

SIMON FRASER UNIVERSITY  
Department of Economics

Econ 446  
Seminar in International Finance

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Spring 2024

MIDTERM EXAM - Take Home, Due February 16 (midnight)

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

1. Empirical evidence suggests that countries experiencing relatively rapid productivity growth run current account deficits.
2. Increased government spending produces current account deficits.
3. Evidence suggesting that current accounts are countercyclical contradicts the Present Value Model of the current account.
4. Current account surpluses signal a country's strength and competitiveness in world markets.

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.
  - (c) De-mean both  $CA$  and  $\Delta Q$  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  $\Delta Q_t$  on  $(CA_{t-1}, \Delta Q_{t-1})$ , and save the estimated coefficients into the  $\Psi$  matrix.
  - (e) Use the  $\Psi$  matrix to construct the the model based forecast of the discounted present value of the future  $\Delta Q_{t+j}$ '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). What is the Feldstein-Horioka puzzle? On what evidence is it based. Briefly describe how Ventura (2002) proposes to explain it.