Whitman College
Econ 407
Final Exam
December 12, 2012

Write all answers in your blue book. Show all of your work. The exam ends at noon.

1. Consider R. A. Radford's "The Economic Organization of a P.O.W. Camp".

(a) (5pts) According to Radford, what caused inflation in the prisoner of war camp? Be specific in your answer.

(a) (5pts) What caused deflation in the camp? Be specific.

2. (5pts) According to the 2011 Financial Crisis Inquiry Commission Report, pages xv – xxviii, how did mortgages contribute to the 2008-2009 financial crisis and why were people so eager to buy mortgage-related securities?

3. Consider John Boyd and Arthur Rolnick's "A Case for Reforming Federal Deposit Insurance" Federal Reserve Bank of Minneapolis *Annual Report* 1988.

(a) (10pts) Define the protective subsidy and explain how it held in check bank owners' desire for risky loans.

(b) (5pts) According to Boyd and Rolnick, what made the protective subsidy go away?

4. (10pts) Consider Brad DeLong's March 29, 2010 blog postings that we discussed in class. DeLong writes "*it is no accident that the modern market-driven financial crisis and the industrial business cycle start in 1825, as the British Industrial Revolution enters its heyday*." Explain his reasoning.

5. Consider the following excerpts from the Wall Street Journal, and then answer questions (a)- (e).

SEC's Aguilar Warms Up to Money-Fund Overhauls
Wall Street Journal December 7, 2012 p. B2 By JESSICA HOLZER

WASHINGTON—The $2.6 trillion U.S. money-market fund industry is headed toward a drastically new look next year, as a regulator who blocked an overhaul effort this past summer has dropped his opposition. Securities and Exchange Commission member Luis Aguilar, a former mutual-fund executive, said in an interview that he would support a proposal that requires money-market funds to "float" their share prices like other mutual funds, a system that would end the $1 peg for their net asset value that money-fund shares have had for decades.

Money funds typically invest in short-term debt instruments and, similar to bank accounts, pay investors back the amount that they put in, at exactly a dollar a share, on top of any interest. In 2008, the collapse of Lehman Brothers Holdings Inc. led to a fund that held Lehman debt to "break the buck," or fall below the $1 peg, a rare market event. The government intervened to prevent panic from spreading to other parts of the financial system, and the aim of any regulatory overhaul would be to prevent a similar situation.

[Mr. Aguilar's new-found support for requiring money market mutual fund prices to float] is a setback for the fund industry, which lobbied this past summer to defeat a plan by SEC Chairman Mary Schapiro to rein in money funds. On Aug. 22, Mr. Aguilar had said he wouldn't vote for Ms. Schapiro's plan, telling The Wall Street Journal that he wasn't "comfortable" supporting it. A Democrat, he had been seen as the swing vote on the plan. Hours later, Ms. Schapiro announced she had called off a vote on the proposal, which included floating funds' prices and other alternative changes, saying she didn't have enough votes.

Floating funds' net asset values could condition investors to expect fluctuations in the value of their investments like in other mutual funds, reducing the likelihood that they would stampede out of the fund if the share price drops below a $1….

Mr. Aguilar's shift also comes after a group of top regulators, the Financial Stability Oversight Council, put pressure on the SEC to fix what they see as a weak link in the financial system. The council has the power to step in and act on perceived threats to the financial system if front-line regulators don't act. Ms. Schapiro called on the council to intervene after the collapse of her plan. Observers said Mr. Aguilar's move could break the impasse at the commission. "He's the decisive vote. He's the holdup at this point. If he's moved, then the logjam is broken," said Simon Johnson, a professor of global economics at Massachusetts Institute of Technology's Sloan School of Business…

Funds have generally resisted a new round of rules, saying safeguards imposed by the SEC in 2010 boosted funds' ability to meet redemption requests.

As you answer questions (a)-(e), use the analysis from Robert Lucas and Nancy Stokey's "Liquidity Crises: Understanding sources and limiting consequences: A theoretical framework" Federal Reserve Bank of Minneapolis *The Region*, June 2011, pp. 6-15. Recall that Lucas and Stokey modify the Diamond-Dybvig (1983) banking model to give it a monetary interpretation. They then use this model to describe the motives and actions of the money market mutual fund industry. In the Lucas-Stokey model, a money market mutual fund is like a bank in that it promises its clients that they can withdraw on demand each dollar they've put into the fund plus interest. The Lucas-Stokey money market mutual fund is also like a bank in that it faces a sequential service constraint.

(a) (15pts) In the Lucas-Stokey model, how much in reserve does a money market mutual fund hold? Explain why a Lucas-Stokey money market mutual fund would need to hold this amount in reserve, and why it would hold no more than this amount in reserve.

(b) (10pts) Why is it that in the Lucas-Stokey model, a money market mutual fund's "ability to make good on its [withdrawal] promise is fragile"?

(c) (10pts) Use Lucas and Stokey's analysis of multiple equilibria and sunspots to explain this excerpt from the Wall Street Journal article:

> "Floating funds' net asset values could condition investors to expect fluctuations in the value of their investments like in other mutual funds, reducing the likelihood that they would stampede out of the fund if the share price drops below a $1."

(d) (10pts) According to Lucas and Stokey, why can't deposit insurance and commercial bank regulations simply be extended to cover money market mutual funds, allowing them to weather future financial crises without runs, the way commercial banks weathered the 2008-2009 crisis without runs?

(e) (15pts) According to Lucas and Stokey, how should the Federal Reserve handle its lender of last resort role?

6. (5pts) Consider the interview with Darrell Duffie on post-crisis financial reforms in the Federal Reserve Bank of Minneapolis *The Region* June 2012, pp. 12-27.

What is Duffie's 10x10x10 proposal for measuring systemic risk?

7. In an article by Min Jeng entitled "Advice For Bill Gross: Buy Treasurys" that appeared in the Wall Street Journal Blogs October 23, 2012, Jeng describes Bill Gross, founder and co-chief investment officer at Pimco, warning that "a lack of fiscal responsibility could spark inflation in coming years, making regular Treasury bonds vulnerable to a decline in value."

(a) (10pts) Suppose the weak form of the fiscal theory of the price level holds. Why would a lack of fiscal responsibility spark inflation? Thoroughly explain all the elements of your answer.

(b) (10pts) Suppose the strong form of the fiscal theory of the price level holds. Why would a lack of fiscal responsibility spark inflation? Explain your answer. In your explanation, you can refer back to some of the elements you developed in part (a).

The Wall Street Journal article goes on to note that "In an interview with Dow Jones earlier this month, Gross said he held Treasury bonds with no more than a 10-year maturity. The longer the maturity, the bigger the losses that a bond can incur due to inflation."

(c) (10pts) Why does inflation make Treasury bonds, especially those with longer than 10-year maturities, vulnerable to a decline in value? Explain.

8. (10pts) Early Keynesians made the following observations:

i. Business spending on projects that add to the capital stock seemed to be independent of the nominal interest rate. (Note that spending on projects that add to the capital stock is called investment spending.)

ii. During the Great Depression we had very low nominal interest rates, yet real aggregate output contracted sharply.

These early Keynesians therefore concluded:

(i) Interest rates don't affect investment spending.

(ii) Even when monetary policy is so loose that nominal interest rates are near zero, real aggregate output can actually contract, so money and credit don't affect real aggregate output.

What mistake were these early Keynesians making when they drew those two conclusions? Explain your answer.

9. Consider Mortiz Schularick and Alan M. Taylor's "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008." *American Economic Review* 2012, 102(2) pp. 1029-1061.

(a) (5pts) According to Schularick and Taylor, in what ways did the monetary and regulatory framework for developed countries change after World War Two (WW2) versus before the war?

(b) (10pts) Explain what the authors mean by the "internal reallocation of the real debt burden," and explain why that reallocation was dramatically different in a pre-World War 2 financial crisis versus a post-World War 2 financial crisis.

(c) (5pts) Why is it surprising that financial crises have become more severe in real terms since WW2?

(d) (10pts) What reasons do the authors suggest for why financial crises have become more severe in real terms since WW2?

(e) (15pts) Why do the authors disagree with the argument often heard after the 2008-2009 crisis, that paying more attention to monetary aggregates instead of focusing on the Taylor rule indicators of output and inflation might have averted the crisis?

(f) (5pts) What until recently has been the consensus about how asset price developments should influence monetary policy?

(g) (5pts) According to more recent thinking (Mishkin on pages 415-418 of our textbook, for instance) which asset price bubbles might not pose particular stability risk for the financial system, and which asset price bubbles likely do pose such risk?