Stranded Fossil Fuel Assets: Recent Published Research Sheds Light

- Research published last month provides a macro look at winners and losers when fossil fuels become stranded, i.e., not worth the walk to lift out of the ground.
- Energy efficiency, cost competitiveness of renewables, and policies designed to limit CO2 emissions combine to increase these strands.
- Projections of macro impacts are fraught with uncertainty, not least of which is the broad appetite for carbon taxes and other policies to limit CO2 emissions, as well as technology diffusion.

In the last weekly briefing which you can find here, the matter of fossil fuel stranded financial assets was discussed in the context of UK pension schemes. In addition to the prospect that investors are shunning financial assets tied to fossil fuels, a new research paper published on Nature.com by Mercure et. al provides some insights about the macroeconomic outcomes associated with stranded “physical” fossil fuel assets (SFFA). In it, the authors conclude that three forces driving SFFA — energy efficiency, cost competitiveness of renewable energy sources, and energy/environmental policies — will produce some important global macroeconomic impacts on GDP growth and employment.

The paper is extensive and deep in its use of macroeconomic models to project the likely impacts of SFFA. It is very complicated and should be viewed as a potential directional trend of likely impacts. The research is challenging to digest and requires a deep knowledge of economics to understand all of the dimensions of this paper. I do not propose an opinion about the modeling results. It is a thoughtful approach to the matter of gains and losses associated with the potential diminishing valuation of fossil fuels.

Some of the key findings are:
- The model simulations suggest that there are winners and losers in the long run: countries like Canada and U.S. lose out as the value of their fossil fuel resources diminishes over time.
- This result is irrespective of proactive climate policies, either at the stance of the Paris Agreement or beyond. What this means is that the forces driving SFFA are likely to have a long term effect of diminishing contributions to GDP growth and employment from the oil and gas industries.
- Net importers, like the EU and China will gain from SFFA, according to these model simulations. This is due to the lower cost of fossil fuels during the transition period when countries reduce their carbon usage.