Whitman College
Econ 407
Exam 1
February 23, 2010

Write all answers in your blue book. **Show all of your work.** The exam ends at 2:20.

For questions 1-5 below, consider the following excerpts from a recent Wall Street Journal article. In case you are interested, the entire article appears at the end of the exam.

IMF Tells Bankers to Rethink Inflation

The Wall Street Journal, page A10, Friday, February 12, 2010
By BOB DAVIS

The International Monetary Fund's top economist, Olivier Blanchard, says central bankers should consider aiming for a higher inflation rate than they do currently to lessen the chances of repeating the recent severe recession.

…[He] suggests shooting for a higher-level inflation in "normal times in order to increase the room for monetary policy to react to… shocks." Central banks may want to target 4% inflation, rather than the 2% target that most central banks now try to achieve, the IMF paper says. At a 4% inflation rate, Mr. Blanchard says, short-term interest rates in placid economies likely would be around 6% to 7%, giving central bankers far more room to cut rates before they get near zero, after which it is nearly impossible to cut short-term rates further.

1. (5pts) When Mr. Blanchard suggests that placid economies with a 4.0% inflation rate target would have short-term nominal interest rates around 6.0% to 7.0%, what real interest rate is Mr. Blanchard suggesting these lenders are expecting on short term loans?

2. (5pts) Assume a central bank lets people know that it is going to target a 2.0% inflation rate. Suppose a recession comes and this central bank temporarily loosens monetary policy in order fight the recession. The result of this loosening is that the central bank drives short term nominal interest rates to 0.25%.

What real interest rate do lenders expect to receive when they lend at a nominal rate of 0.25%, if they expect the inflation rate to be 2.0%?

3. (5pts) Suppose a central bank lets people know that it is going to target a 4.0% inflation rate. Suppose a recession comes and this central bank temporarily loosens monetary policy in order fight the recession. The result of this loosening is that the central bank drives short-term nominal interest rates to 0.25%.

What real interest rate do lenders expect to receive when they lend at a nominal rate of 0.25%, if they expect the inflation rate to be 4.0%?

4. (10pts) Explain Mr. Blanchard's reasoning that targeting a 4.0% inflation rate would give central bankers more room to fight recessions. Use your answers to Questions 2 and 3 to help in your explanation.

5. In "Deflating the Case for Zero Inflation, " Rao Aiyagari considers the case for reducing the central bank's inflation target from 5.0% to 0%.

(a) (10pts) Explain Mr. Aiyagari's reasoning when he states that "reducing inflation will likely reduce economic welfare, at least temporarily--as long as people are stuck with their binding agreements."

(b) (10pts) Consider Mr. Blanchard's proposal to raise a central bank's inflation target from 2.0% to 4.0%. What would temporarily happen to economic welfare from this increase in inflation, if people are "stuck with their binding agreements" in the sense that Mr. Aiyagari meant in his article? Explain your reasoning.

6. (10pts) Consider R. A. Radfords's "The Economic Organization of a P.O.W. Camp." What does Mr. Radford mean when he says that cigarettes were subject to the working of Gresham's law?

7. When they were first issued in 1862, shortly after the beginning of the Civil War, Congress declared greenbacks legal tender. (An item is legal tender if a debtor can legally settle his obligation by paying with that item.) The Supreme Court later ruled that greenbacks could not be legal tender for contracts written before 1862. Shortly thereafter, the Supreme Court ruled that greenbacks were legal tender for contracts written after 1862.

(a) (10pts) What was the argument for making greenbacks not legal tender for contracts written before 1862?

(b) (10pts) What was the argument for upholding greenbacks' legal tender status for contracts written after 1862?

(c) (5pts) Would you say that greenbacks were subject to the working of Gresham's law? Explain your answer.

8. (20pts) Explain why a bond with a longer term to maturity has a higher price volatility than an otherwise identical bond with a shorter term to maturity. Be sure to define what you mean by price volatility.

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By BOB DAVIS

The International Monetary Fund's top economist, Olivier Blanchard, says central bankers should consider aiming for a higher inflation rate than they do currently to lessen the chances of repeating the recent severe recession.

Mr. Blanchard, a macroeconomist on leave from the Massachusetts Institute of Technology, said the global economic downturn revealed flaws in macroeconomic policy, especially the reliance primarily on interest rates to manage economies. Although Japan had fallen into a decade-long funk despite low inflation and low interest rates, "most people convinced themselves that the Japanese didn't know what they were doing," Mr. Blanchard said in an interview.

In a new paper with two other IMF economists, Giovanni Dell'Ariccia and Paolo Mauro, Mr. Blanchard says policy makers need to consider radically different approaches to deal with major banking crises, pandemics or terrorist attacks.

In particular, the IMF paper suggests shooting for a higher-level inflation in "normal times in order to increase the room for monetary policy to react to such shocks." Central banks may want to target 4% inflation, rather than the 2% target that most central banks now try to achieve, the IMF paper says.

At a 4% inflation rate, Mr. Blanchard says, short-term interest rates in placid economies likely would be around 6% to 7%, giving central bankers far more room to cut rates before they get near zero, after which it is nearly impossible to cut short-term rates further.

"Now we realize that if we had a few hundred extra basis points"—a basis point is one-hundredth of a percentage point—"to rely on, that would have helped" fight the recent downturn, Mr. Blanchard says.

For decades, the IMF has pressed countries to slash inflation. But Mr. Blanchard says the IMF should lead the rethinking necessary after the worst recession since World War II.

Most big-country central bankers, recalling mistakes they made that led to high inflation rates in the 1970s and 1980s, aren't likely to immediately embrace the IMF advice. They remain convinced that keeping inflation low, and persuading markets that they will do so, remains critically important.

John Taylor, a Stanford University monetary-policy specialist who served in the Bush administration Treasury Department, says inflation could become hard to constrain if the target is raised. "If you say it's 4%, why not 5% or 6%?" Mr. Taylor said. "There's something that people understand about zero inflation."

Mr. Blanchard argues there isn't much difference in maintaining inflation at 2% or 4%. Tax brackets could be adjusted so higher inflation, by itself, doesn't push taxpayers into higher rates. Inflation-adjusted bonds could protect investors.

The new paper, titled "Rethinking Macroeconomic Policy," also recommends that central banks use regulatory weaponry to try to prick asset bubbles before they grow dangerously large. Relying exclusively on raising interest rates to do such work risks damage to the broader economy, an argument that Federal Reserve Chairman Ben Bernanke has made.

Mr. Blanchard says governments should rethink the design of automatic stabilizers—spending increases or tax cuts triggered by a recession. The classic stabilizer is unemployment insurance, spending on which increases automatically as more workers lose jobs. Governments could design new programs that have more bang for the buck, he says, such an automatic reduction in taxpayer bills when GDP declines by a certain percentage.