

Econ 2 - Lecture 4 - 4/9/25

Lecture Quiz #2 Released Today. Due Monday @ 12:30pm

Discussion Activity #1 This Week!

Top 3 of 5 needed for full credit!

Weekly Review Session on Thursdays 5:30pm, NH 1110

Today: GDP (Chapter 3.1)

Next Week: CPI (3.2) & Unemployment (3.3)

Midterm Exam: April 28th (Week 5)

Last Class:

GDP = the market value of all final goods and services

produced for a marketplace during a given period of time,
within a country's borders

Market Value: convert production to a dollar amount

final: do NOT count intermediate goods

(Best Buy Computer,) used to produce final good
Word cloud

Produced: must be production

Stocks, bonds, land are important, but not GDP

For a marketplace: only formal transactions count

Informal activities / transactions Do NOT count

Illegal Activities \Rightarrow greater than \$2 Tril/yr!

During a given period of time: isolate date of production
Buy a car in 2025, originally produced in 2017
→ sold
In 2017: Added car value to 2017 GDP

2017 Used car is sold in 2025 from a dealer

- What new good/service is being produced today?
- Capture the service of a dealer safety net?
 - ↳ Car value already counted
 - ↳ Mark up in price for buying from a dealer
 - ↳ Service that is new → counted towards GDP today.

Commission of salesperson

Other good is sold used often?

Buy a used home,

Counted towards
GDP today?

Real Estate Service

New Home Purchase

Value of home
Counts towards
GDP

Within a country's borders:

GDP ⇒ "Domestic" ⇒ borders

GNP ⇒ Gross National Product ⇒ citizenship

Sarah born in the US ⇒ US citizen → US GNP

↳ Works & Lives in the UK ⇒ UK GDP

(BEA)

Measuring GDP: Bureau of Economic Analysis

Categorize GDP Components: Expenditure Approach

1. Consumption (C): purchases by households
2. Investment (I): purchases by firms
 - ↳ firm is final user \rightarrow machines
 - ↳ intermediate good: passed on in production
 - ↳ tires on car \rightarrow do not count
3. Government Purchases (G):
Bought by government
4. Net Exports (NX) = $\underbrace{\text{Exports } (X)}$ - $\underbrace{\text{Imports } (M)}$

<p>Goods leaving \rightarrow money returning Add to GDP</p>	<p>Goods arriving \rightarrow money is leaving Subtract Imports in GDP</p>
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Consumption: 67% of GDP

(21%) Goods: item you gain ownership of

Durable Goods: Car, Computers, Appliances,

Non-Durable Goods: food, TP, gas furniture

(47%)

Services: intangible item that we do not gain ownership of

Example: Hair cut, rental service, Wifi, hotels, restaurants, education, travel, sporting events, etc. (Health care)

Rental Housing $\rightarrow \$2000/\text{month}$

What if you own, do not rent similar unit?

Estimate Imputed Rent

Monetary value of all housing shelter
(rentals or owner-occupied units)

A street in IV has 10 homes \rightarrow Half rent for 2K/mo.

\rightarrow Half owned

Assume all 10 homes are "rented" for 2K/mo.

$\$20K$ in imputed rent per year

Investment (I): Goods/services bought by firms
(~18%)

3 Sub-categories

1. Capital / Non-Residential Investment

↳ Tractor, assembly line, office furniture, software, hardware, etc.

↳ Starbucks → Espresso Maker → Investment!
→ Coffee Beans? Intermediate Good

2. New Homes

↳ fixed structures in same way a manufacturer

↳ Producing family goods / services plant is fixed

3. Change in Private Inventory (+/- oz)

Campus Bookstore in 2024: Produced "10K in
headlines
2024 GDP increased by "10K

But only "8K in hoodies were bought in 2024
↳ Increase L by "8K → unsold product

Remaining '2K in hoodies → Storage / Inventory

Add "2K to inventory → Add "2K to investment

In 2024, C↑⁸K, I↑²K ⇒ ↑ in GDP of 10K

In 2025, extra 2K from inventory are sold

In 2025 → Cons. ↑ by "2K, Inventory ↓ by "2K
(Investment)

Total 2025 GDP Change = + 2000 - 2000 = Ø

Government Purchase (G)

(17%) Bought by government

Buy products / services that are necessary but hard to profit from

↳ Nat'l Defense

↳ Police

↳ Fire

↳ Education

↳ Infrastructure

$$\text{Net Exports (NX)} = \text{Export (X)} - \text{Imports (M)}$$

$$NX < 0 \Rightarrow M > X$$

- 3.1% of GDP

$$\begin{array}{cccc} \text{GDP} = Y = C + I + G + NX \\ 20.24T \quad 5.29T \quad 5.10T \quad 3.22-4.14T \\ = 29.27T \end{array}$$

Alternative GDP Measures

Best Buy Computer:

\$50 in materials → "150 in parts → "350 → "400
\$50 in value → add "100 → add "100 → add "50
in value in value in value

"firm Profit" → value added at each step of production

$$50 + 100 + 200 + 50 = 400$$

New angle of GDP

Best Buy \rightarrow "SO in "profit" \rightarrow become income

Labor \rightarrow income

Rent \rightarrow land lord income

Interest Payment \rightarrow income

Shareholders \rightarrow income

GDP = Y = Production

= firm Profit (Value-Added GDP)

= Income (factor Payments GDP)

What one we missing? Happiness!

Discussion Activity # 2 - Create own
well-being index!

Calculate GDP

Simple UCSB Economy

Product	2009		2016	
	Q	P	Q	P
Food	1000	1	1500	2
Housing	100	100	150	150
Movies	500	5	1000	10

Total dollar value exchanged in economy

Nominal GDP = Quantity \times Price and summing

$$= Q_{09}^F \cdot P_{09}^F + Q_{09}^H \cdot P_{09}^H + Q_{09}^M \cdot P_{09}^M$$

$$= 1000 \times 1 + 100 \times 100 + 500 \times 5 =$$

Nominal GDP₂₀₀₉ = \$13,500

$$\text{Nominal GDP}_{2016} = Q_{16}^f \times P_{16}^f + Q_{16}^h \times P_{16}^h + Q_{16}^u \times P_{16}^u$$
$$=$$
$$= 35,500$$

Nom. GDP increased from 13,500 to
35,500

Does this represent more production?

Quantity increases \rightarrow more production

Prices increases are not production

Hold prices constant, allows only quantity to change

\hookrightarrow Real GDP