Build something great IN



Results Announcement

for the full year ended 30 June 2019

Management Discussion & Analysis 26 August 2019

FY2019 results summary



Revenue growth of 4% and a 2% lift in EBITDA from continuing operations despite declines in Australian & US housing starts, and Property EBITDA \$30m lower than last year

- Excluding divestments, revenue of \$5,801m up 4% on prior year and EBITDA^{1,2} of \$1,033m up 2%
- Reported revenue of \$5,863m steady; EBITDA^{1,2} of \$1,037m down 2%
- EBITDA^{1,2} margins of 17.7%, compared with 18.0%
- NPATA^{1,2} of \$486m down 6%; statutory NPAT² of \$272m down 38%; and underlying NPAT^{1,2} of \$440m down 7%
- EPSA^{1,2} of 41.4 cents versus 43.8 cents
- **Final dividend** of **13.5 cents** per share, for a full year dividend of 26.5 cents, steady on prior year
- Operating cashflow of \$762m up 32%
- ROFE³ of 8.2%, down from 8.4%
- **Revenue from continuing operations** up 4% and EBITDA up 2% despite Australian housing starts down 15%, lower growth in North America and Property EBITDA of \$33m, down \$30m from the prior year.
- **Delivered** better than expected **Headwaters acquisition synergies** and **improvement initiatives** and **cost reduction programs**, including early gains in Boral Australia and USG Boral.
- **Statutory NPAT of** \$272m is after significant items of (\$168m) including a net impairment of \$174m for the Meridian Brick joint venture (JV).

Divisional overview¹

- Boral Australia Despite a 15% decline in residential housing starts and 6% reduction in concrete volumes, revenue held steady. EBITDA down 6% to \$593m, primarily due to lower Property earnings. Excluding Property, EBITDA down 2% on lower volumes, partly offset by price growth, improvement initiatives and cost savings.
- Boral North America Revenue up 3% to US\$1,592m (up 12% to A\$2,229m) and EBITDA up 10% to US\$297m (up 19% to A\$415m) for continuing operations⁴. EBITDA margins grew by 1% to 18.6%. Growth in Building Products, particularly Roofing, and US\$32m of Headwaters synergies, was partially offset by lower earnings from Fly Ash and Meridian Brick. Extreme rainfalls and a 2% decline in housing starts impacted volumes.
- USG Boral Underlying EBITDA down 6% to \$252m and Boral's post-tax earnings contribution of \$57m, down 10%. The decline in South Korea and increased competition in Indonesia was partly offset by growth in Vietnam, and early benefits from cost reduction programs. Australia continued to deliver strong results, despite softening in Q4.

Strategic objectives

- Safety strong improvements in employee and contractor safety continued in FY2019, with a recordable injury frequency rate (RIFR)⁵ of 7.5, a 14% improvement on last year. Lost time injury frequency rate⁵ improved 19% to a low of 1.3.
- Returns on capital Boral's return on funds employed (ROFE)³ was 8.2%. Boral Australia's ROFE of 15.1% is well above Boral's equivalent cost of capital ROFE of ~9.0% while USG Boral's underlying ROFE of 8.1% reflects cyclical softness. Boral North America improved from 4.4% to 5.6% and is positioned to deliver above cost of capital returns through the full realisation of synergies and expected growth.
- Strategic growth Headwaters acquisition synergies of US\$32m in FY2019, with four-year synergy target of US\$115m remaining on track. Agreement reached with Knauf to expand USG Boral JV in Asia, subject to regulatory approvals, and for Boral to return to 100% ownership in Australia/NZ. The transaction will be immediately EPS accretive, and debt funded.

FY2020 Outlook: Taking into account where we finished the year in FY2019, the outlook for Boral's markets in FY2020 and trading conditions through July and August, Boral expects NPAT¹ to be ~5-15% lower in FY2020 relative to FY2019, due to lower earnings in Boral Australia and USG Boral but underlying earnings growth in Boral North America, together with higher depreciation charges. This is before the impact of additional earnings from the announced USG Boral/Knauf transaction and before the impact of accounting changes resulting from the adoption of the new leasing standard (IFRS 16).





(A\$m)	FY2019	FY2018	Var %
Revenue – total operations basis	5,863	5,869	(0)
 continuing operations basis 	5,801	5,579	4
EBITDA ^{1,2} – total operations basis	1,037	1,056	(2)
 continuing operations basis 	1,033	1,015	2
EBITA ^{1,2}	721	749	(4)
EBIT ^{1,2}	660	688	(4)
Net interest	(103)	(104)	1
Tax ¹	(116)	(111)	(4)
NPAT ^{1,2}	440	473	(7)
Significant items (gross)	(193)	(102)	
Tax on significant items	25	69	
Statutory NPAT ²	272	441	(38)
NPATA ^{1,2}	486	514	(6)
EPSA (cents) ^{1, 2}	41.4	43.8	(5)
EPS (cents) ^{1,2}	37.5	40.4	(7)
Dividend (cents)	26.5	26.5	-

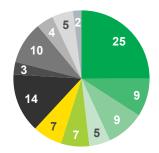
Figures may not add due to rounding.

- **Reported revenue** of \$5,863m was steady and **EBITDA**^{1,2} of \$1,037m was down 2%. Excluding discontinued businesses, Denver Construction Materials (sold 2 July 2018) and US Block (sold 30 November 2018), EBITDA increased 2%. The A\$66m EBITDA lift from Boral North America was partly offset by lower earnings from Boral Australia, including \$30m lower Property earnings, and from USG Boral. Corporate costs were broadly in line with the prior year.
- Depreciation, amortisation and interest expenses were relatively stable.
- Income tax expense of \$116m and an effective tax rate of 21% was in line with guidance. Excluding the benefit of further recognition of previously unrecognised US tax losses and utilisation of capital losses our effective tax rate was ~24%.
- Final dividend of 13.5 cents per share (50% franked) takes the full year dividend to 26.5 cents, steady on the prior year, to be paid 1 October 2019, and representing a payout ratio of 71%.
- A net loss of \$168m for significant items primarily reflects an impairment of \$174m for the Meridian Brick JV, \$22m of costs associated with cost reduction and rightsizing programs across the business, Headwaters integration costs of \$26m, legal and consulting costs related to the USG Boral/Knauf transaction of \$4m, partly offset by \$58m of gains recognised on the sale of businesses.
- Operating cash flow of \$762m was up 32%, largely reflecting improved working capital outflows, lower tax payments and lower restructuring, acquisition and integration payments of \$54m compared to \$118m last year.
- Capital expenditure of \$453m (\$340m of stay-in-business and \$113m of growth expenditure) was up from \$425m in the prior year and included investments in the new Port of Geelong clinker import terminal in Vic. guarry upgrades, and investments in storage facilities and reclaim activities in US Fly Ash.
- Net debt at 30 June 2019 was \$2,193m down from \$2,453m at 30 June 2018. Proceeds received in FY2019 from the sale of Denver Construction Materials and US Block were partially offset by adverse exchange rate impacts. Boral is well within its funding covenants, with Boral's principal debt gearing covenant (gross debt/ (gross debt + equity)) of 29% well within the threshold of less than 60%. Gearing (net debt/(net debt + equity)) was 27% at 30 June 2019, down from 30% at 30 June 2018.



Market conditions and external impacts

Boral FY2019 external revenue⁶ by market, %



- Aus. RHS&B & other engineering
- Aus. non-residential
- Aus. detached housing
- Aus. multi-residential
- Aus. A&A
- Asia & Middle East
- USA single-family
- USA multi-family
- USA repair & remodel
- USA non-residential
- USA infrastructure
- Other

Australian RHS&B infrastructure activity is strong but residential market declined

Softer US housing activity with weather impacts in key states

Mixed market conditions in Asia



Australia

Boral Australia's largest exposure is to **roads**, **highways**, **subdivisions & bridges (RHS&B)**. While activity remained at high levels, based on estimates, RHS&B value of work done⁷ declined 6% in FY2019, with a reduction of 11% in Qld, 5% in NSW and 3% in Vic.

Other engineering activity⁷ is estimated to have declined 22%, as strong activity in Vic and NSW was offset by lower levels of WA and Qld activity.

Australian **housing starts**⁸ declined 15% to an estimated 195,000 annualised starts in FY2019, from 230,200 starts in FY2018. **Detached housing** starts are estimated to be down 8%, with **multi-residential** starts down 23%.

On a state by state basis, housing starts declined by 19% in Vic, 14% in NSW, 13% in Qld, 21% in SA and 16% in WA.

Australian **alterations & additions** (A&A) activity⁹ grew by an estimated 3% in FY2019.

Non-residential activity⁹ grew by an estimated 2% with higher demand in NSW and Vic.

In FY2020, market forecasters¹⁰ on average expect **housing starts** to be ~166,000.

In FY2020, **concrete volumes** are expected to remain high but Macromonitor¹¹ is currently forecasting concrete industry volumes to reduce by ~2% nationally and ~5% in NSW. Macromonitor¹¹ is forecasting **asphalt industry volumes** to remain high in FY2020 with further growth in the next 2-3 years.

The **list of project work** in Table 1 includes some of the largest infrastructure projects Boral is currently supplying and a selection from the potential pipeline.

Table 1: Australia - Project Work

Logan Motorway – Enhancement Works, Qld Barangaroo – Crown Casino, NSW Bruce Highway Cairns Southern Access, Qld Norfolk Island Airport, Qld Northern Road – Stages 4,5 & 6, NSW Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Armidale Road (Northlake Bridge), WA Brisbane Metro, Qld
Bruce Highway Cairns Southern Access, Qld Norfolk Island Airport, Qld Northern Road – Stages 4,5 & 6, NSW Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Armidale Road (Northlake Bridge), WA
Norfolk Island Airport, Qld Northern Road – Stages 4,5 & 6, NSW Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Armidale Road (Northlake Bridge), WA
Northern Road – Stages 4,5 & 6, NSW Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Armidale Road (Northlake Bridge), WA
Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Est. completion 202 Armidale Road (Northlake Bridge), WA
Pacific Motorway M1 M2 upgrade, Qld Pacific Motorway M1 M3 Merge, Qld RAAF – East Sale, Vic Sydney Metro rail, NSW West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Est. completion 2024 Armidale Road (Northlake Bridge), WA
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West Gate Tunnel (early works), Vic Melbourne Metro Rail Project (Precast), Vic Road Asset Management Contracts, Qld Armidale Road (Northlake Bridge), WA
Melbourne Metro Rail Project (Precast), Vic Est. completion 2022 Road Asset Management Contracts, Qld Est. completion 2024 Armidale Road (Northlake Bridge), WA
Road Asset Management Contracts, Qld Est. completion 2024 Armidale Road (Northlake Bridge), WA
Armidale Road (Northlake Bridge), WA
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Brisbane Metro, Qld
Capricorn Highway, Qld
Clark Creek Windfarm, Qld
Cross River Rail, Qld
Haughton River Bridge, Qld
Inland Rail Project – Narrabri to NorthStar, NSW Tendering
Mordialloc Bypass, Vic
Northern Road – Stages 4,5 & 6, NSW
Queens Wharf – resort development, Qld
Snowy Hydro 2.0, NSW
Suburban Roads upgrade, North, South East & West, Vic
Sydney Metro (Victoria Cross & Pitt St Stations), NSW
Tonkin Highway extension, WA
WestConnex (early works), NSW
North East Link, Melbourne, Vic
Sydney Stewardship Maintenance, NSW
Warragamba Dam raising, NSW Pre-tendering
Western Sydney Airport, NSW
Inland Rail Project, stages 10,11 &12, Qld

Market conditions and external impacts (continued)





US housing starts¹² declined 2.4% to an estimated 1.22m starts with single-family starts down 3.4% and multi-family starts slightly up in FY2019.

In other US construction markets, the **repair & remodel**¹³ market was up an estimated 2%, **non-residential**¹⁴ construction market grew an estimated 2% and **US infrastructure**¹⁵ activity, based on estimated ready mix concrete volumes, increased 6%.

In FY2019, extended periods of **well above average rainfall**, in some cases at record levels, impacted activity in the South, Midwest and Northeast. This led to construction delays most notably in our key state of Texas, with the disruption more extensive and widespread than in the prior period.

In FY2020, on average, market forecasters¹⁶ expect total US housing starts to grow by ~4% to ~1.27m starts.

Across other US construction markets, in FY2020 the repair & remodel market¹⁷ and the non-residential market¹⁸ are both expected to grow by ~3%, while the infrastructure sector¹⁹ is expected to grow by 4% in FY2020.



In **South Korea**, the residential construction market has been in a cyclical decline in FY2019 due to government initiatives to tighten mortgage lending. The residential market (particularly multi-residential) and consequently plasterboard demand, is expected to contract further in FY2020.

In **China**, while the economy continues to grow, construction has been slowing due to regulatory controls and tighter lending policies. US-China trade relations have also created uncertainty.

In **Indonesia**, market growth has returned and the economy is strengthening but conditions are highly competitive as additional capacity has entered the market and the domestic manufacturing sector competes with cheaper imported building materials.

In **Thailand**, construction market activity was stable.

Emerging markets of **India** and **Vietnam** continue to grow.

Divisional reviews

(A\$m)	Sales r	evenue	EBITDA ¹		EBIT ¹	
	FY2019	FY2018	FY2019	FY2018	FY2019	FY2018
Boral Australia	3,572	3,590	593	634	384	433
Boral North America	2,229	1,989	415	349	252	199
USG Boral (Boral's 50% post-tax earnings)	-	-	57	63	57	63
Corporate	-	-	(32)	(31)	(33)	(32)
TOTAL (continuing operations basis)	5,801	5,579	1,033	1,015	660	663
Discontinued (US Block and Denver CM)	62	290	4	42	-	25
TOTAL reported (total operations basis)	5,863	5,869	1,037	1,056	660	688

Figures may not add due to rounding.

The following pages provide a review of Boral's three divisions.





Concrete & Placing, Asphalt, Quarries, Cement, Transport, Property, Building Products (Timber, Roofing, Bricks WA)

(A\$m)	FY2019	FY2018	Var%
(AVIII)	1 12013	1 12010	Vai /0
Revenue	3,572	3,590	▼1
EBITDA ¹	593	634	▼ 6
EBITDA ¹ ROS	16.6%	17.6%	
EBIT ¹	384	433	▼ 11
EBIT ¹ ROS	10.7%	12.1%	
ROFE ³	15.1%	17.5%	
Property	33	63	▼ 47
EBITDA ¹ excluding Property	560	570	▼ 2
EBITDA ¹ ROS excl. Property	15.8%	15.9%	

Figures may not add due to rounding

FY2019	Externa	EBITDA	
Concrete & Placing	1,658	▼ 2%	▼
Asphalt	764	▼5%	▼
Quarries	440	▲9%	A
Cement	323	▲ 7%	A
Building Products	317	▼ 5%	▼

Revenue down 1% and EBITDA excluding Property down 2% due to lower concrete volumes and less favourable product mix, largely offset by cost savings

Revenue decreased by 1% to \$3,572m with higher contributions from Quarries and Cement, offset by lower contributions from Concrete & Placing, Asphalt and Building Products.

A 15% decline in housing starts – particularly impacting activity in NSW metro, a marked decline in non-residential activity in Southeast Queensland (SEQ), and completion or near completion of several major projects slowed revenue growth. A higher contribution of lower margin business and lower value product, as well as project delays impacted EBITDA and margins. Overall, like-for-like (LFL) prices were higher in Concrete and Cement, and steady in Quarries.

Reported EBITDA decreased 6% to \$593m primarily due to \$30m lower Property earnings, but excluding Property, EBITDA was only down 2%. A concerted effort to reduce overhead costs, align our operations with demand and optimise margins, underpinned the result. Cost savings of \$28m realised through our supply chain optimisation, Organisational Effectiveness and rightsizing programs, together with other improvement initiatives, substantially offset the impact of 6% lower concrete volumes, a less favourable product and geographic mix, and operational inefficiencies associated with project delays.

Excluding Property, EBITDA margins were strong and broadly steady at 15.8%.

ROFE^{1,3} decreased to 15.1% from 17.5% in the prior year. This reflects the fact that Property contributed \$33m of EBIT this year versus \$63m in the prior corresponding period.

Concrete & Placing earnings (EBITDA) decreased with revenue down 2%. Earnings declined due to the combination of lower volumes particularly in SEQ and a less favourable mix shift with a higher proportion of revenue derived from the lower margin Concrete Placing business, which reported strong growth as project activity stepped up.

Concrete volumes declined 6% as infrastructure growth was more than offset by: softer residential demand across all regions; lower commercial activity in WA; and a marked decline in non-residential construction in SEQ with few projects awarded or commenced during the period. While volumes to major projects were higher compared to the prior year, they were below expectation with project delays impacting both productivity and costs. Major infrastructure projects contributing to revenue in FY2019 included North Connex, Pacific Highway and Sydney Metro in NSW and the Toowoomba Second Range Crossing in Qld, with several projects completing or nearing completion in FY2019 ahead of others commencing, including the Forrestfield Airport Link (WA), NorthConnex (NSW) and Sydney Metro (NSW).

Concrete LFL prices were up 2% with solid gains in Vic and NSW, moderate price gains in SEQ and lower prices in WA.



Boral Australia (continued)



Quarries reported higher revenue with volumes (internal and external) up 1% as significant growth in NSW and Vic was partly offset by a decline in Qld and WA. Growth in external volumes, primarily driven by roadbase, were largely offset by lower internal volumes.

While revenue grew 9%, earnings grew modestly primarily reflecting an increase in lower value product in Vic, NSW and SEQ.

FY2019 vs	Variance %			
FY2018	Volume ²¹	Price (ASP) ²²	Price (LFL) ²²	
Concrete	(6)	3	2	
Quarries	1	steady	steady	
Aggregates	(3)	2	steady	
Cement	steady ²³	2 ²⁴	1 ²⁴	

Nationally, LFL pricing for Quarries was steady as gains in SEQ and Vic were offset by a decline in NSW and subdued results across other regions.

Asphalt earnings declined on a 5% reduction in revenue driven by lower volumes and weaker margins in Qld and Vic. Earnings were adversely impacted by higher costs and lower productivity on some major projects. Major projects contributing to revenue in the full year included: Gateway Upgrade North and Logan Enhancement in Qld, Geraldton Airport Upgrade in WA, and Northern Road and Pacific Highway in NSW.

Cement revenue was up 7% and earnings were modestly higher. Benefits from favourable pricing, higher external volumes and cost saving programs offsetting a lower contribution from our Sunstate JV and higher fuel and clinker costs. Production at the Berrima Kiln also returned to more normalised levels in the second half.

Property reported EBITDA of \$33m, with earnings from the sales of our Jandakot and Donnybrook properties flowing through in the second half of FY2019. Property earnings were \$30m lower than the prior year.

Building Products (Timber, Roofing and Bricks WA) reported a decline in revenue and weaker earnings due to softer detached residential housing construction in the second half and higher costs in Timber, which more than offset the benefit of higher ASP and cost reduction programs.

Excellence programs

Our Commercial Excellence program is delivering benefits across most businesses, including through customer market segmentation, which helped to deliver the reported price increases of 1-3%. Through our Customer Experience program (initiated in FY2018) we continue to focus on transforming the Boral customer experience and improving customer satisfaction as reflected by our improved Net Promotor Scores (NPS) that have been delivered so far. We are now continually capturing NPS in the Southern Region and rolling out a similar approach in other regions.

Our multi-year supply chain optimisation project is part of our Operational Excellence program which aims to reduce supply chain costs (which total around \$650-\$750m) by 5-10%. In FY2019, the supply chain optimisation program delivered around \$15m of savings.

Organisational Effectiveness

We continue to focus on reducing costs and rightsizing our business to align resources with demand. Our Organisational Effectiveness program together with regional rightsizing, delivered savings of around \$13m via the reduction of around 300 positions, which resulted in 220 redundancies, with a large proportion occurring in the last quarter of FY2019.





Fly Ash, Roofing, Stone, Light Building Products (LBP), Windows & Meridian Brick JV (Note: Denver Construction Materials divested 2 July 2018 and US Block divested 30 November 2018)

CONTINUING OPERATIONS

(A\$m) ²⁵	FY2019	FY2018	Var %
Revenue	2,229	1,989	▲ 12
EBITDA ¹	415	349	▲ 19
EBIT ¹	252	199	▲27
(US\$m)			
Revenue	1,592	1,539	▲3
EBITDA ¹	297	270	▲10
EBITDA ¹ ROS	18.6%	17.5%	
EBITDA ¹ (excluding Meridian)	304	271	▲ 12
EBIT ¹	180	154	▲17
ROFE ³	5.6%	4.4%	

Figures may not add due to rounding

FY2019 (US\$m)	External	EBITDA	
Fly Ash - total	522	Steady	V
- Fly ash sales	405	▲7%	Steady
- Site services	117	▼ 19%	▼
Roofing	367	▲15%	A
Stone	269	Steady	A
Light Building Products	277	Steady	A
Windows	158	▲ 5%	A

The commentary relates to results for continuing operations.

Revenue in USD up 3% largely driven by a strong lift in Roofing and increased contribution from Windows

EBITDA in USD up 10% benefiting from strong delivery of synergies

Revenue was up 3% to U\$\$1,592m largely driven by significant growth in Roofing and an improved contribution from Windows. Extremely high levels of rainfall experienced in the South, Midwest and Northeast regions disrupted construction activity during the year, and when coupled with softer housing starts, slowed volumes.

EBITDA increased 10% to US\$297m with synergy benefits of US\$32m slightly ahead of plan. In AUD terms, EBITDA increased 19% to A\$415m reflecting favourable currency movement.

Price increases helped to offset higher costs. Several legal cases related to the Headwaters acquisition were resolved below expected cost outcomes, providing a one-off benefit of approximately US\$10m in FY2019. This benefit was largely offset by the impact of lower volumes.

Higher earnings from Roofing and Windows were offset by softer earnings from Fly Ash and lower results from the Meridian Brick JV. Excluding the Meridian Brick JV, EBITDA was up 12%.

Fly Ash revenue was broadly steady, with strong 11% price gains offsetting a 3% decline in volumes and lower revenues associated with the completion of two major site services construction projects, known as Barry and Gaston. Excluding site services, revenue from Fly Ash was up 7%. In FY2019, site services represented 23% of Fly Ash revenue, down from 28% in the prior year, but above the historical average of 20%.

Fly Ash earnings were also down because of lower earnings from site services. EBITDA margins of ~22% compared to ~24% in the prior year reflecting higher costs and the completion of the Barry and Gaston projects, which had delivered above average margins in the prior year. Synergies of US\$7m were in line with expectations.

Fly Ash volumes declined 3% to ~7m tons in FY2019; first half volumes were down 6% while second half volumes were up 3% on the prior corresponding period. The expected full year impact of prior period Texas utility closures, unplanned intermittent power plant outages and extreme wet weather conditions – particularly in the first half – adversely impacted volumes. Volumes were partly recovered through network optimisation and additional storage capacity, as well as new contracts.

Our first landfill reclaim operation at Montour in Pennsylvania was commissioned during the year with volumes ramping up by year end after a slow winter. We are supplying the market with modest volumes of imports from Mexico, which will grow over time. Our continued investment in fly ash storage has resulted in our total capacity reaching 600k, as planned.



Boral North America (continued)



Roofing delivered strong earnings growth driven by a 15% increase in revenue. Despite softer construction markets in the second half and a lower spring re-roof season due to weather, concrete tile volumes benefited from strong demand in Colorado, Nevada and Florida where growth continues to exceed housing starts²⁶.

An increase in Concrete Roofing ASP of 5%, more than offset inflationary and demand driven cost pressures. Roofing delivered synergies of US\$11m.

FY2019 vs FY2018 variance %			
	Volume	Price ²⁷	
Fly Ash	(3)	11	
Roofing	15	5	
Stone	(2)	3	
Windows	5	1	

Manufacturing performance continues to improve at the Okeechobee and Lake Wales plants (FL) and production constraints at the Oceanside metal roofing plant (CA) were rectified in the second half.

Stone delivered steady revenue and a modest increase in earnings. Earnings benefited from price gains. cost savings associated with the rationalisation of two distribution facilities and completion of commissioning at the Greencastle plant in the prior period. This was partly offset by inflationary cost pressures, primarily from labour and raw materials, and a decline in volumes reflecting softer demand in US Central, Northeast and Southern regions, as well as Canada. US\$6.4m of synergies were delivered.

Light Building Products reported stable revenue and modest earnings growth. Double digit volume growth in TruExterior® Siding & Trim and good price gains in Versetta and TruExterior® were offset by softer volumes across most other product categories due to weather and lower housing activity. Raw material costs were steady, while labour and production costs were higher. The BCI production challenges experienced in the prior period were rectified and synergies of US\$4.5m were delivered.

Windows reported a 5% lift in revenue reflecting market share gains, partly offset by lower volumes due to the impact of adverse weather conditions. Earnings were higher, benefiting from higher volumes, modest price growth, reduced raw material costs and improvements in logistics, which offset higher labour costs.

Meridian Brick JV delivered an underlying post-tax equity earnings loss of US\$7m, compared with a loss of US\$1m in the prior period. The Meridian Brick JV generated underlying revenue of US\$375m and EBITDA of US\$6m. Compared to the prior period, revenue declined by 5% and EBITDA declined by 76%.

MERIDIAN BRICK UNDERLYING RESULT

(US\$m)	FY2019	FY2018
Revenue	375	395
EBITDA ²⁸	6	25

Underperformance of the business, particularly the second half of FY2019, reflects a significant downturn in the Canadian housing market, which has historically contributed a significant portion of the earnings of the joint venture, and a softening of US housing starts in the second half. In response to lower demand, a significant number of plants were temporarily closed in the second half, helping to address inventory and working capital, but adversely impacting EBITDA due to lower fixed cost recovery.

These factors, together with the recent decline in brick intensity per housing start in the USA, triggered a net impairment of the investment in the Meridian Brick JV of \$174m, reported as a significant item.





50%-owned USG Boral JV in 14 countries across Australia, New Zealand, Asia and Middle East

BORAL'S REPORTED RESULT

(A\$m)	FY2019	FY2018	Var %
Equity income ²⁹	57	63	(10)

USG BORAL UNDERLYING BUSINESS RESULT

(A\$m)	FY2019	FY2018	Var %
Revenue	1,606	1,575	^ 2
EBITDA ¹	252	268	▼ 6
EBITDA¹ ROS	15.7%	17.0%	
EBIT ¹	168	194	▼ 13
EBIT¹ ROS	10.5%	12.3%	
ROFE ³	8.1%	9.9%	

EBITDA down 6% largely reflecting a cyclical decline in South Korea and increased competition in Asia, particularly in Indonesia, partially offset by improvement initiatives

Boral's equity accounted income of \$57m, down 10% on the prior year, represents Boral's 50% share of USG Boral's underlying post-tax earnings.

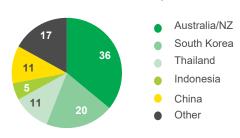
Revenue increased 2% to \$1,606m in the underlying business reflecting top line growth in Thailand, China, Vietnam and India, and a steady contribution from Australia. This was largely offset by a market-driven decline in South Korea and heightened competition in Indonesia. Price outcomes were mixed.

Non-board revenue, which represented 42% of total revenue (includes ceiling tiles, metal stud, compounds and plasters, gypsum, and contracting), increased 3% mainly due to higher gypsum and metal stud sales and contracting in Australia.

Underlying EBITDA declined 6% to \$252m, primarily reflecting lower earnings from South Korea. Excluding South Korea, earnings were steady as lower earnings from Indonesia, China and the Philippines were offset by increased contributions from Thailand, Vietnam and India, as well as a continued strong contribution from Australia.

Project Horizon, USG Boral's rightsizing and LEAN improvement initiative, which is in response to cyclical market declines in South Korea and Australia and higher input costs more broadly, benefited the result. Project Horizon is expected to deliver annualised cost savings of ~\$21m by FY2021, of which \$4.5m was delivered in FY2019.

FY2019 external revenue, %



Australia/NZ revenue was stable at \$576m. Plasterboard volumes remained at reasonably strong and steady levels in FY2019, as modest market share gains offset the impact of market softness which began in Q4. Earnings were steady with broadly steady prices, and cost reduction programs offsetting inflationary cost increases.

Asia revenue increased 3% to \$1,031m with growth across most countries offset by a cyclical decline in South Korea and increased competition in Indonesia. While cost escalation was largely offset by improvement programs, earnings were adversely impacted by lower South Korean volumes and softer pricing more broadly.

- **South Korea** plasterboard volumes were down ~10% with residential construction slowing and lower prices reflecting intense competition as a competitor added new capacity. The business maintained its market share. While margins contracted, they continue to be well above USG Boral's average.
- China revenue increased due to growth in non-board product such as metal stud, while earnings were lower with a reduction in plasterboard volumes and higher production costs. Both plasterboard demand and price growth were lower than expected as a number of competitor plants reopened following the implementation of environmental controls in the prior period.
- Thailand revenue and earnings were higher with margins improving and market share remaining strong.
- **Indonesia** revenue was lower as price pressures continued, driven by excess market capacity. Earnings declined due to price weakness and higher raw material costs.
- **Vietnam** reported revenue and earnings growth underpinned by double digit volume gains and strong price improvement.
- **India** reported improved revenue and earnings with higher volumes and an unfavourable reserve adjustment in the prior period not recurring.

♥ Strategy and priorities



Our goals are to deliver:



world class health & safety outcomes based on Zero Harm



returns that exceed the cost of capital through the cycle



more **sustainable growth**, including through innovation

Boral's safety performance continued to improve during FY2019, with combined employee and contractor recordable injury frequency rate (**RIFR**)⁵ of 7.5 compared with 8.7 in FY2018. Lost time injury frequency rate (**LTIFR**)⁵ of 1.3 compared with 1.6 for FY2018. Our injury rates reduced across all three divisions, with Boral North America and USG Boral delivering an LTIFR of 0.7 and 1.0, respectively, in line with global best practice. Pleasingly, FY2019 was fatality free for Boral employees and contractors.

Our improved results reflect a culture focused on Zero Harm Today, through strong leadership, management, accountability, engagement and collaboration with our people.

Our strategy continues to **focus on delivering above cost of capital returns** through the cycle and more sustainable growth, by:

- consistently applying best practice (including operational and commercial excellence)
- drawing on Boral's strength of geographic diversification, building a portfolio of businesses with a balance
 of traditional and innovative products, growing through innovation and, where it makes sense, through
 M&A opportunities.

Boral's weighted average cost of capital is currently equivalent to an EBIT return on funds employed (**ROFE**) of ~9.0%. In FY2019, we delivered a ROFE³ of 8.2%. **Boral Australia** continued to deliver above cost of capital **ROFE**³ returns of 15.1%, while USG Boral and Boral North America delivered 8.1% and 5.6%, respectively.

In line with our acquisition expectations, **Boral North America** is on track to deliver above cost of capital returns in coming years as earnings continue to grow and as full synergies from the **Headwaters acquisition** are delivered in year four. The Headwaters acquisition strengthens Boral's ability to deliver strong earnings through the cycle, with a less cyclical, more stable ROFE from more diverse US market exposures and less exposure to high fixed cost businesses.

USG Boral returns in FY2019 were below the cost of capital but are expected to improve as the JV delivers on opportunities to grow via innovation, exposure to Asian economies and increasing product penetration of gypsum-based linings and ancillary products. Returns will also improve as we realise benefits through Project Horizon and the announced expansion of our USG Boral Asia joint venture with Knauf and Boral's investment to return to 100% ownership of USG Boral Australia & NZ.

During the period we **divested non-core businesses** with the sale of Denver Construction Materials in July 2018 for US\$127m and US Block in November 2018 for US\$156m. Post year-end, we announced the divestment of Midland Brick for A\$86m and which is expected to deliver net proceeds of around A\$82m, subject to customary closing conditions and adjustments. Proceeds from these divestments, totalling around US\$340m, will contribute to the funding of today's announced USG Boral transactions with Knauf.

Today's announcement, covered in a separate detailed ASX release, states that we have reached agreement with Knauf for:

- The USG Boral JV to acquire Knauf Plasterboard Asia, resulting in an expanded USG Boral Asia JV, subject to regulatory approvals; and for
- Boral to acquire Knauf's 50% stake in USG Boral Australia & NZ for an acquisition price of US\$200m, returning Boral to 100% ownership of the business, subject to regulatory approval. Boral has agreed to grant Knauf a call option to buy back 50% of the business within five years, with both the grant and exercise of the option subject to Australian and New Zealand regulatory approvals.

Boral's total share of investment is US\$441m. After some partial self-funding through the USG Boral JV, Boral's direct funding requirement is US\$335m, which Boral will fund through debt and divestment proceeds.

⇔ Strategy and priorities (continued)



BORAL AUSTRALIA

Despite some cyclical market pressures, Boral Australia remains strong and the business is performing well. Our strategy is to protect and strengthen our leading, integrated construction materials position, which continues to benefit from the multi-year pipeline of major roads and infrastructure work.

During FY2019, a total of \$291m of capital was invested in Boral Australia. As part of our capital investment program we continued to progress the new 1.3 million tonne **clinker and slag grinding plant** and cementitious storage facility at the Port of Geelong in Victoria, which is expected to cost up to \$130m. The investment is on track and construction is expected to be completed by the end of CY2020.

Our **quarry reinvestments** at the Orange Grove Quarry (WA) and Ormeau Quarry (Qld) were completed in FY2019. Orange Grove is producing at targeted capacity and Ormeau has reached practical completion and continues to ramp up in line with expectations. Benefits will be delivered from FY2020.

In Boral's **concrete and asphalt plant network**, our new higher capacity concrete batch plant at West Melbourne (Vic) is commissioned. In Asphalt, our new plant at Toowoomba (Qld) is also commissioned.

As market conditions soften, Boral Australia is focused on lowering overhead costs through our **Organisational Effectiveness (OE)** program. **Rightsizing** the business to align resources with demand also remains an ongoing focus. In FY2019, we reduced our headcount in WA and SEQ in line with the market softening in those regions and we will continue to rightsize our business in response to cyclical markets.

Overall, through OE and rightsizing, around 300 positions were taken out of the organisation through a combination of natural attrition, a hiring freeze and 220 redundancies, which largely occurred in the last quarter of FY2019, and are expected to deliver further savings in FY2020.

While a hiring freeze is no longer in place, we continue to implement tight controls on headcount additions. Net one-off costs associated with our rightsizing and OE program total approximately \$18m, with these costs recognised in FY2019 as a significant item.

We are also focused on reducing costs through our **Operational Excellence** programs, including through supply chain optimisation. The supply chain program is targeting to reduce supply chain costs (which total around \$650-\$750m) by 5-10%.

Through our OE, rightsizing and supply chain optimisation programs we delivered around \$28m of savings in FY2019. We expect further savings of around \$40-\$50m in FY2020 from these initiatives.

BORAL NORTH AMERICA

We continue to make good progress integrating the **Headwaters acquisition**. In Stone, we completed the first phase of plant network optimisation initiatives, while in Roofing, we continue to optimise our operations in Florida, and launched our branding and channel to market strategies around our metal roofing line. The consolidation of back office, finance and IT systems is continuing in line with our expectations.

We continue to deliver improvements in plant operational issues in Roofing, Stone and Windows that impacted in FY2018 and realise benefits from operational improvements implemented in FY2019.

Synergies achieved in FY2019 of US\$32m were better than the expected US\$25m of targeted benefits. We have now delivered US\$71m of synergies from the Headwaters acquisition and remain on track to deliver our targeted year four synergies of US\$115m pa.

During FY2019, we **invested US\$114m of capital** into Boral North America. This included~US\$40m in fly ash fixed and floating storage and completing our Montour fly ash reclaim facility, and the US\$10m upgrade at our Stonecraft manufactured stone plant in Ohio.

In the **Fly Ash business**, we are making progress to deliver our target of a net increase of 1.5-2m tons pa on FY2018 volumes of available fly ash over the next two years. By the end of FY2021 we expect to be supplying fly ash at a run rate of at least 8.6m tons pa, with volume growth coming from a range of initiatives including opportunistic imports, new contract volumes, fixed and mobile storage of off-season production, landfill reclamation and mining natural pozzolans to supplement ash production.



In FY2020 however, the well-flagged (previously disclosed) closure of the Navajo utility in Nevada will have an adverse volume impact of ~400k tons pa from December 2019. Despite this, we expect our fly ash growth strategy to result in some volume uplift in FY2020.

In FY2020, revenue and earnings from site services are expected to be down, with site services returning to ~20% of Fly Ash revenue as we complete a major Synmat construction project at the TVA Cumberland utility ahead of starting other potential work in the pipeline.

USG BORAL

The USG Boral JV which formed in March 2014, is a long-term organic growth platform for Boral. The business is positioned to deliver strong growth through innovation, economic growth in Asia and as product penetration accelerates for gypsum-based linings and ancillary products.

In addition to the announced strategic growth transactions with Knauf, which will significantly strengthen Boral's earnings from the business, USG Boral is implementing a rightsizing and LEAN improvement initiative known as Project Horizon in response to cyclical market declines in South Korea and Australia, and higher input costs more broadly.

While Project Horizon will see a total reduction of around 240 positions in the business – a 7% reduction in the total USG Boral employee base – the headcount reduction involved close to 140 redundancies across 11 countries, with all employees notified between April and August 2019. The remaining 100 positions were eliminated through natural attrition coupled with a hiring a freeze implemented in the second half of FY2019.

Project Horizon delivered early benefits of ~\$4.5m of cost savings in FY2019, and is expected to deliver ~\$21m of annual cost savings by FY2021 with the vast majority delivered in FY2020. One-off costs associated with the project total approximately \$8-9m, with most of these costs recognised in FY2019.





Taking into account where we finished the year in FY2019, the outlook for Boral's markets in FY2020, and the trading conditions we have seen in July and August, **Boral expects NPAT**¹ to be ~5-15% lower in FY2020 relative to FY2019, due to lower earnings in Boral Australia and USG Boral, but underlying earnings growth in Boral North America, together with higher depreciation charges.

Other FY2020 financial considerations

- Above average Property earnings are expected in FY2020
- Headwaters synergies of ~US\$20m are expected in FY2020
- **Depreciation & amortisation** is expected to be higher and in the **range of \$400–\$410m** in FY2020 (before the impact of the new leasing standard), reflecting completion of quarry upgrades in Australia
- Boral's interest expense is currently expected to reflect a continued cost of debt of ~4.25–4.50%
 pa with net debt increasing to reflect the announced investments in USG Boral
- Boral's effective tax rate is currently expected to be in the range of 22–24%
- We expect **capital expenditure** to be lower in FY2020 in the range of \$350–400m.

The above FY2020 outlook is in AUD before the positive impact of additional earnings from the announced USG Boral / Knauf transaction and before the impact of accounting changes resulting from the adoption of the new leasing standard (IFRS 16).

Implications of the new IFRS Leasing Standard

Changes in accounting treatment of operating leases as set out in the **new IFRS 16 Leasing Standard** are expected to impact Boral's reported earnings in the following way:

- EBITDA will be ~\$90m higher
- EBIT will be ~\$5m higher
- NPAT will be ~\$10m lower.

Implications of the USG Boral / Knauf transactions on Boral's reporting and FY2020 earnings

The USG Boral transaction with Knauf is anticipated to close around the end of CY2019, subject to regulatory approvals. Once complete, Boral will combine its share of equity accounted earnings from the expanded Knauf / USG Boral JV in Asia with fully consolidated earnings from USG Boral Australia & NZ and report them under its USG Boral division.

Key financial information regarding the acquired businesses, including FY2019 pro-forma earnings, are provided in the ASX release/presentation material announcing the transaction.

Transaction costs of around A\$20m are expected and will be reported as a significant item in FY2020.

Medium-term outlook

Boral is well positioned to deliver continued strong performance, underpinned by:

- Boral Australia continued growth in infrastructure activity for the coming years with Macromonitor forecasting higher volumes in asphalt in FY2021 and FY2022, coupled with forecasters expecting a more modest downturn in residential construction relative to past cycles.
- **Boral North America** full delivery of year 4 Headwaters acquisition synergies of \$115m by the end of FY2021, together with growth in Fly Ash expected to come through in coming years as our supply strategy delivers net benefits and as further incremental market growth is delivered in the USA.
- **USG Boral** higher earnings as a result of an expanded portfolio of businesses in Asia including synergies and 100% ownership in Australia & NZ (prior to Knauf's call option being exercised), coupled with growth through product innovation, penetration of plasterboard products and economic growth in emerging markets.



Results at a glance

(A\$m unless stated)	FY2019	FY2018	Change %
Revenue	5,863	5,869	(0)
EBITDA ^{1,2}	1,037	1,056	(2)
EBITA ^{1,2}	721	749	(4)
EBIT ^{1,2}	660	688	(4)
Net interest ¹	(103)	(104)	1
Profit before tax ¹	557	585	(5)
Tax ¹	(116)	(111)	(4)
Net profit after tax ¹	440	473	(7)
Net significant items	(168)	(32)	
Statutory net profit after tax	272	441	(38)
Net profit after tax and before amortisation ¹	486	514	(6)
Cash flow from operating activities	762	578	
Gross assets	9,544	9,510	
Funds employed	8,052	8,183	
Liabilities	3,685	3,780	
Net debt	2,193	2,453	
Stay-in-business capital expenditure	340	375	
Growth capital expenditure	113	51	
Acquisition capital expenditure	11	-	
Depreciation and amortisation	378	368	
Boral employees	11,916	11,898	
Total employees including in joint ventures	17,104	17,131	
Revenue per Boral employee, \$ million	0.492	0.493	
Net tangible asset backing, \$ per share	2.12	1.99	
EBITDA margin on revenue ¹ , %	17.7	18.0	
EBIT margin on revenue ¹ , %	11.3	11.7	
EBIT return on funds employed ^{1,3} %	8.2	8.4	
EBIT return on average funds employed ^{1,30} %	8.1	8.6	
Return on equity ¹ ,%	7.5	8.3	
Gearing			
Net debt/equity, %	37	43	
Net debt/net debt + equity, %	27	30	
Interest cover ¹ , times	6.4	6.6	
Earnings per share ¹ , ¢	37.5	40.4	
Dividend per share, ¢	26.5	26.5	
Employee safety ³¹ : (per million hours worked)			
Lost time injury frequency rate	1.3	1.6	
Recordable injury frequency rate	7.5	8.7	

Non – IFRS information



Boral Limited's statutory results are reported under International Financial Reporting Standards. A number of non-IFRS measures are reported in order to provide a greater understanding of the underlying business performance of the Group.

Significant items are detailed in Note 7 of the Preliminary Financial Report and relate to amounts of income and expense that are associated with significant business restructuring, business disposals, impairment or individual transactions.

A reconciliation of these non-IFRS measures to reported statutory profit is detailed below:

(\$m)		Earnings before significant items	Significant items	Reported Result ³²
Sales revenue		5,862.7	-	5,862.7
Profit before depreciation, amortisation, interest & income tax	EBITDA	1,037.4	(192.7)	844.7
Depreciation & amortisation, excluding amortisation of acquired intangibles		(316.4)	-	(316.4)
Profit before amortisation of acquired intangibles, interest & tax	EBITA	721.0	(192.7)	528.3
Amortisation of acquired intangibles		(61.4)	-	(61.4)
Profit before interest & income tax	EBIT	659.6	(192.7)	466.9
Interest		(103.1)	-	(103.1)
Profit before tax	PBT	556.5	(192.7)	363.8
Tax benefit / (expense)		(116.4)	25.0	(91.4)
Net profit after tax	NPAT	440.1	(167.7)	272.4
Add back: Amortisation of acquired intangibles		61.4		
Less: Tax effect of amortisation of acquired intangibles		(15.8)		
Net profit after tax & before amortisation of acquired intangibles	NPATA	485.7		
Basic earnings per share,¢	EPS ³³	37.5		23.2
Basic earnings per share before amortisation of acquired intangibles, ϕ	EPSA ³³	41.4		

The USG Boral division commentary also includes a non-IFRS measure of underlying results excluding significant items representing the 12 months trading results to assist users to better understand the trading results of this division.



The results announcement has not been subject to review or audit however it contains disclosures which are extracted or derived from the Preliminary Financial Report for the 12 months ended 30 June 2019.

The Full Year Financial Report for the 12 months ended 30 June 2019 is prepared in accordance with the ASX listing rules and should be read in conjunction with any announcements to the market made by the Group during the year.





Significant Items

(\$m) (figures may not add due to rounding)	FY2019
Impairment of the US Meridian Brick JV	(196)
Headwaters integration costs	(33)
Cost reduction and right sizing programs (primarily in Australia, China and Korea)	(30)
USG Boral legal and consulting fees (in relation to the transaction with Knauf)	(4)
Gain on sale of US businesses (US Block and Denver Construction Materials)	70
Expense before interest and tax	(193)
Income tax benefit	25
Significant items (net)	(168)

A reconciliation of non-IFRS measures for continuing and discontinued operations to reported statutory profit is detailed below:

(\$m)		Continuing operations	Discontinued operations	Total
Sales revenue		5,800.6	62.1	5,862.7
Profit before depreciation, amortisation, interest & income tax	EBITDA	770.9	73.8	844.7
Depreciation & amortisation, excluding amortisation of acquired intangibles		(314.5)	(1.9)	(316.4)
Profit before amortisation of acquired intangibles, interest & tax	EBITA	456.4	71.9	528.3
Amortisation of acquired intangibles		(59.1)	(2.3)	(61.4)
Profit before interest & income tax	EBIT	397.3	69.6	466.9
Interest		(103.1)	-	(103.1)
Profit before tax	PBT	294.2	69.6	363.8
Tax expense		(79.6)	(11.8)	(91.4)
Net profit after tax	NPAT	214.6	57.8	272.4



FOOTNOTES

- ¹ Excluding significant items
- ² See pages 15 and 16 for a reconciliation and explanation of these items
- ³ Return on funds employed (ROFE) is based on total EBIT before significant items on funds employed at period end
- ⁴ Excludes Denver Construction Materials and US Block businesses sold on 2 July 2018 and 30 November 2018 respectively
- ⁵ Per million hours worked
- ⁶ Includes Boral's 50% share of underlying revenue from USG Boral and Meridian Brick joint ventures, which are not included in Group reported revenue
- ⁷ Average of Macromonitor and BIS Oxford Economics value of work done forecasts (constant 2016/17 prices)
- ⁸ ABS original housing starts; average of Macromonitor, BIS Oxford Economics and HIA for June 2019 quarter
- ⁹ Original series (constant 2016/17 prices) from ABS to March 2019 quarter. Average of Macromonitor and BIS Oxford Economics forecasts for June 2019 quarter
- ¹⁰ Average of HIA, BIS Oxford Economics and Macromonitor forecasts
- ¹¹ Macromonitor, Construction Materials forecast, July 2019 estimates
- ¹² US Census seasonally adjusted annualised housing starts. Based on data up to July 2019
- ¹³ Moody's retail sales of building products, July 2019
- 14 Management estimate of square feet area utilising Dodge Data & Analytics and US Census data
- ¹⁵ Management estimate of ready mix demand utilising Dodge Data & Analytics and Portland Cement Association shipments
- ¹⁶ US Census seasonally adjusted annualised housing starts (July, 2019). Based on average of analysts' forecasts (Dodge, Wells Fargo, NAR, NAHB, Fannie Mae, Freddie Mac, MBA)
- ¹⁷ Based on forecasts from Moody's retail sales (July 2019), LIRA (July 2019) and HIRA (November 2018)
- ¹⁸ Based on Dodge Data & Analytics (June 2019), Oxford Economics construction forecast (Q2, 2019) and FMI US construction outlook (Q2, 2019)
- ¹⁹ Based on Dodge Data & Analytics, Infrastructure Ready Mix Demand (June 2019) and PCA cement consumption outlook (Spring 2019)
- ²⁰ Based on various indicators of building and construction activity
- ²¹ Includes external and internal sales
- ²² For external sales only
- ²³ For external and internal sales including wholesale cement but excluding Sunstate JV
- ²⁴ For external cement sales excluding wholesale cement and Sunstate JV volumes
- ²⁵ An average AUD/USD exchange rate of 0.7145 is used for FY2019 and 0.7735 for FY2018
- ²⁶ Dodge Data & Analytics housing starts
- ²⁷ Fly Ash, Roofing, Stone and Windows price changes are based on ASP. Roofing price increased based on Concrete Tiles only
- ²⁸ Excluding significant items and impact of holding costs of closed sites
- ²⁹ Post-tax equity income from Boral's 50% share of USG Boral JV, excluding significant items
- ³⁰ Calculated as MAT EBIT (before significant items) on the average of opening and closing funds employed for the year
- ³¹ Includes employees and contractors in 100%-owned businesses and all joint venture operations regardless of equity interest (note that in prior periods safety data only captured 50%-owned joint ventures)
- ³² Includes continuing and discontinued operations. Refer to page 16 for reconciliation between the reported result and continuing and discontinued operations
- 33 Based on weighted average number of shares on issues of 1,172,331,924

