

The Australian Economy is Unfortified to the Catastrophic Risk of an End of the Commodities and Energy Export Super-Cycle:

Winter is coming for our traditional exports and there are multiple trillions of dollars at risk for our "orchid in the nursery export economy." However, Australia doesn't have to accept this risk.

The macro-economic implications of commodity price volatility and the potential decline in commodity prices are serious for Australia. The shock of exogenous induced volatility in commodity prices is damaging, as evidenced by the current lithium spodumene and hydroxide spot price rout, an end to the super-cycle would significantly destabilize the economy by putting government capacities at risk and harming the overall standard of living for Australians.

Foreign buyers decide the price, volume, currency, and timing of their import procurement. They deeply resent the reliance on essential foreign energy and commodity imports, and these dependent nations work vigorously (by any method) to reduce and ultimately eliminate that reliance. An obvious example is the accelerated "greening" and electrification of China and their phenomenal clean energy spend.

Australian exporters, and indirectly, producers are price takers and as such are completely exposed to forward price uncertainty, volume and price volatility, price index manipulation, bilateral credit risk, political risk and ultimately the politics, policies, and economies of our dominant trading partners. Australian iron ore infrastructure builders have been fortunate to have had strong iron ore prices, but how will agriculture, transitional energy and critical minerals producers navigate the potential volatility of the next decade?

The sword of Damocles hovers over our most extraordinary run of export price and demand prosperity. Over the next decade a simple 50% variance in the weighted average price of our 7 largest commodity and energy exports triggers a minimum \$2.0 trillion dollar revenue differential. In addition, an appreciating Australian dollar (AUD) would substantially add to the havoc.

A greater than 50% AUD variance is highly likely. Since 2015, each of iron ore, thermal coal, wheat, spodumene and LNG have had price variances of over 100%. In the case of iron ore, the price variance has been 550% and coal 800%. Critical minerals have, in the last year, experienced devastating

volatility. Wheat growers have as well an additional basis risk issue as they seek to access premium international bids even in times of rising prices.

One way to mitigate these risks is the creation of a large sovereign wealth fund tasked with protecting the government's ability to maintain public spending in response to adverse changes in commodity prices. When commodity prices are high, the government would set aside some of these 'surplus funds' in an investment vehicle for a time when commodity prices fall. Should commodity prices fall, the government will maintain or increase expenditure, using its sovereign wealth fund to finance its budget deficit.

Another mitigation strategy is to actively promote the long-term development of sustainable and independent domestic revenue generation through government policy levers that align strategically with trading partner demand forecasts.

Using sovereign wealth funds is reactionary and government forecasting is too speculative.

The preferred pathway should be the reliance upon a market based solution involving proactive support and development of appropriate domestic financial market infrastructure. This should make volume and price risk management possible for both private and public entities with energy and commodity export exposure and may if desired be combined with an active overlay of sovereign revenue stabilization measures.

The Mexican government as far back as 1990 understood the sovereign and additional political risk of its nation's exposure to the pricing and volume of its oil exports. Mexico entered the American hedge markets in 1990's to capture the gulf war spike. In 2000 they created the Oil Revenue Stabilization Fund which led to the budgetary income stabilization fund (FEIP)¹. Since then, they have operated a continuous and successful income and volatility stabilization hedge program.

The Australian Government Treasury is, for budgetary purposes, hyper focused on forward price assessments for our major exports of iron ore, metallurgical coal, thermal coal, LNG and most recently critical minerals, with 12 changes in assumptions since 2017. In October 2022, a modest two quarter change (<10%) in assumption for the above exports triggered a \$22 billion budget variance. Treasury planned that the updated assumptions would "reduce the likelihood and magnitude of nominal GDP and revenue upgrades in future budget updates" and is evidence that forward price risk is clearly recognised by government.

Given the implications for both state and federal budgets, it begs the question as to why there is no policy focusing on revenue maximization and volatility stabilization for our commodity and energy exports. For the last decade, the federal and state treasuries underestimation of forward commodity prices has resulted in positive budget surprises because commodity prices have generally risen. The current policy seems to be 'hopes and prayers' for the continuation of sustained higher demand volumes and prices, leading to random potential budgetary outcomes.

Where is the big frontier thinking? What is the 10-20 year plan? Mexico had the courage to confront the price and volatility uncertainty seeking a market based solution, albeit using American hedge markets and the associated price maker spreads.

With properly functioning, transparent, fair, and orderly forward energy, commodity and environmental markets, Australia could not only reduce the guesswork for state and federal budgetary decisions, but also flatten volatility, create hedgeable forward curves, eliminate bilateral risk, reduce the potential for foreign price manipulation, and improve information for both government and private sector planning and infrastructure purposes.

¹ See J. Duclaud and G. Garcia (2012), 'Mexicos Oil Price Hedging Program', in R. Arezki, C. Pattillo, M. Quintyn, and M. Zhu, eds., Commodity Price Volatility and Inclusive Growth in Low-Income Countries, (Washington D.C.: International Monetary Fund).

Only last quarter Queensland Bowen Coking Coal was forced into a "strategic review" due to what they said was the "current pricing environment" for coal. In defending a scoping study, Chalice managing director Alex Dorsch was repeatedly asked about forward commodity price assumptions but told investors it was hard to know where they would be in 2029. Queensland state budget papers forecast PCI dropping from US\$310 in 2022 to a forecast now of US\$149. Presently Australian lithium producers are reviewing the viability of building important infrastructure. In early January ASX listed Core Lithium stopped mining and has warned of a write-down on the value of its assets as the volatility in lithium spot prices continues to negatively impact Australian producers.

This Evidences how reliant Australia is on a forecasting dice roll when it comes to funding large important commodities, critical minerals, and energy infrastructure, including energy transition projects seeking support funding. It's a mess.

What if Australia was able to utilise a market based solution with domestic AUD denominated tradeable liquid cleared forward markets for key export commodities? Queensland is doing an extraordinary job of becoming the energy Texas of Australia with the potential to be a giant in the ASIA region, exporting both traditional and renewable energy. Western Australia is a world leading producer of critical minerals, wheat, iron ore and gas. What could QLD and WA be if, alongside capacity growth, they had access to a 5-year hedgeable sophisticated forward hedge market, absent of bilateral risk and were, if desired, able to execute Mexican style revenue support and stabilization?

Queensland has a progressive royalty capture scheme but how much more efficient could it be if they were able to manage and hedge these potential revenue receipts? Even the simple purchase of put options when the coal price exceeds \$300 would lock in the certainty of the revenue, flatten volatility, and improve predictability of budgetary receipts. There is little value in building gigantic energy capacity without the financial market infrastructure to maximize and stabilize return on investment, flatten volatility, and avoid industry wide stop-start mentality caused by the forward price assumption casino. Imagine the improvement in government and private sector planning that could be derived from hedgeable forward price transparency.

Energy transition planning too relies on reliable transparent forward price signals with predictability of price and volatility. Also, critically important for Australia, carbon forward price signals need to be transparent, fair, and orderly and transacted on licensed and supervised marketplaces.

Let's do a 'Mexico'" and have policy for commodity and energy revenue capture stabilization. Better still let's stop outsourcing our export pricing to and do a 'Singapore' by developing our own Australian commodity and energy financial market infrastructure and reemerging as a major Asia Pacific energy financial center.

Start first with a market based solution and if desirable, complemented by selective sovereign financial market hedging.

(Yes, I understand that Mexico nationalized its oil infrastructure however the correlation between energy and commodity export receipts and Australia government revenue and overall GDP mirrors the same risk profile).

End

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