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Department of Economics

Econ 345 | Prof. Kasa
International Finance | Spring 2017

FINAL EXAM
(Solutions)

Questions 1-5. Answer True, False, or Uncertain. Briefly explain your answer. No credit without explanation (8 points each).

1. If the USA taxes imports from China, the US dollar will appreciate.

   TRUE. *A tax on Chinese goods will shift demand toward US goods, which shifts out the DD curve. Assuming the Marshall-Lerner condition holds, this will appreciate the US dollar, and increase US output (in the short-run). Of course, whether the dollar appreciates against the RMB depends on Chinese monetary policy. If they maintain their peg to the dollar, they would have to raise interest rates too, which they may not want to do. Even if they do, the US dollar would still appreciate against other currencies. (They do not need to talk about China's response for full credit).*

2. The Trilemma of International Finance does not apply to China, since China has both a fixed exchange rate and an independent monetary policy.

   FALSE. *The only way China maintains a fixed exchange rate and independent monetary policy is by imposing capital controls. These controls have discouraged the use of the RMB in international transactions.*

3. If Canada adopted the US dollar, its output would be more stable.

   UNCERTAIN. *Adopting the US dollar would be an extreme form of fixing the exchange rate. Fixed rates/common currency would produce more stability if most shocks in Canada are in the financial markets (AA curve shocks), but would actually produce greater instability if most shocks are in the goods markets (DD curve shocks).*

4. The IMF should not bail out countries that have currency crises.

   UNCERTAIN. *The IMF should not bail out countries that have crises because of inconsistent macroeconomic policies (first-generation model). However, if a particular crisis seems driven by a self-fulfilling loss of confidence, and a sudden switch to an undesirable equilibrium, then an argument can be made that a bailout is justified (second-generation model). Of course, even the second-generation argument is subject to moral hazard qualifications.*

5. The Euro would work better if labor were more mobile within Europe.

   TRUE. *If labor were more mobile within Europe, then people living in countries experiencing demand shortfalls and unemployment due to an overvalued exchange rate (eg, Greece), could move to countries experiencing high demand and tight labor markets due to an undervalued exchange rate (eg, Germany).*

   The following questions are short answer. 30 points each.

6. The Canadian dollar is sometimes described as a 'commodity currency', since its value is so highly correlated with oil prices. Use the DD-AA model to explain why this is. Why does the Canadian dollar appreciate when oil prices rise? Use the DD-AA model to explain why oil price fluctuations confront the Bank of Canada with a trade-off between stabilizing output and stabilizing the the exchange rate.

   Oil is a major export good for Canada. When the world demand for oil increases and oil prices rise, this shifts out Canada's DD curve (ie, an increase in net exports). This causes Canada's exchange rate to appreciate, and Canada's output to increase. Conversely, when alternative oil supplies are discovered in other countries, this reduces the demand for Canada's oil, which shifts its DD curve to the left, which causes the Canadian dollar to depreciate and output to fall. (This has been the more relevant case recently).

   A shift in the DD curve creates a policy trade-off for the Bank of Canada. Remember, BOC policy shifts the AA curve. Suppose, as in the past couple of years, the DD curve shifts left, which causes the C$ to depreciate, and output to decline (or grow more slowly). If the BOC tries to keep the C$ from depreciating, it must raise interest rates and reduce the money supply, and shift the AA curve to the left. But notice this exacerbates the decline in output. On the other hand, if it tries to stimulate the economy in response to the loss of net exports, then it must lower rates and shift out the AA curve. But then notice this exacerbates the decline in the C$. It cannot simultaneously strengthen the C$ and the level of output.

7. Recently, China's central bank has intervened to support the value of the RMB (ie, limit its depreciation against the US dollar). Explain how it does this. Does this explain why it has been losing foreign exchange reserves? Use the DD-AA model to illustrate the effects on China's economy.

   To support the RMB, China's central bank must <u>sell</u> foreign exchange reserves. In the last year or so, it has sold about $1 <u>trillion</u> dollars out of its reserves! All else equal, this open market sale would shift China's AA curve to the left, and produce downward pressure on China's output.

   Now suppose it 'sterilizes' its intervention. What does this mean? How could you tell whether it has been sterilizing? Again, use the DD-AA model to illustrate the effects of sterilized intervention on China's economy. What are the risks of sterilized intervention?

   If it sterilized its intervention, it would simultaneously <u>buy</u> Chinese government bonds. This open market purchase would offset the sale of fx reserves, and keep China's AA curve from shifting. It would nonetheless prevent China's exchange rate from depreciating because it would reduce the risk premium on RMB assets, by lowing the supply of them in the market. In principle, you could tell whether China was sterilizing by looking at the balance sheet of China's central bank. It would show a simultaneous decline in dollar assets, and a roughly equal increase in RMB assets, with no overall change in the bank's total liabilities. A potential danger from sterilization is that it doesn't really address the fundamental sources of RMB weakness. As the Bank of China continues to lose US dollar reserves, doubts about the future value of the RMB will only increase, and the loss of reserves will accelerate. Eventually, the Bank of China will run out. At that point, it must either let the currency float, or reimpose the capital controls is has been trying to dismantle.