**GDP and the business cycle**

Monday, 11/10

Homework for Weds. 11/12

Read chapter 8

Do problems 8-2; 8-5; 8-8 and 8-15

Key Terms:

GDP

GNP

Total Income

Final Goods and Services

Intermediate Goods

Value Added

Markets: Product

Factor

Output

What’s excluded from GDP?

Financial Transactions

Transfers

Measuring GDP:

Name and define each including the components and equations

1.

2.

Nominal Value (in regards to GDP)

Real Value (in regards to GDP

DPI

GDP limitations

To Do in Pairs:

1. Assume last year consumption expenditure was $70B, investment was $16B, government purchases of goods and services were $12B, exports were $4B, and imports were $3B
   1. What did GDP equal last year?
   2. This year imports increased by $5B. If all other types of expenditures stay the same, what does GDP equal this year?
2. One of 4 expenditure categories in GDP is net exports. How can net exports be negative?
3. Is the computer chip that Dell Corp. buys from Intel Corp. is a final good?

1. Purchasing a dump truck is a consumption expenditure?
2. Does the value of production equal income which equals expenditure?
3. Which is a final good:
   1. Flour used to bake bread
   2. Bread used for sandwiches for your lunch
   3. Songs downloaded on your iPod
   4. A tractor used by a farmer to plant corn
4. Give 2 examples of an investment (included in GDP)?
5. In one year, a firm increases its production by $9M and increases sales by $8M. Ceteris paribus (all things equal), in the economy:
   1. GDP increases by $8M and inventory investment decreases by $1M.
   2. GDP increases by $9M and inventory investment increases by $1M
   3. Inventory investment decreases by $1M
   4. GDP increases by $8M and investment increases by $1M
   5. GDP increases by $17M
6. Expenditure equals (give equation elements)
7. Additions to inventories are counted in what component of GDP?
8. Why are intermediate goods or services NOT counted in GDP?
9. Why does total expenditure equal total income?

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| --- | --- |
| **Item** | **Amount ($ in billions)** |
| Wages | 5875 |
| Consumption expenditures | 6987 |
| Indirect taxes less subsidies | 630 |
| Interest, rent, and profit | 2248 |
| Depreciation | 1329 |
| Investment | 1586 |
| Statistical discrepancy | 0 |
| Net exports | -349 |

1. The table above gives some of the items in the US National Income and Product Accounts for 2001.
   1. Calculate the US GDP in 2001 using both the expenditure and income approaches (show work below)
2. What is the difference between nominal and real GDP? Can they ever be equal?
3. Why do we use real GDP rather than nominal GDP when we measure changes in production?
4. What’s the difference between GDP and GNP?
5. Why hasn’t the US used GNP to measure GDP since 1991?