## Open Economy Macro: Problem set 2

March 17, 2019

1. Find recent bid-ask quotes on the dollar rates for Euro andYen, and also find the cross rate between Euro and Yen. Suppose you sell $\$ 1$ and buy Euros, then you sell the proceeds to buy Yen, and finally you sell the proceeds of that sale to buy back dollars. Do you end up with more or less than the $\$ 1$ you started out with?
2. Economists would expect the rate of return in Ex1 to be quite small. Explain why? (Hint: think what would happen if there were a big return?)
3. 

|  | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: |
| US\$ | 1 | 1 | 1 | 1 |
| YEN | 116.05 | 130.2 | 113.3 | 102.31 |
| NA Rupiah | 2363 | 5535 | 8005 | 7050 |

4. Refer to the above table. a) Suppose you are manager of an Indonesian company that borrowed the equivalent of US $\$ 1,000,000$ in Yen from a Japanese bank at the beginning of 2006. That amount is immediately converted into Rupiah for operations in your Indonesian factory. How much Rupiah do you now have for operations? b) If you were to pay back the Japanese bank at the beginning of 2007, how much Rupiah does you company have to pay for the full principal borrowed in 2007? What about in 2008? And in 2009? c) If you were manager of an Indonesian company that exported goods to America, how would these exchange rate movements have abected the dollar sales price of your goods?
5. Suppose that during the period 2006-2009 the annual rate of consumer price in $\ddagger$ ation in Japan was zero and in the USA and Indonesia, resp., 1\%, $1.5 \%, 3 \%$ and $0 \%$ and $5 \%, 7 \%, 10 \%$ and $5 \%$. Assume further the price level in the US, Japan and Indonesia in 2005 was, resp., 110, 104 and 140. (This means that relative to the base 2000, for example, consumer prices in the US, Japan and Indonesia were 10, 4 and 40 percent higher in 2005).Take US as the home country and use the above table to compute the 2005-09 real exchange rate of the US \$ relative to JPN Yen and Indonesian Rupiah assuming that relative to 2006 the nominal USD exchange rate in 2005 was $5 \%$ weaker against both the Yen and Rupiah. Compute also the change in the US real exchange rates vis-á-vis the Yen and Rupiah during the time period 2006-09.

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