

Discussion of “Commodity Shocks with Diverse Impacts: How Can Different Central Banks Tailor Their Policies?” by Drechsel, McLeay, Tenreyro, and Turri

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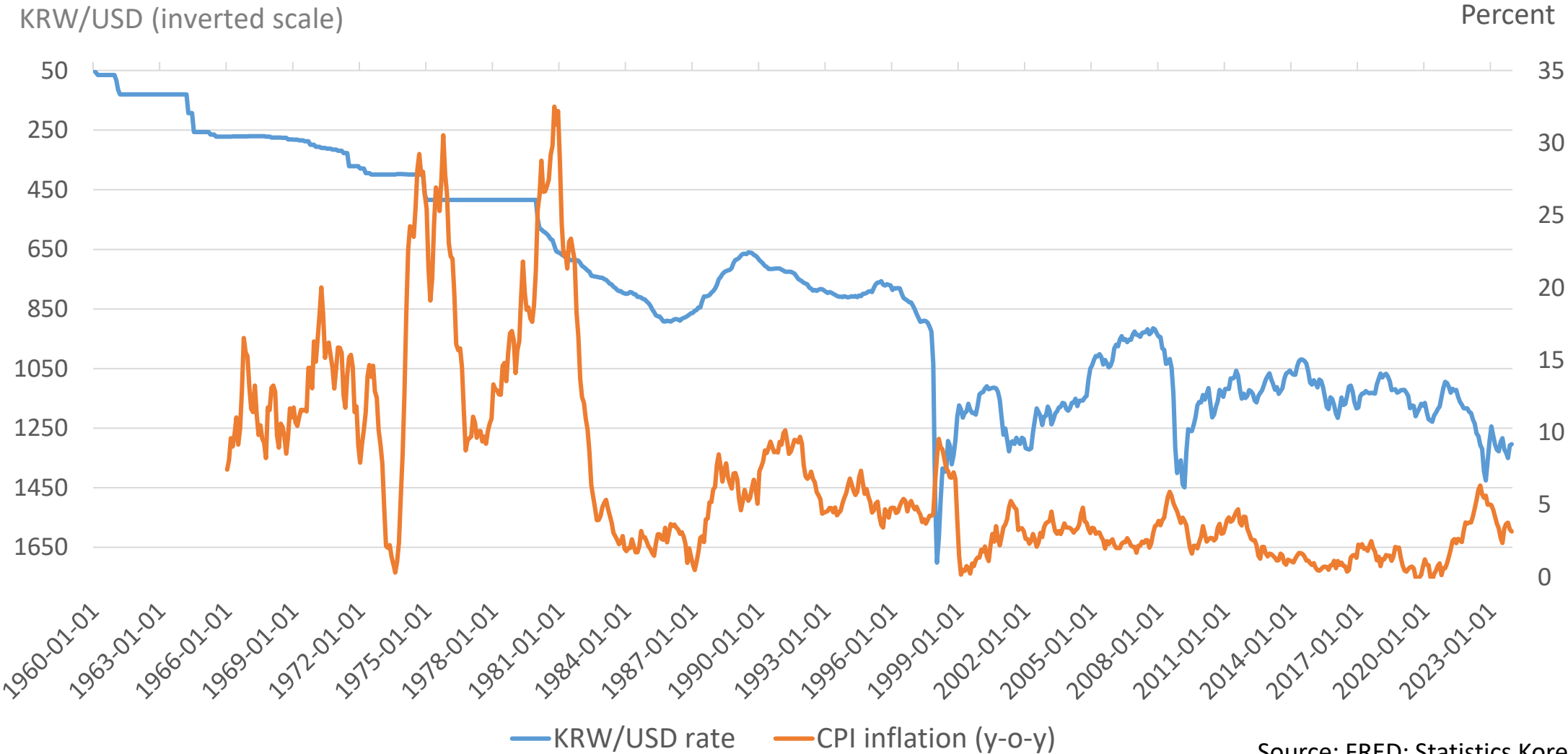
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Context of the paper

- A country that pegs its exchange rate cannot pursue a second nominal target (such as domestic price stability) with capital mobility
- Some have questioned how costly a peg is, in practice, in terms of other goals (notably price and output volatility, or financial stability)
- Many more diversified emerging markets have revealed a preference for more exchange rate flexibility and more open capital markets
- But some commodity exporters, e.g. the GCC, have longstanding pegs
- Drechsel et al. consider the macro performance of pegs versus inflation targeting for a small open economy in the presence of flexible-price commodities subject to price shocks
- Bottom line: Interest-rate independence generally has value

Korea: Floating with inflation targeting post-'98



Source: FRED; Statistics Korea

Structure of the model: Production

- Differentiated home consumption/production good i : $Y_h(i) = A(i)L(i)^{1-\mu}X(i)^\mu$, where X is an imported commodity
- Prices are sticky in Calvo mode, and this good can be exported
- Exported commodity requires the composite home good: $Y_c = A_c M_h^\gamma$
- Prices of the two commodities are flexible and determined in world markets, subject to law of one price
- Domestic consumers' foreign-goods sub-utility depends on imported commodities and non-commodities, invoiced in foreign currency
- So exchange rates and commodity import prices affect the CPI

Structure of the model: Financial markets

- Residents hold a nontraded domestic currency bond paying a nominal interest rate that is also the policy instrument of the central bank (unless the exchange rate is pegged)
- There is trade in a foreign-currency bond – the vehicle for international borrowing and lending
- For an emerging market, the foreign-currency interest rate it faces includes a risk premium that depends on its net external position and the two commodities' prices foreign-currency prices
- One welfare implication: emerging markets over-borrow

Four economies, two (transitory) shocks, three policy regimes (peg, π_{CPI} target, π_{GDP} target)

- Case 1: Advanced commodity exporter, increase in export price
- Case 2: Emerging commodity exporter, increase in export price
- Case 3: Advanced commodity importer, increase in import price
- Case 4: Developing commodity importer, increase in import price

Commodity exporters

- A rise in the price of the export commodity means more of the domestic composite good is produced to raise commodity exports, but less is available for consumption
- With inflation targeting regimes, currency appreciation switches demand toward foreign imports, limiting domestic inflation
- Under a peg, however, domestic inflation has to accomplish this and output is more pro-cyclical
- For emerging markets, pro-cyclicity is potentially higher owing to a fall in the external risk premium and looser financial conditions
- The peg prevents monetary policy from offsetting this

Commodity importers

- A rise in the price of the import commodity is effectively a negative supply shock for production of domestic goods – as well as making imports more expensive at a given exchange rate
- Unlike in the case of a negative demand shock for domestic goods, the currency appreciates if flexible, and this limits inflation
- For an emerging economy, the rise in the risk premium is associated with a weaker currency, a higher inflation rate, and a bigger deviation of output from the efficient level
- This makes the peg relatively more attractive in this case

Comments 1

- Authors assume exchange rate pegs are credible – this is unlikely to be the case for most emerging markets, or even advanced ones
- How do GCC countries peg, and why? (See Mazarai 2024)
 - Ample reserves
 - Limited monetary transmission of policy interest rates
 - Flexible labor forces – marginal adjustment through expatriate workers
 - Economies still not diversified
 - Ample government resources allow fiscal policy responses to shocks
- Credibility of the peg could rest on a similar risk premium argument to the paper's
- This would affect volatility under the peg – domestic and foreign interest rates could diverge

Comments 2

- Commodity-price shocks do not happen in a vacuum
- They often are driven by US monetary shocks or dollar shocks (Miranda-Agrippino and Rey 2020; Obstfeld and Zhou 2022)
- The assumption that domestic-currency bonds are not traded is restrictive
- In reality emerging governments have increasingly borrowed in domestic currency
- This makes another argument for flexibility: a contractionary US monetary shock raises the risk premium on emerging government debt, but a spot currency depreciation can somewhat offset the contractionary effects (Kalemli-Özcan 2019)

Summary

- Nice paper employing a simple model to illustrate the effects of commodity price shocks on the choice of monetary regime
- Inflation targeting and flexible exchange rates do quite well, supporting the choices of many emerging markets
- The following alternative title might be a good summary: **Commodity Shocks with Diverse Impacts: How Can Different Central Banks Taylor Their Policies?**