

Final Exam 102 Spring 2009 - Answers

1. D
2. a.
3. d.
4. a.
5. c.
6. b.
7. c.
8. d.
9. c.
10. C
11. a.
12. B
13. A
14. b
15. a.
16. d.
17. c.
18. C
19. A
20. D
21. C
22. C
23. a.
24. d.
25. c.

II Below, short answers only are provided.

2.1

- a. Average productivity is equal to the level of output per unit of input achieved in an economy in a given year
- b. If productivity is $A=Y/L$ and the labor cost per unit is $c=w(L/Y)$ where Y is output and L in input, then $c=w/A$. It means that the unit cost of production c depends on the wage (or the cost of the input) and the efficiency with which the input is able to produce output (which the productivity). The unit cost is higher the higher the wage and the lower the productivity.
- c. The above relationship between unit cost and productivity implies that one can have a country with a high value of c despite a very low value of w . This is the case as long as A is very low as well. Thus a developing country (with a low w and a low A) may not be a better place to produce than a developed country. Examples abound such as Switzerland vs China.

2.2

- a. A bank has \$100 in deposit and as borrowed \$100 from other banks in order to make loans for a total of \$180 (the balance being held as assets). Suddenly other banks are afraid to lend to this particular bank because they suspect it made bad loans. If they refuse to lend the bank money, the bank must find a way to reduce its balance sheet by calling loans (i.e. by asking the businesses to which a credit line has been granted to pay back their credit line). This will have a decrease overall loans in the economy and oblige business to either to reduce their activities or even to close because they can no longer finance their activities.
- b. The non-banking financial sector issues securities that it sells to investors for firms wanting to raise money for their activities. These firms do this instead of contracting loans with banks. If investors get suddenly afraid that they may not see their money back, then they no longer want to invest in these assets. This means that firms would have a difficult time to raise money through the non-banking sector with a crippling effect on the financing of their activities.
- c. The banking sector is more prudent and keeps a higher share of deposits under reserve and the banking sector has a more difficult time to borrow money from other banks. The net result is that loans made by banks decrease with respect to the pre-financial crisis level.

2.3.

- a. By exporting more than it imports, China is accumulating a lot of foreign reserves (US\$). They could keep these foreign reserves or they could invest them buy buying assets. Investing them in US treasury bills, these dollars go back to the US making it easier for the US to borrow as the interest rate is lower than what it would be if China did not invest in treasury bills. It is in China interest to do so as the Americans consume more when interest rates are low than when they are high.

- b. The US has an interest to sell these assets because they can finance their activities despite a low saving rate at home. In fact because interest rates were kept low, saving rates decreased as US citizens preferred consuming. This is possible because China invested in these assets despite low interest rates.
- c. The imbalance is a dangerous situation because IOUs pile up which means that the US is getting more and more into debts. This is not sustainable and one risk is that foreign lenders may no longer want to lend money to the US (as in the case of Greece) because they might be afraid that the US can no longer pay its debt. It also drives the value of the \$ down which is a good thing only if the lender (the Chinese) let the value of their own currency rises. The longer the imbalance lasts, the more dependent the US and China become; this also implies increased tensions between the two countries as their interests in maintaining the imbalance diverge.