ANALYSIS

Australia faces challenges in developing a 'Silicon Billabong'

BY ALISON RATCLIFFE | 05.01.2016

Australian prime minister Malcolm Turnbull met the robot Asimo during a visit to Japan. © Press Association Images

How is Australia going to grow its economy when it can no longer rely primarily on its ability to dig stuff out of the ground and sell it to the Chinese?

Prime minister Malcolm Turnbull's recent trip to Japan offered some clues. Visiting the National Museum of Emerging Science and Innovation in Tokyo, he met robot Asimo, Japan's innovation ambassador. Other items on his itinerary included biotech and a memorandum of understanding on regenerative medicine.

With mineral and energy commodity prices falling, Turnbull has made it his immediate priority to wean the economy off raw materials and nourish technological advance. His AUS$1.1bn four-year National Innovation and Science Agenda was his first major policy document since coming to office.

Set against nearly AUS$10bn of annual government spending on innovation, the funding is relatively small, but it signals intent in the face of sluggish innovation indicators, including low R&D spending by global standards and particularly poor innovation efficiency (turning research into commercial outcomes), for which Australia is ranked 72nd in the world. The OECD says that innovative companies are more likely to participate in international and public procurement markets; less than a fifth of Australian firms do so.

Australia has made some impact in the global digital marketplace: Sydney software company Atlassian was valued at AUS$8billion – unprecedented for an Australian technology company – in its recent IPO on the Nasdaq. Online custom footwear manufacturer Shoes of Prey and email marketer Campaign Monitor have both secured serious venture capital funds within the past year, albeit from the US (Australia's venture capital sector has not fully recovered from the global financial crisis).

Deloitte has tipped a 'fantastic five' of industry sectors – gas, agribusiness, tourism, international education, and wealth management – to take over from mining, currently the second biggest contributor to the economy in real gross value at 8.8 per cent.

Agribusiness was identified as the industry with the strongest opportunity to exploit Australia's competitive advantage and respond to growing global demand. Turnbull recently launched the National Farmers' Federation's (NFF) agricultural innovation hub, Sprout, to encourage the use of technology and big data in farming.

"Digital agriculture is the next wave of productivity," said NFF CEO Simon Talbot, who believes it could boost farm income by up to AUS$6bn in four years. "Half of the world's middle class, the customers for all the things Australian farmers produce, now live in our longitude." Yet he admits that such prosperity could be undermined by the kind of brain drain to Silicon Valley that has plagued Australia's tech industry: "One thing I am determined to solve is the frustration of young agribusiness professionals having to leave Australia to go to the US, Israel or Europe to trial new ideas."

When the seven liquefied natural gas (LNG) projects financed in the most recent tranche of investment begin production in the next five years, Australia will become the world's leading LNG exporter. However, the unexpected dip in the oil price – to which the LNG price is pegged – means that for now, LNG won't do much to balance the government's budget.

Mining is not necessarily dead in the ground. Ross Lambie, general manager of resources and energy economics at the Department of Industry and Science, says the industry is now moving from investment to production. Despite a 43 per cent plunge in the spot price for iron ore, Australia's largest mining export, in 2014-15, export volumes increased 15 per cent. Coal exports are also projected to increase moderately as new Asian markets buy the mineral.

"While reducing costs will continue to be necessary to improve [mining] project competitiveness, it is not sufficient," writes Lambie in the *Australian Financial Review*. "Improving productivity is necessary. Innovation and the adoption of new technologies are important in achieving this."

The slide in resources investment had been cushioned by a housing construction boom, which is now ending. So far, the 'fantastic five' are not ready to take the economic strain. Before Turnbull's innovation strategy can kick in – and it's worth remembering that fostering a 'Silicon Billabong' has been an aim for some years now – his government may face the usual tough choices: cut spending or raise taxes?

Tax reform debate has centred on ensuring multinationals pay their due, cutting tax breaks for the retired rich, and raising or broadening indirect taxes. The discussion takes place against a backdrop of great uncertainty over growth, with the Australian Business Economists' executive reaching a consensus of 2.3 per cent this year, 2.7 per cent in 2016 and 3 per cent in 2017. They put the chance of recession in the next decade at 20 per cent.

Global bond fund manager PIMCO is cautious: "With the macro headwinds Australia faces and the scope of the structural change in the economy, we should be alert to the risk of a recession," says executive vice president Adam Bowe. "When you are riding a bike very slowly, it is much easier to topple off."

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