Australian Graduate School of Management

MNGT5200 Economics
Term 1 2004

Notes on
Sample Questions on GDP, Price Indices, Growth and Money

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Question 1.
a. The price of food increased by 150%. The price of clothing increased by 50%.
b. It cost consumers a total of $1200 to purchase 50 units of food and 100 units of clothing in 2000. In 2001, it cost consumers $2000 to buy the same amounts as in 2000. Therefore the overall price level increased by 67% ($800/$1200).
c. Since the price of food increased relatively more than did the price of clothing, people who purchase a lot of food and little clothing became worse off relative to people who purchase a lot of clothing and little food.

Question 2.
a. The expected real interest rate is 5%.
b. The actual real interest rate is 2%.
c. George, the banker, loses because he receives less real interest income than he expected. Henry and Ellen gain because they pay less real interest than they expected.

Question 3.
a. The real mortgage interest rate in 1999 is 10%, in 2000 it is –1%, in 2001 it is 0%, and in 2002 it is 1%.
b. Les's 1999 payment in 1998 dollars is $1000, his 2000 payment in 1998 dollars is $900, his 2001 payment in 1998 dollars is $818, and his 2002 payment in 1998 dollars is $750.

Question 4.
Using the rule of 70, we determine that the average income in the country will double in about 20 years (70/3.5). Hence, average income will be about $2000 in 1920, $4000 in 1940, $8000 in 1960, $16,000 in 1980, and $32,000 in 2000.

Question 5.
There is a positive statistical correlation between the share of GDP devoted to investment and the rate of economic growth, and a negative statistical correlation between population growth rate and the rate of economic growth. The correlations do not prove causal direction. However, economic theory provides strong reason to believe that higher shares of GDP devoted to investment leads to higher rates of economic growth, and that higher rates of population growth lead to lower rates of economic growth.

Question 6.
Since bearing a child has an opportunity cost, policies designed to increase the opportunity cost of bearing children would likely reduce population growth rates. In particular, women with the opportunity to receive good education and desirable employment tend to want to have fewer children than do those with fewer opportunities outside the home. Hence, policies designed to increase educational and employment opportunities for women will likely reduce population growth rates without coercion.

Question 7.
a. $5000
b. $10,000
c. $12,500
d. $20,000
e. $50,000
f. $500,000

Question 8.
a. If the public decides to hold more currency, it can do so only by taking reserves out of the banking system. With fewer reserves in the banking system, there will be less bank money, hence the money supply will fall.
b. If banks decide to hold fewer excess reserves, they will lend more reserves, lowering the reserve ratio and increasing the money multiplier. Additional bank money will be created, and the money supply will increase.

Question 9.
As shown in the graph below, the economy starts in equilibrium at point E_0, with interest rate r_0 and equilibrium quantity saved and invested at q_0. If the investment tax credit is abolished, the incentive to invest is reduced, and less investment will be undertaken at each interest rate. Therefore, the demand for loanable funds curve shifts from D_0 to D_1. The new equilibrium is at E_1, with a lower interest rate, r_1, and a lower level of saving and investment, q_1. Hence, elimination of the investment tax credit reduces interest rates and reduces investment.