## Exchange rate movements following shocks in commodities prices.

## Rodrigo Zeidan

For countries in which exports are a sizable fraction of GDP, changes in the relative prices of their exports might result in sudden currency movements. Take the case of Australia and New Zealand. Both are major commodities exporters. Australia, as we have seen in Chapter 3, is one of the world's leading iron ore producers. Interestingly, New Zealand's trade pattern is that of a country that exports commodities and imports manufacturing products, as we can see in Table 1.

Table 1 - New Zealand major exports and imports (HS04), 2016.

Product	Exports (USD billion)	% of exp	Product	Imports (USD billion)	% of imp
Concentrated milk	4.2	12.0%	Cars	3.3	9.3%
Sheep meat	1.9	5.5%	Crude oil	1.6	4.5%
Rough wood	1.8	5.3%	Refined oil	1.2	3.2%
Bovine meat	1.8	5.0%	Delivery trucks	1.1	3.0%
Butter	1.7	5.0%	Computers	0.9	2.5%

Source: The Observatory of Economic Complexity

Australia shares the same pattern as New Zealand. Other than iron ore (USD 30.7 billion or 20% of total exports), the country's major exports are coal, gold and petroleum gas (USD30.7 billion, USD 20.5 billion, and USD 14.2 billion, respectively), while the largest imports are cars, refined petroleum, computer and packaged medicaments (USD 16.6 billion, USD 10.7 billion, USD 6.1 billion and USD 5.6 billion, respectively).

Commodities prices are more volatile than those of industrial goods. One consequence is the impact on exchange-rate volatility. If commodities prices change quickly, then local currencies may fluctuate rapidly as well. In 2015, for instance, a quick drop in dairy prices led to a devaluation of the New Zealand Dollar: "The NZD fell to a fresh five-year low after whole milk powder, the country's key commodity export, dropped more than expected in the GlobalDairyTrade auction overnight. The kiwi touched 65.81 US cents, and was trading at 65.92 cents at 8am in Wellington, from 67.05 cents at 5pm yesterday (NZHerald, 2015)."

Export and import prices influence the trajectory of currencies over time. The commodities supercycle, as described in Chapter 4, is an extreme example of this. The rapid rise in demand for natural resources tied to Chinese economic growth made the currency of some Latin American and Asian-Pacific countries appreciate considerably. In January 2000, one AUD was worth USD 0.65. As Chinese growth picked up, the AUD climbed to 0.76 by 2005 and passed 0.9 in the early 2008. The financial crisis, with its flight to safety, made the AUD recede back to 0.65. As Chinese growth rebounded, the AUD reached parity with the USD in early 2011. Of course, there is no single reason for these exchange-rate movements. But given the importance of Chinese demand for Australian importers, it is no coincidence that the peaks of the AUD come when expectations about the strength of the Chinese economy are at a zenith.

Questions for discussion.

- 1) A major fear among middle-income countries is deindustrialization. Countries fear that losing export sophistication may pare back economic growth. Ortiz-Ospina and Lippolis (2017) describe the evolution of the industrial share of GDP in many countries. Rodrik (2016) summarize the main drivers of deindustrialization as technological advancements and international trade. Choose one emerging country and describe how industrialization played a role in the country's development. Is there any indication that deindustrialization is happening in the country you selected?
- 2) Australia and New Zealand have many industries but most of their exports come from primary goods. According to our version of the Solow model, is it possible for a country to develop while maintaining a strong export base related to natural resources? Explain your reasoning.
- 3) For an emerging country that you chose, describe the path of its currency from 2005-2018. Identify the periods in which the country's currency was particularly strong or weak, and analyze the main reasons for those patterns.
- 4) The resource curse theory in development relates abundance in natural resources to growth underperformance (Mehlun et al, 2006). One mechanism for this relationship is how an emerging country's natural resource exports pressure the currency to appreciate, displacing other industries. Countries would be able to grow more if their currencies were not constantly strong. Mehlun et al (2006) argue that this obstacle to growth would only happen in the case of bad institutions diverting export-related income towards the elite, while more resources would raise income when institutions are producer friendly. Do you think that the resource curse theory explains the poor performance of economies such as Zambia, Sierra Leone, Angola, Saudi Arabia and Venezuela? Explain your reasoning.

## References:

Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. The economic journal, 116(508), 1-20.

NZHerald (2015) NZ dollar falls to fresh five-year low after dairy prices drop at auction, available at: <a href="https://www.nzherald.co.nz/business/news/article.cfm?c">https://www.nzherald.co.nz/business/news/article.cfm?c</a> id=3&objectid=11481860

Ortiz-Ospina, E. and Lippolis, N. (2017) Are emerging economies deindustrializing too quickly? Ourworldindata, available at: <a href="https://ourworldindata.org/growth-and-structural-transformation-are-emerging-economies-industrializing-too-quickly">https://ourworldindata.org/growth-and-structural-transformation-are-emerging-economies-industrializing-too-quickly</a>

Rodrik, D. (2016). "Premature Deindustrialization". Journal of Economic Growth, 21(1), 1-33.