

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 160 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I can't give extra time, but I won't give much.

1) (12 points) Explain EITHER the equation in Part A OR the equation in Part B.

A) $MD/P = L(Y, r, \pi^e)$

B) Asset demand = $f(\text{expected return, risk, liquidity, wealth})$

2) (12 points) Use the endogenous growth theory to determine how ONE of these events will affect the long-term growth of the economy. Explain why it would have that impact. Only look the aspect in that part of the question.

A) The "Inflation Reduction Act" increased the government deficit.

B) The "Inflation Reduction Act" increased spending on infrastructure.

3) (16 points) Answer EITHER Part A OR Part B.

A) What is the equation for the "Quantity Theory of Money"? They assumed the velocity of money is constant. Explain why that assumption makes some sense.

B) Why has the velocity of M1, V_1 , been unstable while V_2 has been relatively stable over the past 5 decades?

4) (18 points) Answer EITHER Part A OR Part B.

A) Later this semester, we will be assuming that the central bank can control the money supply.

However, banks can directly change both M1 and M2. What can they do which will increase both M1 and M2? Explain why that increases both M1 and M2. Almost none of the events we discussed changed M2. Why don't most of them affect M2?

B) What are TWO of the three qualities money should have. For ONE of them, does M1 or M2 do a better job? Explain your answer.

5) (18 points) Answer EITHER Part A OR Part B.

A) I said that I feel that k^* is less than k_G . Draw the Solow Growth Model diagram and find both k^* and k_G . State how you found both and explain why I think that $k^* < k_G$.

B) Use EITHER the equation for the "Quantity Theory of Money" OR the equation we derived from it, which starts out $\pi = \dots$ to explain why faster growth of the money supply causes inflation in the long run.

6) (24 points) Answer EITHER Part A OR Part B.

A) According to the OECD, Italy has a saving rate of 3.2% of GDP and the USA has a saving rate of 1.5% of GDP. According to the CIA Factbook, Italy has a population growth rate of -0.11% and the USA has a population growth rate of 0.68%. Assuming they have the same technology and depreciation rates, draw the Solow Growth Model diagram for the two countries on one graph. Explain why the graph looks as drawn, in other words, why one country's line is above or below the other one. Based upon that graph, which country will be better off in the future?

B) Draw the Solow growth model diagram. Suppose a country starts to the left of the equilibrium point. Explain why the economy will automatically go to the equilibrium. People have used this model to conclude that all countries will converge to the same GDP per capita (y) and capital/labor ratio (k). What are two assumptions they are making which are clearly wrong? Explain why one of those wrong assumptions makes a difference.