

Econ. 1A. Chapter 2 **The US and Global Economies**

1. Economic activity arises from **scarcity**, i.e., the available resources are insufficient to meet all wants. Economics studies the choices people make to cope with scarcity. These choices determine (1) *what* goods and services get produced, (2) *how* they are produced, and (3) *for whom* they are produced.
2. **What?** Economists divide the goods and services produced into 2 categories.
 - (1) **Consumption goods and services:** goods and services that individuals and governments buy and use in the current period.
 - (2) **Capital goods:** goods bought by businesses and governments to increase productive resources and to use over future periods to produce other goods and services.

US: In 2013, the share of (1) consumption goods and services, (2) capital goods in Y.

<u>Consumption goods and services</u>	<u>Capital goods</u>	<u>Y (total production)</u>
85%	15%	100%

3. The broad categories of goods and services

<u>Services</u>		<u>Goods</u>	
Health	17.6%	Manufacturing	11.2%
		Construction	3.5%
Real Estate	12.6%	Utilities	2.0%
Professional & Business services	12.5%	Mining	1.8%
Finance & insurance	7.2%	Food	1.2%
Education	7.0%		
Retail trades	6.1%		
Wholesales trades	5.5%		
Transportation & storage	3.5%		

Note: Services production greatly exceeds goods production and is growing faster.

4. **How ?**

Goods and services are produced by using productive resources (factor of production): Labor (L), Capital (K), Land (N) and Entrepreneurship (E).

$Q = f(L, K, N, E)$ where Q = goods or services.

A **production function** shows the relationship between the **output** of good or service (Q) and the combinations of factors of production (L, K, N and E).

5. For whom?

- (1) Who gets the goods and services that are produced depends upon the incomes that people earn and the goods and services that they choose to buy.
- (2) People earn their incomes by selling the services of the factor of production they own.
- (3) There are four different types of incomes

Rent: income paid for the use of land (N).

Wages: income paid for the services of labor (L).

Interest: income paid for the use of capital (K).

Profit (or loss): income earned by an entrepreneur for running a business (E).

6. **Functional distribution of income:** the % distribution of income among the factors of production.

In 2010, US's functional distribution of income

Wages	Rent, interest and profit	Total income
69%	31%	100%

7. **Personal distribution of income:** the percentage distribution of income among households.

Poorest 20%	3%
2nd 20%	9%
3th 20%	14%
4th 20%	23%
Richest 20%	51%

Note: In US, the richest 20% of households earn 51% of total income, and 80% of households earn 49% of total income.

8. The modern macroeconomics emerged with the publication of 1936 of John Maynard Keynes' **The General Theory of Employment, Interest, and Money.**

9. **The global economy**

(1) **The people**

[May 9, 2013] US: 316 millions. The world: 7,084 millions.

The US adds one person every 15 seconds. The world adds 30 people in 15 seconds.

(2) **The countries: 7.1 billion people live in 176 countries.**

(a) *Advanced economies* are the richest 29 countries (or areas). 1 billion people.(15% of world population). Average income (RGDP per person) > \$15,000.

U.S., Japan, Italy, Germany, France, UK, Canada, Hong Kong, South Korea, Singapore, Taiwan, Australia, New Zealand, the most of Western Europe

Countries.

- (b) *Emerging market* are the 28 countries in Central and Eastern Europe and Asia that were, until early 1990, part of the Soviet Union or one of its satellites. 500 million people live in these countries. \$15,000 > average income > \$6,000.

These countries are emerging from a system of state-owned production, central economic planning, and heavily regulated markets to a system of free enterprise and unregulated markets.

- (c) *Developing economies* are the 119 countries in Africa, Asia, and the Middle East, Europe, and Central and South America that include China, India, Indonesia and Brazil. 5.5 billion people live in these countries. Average income < \$6,000.

10. What in the Global economy?

- (1) What in the global economy in 2013

US	19%
Other advanced economies	17%
Euro area	14%
BRIC	28%
Other Asian developing countries	4%
Other Western Hemisphere	6%
Other Emerging market economies	5%
Other Africa and the Middle East	7%

Note that BRIC includes Brazil, Russia, India and China.

- (i) In advanced economies, agricultural is the small percentage, manufacturing is a decreasing percentage, and services are the largest percentage of total production.
- (ii) In developing countries, agricultural is the largest percentage, manufacturing is an increasing percentage, and services are important but a small percentage of total production.

11. How in the global economy?

Goods and services are produced by using land (N), labor (L), capital (K) and entrepreneurial resources (E) and the combination of these resources used are chosen to produce at the lowest possible cost. That is, producing $Q = f(N, L, K, E)$ at the lowest cost.

- (i) Production in the advanced economies uses more capital (both physical capital and human capital).
- (ii) Production in the developing countries uses more labor.

Put in another way, factories in the advanced economies are more capital intensive compared with only some in the developing economies.

12. For whom in the global economy?

(1) The average income per person per day (2012).

US	\$137
Euro area	\$ 93
Russia	\$ 49
Latin America & Caribbean	\$ 37
Brazil	\$ 35
China	\$ 25
Middle East	\$ 24
India	\$ 10
<u>Africa</u>	<u>\$ 7</u>

(2) Despite the increase in inequality inside most countries, inequality across entire world has decreased during the past 20 years. According to Professor Sala-i-Martin that between 1976 and 1998, the number of people who earn \$2 or less fell by 450 million. This is because in China, the largest nation, incomes have increased rapidly and lifted millions from extreme poverty. Incomes are growing quickly in India too.

Lifting Africa from poverty is today's big challenge. In 1960, 11% of the world's poor lived in Africa, but in 1998, 66% did. Between 1976 and 1998, the number of people in Africa who earn \$2 a day or less rose by 227 million.

13. **The Circular Flow Model:** A model of the economy that shows the circular flow of expenditure and income in a *given time period* that result from decision maker's choices and the way those interact to determine *what, how* and *for whom* goods and services are produced.

Assumptions:

- (a) Two sectors: Households and Firms. (b) Two markets: Goods and Factor markets.
(c) Government does not exist. (d) A given time period.

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- (1) **Households:** Individuals or groups of people living together as a decision unit. They own the factors of production – L, K, N, E –and choose the quantities of these resources to offer to firms. They also choose the quantities of goods and services to buy.
- (2) **Firms:** The institutions that organize the production of goods and services. They choose the quantities of the factors of production – L, K, N, E – to hire and the quantities of goods and services to produce.
- (3) **Market:** Any arrangement that brings buyers and sellers together and enables them to get information, make rational decision, and do business together.
- (4) **Goods markets:** Markets in which goods and services are bought and sold.
- (5) **Factor markets:** Markets in which factors of production are bought and sold.

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14. The **real flows** are the flows of the factors of production –L, K, N, E- that go from households through factor markets to firms and the goods and services that go from firms through goods markets to households.
15. The **money flows** are the **payments** made in exchange for factors of production and expenditures on goods and service.

Example:

Factor Market: Resources

L(labor)	K(capital)	N(land)	E(entrepreneurship)	→ real flow
10	4	5	2	
W(wage)	i(interest)	R(rent)	π(profit)	
\$2	\$5	\$2	\$5	

Firms use resources to produce goods and services: Y_a and Y_b .

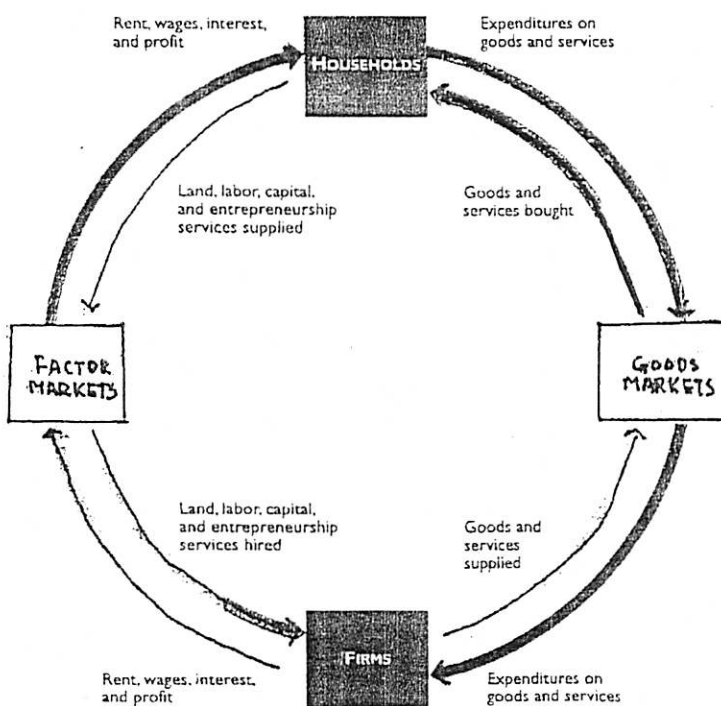
$$Y = F(L, K, N, E)$$

WL	iK	RN	πE	→ money flow
\$20	\$20	\$10	\$10	

Goods Market

Y_a	Y_b	→ real flow
2	3	
P_a	P_b	→ money flow
\$15	\$10	

$$\text{Total money flow} = WL + iK + RN + \pi E = \$60 = P_a Y_a + P_b Y_b = \$15 \times 2 + \$10 \times 3 = \$60$$



16. The Circular Flow Model with Government

Assumptions:

- (a) Three sectors: Households, Firms and Government.
 (b) Two markets: Goods market and Factor market. (c) A given time period.

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17. In U.S., more than 86,000 organizations operate as governments. The government sector consists of (1) **Federal Government**, and (2) **State and Local Government**.

18. Federal government

Expenditures:

- (1) Public goods and services: (i) legal system protects property and enforces contracts; (ii) national defense.
- (2) Social security and welfare payments: (i) income for retired people; (ii) Medicare and Medicaid. [These are **transfer payments**, i.e., payments made by a government to individuals, for which the individual performs no current service in return.]
- (3) Transfers to state and local governments.

Revenue: (1) Personal income taxes. (2) Corporate income taxes.

- (3) Social security taxes.

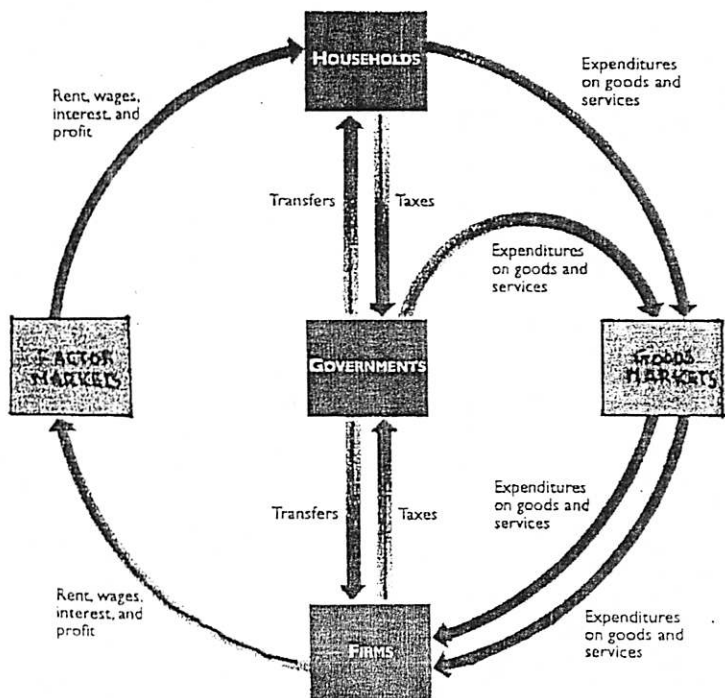
19. **Federal Government budget** = Revenue – Expenditure (= 0, Balance budget), (> 0, budget surplus), (< 0, budget deficit). [Note that **National debts**: the total of government obligations in the form of bonds and short-term borrowings to run a government budget deficits.]

20. State and Local Government

Expenditure:

- (1) Local public goods and services: State courts, police, schools, roads, garbage collection and disposal, water supplies and sewage management.
- (2) Welfare benefits: Unemployment benefits and other aid to low-income families..

Revenue: (1) Sales taxes. (2) Property taxes. (3) State income taxes.



The green flows from households and firms to governments are taxes, and the green flows from governments to households and firms are money transfers.

The red flow from governments through goods markets to firms is the expenditures on goods and services by governments.

21. A Circular Flow Model for U.S. and the Rest of the World.

Assumptions:

- (a) Two economies: U.S. and Rest of World.
- (b) Two markets: Goods market and Financial market.
- (c) A given time period.

22: **International trade** is exchange of goods, and services across international borders or territories.

International finance is exchange of financial capital (currencies, stocks and bonds) across international borders and territories.

23. The circular flow model of the global economy shows the flows of U.S. exports and imports and international finance flows that result from lending to and borrowing from other countries.

Imports: the goods and services that one country buys from other countries.

Exports: the goods and services that one country sells to other countries.

Example: US

International trade

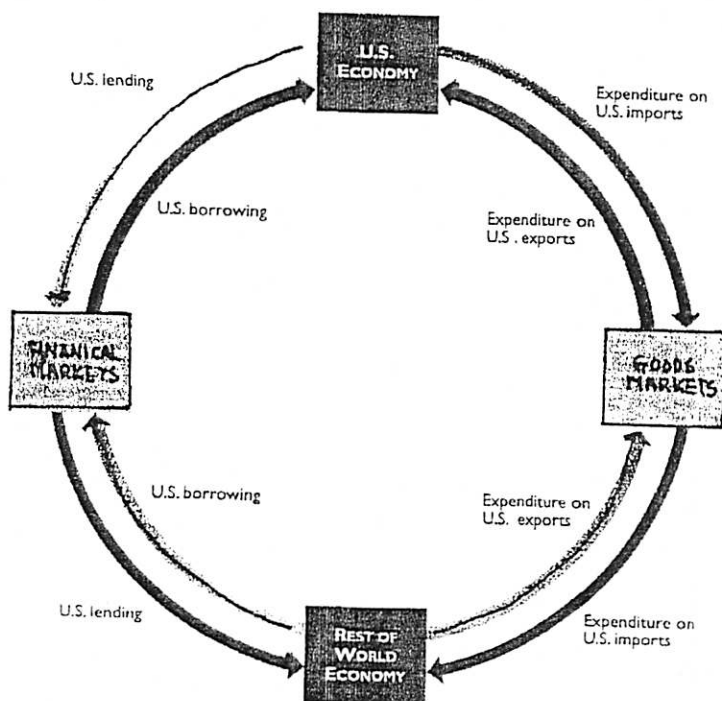
Import = \$200, Export = \$100. Trade balance = export – import = \$100 - \$200 = - \$100.

International finance

Borrowing (selling US stock to other countries) = \$300.

Lending (buying other countries' stock) = \$200.

Capital inflow = borrowing – lending = \$300 - \$200 = \$100.



Households and firms in the U.S. economy interact with those in the rest of the world (other economies) in goods markets and financial markets.

The red flow shows the expenditure by Americans on imports of goods and services, and the blue flow show the expenditure by the rest of the world on U.S. exports (other countries' imports).

The green flow shows U.S. lending to the rest of the world, and the orange flow shows U.S. borrowing from the rest of the world.