

Problem Set Chapter 2 – Selected Assigned Problems Answers
GOUCHER COLLEGE
EC 217 - Intermediate Macro Theory
Spring 2015

Review Questions – Questions 2 and 10.

Numerical Problems – Questions 5 and 7.

Analytical Problems - Question 3.

Answers to Problem Set 2

Review Questions

2. Goods are measured at market value in GDP accounting so that different types of goods and services can be added together. Using market prices allows us to count up the total dollar value of all the economy's output. The problem with this approach is that not all goods and services are sold in markets, so we may not be able to count everything. Important examples are homemaking and environmental quality.
10. The nominal interest rate is the rate at which the nominal (or dollar) value of an asset increases over time. The real interest rate is the rate at which the real value or purchasing power of an asset increases over time, and is equal to the nominal interest rate minus the inflation rate. The expected real interest rate is the rate at which the real value of an asset is *expected* to increase over time. It is equal to the nominal interest rate minus the expected inflation rate. The concept that is most important to borrowers and lenders is the expected real interest rate, because it affects their decisions to borrow or lend.

Numerical Problems

5. Given data: $I = 40$, $G = 30$, $GNP = 200$, $CA = -20 = NX + NFP$, $T = 60$, $TR = 25$, $INT = 15$, $NFP = 7 - 9 = -2$. Since $GDP = GNP - NFP$, $GDP = 200 - (-2) = 202 = Y$. Since $NX + NFP = CA$, $NX = CA - NFP = -20 - (-2) = -18$. Since $Y = C + I + G + NX$, $C = Y - (I + G + NX) = 202 - (40 + 30 + (-18)) = 150$.
 $S_{pvt} = (Y + NFP - T + TR + INT) - C = (202 + (-2) - 60 + 25 + 15) - 150 = 30$. $S_{govt} = (T - TR - INT) - G = (60 - 25 - 15) - 30 = -10$. $S = S_{pvt} + S_{govt} = 30 + (-10) = 20$.
 - (a) Consumption = 150
 - (b) Net exports = -18
 - (c) GDP = 202
 - (d) Net factor payments from abroad = -2
 - (e) Private saving = 30
 - (f) Government saving = -10
 - (g) National saving = 20

7. Calculating inflation rates:

$$1929-30: [(50.0/51.3) - 1] \times 100\% = -2.5\%$$

$$1930-31: [(45.6/50.0) - 1] \times 100\% = -8.8\%$$

$$1931-32: [(40.9/45.6) - 1] \times 100\% = -10.3\%$$

$$1932-33: [(38.8/40.9) - 1] \times 100\% = -5.1\%$$

These all show deflation (prices are declining over time), whereas recently we have had nothing but inflation (prices rising over time).

Analytical Problems

3. (a) The problem in a planned economy is that prices do not measure market value. When the price of an item is too low, then goods are really more expensive than their listed price suggests—we should include in their market value the value of time spent by consumers waiting to make purchases. Because the item's value exceeds its cost, measured GDP is too low.

When the price of an item is too high, goods stocked on the shelves may be valued too highly. This results in an overvaluation of firms' inventories, so that measured GDP is too high.

A possible strategy for dealing with this problem is to have GDP analysts estimate what the market price should be (perhaps by looking at prices of the same goods in market economies) and use this "shadow" price in the GDP calculations.

- (b) The goods and services that people produce at home are not counted in the GDP figures because they are not sold on the market, making their value difficult to measure. One way to do it might be to look at the standard of living relative to a market economy, and estimate what income it would take in a market economy to support that standard of living.