



Australian Government
Department of Industry and Science

Office of the
Chief Economist

Developments in world and Australian resources markets

Hunter Research Foundation Economic Breakfast

Ross Lambie

15 September 2015

Key messages

1

The factors that drove commodity prices higher are starting to reverse

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The demand for coal is unlikely to diminish rapidly over the medium term, beyond that policy will be a major driver

3

Australia is a major coal exporter, and exports are projected to continue to increase over the medium term

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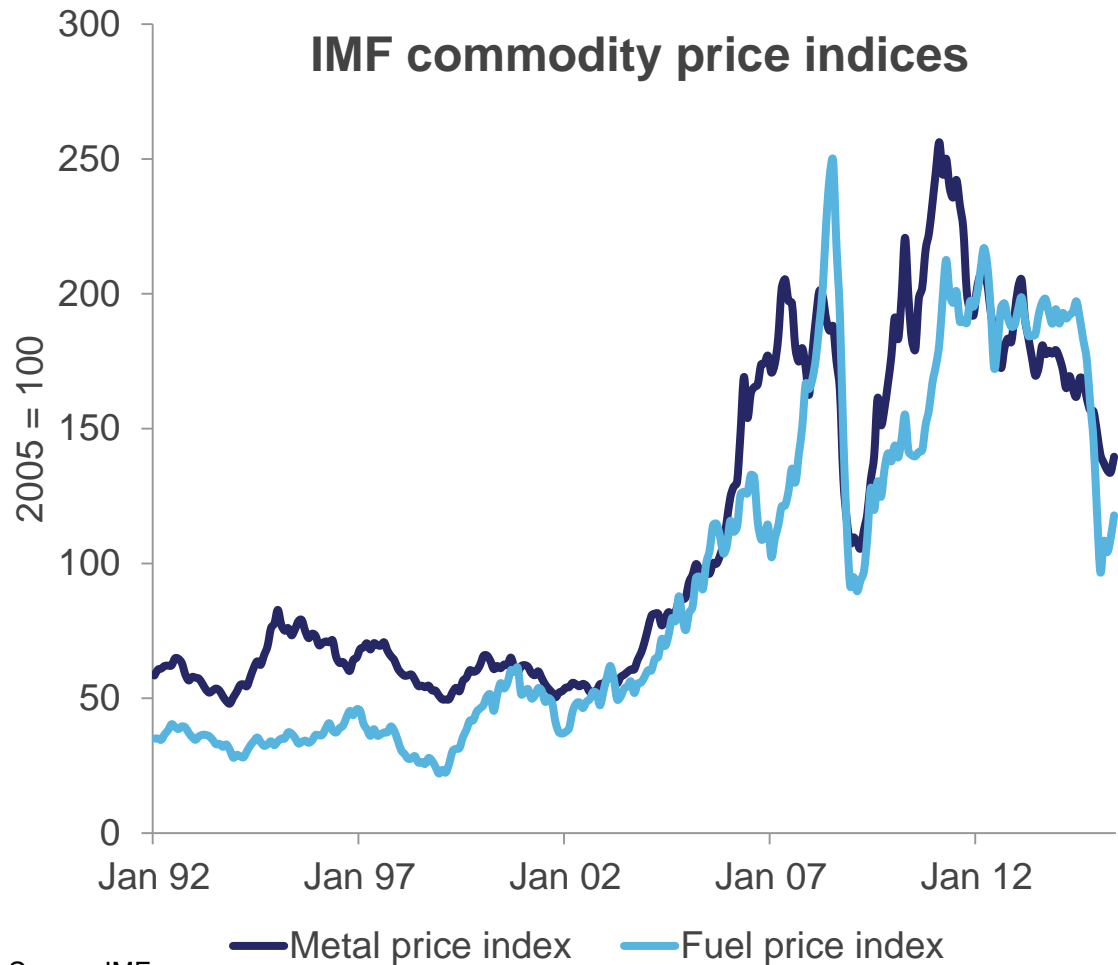
There are still many coal projects under consideration, but not all of them will proceed to development

5

The key challenges to new projects or project expansions include market conditions, community opposition, finance and costs

The commodity price super cycle

- Started in the early 2000s with rapid economic growth in China
- Followed a period of relatively low commodity prices
- Three main causes:
 1. Rapid demand growth
 2. Slow supply response
 3. Monetary effects



The factors that drove commodity prices higher are starting to reverse

Key Issues

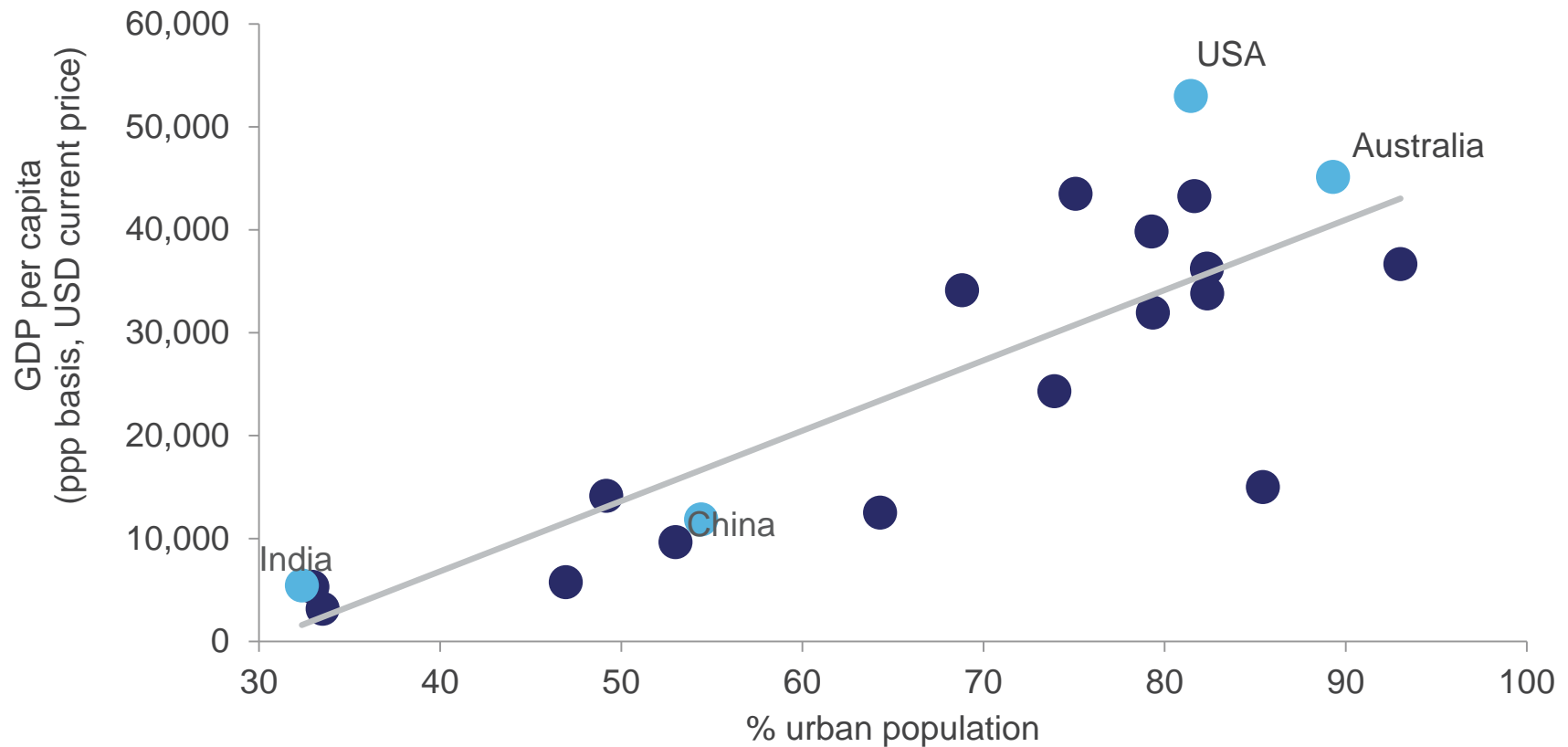
- World consumption of almost all resources is still growing
- Investment in resources projects is slowing
- US monetary expansion is slowing, but monetary expansion in EU and Asian economies continues
- Exploration and ore grades declining

Implications

- Short term oversupply, but long term need for future supply expansion
- Pause in investment will create future price cycles
- Lower US\$ prices likely to persist. Exchange rate effects will support local currency prices
- Future projects will have higher costs without technology advancements

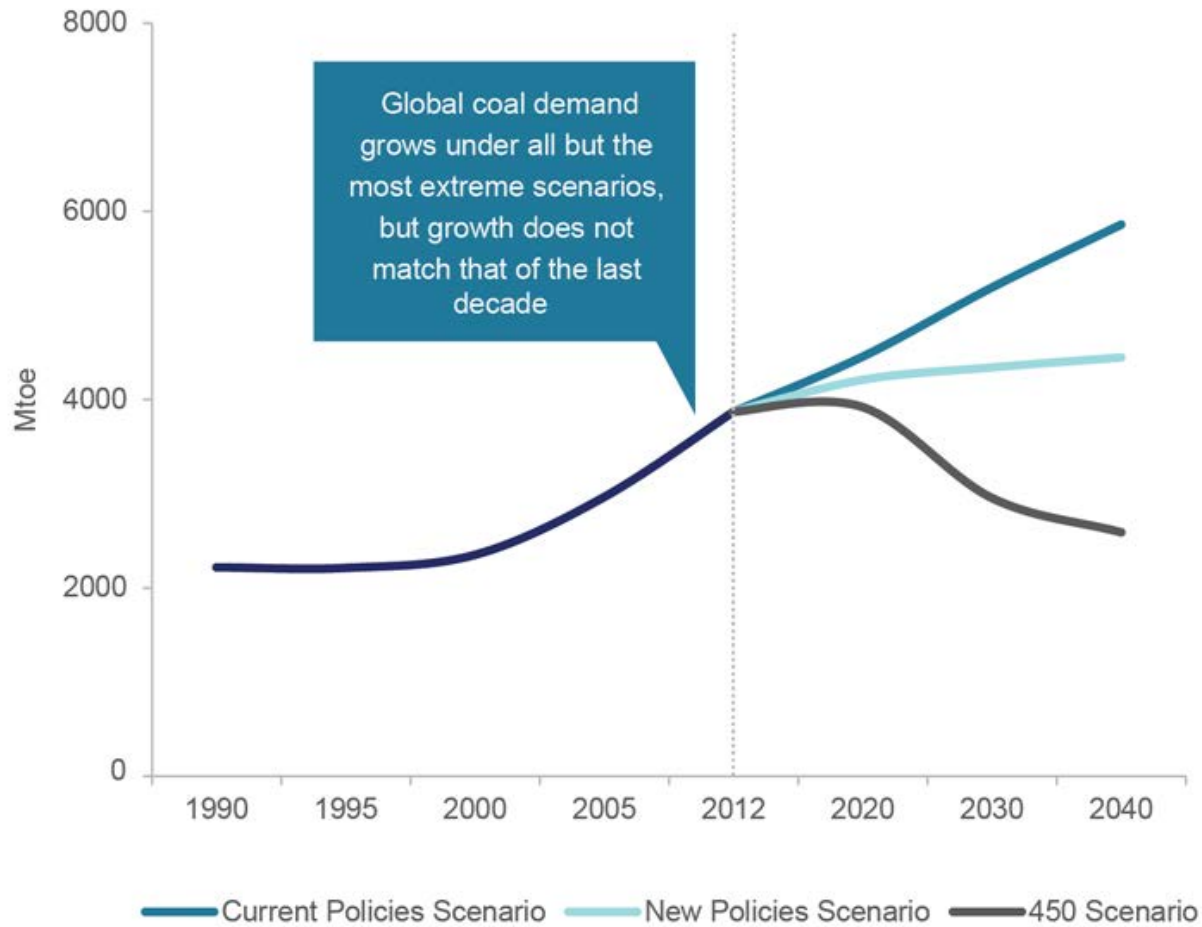
Urbanisation is a significant driver of resources consumption

Relationship between urbanisation and GDP per capita



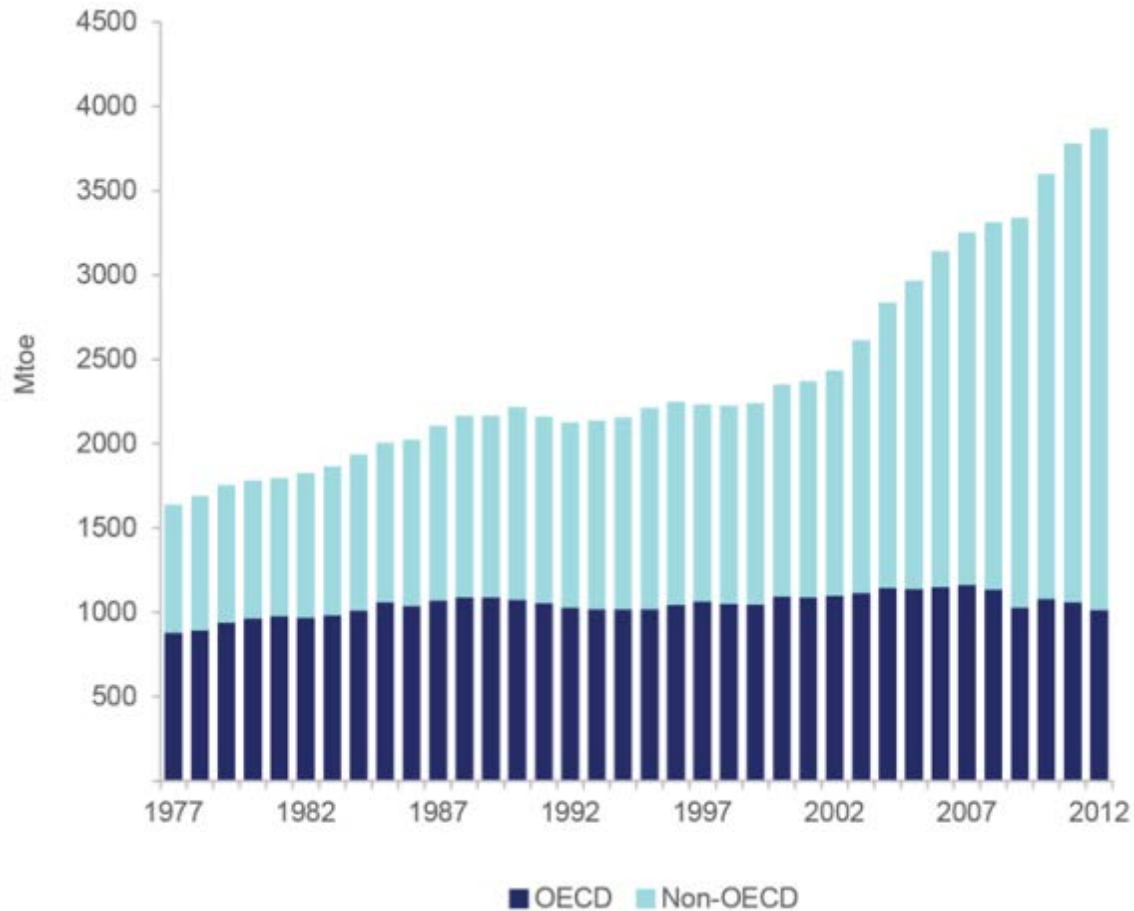
Sources: World Bank 2015, World Development Indicators, IMF

The IEA's outlook for world coal demand



Sources: IEA 2014, World Energy Outlook, World Energy Balances

World coal consumption - thermal & metallurgical



Sources: IEA 2014, World Energy Balances

Still potential for significant growth in electricity consumption in non-OECD economies

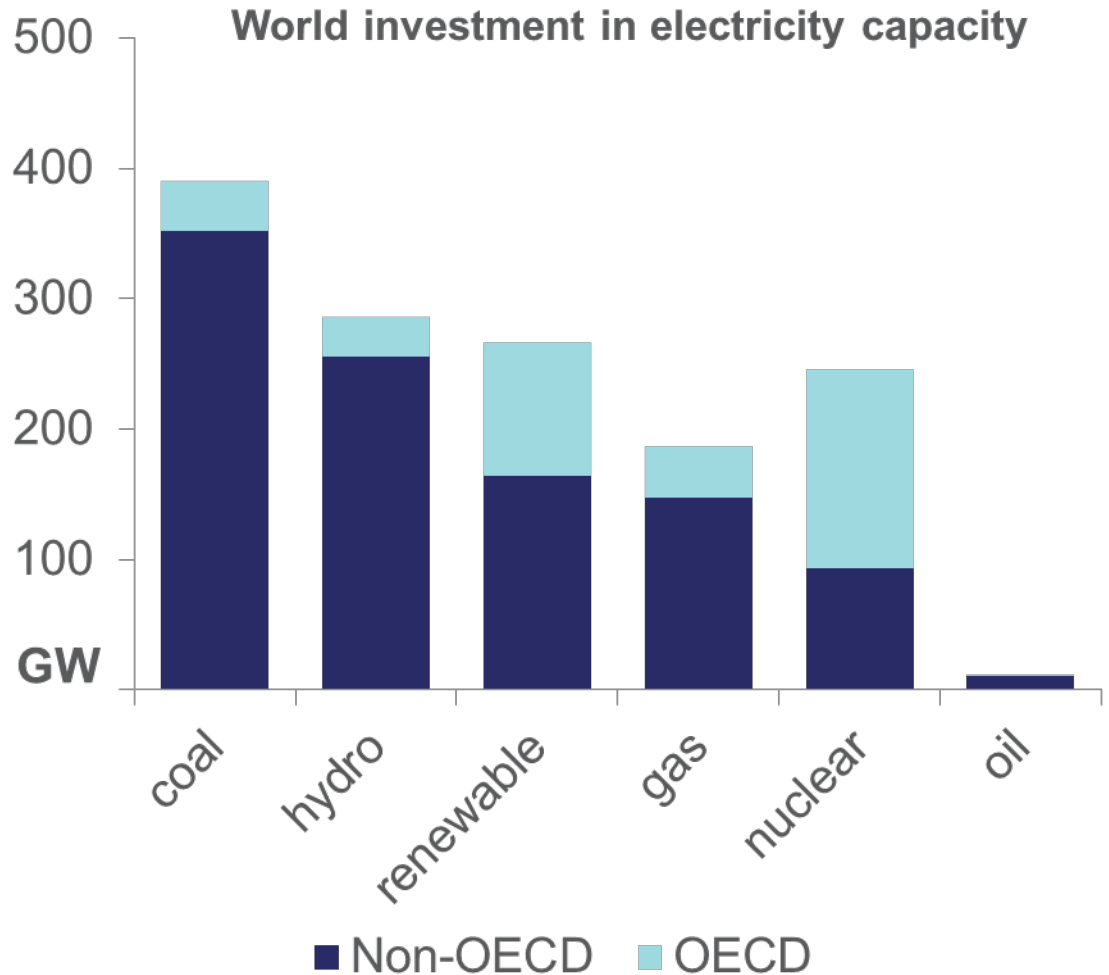
- Electricity consumption per person in highly populated countries is very low relative to the OECD
- Energy poverty is a key issue in highly populated emerging economies
- Electricity consumption growth is now substantially stronger in emerging economies



Sources: IEA 2014, World Bank 2015

World energy investment in new electricity capacity indicates growing thermal coal consumption

- Investment in renewable generation capacity is growing at the largest rate
- But investment in coal-fired generation capacity is by far the largest in absolute terms
- Investment in new coal capacity is underpinned by Non-OECD economies
- Some OECD countries (Japan, South Korea) are still investing in coal generating capacity

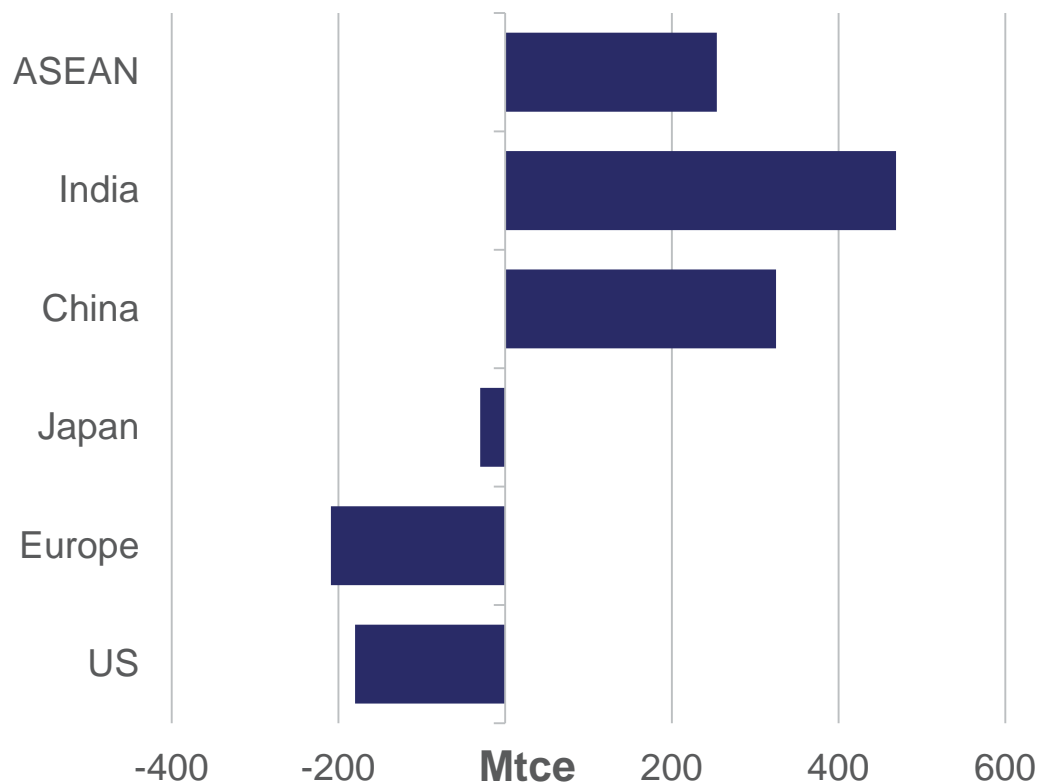


Source: Enerdata, www.enerdata.net

Projections suggest that the regional distribution of coal consumption will change

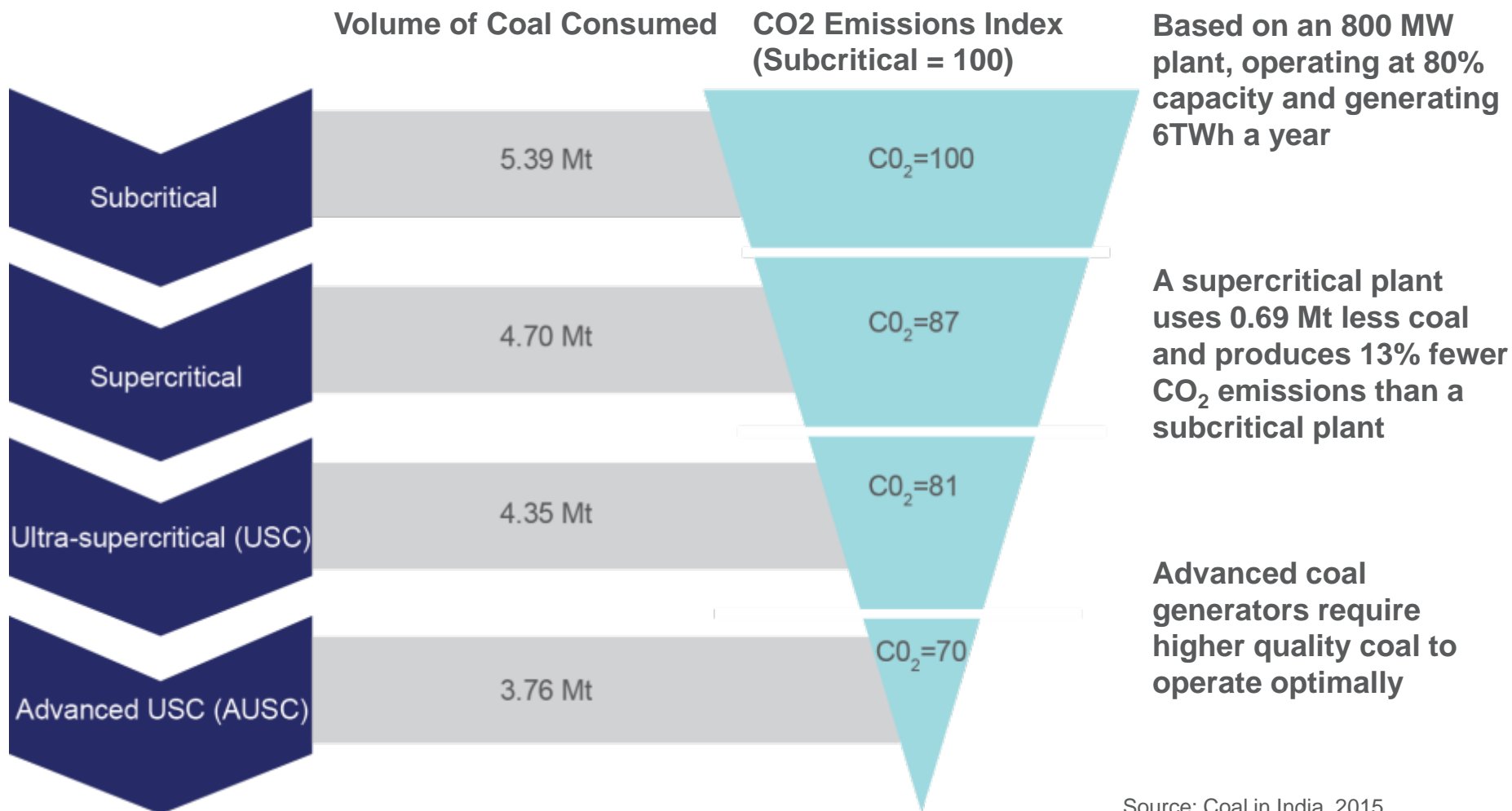
- Coal use is projected to decline in OECD countries pursuing lower carbon options
- The reduction in coal use from these countries will be more than offset by greater consumption in emerging economies
- Industrialising countries require cheap, reliable electricity to support growing manufacturing
- Renewables are currently not direct substitutes for fossil fuels

Change in coal use 2012-2035
IEA NPS



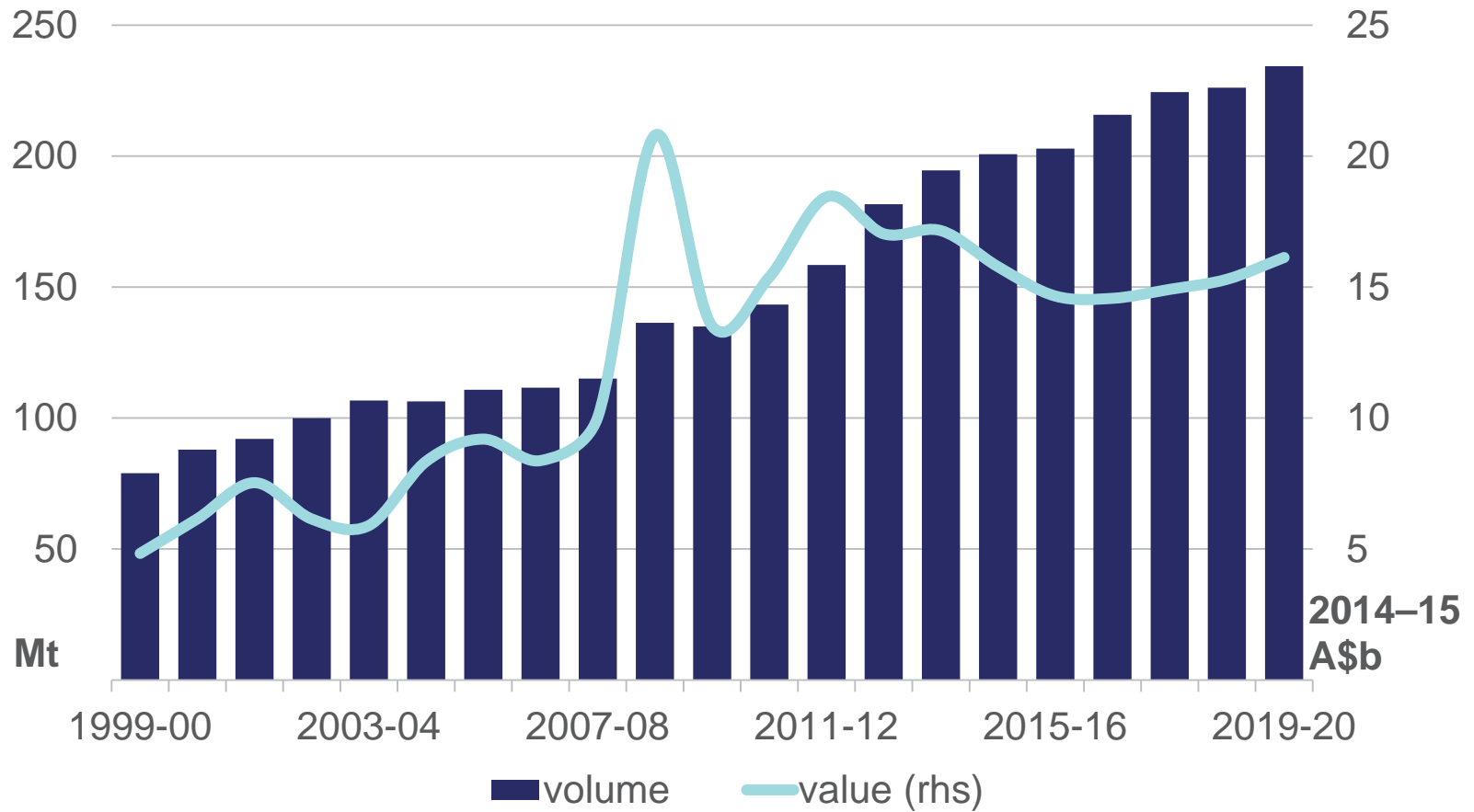
Source: IEA World Energy Outlook 2014

New coal generator technologies have a key role to play in reducing carbon emissions



Source: Coal in India, 2015

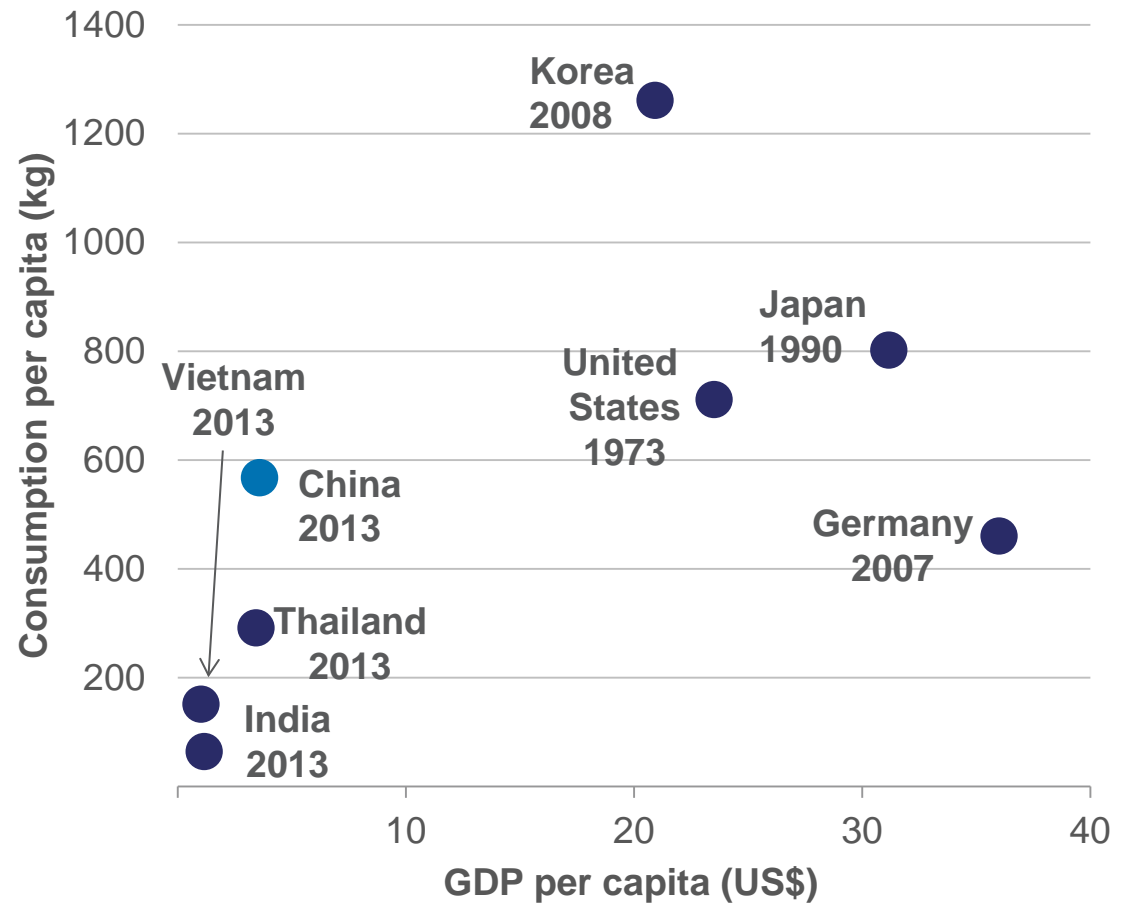
Australia will play a key role in meeting world thermal coal demand



Sources: ABS, Department of Industry and Science

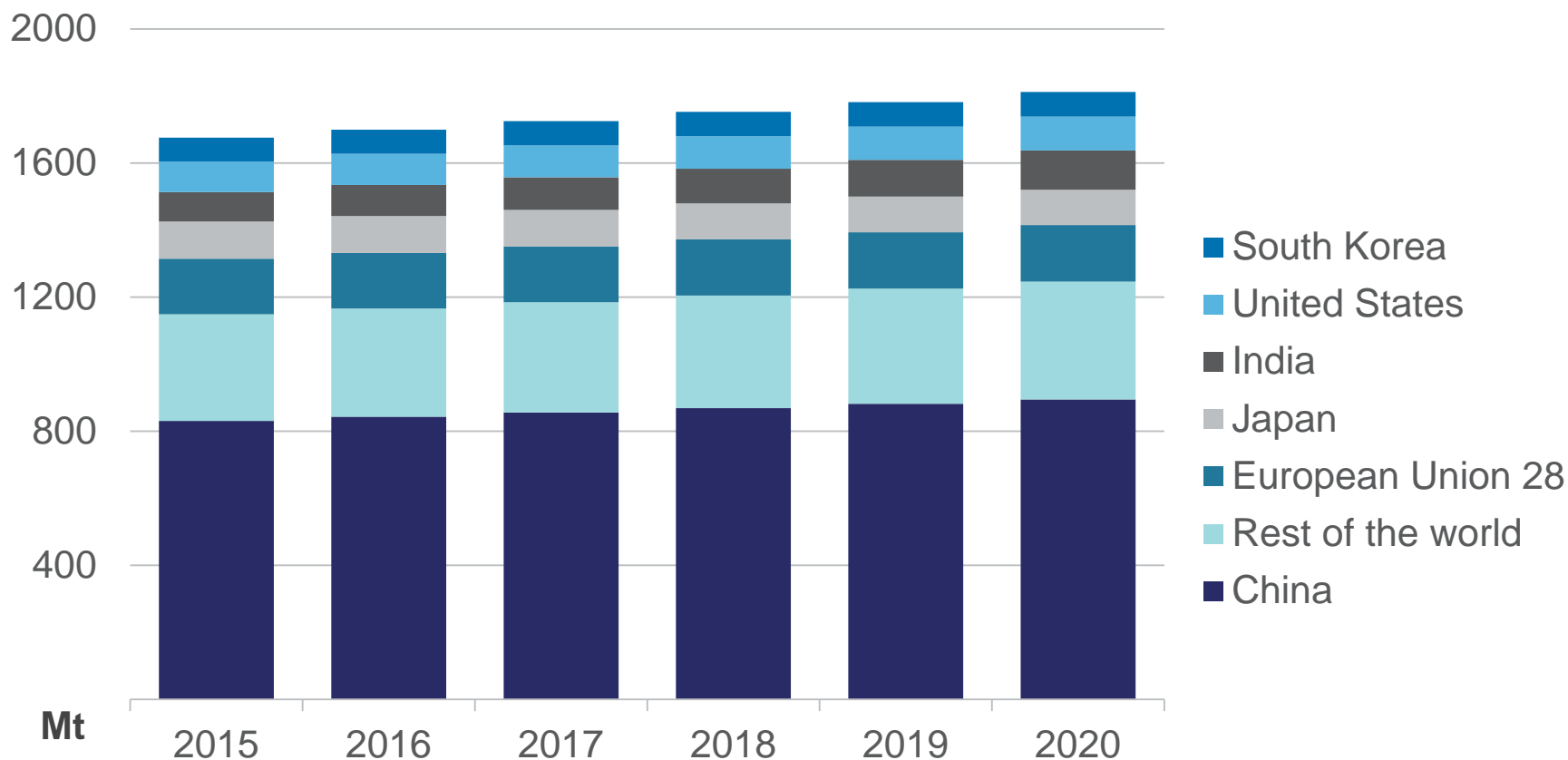
Emerging economies have relatively low steel consumption per person

- Emerging economies have considerably lower per capita steel consumption rates compared with developed economies at their peak
- Will continue to invest in new housing and infrastructure



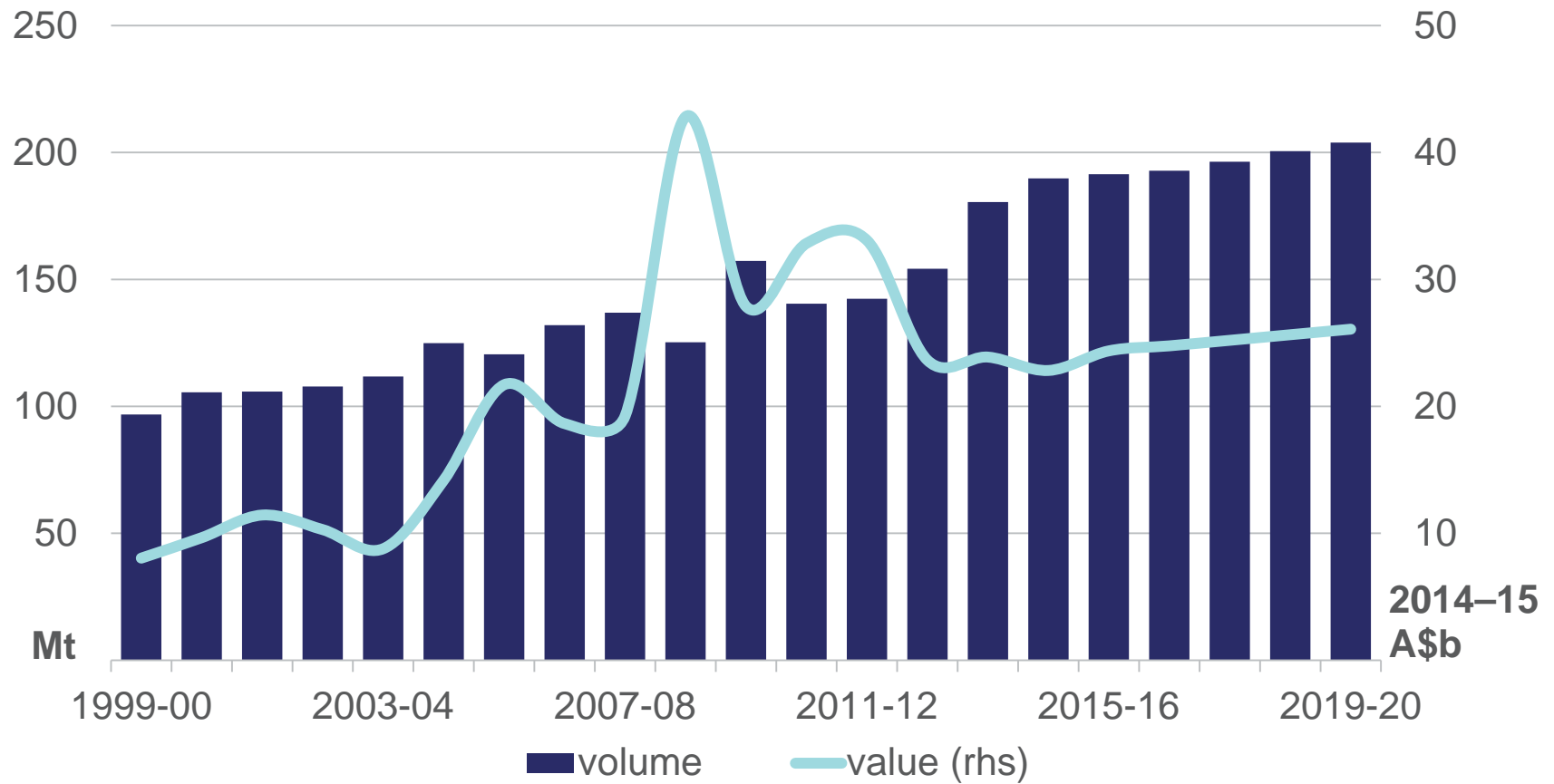
Sources: World Bank; World Steel Association.

Asian economies will be the key driver of world steel production



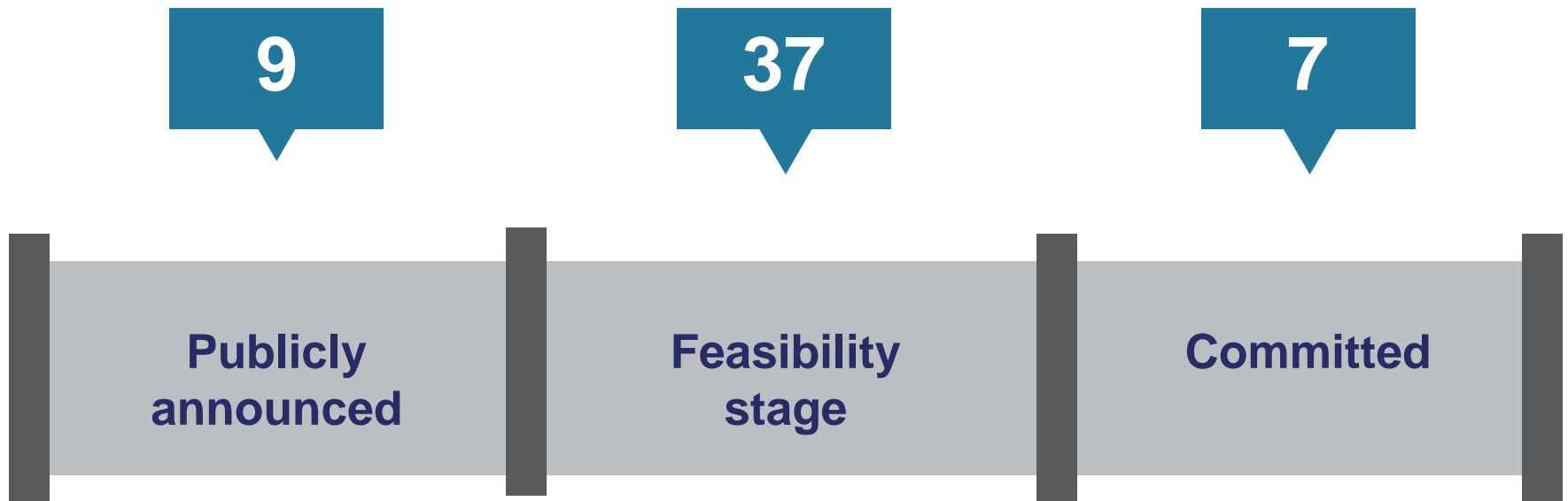
Source: Department of Industry and Science

Australia will remain the world's largest metallurgical coal exporter



Sources: ABS, Department of Industry and Science

There is a long pipeline of new projects, but not all of them will be developed



Challenges facing Australian coal projects



Market Conditions

- Prices
- Environmental and climate policies
- Economic growth
- Import demand
- Non-tariff barriers



Opposition to coal mine developments

- Localised project protests
- Larger environmental campaigns

Challenges facing Australia's coal projects cont.



Finance

- Difficulty obtaining finance – broader industry issue
- The fossil-fuel divestment campaign



Costs

- Australia had become a high-cost environment, but costs are declining
- Didn't appear to affect exports
- Cost-cutting exercises, lower fuel costs and a depreciating Australian dollar have increased the viability of Australian operations
- Strong focus on production rather than just expansion



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