Mid-Term Plan MG20
- Maxell Growth 20-

Maxell Holdings, Ltd.
President and Representative Director
Yoshiharu Katsuta
2018/4/27
Review of NMI17 (Mid-Term Plan: FY2015~2017) (1)

Margin and ROE improved steadily but fell short of goals

NMI17 Concept: Improve margins and ROE

<table>
<thead>
<tr>
<th></th>
<th>FY 2014 Actual</th>
<th>FY 2017 Actual</th>
<th>NMI17 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>156.0</td>
<td>148.2</td>
<td>170.0</td>
</tr>
<tr>
<td>Operating Income</td>
<td>5.2</td>
<td>8.8</td>
<td>12.0</td>
</tr>
<tr>
<td>Operating Margins %</td>
<td>3.3%</td>
<td>6.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td>ROE</td>
<td>3.3%※</td>
<td>6.0%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

* FY 2014 ROE excludes one-time special profit from asset sale

* Steadily improved margins and shareholder returns since relisting in 2014
* However, fell short of NMI17 goals
Review of NMI17 (Mid-Term Plan: FY2015~2017) (2)

Operating Income: fell short of plan but successfully generated ¥3.6bn via additional management efforts

NMI17 Historical Operating Income (FY 2014 – 2017)

- Introduce ABC Rules
- Consumer LiB de-commoditization
- Kumamoto earthquake
- New light source development delay
- Restructuring
- Implement XYZ Rules
- Up ¥3.6bn vs. FY 2014

FY 2014 Actual: ¥5.2bn
Projector drawback: -¥3.5bn
Product portfolio improvements: ¥4.3bn
Management Additional efforts: ¥2.8bn
FY 2017 Actual: ¥8.8bn
NMI17 Goal: ¥12.0bn

✓ Target not reached, but achieved 70% increase in 3 years
✓ Short of expansion of business scale
New Mid-Term Plan: Maxell Growth 20(MG20)

- New Maxell group to enter a growth stage at a “new level”
- Accelerate growth and achieve sustainability via independence

MG20: step to achieve mid-/long-term goals

- Restructure Portfolio Re-listing
- NMI17 Margin Increase
- To a “new level”

2014 2017 2020 202X

Mid/Long-Term Goal
Sales ¥300 bn
ROE ≥10%

➢ Management Independence
➢ Execute MBP (Maxell Business Platform)

Adding MBP as the new driver to achieve growth

- Expanding markets for “Three Growth Areas”
- Expand scope and generate new businesses
- Aggressively invest for growth
Maxell Business Platform (MBP)

- Accelerate growth via alliances and partnerships based on “collaborative creation and prosperity (“Kyoso Kyoei”)”
- Achieve non-linear growth, new business opportunities, and business portfolio improvements

Integrate technology and know-how (“monozukuri”) of companies that share the same vision focusing on enriching human experiences (“around people”)

Combining resources to complement weaknesses and build on strengths

R&D
(New business areas)

Procurement
(Raw materials and currency risks)

Financing
(Flexible funding)

Talent Hiring
(Highly skilled engineers, next-gen. managers)

Global Reach
(Marketing, W/W offices)

Platform
(Maxell Holdings)
Combining new technologies via MBP

Core Technology: deepen/accumulate & widen/connect

Ceramic-coated Heat-resistant Separator
Li-ion Battery
Heat-resistant CR battery
Wireless Power Supply
Recycling of Resources
Dry Film-forming High speed Mass production
Electrode Design
Safety Evaluation
Structure Joining
Particle Control
Material Design
Thermal Fluid Analysis
Electrode Design
Analysis Physical properties chemistry
Phase Boundary control
Material Design Synthesis
Producing Design Innovation
Press
Coating
Molding
Surface treatment
Paint
Dispersion
Slit
Mold release
Resin Lens
Highly Precise Assembly
Resin Lens
Precise Injection Molding
Free-form Surface Lens
Optical Design
Image Processing
Sensing Millimeter Wave
In-car sensing camera Lens unit
Digital Signage
3D Ink
3D Display
4K Projector
Head-up Display
LED Head-lamp Lens
Functiona Film
Thick Film Forming
Adhesive Tapes
3D Print
Functional Film

Development of technologies that are unique and niche top
New Mid-Term Plan: financial goals

MG20: generate profit via growth and improve ROE

<table>
<thead>
<tr>
<th></th>
<th>FY2017 Actual</th>
<th>FY2020 MG20 Goal</th>
<th>Compared to FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Sales (¥ billion/Year)</td>
<td>148.2</td>
<td>200.0</td>
<td>+35%</td>
</tr>
<tr>
<td>Operating Income (¥ billion/Year)</td>
<td>8.8</td>
<td>15.0</td>
<td>+67%</td>
</tr>
<tr>
<td>Operating Margins %</td>
<td>6.0%</td>
<td>7.5%</td>
<td>+1.5 point</td>
</tr>
<tr>
<td>ROE</td>
<td>6.0%</td>
<td>8.0% or above</td>
<td>+2.0 point or above</td>
</tr>
</tbody>
</table>

ROE 8% or above (FY 2020)
Execute on Strategic Growth Investment
Accelerate growth & improve margins via MBP

Organic Growth x MBP = Margin improvement

**Sales**

- **CAGR 11%**
  - FY 2017 Actual: ¥148 billion
  - FY 2020 Goal: ¥200 billion

**Operating Income**

- **CAGR 19%**
  - FY 2017 Actual: ¥8.8 billion
  - FY 2020 Goal: ¥15.0 billion

Achieve Sales ¥165bn and Operating Income ¥12bn by FY2020 via organic growth alone (ex-MBP)
Opportunities in the “Three Key Growth Areas”

Innovation is creating a “Smart Society”: expanding growth opportunities for Maxell that offer comfort, reliability and safety.

**ICT Innovation**
- IoT·AI·cloud
- Big Data
- 5G·LPDW
- ADAS, Connected Car

**Design Innovation**
- New material·MBD
- AR/VR
- Ultra-miniaturization modularization

**Logistics/Financial**
- EC·fin-tech
- Blockchain

**Market**
- Senior market
- Sport market

**Auto**
- ADAS
- Connectivity
- Electrification, Safety

**Home Life and Infrastructure**
- Smart living
- Enhanced Infrastructure
- Promote IoT in Education

**Health and Beauty Care**
- Anti-aging
- Aging society
- Growing awareness

Provide key device vital to solving social issues.

Develop “Only One” products that meets various customer needs.

Management Vision “Supporting Smart Life, Peace of Mind & Cheer around People”
Energy Segment

Growth drivers and key strategies

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Key Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart-resistant CR Battery for TPMS</td>
<td>■ TPMS enforcement in China, capacity increase, and higher cost competitiveness</td>
</tr>
<tr>
<td></td>
<td>■ Maintain high market shares in US and Europe</td>
</tr>
<tr>
<td>Cylindrical CR Battery for meters</td>
<td>■ Capacity increase to meet demand increase in smart meters</td>
</tr>
<tr>
<td></td>
<td>■ Differentiate via high capacity cell technology</td>
</tr>
<tr>
<td>Coin-type Li-ion rechargeable battery</td>
<td>■ Rechargeable hearing aid devices, expansion of BAN market</td>
</tr>
<tr>
<td>Laminate-type LIB</td>
<td>■ Achieve higher capacity and reliability via innovative battery technology</td>
</tr>
<tr>
<td></td>
<td>■ Expand into drone, robot and IoT via new technology axis</td>
</tr>
</tbody>
</table>

Consumer LIB: assume profit drop due to higher material cost and pricing pressure due to higher competition

※ Japan Registered Trademark. High capacity technology using silicon-based anode material

Sales and Operating Income include both Organic and MBP.
Industrial Materials Segment

**Growth driver and key strategies**

<table>
<thead>
<tr>
<th>Product</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-car camera lens unit</td>
<td>• Increase capacity to meet ADAS demand</td>
</tr>
<tr>
<td></td>
<td>• Establish stable global supply chain</td>
</tr>
<tr>
<td></td>
<td>• Lead the sensing market with innovative technology</td>
</tr>
<tr>
<td>LED headlamp lens</td>
<td>• Strengthen product competitiveness to meet LED adoption rate increase</td>
</tr>
<tr>
<td></td>
<td>(cost competitiveness, design variety)</td>
</tr>
<tr>
<td></td>
<td>• Grow overseas sales and production capacity</td>
</tr>
<tr>
<td>Construction, dicing tapes</td>
<td>• Grow waterproofing sales in SE Asia</td>
</tr>
<tr>
<td></td>
<td>• Leverage semiconductor-related growth</td>
</tr>
<tr>
<td></td>
<td>• Accelerate oversea sales</td>
</tr>
<tr>
<td>High functional material ink/film</td>
<td>• Faster development of 3D modeling ink</td>
</tr>
<tr>
<td></td>
<td>• Global expansion of transparent conductive material</td>
</tr>
<tr>
<td></td>
<td>• Strengthen functional films such as thermal barrier insulation film</td>
</tr>
</tbody>
</table>

**Sales and Operating Income**

Sales and Operating Income include both Organic and MBP.
Electric Appliance/Consumer Products Segment

Sales and Operating Income include both Organic and MBP.

Growth drivers and key strategies

### Beauty/Health
- Introducing Maxell brand products
- New concepts, differentiated products
- Develop cutting-edge products for pros
- Enhance brand positioning
- Grow global OEM, ODM businesses
- Expand sales channels

### Water/Air
- Differentiate via unmatched compact-ness, AR and systemization
- Manufacturing capacity expansion
- Establish process for product development, certification and mass production

### Head Up Displays (HUD)
- Fully switching to laser/LED models
- High brightness via new lighting tech.
- Cost reduction using display element first in the industry
- Creating new markets with high function projector technology (digital signage, smart classroom, AI sensing, etc.)
Optimize cash allocation

Allocate ¥40bn to strategic investment in MBP

3-year cash increase※
※before R&D expense

Cash ¥45.9bn

【Relisting: cash increase】
Asset sale: Approx. ¥20bn
Inventory reduction: Approx. ¥10bn

Dividend Payout Ratio 30～40%
Shareholder return

MBP: strategic investment allocation for growth

Growth Investment

CAPEX

R&D

Cash Balance (Working Capital)

FY 2017
FY 2018〜2020 (cumulative)

¥22bn
¥30bn
¥40bn

Allocate ¥40bn to strategic investment in MBP

※before R&D expense
MBP: actively investing ¥40bn

Strategically invest in areas of growth for each segment

Key areas to grow and strengthen businesses

- Technology acquisitions
- Design/development capability
- Strengthen product line-ups
- New business development
- Integrate non-core businesses
- Manufacturing capacity/technology
- Acquire new channels
- Sales alliances
- Increase market share

Strategic Investment focus by segment

**Energy**
- Extend to power units, systems
- Leading technology development
- Horizontal specialization
- ¥10～15bn

**Industrial Material**
- Strengthen components business
- Promote technology fusion
- Enhance global production
- ¥20～25bn

**Electric Appliance / Consumer Products**
- Strengthen design/development
- Extend global sales channels
- Expand product line-up
- ¥5～10bn
MBP: examples and future visions

Maxell Holdings
Monitor with financial discipline

50/20/50 Concept: small, but attractive margins and positioning

- **ABC Rule**: Prioritize allocation of resource to competitive businesses/products
  - NPV, cost of capital, recovery period

<table>
<thead>
<tr>
<th>KPI</th>
<th>A group</th>
<th>B group</th>
<th>C group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales ¥bn/year</td>
<td>1~5</td>
<td>&gt; 1</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Operating Margins</td>
<td>&gt; 10%</td>
<td>5~10%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>(aim 20% or higher)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Share</td>
<td>No.1</td>
<td>Top class</td>
<td>Top class</td>
</tr>
<tr>
<td>Market Growth</td>
<td>High (Introduction)</td>
<td>Medium (Growth)</td>
<td>Low (Maturity)</td>
</tr>
<tr>
<td>Investment Policy</td>
<td>Prod. Dev./Manufacturing/Growth</td>
<td>Prod. Dev./Manufacturing</td>
<td>None for capacity expansion</td>
</tr>
</tbody>
</table>

- **XYZ Rule**: Visualization of low-margin businesses/products, early action

  - **X group**: Below hurdle operating margins and FCF
    - No improvement in certain time-frame move to Y
  - **Y group**: Plan and implement restructuring plan
    - Move to Z if no improvement within 2 years
  - **Z group**: Plan and implement partial divestiture or exit
Summary: Maximizing Corporate Value

Achieve mid-/long-term goals to maximize Corporate Value

**MG20 Vision**
- Mgt. Independence
- Drive MBP (Strategic investment of ¥40bn)

**Financial Discipline**
- 50/20/50 Concept
- ABC-XYZ Rule
- Decisions considering cost of capital

**Strong Governance**
- Over 1/3 outside directors
- Introduce performance-based compensation

**Accelerate growth**

**Improve margins**

**Return focus** (ROE8%)
- Dividend Payout Ratio 30 – 40%

**Strengthen alignment with shareholders**
Parts of this document contain predictions about the future that are based on our current expectations and beliefs.

These statements are provided as background material for investors.

We cannot ensure or guarantee that any such statement will prove to be correct.

Please keep in mind that actual outcomes might differ from anticipated results.