

Problem Set 1 – National Accounts

Questions

1.1 The textbook discusses many different definitions of national and domestic production, income, and expenditures. Consider the following measures: GDP, GNI, and GNDI. Which do you believe is the most accurate measure of economic performance and why?

1.2 Note the following the accounting identity for gross national disposable income: $GNDI = GNI + NUT$. Departing from this identity, show that:

- (a) The current account is equal to domestic savings less domestic investment.
- (b) The current account plus investment is equal to private saving plus government saving.
- (c) An increase in government spending can lead to a reduction in the CA.

1.3 Consider the following information on a hypothetical economy, Schmidtland:

Balance of Payments Accounts	National Income and Product Accounts
Current Account = \$1,000 million	GNE = \$8,000 million
Non-reserve financial account deficit = \$850 million	Consumption = \$5,000 million
Capital Account = \$75 million	Government Consumption = \$1,100 million
Foreign Factors' Earnings = \$150 million	Government Budget Deficit = \$250 million
Trade Surplus = \$700 million	
Net Unilateral Transfers = -\$50 million	

- (a) Calculate Schmidtland's financial account.
- (b) Is Schmidtland a net lender or a net borrower? Explain how you know.
- (c) Calculate the official settlements balance for Schmidtland.
- (d) Calculate the net factor income from abroad for Schmidtland.
- (e) How much did Schmidtlandian factors abroad earn?
- (f) Calculate Schmidtland's GDP, GNI and GNDI.
- (g) Calculate the value for investment.
- (h) Compute the national and private savings for Schmidtland.
- (i) Suppose that valuation effects implied a capital gain of 220 million on external wealth. Calculate the change in Schmidtland's external wealth. Based on these data discuss the three sources of the change in external wealth. Which one appears to be most important in Schmidtland? Explain.

1.4 A hypothetical economy, Global2, was just hit by a hurricane. As a consequence, some information on the national accounts was lost. The following table reports the information that was possible to retrieve:

National Income and Product Accounts	Balance of Payments Accounts
GNDI = \$ 33.500 million GDP = \$30,000 million Investment = \$8.000 million Government Expenditures = \$2.500 million Private Savings = \$5.000 million	Capital Account = \$150 million Official Reserve Transactions = -\$500 million Trade Balance = -\$1000 million NFIA = \$ 2150 million

- (a) Given the presented values, compute:
- (a1) The current account and the financial account. Is global2 a net lender?
 - (a2) The consumption and taxes. Is the government running a public deficit?
 - (a3) The non- reserves financial account and the official settlements balance.
- (b) In the aftermath of the hurricane, the two closest Global2's neighbours prompted to offer help in different ways: the Republic of Naboo has donated \$20 million in medical and food supplies and the government of Coruscant has forgiven a \$5 million in debt owed to them by the government of Global2.
- (b1) Explain how these transactions affects the balance of payments.
 - (b2) What will be the effect of these transactions over Global2's current account balance, GDP, GNDI, capital account, financial account and net international investment position?

1.5 The statistical authorities of *Schmidthasgone*, a country without Government, have recently reported the following nominal macroeconomic aggregates for the year 2023:

Aggregate	Value
Gross National Income	500
Current Account	70
Total Consumption	400
Net Factor Income from Abroad	-50
Net Unilateral Transfers	20
Non Reserves Financial Account	20
Capital Account	30

- (a) The IMF is very interested in studying this economy but needs help in finding some additional macro aggregates:
- (a1) Compute the trade balance.
 - (a2) Compute the total savings of Schmidthasgone.
 - (a3) Compute the official reserve transactions.
- (b) The IMF is worried about the level of investment. Based on the macro fundamental identity, do you think it is too high or too low? Discuss.