

Measuring GDP

GDP measures value of all goods & services produced in a country during a period of time.

What - goods - (newly ^{only} produced)
services measured in terms of value = price of each.

Where → in a country (domestic)
when - Goods produced by Americans overseas (not)
- Goods " " Foreigners here (yes)

Quarterly - 3 month intervals
yearly.

Prices Determine Value

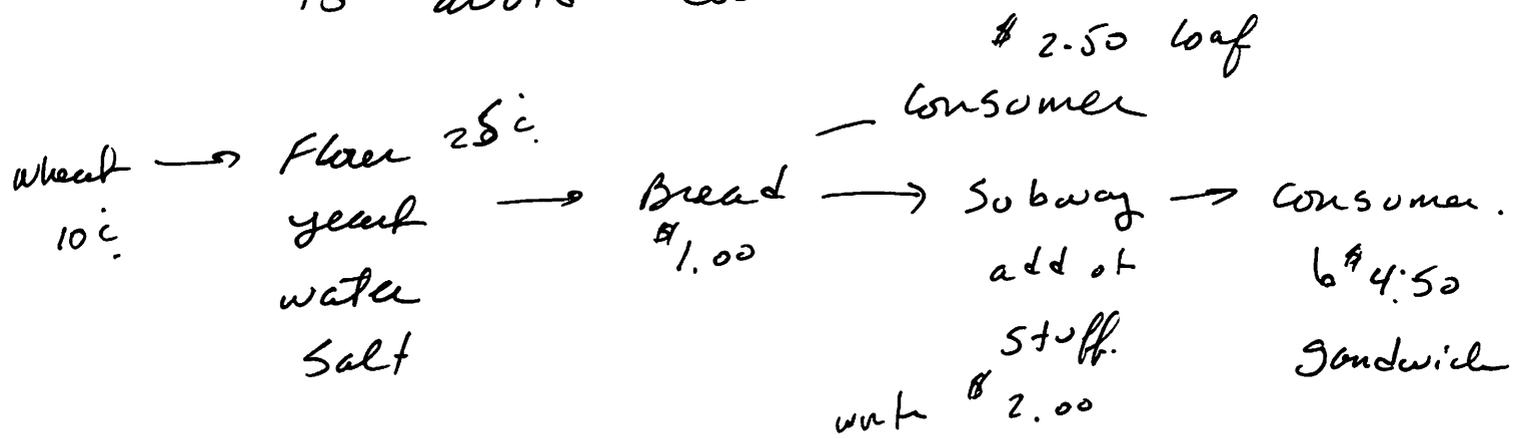
Pencil & Paper → typewriter → computer
Pens. Paper. printer
wad.
Paper.

Final goods vs intermediate goods

Intermediate good - undergoes add. processing before being sold to consumers

Final good - no further processing

We don't count intermediate goods
to avoid double counting.



\$ 2.50 loaf ^{already} includes the
price of intermediate
goods.

As does Subway.

Stock vs Flow

Stock - what exists .

Flow - how it changes. (Rate)

GDP is a flow since we are
measuring new stuff. It
is how much is added each
period.

3 ways to measure GDP

Spending - Break final goods & services into categories that reflect who is doing the spending or ~~what~~.

Consumption - individuals

Investment - purchase of final goods by firms and new houses. By consumers.

Firms purchase final goods and use them to produce things

Factory
Vehicles
Machines



Investment.

none of these are processed through further, only used to produce stuff to sell elsewhere.

Investment

Business Fixed Investment
(Machinery, Factories, tools)

Inventory Investment
 \equiv change in Inventories

Inventory $\uparrow \equiv$ INV Invest > 0

Inventory $\downarrow \equiv$ " Invest < 0

Cars Example.

Invest.

12/31/09

50 Inventory

2010

+ 35 new from Factory.

2010

- 60 sales

12/31/10

25 Inventory

\Rightarrow INV Investment = - 25 cars.

AND will be measured in terms of the price of those cars.

Govt Purchases of Goods & Services.

Fed, state, local.

Exclude Transfer Payments

Soc. Sec, welfare, unemployment

Net Exports

Export - Import = Net Exports

↓
what we sell to
Foreigners

↘ what we
Buy from Fr.

For US This is usually negative
and measured over GDP.

$$Y = C + I + G + X$$

Income Approach.

Add up what each person.
and firm earns.

Basically, when A Firm sells a Final
good or service the proceeds end
up in Someone's Pocket.

Sell new car \$20,000

- 20,000 CABR
- 5,000 Profit
- 2,000 Taxes
- ~~3,000~~ Depreciation on
 equipment.
- \$13,000 suppliers.

Aggregate Income

Labour (wage, salary, Fringe Benefits)

Capital (profit, interest, rent)

Depreciation

Taxes, Subsidies, Transfers

Net income of Foreigners

Depreciation - stuff used to make things (and hence) wear out.
 Decrease in ~~value of~~ The worth of existing asset \equiv Repr.

(Gross) Investment - Depreciation = Net Investment.
 (Same as in Expend.)

Taxes, Subsides, Transfers

- Add Taxes (Earning of Govt)
- Subt Subsides (show up in Profit AND then eliminate double counting)
- Subt Transfers (payment to Govt don't count).

Net Inc of Foreigners (4)

Migrant workers come to U.S., earn \$, this adds to OUR GDP.
 When I went to Frankfurt and taught class, my earnings did not.

+ Earnings of Fx in U.S.

- Earnings of U.S. cit abroad

net income of Fx.

Stat. discrepancy - oops!

It never adds up exactly.

Production

add up value added at each level of production

See Subway example

Bread loaf.

10¢ + 15¢ + .75 + 1.50 = \$2.50
 Wheat Flour Bread Retail.
 Wholesale