

UNIT 2 – SUPPLEMENT 1b:  
DIFFICULTIES AND PROBLEMS WITH NATIONAL INCOME ACCOUNTING

We define “national output” as the total market value of all final goods and services produced and sold during a particular year.

When we measure national output, we add together the dollar selling amounts of all the things that we have sold. But every time something is sold for \$500, that \$500 becomes someone else’s income. So if we say that Americans produced and sold \$10 trillion worth of goods and services last year, that automatically means that Americans earned \$10 trillion in income last year. This leads to the following identity, which is very important to remember.

$$\text{National Output} = \text{National Income}$$

In the real world, there are five different measures of national output. They are similar, but each one is slightly different than the others.

GDP (Gross Domestic Product)  
GNP (Gross National Product)  
NDP (Net Domestic Product)  
NNP (Net National Product)  
NI (National Income)

Their relations to each other:

$\text{GDP} - \text{Depreciation} = \text{NDP}$   
 $\text{GNP} - \text{Depreciation} = \text{NNP}$   
 $\text{NNP} - \text{Sales Taxes} = \text{NI}$

Major Issues and Problems in Measuring National Output

- (1) How to define an economy  
two approaches: (a) geographic definition: GDP  
(b) citizenship definition: GNP
- (2) How to avoid multiple counting:  
include final goods only (consumer goods plus capital goods);  
do not include intermediate goods.

- (3) What to do about goods and services (and bads) that have no market price:
- (a) public goods: estimate hypothetical market value; use either govt. spending on it or a survey of consumers or ignore it
  - (b) household production: in principal - include this; in practice - do not include
  - (c) pollution: estimate hypothetical loss in market value; use either the cost of cleaning it up or a survey of consumers or ignore it
- (4) What to do about nonproduction transactions:
- (a) secondhand, used, and antique goods: do not include
  - (b) financial only transactions such as selling or buying some GM stock: do not include
- (5) How to adjust for the effects of inflation:
- two steps: (a) calculate a price index for all years
  - (b) use this to convert all numbers to "real" values
- (6) What to do about illegal and underground transactions
- in principal - may want to include this; in practice - do not include
- (7) What to do about depreciation of the capital stock:
- two approaches: (a) do not use this information: GDP and GNP
  - (b) subtract depreciation from national output: NDP and NNP
- (8) What to do about sales taxes:
- two approaches: (a) include them in the prices: GDP, GNP, NDP, NNP
  - (b) eliminate effect of sales taxes by subtracting sales taxes from NNP: NI