Discussion of Bianchi - Coulibaly

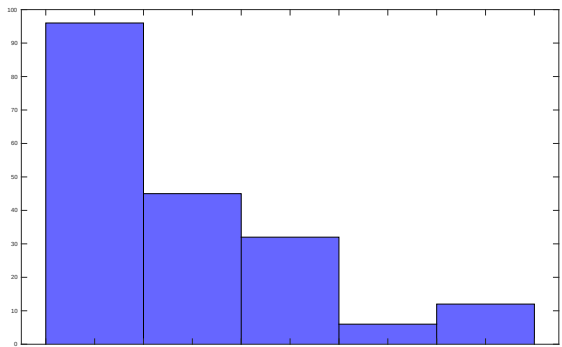
November 28, 2022

Background

- Since the demise of Bretton-Woods, the world supposedly moved on to a floating exchange rate regime.
- But, in practice central banks intervene to keep the exchange rate from moving too much.
  - It thus appears that there is a 'Fear of Floating'
- Bianchi - Coulibaly: fear of floating reflects fears about non-fundamental volatility due to financial frictions that would emerge if floating actually occurred.
- I want to sketch an alternative interpretation (which may not be so different from B-C at a deeper level).

Lots of Fixed Exchange Rates

Figure: #1: fixed; #2: crawling peg; #3: crawling band/managed floating; #4-5: floating



Source: Ilzetzki, Reinhart, Rogoff, 2016, 'Exchange Rate Arrangements Entering the 21^{st} Century: Which Anchor Will Hold?'

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  - A survey by Mihaljek (2005) polled central bankers who do FX intervention
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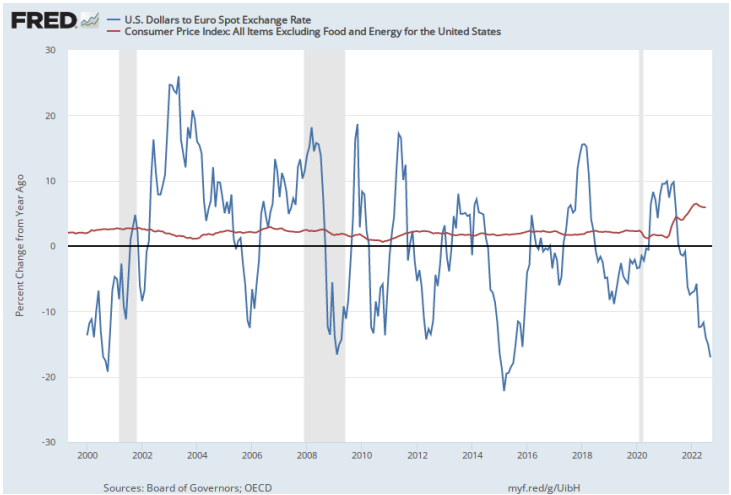
  - Montera and Ortiz (2016,2021) articulate this idea in a formal model (the model is similar to Itskhoki and Muhkin (2021)).

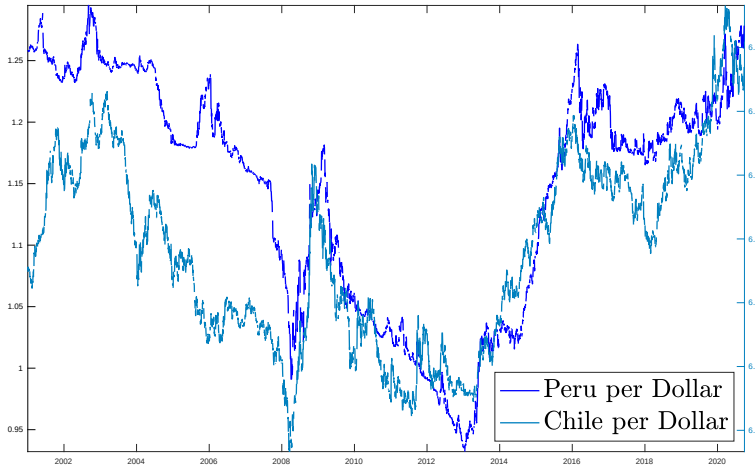
Dollar-Euro Rate Floats a Lot (Y over Y)



Comparison of Chilean Peso and Peruvian Soles

- At low frequencies, both currencies appear to float.
- There is a (small) difference at high frequencies, especially early in the sample.
  - Monteros and Ortiz (2016) interpret this difference as reflecting that the Chilean central bank did relatively little FX intervention.

Both Currencies are Somewhat Volatile at Lower Frequencies



Roughly 30 percent depreciation in Soles, 2014 to early 2016. Soles is 'Crawling Peg' and Peso is 'Crawling band'.

Back-of-the-Envelope Sketch of B-C's Analysis

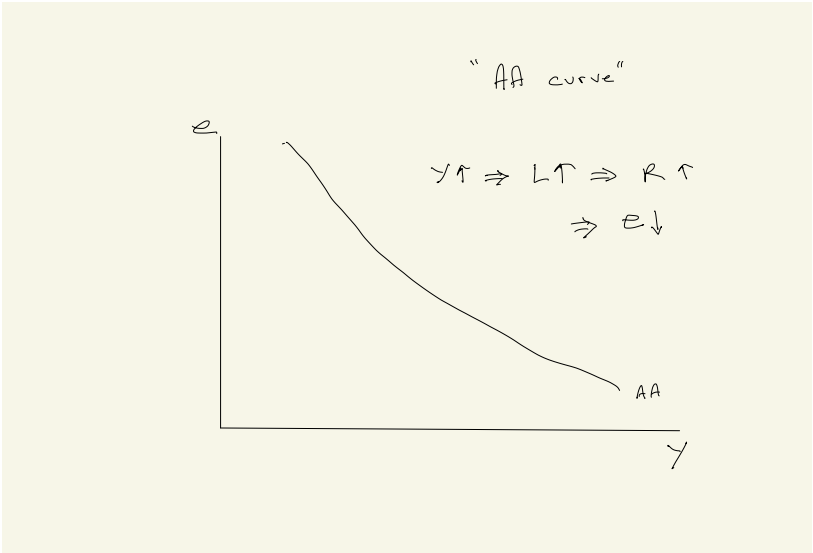
- I risk grossly oversimplifying B-C's analysis.
- I want to compare the position in their paper with what I think is a more conventional narrative about fixed versus floating exchange rates
  - something more like the narrative articulated by the Ortiz and Montero model.
  - IMF's "Integrated Policy Framework".
- Krugman and Obstfeld's simple, back-of-the-envelope small open economy model:
  - financial markets and goods markets.

Financial Markets

- International financial markets summarized by: $R = R^* + \frac{e^e - e}{e} + \rho$
  - I treat e^e, ρ and R^* as exogenous.
- Domestic money markets summarized by: $M/P = L\left(\underbrace{R}_{-}, \underbrace{Y}_{+}\right)$.
  - I treat P as exogenous.
- Three endogenous variables: R, e, Y.
- M is set by monetary policy (policy can also influence ρ, because of market segmentation, but I suppress this here).
  - 'Floating exchange rate regime': fix M.
  - 'Fixed exchange rate regime': adjust M so that e remains constant when one or all exogenous variables shift.

Financial Markets

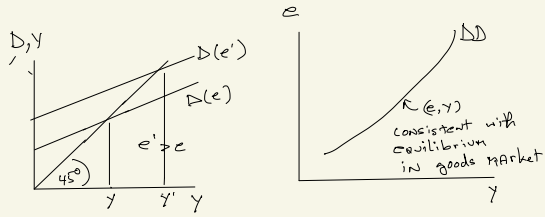
- Combining the two markets, we obain:



Goods Markets

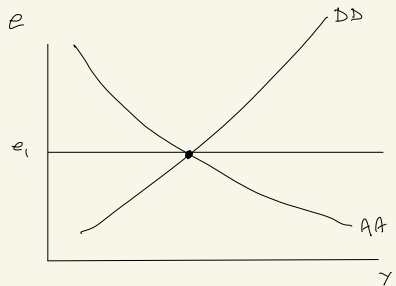
- Goods markets are in equilibrium when the quantity of goods produced, Y, is equal to demand:

$$D = C(Y - T) + I + G + NX\left(\underbrace{\frac{eP^*}{P}}_{+}, Y - T\right)$$

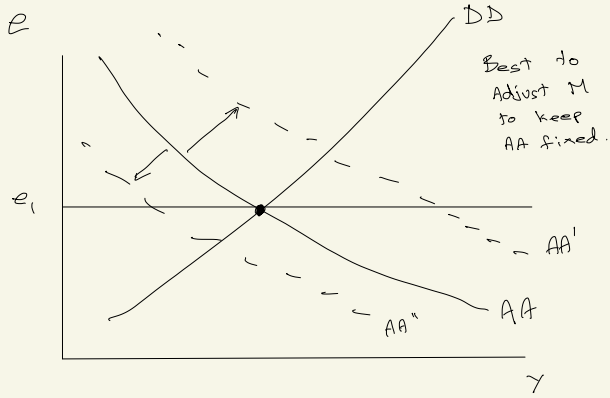


Equilibrium

- If you want to stabilize output, then
  - you want to fix the exchange rate if the shocks are in the AA curve
  - let the exchange rate float if shocks are in DD curve.



Financial Market Shocks



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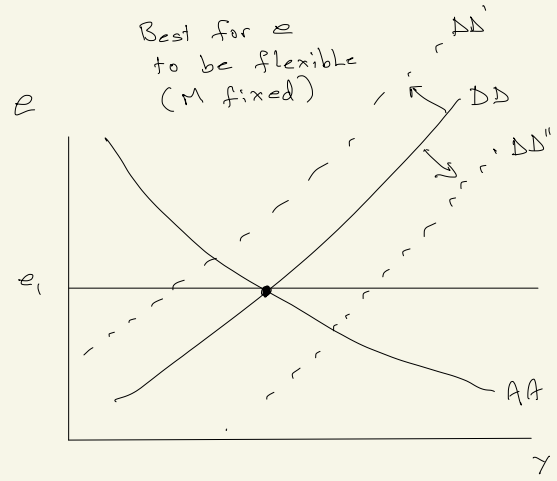
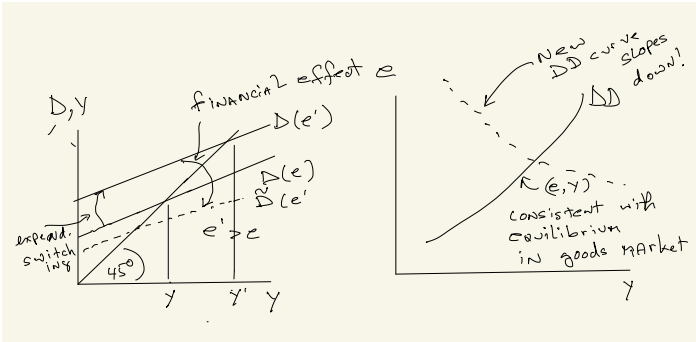


Conventional Story

- Financial shocks operate at high frequency: hours or days.
  - Feasible and desirable to clip the blips in the exchange rate due to these shocks.
  - These types of shocks are informally thought to be important in EME's because their FX markets are thin.
- Goods market shocks operate over months, quarters.
  - No point reacting to those shocks by fixing the exchange rate, since that only exacerbates goods market shocks.

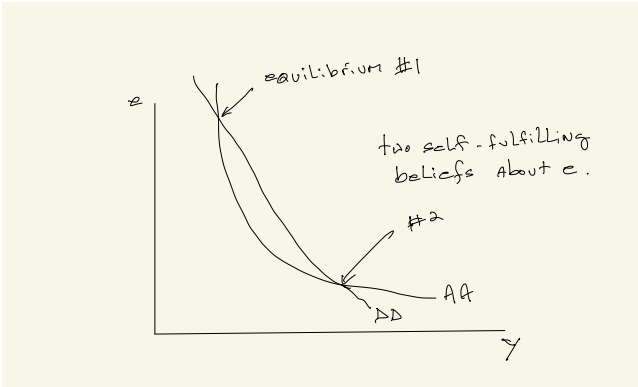
B-C Story

- In the simple model above, effect of e operates on goods market only via expenditure switching channel.
- B-C suggest a second channel, a financial channel, by which e can affect goods demand.
  - When the exchange rate depreciates, domestic demand for goods by agents who need to borrow dollars is reduced.
  - If this channel is strong enough then the net effect of a rise in e could be to *reduce* D.



B-C Story

- Putting in the new *DD* curve, we see that it's possible to have two or more equilibria.
  - Both are self fulfilling ("if everyone thinks e will be high, then borrowing is reduced, reducing spending, which leads to low output and a low interest rate in the money market, which in turn causes e to be appreciated").
  - Presumably could construct stochastic equilibria with sunspots.



B-C Story and Conclusion

- B-C conclude that a sunspot equilibrium is likely to reduce welfare and it would be preferable to simply fix the exchange rate.
  - Explanation for 'Fear of Floating'.
- Multiplicities like this appear frequently in sticky price/wage models.
  - Often multiplicity is eliminated by the requirement that for an equilibrium to be robust, it must be locally learnable.
- Local dynamics around the two equilibria are opposite (as in the Laffer curve).
  - Is this a feature of the B-C model?
  - If so, is this a desirable feature?
- Is there a compelling reason to think that these potential multiplicities exist?
  - Do the rich floaters exhibit multiplicity?