

**Practice Final Examination 1**

Revised: May 5, 2009

You have 100 minutes to complete this exam. Please answer each question in the space provided. You may consult one page of notes and a calculator, but devices capable of wireless transmission are prohibited.

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(Name and Signature)

*Most of these questions come from old exams and may include old data as a result.*

1. *US monetary policy (25 points).* After its April 2007 meeting, the US Federal Open Market Committee stated:

Recent indicators have been mixed. ... Nevertheless, the economy seems likely to continue to expand at a moderate pace over coming quarters. Recent readings on core inflation have been somewhat elevated. Although inflation pressures seem likely to moderate over time, the high level of resource utilization has the potential to sustain those pressures. In these circumstances, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

- (a) Do you agree with the Committee's "predominant policy concern"? Why or why not? (5 points)
- (b) Use the aggregate supply and demand framework to illustrate how the FOMC might think about monetary policy. Consider each of the following questions in turn: (i) How would an increase in the money supply affect output and prices in the short run? (ii) In the long run? (iii) How does the phrase "high level of resource utilization" affect your answer? (15 points)
- (c) If future information suggests higher inflation, what would you expect to happen to interest rates? (5 points)

2. *Prospects for Spain (30 points)*. While much of Europe struggles, Spain has been a continuing economic success, with growth rates well above the EU average. As an analyst in Deutsche Bank's London office, you wonder whether this trend is likely to continue. You look at the data:

	2000	2001	2002	2003	2004	2005	2006
Real GDP Growth	5.0	3.6	2.7	3.0	3.3	3.5	3.9
Population Growth	0.6	1.1	1.2	2.0	2.2	2.3	2.2
TFP Growth	-0.1	-0.4	-0.4	-0.7	-0.5	-1.1	-0.2
Interest rate (3m)	4.1	4.4	3.3	2.3	2.0	2.1	2.8
Inflation	3.4	3.6	3.5	3.0	3.0	3.4	3.5
Investment*	25.9	26.2	26.2	27.1	27.4	28.4	29.1
Saving*	22.3	22.4	23.4	23.9	23.0	22.2	21.8
Budget Balance*	-0.9	-0.5	-0.3	-0.1	-0.2	1.1	1.4
Primary Balance*	2.1	2.2	2.1	2.0	1.7	2.7	2.8
Public Debt*	59.2	55.6	52.5	48.8	46.2	43.1	39.8
Current Account*	-4.0	-3.9	-3.2	-3.5	-5.3	-7.4	-8.8
Net Foreign Assets*	-74.9	-77.1	-92.4	-97.2	-90.1	-86.3	-81.3

Note: Variables marked by \* are ratios to GDP (nominal to nominal).

- (a) What do you see as the likely source(s) of GDP growth over the recent past? (5 points)
  - (b) Does the budget balance concern you? Why or why not? (10 points)
  - (c) The current account deficit is currently one of the largest among developed countries. Does that concern you? Be as specific as possible in your answer. (10 points)
  - (d) What is your overall assessment of the prospects for Spain for the next 2-3 years? Please mention any issues that you think might call for a closer look. (5 points)
3. *Miscellany (50 points)*.
- (a) *Chinese crisis?* An analyst suggested that China may suffer a currency crisis along the lines of Mexico in 1994-95, in which the peso fell sharply when the Banco de Mexico ran out of foreign currency reserves. Give two reasons why this scenario is likely or unlikely. (10 points)
  - (b) *Government deficits.* Can a country run a fiscal (government) deficit forever? Why or why not? (10 points)
  - (c) *Canadian inflation.* In Canada over the last year, inflation has been 2.3% and money growth has been 11.8%. Do you find the difference between the two numbers surprising? Why or why not? (10 points)

- (d) *Leading indicators.* Explain what a leading indicator is and give an example for the US. (10 points)
- (e) *Monetary policy mechanics.* Use the central bank's balance sheet to describe how it maintains the short-term interest rate at a specific level. (10 points)

**Practice Final Examination 2**

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1. *Chinese foreign exchange intervention (30 points).* Joseph Yam, Chief Executive of the Hong Kong Monetary Authority, wrote about the foreign exchange activities of the People's Bank of China (PBC) in January 2007:

The accumulation of foreign exchange reserves involves the PBC buying foreign assets through creating renminbi. As a result, the monetary base is increased, creating a need to “sterilise.” This is done by issuing paper [short-term notes] to the banks. The PBC obviously has to pay interest on the money borrowed. Currently the yield of, for example, three-month paper issued by the PBC is about 2.5%. This is lower than the yield on foreign assets held as reserves — the yield on US treasuries is about 4 to 5% — so theoretically reserve accumulation can be profitable. The problem, however, is the continuing appreciation of the renminbi, which gradually reduces the value of those foreign assets in renminbi terms.

- (a) Use the central bank's balance sheet to show how purchases of foreign currency increase the monetary base (think: supply of currency). (10 points)
- (b) Show how sterilization can be used to reverse the impact on the supply of currency. (10 points)
- (c) You may note that interest rates have now flipped, with Chinese interest rates above US interest rates. What does this imply for the returns on the PBC's balance sheet? How might it avoid this outcome?

2. *Globalization and inflation (20 points)*. Fed Chairman Bernanke said recently (March 2007):

As national markets become increasingly integrated and open, sellers of goods, services, and labor may face more competition and have less market power than in the past. These linkages suggest that, at least in the short run, globalization and trade may affect the course of domestic inflation.

- (a) Use aggregate supply and demand to describe how expansionary monetary policy affects output and inflation in the short run. (10 points)
  - (b) Back to Bernanke: How would you represent the impact of globalization (think: imports from China) in the aggregate supply and demand diagram? How does globalization change the impact of expansionary monetary policy in this model? Do you find the model persuasive in this respect? (10 points)
3. *Miscellany (50 points)*.

- (a) *Exchange rates*. *The Economist* reports that a Big Mac costs \$2.90 in the US, \$3.28 in the eurozone, and \$2.33 in Japan. (These prices are averages for the various regional markets, expressed in US dollars using current spot exchange rates.) What does this suggest about the likely change in value of the euro and yen v. the dollar over the coming 6 months? 6 years? (10 points)
- (b) *Inflation*. Milton Friedman once said: inflation is always and everywhere a monetary phenomenon. Do you agree or disagree? Why or why not? (10 points)
- (c) *Employment report*. At 8:30 am on April 6, 2006, the US Bureau of Labor Statistics released its closely-watched employment report, *The Employment Situation*. Firms reported an increase of 180,000 jobs in March, well above the consensus of 135,000. Treasury yields immediately rose 5-10 basis points for maturities from 2 to 30 years. Why? (10 points)
- (d) *ECB policy*. The European Central Bank has kept short-term interest rates in the Euro Zone well above those in the US. Why? (10 points)
- (e) *Cross-correlation function*. Describe the cross-correlation function and show how it can be used to identify promising leading indicators. (10 points)