IGF

INTERGOVERNMENTAL FORUM on Mining, Minerals, Metals and Sustainable Development

IGF Guidance For Governments:
Leveraging Local Content Decisions for Sustainable Development

CASE STUDY

AUSTRALIA: DOWNSTREAM LINKAGES

INCENTIVES, PROTECTIONISM AND PRESCRIPTIVE MEASURES

OVERVIEW

LEVEL OF OPERATION:

National; industry; state

GOVERNMENT ROLE:

Regulator

LINK TO POLICY ADOPTED:

see Steel Industry Authority Act 1983 (repealed in 1999); The Iron Ore Beneficiation Agreement Act; The Iron Ore Direct Reduced Iron Agreement Act

KEY COMMODITIES:

Coal (world leader), bauxite, alumina, iron ore, uranium, zinc, LNG[1]

TOTAL NATURAL RESOURCE RENTS (AS % OF GDP) (2015):

4.8 per cent[2]

NATIONAL EXTRACTIVES COMPANY:

N/A (although a number of large multinational mining firms are based in Australia, including BHP Billiton, Rio Tinto, Fortescue Metals Group and Newcrest Mining)

UNDP HUMAN DEVELOPMENT INDEX VALUE (2016):

0.939 (Global Rank 2)[3]

DIRECT EMPLOYMENT IN MINING SECTOR (2014):

267,700 (2.3 per cent of total workforce)[4]

Australia was successful in establishing a domestic steel industry that fully met the domestic demand for steel for well over 80 years, leveraging locations with close proximity to inputs, easy access to markets, availability to labour and relatively low transport costs. The industry was supported by strong government intervention in the form of steel import restrictions and bounties. An export ban on iron ore was in place from 1938 to 1960. The government also partnered with steel producers and the iron ore sector as a co-investor in supporting infrastructure.

The government's intervention succeeded in building up the industry. However, after protective barriers were lifted in 2011, and BHP was increasingly forced to compete with other international producers, it became clear that the industry was not competitive enough. The increasingly globalized steel market, global overcapacity, a high Australian dollar, and the

[1] Department of Industry, Innovation and Science. (2017). *Australian mineral commodities*. Canberra, Australia: Government of Australia. Retrieved from https://industry.gov.au/resource/Mining/AustralianMineralCommodities/Pages/default.aspx

[2] World Bank Group. (2017). *Total natural resource rents (% of GDP)*. Washington, DC. Retrieved from https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS

[3] United Nations Development Programme. (2016). *Human Development Reports: Australia*. Geneva, Switzerland. Retrieved from http://hdr.undp.org/en/countries/profiles/AUS.

[4] Department of Employment. (2014). Industry outlook: Mining. Canberra, Australia: Australian Government. Retrieved from https://cica.org.au/wp-content/uploads/2014-Mining-Industry-Employment-Outlook1.pdf

fallout from the 2008 financial crisis all contributed to the post-protection demise of the steel industry in Australia. Ultimately, despite the abundance of key inputs for steel production and a highly skilled work force, Australia has not managed to develop its steel production capacity much beyond what is needed to service domestic demand. However, the country provides an interesting counterfactual for resource-rich countries given that it has developed *without* following the downstream beneficiation pathway.

RISE AND FALL OF THE DOMESTIC STEEL INDUSTRY

The Australian iron and steel industry emerged when Broken Hill Proprietary's (BHP) Newcastle iron works began production in 1915.[5] The Newcastle plant was located strategically close to coking coal reserves and the primary market in Australia. Furthermore, the plant had good access to port facilities to receive iron ore inputs from Southern Australia.[6] The Newcastle plant started operations as World War I broke out, which resulted in increased steel demand from the armaments industry and limited international supply.

During the 1930s, BHP became a monopoly producer in the iron and steel industry through takeovers, vertical integration, rationalization and modernization

After the end of the war, the government passed the Tariff Act of 1921, which set the stage for high protective tariffs on imports of iron and steel to protect the steel producers as well as the numerous secondary industries that had been established during the war.[7] In addition, the government passed the Iron and Steel Products Bounty Act of 1922, which granted bounties (direct subsidies taking the form of an annual lump sum payment) to industries making fencing wire, galvanized sheets, wire-netting and traction engines in Australia.[8]

During the 1930s, BHP became a monopoly producer in the iron and steel industry through takeovers, vertical integration, rationalization and modernization. In 1938, the government imposed the Iron Ore Export Embargo on the eve of World War II to prevent the Japanese from importing ore from Yampi Sound in Western Australia.[9] This embargo remained in place until 1960.

With the relaxation of the embargo, iron ore output expanded by 60 per cent, with production doubling in Western Australia toward the late 1960s. Several pelletizing plants were established at Dampier and Whyalla in South Australia, and Port Latta in Tasmania. The pellets were mostly destined for export to Japan. By 1963, 11 blast furnaces were operating in Australia—four at Port Kembla, four at Newcastle in New South Wales, two at Wundowie in Western Australia, and one at Whyalla, South Australia. Production of pig iron reached record levels and the annual steelmaking capacity was in excess of 5 million tons.[10] The 1970s continued to be a prosperous period with increased production and exports. While most other OECD countries experienced a drop in steel consumption during these years, Australia enjoyed an increase due to the demand coming from the expansion of the mining industry.

[5] Wills, N.R. (1950). The growth of the Australian iron and steel industry. *The Geographical Journal 115(4)*, 208–18.

[6] Ibid.

[7] Zierer, C.M. (1940). The Australian iron and steel industry as a functional unit. *Geographical Review 30(4)*, 649–59.

[8] Australia Bureau of Statistics. (1928). *Year Book Australia, No 21, 1928*. Retrieved from http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/82ECFA7EC13F48E8CA2573CD00049838?opendocument

[9] Farrell, R. (2008). Japanese investment in the world economy: *A study of strategic themes in the internationalization of Japanese industry*. Cheltenham, U.K.: Edward Elgar.

[10] Golledge, R.G. (1964). Decentralization and the re-orientation in the Australian iron and steel industry. *Geography 46(4)*, 364–68.

The 1980s, however, marked the end of the booming steel sector and the hegemony of BHP. The company started accumulating losses due to a downturn in the domestic and international markets. Due to the protection of the sector over the years, its operations were characterized by low productivity. At the same time, input costs were increasing, and steel imports started penetrating the domestic market.[11]

DEMISE OF THE STEEL INDUSTRY DESPITE A SPATE OF GOVERNMENT INTERVENTIONS

BHP reacted by reducing production, cutting 3,100 jobs and postponing investment. The company threatened the government with refusing to make any further modernization investments in its production capacity until import quotas were imposed that would guarantee 80 to 90 per cent of the market share to domestic producers.[12] As the second-largest employer in the country, BHP had considerable influence. However, there was fear that additional protective measures would result in higher steel prices. The ensuing Steel Plan "tied government intervention in the form of a guaranteed market share and bounties to corresponding corporate commitments and union undertakings for industry harmony."[13]

The plan included:

- A safety mechanism for a review of government assistance if the market share of domestic producers fell below 80 per cent or rose above 90 per cent.
- The inclusion of a mechanism to deal with anti-dumping issues in an expedited manner.
- Subsidies for a period of five years for steel used in the domestic production of specific products.
- The state governments of New South Wales and South Australia—where the steel works were located—were asked to restrict charges associated with electricity, freight and payroll taxes.[14]

In exchange, BHP promised not to shut down its integrated steel works and to limit redundancies during the five-year period of the Steel Plan, as well as to invest AUD 800 million in capital improvements to increase productivity and efficiency. The unions agreed to negotiate all wage increases in line with the Prices and Incomes Accord. The Steel Industry Authority (SIA) was established to monitor the implementation of the Plan.

Helped by the end of the recession and the depreciation of the Australian dollar by the end of 1983, BHP began reporting profits again. By the end of the 1980s, BHP became the third most profitable steel producer globally, behind China Steel and Nisshin. BHP benefited from an average domestic market share of 88 per cent and had managed to increase its productivity from 200 to 250 metric tons per employee/year (this level remained below the average of 400 metric tons per employee/year of countries like South Korea, though).[15] In light of this recovery, the government cut the subsidies by 20 per cent.

However, in the 1990s, stagnant domestic steel production and declining exports of iron and steel retriggered state intervention. In 1996, the State of Western Australia enacted two legislative measures to foster downstream beneficiation by requiring major exporters of iron ore to invest in beneficiation beyond that of just iron ore concentration and pelletization. The Iron Ore Beneficiation Agreement Act and The Iron Ore Direct Reduced Iron Agreement Act were passed "for the purpose of promoting employment opportunity and industrial development and in particular the establishment of further processing facilities in Western Australia."[16]

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[11] Capling, A, & Galligan, B. (1992). *Beyond the protective state: The political economy of Australia's manufacturing industry policy*. Cambridge: Cambridge UP, 1992

[12] Ibid.

[13] Ibid.

[14] Ibid.

[15] Ibid.

[16] *Iron Ore Beneficiation (BHP) Agreement Act 1996 (WA)*. Retrieved from https://www.slp.wa.gov.au/pco/prod/filestore.nsf/FileURL/mrdoc_23084.pdf/$FILE/Iron%20Ore%20Beneficiation%20(Bhp)%20Agreement%20Act%201996%20-%20%5B01-d0-06%5D.pdf?OpenElement

These acts prompted BHP to build the AUD 2.6 billion Boodarie hot briquetted iron plant in 1996 and Rio Tinto to invest AUS 400 million in a pig iron plant in Kwinana in 2003. Both projects employed experimental processing technologies, but never reached economic viability and were written off. In light of these experiences, the Western Australian Government repealed the beneficiation acts in 2011 and renegotiated its agreements with Rio Tinto and BHP, dropping the requirement for beneficiation, but requiring higher royalty rates in return.

Despite efforts toward improving productivity and the implementation of cost reductions, the industry has been struggling ever since, shedding jobs and shutting operations.[17] Contributing to the demise of the steel industry after the financial crisis in 2008 was the high Australian dollar. In 2011 BlueScope (previously BHP) stopped exporting steel and closed some of its production facilities at the Port Kembla Steelworks and Western Port. In October 2015, a further 500 jobs were cut.[18] Unions have been accusing China of steel dumping and have been calling on the government to impose restrictions.[19]

KEY LESSONS

- Building a downstream industry will require government intervention and protective measures such as export restrictions. However, these may be illegal under the WTO.
- In the long run, government support and protectionism should be lifted to promote competitiveness and avoid draining public funds.
- Succeeding with downstream policies requires a sophisticated industrial policy grounded in sound comparative advantages and knowledge of the capabilities of the market to avoid imposing downstream requirements that do not make economic sense.
- International supply forecasts and prospects of other government's actions to support and protect the downstream sector need to be considered prior to embarking on industrial policies.

[17] Arrium Mining and Materials. (2015). *The future of Australia's steel industry* (Submission to the Senate Economics Committee's Inquiry Into the Future Sustainability of the Australian Steel Industry). Retrieved from www.aph.gov.au/DocumentStore.ashx?id=0a0cfc3f-1de6-4b4b-bd6b-3bfa2d66f17d&subId=409465

[18] Illawarra Business Chamber. (2015). *The future of Australia's steel industry* (Submission to the Senate Economics Committee's Inquiry Into the Future Sustainability of the Australian Steel Industry). Retrieved from www.aph.gov.au/DocumentStore.ashx?id=54aa26e3-cb13-465b-b230-4d940ba5235a&subId=409045

[19] Kelly, J. (2017, July 14). Union warning on Chinese plans to dump excess steel in Australia. *The Australian*.

IGF

FOR MORE INFORMATION CONTACT

Secretariat@IGFMining.org
1100-220 Laurier Avenue W.
Ottawa, Ontario
K1P 5Z9 Canada

IGFMining.org
@IGFMining **@IGFMining**

Written by Nicolas Maennling and Perrine Toledano

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