Boral overview

- Boral is an international building and construction materials group with operations in Australia, the USA and Asia
- ~A$4.8 billion market capitalisation
- S&P/ASX 100 company
- Operations across 13 countries
- ~11,800 employees

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1. As at 2 May 2016
2. Includes joint venture operations. As at 31 December 2015
3. For the half year ended 31 December 2015
4. Gypsum revenue represents Boral’s 50% share of underlying revenue from the USG Boral JV, which is not included in Group reported revenue
5. Roads, highways, subdivisions and bridges
6. Alterations and additions
1. Strengthened position in Australia while market transitions

2. Demonstrated margin expansion ability, including price and cost benefits

3. Growth in key markets and across all geographies

4. Bringing innovative products to market

5. Strong balance sheet and efficient capital management
Boral today – well positioned for growth

1. Strengthened position in Australia while market transitions
   - Significant pick-up in major roads and infrastructure expected over next 5-6 years, while slowdown in resource-based projects is working through

2. Demonstrated margin expansion ability, including price and cost benefits

3. Growth in key markets and across all geographies

4. Bringing innovative products to market

5. Strong balance sheet and efficient capital management
Boral’s Australian assets and market exposures positions the company well.

**BORAL’S AUSTRALIAN REVENUES BY STATE¹, %**

1. Based on 1H FY2016 split of external revenues across Construction Materials & Cement and Boral Building Products
2. Includes masonry revenues; does not include east coast Bricks business which is now part of the Boral CSR Bricks JV, of which Boral has a 40% share
3. Includes cement manufacturing plant, bagging plant and lime plant in NSW, a clinker grinding plant in Vic and a clinker grinding JV in Qld
4. Includes all Boral CSR JV plants on the East Coast
5. Includes 8 Boral Hardwood mills and 1 JV Softwood operation

**OPERATING FOOTPRINT**

(total number of operations at 30 June 2015)

- **Quarries**: 92
- **Concrete**: 228
- **Asphalt**: 43
- **Cement³**: 7
- **Bricks⁴**: 14
- **Roof tiles**: 4
- **Timber⁵**: 9
- **Masonry**: 3

**State Breakdown**

- **NSW**: 20
- **QLD**: 17
- **ACT**: 1
- **SA**: 30
- **VIC**: 17
- **Tas**: 9
- **WA**: 50
- **NT**: 2

**Notes**

1. Includes 8 Boral Hardwood mills and 1 JV Softwood operation

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1. Based on 1H FY2016 split of external revenues across Construction Materials & Cement and Boral Building Products
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5. Includes 8 Boral Hardwood mills and 1 JV Softwood operation
Strengthened position in Australia while markets transition

1. Based on split of 1H FY2016 external revenues from Construction Materials & Cement and Building Products
2. Source: BIS Shrapnel (March 2016)
Note all charts are for financial years and have been based on 2013/14 dollars

17
32
10
13
19
5
4

RHS&B², VWD A$ billions

Non-residential⁴, VWD A$ billions

RHS&B³,⁴, VWD A$ billions

Other engineering², VWD A$ billions

Boral’s Australian revenue by end-market¹, %

Detached dwellings⁵, # starts

Multi-dwellings⁵, # starts

Alterations & additions⁴, VWD A$ billions

Other engineering

Detached dwellings

Multi-dwellings

Alterations & additions

Non-residential

1. Based on split of 1H FY2016 external revenues from Construction Materials & Cement and Building Products
2. Source: BIS Shrapnel (March 2016)
Note all charts are for financial years and have been based on 2013/14 dollars
3. Roads, highways, subdivisions and bridges
4. Source: BIS Shrapnel and Macromonitor (both March 2016)
5. Source: BIS Shrapnel, Macromonitor (both March 2016) and HIA (Feb 2016)
Australian major road projects pipeline
Investment in roads infrastructure expected to translate into stronger materials demand towards end of FY2016 / FY2017

Major Road Construction Projects – Australia
Value of work done by year, A$b (as at February 2016)
Major roads are part of a broader pipeline of infrastructure & commercial construction work.

All Major Construction Projects (excluding resource sector) – Australia
Value of work done by year, A$bn (as at February 2016)

Source: Macromonitor
Concrete demand in Australia

Industry concrete demand in Australia is forecast to stay at high levels for the next five years.

2. Compound annual growth rate

• ~1.6% CAGR\(^2\) in concrete volumes forecast from FY2016 to FY2020
• Decline in FY2016 volumes driven by WA / NT and regional markets
• Growth in RHS&B activity to offset decline in resources sector engineering work and anticipated softening in multi-dwellings
Asphalt demand in Australia

Industry asphalt demand in Australia is forecast to increase and remain high for the next five years.

2. Compound annual growth rate

~3.0% CAGR\(^2\) in asphalt volumes forecast from FY2016 to FY2020

Growth in major roads infrastructure underpinning forecast increase in demand volumes
Boral is well positioned geographically

Macromonitor has modelled East Coast industry materials volumes to increase by between 1.4% and 3.3% CAGR to 2020, with Qld at 8%.

Boral’s Australian revenues by state, %

1. Based on 1H FY2016 split of external revenues across Construction Materials & Cement and Boral Building Products
2. Compound annual growth rate from FY2016 to FY2020 forecast by Macromonitor, February 2016
In CM&C, Boral is well positioned with strategic reserves & integrated downstream operations

**CEMENT**
~70% of needs from domestic manufacturing and ~30% from imports

**QUARRIES**
40-50% Quarry volumes sold internally to Concrete

**BITUMEN**
Bitumen Importers Australia (JV)

**CONCRETE**
~50-60% Cement volumes sold internally to Concrete

**ASPHALT**
~35% of plants supplied bitumen from 50/50 JV

**CM&C Revenue by business**
Per m³ concrete
~0.3t cementitious material
~1.0t aggregates
~0.9t sand

Per tonne asphalt
~0.055t bitumen
~0.7t aggregates
~0.2t sand

1. Based on split of 1H FY2016 external revenues from Construction Materials & Cement
1. Strengthened position in Australia while market transitions

2. Demonstrated margin expansion ability, including price and cost benefits
   - Cost reductions, efficiency improvements and better pricing

3. Growth in key markets and across all geographies

4. Bringing innovative products to market

5. Strong balance sheet and efficient capital management
Demonstrated margin expansion ability – including price and cost benefits

**Construction Materials & Cement**

<table>
<thead>
<tr>
<th>EBIT variance A$m</th>
<th>Volume</th>
<th>Price</th>
<th>Cost escalation</th>
<th>Cost reduction</th>
<th>Other</th>
<th>1H FY15 EBIT$1</th>
<th>1H FY16 EBIT$1</th>
<th>EBIT ROS2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.2%</td>
<td>10.6%</td>
<td></td>
</tr>
</tbody>
</table>

**USG Boral**

<table>
<thead>
<tr>
<th>EBIT variance A$m</th>
<th>Volume</th>
<th>Price</th>
<th>Cost escalation</th>
<th>Cost reduction &amp; other</th>
<th>1H FY15 EBIT$1</th>
<th>1H FY16 EBIT$1</th>
<th>EBIT ROS2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.0%</td>
<td>12.7%</td>
<td></td>
</tr>
</tbody>
</table>

**Building Products**

<table>
<thead>
<tr>
<th>EBIT variance A$m</th>
<th>Volume</th>
<th>Price</th>
<th>Cost escalation</th>
<th>Cost reduction &amp; other</th>
<th>1H FY15 EBIT$1</th>
<th>1H FY16 EBIT$1</th>
<th>EBIT ROS2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.5%</td>
<td>8.6%</td>
<td></td>
</tr>
</tbody>
</table>

**Boral USA**

<table>
<thead>
<tr>
<th>EBIT variance US$m</th>
<th>Volume</th>
<th>Price</th>
<th>Cost escalation</th>
<th>Cost reduction &amp; other</th>
<th>1H FY15 EBIT$1</th>
<th>1H FY16 EBIT$1</th>
<th>EBIT ROS2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2.0)%</td>
<td>1.6%</td>
<td></td>
</tr>
</tbody>
</table>

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1. Excluding significant items
2. EBIT return on sales
3. For CM&C includes Property earnings and CFMEU damages receipts offset by lower earnings from the sale of the Landfill business
Boral today – well positioned for growth

1. Strengthened position in Australia while market transitions

2. Demonstrated margin expansion ability, including price and cost benefits

3. Growth in key markets and across all geographies
   - Australia: growth trajectory for major roads and infrastructure
   - Asia: product penetration and growing economies
   - USA: returned to profitability; ongoing market recovery

4. Bringing innovative products to market

5. Strong balance sheet and efficient capital management
Operations in high growth countries as well as new products will underpin USG Boral’s growth.

1. Based on split of 1H FY2016 underlying revenue for USG Boral
2. Certain manufacturing facilities and gypsum mines held in JV with third parties | production of plasterboard and other products may be at the same physical location
3. GDP growth is real GDP growth rate 2014 estimate | Population figures as at July 2015 estimate | Population growth based on 2015 estimates | Urban population as a percentage of total population for 2015 | Rate of urbanisation based on annual rate of change between 2010 and 2015E

Source: CIA World Factbook

**SHARE OF REVENUE**, %

- **Australia**: 36%
- **Indonesia**: 13%
- **China**: 12%
- **Thailand**: 14%
- **Korea**: 6%
- **Other**: 19%

**MANUFACTURING FOOTPRINT** (total number of operations at 30 June 2015)

- **Plasterboard plants**: 637m m² capacity (25 board lines / 6 ceiling tile lines) - 19
- **Gypsum mines**: - 3
- **Other plants**: mineral fibre ceiling tile, metal ceiling grid, metal products, joint compounds, mineral wool and cornice production - 31

**China**
- GDP growth: 7.3%
- Population: 1.37 bn
- Population growth: 0.5%
- Urban population: 55.6%
- Rate of urbanisation: 3.1%

**South Korea**
- GDP growth: 7.3%
- Population: 1.25 bn
- Population growth: 1.2%
- Urban population: 32.7%
- Rate of urbanisation: 2.4%

**Vietnam**
- GDP growth: 6.0%
- Population: 30.5 m
- Population growth: 1.4%
- Urban population: 74.7%
- Rate of urbanisation: 2.7%

**Thailand**
- GDP growth: 0.9%
- Population: 70.0 m
- Population growth: 0.3%
- Urban population: 50.4%
- Rate of urbanisation: 3.0%

**Indonesia**
- GDP growth: 5.0%
- Population: 256.0 m
- Population growth: 0.9%
- Urban population: 53.7%
- Rate of urbanisation: 2.7%

**Middle East**

**Malaysia**
- GDP growth: 6.0%
- Population: 30.5 m
- Population growth: 1.4%
- Urban population: 74.7%
- Rate of urbanisation: 2.7%
In the USA, new residential construction is continuing to recover in all regions.

Forecasters\(^1\) currently expect an average of ~1.2m US housing starts in FY2016 and ~1.5m by FY2018, with all regions forecast to recover strongly.

1. Housing starts forecasts based on the average of Dodge, Wells Fargo, NAR, NAHB, Fannie Mae, Freddie Mac and MBA analysts between November & December 2015
2. SOUTH consists of AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, WV, VA | NORTHEAST consists of CT, MA, ME, NH, NJ, NY, PA, RI, VT | MIDWEST consists of IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI | WEST consists of AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY. States italicised in green are the states in which Boral operates, Revenue split is based on 1H FY2016 external revenues with ‘Other’ including sales outside of the USA

\(\text{SHARE OF BORAL’S US REVENUE}^2, \%\)

- **NORTHEAST\(^2\) Housing Starts**
  - FY 1989 to 2017
  - Revenue split: 29% NORTHEAST, 57% TOTAL USA, 7% OTHER

- **WEST\(^2\) Housing Starts**
  - FY 1989 to 2017
  - Revenue split: 29% WEST, 57% TOTAL USA, 7% OTHER

- **TOTAL USA Housing Starts**
  - FY 1989 to 2017
  - Chart shows trend over time

- **MIDWEST\(^2\) Housing Starts**
  - FY 1989 to 2017
  - Chart shows trend over time

- **SOUTH\(^2\) Housing Starts**
  - FY 1989 to 2017
  - Chart shows trend over time

17
Positive momentum in US housing starts driven by current housing deficit and continued improvement in US fundamentals

<table>
<thead>
<tr>
<th>Short-term factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Growing US housing undersupply – cumulative housing deficit of ~3.9 million units</td>
</tr>
<tr>
<td>• Builder confidence continues to rise – although labour shortages remain</td>
</tr>
<tr>
<td>• Emergence of previously restricted buyers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium-term factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Momentum gathering amongst first home buyers – credit availability improving and mortgage rates at historical lows</td>
</tr>
<tr>
<td>• Labour market recovery remains firm – unemployment at 8-year lows</td>
</tr>
<tr>
<td>• US housing affordability remains relatively strong</td>
</tr>
<tr>
<td>• Household formation accelerating</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Long-term factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Population growth and immigration will underpin longer-term housing demand</td>
</tr>
</tbody>
</table>
USA EBIT and housing starts over time

We are seeing improved returns at lower levels of housing starts

Portfolio additions from historic: 50% Monier Lifetile & Cultured Stone, Boral Composites

Source: Company data and US Census
Boral today – well positioned for growth

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3. Growth in key markets and across all geographies

4. Bringing innovative products to market
   - Australia / Asia: Sheetrock® brand gypsum technologies
   - USA: Boral composite technologies in trim and cladding

5. Strong balance sheet and efficient capital management
Sheetrock® technology is helping us grow faster than the competition in high growth markets.

Next generation technology upgrades

• Producing Sheetrock® wall and ceiling boards that are:
  ▪ up to 15% lighter
  ▪ higher strength
  ▪ sag-defying

Competitors’ products have a less uniform core structure comprising large voids and irregular bubbles.
USG Boral has an enviable position, which we are protecting and growing through innovation.

Ex-China, USG Boral market share across the region in which we operate is around 40%.

Plasterboard market share, %

<table>
<thead>
<tr>
<th>Region</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>45 – 50</td>
</tr>
<tr>
<td>Korea</td>
<td>4 – 6</td>
</tr>
<tr>
<td>China</td>
<td>50 – 55</td>
</tr>
<tr>
<td>Thailand</td>
<td>40 – 45</td>
</tr>
<tr>
<td>Indonesia</td>
<td>60 – 65</td>
</tr>
<tr>
<td>Malaysia/Singapore</td>
<td>50 – 55</td>
</tr>
<tr>
<td>India</td>
<td>20 – 25</td>
</tr>
<tr>
<td>Vietnam</td>
<td>40 – 45</td>
</tr>
<tr>
<td>Philippines</td>
<td>10 – 15</td>
</tr>
<tr>
<td>UAE</td>
<td></td>
</tr>
</tbody>
</table>

Since FY2007 plasterboard sales volume CAGR of 6% p.a. (incl Aus/NZ) and 7% in Asia (excl Aus/NZ).

USG Boral sales volume, million m²

1. Based on management estimates of plasterboard sales volume, excluding ceiling tiles. Note that China 4-6% is based on total China market size of ~2 billion m² however, USG Boral’s target market in China is the high end market only (circa 400m m²).

2. Includes plasterboard and gypsum ceiling tile volumes.
Innovation is delivering incremental benefits and is important for long term growth in the USA

**Sustainable Development**

**Current Poly-Ash Process**
- Production support
- Product extensions
- Performance step change

**Transformational Growth**

**New platform development & adjacent products**
- New formats, markets and applications
- Adjacent product opportunities

**New R&D Centre**
- New location for durability, polymer and analytics lab
- 25,000 square feet
- Capital spend at budget (US$3.8m)
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Balance sheet
Gearing remains at lower end of historical range

Gearing$^1$

<table>
<thead>
<tr>
<th>%</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
<td>31</td>
<td>30</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
</tbody>
</table>

Debt maturity profile (as at 31 Dec 2015)

A$\text{m}$

- USPP notes$^2$
- CHF notes$^3$
- USPP (AUD)
- Undrawn syndicated facilities

As at 31 December 2015:

- **Net debt of $1.03\text{b}** increased by $208m since 30 June 2015, largely due to on-market share buy-back and translation of US$ denominated debt
- Principal debt gearing covenant at 31%; well within threshold of <60%
- Weighted average debt maturity ~4.2 years
- Weighted average cost of debt ~5.3% p.a.
- Committed undrawn bank debt facilities of US$400m

(Figures may not add due to rounding)

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1. Net debt / (net debt + equity)
2. US Private Placement notes
3. Swiss franc notes issued under EMTN program. Swapped to USD
1. **Strengthened position in Australia while market transitions**
   - Significant pick-up in major roads and infrastructure expected over next 5-6 years, while slowdown in resource-based projects is working through

2. **Demonstrated margin expansion ability, including price and cost benefits**
   - Cost reductions, efficiency improvements and better pricing

3. **Growth in key markets and across all geographies**
   - **Australia**: growth trajectory for major roads and infrastructure
   - **Asia**: product penetration and growing economies
   - **USA**: returned to profitability; ongoing market recovery

4. **Bringing innovative products to market**
   - **Australia / Asia**: Sheetrock® brand gypsum technologies
   - **USA**: Boral composite technologies in trim and cladding

5. **Strong balance sheet and efficient capital management**
Questions
Back-up slide
| Boral Construction Materials & Cement | • Expect continued strong results with **underlying FY2016 EBIT to be marginally above FY2015** (excluding Property in both years)  
• Expect **2H underlying earnings to be lower than 1H FY2016** due to continuing conditions and fewer working days in 2H  
• Restructuring benefits and strength in Sydney & SEQ expected to offset depressed regional Qld, subdued RHS&B, lower LNG volumes and lower Landfill earnings  
• **Property** earnings from Nelsons Ridge sales (subject to completion) of ~$20m expected over two years, largely in 2H FY2016. Additional property sales possible. |
| --- | --- |
| Boral Building Products | • Expected to deliver a **marginal improvement in reported EBIT in FY2016**  
• **Improvement initiatives and strong East Coast housing market** should offset lower housing in WA & SA and impact of post-tax equity accounting from Boral CSR |
| Boral Gypsum | • Expected to deliver **further underlying performance improvements in FY2016**  
• **Strong residential activity in Australia, penetration of Sheetrock® products** and **strong cost and price management** underpinning improvements and offsetting slowdowns in key markets in Asia |
| Boral USA | • Expected to deliver **further increase in earnings in FY2016** on the back of **increasing housing activity**  
• External forecasters expect ~1.2 million housing starts in FY2016¹ |

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¹ Average of analysts from Dodge, Wells Fargo, NAR, NAHB, Fannie Mae, Freddie Mac and MBA between November and December 2015
Disclaimer

The material contained in this document is a presentation of information about the Group’s activities current at the date of the presentation, 5 May 2016. It is provided in summary form and does not purport to be complete. It should be read in conjunction with the Group’s periodic reporting and other announcements lodged with the Australian Securities Exchange (ASX).

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