Monday, 11 May 2020

Australian Workers' Union

# The case for meaningful gas reform

## Overview

- The decline of Australian manufacturing – Australia's manufacturing capacity has contracted markedly over the last decade, and the largest driving factor is the price of energy.
- The uncontrollable gas price – Australia did not institute reservation, and has failed to contain the gas price ever since.
- The case for meaningful gas reform – there are only two short-term measures that could delink the international LNG price from the domestic price.

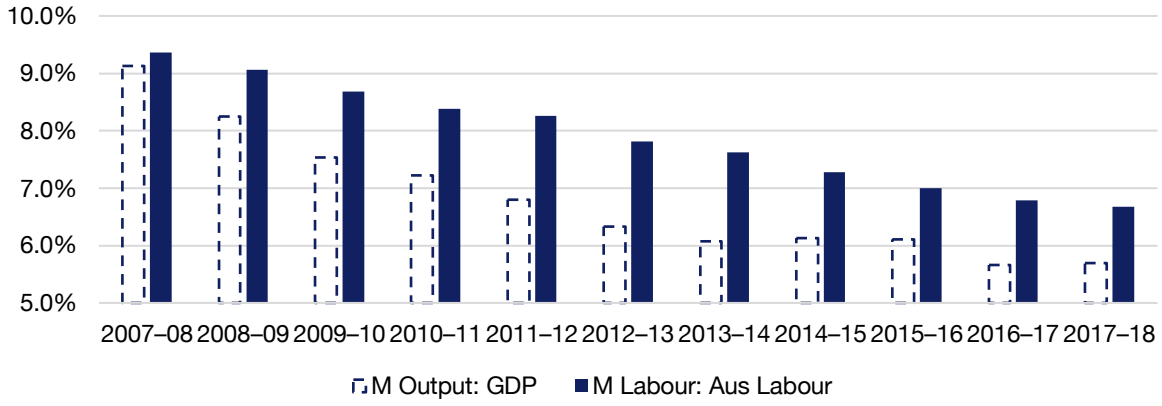
## 1. The decline of Australian manufacturing

Australia's manufacturing capacity over the last decade has languished both in output and as a proportion of GDP.

The Australian manufacturing industry generated on average $31 billion in value add per quarter in 2008, and by 2019 was generating only $26 billion per quarter. The 13 per cent contraction in nominal value add occurred concurrently with an annual GDP growth rate of 2.2 per cent.

Figure 1 shows that these trends resulted in Australian manufacturing declining as a proportion of GDP from over 9 per cent in 2008 to just over 5.5 per cent in 2018. Naturally, this also precipitated a decrease in manufacturing employment as a proportion of the labour force.

Figure 1: Australia's manufacturing industry and economy




Source: Australian Bureau of Statistics, AWU calculations

Australia's deindustrialization has not been spared considerable coverage throughout public policy discourse over the last decade. Many high-profile closures have occurred such as fuel refineries, aluminium smelters and across other large-scale facilities.

Manufacturing capacity across first-world countries has been challenged expressively by the development of capacity in Asia. Other countries have also experienced contractions – such as the UK – but not all have encountered precipitous contractions and, in the case of the US and Germany, many have expanded capacity.

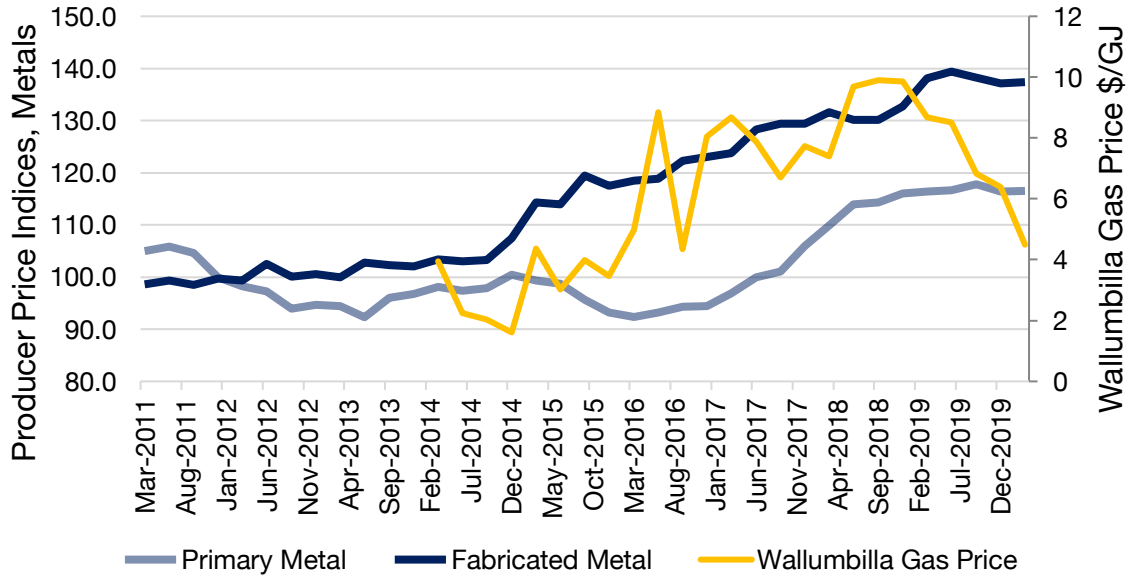
As such the contraction in Australia's manufacturing capacity is not quite an anomaly in itself, but the cause is.

Over the last decade, the cost of manufacturing in Australia has outpaced inflation considerably. For fabricated metals manufacturing, the increase in production costs has increased on average 4.2 per cent, compared to an average increase in inflation of 2.1 per cent. Over a 10 year period, this equates to a real increase in the cost of manufacturing by approximately 21%.

The absence of real wage increases across the economy, indicates that the real increase in the cost of manufacturing cannot be meaningfully attributed to labour costs. Needless to say, the previous decade has also seen the cost of capital simmer at its lowest levels since world war two.

Most striking is the correlation between the rise in the real cost of manufacturing and energy prices. As an input and a driver of the wholesale electricity price, the rise in the wholesale gas price has been the foremost driver of Australia's deindustrialization over the previous decade. Figure 2 shows that as the gas price spiked by 2016 – triggered by the development of LNG export terminals – so too did the significant and steady increase in the cost of manufacturing.

Figure 2: the cost of metals manufacturing, compared to gas prices




Source: Australian Energy Regulatory, Australian Bureau of Statistics, AWU calculations

Over the last few years, a steady flow of anecdotal evidence has supplemented the gas-price-induced deindustrialization, including high-profile closures across facilities such as Air Liquide, Coogee Chemicals, and Dow Chemicals. While discrete, just as significant is the investment Australia has missed out on account of its high energy prices, evidenced by some public cases such as by Incitec Pivot and Bluescope steel.

## 2. The uncontrollable gas price

It is commonly acknowledged that Australia's sanctioning of gas exports in the absence of a gas reservation scheme was a public policy failure. Throughout 2016 the domestic gas market converged with the international gas market, making domestic prices inextricably linked to the volailtity of Asian LNG spot prices, and precipitating a tripling of the domestic gas price.

In 2017 the Federal Government introduced the Australian Domestic Gas Security Mechanism (ADGSM) in response to the gas crisis. The regulation was designed as a retrospective measure to control gas exports in the event that the domestic market experienced a supply shortfall. The concern of a gas supply shortfall was prompted by ambitious gas volumes being contracted to overseas customers by gas producers. Scant regulatory restraints ensuring that the gas export volumes come from new gas production, and not the existing gas supply, meant that despite becoming the world's largest LNG exporter, Australia might experience a domestic market shortfall.

As a response to the gas price spike, the ADGSM had an implicit goal not outlined in its modus operandum. It was to act as a signal to gas producers that the federal government would invoke export controls if the domestic gas price did not recover to reasonable levels. Needless to say, the ADGSM was never triggered and gas prices did not reduce over the first two years of its operation, resulting in the advancement of its review.

The ACCC also began releasing netback prices to improve price discovery and, where possible, suppress the ability for gas producers to price gouge domestic industrial customers. It also began aggregating the prices offered to industrial customers in proposed contracts, and publishing the average price of contracted gas in its reports.

Over the period between 2017-2019 the wholesale gas price for contract offers continued to increase steadily. This was caused mostly by an increase in the international LNG price, and partly because of price gouging by domestic producers. On several occasions the Federal government, as well as the ACCC, made attempts to publicly reprimand gas producers for not offering domestic industrial customers fair gas prices.

Over the last three years, the federal government sanctioned policy reviews of several gas market reforms and initiatives that might reduce the wholesale price of gas in the east coast. They included a west-east gas pipeline, import terminals, pipeline reform, more prudent production licence approvals, coordinating a non-binding agreement with gas producers to increase supply to the domestic market, and more. In 2019, the federal government also announced its intention to introduce prospective gas reservation, which would include ensuring all new gas projects reserve a certain portion of gas for the domestic market.

Almost none of these intiiatives were successfully implemented, however the wholesale gas price in the spot market collapsed dramatically in 2020. By March 2020, the Wallumbilla

gas price averaged $4.49 per gigajoule, the lowest its been since 2015 and before the LNG export terminals were developed.

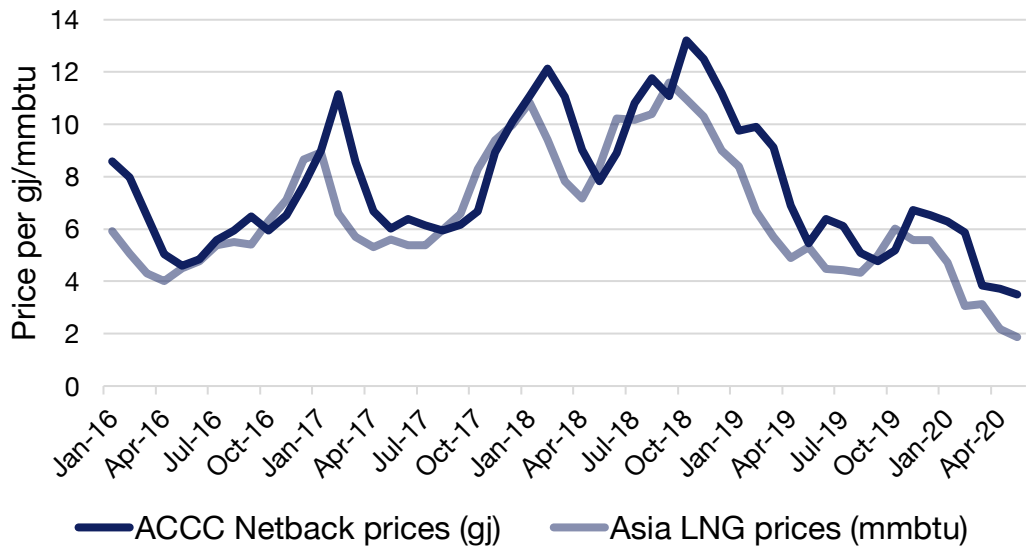
It should be noted the spot market for wholesale gas in Australia is illiquid, and as such not a great barometer for the average costs of gas. This is because gas contracts contain price reset periods that differ markedly, and because the terms that influence the price of a gas contract are several-fold.

Despite this, ACCC Chairman Rod Sims has persistently called for gas producers to ensure new gas contract offers reflect the latest spot market price. Only February 2020 the ACCC noted in a media release that whilst LNG Netback Prices have decreased, domestic prices remained high.[1]

The sustained high gas price between 2017 and 2019, and the collapse thereafter, can be best described not as a result of gas market reform by either state or federal governments, but entirely answerable to the movement in global LNG prices.

Figure 3 depicts the movement of the ACCC's netback price – the price at which it signals the domestic market should bid for new gas contracts – as compared to the Japan-Korea Market LNG price, or the Asian LNG spot price. The correlation is unsurprising, given the netback price is calculated using the delivered price of LNG, net costs.

Figure 3: ACCC netback price compared to Asian LNG price




Source: ACCC, Bluegold research, AWU calculations

[1] https://www.accc.gov.au/media-release/east-coast-gas-prices-appear-too-high-and-future-supply-is-uncertain

In the absence of a surplus of domestic gas supply driven either by a long-standing reservation rate, or an anomalic geopolitical secutiy event that disables export volumes, the eastern seaboard domestic gas price will be driven by the international LNG price.

As such, short or medium term gas reforms that do not reconcile the characteristics of the netback price, or impose greater intervention measures, will fail to deliver an independently low gas price. No other gas reforms will protect the Australian government against the international LNG price over the short or medium term.

## 3. The case for meaningful gas reform

There are many gas reform proposals that are credible and, all other things equal, would place downward pressure on the gas price. These include measures such as reform to reduce pipeline tariffs, increasing gas production in regions where supply is forecast to reduce, and imposing more independent oversight of gas processing infrastructure.

The ambition of these policies must however be matched with an equally realistic comprehension of their delivery dates and subsequent impact on the domestic gas price. In addition, whether they form any protection from a substantial increase in international LNG prices.

Furthermore, so long as the federal government uses the ACCC netback price as a barometer of the desired domestic wholesale gas price, many of these reforms will not achieve any material outcome in the absence of long-standing reservation, or price export controls. This is because the Netback Price takes its estimates from the delivered LNG price, net freight and other delivery costs. It does not account for new domestic gas production, gas supply from an import terminal, or extra gas supply from a west-east gas pipeline. The LNG netback price is only answerable to the international LNG price.

Gas pipeline reform can meaningfully provide a discount to the delivered gas price. However, this outcome is limited to approximately under $1/GJ, as pipeline tariffs only comprise a small proportion of the delivered gas price.

Figure 4 asseses each gas reform option on its efficacy in protecting the domestic gas price from the international LNG price.

Figure 4: the realistic impact of gas reforms

| Gas market reform | Term of measure | Protection from international LNG price |
|---|---|---|
| Gas Price export controls | Short-term | Yes |
| Government or collective market purchase of gas | Short-term | Possibly |
| Gas pipeline reform | Short-term | No |
| Independent oversight of processing infrastructure | Short-term | No |
| Import terminal | Medium-term | No |
| Incentives for junior and mid-cap gas producers | Medium-term | No |
| Use it or lose it | Long-term | No |
| Betaloo Basin production | Long-term | No |
| Gas pipeline infrastructure between NT and QLD/SA | Long-term | No |
| West-east pipeline | Long-term | No |
| Removing mortatoria | Long-term | No |
| Prospective gas reservation rate, coupled with substantial increase in supply | Long-term | Yes |

Source: AWU

## 3.1. Meaningful short-term measures

To delink the international LNG price from the domestic gas price, the government must intercept in the transaction.

### 3.1.1. Export price controls

Export price controls involve using the federal government's regulatory jurisdiction on gas exports to impose restrictions on producers if they do not sell gas to domestic customers at a fair price.

Export price controls will make the gas market temporarily inefficient and require government intervention. However, the rapid deindustrialisation of Australia's economy

requires temporary measures to mitigate the risk imposed by the global LNG price in the short-term. The case for export price controls is best made in conjunction with a long-term reservation policy that relieves the need for stringent government intervention.

In practice, this would involve adjusting the ADGSM to impose sanctions or restrictions on exports based on a test of the average contract offer price as opposed to a supply test.

Step one would involve determining a 'fair price', a subjective yet critical decision that involves balancing the interests of domestic gas users, gas exporters, and the Australian economy. Whilst there are many ways to manage these interests, ultimately the purpose would be to arrive at a gas price that would be needed to help Australia's manufacturing industry survive until longer-term measures achieve the appropriate outcome.

It should be noted that a 'fair price' is essentially a reconfirguation of the Netback Price which, as noted earlier, is inextricably linked to the international LNG price. The ACCC and the federal government expects new gas price offers to equal the Netback Price, and so a 'fair price' would replace the Netback price as the marquee metric, and be inserted into the ADGSM.

It is critical that the 'fair price' include no or limited answerability to the international LNG price. The option to limit the link could involve keeping the 'fair price' answerable to the global LNG price movements and not the price itself.

Step two would involve determining a metric that can be used to assess against that 'fair price'. Given the spot market is not a useful barometer of the gas exchanged for the industrial sector, it is best to use the average price in contracts offered to industrial buyers throughout a period. This is the same way the ACCC determine the prices being offered in the wholesale market.

If the average contract price offer throughout a given time period exceeds the 'fair price', than export controls are enacted.

In summary, the refashioned export controls would be changing the supply-test in the ADGSM to a price-test. The export controls would be reviewed annually and exist only for the period until a federal gas reservation scheme delivers a structural domestic gas surplus.

#### 3.1.2. Government or collective market purchase of gas

The conception of a vehicle to aggregate market power and purchase gas collectively could resolve the domestic market's exposure to the international LNG price in the short term.

The two ways of establishing this vehicle are as follows.
1. Government to trade gas and offer fair prices to domestic wholesale customers
2. A market vehicle to trade gas and offer fair prices to domestic wholesale customers.

In both scenarios, the vehicle would manage the same responsibilities.

The vehicle would purchase gas for the collective market and resell that gas onto domestic wholesale customers at a fair price.

In practice, the government would purchase gas on the downside of the cycle and sell it to domestic wholesale customers at fair rates throughout the upperend of the cycle. The vehicle would be able to offer long-term contracts, however would have to pay a premium to producers to establish those longer-term contracts itself. Conversely, it would also be able to obtain cheaper rates due to its aggregate market purchasing power.

The vehicle would bare the risk of not being able to successfully fulfil delivery of all contracted gas. This includes forecasting gas demand, as well as managing the term lengths of gas contracts.

### 3.2. Meaningful long-term measure

Reserving a surplus of gas supply in the east coast of Australia would drive down the average price of gas and delink it to the international price. This is evident in Western Australia and many other countries around the world.

The federal government has announced its intention to pursue a gas reservation scheme contingent on its ability to estsablish an arrangement with the relevant states. In reality, the federal government could create a gas reservation scheme by using its export controls. This would involve adjusting the conditions that trigger controls from a supply-test to a reservation test, as well as introducing appropriate enforcement measures.

This policy however would only be successful so long as the percentage of domestic supply brought on by new projects eventuates to a domestic gas surplus.

To conceive of a delivery date involves several complex assumptions. For instance, it would require an adequate comprehension of when new projects come online, when they will reach full production and conceiving that there are motives for producers to do so, and many more.

The long-term measure is however critical in achieving a market that can operate efficiently – in the absence of price controls – whilst also delinking the international LNG price with the domestic price.