Economics 201
Introduction to Economic Analysis Problem Set \#7

Fall 2013
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Due: Wednesday, November 27

1. Suppose that consumers in the hypothetical economy of Reedia buy three goods: cell phones, abalone dinners, and "other stuff." The consumption by the average consumer in Reedia bought the indicated quantities of each good at the prices shown in 1975 and 2005.

| Good | 1975 |  |  | 2005 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Price | Quantity | Expenditures | Price | Quantity | Expenditures |
| Cell <br> phones | $\$ 2000$ | 0.001 | $\$ 2$ | $\$ 50$ | 1 | $\$ 50$ |
| Abalone <br> dinners | $\$ 10$ | 12 | $\$ 120$ | $\$ 200$ | 0.01 | $\$ 2$ |
| Other <br> stuff | $\$ 100$ | 10 | $\$ 1,000$ | $\$ 200$ | 12 | $\$ 2,400$ |
| Total |  |  | $\$ 1,122$ |  |  | $\$ 2,452$ |

a. The Consumer Price Index uses a Laspeyres price index based on the "base-year" market basket. Suppose that the base year is 1975. How much would the 1975 market basket have cost at 2005 prices? How much did it cost in 1975? What would be the 2005 value of the CPI based on this market basket with $1975=100$ ?
b. The GDP consumption deflator uses a Paasche price index based on the "givenyear" market basket. How much did the 2005 market basket cost at 2005 prices? How much would it have cost at 1975 prices? What would be the 2005 value of the GDP consumption deflator with $1975=100$ ?
c. Which of the price indexes overstates and which understates inflation and why? Can you think of a way to avoid this problem?
2. (From Mankiw) What components of GDP (consumption, investment, government spending, net exports), if any, would each of the following affect and how? Explain. (Be careful to include all aspects of each transaction.)
a. A family buys a new refrigerator.
b. Chase Chevy sells a car from its inventory.
c. You buy a pizza.
d. Multnomah County replaces the Sellwood Bridge.
e. Your professor buys a bottle of South African pinotage at a local shop.
f. Honda builds onto its factory in Ohio.
3. (From Mankiw) International data show a positive correlation between income per person and health outcomes. Can we be confident which way the causality runs (or that there is any
causality at all)? Why might it be important for policymakers to know which way the causality runs?
4. (From Mankiw) From 1950 to 2002, manufacturing employment as a percentage of total employment in the United States fell from 28 percent to 13 percent. At the same time, manufacturing output experienced slightly more rapid growth than the overall economy.
a. What do these facts say about growth in labor productivity in manufacturing?
b. In your opinion, should policymakers be concerned about the decline in the share of manufacturing employment? Explain.
5. Suppose that in January 2013 Joan Jones buys an existing house from Alton Dalton for $\$ 400,000$. Closing costs include a $\$ 20,000$ commission to UN Realty, a $\$ 2,000$ title research and transfer fee to SUB Title, and a $\$ 4,000$ loan origination fee to River Bank. During 2013, Joan pays $\$ 1,500$ in principal on her mortgage and $\$ 15,000$ in interest. How (if at all) do the above transactions enter into 2013 GDP?

