

Homework 4  
Due in class on Wednesday April 15

Instructions:

Review whatever concepts from Chapters 5/16 and 6/17 are necessary to answer the questions on this assignment. Type up your answers using Microsoft Word or similar. Bring two copies to class April 15.

Assume the following:

- A. no capital controls: anyone in the country can borrow or lend freely at the world interest rate  $r^*$
- B. small open economy: takes the world interest rate  $r^*$  as given ( $r^*$  is exogenous)
- C. all prices flexible: thus, long run analysis
- D. no unilateral transfers (NUT = 0)
- E. no capital gains on external wealth, the only income on external wealth is interest income
- F. the only transfers of factor income (NFIA) are interest income. NFIA equals interest income the U.S. earns on its holdings of foreign assets minus interest income foreigners earn on their holdings of U.S. assets.
- G. zero non-market capital transfers

1. What is the relationship between GNI and GNDI?
2. What is the difference between GNE and GDP?
3. Let  $A$  = total U.S. holdings of foreign assets, also called external assets, and let  $L$  = total foreign holdings of U.S. assets, also called external liabilities. Let  $W = A - L$ .  $W$  is called external wealth. Write down an expression for NFIA that involves any or all of these variables:  $\{W, A, L, r^*\}$
4. Write down an expression for the current account (CA) that reflects the assumptions made above and incorporates your answer to 3, if appropriate.
5. The BOP identity from Chapter 5/16 is:  $CA + FA + KA = 0$ . Solve it for FA and simplify using the assumptions and, if appropriate, any results you obtained from 3 or 4.
6.  $FA = EX_a - IM_a$ . Write down the name and intuitive meaning of each of these variables. (I'll get you started:  $EX_a$  is the U.S.' exports of assets, or foreign purchases of U.S. assets, which essentially means foreign lending to the U.S.) Then, tell me what is the relationship, if any, between  $EX_a$  and  $L$  and  $W$ ? What is the relationship, if any, between  $IM_a$  and  $A$  and  $W$ ? What is the relationship, if any, between  $FA$  and  $W$ ?