Whitman College
Econ 407
Exam 2
November 18, 2010

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

1. Consider the excerpts below from an article that appeared November 17, 2010 on page C20 of the Wall Street Journal.

QE's Learning Curve for Investors

By Richard Barley

The U.S. yield curve has steepened markedly since the Federal Reserve announced its decision to buy $600 billion of medium-term Treasurys, with the gap between two-year and 30-year yields at record levels around 3.86 percentage points.

That move points to the contradiction at the heart of quantitative easing: A policy aimed at lowering yields [has] deliver[ed] higher yields. The benefit of the Fed as a price-insensitive buyer risks being overwhelmed by investors anticipating a reflation of the economy. That could mean higher interest rates and capital losses for bondholders.

The overall steepness of today's Treasury curve is understandable… the 30-year bond['s] long maturity makes it the most sensitive Treasury to a perception the central bank is willing to tolerate higher-than-targeted inflation.

The yield curve can send confusing messages, it can overshoot, and the signals can be early. But investors who ignored an inverted yield curve in 2006 and 2007 were caught when the economy imploded and interest rates were slashed. Those ignoring [the yield curve's message] again do so at their peril.

(a) (5pts) Consider the Fisher equation relationship between real interest rates, nominal interest rates and the inflation rate. Use this relationship to explain why "anticipating a reflation of the economy… could mean higher interest rates." (You can use the Fisher approximation.)

(b) (5pts) A "capital loss" occurs when an asset's price falls. Explain why "a reflation of the economy… could mean … capital losses for bondholders."

(c) (5pts) Consider how sensitive the price of a 30-year Treasury bond is to a one-percent increase in the expected inflation rate. How sensitive would the price of a two-year Treasury note be to the same increase in the expected inflation rate? Use specific examples and calculations of price sensitivity in your comparison. Be sure to describe any assumptions you are making.

(d) (2pts) Under the assumptions of the Liquidity Premium theory of the term structure of interest rates, how do the relative price sensitivities you described in part (c) affect the returns savers require?

(e) (8pts) Suppose Mr. Barley believes that the assumptions of the Liquidity Premium theory of the term structure of interest rates hold. Do you think Mr. Barley is saying that the recent marked steepening of the yield curve is due to an increase in people's inflationary expectations, an increase in the liquidity premia savers require, or both? Or neither? Explain your answer. Referring to yield curve graphs would help in your explanation.

(f) (5pts) Under the Liquidity Premium theory, what message about future interest rates does an inverted yield curve send? Explain your answer.

2. Consider the excerpts below from an article that appeared November 11, 2010 on page C3 of the Wall Street Journal.

Fed Official's Next Challenge

by Serena Ng

On Jan 1, Sarah Dahlgren will become head of the New York Fed division that supervises banks, tasked with figuring out how firms like Goldman Sachs Group Inc., Citigroup Inc. and J.P. Morgan Chase & Co. are generating returns and transforming their businesses in the new financial and regulatory landscape, while keeping a close eye on the risks they take on.

The most influential of the 12 banks that make up the Federal Reserve System, the New York Fed has been criticized for being too close to Wall Street in the run-up to the recent financial crisis. Nor did it and other regulators foresee systemic risks in banks' creation of large volumes of securities and derivatives tied to subprime mortgages. But even after receiving criticism from Congress, lawmakers heaped more oversight responsibility on the Federal Reserve as part of the new Dodd-Frank financial-overhaul law.

In a recent interview, Ms. Dahlgren acknowledged that "there probably needs to be a more forceful posture" in the New York Fed's supervision of banks. Financial crises may not be preventable, Ms. Dahlgren said. "The question is what we can do to identify the potential early on, and whether we have the right shock absorbers in place like sufficient capital and liquidity to dampen the impact of a crisis," she said.

(a) (5pts) Define bank capital. Refer to an example bank balance sheet in your definition.

(b) (5pts) How does sufficient bank capital dampen the impact of a financial crisis?

(c) (5pts) Define bank liquidity. Refer to an example bank balance sheet in your definition.

(d) (5pts) How does sufficient bank liquidity dampen the impact of a financial crisis?

(e) (5pts) How did lack of bank liquidity contribute to banking panics in the early years of the Great Depression?

(f) (5pts) How did lack of bank capital contribute to the Savings & Loan crisis in the 1980's?

(g) (5pts) What can bank regulators to "identify the potential [for a financial crisis] early on?"

3. (10pts) Describe the protective subsidy theory of why deposit insurance did not cause a moral hazard problem in the 1940's-1970's. Be sure to define the moral problem of deposit insurance in your answer.

4. Consider the excerpts below from an article that appeared November 13, 2010 on page A5 of the Wall Street Journal.

Mortgage Regulator Is Tapped

By Nick Timiraos and Deborah Solomon

President Barack Obama nominated North Carolina Banking Commissioner Joseph A. Smith Jr. on Friday to head the regulatory agency that oversees mortgage giants Fannie Mae and Freddie Mac. A new director would preside over the mortgage-finance titans just as an intense political battle begins over what should happen to the companies.

Mr. Smith has served as North Carolina's banking commissioner since 2002 and is well-regarded by consumer advocates and bankers.

In Mr. Smith, the White House is selecting a regulator that helped implement some of the nation's first regulations to protect borrowers from predatory lenders. "He was one of the early folks saying, 'Hey, this is not sustainable lending,' " says Michael Calhoun, president of the Center for Responsible Lending. In 2007, Mr. Smith warned Congress that regulation was insufficient for an industry that had "created an environment of negligence in lending practices and increased borrower confusion."

(a) (5pts) Describe the predatory practices in mortgage lending in 2002-2007.

(b) (10pts) Describe how these predatory practices in mortgage lending contributed to the 2008 financial crisis.

5. Consider the excerpts below from an article that appeared November 16, 2010 on page C1 of the Wall Street Journal.

Why Credit Raters Keep Their Power

Financial-Overhaul Law Was Supposed to Reduce Their Influence

By Jean Eaglesham and Deborah Solomon

Curbing the influence of credit-rating firms, a goal of this year's financial overhaul, is so far proving easier said than done, reflecting the industry's deeply embedded role in the financial system. One example: Though many U.S. banks suffered losses on mortgage-related deals blessed by ratings firms before the crisis erupted, some financial institutions have been lobbying against a provision in the Dodd-Frank financial-regulation law passed in July that bans the use of ratings in federal agencies' rules.

The leading ratings firms were a prime target of lawmakers drafting the Dodd-Frank legislation. The companies were criticized as catering to investment banks and issuers to secure a steady flow of business at the expense of exercising independent judgment about risks of bonds backed by mortgages.

Regulators now use ratings to assess the risk of assets, such as mortgage-backed securities, in determining how much capital banks must hold against potential losses. Regulators have until July to strip all references to credit ratings from rules for assessing whether banks hold sufficient capital.

(5pts) Describe the conflict of interest on the part of firms that rated Collateralized Debt Obligations during 2002-2007.

(5pts) Describe how this conflict of interest contributed to the 2008 financial crisis.