Pierre-Olivier Gourinchas
Department of Economics
UC Berkeley

Econ182
International Monetary Economics
Fall 2004

Midterm examination

Instructions: This is a 1 hour 30 minute exam with 3 questions worth a total of 90 points (1 point per minute), as indicated at the start of each question. In order to get full credit, you must give a clear, concise, and correct answer, including all necessary explanations and graphs. Calculators, books and notes are not permitted. Good luck!

1. **[20 points, 5 each] True, False, Uncertain**. Explain briefly your answer in a few sentences, and cite the relevant theories, when applicable.
   (a) An increase in domestic output is always associated with a nominal appreciation of the domestic currency;
   (b) Countries like China have the best of both worlds: they simultaneously run large current account surpluses and attract foreign private capital;
   (c) Exchange rate overshooting results from the fundamental instability of foreign exchange markets;
   (d) The financing of the war in Iraq should increase the U.S. current account deficit.

2. [**40 points**] **The 'Dutch Disease'**. In 1979, oil prices rose just when the U.K. was starting to produce and export North Sea Oil in massive amounts. Yet the next few years saw the destruction of much of the U.K.'s traditional manufacturing export base. [Hint: the British pound was floating at the time]

   (a) Using the IS-LM/IEB-RIP framework:

      i. [**5 points**] Using the IS-LM framework, describe the direct effect of an increase in oil prices on aggregate activity and domestic real interest rates; [Hint: think about the effect on aggregate demand here, **not** about the impact of oil prices on domestic inflation]

      ii. [**5 points**] Using the IEB-RIP framework, describe the impact on the real and nominal exchange rate today; [Hint: take into account also the direct effect of the increase in oil prices on the trade balance of the U.K.]

      iii. [**5 points**] Finally, derive the indirect and final effect on output and the real interest rate;

   (b) [**5 points**] What do you conclude should happen to the manufacturing sector in the U.K. [Hint: most manufactured goods are tradable].

   (c) [**7 points**] Suppose you are the chairman of the Bank of England. What, if any, policy action would be appropriate to maintain full employment in the manufacturing sector; Describe how your recommendation would affect output, interest rates, exchange rates and net exports. What problem do you foresee with this policy?

   (d) [**7 points**] Suppose you are Her Majesty's Chancellor of the Exchequer (a fancy name for secretary of Treasury, responsible for fiscal policy); What, if any, policy action would be appropriate to maintain full employment in the manufacturing sector; Describe how your recommendation would affect output, interest rates, exchange rates and net exports.

   (e) [**6 points**] Suppose that you are the current IMF Mission chief to Venezuela. In light of the recent increase in oil prices and taking into account the country's past macroeconomic history as well as what you know about the U.K. experience in the 1980s, what would be your policy recommendation to the Chavez government?

3. [**30 points**] **Current Account Sustainability and Risk Premium.** Brazil's foreign debt to GDP is currently around 60% and its current account deficit is about 7% of GDP. For a developing country like Brazil, the uncovered interest rate parity takes the following form:

   $i = i^* + (E^e - E)/E + RP$

   where RP is a risk premium that international investors require in compensation for the risk of a Brazilian default. i is the nominal interest rate on in Brazil, i^* is the US nominal interest rate and E denotes the Real/dollar exchange rate and E^e denotes the expected future exchange rate.

   (a) [**6 points**] Suppose that foreign investors become suddenly worried about a possible default of the Brazilian government on its international obligations. Explain what happens to the risk premium. Suppose that the Bank of Brazil does not adjust its money supply. Using the two-sided diagram, explain why the Real (the Brazilian currency) needs to depreciate in the very short run.

   (b) [**6 points**] Using the AA-DD diagram, describe what happens to output and the exchange rate. What do you conclude about the ability of the Brazilian economy to adjust to changes in foreign investor sentiment under floating exchange rates.

   (c) [**6 points**] Suppose now that the Bank of Brazil does not want to see the currency depreciate in the short run. Describe the monetary policy that the Bank of Brazil should follow and what will happen to Brazilian interest rates, and using the AA-DD framework, what will happen to output and the exchange rate.

   (d) [**6 points**] Explain how this monetary policy affects Brazil's current account sustainability. What do you conclude about the ability of the Bank of Brazil to prevent the currency from depreciating?

   (e) [**6 points**] In the AA-DD framework, the change in domestic interest rates does not affect aggregate demand. Describe how your answer to question 3c would change in the IEB-RIP framework.