Rio Tinto

Iron Ore Seminar
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Examples of forward-looking statements include those regarding estimated ore reserves, anticipated production or construction dates, costs, outputs and productive lives of assets or similar factors. Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors set forth in this presentation.

For example, future ore reserves will be based in part on market prices that may vary significantly from current levels. These may materially affect the timing and feasibility of particular developments. Other factors include the ability to produce and transport products profitably, demand for our products, changes to the assumptions regarding the recoverable value of our tangible and intangible assets, the effect of foreign currency exchange rates on market prices and operating costs, and activities by governmental authorities, such as changes in taxation or regulation, and political uncertainty.

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This presentation contains a number of non-IFRS financial measures. Rio Tinto management considers these to be key financial performance indicators of the business and they are defined and/or reconciled in Rio Tinto’s annual results press release and/or Annual report.

Mineral Resources and Ore Reserves
Details of the Pilbara Mineral Resource and Ore Reserve estimates from 2006 to 2014 which appear on slide 66 of this presentation are set out in the Rio Tinto Annual Reports for those years. The references in the chart on that slide to the 2014 estimate of Rio Tinto’s Mineral Resources and Ore Reserves base in the Pilbara are an aggregation of estimates as at 31 December 2014 that were previously reported in accordance with the JORC Code on pages 199 and 204 of the Rio Tinto 2014 Annual Report dated 4 March 2015 and released to ASX on 6 March 2015, and in respect of those Mineral Resources or Ore Reserves for which the information in relation to the relevant criteria in Table 1 of the JORC Code is required, this information is found at www.riotinto.com/JORC.

Rio Tinto confirms that it is not aware of any new information or data that materially affects the Mineral Resource and Ore Reserve information on slide 66, that all material assumptions and technical parameters underpinning those estimates continue to apply and have not materially changed, and that the form and context of the Mineral Resources and Ore Reserves has not been materially modified. Details of the Competent Persons responsible for that previous reporting are set out below.

Competent Persons
To the extent that information on slide 66 of this presentation relates to the Pilbara Mineral Resources, it was prepared by Mr Bruce Sommerville, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. To the extent that information on slide 66 of this presentation relates to the Pilbara Ore Reserves, it was prepared by Mr An Do, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Sommerville and Mr Do have overseen the aggregation of the Mineral Resources and Ore Reserves data for inclusion in this presentation.

Messrs Sommerville and Do are full-time employees of Rio Tinto Iron Ore and have sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which each has undertaken to qualify as a Competent Person as defined in the JORC Code. Messrs Sommerville and Do consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.
Production Targets

Production targets for 2017 for our Pilbara operations and Iron Ore Company of Canada appear in this presentation.

For our Pilbara operations, slide 25 states “Pilbara integrated production system is expected to deliver … 350 Mt in 2017”. This production target is underpinned as to 71% by proved ore reserves, and as to 25% by probable ore reserves, and as such 96% of the production target is based on ore reserves. The remaining 4% of the production target is sourced from identified inferred mineral resources within the detailed pit designs. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

For our Iron Ore Company of Canada operations, slide 35 states “Nameplate Capacity of 23 Mtpa concentrate to be achieved in 2017”. This production target is underpinned as to 61% by proved ore reserves, and 39% by probable ore reserves.

The above 2017 production targets are based on internal modelling of integrated supply plans derived from the relevant estimates of mineral resources and ore reserves, which have been prepared by Competent Persons in accordance with the requirements of the JORC Code, scheduled from within the current pit designs. Pit design, ore scheduling and economic assessments, which form the basis of the production target are based on detailed studies using the actual operating performance of our existing mines, processing plants and infrastructure as the basis of the assumptions. These studies include assessment of mining, metallurgical, ore processing, marketing, government, legal, environmental, economic and social factors.
Rio Tinto

Introduction

Andrew Harding, chief executive, Iron Ore
Rio Tinto
Iron ore demand fundamentals
Vivek Tulpule, head of Economics & Markets
# Rio Tinto Economics & Markets

<table>
<thead>
<tr>
<th>Independent advice</th>
<th>Extensive data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report to CFO</td>
<td>Primary research</td>
</tr>
<tr>
<td>Independent from Product Groups</td>
<td>Internal and external resources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk and scenario analysis</th>
<th>Fundamental demand and supply analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigorous testing of results</td>
<td>Proprietary cost curves</td>
</tr>
<tr>
<td>Understand and quantify uncertainty</td>
<td>Detailed sectoral country modelling</td>
</tr>
</tbody>
</table>
China’s transition toward high-income status involves a structural transition to slower growth

### China’s ‘New Normal’

<table>
<thead>
<tr>
<th>Demographic Transition</th>
<th>Slowing Urbanisation Growth</th>
<th>Greater emphasis on services and consumption</th>
<th>Tapering of Capital Intensive Investment</th>
<th>Higher Value Added Production</th>
<th>Relationship between China and other Emerging Markets</th>
</tr>
</thead>
</table>

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Continued global iron ore demand

- Global steel demand grows by 2.5% pa, versus GDP growth of 3.0%
- Chinese steel demand is evolving with an increasing focus on exports
- Increasing importance of emerging markets beyond China, especially in Asia
- The world will need 3 billion tonnes of iron ore by 2030, that is a growth rate of 2%
- New supply will be required
- Over 50% of the additional supply will be delivered through the seaborne market

Moderate growth in iron ore demand
Total iron ore demand (million tonnes)

Source: Rio Tinto
Robust growth in rest of world demand

Rest of World (ex-China) steel demand
Crude steel production (million tonnes)

- Process of industrialisation and urbanisation in the rest of world will be highly steel intensive
- Rest of world steel demand to increase by 65% by 2030
- India’s share of rest of world demand will double from 10% by 2030
- In 2030, China remains the largest demand region, followed by India and then ASEAN
- Construction of commercial and residential buildings and infrastructure supports Chinese exports of finished steel and machinery

Note: Crude steel production basis and does includes steel trade
China steel growth will continue

Maturing domestic steel demand
Crude steel production (million tonnes)

- Crude steel production expected to reach around 1 billion tonnes by 2030
- Growth in capital stock is slowing leading to a declining demand for steel to support growth
- Replacement of capital stock will maintain current levels of Chinese domestic consumption
- Growing global markets generate demand for manufactured exports containing steel (e.g. machinery, cars)
- Steel exports to be maintained at current levels – though with a declining global share (e.g. flat and long products)

Source: Rio Tinto

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Chinese steel demand based on detailed analysis

Building
- Urban Residential
- Rural Residential
- Non-Residential

Infrastructure
- Highways
- Rail
- Subway
- Public Facilities

Machinery
- Petrochemical
- Agricultural
- Construction
- Mining Equipment
- Power Generation

Transport & Other
- Autos
- Shipping
- Consumer Durables
- Other

Finished Steel Consumption
Case study I: Residential steel demand

Typical ~30 storey high rise

<table>
<thead>
<tr>
<th>Steel Intensity</th>
<th>Floor Space</th>
<th>Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superstructure</td>
<td>50 kg/sqm</td>
<td>120,000 sqm</td>
</tr>
<tr>
<td>Basement</td>
<td>175kg/sqm</td>
<td>50,000 sqm</td>
</tr>
</tbody>
</table>

Source: Rio Tinto
Case study II: Residential replacement demand

• By 2030, nearly 25% of the current urban residential building stock will be demolished and rebuilt

• The average life of an urban residential building in 1980 was 37 years

• In 1980, 65% of urban residential buildings completed were 1 storey and around 5% above 7 storeys

• By 2030, a third of the buildings completed will be above 7 storeys

• Newly built residential will be more steel intensive than those they replace

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New-build urban residential intensity
Kg / square metre

Source: Rio Tinto
Case study III: Automobile steel demand

- China passenger vehicles rise by 280 million from 2015 - 2030, a nearly three-fold increase
- The typical steel in a passenger vehicle is currently ~900kg
- Passenger vehicles are replaced on average every 15 years, buses every 12 years and trucks every 8 years
- By 2030 over 20 million cars a year will need to be replaced

Source: World Bank, OICA, Rio Tinto calculations
Obsolete Chinese scrap triples in fifteen years and will displace some iron ore requirements.

Chinese scrap supply
Million tonnes

Source: Rio Tinto
China steel demand growth consistent with international experience

Substantial steel potential for developing Asia
Global steel stock per capita (tonne/capita)

China steel intensity to increase at slowing rate
Global crude steel intensity per capita (Kg/capita)

Source: World Steel, Maddison, Correlates of War, E&M forecasts and calculations
Note: Stylised intensity curves
Summary

The world will need increasing volumes of iron ore: 2.0% CAGR 2015-2030

Emerging markets, other than China, will play an increasingly significant role in the iron ore market with demand expected to increase by 65%

Continued modest Chinese steel production growth to 2030

Growing role for replacement of capital stock and exports to other emerging markets
Rio Tinto

Delivering value through the cycle

Andrew Harding, chief executive, Iron Ore
The world’s best iron ore business

Underpinned by a comprehensive strategy that drives compelling value:

Production at the right cost

- Safest and lowest cost production through unrivalled technology and high performing teams

Examples:
- Operating excellence
- Increasing automation

Value-driven growth

- Disciplined phasing and low cost quality growth options

Examples:
- Benchmark product quality
- System capacity creep

Maximising portfolio value

- Leveraging our portfolio of growth options, product strategy and sales and supply chain capabilities

Examples:
- Sales & marketing expertise
- Product and development synergies
Personal safety, health and well-being is a fundamental business priority

Iron Ore all injury frequency rate
Per 200,000 hours worked

Note: Year to date 2015 is January to end of July.
Consistently delivering value

Staged Pilbara infrastructure expansion completed at capital intensity of ~$105/t

Operating costs have been reduced by almost $1 billion compared to 2012

Iron ore workforce +15,000 people delivering 1 million tonnes of ore per day

More than 400 million tonnes of material moved by autonomous trucks in the Pilbara

Maintaining the lowest first quartile cost position in the industry at US$16.20/t

IOC concentrator expansion project complete – record concentrate run rate of 21.5 Mt/a in July 2015
The Pilbara - a fully integrated system...

Leading edge technology

~30TB analysed by the OC per month
~5TB added by Library of Congress per month

1. Drill & Blast
2. Load & Haul
3. Process
4. Rail
5. Ship

> 300 million tonnes ore shipped annually
> 15,000 kilometres rail travel per day
> > 400 kilometres of conveyors across the Pilbara
~1 billion tonnes rock moved per year
> > 12,000 kilometres drilled each year

Equivalent to the diameter of the earth
Enough to fill the MCG every two days
8 times the length of the Channel Tunnel
Almost a return trip on the Trans-Siberian railway
Cargo shipped through the Panama Canal

Note: approximate comparative estimates based on publically available information
…producing a suite of world-class iron ore products, including our flagship Pilbara Blend

### Ore group

- **Mines**
  - Paraburdo (inc. Channar Eastern Range) B
  - Brockman 2 B
  - Brockman 4 B
  - Hope Downs 4 B
  - Mt. Tom Price (inc. WTS) B
  - Marandoo MM
  - Nammuli MM
  - West Angelas MM
  - Hope Downs 1 MM

- **Ore-types**
  - B = Brockman Iron Formation
  - MM = Marra Mamba Iron Formation
  - PIS = Yandicoogina pisolite
  - PIS = Robe Valley pisolite

### Products

- Lump (L) & Fines (F)

### Channel Iron Deposits

- Yandicoogina PIS
- Mesa A&J PIS

### Banded Iron Formation derived Iron Deposits

<table>
<thead>
<tr>
<th>Ore-type</th>
<th>Fe (dry basis)</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilbara Blend Lump</td>
<td>62.5%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Pilbara Blend Fines</td>
<td>61.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Robe Valley Lump</td>
<td>57.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Robe Valley Fines</td>
<td>57.0%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Yandicoogina Fines (HIY)</td>
<td>58.5%</td>
<td>9.0%</td>
</tr>
</tbody>
</table>
Growth infrastructure complete, with brownfields continuing to supply near-term volume

- 40 Mt of brownfields completed at average capital intensity of $9/t
- Debottlenecking and productivity improvements continue
- Pilbara integrated production system expected to deliver
  - 335 Mt in 2016
  - 350 Mt in 2017¹
- Nammuldi incremental investment
  - 5 Mt/a, commencing 2015/16
  - 5 Mt/a, commencing in 2017²
  - Access low phosphorous ore for Pilbara Blend at ~US$19/t capital intensity

¹ This production target must be read in conjunction with the supporting information and cautionary statement that “there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised” set out on slide 4. ² These 5 Mt are included in the 2017 production target of 350 Mt for the Pilbara referred to above.
Further high value tonnes from Silvergrass

- Nammuldi incremental investment also allows for:
  - Silvergrass dewatering infrastructure
  - Nammuldi below water table plant expansion from 21-42 Mt/a

- Full Silvergrass mine development:
  - Remains subject to approval in 2016
  - Additional mining capacity
  - Crusher and overland conveyor
  - Associated support infrastructure
  - Operating costs significantly reduced
Unlocking value

<table>
<thead>
<tr>
<th>Releasing working capital</th>
<th>Reducing costs</th>
<th>Improving productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ &gt;20% reduction in mine stocks</td>
<td>✓ Renegotiation with key suppliers</td>
<td>✓ 12% increase in labour productivity</td>
</tr>
<tr>
<td>Inventories at mines reduced by 4.5 Mt to 14.5 Mt, improving working capital</td>
<td>Contract renegotiations delivering savings and improved payment terms</td>
<td>Lower head count and increased volumes improved productivity</td>
</tr>
<tr>
<td>✓ 24% reduction in warehouse inventory</td>
<td>✓ 5% reduction in contractor and consultant spend</td>
<td>✓ Improved maintenance tactics</td>
</tr>
<tr>
<td>Warehouse spares reduced by managing lead times and reducing bulk stocks</td>
<td>Reduction saved A$32m</td>
<td>Resulted in higher asset availability delivering productivity improvements</td>
</tr>
</tbody>
</table>
Sustaining a competitive advantage

Pilbara cash unit cost
US$ per tonne

<table>
<thead>
<tr>
<th></th>
<th>FY2012</th>
<th>FY2013</th>
<th>FY2014</th>
<th>H1 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipments</td>
<td>23.9</td>
<td>20.2</td>
<td>19.5</td>
<td>16.2</td>
</tr>
<tr>
<td>-32%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- H1 2015 cash unit cost of US$16.2/t (13% lower than $18.7/t in H2 2014)
- Attractive FOB EBITDA margin at 61% in H1 2015
- Iron ore has delivered almost $1 billion in cost savings since 2012

Pilbara results
H1 2015 vs H1 2014

<table>
<thead>
<tr>
<th></th>
<th>H1 2015</th>
<th>H1 2014</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipments (Million tonnes, 100%)</td>
<td>146.5</td>
<td>136.1</td>
<td>8%</td>
</tr>
<tr>
<td>FOB EBITDA margin (%)</td>
<td>61%</td>
<td>70%</td>
<td>-9%</td>
</tr>
<tr>
<td>Underlying earnings (US$ million)</td>
<td>2,158</td>
<td>4,570</td>
<td>-53%</td>
</tr>
</tbody>
</table>
Pilbara – H1 2015 financial summary

Pilbara net earnings reconciliation
US$ million

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>7,004</td>
</tr>
<tr>
<td>Freight expense</td>
<td>(353)</td>
</tr>
<tr>
<td>Royalties</td>
<td>(620)</td>
</tr>
<tr>
<td>Operating costs</td>
<td>(1,972)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>4,059</td>
</tr>
<tr>
<td>Depreciation &amp; amortisation</td>
<td>(846)</td>
</tr>
<tr>
<td>Tax &amp; other</td>
<td>(1,055)</td>
</tr>
<tr>
<td>Net earnings</td>
<td>2,158</td>
</tr>
</tbody>
</table>

Pilbara unit cash costs

- Operating costs (US$ million): 1,972
- Tonnes shipped (million tonnes): 122.0
- Pilbara unit cash costs (US$/t): 16.2

1 Sales revenue of $7,004 million includes freight revenue of $372 million.
2 Pilbara unit cash costs $/tonne calculation is based on the equity share of tonnages of 122 Mt. Please see appendix for reconciliation to 100% production data.
Reducing contractor and employee costs has delivered significant benefits in unit costs

**Pilbara cash unit cost**
US$ per tonne

<table>
<thead>
<tr>
<th></th>
<th>H1 2014</th>
<th>FX Impact</th>
<th>Restated H1 2014</th>
<th>Employee Costs</th>
<th>Contractor Costs</th>
<th>Other Costs</th>
<th>H1 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.4</td>
<td>(2.9)</td>
<td>17.5</td>
<td>(1.2)</td>
<td>(0.6)</td>
<td>0.5</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Pilbara unit cost of $16.2/tonne shipped benefitted from:

- Favourable exchange movement
- Improved labour productivity by 12% in H1 2015 (shipped tonnes/FTE)
- 5% reduction in contractor and consultant spend
Our Operations Centre enables us to optimise for tonnes, quality and value

Capability enables real-time visibility of entire value chain and powerful forward planning

Ensuring a consistently high-quality product

Real time analytics reducing system variability

Debottlenecking and rapid response to events and disruptions

Maximising the value of our assets
Operational and commercial excellence is embedded across the business

<table>
<thead>
<tr>
<th>Iron ore material</th>
<th>Heavy Equipment Life Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehandle reduced by 16 Mt in 2014</td>
<td>$200 million in capital deferrals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FasTrack 35</th>
<th>HME contracts consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 hrs cycle time target Cycle time improvement to date ~11.0% &amp; aiming for ~20%</td>
<td>$55 million in rebates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tyre management</th>
<th>Brockman train loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>$16 million tyre inventory reduction</td>
<td>100 minute reduction in train loading time at Brockman 2</td>
</tr>
<tr>
<td>$10 million supply volume reduction</td>
<td></td>
</tr>
</tbody>
</table>

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Autonomous fleet continues to expand bringing significant productivity improvements

**Autonomous Haul Trucks Performance**
Effective utilisation indexed to all manned sites

**Autonomous Drills Performance**
Use of availability versus manned fleet

Yandicoogina primary haul fleet now entirely autonomous (22 trucks across 2 pits)

West Angelas first fully autonomous drilling site
Nearly 400 improvement initiatives underway

Mindful spending and improvement culture

“Production at the right cost” – Improving the work place

- Operations centre upskilled themselves to enable ‘in-housing’ support of two radio platforms, avoiding a contractor cost of $365,000
- Paraburdoo employees challenged vendor tool allowance, realising a credit of $25,000 for Paraburdoo and $145,000 across the Pilbara

Work simplification

“Making it count” – Ensuring all work adds value through waste elimination

- Tom Price haul truck service kaizen reduced the 5.5 hour truck service time by 2 hours
- Rail track portable web grinders – 75% task time reduction reducing re-handling risk
Iron Ore Company of Canada continues to improve performance

- Monthly production record in July 2015, with 21.5 Mt/a concentrate run-rate
- Nameplate capacity of 23 Mt/a concentrate to be achieved in 2017
- Concentrate unit cash cost:
  - $39.2/t in H1 2015
  - Down by 26% (H1 2015 vs. H1 2014)
  - 2016 target is $30/t
- Forecast to be cash positive in 2015
- IOC price premiums remained robust despite the decline in the fines price

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Iron Ore Company of Canada production

<table>
<thead>
<tr>
<th>Million tonnes</th>
<th>H1 2014</th>
<th>H1 2015</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellets (Mt)</td>
<td>7.6</td>
<td>8.9</td>
<td>+18%</td>
</tr>
<tr>
<td>Concentrate (Mt)</td>
<td>4.0</td>
<td>4.6</td>
<td>+13%</td>
</tr>
</tbody>
</table>

1 This production target must be read in conjunction with the supporting information set out on slide 4.
Making a positive and lasting difference in our local communities

- An unfaltering commitment to the local communities that host our operations
- Key initiatives in education, health, environment, culture and regional sustainability
- Partnering with State and local/provincial government to enhance community infrastructure and services
- Direct employment of over 1,000 Indigenous Australians
- Sourcing a 1,000 strong regional workforce through fly-in/fly-out
Summary

The safety and wellbeing and development of our people is paramount

Operational excellence continuing to drive productivity improvements

Maintaining a low cost industry position is embedded at all levels

Technology and automation continue to increase value

Sales and marketing excellence captures full value from our product suite

Word-class integrated system of mining, logistics and marketing
Rio Tinto

Maximising value

Bold Baatar, managing director, Iron Ore Sales & Marketing and Marine
Our sales and marketing capabilities maximise the value of our products

**Industry knowledge**
- A deep understanding of markets and the steel industry

**Product alignment**
- Aligning our resource base with customer needs over the long term to maximise product value

**Strategic agility**
- Continuous development of marketing strategy, competencies and excellence in tactical execution

**Supply chain optimisation**
- Maximising supply chain capacity utilisation and value
Steel production has been resilient in 2015

Majors accounted for ~47% of 2014 supply
Percentage of contestable iron ore market

- Rio Tinto: 17%
- BHP: 7%
- Vale: 17%
- FMG: 14%
- Non-traditionals: 1%
- China: 9%
- Rest of world: 16%

Global steel production is broadly flat
Million tonnes annualised

China’s imported ore has remained steady
Million tonnes annualised

China’s steel exports offset domestic consumption
Million tonnes annualised

Source: Company reports, GTA, WSA, Mysteel and Rio Tinto analysis.

1 Non-traditionals include Russia, Malaysia, Iran, Mexico and Indonesia.
2 RoW includes Africa, South America, Europe, Canada and India.
We expect ~120 Mt/a of marginal iron ore supply to exit the market in 2015.

China domestic supply down ~45 Mt/a YoY
Average annualised run rates (Mt/a)

High-cost seaborne supply down ~75 Mt/a YoY
Exits annualised by region

~110 Mt of low-cost supply expected to enter in 2015, offset by stock movements and exits:
- ~45 Mt/a of exits from China: H1 2015 iron ore production ~280 Mt/a (325 Mt in 2014)
- ~75 Mt/a of exits from high-cost seaborne supply
- ~45 Mt/a of additional seaborne supply at risk
Customers value products differently

<table>
<thead>
<tr>
<th>Technical</th>
<th>Geographical</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type of steel product produced</td>
<td>• Delivered costs and availability of fuels and fluxes</td>
</tr>
<tr>
<td>• Size of blast furnace or sinter plant</td>
<td>• Seasonal factors</td>
</tr>
<tr>
<td>• Quality of metallurgical coal</td>
<td>• Availability, cost and quality of alternatives ores</td>
</tr>
<tr>
<td>• Stockpile and blending capacity</td>
<td></td>
</tr>
<tr>
<td>• Mill flexibility to vary sinter, pellet and lump charge</td>
<td></td>
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<thead>
<tr>
<th>Commercial</th>
<th>Regulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing strategies including:</td>
<td>• Environmental exposure</td>
</tr>
<tr>
<td>• Security of supply (contract duration, spot purchases)</td>
<td>• Energy caps/limitations</td>
</tr>
<tr>
<td>• Flexibility within quality, credit or logistics constraints</td>
<td>• By-products value or disposal costs</td>
</tr>
<tr>
<td>• Own iron ore investments</td>
<td></td>
</tr>
</tbody>
</table>
Our Pilbara products are aligned to our resource base and customer needs

<table>
<thead>
<tr>
<th>Product</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilbara Blend Fines</td>
<td>• The most traded iron ore product globally</td>
</tr>
<tr>
<td></td>
<td>• Base load sinter blend in Asian markets</td>
</tr>
<tr>
<td>Pilbara Blend Lump</td>
<td>• Avoids the costs of sintering which will increase with increasing emissions legislation</td>
</tr>
<tr>
<td>HIY Fines</td>
<td>• Ideal chemical composition for the Asian sinter blends, with low alumina and phosphorus</td>
</tr>
<tr>
<td></td>
<td>• Coarse sizing aids sinter granulation</td>
</tr>
<tr>
<td>Robe Valley Fines</td>
<td>• Coarse sizing aids sinter granulation</td>
</tr>
<tr>
<td></td>
<td>• Low phosphorus</td>
</tr>
<tr>
<td>Robe Valley Lump</td>
<td>• Low phosphorus</td>
</tr>
<tr>
<td></td>
<td>• Avoids the costs of sintering which will increase with increasing emissions legislation</td>
</tr>
</tbody>
</table>

H1 2015 shipments by product

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>Japan</th>
<th>Korea, Taiwan</th>
<th>% of volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBF</td>
<td>0%</td>
<td>20%</td>
<td>40%</td>
<td>80%</td>
</tr>
<tr>
<td>PBL</td>
<td>20%</td>
<td>40%</td>
<td>60%</td>
<td>100%</td>
</tr>
<tr>
<td>RVF</td>
<td>60%</td>
<td>80%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>RVL</td>
<td>60%</td>
<td>80%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>HIY</td>
<td>80%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Pilbara Blend is the industry reference iron ore

**Major iron ore fines products**
H1 2015 (million tonnes)

**Major iron ore lump products**
H1 2015 (million tonnes)

Source: RTIO S&M Analysis, Company Reports
Lump is an important value driver for Rio Tinto

**Lump is a higher value product**
US$ per dry metric tonne (CFR)

- Premium lump products remain in scarce supply
- Rio Tinto is the largest supplier of lump with 40 Mt of Pilbara Blend lump and Robe Valley lump shipped in H1 2015
- The Platts lump premium averaged ~$13/dmt above the 62% Fe index over H1 2015
- Lump demand in China should outperform iron ore growth due to:
  - Exit of domestic concentrate
  - Evolving burden practises
  - Increased environmental regulation

Source: Platts - H1 2015 averages
Blending significantly reduces variability

**Mines**
- Mesa J
- Mesa A
- Yandicoogina
- West Angelas
- Hope Downs 1
- Nammuldi
- Marandoo
- Brockman 4
- Mt Tom Price
- Paraburdoo
- Hope Downs 4
- Brockman 2

**Port Terminals**
- Cape Lambert A
- Cape Lambert B
- Parker Point
- EII

**Products**
- RVL
- RVF
- HIY
- HIY
- PBL
- PBF
- PBL
- PBF
- PBL
- PBF
- PBL
- PBF
- PBL
- PBF

**Stockpile stacking and reclaiming**

**Products**
- Alumina (66% improvement)
- Silica (70% improvement)
- Phosphorus (80% improvement)

**Graphs**
- Ship
- Mine/Rail

**Legend**
- Pisolite
- Marra Mamba
- Brockman

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Consistent supply and quality supports our marketing strategy

2015 Pilbara off-take by pricing mechanism
Percentage of total sales

- Portfolio focused on long-term contracts with the world’s top 50 steel companies
- Of our 2015 volume:
  - ~85% sold under term contracts
  - ~15% sold into the spot market, in support of robust and transparent indices

Steel production - world’s top 50 steel mills
Million tonnes

Source: World Steel, Rio Tinto
Australia’s delivered cost advantage to China

H1 2015 freight component of the Platts 62% Fe price

<table>
<thead>
<tr>
<th>Country</th>
<th>FOB</th>
<th>Freight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>81%</td>
<td>19%</td>
</tr>
<tr>
<td>Australia</td>
<td>92%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Dry bulk shipments

Source: Platts, BCI

- A standard vessel round trip of load port, to China, and back to load port is ~3 x longer for Brazil compared to Australia (~90 days compared ~30 days)
- Australia’s proximity advantage will be more significant as oil prices recover
- Capesize bulkers continue to be the preferred vessel size by the industry with 20% of Pilbara-suited vessels now with a capacity of >200,000 tonnes
Delivering value through management of the port to customer supply chain

Rio Tinto Pilbara – Shipments
Million tonnes

<table>
<thead>
<tr>
<th>Year</th>
<th>CF</th>
<th>FOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>135</td>
<td>109</td>
</tr>
<tr>
<td>2014</td>
<td>127</td>
<td>162</td>
</tr>
<tr>
<td>H1 2015</td>
<td>64</td>
<td>82</td>
</tr>
</tbody>
</table>

• Value created through
  – Price maximisation
  – Supply chain efficiency
  – Product placement flexibility

• Located in Singapore
  – Co-located with Rio Tinto marine and other product groups
  – Close to proximity to markets
  – World class logistics

• Close communications with:
  – Account management
  – Ship scheduling and chartering
  – Operations
Commercial excellence captures full value

H1 2015 absolute price comparison:

vs BHP\(^2\)

\[
\begin{array}{c|c|c}
\text{62%Fe index}^1 & \text{BHP} & \text{RTIO} \\
\hline
5.0 & 2.1 & 3.4 \\
-5.0 & \text{ } & \text{ } \\
-10.0 & \text{ } & \text{ } \\
-15.0 & \text{ } & \text{ } \\
-20.0 & \text{ } & \text{ }
\end{array}
\]

vs FMG\(^3\)

\[
\begin{array}{c|c|c}
\text{FMG} & \text{RTIO} \\
\hline
5.0 & 2.0 \\
-5.0 & \text{ } \\
-10.0 & \text{ } \\
-15.0 & \text{ } \\
-20.0 & \text{ }
\end{array}
\]

vs Vale\(^4\)

\[
\begin{array}{c|c|c}
\text{Vale} & \text{RTIO} \\
\hline
5.0 & 1.8 \\
-5.0 & \text{ } \\
-10.0 & \text{ } \\
-15.0 & \text{ } \\
-20.0 & \text{ }
\end{array}
\]

---

1. Source: Platts, The Baltic Exchange. For the BHP comparison, the index has been adjusted to FOB basis by assuming BCI C5 (WA-Qingdao) and 8% free moisture.
2. BHP Billiton Results For the Year ended June 30 2015, page 8.
Summary

Supplier of choice to the Asian steel industry

Full offtake and close management of credit exposures

Value-maximising mix, aligned to customer needs and our resource base

Optimising our market placement through segmentation

Delivering value through alignment between Marine and Iron Ore

Higher average FOB price than other Pilbara producers
Rio Tinto

Advancing productivity at Rio Tinto

Greg Lilleyman, group executive, Technology & Innovation
T&I delivers world-class projects and step change productivity

World-class projects

- **Project Shaping:** project shaping and strategic production planning
- **Major Project Delivery:** delivery of world class projects
- **Capital Effectiveness:** optimising portfolio and delivering best-in-class capital efficiency
- **Technical Assurance:** independent technical reviews

World-class productivity

- **Productivity Generation:** productivity, innovation and analytics
- **Technical Discipline Leadership:** global processes and strategic technical risk management
- **Flagship Projects:** Asset Management, Energy Productivity, and Advanced Technology Deployment
Rio Tinto Projects delivers major capital projects

- Cape Lambert Port
- Wickham Housing Estate
- Paraburdo
- Kitimat, March 2015
- Rail infrastructure
- Nammuldi Below Water Table
- Yandicoogina
- Fume Treatment Centre
- West Angelas Power Station
- West Angelas Deposit B
- Brockman 4
- First hot metal – June 2015

**Iron ore infrastructure & mines $14.7bn**

**Kitimat $4.7bn**
Delivering value through optimising the Pilbara expansions

Consistently improving capital efficiency
(US$/t) Capital intensity of 220-360 Mt/a Pilbara expansion

- Original 360 expansion included
  - Silvergrass
  - Koodaideri
- Optimised route relies on low-cost brownfield expansions
  - 40 Mt of brownfield mine expansions at capital intensity of $9/t completed in 2015
- Lower capex pathway for Silvergrass
  - Investment decision expected in 2016

1 Mid-points of guidance ranges shown in graph. 2012 guidance was mid $150s/t. 2013 guidance reduced to $120-130/t which was further reduced in 2014 to $110-120/t. The latest guidance is ~$105/t.
Sustainable growth delivered for less

2015 capital expenditure guidance
US$ billion

- Original guidance: <7.0
- Cost savings: (0.5)
- Deferrals: (0.4)
- FX: (0.3)
- Current guidance: 5.5
Current focus is on three key growth projects

<table>
<thead>
<tr>
<th>Iron Ore</th>
<th>Aluminium</th>
<th>Copper</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pilbara mines</strong></td>
<td><strong>South of Embley</strong></td>
<td><strong>OT Underground Mine</strong></td>
</tr>
<tr>
<td>Push mine capacity through low-cost growth to fill expanded infrastructure</td>
<td>Feasibility study expected to complete towards end of 2015</td>
<td>Over 80% of the value lies in the underground development</td>
</tr>
</tbody>
</table>

**Current focus is:**
- Completing the 360 growth programme
- Progressing AutoHaul®
- Assessing Silvergrass timing

**Current focus is:**
- Capital savings opportunities
- Optimising construction schedule

**Current focus is:**
- Finalising the Feasibility Study
- Re-establishing Project Financing
- Obtaining final permits
Steady progress on AutoHaul® implementation

- World’s first fully autonomous long distance heavy haul railway
- Improves productivity & safety
- Over 250 journeys completed in automated mode
- ~90% of locomotive modifications complete
- Wayside works are complete and being commissioned
- 86% software complete
- Forecast project completion mid-2016
Delivering productivity improvements across the Group

**Advanced technology deployment**
- Increased truck utilisation by 14%
- ADS availability +10%
- RTVis reclassified 1 Mt resources for blending

**World-class asset management**
- Optimised asset servicing
- Standardised maintenance practice
- Predictive asset health

**Energy productivity**
- Transparent energy measurement
- Power optimisation
- Diesel efficiencies

**Potential value of opportunity**
- Reduced capital
- Lower operating expenditures
- Improved productivity and HSE performance
- Target $200m per annum savings in the next 3 years
- Targeting 2-3% energy savings
Advancing productivity through the Mine of the Future™ programme

Technologies developed include:

- Autonomous trucks
- AutoHaul®
- Advanced analytics
- Resistate indicator minerals
- RTVis™ / Mine Automation System
- Train load-out control system
- Remote draft survey
- Haul truck wheel changer
- Drone applications
Big data analytics manages risk and reduces costs

Cloud based advanced neural networks

900 haul trucks
4.9 Tb data per day

<table>
<thead>
<tr>
<th></th>
<th>Target run-time (hrs)</th>
<th>Actual run-time (hrs)</th>
<th>Deferred spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine 1 RTIO</td>
<td>25,000</td>
<td>27,867</td>
<td>$61,927</td>
</tr>
<tr>
<td>Engine 2 RTIO</td>
<td>25,000</td>
<td>30,022</td>
<td>$108,475</td>
</tr>
<tr>
<td>Engine 3 RTIO</td>
<td>25,000</td>
<td>28,668</td>
<td>$79,228</td>
</tr>
</tbody>
</table>

Benefits to the business

- Lower costs
- Detection of impending failure
- Extends useful life
- Risk-based maintenance
T&I delivers significant value

**World-class projects**
- Best-in-class project portfolio
- High-quality investment options
- Reduced capital intensity
- Strategic technical risk management

**World-class productivity**
- Group-wide deployment of world class technologies and productivity platforms
- Leading the mining industry in step-change innovations
- Moving beyond industry norms
Rio Tinto

Summary

Andrew Harding, chief executive, Iron Ore
Best performing iron ore business

Our priority is the safety and wellbeing of our people

Tier one assets and tier one people

Creating value through technology and innovation

Embedding a culture of constant improvement

Clear strategy that will deliver value through the cycle
Appendix
Mineral Resources and Ore Reserves

Pilbara resources, reserves and production
Million tonnes (LHS, dry; RHS, wet)

- Mineral Resources position continues to support production growth
- Maintaining evaluation drilling and resource development programs
- Ore Reserves are being maintained in line with actual mine production

Mineral Resources and Ore Reserves are reported in dry metric tonnes and are reported on a 100% basis. Ownership percentages for each joint venture are provided in the Mineral Resource and Ore Reserve statements on pages 199 and 204 of the Rio Tinto 2014 Annual Report.

Mineral Resources are reported exclusive of Ore Reserves. Ore Reserves are reported as product tonnes. Mineral Resources are reported on an in situ basis. Refer to the statements supporting the above estimates and relevant Competent Person references set out on slide 3 of this presentation.
The Pilbara - a fully integrated system

- +12,500 workforce
- 15 mines
- 1,700kms rail
- 4 port terminals
- 3 power stations
- 360 trucks
- 39 production drills
- 190 locomotives
## Rio Tinto share of shipments reconciliation

### Calculation of Rio Tinto share of Pilbara shipments

<table>
<thead>
<tr>
<th>Description</th>
<th>kt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Tinto Iron Ore Global Sales</td>
<td>122,672</td>
</tr>
<tr>
<td>Less: IOC Concentrate</td>
<td>(1,530)</td>
</tr>
<tr>
<td>Less: IOC Pellets</td>
<td>(2,806)</td>
</tr>
<tr>
<td>Rio Tinto Iron Ore Pilbara Sales</td>
<td>118,336</td>
</tr>
</tbody>
</table>

Adjustment to increase Robe River Mines from 53% to 65% basis

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Robe River Sales - Pannawonica (Mesas J &amp; A)</td>
<td>7,943</td>
</tr>
<tr>
<td>Robe River Production - West Angelas</td>
<td>8,272</td>
</tr>
<tr>
<td></td>
<td>16,215</td>
</tr>
</tbody>
</table>

Sales from Robe River mines (65% basis)                        | 19,886 |

Adjustment to increase Robe River Mines from 53% to 65% basis

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,671</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Tinto Share of Pilbara Shipments (65% basis)</td>
<td>122,007</td>
</tr>
</tbody>
</table>

The Group recognises a 65 per cent share of the assets, liabilities, revenues and expenses of Robe River, with a 12 per cent non-controlling interest. The Group therefore has a 53 per cent beneficial interest in Robe River.

Robe River (and therefore West Angelas and Pannawonica) is owned through two holding companies. One holding company is 100% owned, and owns 35% of Robe. The other is 60% owned and owns 30% of Robe. Rio Tinto's effective ownership is therefore (100%×35%) + (60%×30%) or 53%. Each of the holding companies proportionally consolidates for the part of Robe that it owns, i.e. holding company one consolidates 35% of Robe's revenue and cost; holding company two consolidates 30% of Robe's revenue and cost. These holding companies are then fully consolidated in the Rio Tinto Group accounts, resulting in 65% of Robe's revenue, cost and assets being included in Rio Tinto's revenue, cost, assets, etc. The 12% that is not owned by Rio Tinto is removed in the line attributable to non-controlling interests to get back to Rio's true share of 53%.