SIMON FRASER UNIVERSITY Department of Economics

Econ 345 International Finance Prof. Kasa Spring 2016

PROBLEM SET 2 - Due March 17 (SOLUTIONS)

1. (25 points). In the previous problem set you read an article describing the recent loss of foreign exchange reserves in China. Use the DD-AA model to explain why anticipations of higher US interest rates might have contributed to this. How will this loss of foreign exchange reserves affect Chinese output and employment? Why might China want to 'sterilize' its loss of foreign exchange reserves? How would it do so? How could you tell if it was? What information would you look at?

Higher US interest rates shifts the AA curve to the left in the USA. There is pressure for the RMB to depreciate against the dollar. To prevent this, the Bank of China must sell fx reserves, which shifts China's AA curve left. This will slowdown growth in China. To prevent this, the Chinese authorities can 'sterilize' the loss of fx reserves by buying domestic assets at the same time they are selling US assets. In theory, by reducing the public's holding of RMB assets, this could reduce the risk premium on RMB assets, which could allow China to maintain a lower interest rate than in the USA, while keeping the exchange rate pegged. To detect whether the Bank of China is sterilizing its loss of fx reserves, we just need to look at the asset side of its balance sheet. If its holdings of domestic assets rise roughly in proportion to its loss of fx reserves (when expressed in common currency terms, of course), then this would be a signal that they are sterilizing.

2. (25 points). Suppose Donald Trump gets elected. Nobody knows what this would mean. For the sake of argument, let's suppose that given the uncertainty, it increases the 'risk premium' on US dollar assets. Use the DD-AA model to describe the effects of an increased US dollar risk premium on the US economy. How would this affect Canada?

This question is a little vague and a little tricky, so be generous with the partial credit. Any reasonable story that makes sense is ok. I'm just looking for internal consistency. Anyway, if we think of the 'Trump effect' as an increased risk premium then this obviously raises USA interest rates. The mechanism can be visualized as an increased demand for money/liquidity, which raises the US interest rate. Normally, higher US (real) interest rates would appreciate the dollar, but if the increase reflects a dollar risk premium, there may be little or no (direct) effect on the value of the dollar. In the fx market equilibrium graph, we would have the vertical R line shift right (due to higher interest rates), but at the same time, the $R^* + (E^e - E)/E + \rho$ line shifts up, since the dollar risk premium, ρ , increases. In terms of the DD-AA graph, increased money demand and a higher R would normally shift the AA curve left, but now with an increased risk premium, there should be little effect on the AA curve. However, higher interest rates will certainly depress spending, which would shift the US DD curve left. The likely outcome would then be a depreciated dollar, and a decline in US output. Both these outcomes would be bad for Canada.