

宏观第一次作业

$$(1) \text{ GDP} = 100 \times 10 + 200 \times 1 + 500 \times 0.5 = 1450$$

$$(2) \text{ GDP} = 110 \times 10 + 200 \times 1.5 + 450 \times 1 = 1850$$

$$(3) 2016: \text{ GDP} = 1450$$

$$2017: \text{ GDP} = 110 \times 10 + 200 \times 1 + 450 \times 0.5 = 1525$$

$$\text{变化: } \frac{1525 - 1450}{1450} \times 100\% \approx 5.2\%$$

$$(4) 2016: \text{ GDP} = 100 \times 10 + 200 \times 1.5 + 500 \times 1 = 1800$$

$$2017 \text{ GDP} = 1850$$

$$\text{变化: } \frac{1850 - 1800}{1800} \times 100\% \approx 2.8\%$$

(5). 不对。实际 GDP 指使用一国不变价格衡量的产品与服务的价值，它的变化与价格无关，只和这些产品与服务的数量有关。

$$(6) 2016: (1450 \div 1450) \times 100\% = 100\%$$

$$2017: (1850 \div 1525) \times 100\% \approx 121.3\%$$

$$2. 1) \text{ NDP} = \text{GDP} - \text{折旧} = 4800 - (800 - 300) = 4300$$

$$2) \text{ 净出口 NX} = \text{GDP} - (C + I + G) = 4800 - (3000 + 800 + 960) = 40$$

$$3) T = 960 + 30 = 990$$

$$4) \text{ DPI} = \text{NDP} - 960 = 4300 - 960 = 3340$$

$$5) S = \text{DPI} - C = 3340 - 3000 = 340$$

$$(3) 1) C = \text{DPI} - S = 4100 - 3000 = 1100$$

$$2) I = \text{GDP} - C - G - \text{NX} = 5000 - 1100 - 200 - 100 = 3600$$

$$3) G =$$



$$4. \text{NI} = \text{NI} = 250 + 500 + 25 + 140 + 100 + 200 = 995 + 200 =$$

$$4. \text{NI} = 250 + 500 + 25 + 140 + 200 + 100 = 1215$$

$$\text{NDP} = \text{NI} + 140 + 15 + 10 = 1230.$$

$$\text{GDP} = \text{NDP} + 20 = 1430.$$

$$\text{PI} = \text{NI} - 10 - 250 + 50 = 905$$

$$\text{附1: } 1) 1.34 \text{ 亿} + 860 \text{ 万} = 1.426 \text{ 亿}$$

$$2) \frac{1.426 \text{ 亿}}{1.426 \text{ 亿} + 709 \text{ 万}} \times 100\% = 66.8\%$$

$$4) \frac{860 \text{ 万}}{1.426 \text{ 亿}} \times 100\% = 6\%$$

$$2. \text{N GDP}_{2001} = 10 \times 9 + 5 \times 6 = 120$$

$$\text{GDP}_{2002} = 12 \times 10 + 6 \times 8 = 168$$

$$\text{GDP}_{2003} = 10 \times 12 + 8 \times 10 = 200$$

$$3. \text{R GDP}_{2001} = 120$$

$$\text{GDP}_{2002} = 10 \times 10 + 5 \times 8 = 140$$

$$\text{GDP}_{2003} = 10 \times 12 + 5 \times 10 = 170$$

$$4. \text{deflator}_{2001} = \frac{120}{100} \times 100\% = 100\%$$

$$\text{deflator}_{2002} = \frac{168}{140} \times 100\% = 120\%$$

$$\text{deflator}_{2003} = \frac{200}{170} \times 100\% = 117.6\%$$

$$\pi_{2001-2002} = \frac{120 - 100}{100} \times 100\% = 20\%$$

$$\text{Campus } \pi_{2002-2003} = \frac{117.6\% - 120\%}{120\%} \times 100\% = -2\%$$



$$4) \text{CPI}_{2001} = 100\%$$

$$\text{CPI}_{2002} = \frac{2 \times 12 + 1 \times 6}{2 \times 10 + 1 \times 5} \times 100\% = 120\%$$

$$\text{CPI}_{2003} = \frac{2 \times 10 + 5 \times 8}{25} \times 100\% = 20\%$$

$$\text{inflation}_{2002}^{\pi} = \frac{120 - 100}{100} \times 100\% = 20\%$$

$$\text{inflation}_{2003}^{\pi} = \frac{20\% - 120\%}{120\%} \times 100\% = -6.67\%$$

原因：用 CPI 算 inflation 时，篮子中的权数是不变的，但实际上人们会因为物价浮动而产生改变购买数量的激励，所以 CPI 与真实物价间有一定误差

$$3. \text{CPI}_{2010} = 4 \times 150 + 100 \times 20 + 2 \times 80 = 2360$$

$$\text{CPI}_{2011} = 5 \times 150 + 150 \times 20 + 3 \times 80 = 3490$$

$$\text{CPI}_{2012} = 6 \times 150 + 300 \times 20 + 2 \times 80 = 6460$$

$$1) \text{CPI}_{2010} = 100\%$$

$$\text{CPI}_{2011} = \frac{3490}{2360} \times 100\% = 147.9\%$$

$$\text{CPI}_{2012} = \frac{6460}{2360} \times 100\% = 273.7\%$$

$$2) \text{inflation}_{10-11} = \frac{147.9 - 100}{100} \times 100\% = 47.9\%$$

$$\pi_{11-12} = \frac{273.7\% - 147.9\%}{147.9\%} \times 100\% = 85.1\%$$



(3). 总收

(4). $QJ_{2010} = 1\%$

$$QJ_{2011} = \frac{3490 + \frac{1}{2} \times 5000}{2360} \times 1\% = 253.8\%$$

$$QJ_{2012} = \frac{6460 + 1 \times 10000}{2360} \times 1\% = 697.5\%$$

