

Makeup Final Examination

Revised: April 28, 2010

You have 120 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.

I understand that the honor code applies: I will not lie, cheat, or steal to gain an academic advantage, or tolerate those who do.

(Name, section, and signature)

1. *Is Spain one of the PIIGS? (40 points).*

	2004	2005	2006	2007	2008	2009	2010
GDP growth	3.3	3.6	4.0	3.6	0.9	-3.7	-0.3
Inflation	3.0	3.4	3.5	2.7	4.1	-0.3	0.3
TFP growth	-0.5	-1.0	0.0	0.2	0.3	1.2	2.5
Investment rate	28.0	29.4	30.6	30.7	28.8	24.4	24.0
Saving rate	23.0	22.1	22.0	21.0	19.6	19.8	19.2
Current account	-5.2	-7.4	-9.0	-10.0	-9.6	-5.1	-4.7
Budget balance	-0.4	1.0	2.0	1.9	-4.0	-11.4	-11.5
Primary balance	1.5	2.5	3.3	3.0	-3.0	-10.1	-9.5
Public debt	46.2	43.0	39.6	36.1	39.7	55.2	
Interest rate: short	2.1	2.2	3.1	4.3	4.6	1.2	0.7
Interest rate: long	4.1	3.4	3.8	4.3	4.4	4.0	4.3
Real exchange rate	99	100	102	104	107	106	106
Reserves	20	17	19	19	20	28	

Economic indicators for Spain. (i) Investment, saving, current account, (government) budget balance, primary, and public debt are expressed as percentages of GDP (ratio to GDP multiplied by 100). (ii) The real exchange rate is a weighted average across trading partners; high numbers indicate that Spanish goods are expensive relative to a weighted average of prices in other countries, with weights tied to the amount of trade between Spain. (iii) Foreign exchange reserves are expressed in billions of USD. (iv) 2010 numbers are estimates.

You have been asked to write a short report summarizing the economic prospects for Spain over the next 2-3 years. You understand that in the recent past, Spain's economy has grown rapidly even as many its neighbors struggled. However, the global financial crisis hit Spain hard, particularly its booming housing sector. Is this a temporary setback or something more serious?

Having some experience with such situations, you check the Economist Intelligence Unit's Country Data, summarized above, and Country Risk Service, which reports:

- Spain is part of the Euro Zone.
- Spain's net foreign asset position is roughly -80% of GDP. The largest categories are portfolio investment (primarily debt) in Spanish firms and loans to Spanish banks.
- The government's budget is deeply in deficit as a result of the crisis. Austerity is planned but uncertain.
- Spanish banks came through the crisis in good shape.
- The ruling Spanish Socialist Workers' Party (PSOE) was elected to a second four-year term in 2008 but faces popular disenchantment.

With this information in hand, you start to sketch out your report:

- (a) Describe Spain's fiscal situation. What is your estimate of the debt-to-GDP ratio at year-end 2010? How would your answer change if interest rates rose sharply, as they have in Greece? (10 points)
- (b) Is the exchange rate a source of concern? Why or why not? (10 points)
- (c) Spain's current account deficit is one of the largest in the world. Do you see it as a source of concern? Why or why not? (10 points)
- (d) Overall, what do you see as the "red flags" for the Spanish economy? Are you optimistic about future growth? Why or why not? (10 points)

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2. *Stimulus in China, 2009 (30 points)*. China responded to the global crisis by implementing a massive program of government spending on infrastructure. Your mission is to outline the argument for or against such a program using the aggregate supply and demand (AS/AD) framework.
- (a) Over the last year, output growth and inflation have both fallen in China. Would you say this comes from a shift in supply or demand? Illustrate your answer with the appropriate diagram. (10 points)
 - (b) Using the same (or similar) diagram, describe the impact on the economy of a large increase in government spending on infrastructure projects. What is the likely impact on output? Inflation? (10 points)
 - (c) What are appropriate goals of policy, expressed in terms of aggregate supply and demand? Does the Chinese spending program move them closer to these goals? (10 points)

3. *Miscellany (30 points).*

- (a) If you see housing starts rise, what does that suggest about economic growth in the near-term future? (10 points)
- (b) If the inflation rate rises, what is the response of a central bank following a Taylor rule? Why? (10 points)
- (c) If Hungary's central bank purchases local currency (forints) from citizens who would prefer to hold euros, what is the impact on Hungary's money supply? How might it offset this impact? (10 points)

