

Introduction Australia's Systemic Risk from Greenhouse Gas Emissions

The Australian Government permits entities to operate in Australia, such as producers of coal and gas, whose products when used emit greenhouse gases. Australia and these entities are aware most of the greenhouse gas emissions from these products end up in our common global atmosphere regardless of where the emissions occur. Both Australia and these entities profit from this activity and create a future contingent liability and systemic risk for Australia from the effects of global climate change.

The Australian contingent liability systemic risk is of the order of 5%ⁱ global emissions, not just the 1.4% of our National Greenhouse Gas Inventory (NGGI). IPCCⁱⁱ has estimated the cost of global climate change emissions by 2100 is US\$551 trillion, or around US\$27 trillion for Australia's contribution. This is about sixteen times our current GDP. If however the global warming was limited to 2 degrees C by 2100, the world-wide economic cost would be reduced to US\$69 trillion, and Australia's prorata contribution would be US\$3.5 trillion or about twice Australian GDP in 2022.

The Systemic Risk Affects the Global Climate

The Australian Government has already alluded to this systemic risk in this consultation paper, and a Treasury statementⁱⁱⁱ notes:

"Achieving Australia's emissions reduction commitments and realising the opportunities that accompany the transition will require significant investment by governments and the private sector. Uncertainty around the magnitude and timing of the physical impact of climate change and the global transition to net zero emissions translates to uncertainty about the fiscal impacts of climate change. And, as a consequence, there is uncertainty about whether the fiscal impacts of climate change may affect (if at all) the value of Commonwealth Government Securities."

Australia physically "un-sequesters" both coal and gas for the purpose of its own use, and for export. In both cases the emissions from the use of these products predominantly end up in our common global atmosphere, no matter where the products are used globally. The emissions diffuse throughout our global atmosphere in around eighteen months, meaning we get the global warming effects of our own exports increasing our own climate change problems as well as everyone else's. Described by some as getting our own emissions back, but in reality, the entire globe suffers from them.

Quantification of the Systemic Risk

Australia has a readily identified responsibility for around 5% of global emissions^{iv}, we mine the goods we export and we profit from the export trade they create. We are clearly responsible for initiating the release of those emissions from a safe and secure sequestered situation.

In terms of quantifying the physical effects of these emissions, they are readily quantifiable by any third-party Government or other entity, from national and international production statistics, they are called scope 3 emissions. The systemic risk to our government and entities is an extreme

contingent liability for these actions. This is also an extreme fiscal systemic risk to financial instruments such as government bonds. Our current finance strategy is one of extreme risk which in turn places our high credit rating at risk, and our bond and all other markets too.

The liability is clear and the consequences, both physically, in terms of climate change, and financially. The order of that liability is measurable and quantifiable, two to sixteen times our current annual GDP. Where is the acknowledgement of the risk and the development of an amelioration strategy to manage and control that risk?

Raising Awareness of Systemic Risk

One way of increasing the visibility of this extreme risk would be to require any entity exporting a product, such as coal or gas, capable of producing greenhouse gases, to publicly report their product's scope 3 emissions. This could be done through the existing National Greenhouse and Energy Reporting Scheme (NGERS). It is important this contingent liability is urgently expressed, as several entities producing coal and gas, eg Whitehaven and Santos amongst others are overtly looking to increase their production of exports of coal or gas, in some cases doubling or more their production.

In terms of the future financial contingent liability from the climate change effects and damage from the products and who holds that future liability, this would be a matter for the product producing entity and ultimately, as the insurers of last resort, the Australian and State Governments.

Discussions about the use of Carbon Border Adjustment Mechanism (CBAM) and how they can be used to provide revenue to other countries, who wish to reduce their own emissions and set an import tax on our exported products. They work through looking at embodied carbon in their imports. It is not a large step to start attributing adjustment mechanisms to covering products such as coal and gas as a further revenue raiser, for the importing country.

Australia regards itself as a model country in trade matters, after all trade is a major source of its GDP, and it has a good reputation with many trade counter parties. But how can it claim to be a model country, while we are increasing our production of greenhouse gases via coal and gas exports. Actions to double production being supported tacitly by the Australian Government by coal producers might well erode that model country image. Though increased exports might enhance our national accounts in the short term, in the long term they may become future cost liabilities, as climate change effects become more threatening to all parties.

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ENDNOTES

ⁱ Evaluating the significance of Australia's global fossil fuel carbon footprint, Climate Analytics, July 2019 p21

ⁱⁱ IPCC Intergovernmental Panel on Climate Change 2019 SR15 Chapter 3 p264. States that the global economic cost of +1.5 C is USD\$54 trillion and USD\$69 trillion for +2.0 C in 2100 relative to 1961-1990. For +3.7 C, our current trajectory even if promised policies are implemented world-wide, it is estimated as USD\$551 trillion - equivalent to all the wealth in the world.

ⁱⁱⁱ As quoted in the Saturday Paper October 21 2023, p 8, Climate Debt, Katta O'Donnell.

^{iv} A general principle underlying the Paris Agreement is that each person has a right to emit an equal amount of carbon dioxide equivalent emissions. In other words Australia has about 0.3% of the world population and so should contribute around 0.3% of the world emissions. Australia currently contributes nearly 5% of world emissions including its exported products – around sixteen times the global target.