SIMON FRASER UNIVERSITY
Department of Economics

Econ 446 — Prof. Kasa
Seminar in International Finance — Spring 2022

MIDTERM EXAM - Take Home, Due March 3 (midnight)

Answer the following questions True, False, or Uncertain. Briefly explain your answers. (10 points each).

1. A country cannot run current account deficits forever.
2. According to Ventura (2000), increased saving causes current account *deficits* in debtor countries.
3. According to the Balassa-Samuelson model, rapid productivity growth causes a depreciation of the real exchange rate.
4. According to Gourinchas & Rey (2007), current account imbalances should forecast future exchange rates.

   The following questions are short answer. Briefly explain your answer. Clarity will be rewarded.

5. (30 points). **Estimating the Present Value Model of the Current Account**. Pick a country, and following the Campbell-Shiller methodology outlined in class (see lecture slides "Slides for Stochastic Infinite Horizon Models"), estimate and test the Present Value Current Account model. For the country you pick you should do the following:

   (a) Collect data on the current account, GDP, gross investment, and government spending. The data should be in real terms. Quarterly data is preferable, but use annual if you can't get quarterly.

   (b) Form the net output series $Q = Y - G - I$, and report a time-series plot of it along with the current account. First difference Q and create the series $\Delta Q_t = Q_t - Q_{t-1}$.

   (c) De-mean both CA and ΔQ by regressing them on an intercept and taking the residual. (Use whatever software you want).

   (d) Estimate first-order (vector) autoregressions of CA_t and ΔQ_t on $(CA_{t-1}, \Delta Q_{t-1})$, and save the estimated coefficients into the Ψ matrix.

   (e) Use the Ψ matrix to construct the the model based forecast of the discounted present value of the future ΔQ_{t+j}'s. Use a discount factor of $\beta = (1+r)^{-1} = .97$. This is the model's predicted current account.

   (f) Report a time-series plot of the predicted current account along with the actual current account. What is the correlation coefficient?

   (g) Bonus: Formally test the null hypothesis that the predicted current account equals the actual current account by constructing the Wald chi-squared statistic (with 2 degrees of freedom).

6. (30 points). Briefly describe the "Allocation Puzzle" discussed in the paper by Gourinchas & Jeanne. What evidence do they use to identify this puzzle? On what assumptions is it based? According to Gourinchas & Jeanne, what is driving this puzzle? How does the paper "Growing Like China" relate to this puzzle? Briefly describe other potential explanations.