

SIMON FRASER UNIVERSITY  
Department of Economics

Econ 345  
International Finance

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MIDTERM EXAM  
(Solutions)

Questions 1-4. Answer True, False, or Uncertain. Briefly explain your answer. No credit without explanation (10 points each).

1. It is not possible for a country to have both a trade surplus and a current account deficit.

FALSE. *The current account consists of the balance of trade and net factor payments. It is possible that a deficit on net factor income more than offsets a trade surplus, so that the overall current account is in deficit. (In fact, this has commonly been the case in Canada).*

2. Rapid domestic productivity growth causes the domestic currency to appreciate.

UNCERTAIN. *You would expect this to be true if productivity growth is concentrated in a country's tradeable goods industries, and the country is a price-taker in tradeable goods markets. In this case, rapid productivity growth leads to wage increases in tradeable goods industries, which then must be matched by wage and price increases in nontradeable goods industries (since labor is mobile within the country). This is sometimes called the 'Balassa-Samuelson' effect. However, if productivity growth occurs in both sectors, then you might observe a real depreciation, since goods prices must fall to clear the market. In general, the effect on the nominal exchange rate would be ambiguous, as it would depend on money supply/money demand conditions. (See case 4 on pg. 124 of the text).*

*For full credit it is not enough to just say Balassa-Samuelson. They need to briefly explain the economic intuition. However, if they do explain the economic intuition, do not penalize them if they omit explicit reference to Balassa-Samuelson.*

3. Increased government spending 'worsens' the current account (i.e., widens the deficit or reduces a surplus).

UNCERTAIN. *It depends on whether the Marshall-Lerner condition holds. Higher government spending increases demand, raises interest rates, and appreciates the currency. This will crowd out net exports when the Marshall-Lerner condition applies. If it doesn't, then the lower price of imports may actually increase net exports, at least temporarily.*

*More advanced students (e.g, those who have taken Econ 305) may provide other reasons to be doubtful of this claim, having to do with the financing of the increased spending, and on whether the spending increase is perceived to be temporary or permanent. Don't penalize anybody for raising these issues, but what I was looking for was the Keynesian/DD-AA interpretation.*

4. If Canada's annual interest rate is 5% and the U.S. annual interest rate is 2%, then investors must be expecting the Canadian dollar to appreciate by 3% during the next year.

FALSE. *If Canada's interest rate is 5% and the U.S. interest rate is 2%, then all else equal, everyone would want to invest in Canada. By Uncovered Interest Parity, for investors to remain indifferent, it*

must be the case that people expect the Canadian dollar to depreciate by 3%. In this case, the capital loss from holding Canadian dollars is just enough to offset the higher interest rate.

The following questions are short answer. 20 points each.

5. Briefly explain how the concept of exchange rate ‘overshooting’ can help to explain why exchange rates are so volatile. Illustrate how the economy responds over time to a permanent money supply increase. Explain intuitively why overshooting occurs.

*Overshooting is the outcome of 3 factors: (1) The long-run neutrality of money, (2) Rational Expectations, and (3) asset markets that respond more quickly than goods markets. A permanent increase in the money supply drives down interest rates (since the real money supply rises due to slow price level adjustment). A lower interest rate is only consistent with UIP if investors expect (and, with Rational Expectations, these expectations will be correct) the currency to appreciate. However, in the long-run, the currency will be depreciated (long-run money neutrality). The only way to satisfy long-run depreciation with an intervening appreciation is if it immediately overshoots its long run level. For full credit, they should explain this intuition.*

*The plots are straight from the text (see pg. 88).*

6. Recently the Canadian dollar has been appreciating against the U.S. dollar. At the same time, the Canadian economy has been growing somewhat more rapidly than the U.S. economy. Use the DD-AA model to illustrate what has been happening in Canada. Are changes mainly taking place in the goods market or the asset markets? Why do you think this might be happening?

*Clearly, the DD curve must be shifting out relative to the AA curve. For full credit, they must provide the graph. One possible source of an outward shift in DD would be an increase in NX. However, given the sorry state of the U.S. economy, this is not likely to be the dominant source. A more likely source is increase domestic spending, coming about from fiscal stimulus or increased private demand within Canada.*

7. It was recently announced that the U.S. will embark on a policy of ‘quantitative easing’ (i.e., Fed purchases of long-term securities in an effort to reduce long-term interest rates). Use the DD-AA model to illustrate the likely effects of this policy on Canada. (Hint 1: How will the U.S. policy shift the DD and AA curves in Canada? Hint 2: Don’t forget to consider the effects of the policy on the U.S. economy, and how this might in turn affect Canada).

*This was the only challenging question on the exam. There could be many reasonable answers, so please read carefully. The basic idea here is that lower U.S. interest rates shift the Canadian AA curve down and to the left. (They should either explain why this occurs, or use the FX equilibrium graph to show it). By itself, this would suggest that the U.S. policy would be bad for Canada, as it would impede the recovery in Canada (by appreciating the Canadian dollar and reducing Canada’s net exports. However, if the policy turns out to be effective (from the U.S. perspective), and income and spending start to accelerate in the U.S., part of this increased spending would spill over to Canada in the form of increased exports to the U.S.. This would shift out the Canadian DD curve. So on net, the final effect on Canada’s output would depend on whether the AA curve shifts more than the DD curve.*