

Finance 30220
Quiz #2

Name _____

Section _____

- 1) Suppose that we have the following information on prices and production levels in the US:

	<i>Manufacturing</i>		<i>Services</i>	
	Price	Quantity	Price	Quantity
January 2007	\$50	400	\$20	200
January 2008	\$55	350	\$30	240

- a) Surveys indicate that the average household spends 70% of their budget on manufactured goods and 30% on services. Calculate a fixed weight price index for 2007 and 2008.

To calculate a fixed weight index, we need some weights....in this case 30%, 70%.

$$P_{2007} = (.70)(\$50) + (.30)(\$20) = \$41$$

$$P_{2008} = (.70)(\$55) + (.30)(\$30) = \$47.50$$

We could represent these prices relative to a base year as well...

$$P_{2007} = \left(\frac{\$41}{\$41} \right) * 100 = 100$$

$$P_{2008} = \left(\frac{\$47.50}{\$41} \right) * 100 = 116$$

Or

$$P_{2007} = \left(\frac{\$41}{\$47.50} \right) * 100 = 86$$

$$P_{2008} = \left(\frac{\$47.50}{\$47.50} \right) * 100 = 100$$

- b) What problems are associated with calculating a price index? (Name one)
- Outlet Bias (Prices should reflect the locations that people shop)
 - New goods replacing old goods
 - Adjusting for quality improvements
 - Housing costs

2) Suppose that you have the following information on an economy:

- Gross Domestic Product: \$14,000
- Government Purchases: \$3,000
- Tax Revenues: \$1,500
- Net Exports: -\$800
- Net Factor Payments: \$125
- Consumption Expenditures: \$10,500
- Depreciation: \$1,800
- Indirect Taxes: \$300

Find national income, private savings, and gross investment

National Income = GDP + NFP – Depreciation – Indirect Taxes

$$= 14,000 + 125 - 1,800 - 300 = 12,025$$

Private Savings = National Income – Taxes – Consumption

$$= 12,025 - 1,500 - 10,500 = 25$$

Gross Investment = GDP – Consumption – Government Purchases – Net Exports

$$= 14,000 - 10,500 - 3,000 - (-800) = 1,300$$