ECON 1100 - Basic Macroeconomics

Instructor: Ettore Gallo

Final Exam
December 13th, 2019

First and Last Name (here and on the blue book)

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Instructions:

- The exam is divided into 2 parts.

    - **Part A:** Short answer questions: You are given 5 questions. **You need to answer 4** of them.
    - **Part B:** Essay questions: You are given 4 questions. **You need to answer 2** of them.

    In total, you need to answer **6 questions worth 6 points each**. The exam will count for 35% of your final grade.

- You have **<u>120 minutes</u>** minutes to complete the exam.

- Make sure you understand the questions before providing an answer (ask questions if you are not sure you understand the question). <u>Carefully</u> explain what you do and be as precise as you can.

    - **Part A:** Be brief; typically 2-3 sentences should be enough (notice however that I do ask you to provide a careful explanation for your answer; most of the points will be given for the explanations).
    - **Part B:** Express your thoughts in a clear way. In doing so, you should show a critical understanding of the course material. Most of the points will be given for the clarity and coherence of your reasoning.

- **Write as clearly as you can** to make it easy to read and understand what you did.

Part A
Complete 4 of the following 5 questions (6 points each). Show all relevant graphics and calculations.

Question 1: Unemployment and population
In June 2009, at the trough of the Great Recession, the Bureau of Labor Statistics announced that of all adult Americans, 140,000,000 were employed, 15,000,000 were unemployed, and 81,000,000 were not in the labor force. Use this information to calculate:

(1.a) the adult population

(1.b) the labor force

(1.c) the unemployment rate

Question 2: Loanable funds theory
Briefly explain the loanable funds theory of interest rate determination. How would the following situations affect the equilibrium interest rate in the loanable funds market?

(2.a) The states agree to abolish sales taxes.

(2.b) Technological improvements are made to increase expected rates of return.

Question 3: Quantity theory of money
Consider the relation $Mv = PY$.

(3.a) Explain the difference between nominal and real variables and give two examples of each.

(3.b) According to the principle of money neutrality, which variables are affected by changes in the quantity of money?

Question 4: Aggregate demand and aggregate supply
The price of oil has risen. Consider that oil is a raw material used in **production** of various goods and services.

(4.a) Describe the effects of this change on the average level of prices and GDP in the short and in the long run (without policy intervention).

(4.b) Use the same AD-AS diagram to address how monetary policy might be used to reduce the impact of these changes. Be sure to explain what type of monetary policy is necessary.

Question 5: The Phillips Curve(s)

Suppose the economy is in a long-run equilibrium.

(5.a) Draw the economy's short-run and long-run Phillips curves. Briefly explain the shape of the two curves in the short and in the long run.

(5.b) Suppose a stock market crash reduces aggregate demand. Show the effect of this shock on your diagram from part *a*. If the Fed undertakes expansionary monetary policy, can it return the economy to its original inflation rate and original unemployment rate?

Part B

Complete 2 of the following 4 questions (6 points each). Be brief and express your thoughts in a coherent way.

Question 1

Are natural resources a limit to growth?

Mankiw (p.240) argues the following "Many commentators have argued that natural resources will eventually limit how much the world's economies can grow. [...] Despite the apparent appeal of such arguments, most economists are less concerned about such limits to growth than one might guess. They argue that technological progress often yields ways to avoid these limits".

Explain how technological progress may be able to counter climate change. Do you agree with Mankiw's view?

Question 2

Discuss similarities (if any) and differences between Minsky's financial instability hypothesis and the Efficient Market Hypothesis. In your opinion, which of the two is more suitable to discuss the relation between finance and other macroeconomic variables - e.g. output, saving, investment, etc. - in advanced capitalist economies?

Question 3

Consider the financial turmoil of 2007-2008. Use Minsky's 3 financial positions (hedge, speculative and Ponzi) to describe the emergence of the Great Recession in 2007-2008. Do you think Minsky's financial instability hypothesis provides a convincing theory of financial and economic crises? Discuss.

Question 4

Consider Figure 1 below. Discuss to what extend the dynamics of real output and the estimates of potential output support the mainstream view that after a recession actual output comes back to its potential growth path. Alternatively, discuss the notions of hysteresis and super hysteresis and relate them to Figure 1. In your view, which hypothesis is more realistic?

Figure 1: Actual output (real GDP) dynamics and revision of CBO (Congressional Budget Office) estimates of potential output over time