

INTERMEDIATE MACROECONOMICS

MACROECONOMIC CONCEPTS

4. COMPOSITION OF GDP

Pascal Michailat

[pascalmichailat.org/c4/](http://pascalmichailat.org/c4/)

# FINAL GOODS AND SERVICES

- GDP = total expenditures on final goods and services
- final goods and services are of two types:
  - consumption goods: bring utility now
  - capital goods: future production of consumption
- final goods are different from intermediate goods
  - used to produce final goods now
  - disappear during the production of final goods

# KEY GDP IDENTITY

$$Y = C + I + G + NX$$

- the goods in GDP are purchases by households, firms, government, or foreigners
- Y: GDP
- C: consumption (household)
- I: investment (mostly firms)
- G: government spending (government)
- NX: net exports (foreigners)

# CONSUMPTION (C)

- purchase of consumption goods by households
  1. durable goods: last a long time (cars, dishwashers, computers)
  2. nondurable goods: last a short time (food, clothing)
  3. services: intangible items (tutoring, hair cut, dry cleaning, restaurant meal, rent)

# CONSUMPTION IN THE US, 2014

	\$ billions	% of GDP
consumption	12,002	68.2
* durables	1,320	7.5
* nondurables	2,691	15.3
* services	7,990	45.4

# INVESTMENT (I)

- purchase of **newly produced** capital goods by firms and households
  - purchase of old capital goods by one firm from another is just a transfer
- capital goods: **physical asset used in future production of consumption**
- intermediate goods are also used in production of consumption, but unlike capital goods, they disappear during the production of consumption
  - the value of intermediate goods is directly incorporated in the value of the consumption good

# 3 TYPES OF INVESTMENT

1. **residential** investment: purchases of housing units by households
2. **nonresidential** investment: purchases of plants and equipment by firms
  - structure (factory, motel, warehouse)
  - equipment (machine, tractor, printer)
  - intellectual property (software)
3. **inventory** investment: output - sales
  - inventory investment can be negative

# INVESTMENT IN THE US, 2014

	\$ billions	% of GDP
investment	2,905	16.5
* nonresidential	2,244	12.8
* residential	566	3.2
* inventory	94	0.5

# INVESTMENT (I)

Which of the following would not be considered part of I?

- A: Toyota buys a new robot for its automobile assembly line
- B: Apple builds a new factory
- C: Exxon increases its inventories of unsold gasoline
- D: An accountant buys a home built in 1990 for herself and her family
- E: Apple buys an existing factory from IBM

# GOVERNMENT SPENDING (G)

- purchase of consumption goods + newly produced capital goods by the government
  1. federal government
    - national defense
    - nondefense
  2. state and local governments
- excludes government taxes and transfers: they do not represent production of goods and services

# GOVERNMENT SPENDING IN THE US, 2014

	\$ billions	% of GDP
government spending	3,209	18.2
* federal	1,241	7.1
- nondefense	457	2.6
- defense	784	4.5
* state & local	1,968	11.2

# NET EXPORTS (NX)

- exports (X): purchases of US final goods and services by foreigners
- imports (IM): purchases of foreign final goods and services by US consumers, US firms and the US government
- net exports:  $NX = X - IM$ 
  - $NX > 0$  — exports > imports : trade surplus
  - $NX < 0$  — imports > exports: trade deficit

# NET EXPORTS IN THE US, 2014

	\$ billions	% of GDP
net exports	- 517	- 2.9
* exports	2,367	13.4
- goods	1,645	9.3
- services	721	4.1
* imports	2,883	16.4
- goods	2,394	13.6
- services	489	2.8