

**3543 Fiscal and Financial System in Japan A
/ KC3002 International Finance**

Fall 2013

Lecture 7(Nov 15)

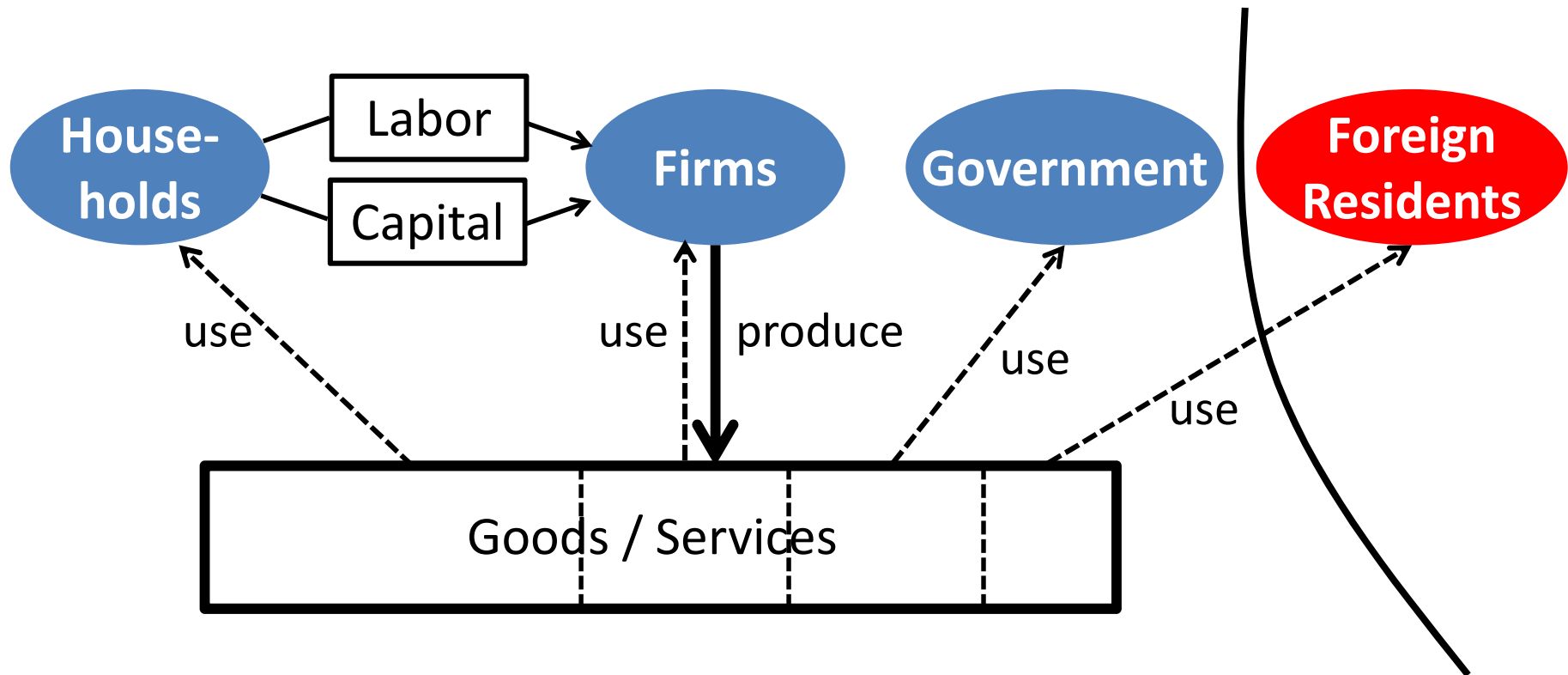
National Income Accounting(cont.)

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Overview of a National Economy



Three Approaches

1. Production Approach

How many goods and services are produced?

2. Expenditure Approach

How are goods and services produced put into various uses?

3. Income Approach

How are the values created allocated among the contributors to the production?

Production Approach

How many goods and services are produced within an economy?

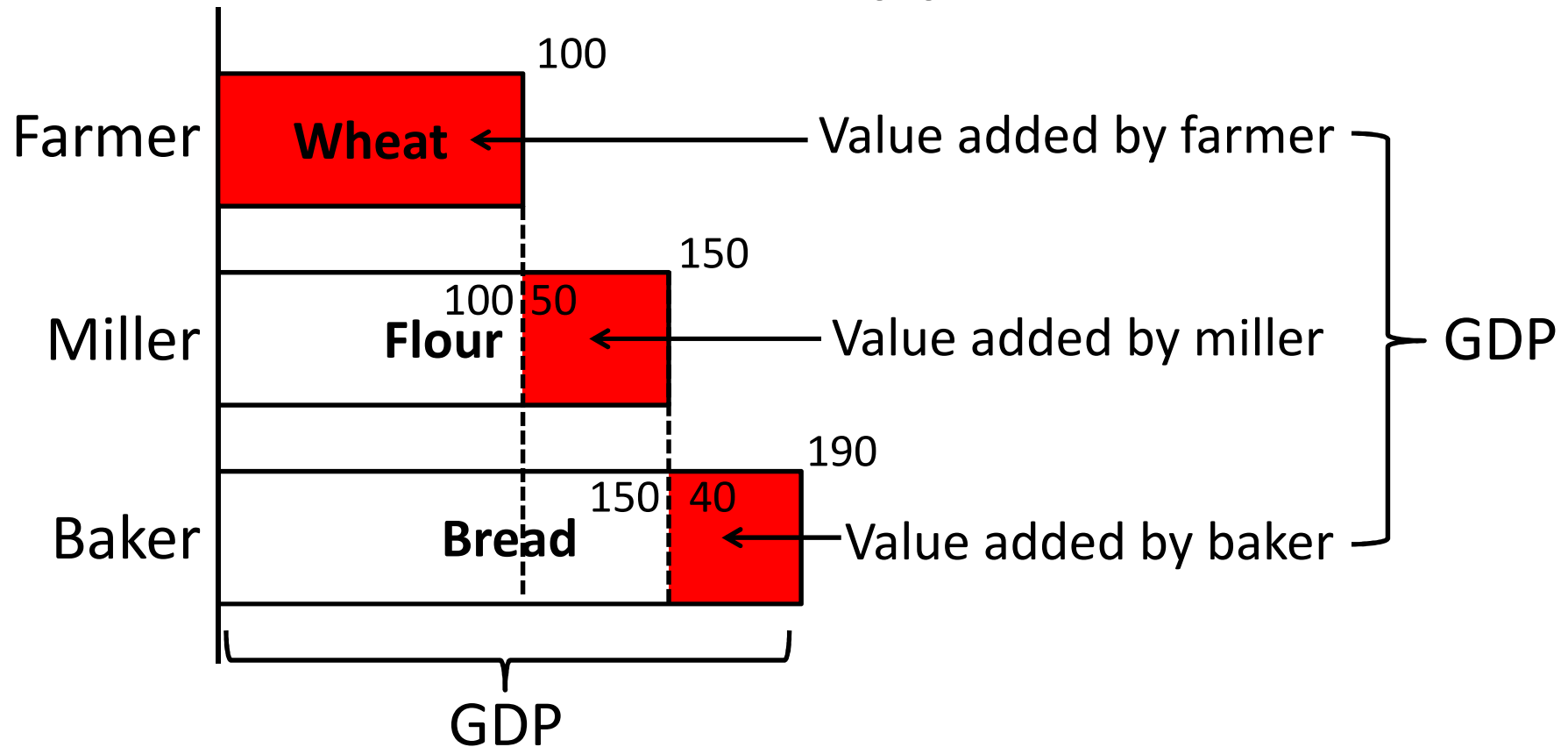
Gross Domestic Product, GDP

Total value of final goods and services produced within a country in a given time period

The value of intermediate goods(中間財) is not counted because it is already included as part of the market price of the final goods.

Adding up the value added at each stage of production yields the same result.

Production Approach



Because all the value added is include in the market price of final goods, adding up all the value added is equal to adding up all the value of final goods.

Expenditure Approach

How are the goods and services allocated among alternative uses?

1. **Consumption (C)**

Some goods are bought by households and consumed.

2. **Investment (I)**

Some goods are bought by firms for future use/production.

3. **Government Purchases (G)**

Government also buys goods produced by private sector.

4. **Trade Balance (TB)**

Some are exported to foreign residents.

Expenditure Approach

GDP is calculated by adding up the market value of all the expenditures on final goods. (Expenditure Approach to GDP)

$$C + I + G + EX$$

Domestic residents also purchase goods and services produced abroad (import), which are not part of domestic GDP and thus must be subtracted from the total expenditure.

$$C + I + G + EX - IM = GDP$$
$$C + I + G + \underbrace{EX - IM}_{TB} = GDP$$

The identity can be viewed as showing (1) how the GDP is calculated and (2) how the GDP is allocated among alternative uses.

What about unsold goods?

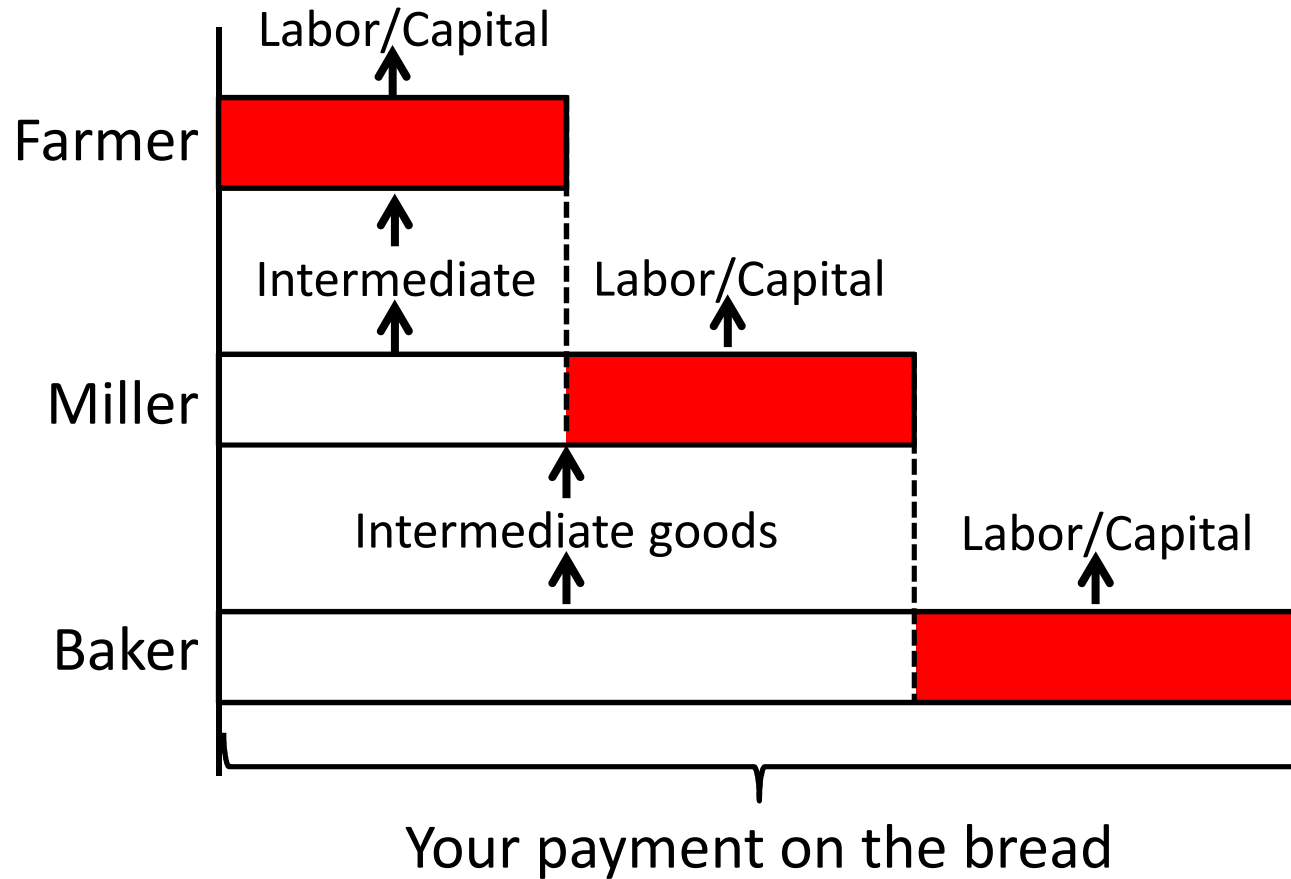
Part of the goods are left *unsold*, and no money is spent on them.

Is the total expenditure smaller than the actual output, when some of the goods are left unsold?

Adding up the market value of all expenditures does not always yield GDP?

Firms are *assumed* to have purchased the unsold goods by themselves for a stock of *inventories*, that is, the goods to be sold in later years.

Income Approach



Your payment on the bread is ultimately distributed among the workers and capital owners alone.

Income Approach: GNI

GDP is *not* a proper measure of a nation's income because
(1) it includes the value created by foreign owned factors operating within a home country (= a foreign nation's income)
(2) it excludes the value created by home owned factors operating abroad (= our nation's income).

Gross national income, GNI, is a more proper measure.

$$\text{GNI} = \text{GDP} + \text{EX}_{\text{FS}} - \text{IM}_{\text{FS}}$$

Foreign income payments to domestic factors Domestic income payments to foreign factors

EX_{FS} **Export of Factor Services**

IM_{FS} **Import of Factor Services**

Gross National Disposable Income

$$GNDI = GNI + \underbrace{UT_{IN}}_{\substack{\text{Transfers} \\ \text{received}}} - \underbrace{UT_{OUT}}_{\substack{\text{Transfers} \\ \text{given}}}$$

$$GNDI = GDP + EX_{FS} - IM_{FS} + UT_{IN} - UT_{OUT}$$

$$GNDI = C + I + G + \underbrace{EX - IM}_{\text{Trade balance}} + \underbrace{EX_{FS} - IM_{FS}}_{\substack{\text{Net factor} \\ \text{income from} \\ \text{abroad}}} + \underbrace{UT_{IN} - UT_{OUT}}_{\text{Net unilateral transfers}}$$

Current Account
 (經常收支)

$$Y = C + I + G + CA$$

National Income Identity

GDP Accounting: Japan(2011)

	Total(billions of yens)	Share of GDP (percent)
GDP	513,742.1	
Consumption	304,745.4	59.3
Investment	77,773.2	15.1
Government purchases	119,511.2	23.3
Trade balance	11,966.0	2.3

Source: Cabinet Office, Government of Japan, www.esri.cao.go.jp.

GDP Accounting: US(2008)

	Total(billions of dollars)	Share of GDP (percent)
GDP	14,440	
Consumption	10,130	70.2
Investment	2,140	14.8
Government purchases	2,880	19.9
Trade balance	-710	-4.9

Jones, *Macroeconomics*, 2nd edition, Norton, 2011.
Source: U.S. Department of Commerce, Bureau of
Economic Analysis, www.bea.gov.