**Economics 21 Spring 2015**

**1st Midterm**

Answer **all** questions on this exam (use point totals to allocate your time).

**Part I (24 points):** For **each** of the statements, explain what **necessarily must** **also** be true. In other words, the circumstances described below cannot have occurred unless something else **also** happened. **Briefly explain** what that something else is:

a) In the 1990's, Japan had very large government deficits and very large trade (ie current account) surpluses.

b) China's level of National Savings is greater than its level of domestic Investment.

c) During the Great Recession, the Federal Reserve increased the high powered money supply (aka the monetary base) astronomically; but contrary to previous experience, the total money supply has increased much less than that.

d) It appears that the fundamental value of the stock market’s P/E ratio has increased over time.

**Part II (30 points):** For **each** of the following, indicate which of the two events will increase current GDP the most and **briefly** explain why. If the answer is ambiguous or if the two events have an equal effect on GDP, then you should explain why:

a) An exogenous increase in net exports **vs.** an exogenous increase in investment spending of equal magnitude.

b) An exogenous increase in consumption **vs.** an exogenous decrease in taxes of equal magnitude.

c) A one-time tax rebate **vs.** a permanent tax cut of the same total present value (so the rebate is much bigger while it is in effect, but the permanent tax cut lasts forever).

d) An exogenous increase in government spending when the income tax rate is high (t1 big) **vs**. when the income tax rate is low.

e) An increase in the money supply when investment spending is very sensitive to changes in interest rates (i2 big) **vs.** when investment spending is insensitive (i2 small).

**Part III (46 points):** The U.S. economy is slowly recovering from the Great Recession, but it still suffers from four problems:

1) A GDP Gap (the remnants of the Great Recession)

2) A government deficit,

3) A trade deficit, and

4) A too pro-present orientation (ie. not enough National Investment)

with respect to these issues, answer the following questions:

The recovery from the recession, since the expiration of the Obama Stimulus package, has been due to increases in private sector spending (don't worry which ones):

a) As GDP has increased (and the GDP Gap has closed), what has this done to the government budget deficit, and why?

b) As the GDP Gap has closed, what has this done to the trade deficit, and why?

c) Given your answers in a) and b), what has the closing of the GDP Gap done to the relationship (I-S)?

For the remainder of this question, assume that the LM curve is normally sloped and interest rates are positive (our normal looking IS-LM graph):

d) Assume the private sector continues to fuel the recovery by an increase in exogenous investment spending (i0), what will happen to interest rates?

e) Given your answer in d), will total Investment spending rise or fall, or is it ambiguous?

f) Given your answers in b) and e), will National Investment rise or fall, or is it ambiguous?

g) Now assume that instead of increasing i0, the Fed achieves the same increase in GDP by increasing the money supply, what will happen to interest rates?

h) What is the relationship between the change in Investment in e) and the change in Investment in g)?