

Whitman College  
Econ 448  
Exam 1  
February 23, 2012

Write all answers in your bluebook. Show all of your work. The exam ends at 12:10.

1. (5pts) According to Carmen Reinhart and Kenneth Rogoff in This Time is Different, why is government debt rather than private debt more often the unifying problem across the wide range of financial crises the authors consider?

(b) (5pts) How is sovereign bankruptcy distinctly different from corporate bankruptcy according to Reinhart and Rogoff?

(c) (5pts) According to Reinhart and Rogoff, what does a nation's achievement of large-scale serial default require? Why are these features required?

(d) (5pts) What is the most fundamental imperfection of capital markets according to Reinhart and Rogoff?

2. (20pts) Consider the excerpts below from the Wall Street Journal. The entire article appears at the end of the exam, in case you want to consult it for context.

Wall Street Journal                      FEBRUARY 18, 2012  
**A Hollow Target for Greek Debt** By CARL BIALIK

The magic number in negotiations for a Greek bailout has become 120% in 2020. That is the maximum ratio of Greece's government debt to its gross domestic product that the International Monetary Fund, the European Commission and the European Central Bank have deemed acceptable.

Greece and this trio of lenders have agreed that any larger ratio probably isn't sustainable: The nation isn't likely to be able to continue paying off its debt if it exceeds that benchmark at the decade's end...

However, there are reasons to think Greece wouldn't be able to sustain a level that high...

Consider Carmen Reinhart and Kenneth Rogoff's analysis of debt intolerance in This Time is Different. With reference to their analysis, explain why economists have doubts about Greece's ability to pay back its debt, even if that debt were reduced to 120% of Gross Domestic Product. In your explanation, be sure to define debt intolerance, describe what debt intolerance typically involves, and discuss the principal variables that seem to predict debt intolerance.

3. In International Macroeconomics, Feenstra and Taylor note that in the 1970's West Germany and the United Kingdom had capital controls that prevented people from freely moving savings between pound deposits and mark deposits. The U.K. abolished their controls in 1979 and West Germany abolished theirs in 1981. Feenstra and Taylor show that covered interest parity held between the U.K. and West Germany after 1981, but not in the decade before.

(a) (10pts) Derive the formula for covered interest parity.

(b) (10pts) Explain why covered interest parity did not hold while the capital controls were in place, and why covered interest parity did hold once the capital controls fell.

Use the following information to answer Questions 4 and 5 below. Assume that in the short run, prices on average are not flexible, interest rates are flexible, and uncovered interest parity holds. Assume that in the long run, prices are flexible and the quantity theory of money and purchasing power parity hold. Answer the questions about South Korea and Japan, assuming that both countries operate under a flexible exchange rate system. Take the perspective of Korea as the home country, and define the exchange rate as Korean won per Japanese yen. For simplicity, assume that neither Korea nor Japan has growth in real potential Gross Domestic Product.

4. (25pts) Suppose the Bank of Korea temporarily increases its money supply. Everyone believes that the increase will be temporary, with no change in Korea's overall monetary policy. Starting with your initial equilibrium labeled point A, show on money market and foreign exchange market diagrams the short-run effects (labeled point B) and the long-run effects (labeled point C). Be sure to label your axes and all of your curves. Explain what happens.

5. (15pts) Suppose that the temporary increase in the Korean money supply is over. Suppose now the Bank of Japan temporarily increases its money supply. Everyone believes that the increase will be temporary, with no change in Japan's overall monetary policy. Maintaining your perspective of Korea as the home country, use a new money market and foreign exchange market diagram to show the initial equilibrium (labeled point A), the short-run effects (labeled point B) and the long-run effects (labeled point C). Be sure to label your axes and all of your curves. Explain what happens.

## A Hollow Target for Greek Debt By CARL BIALIK

The magic number in negotiations for a Greek bailout has become 120% in 2020. That is the maximum ratio of Greece's government debt to its gross domestic product that the International Monetary Fund, the European Commission and the European Central Bank have deemed acceptable.

Greece and this trio of lenders have agreed that any larger ratio probably isn't sustainable: The nation isn't likely to be able to continue paying off its debt if it exceeds that benchmark at the decade's end.

But many economists say the 120% threshold isn't based on any particular economic principles. And the source of the figure isn't totally clear.

The threshold does provide a reachable target while indicating that other struggling European economies are safe from a debt squeeze. However, there are reasons to think Greece wouldn't be able to sustain a level that high—even if projections out to 2020 are accurate, unlike earlier, shorter-term projections of Greek debt that proved overly optimistic. Among the concerns: the possibility that austerity measures suppress Greece's economic growth, problems with the debt measure itself, and what it doesn't include.

The 120% target is a "sacrosanct European Union illusion," says Constantin Gurdgiev, an economist at Trinity College in Dublin. "I can't see any economics behind it."

And Greece's lenders have expressed doubt the country can reach the target anyway. Luxembourg's finance chief, Jean-Claude Juncker, president of the meeting of finance chiefs in the euro zone, said earlier this week that Greece had more work to do to achieve the desired debt reductions in this decade. He repeated those sentiments Friday, ahead of scheduled Monday talks between the finance ministers and Greece.

A spokeswoman for the European Commission declined to comment ahead of the Monday meeting. A spokesman for the European Central Bank also declined to comment. "We have nothing to add to what we said many times," an IMF spokeswoman said. "This is the threshold that was agreed by the Greeks and the Europeans."

Greek Prime Minister Lucas Papademos has pushed domestically for budget cuts to meet the target and secure a bailout.

Even if all parties agree on a bailout, they will have to put faith in a projection out to 2020, but Greek debt has proved tough to forecast. In 2010, the latest year for which annual data are available, Greece's debt was 145% of GDP. In 2009, the IMF was projecting it would be 116% of GDP. And in earlier annual reports back to 2005, the IMF projected Greece's debt in 2010 would be less than 100% of GDP.

Such forecasts "project an illusory degree of precision for an estimate that is extremely dependent on umpteen assumptions about the future," says Jacob Kirkegaard, a research fellow

at the Peterson Institute for International Economics, a Washington, D.C., think tank.

Gabriel Sterne, an economist with the investment-banking company Exotix in London and a former IMF economist, says the IMF's projections for Greece have gotten more realistic. Mr. Sterne praised their work but added, "Any forecast has a top-down element. There's a politically acceptable number you need to get to, and you get there."

It is unclear precisely how the 120% target for Greece was born. The IMF reported in December that Greece could reach the 120% threshold if private creditors are willing to take a 50% loss on their Greek debt.

The report said 120% is "the maximum level considered sustainable." However, the IMF report attributes that to a report by IMF staff earlier last year that was critical of the IMF's record of detecting debt risk in time to stave off a debt crisis. The earlier report found that the threshold of maximum sustainable debt for advanced economies has been estimated at anywhere from 80% to 192%.

And these estimates can vary markedly by country, depending on such factors as the extent and effectiveness of tax collection, the country's ability to control its monetary policy and the rate of change of debt.

None of these factors bodes well for Greece. Michael Woodford, a Columbia University economist, calls the ratio of debt to GDP "a pretty imperfect measure." He adds that Greece's problems extend beyond the ratio to "how ineffective the tax system is, and doubts about the political will to make serious changes in it."

A report last year by three Bank for International Settlements economists pegged the threshold for debt sustainability at a ratio of debt to GDP of around 85%, on average, based on studying 18 countries from 1980 to 2010.

Greece, such as many other developed countries including the U.S., also has unfunded liabilities because its population is aging. Debt thresholds based on past results may not apply to future economic conditions with an older population and a lower ratio of workers to retirees, economists say.

"This is, in a sense, an issue of what the right debt measure is," says Alan Auerbach, an economist at the University of California, Berkeley. "Implicit liabilities belong in there somewhere, although there is no simple aggregation."

Dr. Gurdgiev says the real threshold for Greece may be lower than for other countries, as a small euro-zone country with little control of monetary policy in the region. However, he says setting a target of 84% wouldn't be politically feasible for Greece, plus it would give the impression that other European countries where debt fears have eased are on an unsustainable course, including Italy and Ireland.