International Trade
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International Trade (8402)

Fall 2007, Mini 2

Problem set 3

Due Wednesday, Nov. 7, in class.

Part 1.

Obtain data from the OECD national quarterly accounts for GDP, consumption (including private and public), investment (gross capital formation), exports, imports, terms of trade and employment for United States, Japan, Canada, UK, France and Italy for the period 1973.1 2007.3. (or the longest period you can get). Obtain real exchange rate data (for the same period) from the IMF international financial statistics. Compute the statistics reported in panels A & B and last two columns of panel C of Heathcote and Perri, 2002 for each country. Briefly comment on whether the business cycles look similar across these countries. Compute pairwise correlations of output, consumption , investment and employment and report mean and medians of these correlations.

Repeat the exercise above adding a variable that measure the price of the stock market for every country (you can obtain the data from MSCI Barra or from the OECD main economic indicators). In particular compute stock market volatility (relative to GDP) and domestic and international comovements of the stock market. Also compare the cross sectional dispersion of the stock market performance with the cross sectional dispersion of GDP.

Part 2

Solve the model in Heathcote and Perri (in complete markets, bond economy and financial autarky) using a package of your choice. Set the parameters to the benchmark in the paper and produce business cycle statistics like the ones in table 2.

Now assume that while consumption is produced using the aggregate between good a and b, investment is produced using only the local good. Recalibrate the ω in the

aggregator to get the same trade share as in the benchmark version and otherwise leave all other parameters the same. Recompute business cycle statistics and assess what is the major impact of this modelling change.

Part 3

Using the benchmark parameters assess how well the model does in terms of stock market variables. (Also describe in detail how you compute stock prices in the various market structures of the model).