

Briefing Note:

Auto Shutdown Will Deliver Another Economic Blow

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Politicians and business executives know that when you have bad news to announce, it's best to do it well in advance. That gives the affected population lots of time to become emotionally and economically prepared. If anything, the initial announcement should exaggerate the coming negative event, thus reducing expectations so far that the public might be "pleasantly surprised" if the end result is somewhat less damaging than announced. That's why corporations book big upfront negative charges for far-off restructuring events, and why finance ministers (the smart ones, anyway) use deliberately pessimistic budget projections – setting the stage for "better-than-expected" results just in time for the next election.

In the case of the looming shutdown of Australia's entire motor vehicle assembly industry, however, the fact that we've known for over two years that this day was coming will not significantly ease its economic and political consequences. Moreover, there's no reason to believe that the end result will be any less cataclysmic than the industrial carnage that was originally predicted, when Ford, Holden, and Toyota all announced – in close succession – that they would cease vehicle manufacturing in Australia.

Ford's assembly plant in Broadmeadows, Victoria, is the first to go dark this month. The final Aussie-made Ford has already rolled off the assembly line. Remaining workers are preparing the factory's final shutdown. Holden's assembly plant in Elizabeth, SA, and Toyota's Altona factory (also in Victoria), are scheduled to close next year; both have already begun phasing down production. Engine plants operated by Ford and Holden will also close.

Automotive manufacturing, despite its gradual decline in recent years, remains one of the most important durable manufacturing sectors in Australia. Most recent data from the Australian Bureau of Statistics attests to its far-reaching economic significance (See Table 1). Total shipments from motor vehicle and parts manufacturing exceeded \$17.5 billion in the 2014-15 financial year, supporting over 40,000 jobs in total. Those positions are generally higher quality than other jobs in Australia: most of them are full-time (in contrast to the steady shift toward part-time work visible across the labour market), and average compensation exceeds \$70,000 per job. Total wages and salaries paid out in the sector are

| Table 1 Motor Vehicle & Parts Manufacturing in Australia (2014-15) | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Sales of goods & services | \$17.54 billion |
| Employment | 40,642 |
| Value-added (GDP) | \$3.71 billion |
| Wages & salaries paid | \$2.89 billion |
| Average compensation per worker | \$71,158 |
| Total exports (2015) | \$3.13 billion |
| Research & development spending (2011-12) | \$690 million |
| <i>Source: Author's calculations from Australian Bureau of Statistics, 8155.0 - Australian Industry, 2014-15, http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8155.02014-15?OpenDocument, Department of Foreign Affairs and Trade, "Trade statistical pivot tables," http://dfat.gov.au/about-us/publications/Pages/trade-statistical-pivot-tables.aspx, Productivity Commission of the Australian Government, <i>Position Paper: Australia's Automotive Manufacturing Industry</i> (Canberra: Commonwealth of Australia, 2014).</i> | |

near \$3 billion per year, providing an important boost to consumer spending and household financial stability. Total value-added in 2014-15 amounted to \$3.7 billion. The industry also accounted for \$3.1 billion worth of exports in 2015, constituting Australia's second-largest high-tech export sector (more on this below).

Automotive manufacturing contributes disproportionately to Australia's innovation effort. Automakers and parts suppliers invest heavily in engineering, product and process development, and new technology. In fact, the sector has typically re-invested over 20 percent of its total GDP in new R&D – a rate of innovation far in excess of most industries in Australia. The disappearance of the sector can therefore only undermine Australia's already poor R&D record: national business R&D spending has declined significantly over the last decade, and is now is equivalent to barely 1 percent of national GDP (far weaker than global technological leaders like the U.S., Germany, Korea, and Japan).

Complex Supply Chain

Over 7000 workers will lose work at the three automakers – the last original equipment manufacturers (OEMs) still producing in Australia. The final economic toll of the automotive shutdown will be much higher than just the production and employment located within the major auto plants. Most auto manufacturing jobs are not created by the brand-name automakers themselves, but rather within the complex supply chain that feeds the final assembly plants. Parts and sub-assemblies are often organized on a "just in time" basis, delivered to the factory just in time to be installed in the final vehicle. Further jobs are stimulated by OEM purchases of a myriad of different supplies and services.

| Table 2 | |
|-----------------------------------------------------------------------------------------------|--------------|
| Automotive Manufacturing Input Purchases | |
| <i>(\$million, 2013-14)</i> | |
| Goods | 3,803 |
| Services | 4,173 |
| Total¹ | 7,976 |
| Top 10 Supply Sectors | |
| Transport Equipment | 1,716 |
| Wholesale Trade | 896 |
| Non-Ferrous Metals | 730 |
| Professional & Scientific Services | 478 |
| Iron & Steel Manufacturing | 336 |
| Employment & Admin. Services | 280 |
| Transport Support & Storage | 280 |
| Retail Trade | 228 |
| Road Transport | 194 |
| Electricity Transmission & Distribution | 168 |
| Property Operators & Real Estate | 165 |
| Fabricated Metal Products | 133 |
| Electricity Generation | 130 |
| Specialized Machinery & Equipment | 128 |
| Finance & Insurance | 118 |
| <i>1. Australian-made only; excludes imported inputs.</i> | |
| <i>Source: ABS Australian National Accounts Input-Output Tables, Cat. 5209.0.55, Table 5.</i> | |

Table 2 summarizes the auto manufacturing industry's purchases of inputs and supplies from other sectors of the national economy, based on data published in the Australian Bureau of Statistics' input-output database. Auto manufacturers purchased some \$8 billion in total inputs from Australian suppliers (not counting imported parts and inputs). The ABS database lists 100 different industries (out of 116 defined sectors) that sell to auto manufacturing. Perhaps surprisingly, a small majority of supply chain purchases came from services industries: everything from wholesale and retail trade margins, to transportation services, electricity, property and real estate, and financial services. All those sectors, too, will suffer a significant loss of business as automotive manufacturing winds down.

The Final Toll

Because of those complex and extensive supply chain linkages, the final impact of the closure of vehicle manufacturing will spread far beyond the auto sector itself, creating negative ripple effects felt in all sectors and all regions of the country. A capital-intensive manufacturing sector like motor vehicle assembly ultimately “anchors” a broad range of indirect economic activity in the host region, and across Australia. One category of indirect jobs includes those located “upstream”: in the supply and service sectors which sell inputs to the automotive facility. Not all of that work will disappear with the coming closures (there will be some residual demand for Australian-made auto parts for the domestic “aftermarket,” and perhaps some remaining components export opportunities), but most will. Another set of indirect jobs, likely even larger, is found “downstream”: in the various consumer goods and services industries which require an initial population of employed automotive and supply chain workers nearby to serve as their own market. When those workers subsequently spend their earnings – on everything from homes to consumer goods to private services (like restaurants and dry cleaners), and even the public services financed from their tax payments – they create the economic foundation for additional jobs and incomes in those downstream sectors. Both upstream and downstream linkages are uniquely intense and far-reaching in automotive manufacturing – perhaps more so than any other major industry in the economy (because of its very complex supply chain). This means that the loss of vehicle assembly will exact a toll on employment, production, and income many times larger than the 7000 direct jobs lost in the major auto facilities themselves.

International research has suggested that the ultimate “multiplier” impact of OEM auto facilities, considering both upstream and downstream linkages, may be as high as 10 jobs in total depending on every job in the original facility.¹ Australian researchers have attempted to quantify the ultimate spillover impact of the automotive closures; some research has suggested the ultimate impact of the closures (depending on how macroeconomic variables respond to the shock of the shutdowns) could amount to 200,000 lost jobs and as much as 2 percent of national GDP.² Given the already-weak state of business investment, exports, and employment in Australia (total hours of employment is already falling, and is now lower than last October), the loss in coming months of so much strategic manufacturing activity (with spillovers into both supply industries and consumer activities) could have major and unpredictable effects on macroeconomic performance.

¹ See, for example, Kim Hill, Debra Menk, Joshua Cregger, and Michael Schultz, “Contribution of the Automotive Industry to the Economies of all Fifty States and the United States,” Ann Arbor: Center for Automotive Research, 2015; or Robin Somerville, “Economic Impact of GM Operations in Oshawa,” Milton, Ontario: Centre for Spatial Economics, 2015.

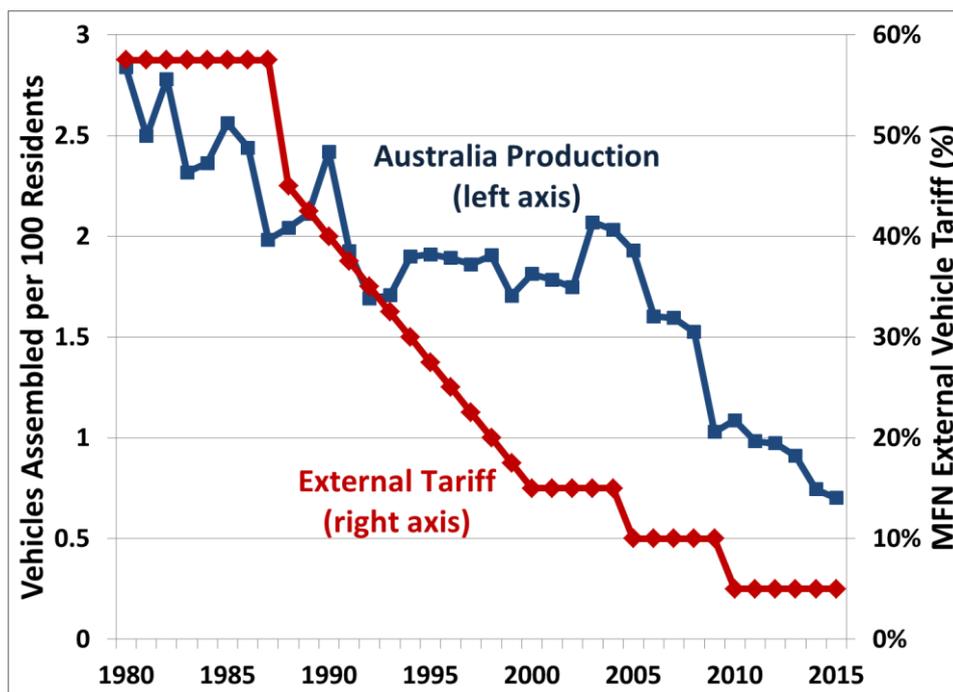
² See Barbaro, Bianca and John Spoehr, “Closing the Motor Vehicle Industry: The Impact on Australia.” (Adelaide: Australian Workplace Innovation and Social Research Centre, 2014); and National Institute of Economic and Industry Research, “Full Motor Vehicle Closure: The Impact on Australia and its Regions” (Clifton Hill, Victoria: National Institute of Economic and Industry Research, 2014).

One-Way Globalization

One aspect of the industry's long decline and eventual shutdown that must be acknowledged (not least so that we apply its lessons to other domestic industries) is the impact of Australia's unilateral liberalization in automotive trade on the industry's footprint here. As part of their general acceptance of the logic of globalization, Australian policy-makers (both Labor and Coalition) oversaw a dramatic reduction of barriers to automotive imports beginning in the 1980s. This consisted of large reductions in the most-favoured nation vehicle tariff (falling from 57.5% in 1985 to just 5% by 2011, one of the lowest MFN tariffs of any country); the elimination of other restrictions on vehicle imports (like quotas or permitting); and the implementation of bilateral free trade agreements with several auto manufacturing countries (providing their vehicles tariff-free access to the Australian market).

Every chapter in this liberalization – from the so-called “Button Plan” in 1984, to the “Bracks Plan” in 2008, to the negotiation of FTAs with the U.S., Thailand, Korea, Japan, and China – featured confident predictions that liberalization would facilitate the export-oriented rationalization of Australian auto production. Instead of producing small runs of vehicles aimed largely at domestic consumers, free trade advocates predicted freer trade would prod domestic producers to reorient production toward global markets, achieving economies of scale and higher total output. Of course, another outcome was possible: with disincentives for imports mostly eliminated, global OEMs might simply choose to serve Australia's lucrative vehicle market from offshore production.

Figure 1. Australian Vehicle Tariff and Production per Capita



Source: Automotive Review Secretariat, *Review of Australia's Automotive Industry* (Canberra: Commonwealth of Australia, 2008), Ward's Auto Reference Centre (on-line), <http://wardsauto.com/>, and Australian Bureau of Statistics, *Demographic Statistics, Cat. 3101.0*.

Unfortunately, that is exactly what occurred. Vehicle production began falling in the wake of the Button Plan’s steep tariff reductions in the late 1980s (Figure 1). It stabilized somewhat in the late 1990s and early 2000s – until a soaring exchange rate, the Global Financial Crisis, and the new generation of FTAs all served to undermine the market for Australian-made vehicles. Growth in vehicle exports was far smaller than the loss of domestic sales for Australian producers, so net Australian output plunged in the latter half of the 2000s. With Australian plants operating well below minimum efficient scale, and no sign from the Coalition government that it cared whether the industry remained here or not, the three remaining automakers pulled the plug.

Figure 1 underestimates the extent of automotive trade liberalization, because the MFN tariff rate pictured there does not take account of the elimination of tariffs with Australia’s FTA partners. Australia now has FTAs with five major automotive-producing countries: Japan, Korea, Thailand, the U.S., and China. (So far Australia imports only automotive components from China, but that will change as China begins mass exports of finished vehicles.) With each FTA partner, Australia incurs an enormous imbalance between automotive imports and exports (Table 3). In no case did an FTA produce any measureable increase in offshore demand for Australian-made vehicles – and that demand was small (for the U.S.) to non-existent (for the Asian FTA partners) to begin with. But auto imports surged relentlessly. By 2015, Australia’s combined automotive trade deficit with these five automotive-producing FTA partners reached over \$20 billion. Automotive imports from those five countries now collectively outweigh Australian exports by a ratio of forty-to-one. Where motor vehicles are concerned, therefore, “free trade” is very much a one-way street. (That same is true for Australia’s FTA trade in most other manufactured products.) There can be no doubt that the implementation of these FTAs, with no provisions to ensure a reciprocal flow of exports or continued domestic production, contributed to the end of vehicle manufacturing in Australia.

Table 3
Automotive Trade Under Five Free Trade Agreements
(2015, \$million)

| Country | Australian Imports | Australian Exports | Trade Balance | Ratio of Imports to Exports |
|--------------------|---------------------------|---------------------------|----------------------|------------------------------------|
| Japan | 8,229 | 29 | -8,199 | 279 |
| Thailand | 6,192 | 26 | -6,166 | 237 |
| U.S. | 3,574 | 413 | -3,161 | 9 |
| Korea | 2,495 | 39 | -2,457 | 65 |
| China | 626 | 25 | -601 | 25 |
| Total 5 FTA | 21,117 | 533 | -20,585 | 40 |

Source: Author’s calculations from Department of Foreign Affairs and Trade, “Trade statistical pivot tables,” <http://dfat.gov.au/about-us/publications/Pages/trade-statistical-pivot-tables.aspx>. Includes sectors 781-784.

The assumption that trade liberalization would naturally and automatically produce a mutual and balanced specialization, allowing Australian industry to tap into foreign markets and achieve efficiency gains, was naïve. In fact, Australia’s liberalization, lacking any requirements for continued Australian production or limits on the size of automotive trade imbalances, simply eliminated the motive for global automakers to maintain any production presence in Australia at all. This bitter lesson must be kept in mind as Australians consider other trade liberalization initiatives (like proposed trade deals with India, Indonesia, and the TPP), and their likely impact on manufacturing industries that remain here.

Despite the lopsided nature of Australia’s automotive trade, Australia still exported \$3.1 billion worth of automotive products in 2015; key markets for our exports include New Zealand and the Middle East. The cessation of vehicle assembly here will therefore have a further negative impact on Australia’s already-worrisome international trade performance. In fact, motor vehicles and components constitute Australia’s second-largest category of “elaborately transformed merchandise” (ETM) export,³ constituting over 10 percent of total ETM exports last year. The loss of those exports once vehicle assembly has closed down, and the replacement of the residual domestic sales of Australian-made vehicles by incremental imports, will knock Australia’s merchandise trade balance (already suffering a record \$26 billion deficit in 2015) down by several billion more dollars. And the structural regression of Australia’s export profile will be further cemented. At the turn of the century, ETM products constituted almost one-quarter of Australia’s total merchandise exports. That proportion fell steadily as the resource boom and an overvalued currency resulted in the deindustrialization of Australian exports (and, indeed, of the whole economy). Without automotive products, ETM products are now poised to fall to barely one-tenth of total exports: in other words, just one dollar in ten of Australian merchandise exports would consist of more technology-intensive, value-added products (rather than unprocessed or barely-processed resource-based commodities), down from one in four in 1999.

None of this is to suggest that the external vehicle tariff should simply have been maintained at 57.5 percent (its pre-liberalization starting point). While high tariff protection was crucial to the initial postwar industrialization that established automotive manufacturing in Australia, that strategy faced its own costs and limits. Rather, the key policy lesson that should be learned from this bitter story is that trade liberalization must be accompanied with strong and pro-active measures to retain a critical mass of domestic production, with meaningful export potential, in strategic industries like automotive manufacturing. Otherwise, trade liberalization can simply remove the basis for existence of entire industries – as the imminent shutdown of automotive manufacturing is painfully reminding Australians.

³ The Department of Foreign Affairs and Trade groups merchandise exports into three broad categories: primary, simply transformed, and elaborately transformed products. The largest category of ETM exports in 2015 was specialized machinery, worth \$4.5 billion. Source: author’s calculations from Department of Foreign Affairs and Trade, “Trade statistical pivot tables,” <http://dfat.gov.au/about-us/publications/Pages/trade-statistical-pivot-tables.aspx>.