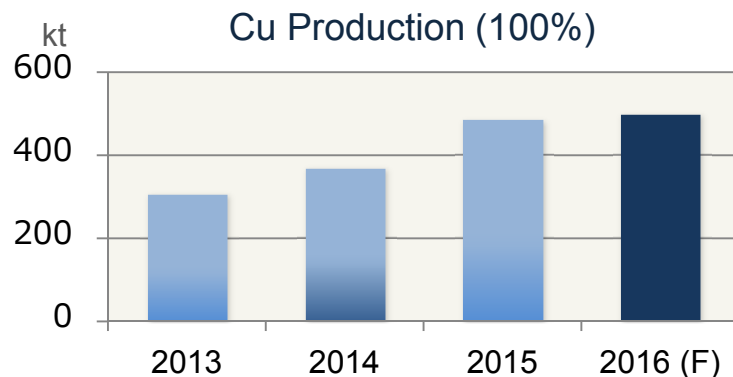
(2) Cu : Stable Operation of Existing Mine : Morenci, Cerro Verde

Morenci Mine (Arizona, US)

Equity interest ratio	FCX	72%
	SMM	25%
	Sumitomo Corp.	3%



- May 31: Acquisition of additional 13% interest completed
- FY2015 483 kt → FY2016 497 kt (forecast)
Projected significant cost reductions through expansion effect

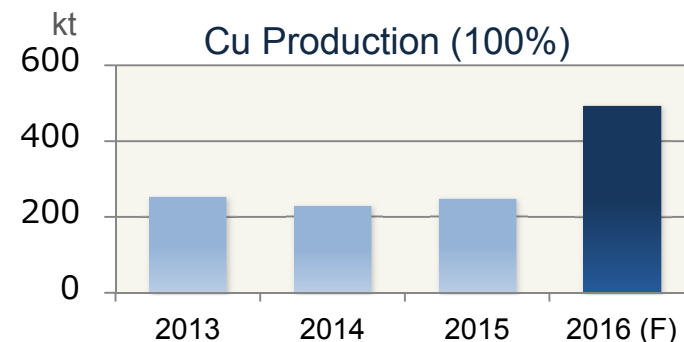


Cerro Verde Mine (Peru)

Equity interest ratio	FCX	53.56%
	SMM	16.80%
	Sumitomo Corp.	4.20%
	Other	25.44%



- Expansion PJ, March 2016: Transition to full-operation structure
- FY2015 247 kt → FY2016 493 kt (forecast)
- Through increased production effect and cost reduction measures, approx. +¥ 6.0 billion profit contribution expected



1) Mineral Resources

(3) Au : Stable Operation of Existing Mine : Hishikari, Pogo

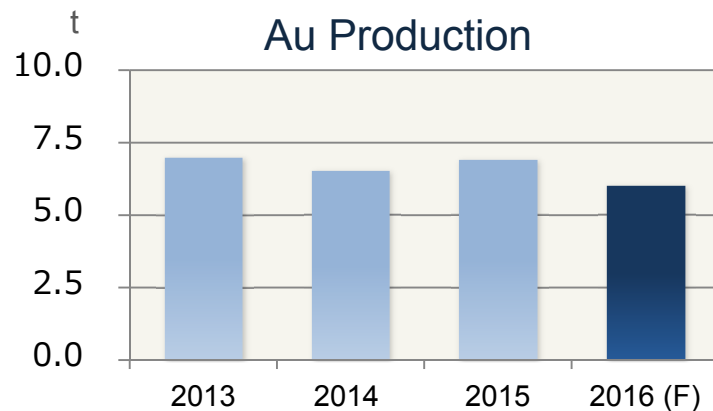
Hishikari Mine (Kagoshima, Japan)

Equity
interest ratio

SMM	100%
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- FY 2016: Expected to achieve annual plan (6 t)
- Development of lower ore bodies: Steady progress
- 2015 year-end reserves: 169 t (JIS standard)



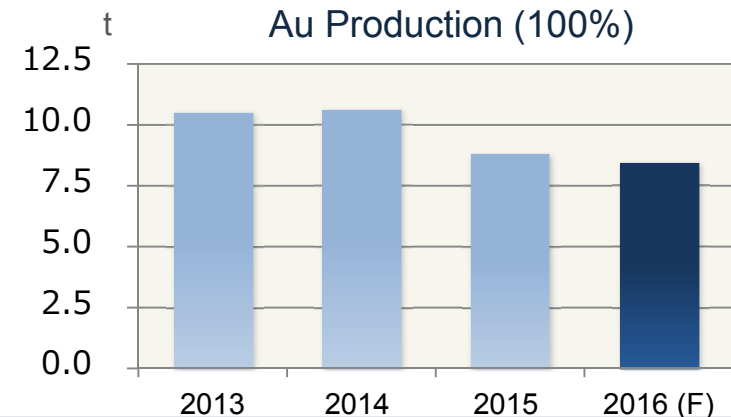
Pogo Gold Mine (Alaska, US)

Equity
interest ratio

SMM	85%
Sumitomo Corp.	15%



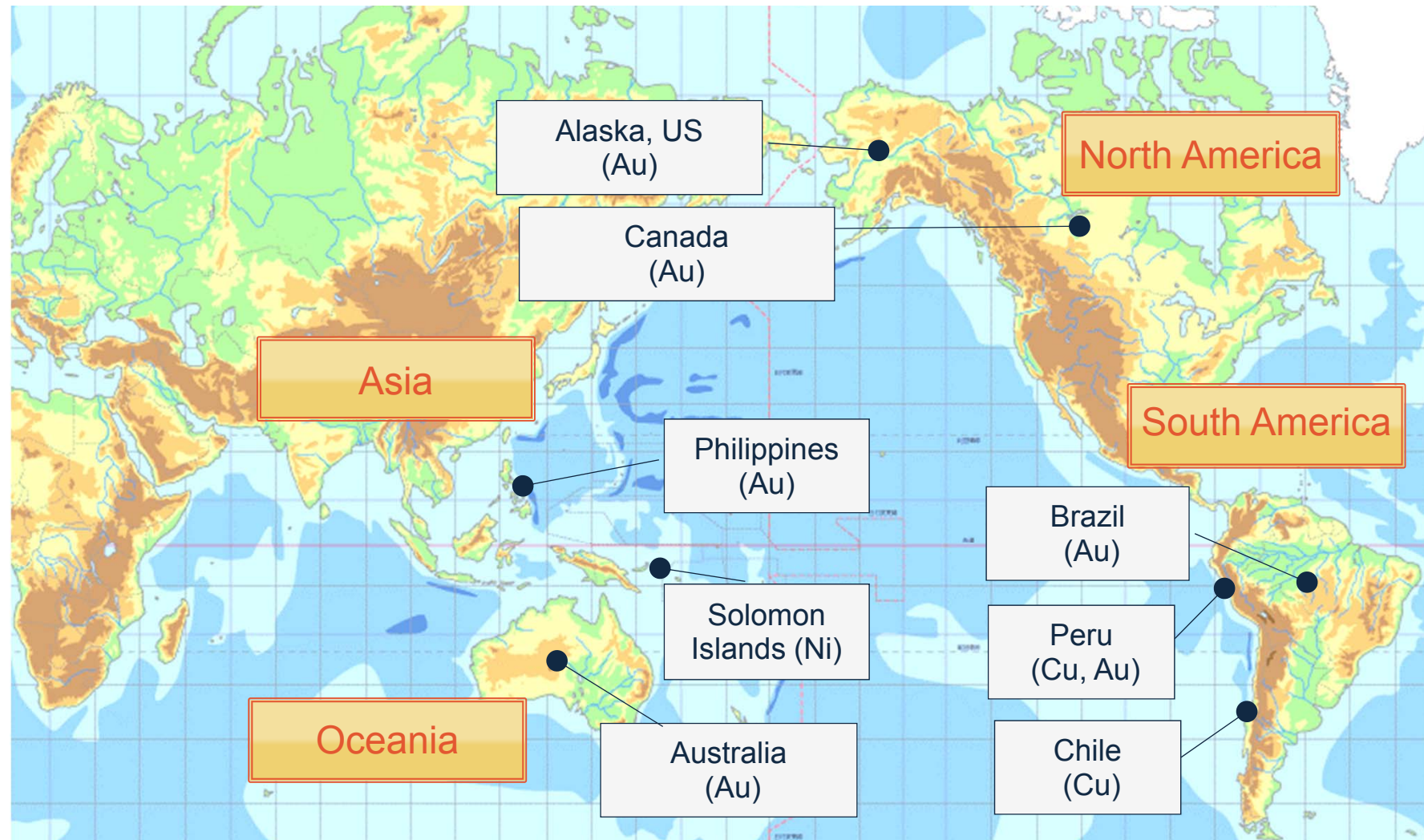
- FY 2016: Decrease in production volume due to decline in ore quality and actual yield
- 2015 year-end reserves Reserve 62 t
Resource 83 t
(Canadian standards)



1) Mineral Resources (4) Exploration by SMM

Exploration plan

Focus on gold projects in FY2016



1) Mineral resources (5) Policy toward acquisition of new interests

Making Au the main target (ongoing)

Strict selection of projects that will contribute to future income

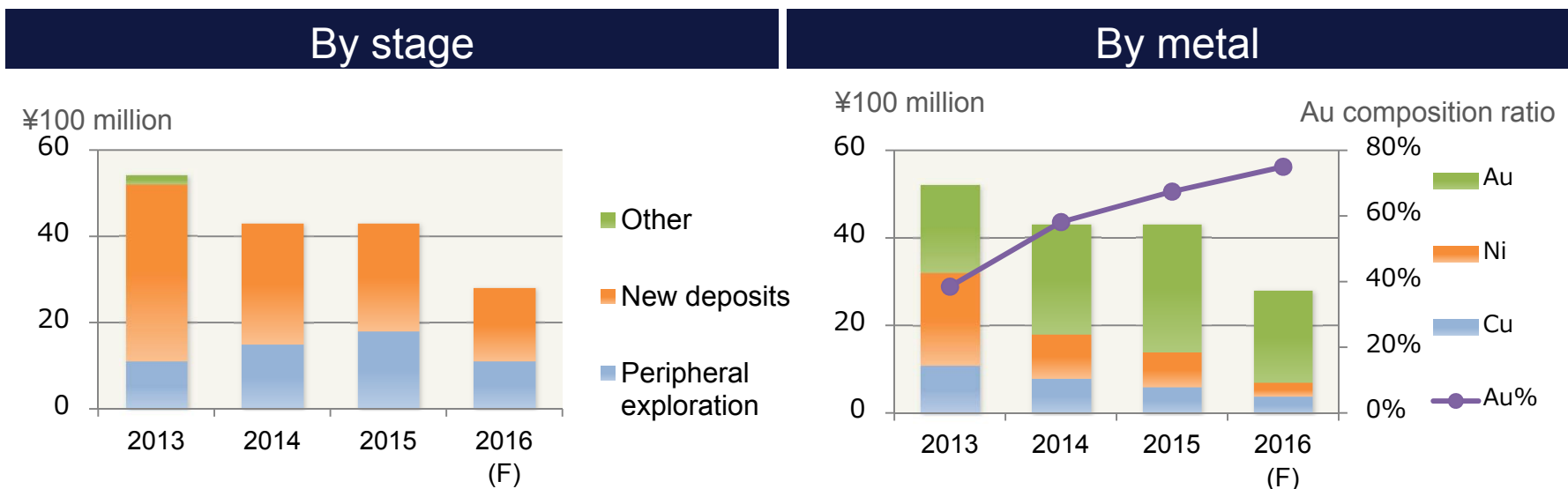
Consideration of not only initial exploration but also PFS/FS-stage projects

Active approaches to project owners and data acquisition/analysis

Strengthening of collaboration with majors & JV partners

Consideration of not only JV participation but also M&A

Exploration costs



2) Smelting & Refining

(1) Strengthening Competitiveness in Copper Smelting (1)

Toyo Smelter & Refinery production plan

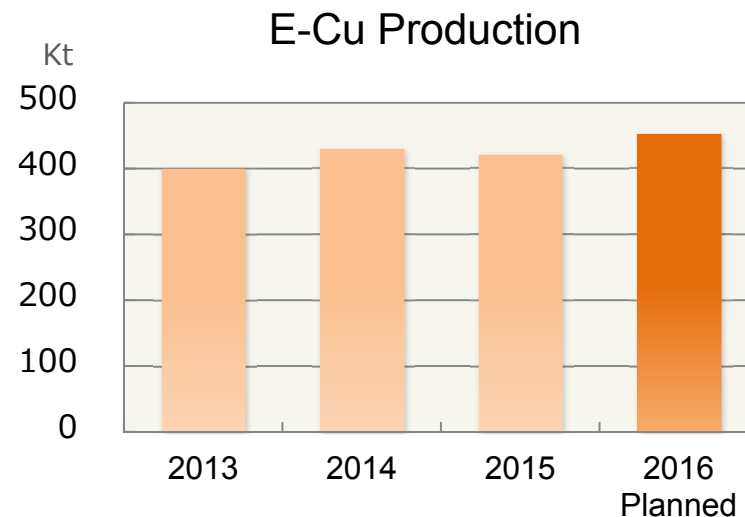
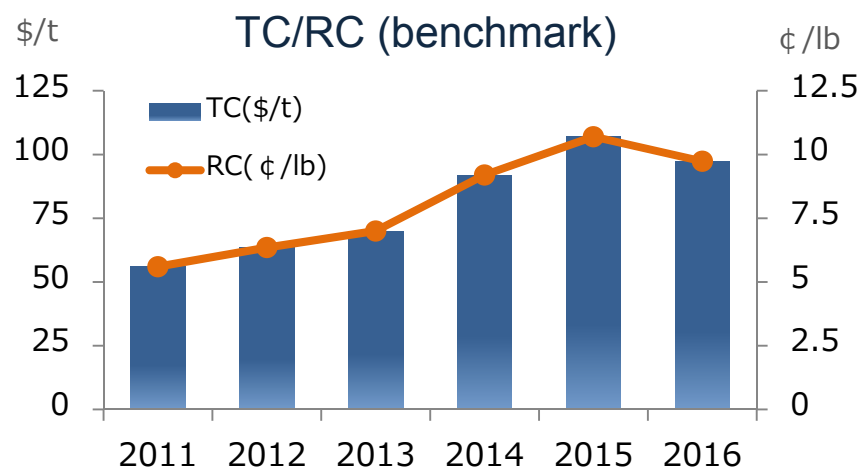
Benefit from TC/RC increase
through full and stable production
under 450 kt structure



Production volume

FY 2016 plan: 445 kt

FY 2016 forecast: 451 kt; Expected to achieve record production volume



2) Smelting & Refining

(1) Strengthening Competitiveness in Copper Smelting (2)

Toyo Smelter & Refinery

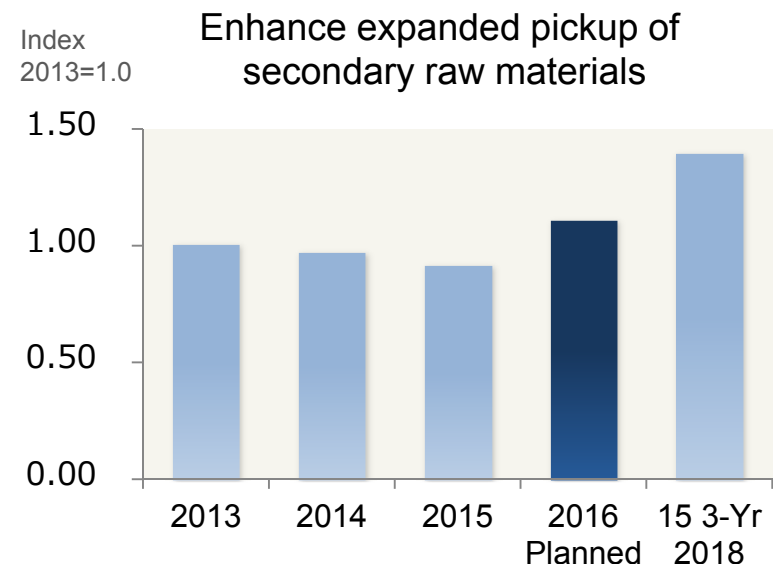
Strengthening cost competitiveness

Further improve operational technology
Strengthen impurity-handling capability
Enhance secondary raw material pickup



Current
collecting
shipments of
secondary raw
materials are
strong

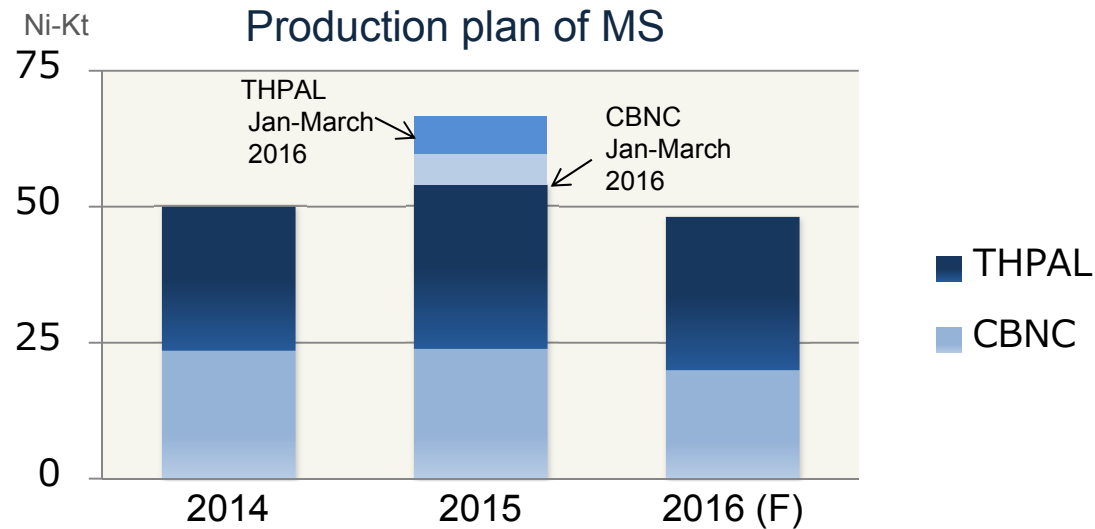
Increase processing
of profitable raw
materials and cut
costs to further
improve profitability
as world-leading
Copper Smelter



2) Smelting & Refining

(2) THPAL/CBNC 60 kt HPAL structure

CBNC/THPAL stable operation



Production volume

FY 2016: CBNC 24 kt (planned) → 20 kt (forecast)

THPAL 26 kt (planned) → 28 kt (forecast)

Currently, the declining trend in grade of nickel in ore is continuing, but we will work to raise grade



2) Smelting & Refining

(3) Ferro-nickel Optimal Production Structure

Hyuga Smelting Co., Ltd. Ferro-nickel production plan

Considerable increase in ore prices
due to enforcement of Indonesian new Mining Law
Increase of ore processing volume due to declining
in ore grade

From FY2015 4Q:
Transition to 2-kiln, 1-electric furnace
operation

Change production volume to cost-minimum level
Secure profits through stable operations
technology

Production volume

FY2015: 20 kt

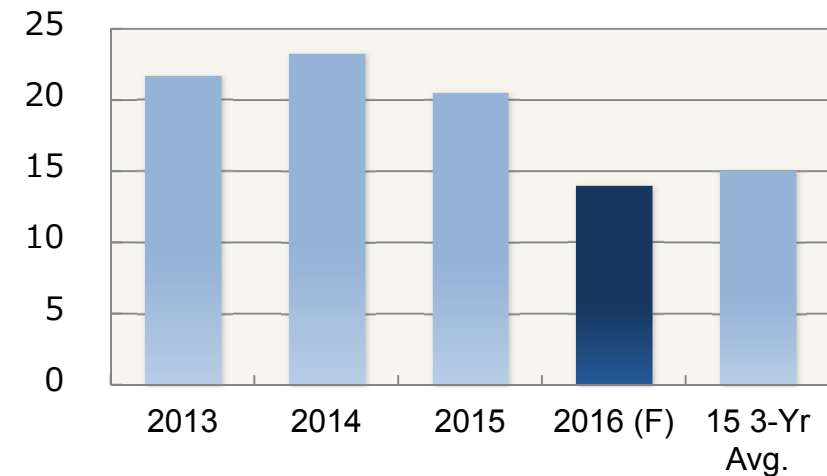
FY2016: 14 kt (planned) → 14 kt (forecast)

Production according to plan is expected this
fiscal year



Ni-Kt

Ferro-nickel Production



2) Smelting & Refining

(4) Strategic issues in the 15 3-yr business plan

Scandium

Production of intermediate products from HPAL process at Taganito

Production of finished product (scandium oxide) at Harima Refinery

2018: Start of commercial production scheduled 7.5 t / year

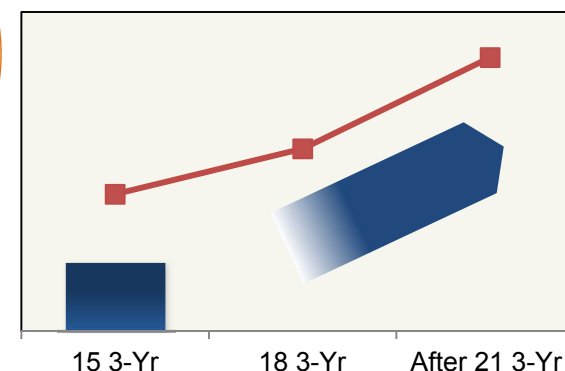
Conclusion of long-term sales agreements with U.S. major companies

Current world demand is 10–15 t/year (scandium oxide equivalent)

¥4 billion
investment

Production plan

■ Production of SMM ■ World demand (SMM estimate)



Pomalaa Project (Indonesia)



PT Vale Indonesia holds mining rights
Implement F/S on possibility of refinery construction

2015 — Investigation of plant location
2016 — Preliminary survey underway for F/S
2017 — Scheduled to begin F/S aimed at investment decisions

Project start
date and
investment
amount are
undecided

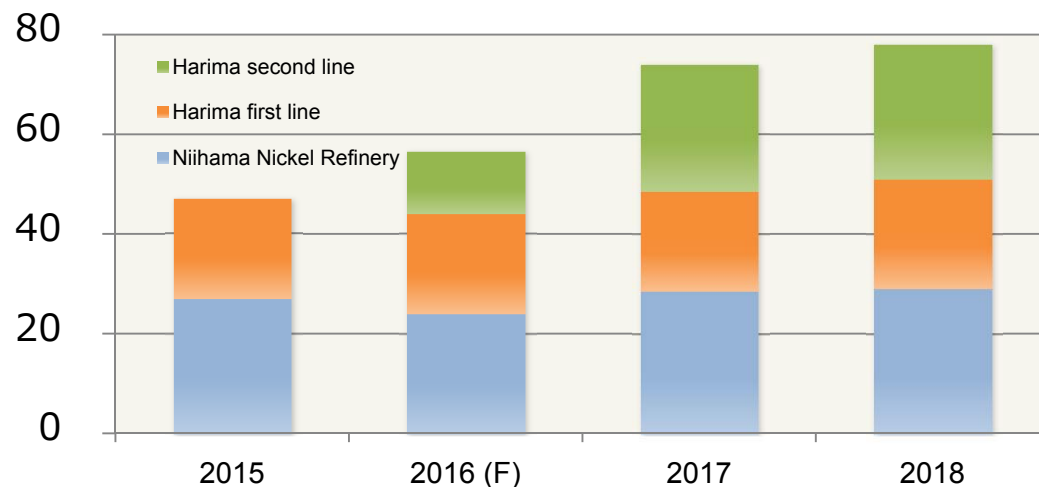
2) Smelting & Refining

(5) Expand the Ni Sulfate capacity

Harima Refinery – Increasing production of nickel sulfate

(Nickel sulfate
volume)
kt

Production volume of nickel sulfate



2016

Harima second line: Expansion operations
Completed in 1H; full operation planned from 2H
Ni sulfate production volume: 34 kt (forecast)
[in addition, 24 kt at Niihama Nickel Refinery (forecast)]

2017

Invest towards achieving
49 kt/year structure at
Harima

Lithium nickel oxide (NCA)
Established front-end
process

2018

Establishment of 49
kt/year structure at
Harima

(Nickel sulfate volume)

3) Materials (1) Battery Materials Business (1)

Overall environmental changes concerning battery materials

Rapid expansion of eco-car market and growing usage of nickel cathode materials
Change occurred in vertically integrated structure of automobile and battery manufacturers
Importance of stable supply in light of growing cobalt usage

Strengthening of environmental regulations

EU CO₂ regulations → Growth of PHEVs is expected
California Zero Emission Vehicle regulations
Strengthening of other countries' environmental regulations



Rapid increase in use of batteries
in automobiles

SMM Battery Materials (cathode material) Usage

- Nickel Hydroxide:
Used in the secondary battery for hybrid vehicle
- Ternary Material:
Used in the lithium-ion battery for new model
of hybrid vehicle



(Photo : TOYOTA Motor Cop.)

3) Materials (1) Battery Materials Business (2)

SMM strategy

Our battery materials are adopted in both hybrid vehicles and electric vehicles

SMM strengths

Can supply diverse product types, from products that are very nearly raw materials to high added value products

Respond to customer needs with latest powder technology
Stable supply structure for nickel/cobalt

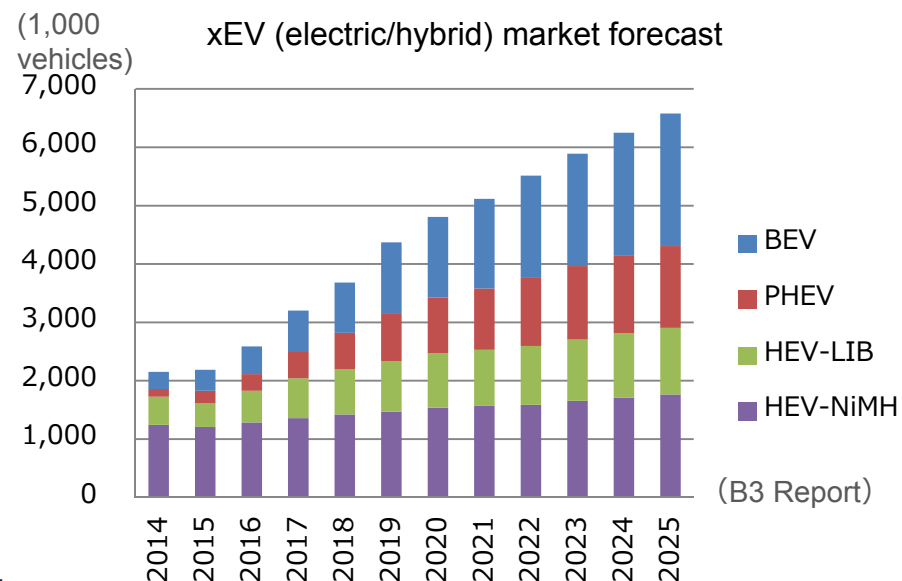
Progress in FY 2016

Customer authorization for 1,850 t/month capacity expansion investment at the Isoura Plant and Sumiko Energy Materials Co., Ltd. Naraha Plant are proceeding according to plan; start of commercial production at both sites

Further expansion of lithium nickel oxide (NCA)

Response to production expansion by Panasonic Corporation

Toward 3,550 t/month capacity; decision on additional investment of ¥18.0 billion (Jan 2018: scheduled completion)



Full operation from
2H

Outlook for device market

SAW filters

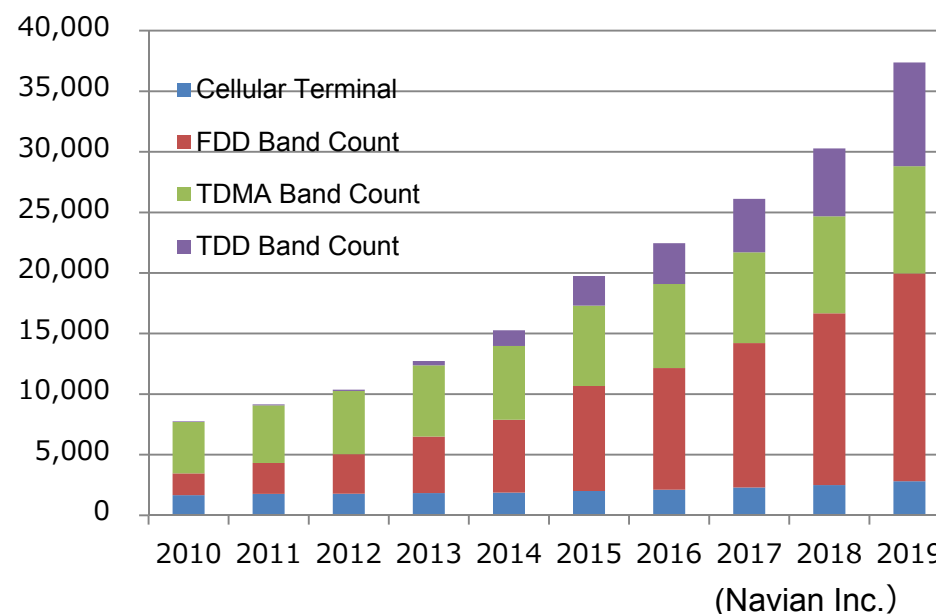
Increased volume of smartphone communications capacity
→ Increase in usable frequency bands
In line with increase in frequency bands:
Dramatic increase in number of installed SAW filters

Growth in smartphone demand

Slowdown also expected, especially in developed nations
Share expansion in emerging markets by emerging Chinese manufacturers
Slight increase in smartphone units shipped overall

(Million units/bands)

Total Number of Bands



SAW filter demand
Continued increase

Increase in frequency bands

3) Materials (2) Crystal substrate (LT/LN) (2)

Build an expanded production system for crystal materials

LT/LN crystal substrates for SAW filters

December, 2014

Decision to expand from 120K to 210K substrates/month

March, 2015

Decision to expand from 210K to 300K substrates/month to worldwide top share

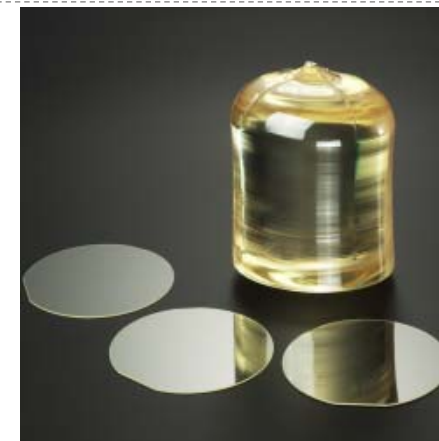
Oct., 2016 (present)

Achievement of 300K substrates/month production capacity in May

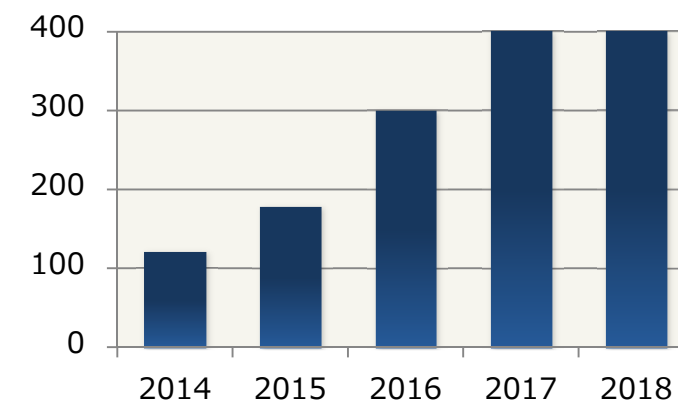
Oct., 2016

Sumiko Kunitomi Denshi: Completion of new factory building construction

Sep., 2017: Scheduled completion of 400K substrates/month capacity

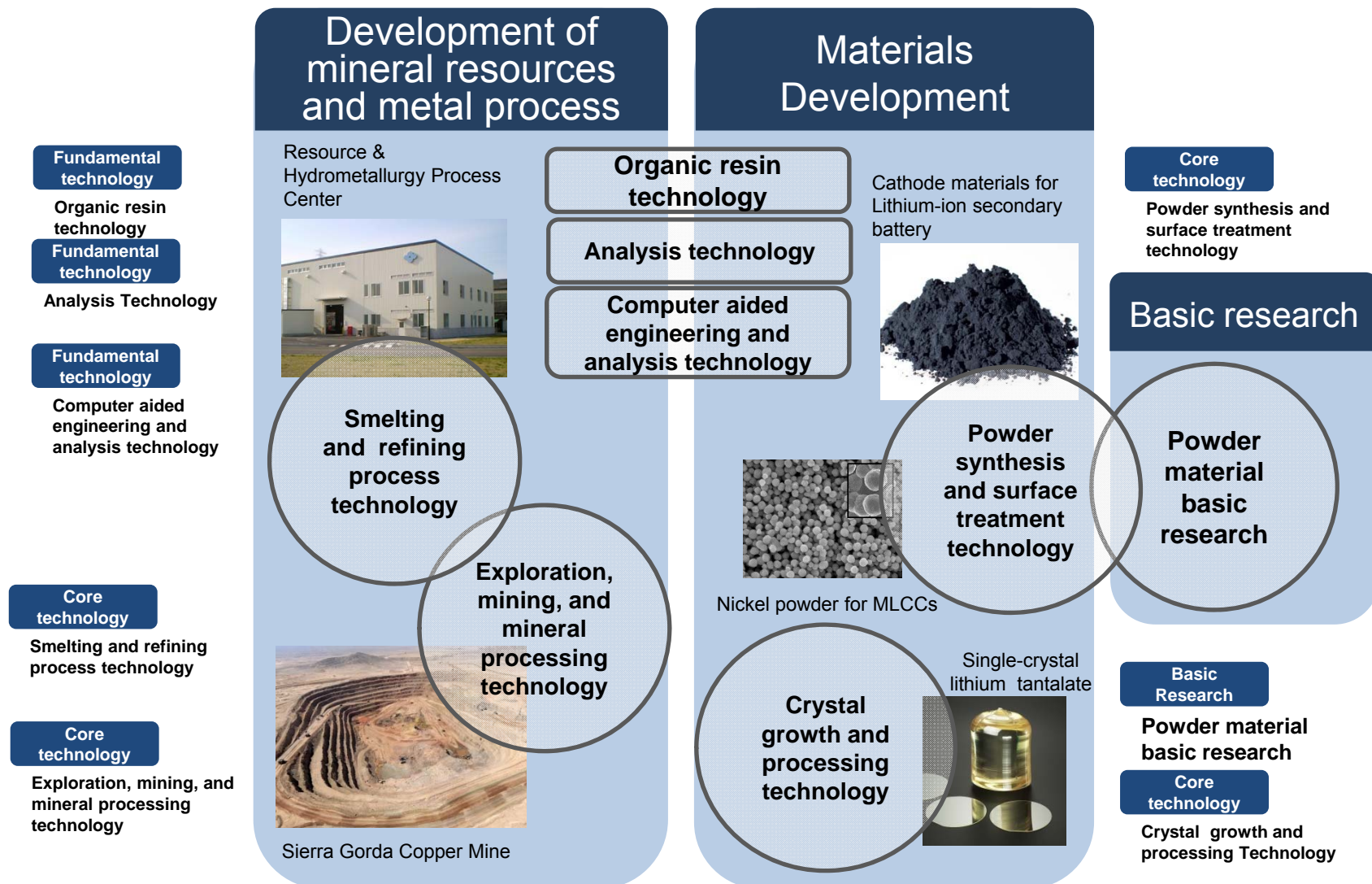


LT/LN Production capacity (planned)



4) R&D

Concentration of R&D in fields of growth strategy



5) Progress in Cost-Cutting

Cost-Cutting Measures in 15 3-Yr Business Plan

Cost cutting: Achievement of ¥10 billion/year

Aim for further ¥10 billion/year in cuts, based on FY 2015

- ✓ Improvement of productivity
- ✓ Switch to low-priced materials
- ✓ Careful selection of fixed costs

Progress in FY 2016 2Q

2Q performance: ¥8.0 billion or more

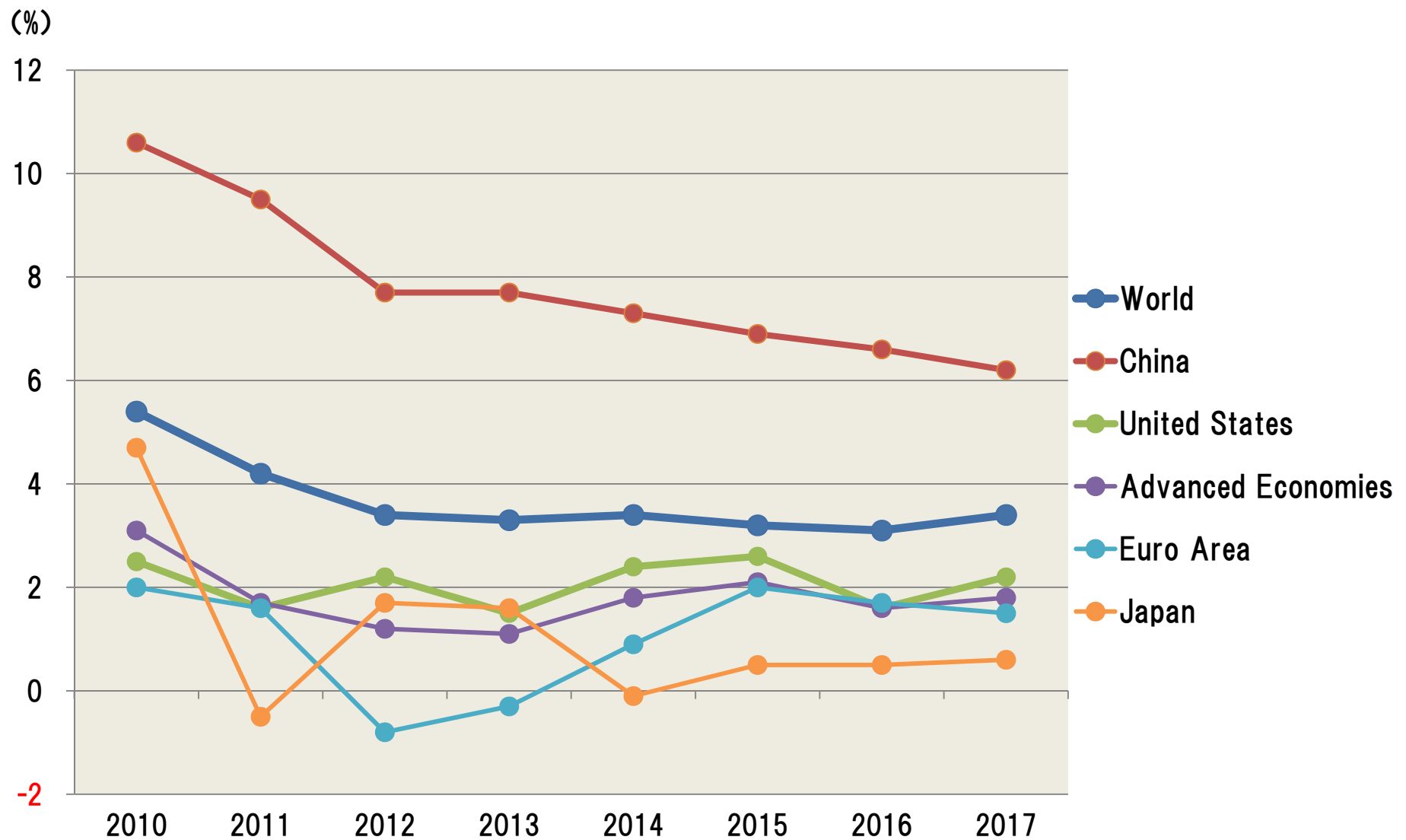
Favorable turn in materials prices and transport prices

Continuation of cost-cutting initiatives in each department

IV. Business Environment

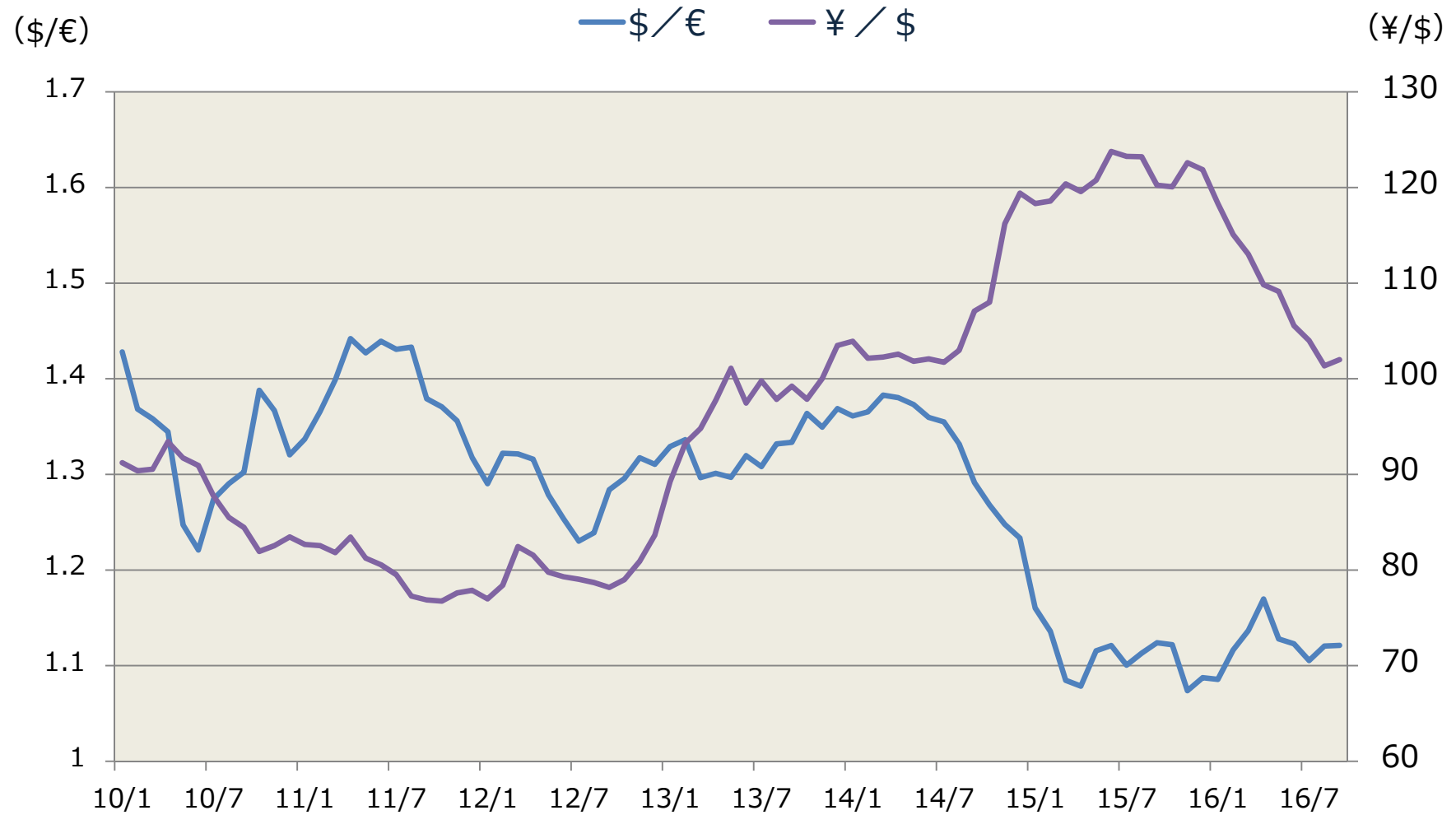
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1) Overall Situation: Global GDP growth rates

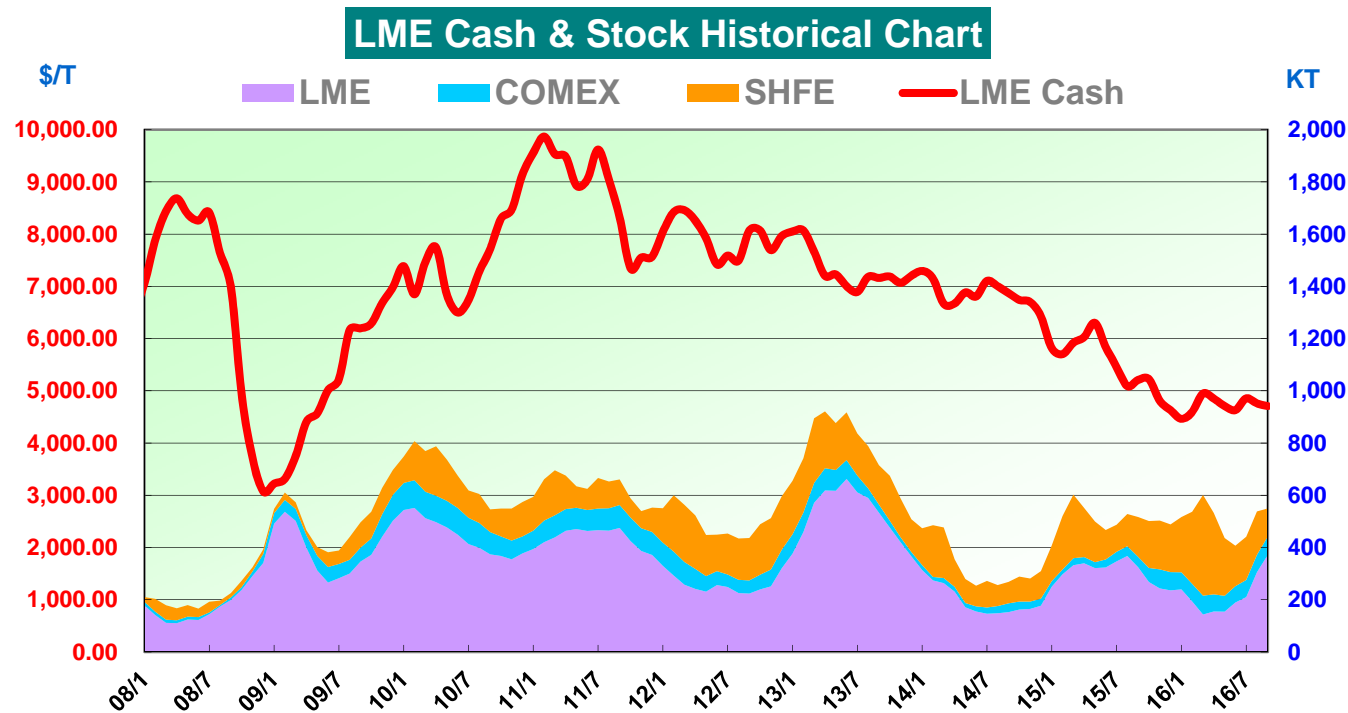


(IMF, Oct 2016 forecast)

2) Forex Trends



3) Cu – Price / Supply & Demand Balance

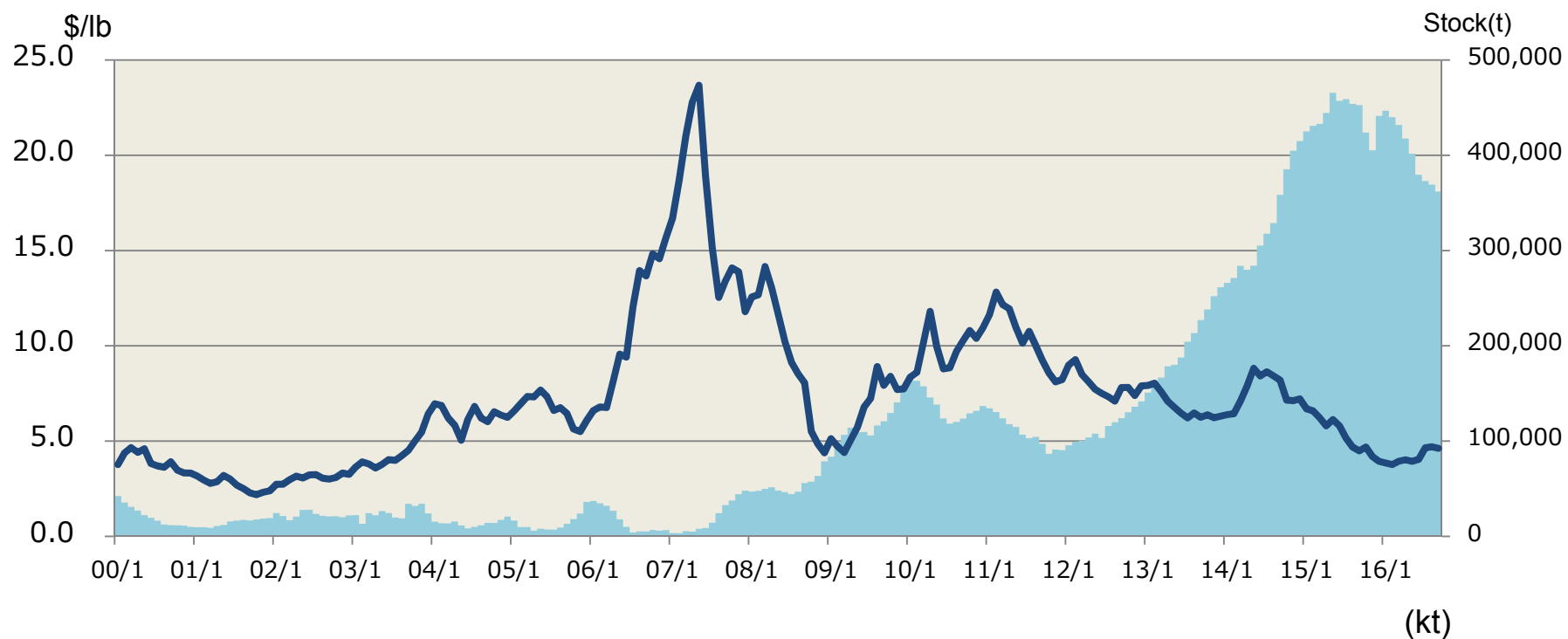


[ICSG Estimation Oct. 2016]

(kt)

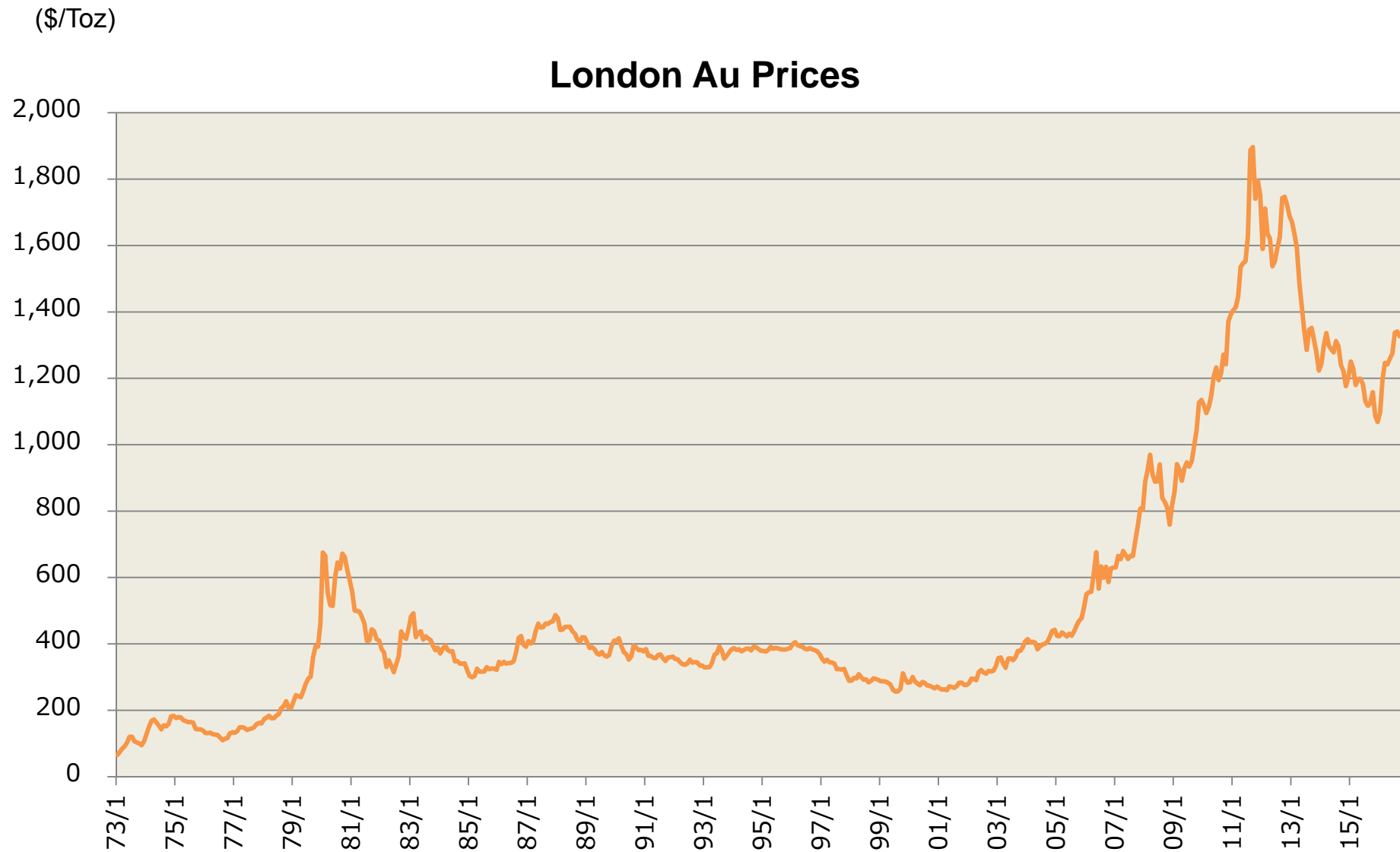
	2015	2016	2017
Production	22,883	23,383	23,791
Usage	23,035	23,391	23,628
Balance	-152	-8	163

4) Ni – Price / Supply & Demand Balance





	INSG Estimation 2016/10			SMM Estimation 2016/10		
	2015	2016	2017	2015	2016	2017
Production	1,973	1,934	2,047	1,967	1,922	2,005
Usage	1,881	2,001	2,113	1,893	1,985	2,059
Balance	92	-67	-66	+74	-63	-54

5) Au - Price



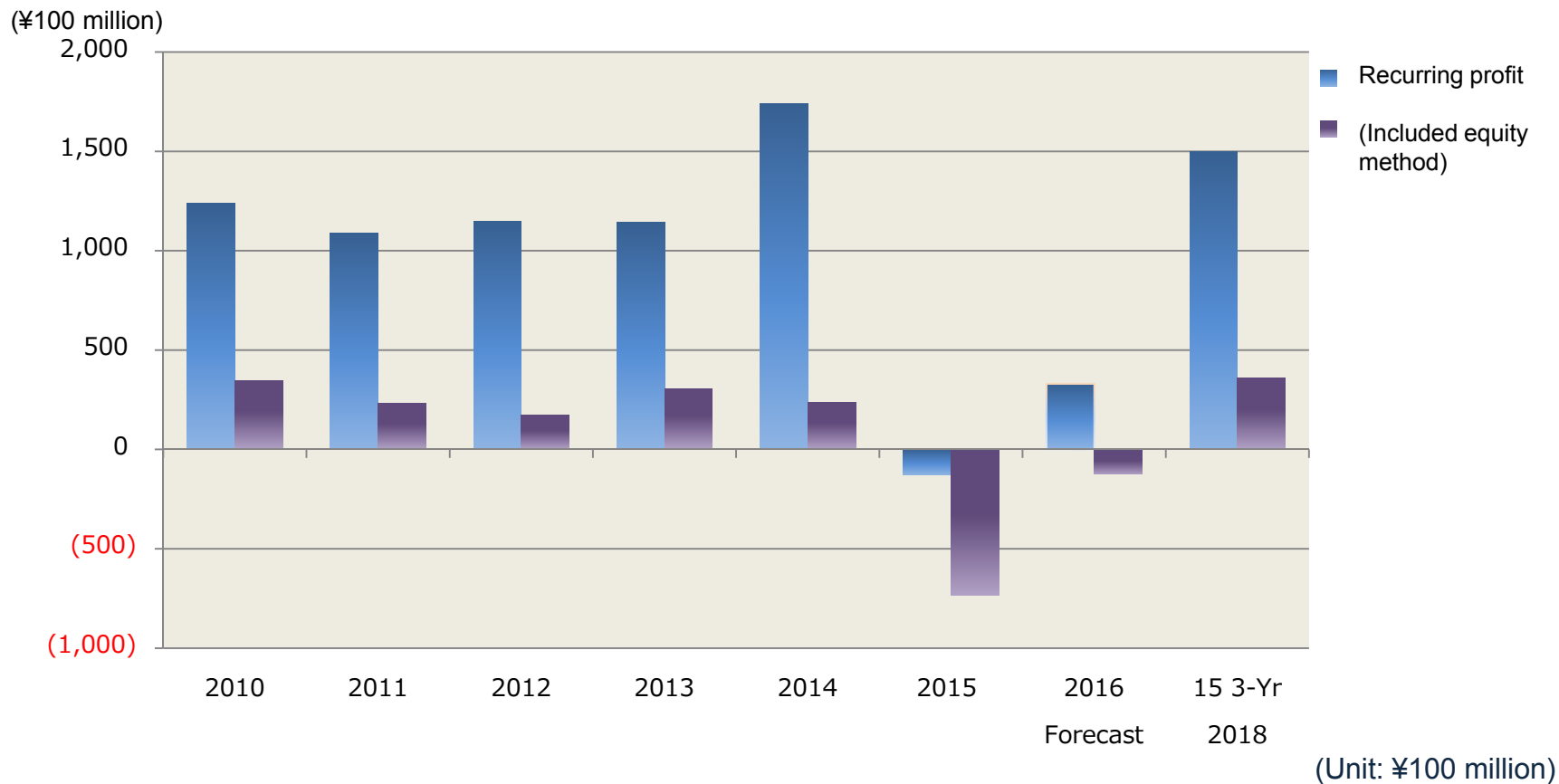
V. Financial Highlights and Information Materials

-  Addressing Management Issues and Future Markets
-  Trends in Business Performance
-  Progress and Promotion of the 15 3-Yr Plan Strategy
-  Business Environment
-  Financial Highlights and Information Materials

1) Performance Trends

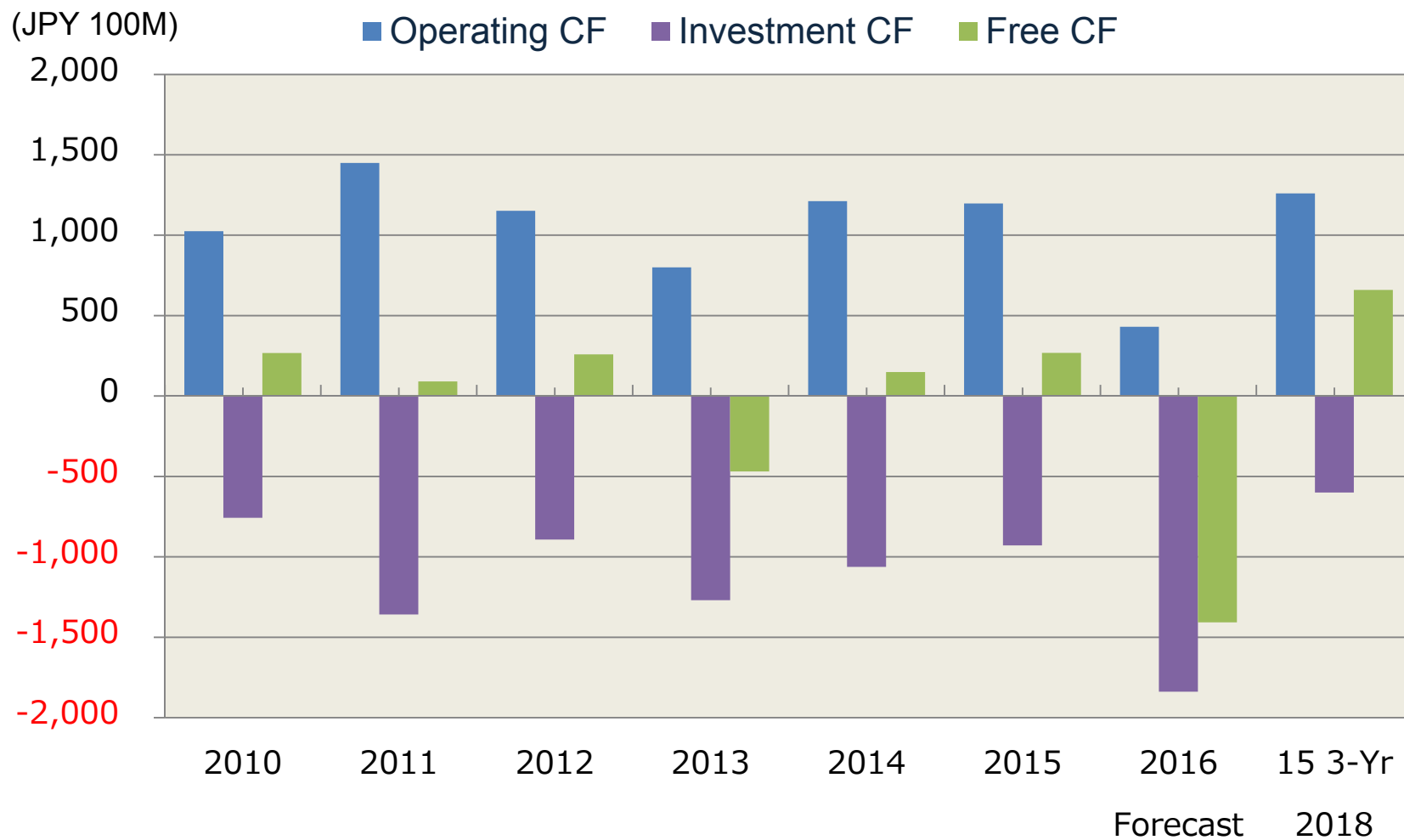
	2011	2012	2013	2014	2015	2016 Forecast	15 3-Yr 2018 Estimate
Net Sales	8,479	8,085	8,305	9,213	8,554	7,140	10,600
Operating Income	886	958	754	1,258	597	480	1,400
Recurring Profit	1,088	1,150	1,144	1,742	-128	330	1,700
Equity Method profit	232	171	298	239	-732	-125	270
Net Income (Profit attributable to owners of parent)	653	866	803	911	-3	190	1,200
ROA (%)	5.9	6.9	5.5	5.5	-0.0	-	6
ROE (%)	10.1	12.1	9.5	9.3	-0.0	-	10
Dividend Per Share(¥)	28.0	34.0	37.0	48.0	31.0	11.0	N/A
Copper (\$/t)	8,485	7,855	7,104	6,554	5,215	4,726	6,000
Nickel (\$/lb)	9.6	7.7	6.5	7.6	4.7	4.5	7.0
Gold (\$/Toz)	1,646	1,654	1,327	1,248	1,150	1,273	1,150
Exchange(¥/\$)	79.1	83.1	100.2	109.9	120.2	102.7	120.0

2) Recurring profit and equity method investment profit/loss



	2010	2011	2012	2013	2014	2015	2016 Forecast	15 3-Yr 2018
Recurring profit	1,238	1,088	1,150	1,144	1,742	-128	330	1,700
(Included equity method investment profit/loss)	348	232	171	298	239	-732	-125	270

3) Cash Flow Trends



4) Sensitivity

JPY100M

Element	Degree of variation	Operating income/ Recurring profit
Cu	±100\$/t	14/28
Ni	±10 ¢ /lb	16/18
Au	±10\$/toz	5/5
JP¥/\$	±¥1/\$	7/5

(Remark) USD/JPY translation include RC-related and Conversion rate of overseas consolidated / equity-method affiliate companies' profit.

Note

The materials provided herein are not intended as disclosure under the Securities Law, and no warranty is made as to their completeness or accuracy.

Any projections included in these materials are based solely on information available at the time of this briefing, and are subject to change based on market conditions, competitive conditions, and a number of other factors.

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