University of Chicago
Booth School of Business

Business 33040 John Huizinga
Macroeconomics Winter 2021

TAKE HOME EXAM #1

Name ____ (please print clearly)

Honor Code Pledge: I pledge my honor that I have not violated the honor code in any way related to this examination

Signature ____

Directions:

1. Use this page as the cover page when you submit your answers.

2. Print your name, in a clearly legible manner, in the space provided above.

3. Sign the honor code pledge in the space provided above.

4. The deadline for submitting your answers is Monday, February 1, at 11:59 p.m. Submissions should be pdf files or Word documents and made through the course website. Submissions may be scans of handwritten or typed answers, BUT SCANS MUST BE CLEARLY LEGIBLE.

5. You should to make only one submission. Additional submissions will not be considered. Make sure your answers are complete and final before you submit.

6. This is an open-book, open-notes exam. However, you may not discuss the exam with anyone except the professor until the deadline for submitting your answers has passed.

7. The exam consists of one question, with parts a) through e), and has 40 possible points. The possible points for each part of Question 1 are given with that part.

8. Make sure you read the questions carefully, answer the questions that are asked, and do not include information that is unrelated to the questions.

9. If you experience any difficulty submitting your answers, please contact Canvas support (available 24/7/365) by phone at 844.334.6803 or by chat. These people are the best equipped to deal with technical problems. If assistance from Canvas support does not allow you to submit your answers prior to the deadline, then (and only then) please e-mail your answers to John.Huizinga@ChicagoBooth.edu prior to the deadline.

1. The January 14, 202 issue of *The Wall Street Journal* contained an editorial by John F. Cogan and John B. Taylor entitled *Those $2,000 Checks Won't Boost the Economy*. The editorial states, "President-elect Biden is promising another round of federal spending to 'stimulate' the economy. Jumping on the bandwagon for $2,000 checks may be only the beginning. But history shows such spending does nothing to stimulate the economy. In the end, it only adds to the federal debt."

   a) Explain how the Classical model developed in class can be used to analyze the effect on output, income and employment of the government sending a $2,000 check to each household in America, with funding for checks coming from the issuance of government debt. You need not do the analysis (yet). Merely explain what exogenous variable or variables you would change and the generic steps you would take in the analysis. (6 points)

   Cogan and Taylor appear to defend their position with the following two-part analysis: (i) what would this sending of checks do to household consumption; (ii) if household consumption increases then conclude that output, income and employment will rise, presumably via the equation Y = C + I + G. They conclude that the $2,000 will result in minimal changes in household consumption and therefore minimal impact on output, income and employment.

   b) Critique this approach. Specifically, if a policy initiative can be expected to increase consumption then can it be expected to increase output, income and employment? Explain. (3 points)

   c) Use the Classical model developed in class to analyze the effect on output, income and employment of the government sending a check to every household in the country, with the funds to pay for this expenditure raised through the issuance of new government debt. Do the same for the pre-tax real wage, consumption and utility. Use both graphs and words. (13 points)

Cogan and Taylor not only criticize the “$2,000 check” policy in terms of its stimulus effects, they offer an alternative fiscal policy that they prefer. According to the authors, “. . . fiscal policy should focus on controlling federal spending. Continued spending increases are an impediment to economic growth.”

They justify their position with the following: “The short-term impact occurs because restraining federal spending reduces the expected magnitude of future distortionary tax increases.”

d) Compare the Classical model developed in class with the model Cogan and Taylor appear to have in mind, using the concept of endogenous and exogenous variables. Specifically, assume that what Cogan and Taylor are saying is that if government spending is reduced today then households expect the future income tax rate to be lower and explain how Cogan and Taylor have an expanded set of endogenous variables compared to the model developed in class. (3 points)

e) Augment the Classical model developed in class by assuming that Cogan and Taylor are correct in their assumption that households reduce their expected future income tax rates when they see reductions in current government spending.

   In this augmented model, what should a decrease in government purchases do to current output, employment and income? Explain your answer graphically and with words. Explain if it would make any difference if a decrease in government spending lead households to reduce their expected future sales tax rates instead of expected future income tax rates.

   Make sure to include in your explanation what role, if any, income and substitution effect play in your analysis. (15 points)