PRINCIPLES OF ECONOMICS

Introduction to Economics

What is Economics?

- In shorts, the definition of economics is as follows,
- ***"Economics is the study of how to allocate the scarce resource most efficiently for unlimited human wants."***
- → ***Scarcity*** *is the key explaining why we study Economics.*

What is Economics?

- Study of economics could be divided into many levels, from…..

1. focusing on only <u>smallest units</u> in the economy;
   - *individual, household and firm,* **"Microeconomics"** to….
2. <u>economy as a whole</u>;
   - *the operation of the economy and the effect of each small unit on the market,* ***Macroeconomics***.

What is Microeconomics?

- **Microeconomics** is the study of behavior of individual economic units, comprising of consumers, firms, workers and investors. How they react and how they interact to form larger units in the market.

What is Macroeconomics?

- **Macroeconomics** is the study of economics involving phenomena that affects an entire economy. This includes the study in inflation and price levels, unemployment, growth, as well as the decline of the economy and relationship between all of these factors to the economy.

Basic Economic Problems

1. What?
   - ***"What"*** to produce?
2. How?
   - ***"How"*** to produce?
3. For whom?
   - ***"For whom"*** to produce?

“What” to produce?

- Each and every economy must determine what products and services, and what volume of each, to produce.
- For producers, producing products which consumers, who are prospect buyers, is a necessary condition for making profit.

“How” to produce?

- In order to create the products needed by the society, producers have to combine the resources to obtain products at the lowest cost.

“For Whom” to produce?

- People who receive or share of the products and services produced by the economy.
- The factor influencing the share or quantity of consumption is consumers’ or buyers’ income.

How people make decision?

Choices

- People have to make decision on choice.
- Consumer
  - Make decision on choice for highest level of satisfaction.
- Producer/Firm/Business
  - Make decision on choice for highest level of profit.

Opportunity cost

- Opportunity cost is an alternative that must be forgone in order to pursue a certain action.
- The opportunity cost of a choice is what you gave up to get it.

Example of opportunity cost

If you have three jobs offered recently,

- Choice 1: a part-time job at a convenient store, with the earning at 10,000 baht per month,
- Choice 2: A teacher assistant at a primary school, with the monthly salary at 15,000 baht and
- Choice 3: a photographer working in a studio, with the earning per month at 17,000 baht.

Positive Economics

- Positive statements are objective statements dealing with matters of fact or they question about how things actually are.
- Notice that a positive statement can be wrong. Positive statements are made without obvious value-judgments and emotions.
- For many times, positive economics statements are in the form of a hypothesis which could be analyzed or evaluated.

Example of Positive Statement

- ‘The sun rises in the west’,

  ….. is wrong

- This sentence is proved by the science, without using value judgment and emotion.

Normative Economics

- Normative statements are subjective – which are based on opinion only, often without a basis in fact or theory.
- Normative statements usually focus on "what ought to be" or “what it should be”.

Example of Normative Statement

- Kate is more beautiful than Anna.
- Playing tennis is more enjoyable than playing football.

Factors of Production

1. Labor
2. Capital
3. Land
4. Entrepreneur

Labor

- Labor is the mental and physical effort available to produce goods and services the human resource.
- How much a firm produces and the quality of what it produces are affected by the motivation, skills, and efforts of its labor.

Labor

- Types of Labor
  1. Unskilled labor,
  2. Semiskilled labor, and
  3. Skilled labor
- How much a firm produces and the quality of what it produces are affected by the motivation, skills, and efforts of its labor.

Capital

- Capital is the funds provided by investors, lenders, and the profits retained by the firm to finance the firm's activities.
- Capital goods are equipment, factories, or anything made by humans that help produce and distribute products.
- Besides helping to make labor more productive, capital goods can sometimes replace labor.

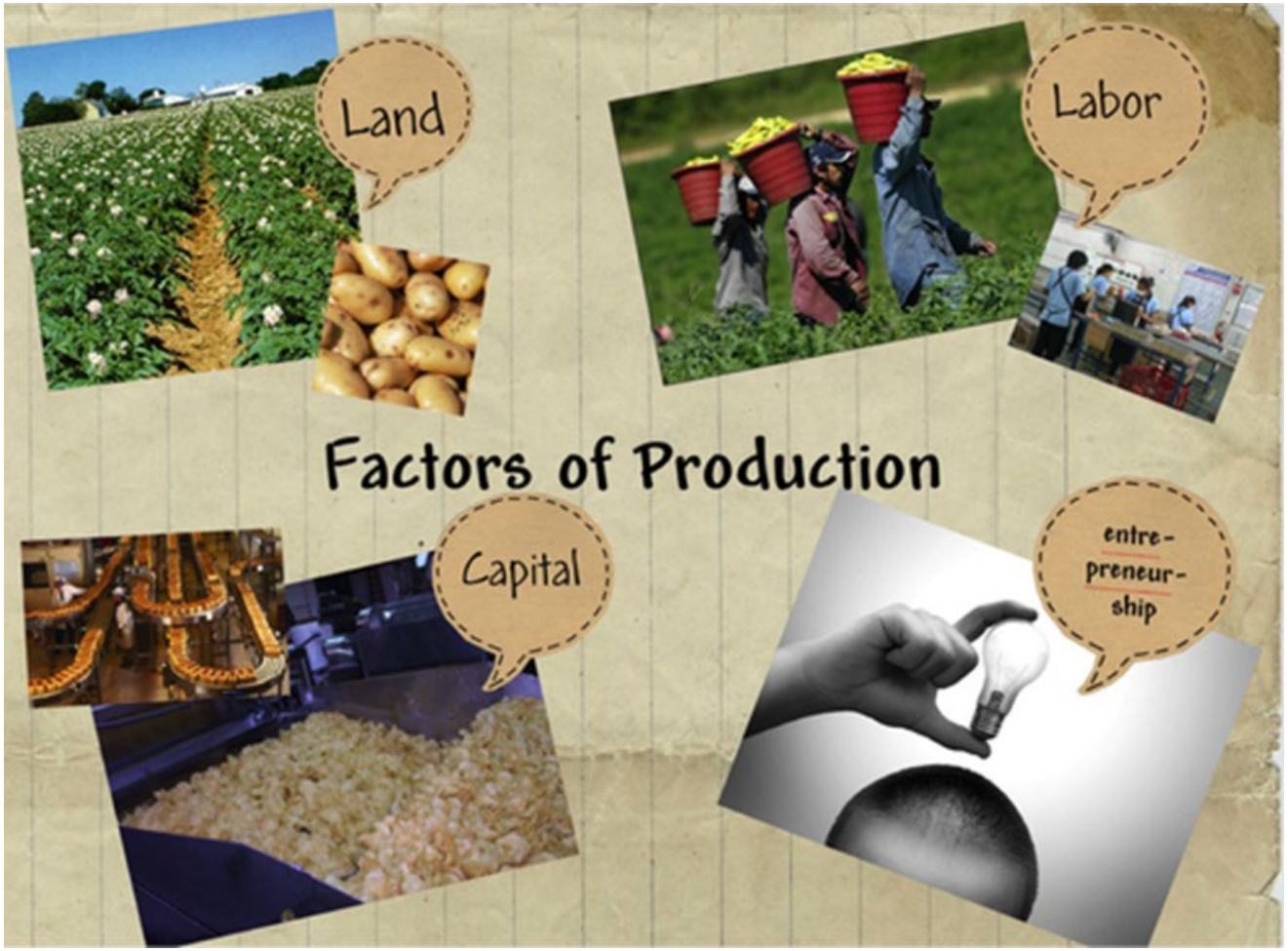
Land

- Land is the factor of production that includes all natural resources,
  - such as mineral deposits, water, and crude oil.
- In the long run, natural resources can all run out. But with proper management, some (air, water, forests) will last for a very long time.

Entrepreneurship

- Entrepreneurship is the process of bringing land, labor, and capital together and taking the risk involved in producing a good or service in the hope of making a profit.
- An entrepreneur is a risk taker who starts and operates a business in hope of making a profit.

Example of Factors of Production



The economic system

1. Capitalism
2. Centrally planned economy
3. Mixed economic system

1. Capitalism

- Capitalism is a system of economics based on the private ownership of capital and production inputs, and on the production of goods and services for profit.
- The production of goods and services is based on supply and demand.
- In capitalism, the **invisible hand** of the pricing mechanism manages supply and demand toward equilibrium of the market

1. Capitalism

2. Centrally planned economy

- It is an economic system in which economic decisions are made by the state or government rather than by the interaction between consumers and businesses.
- Centrally planned economies assume that the market does not work in the best interest of the people, and that in order for social and national objectives to be met a central authority needs to make decisions.

2. Centrally planned economy

- The state can set prices for goods and determine how much is produced, and can focus labor and resources on industries and projects without having to wait for private investment capital.

3. Mixed economic system

- Mixed economic system combines the characteristics of both capitalism and socialism.
- It allows a level of private economic freedom in the use of capital, but also allows for governments to interfere in economic activities in order to achieve social aims.

3. Mixed economic system

- Most modern economies are a mixture of centrally planned economies and market economies, with governments controlling some aspects of the economy and the private sector controlling others.

SUPPLY, DEMAND AND GOVERNMENT POLICIES

Happy Easter!

Supply, Demand, and Government Policies

- In a free, unregulated market system, market forces establish equilibrium prices and exchange quantities.
- While equilibrium conditions may be efficient, it may be true that not everyone is satisfied.
- One of the roles of economists is to use their theories to assist in the development of policies.

CONTROLS ON PRICES

- Are usually enacted when policymakers believe the market price is unfair to buyers or sellers.
- Result in government-created price ceilings and floors.

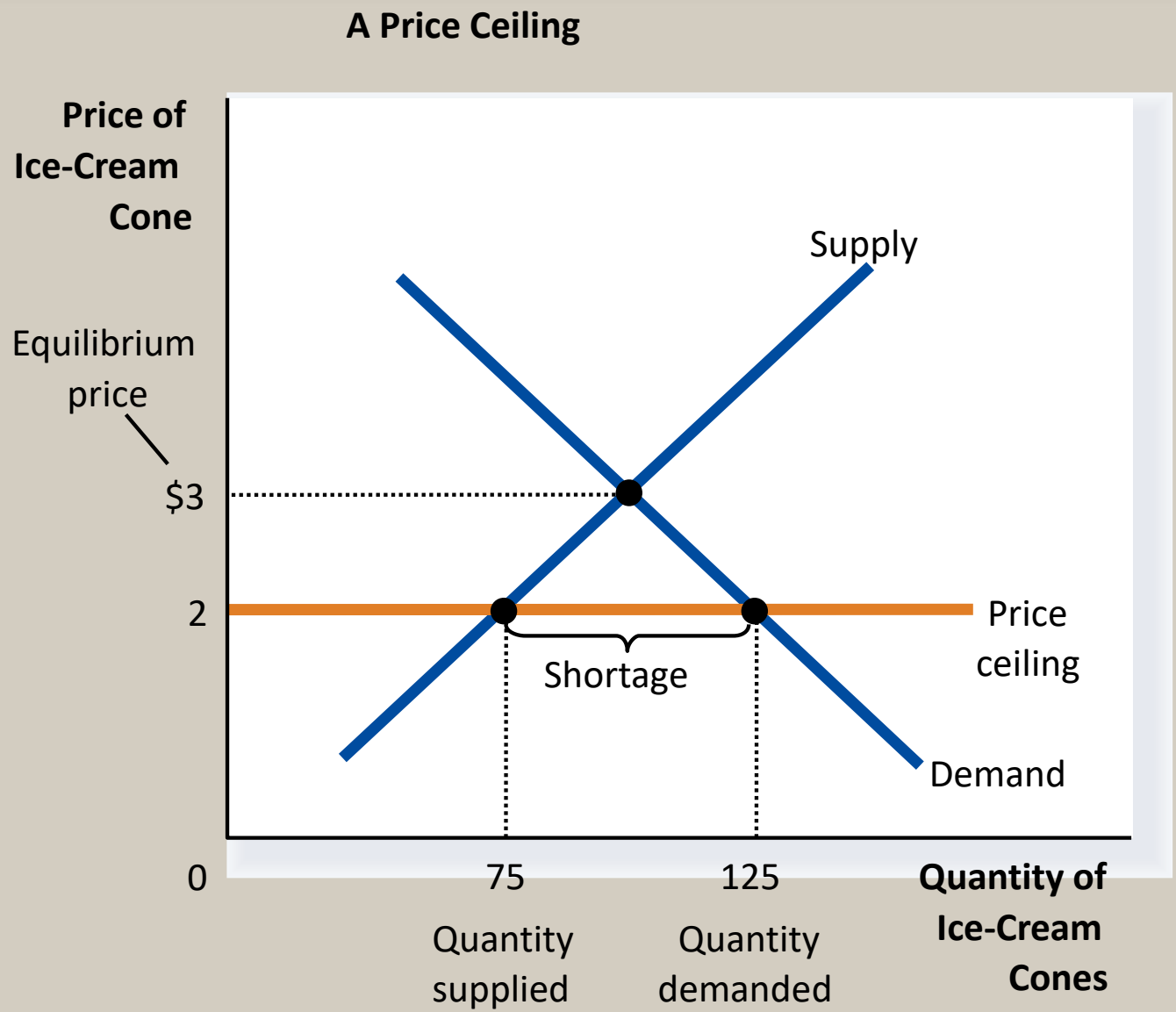
CONTROLS ON PRICES

- ***Price Ceiling***
  - A legal *maximum* on the price at which a good can be sold.
- ***Price Floor***
  - A legal *minimum* on the price at which a good can be sold.

How Price Ceilings Affect Market Outcomes

- When the price ceiling is set *below* the equilibrium price, that price ceiling leads to a shortage.

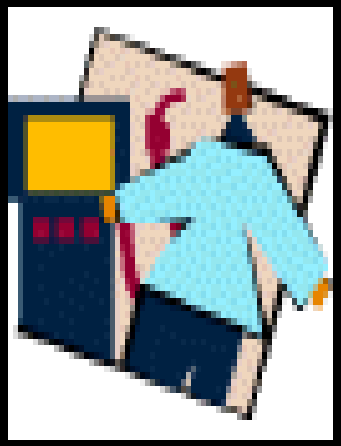
Figure 1 A Market with a Price Ceiling



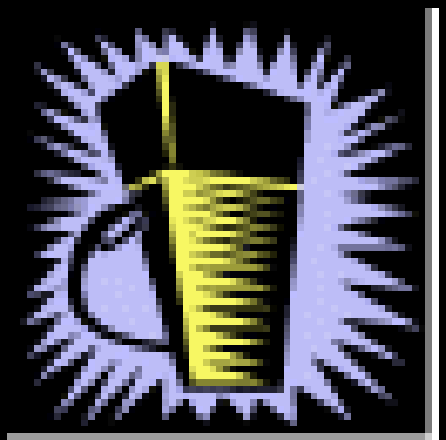
How Price Ceilings Affect Market Outcomes

- Effects of **Price Ceilings**
- A price ceiling creates
  - shortages because $Q_D > Q_S$.
    - Example: Gasoline shortage of the 1970s
  - nonprice rationing
    - Examples: Long lines, discrimination by sellers

CASE STUDY: Lines at the Gas Pump



- In 1973, OPEC raised the price of crude oil in world markets. Crude oil is the major input in gasoline, so the higher oil prices reduced the supply of gasoline.
- What was responsible for the long gas lines?



- Economists blame government regulations that limited the price oil companies could charge for gasoline.

How Price Floors Affect Market Outcomes

- When the price floor *is* set *above* the equilibrium price, this price floor leads to a surplus.

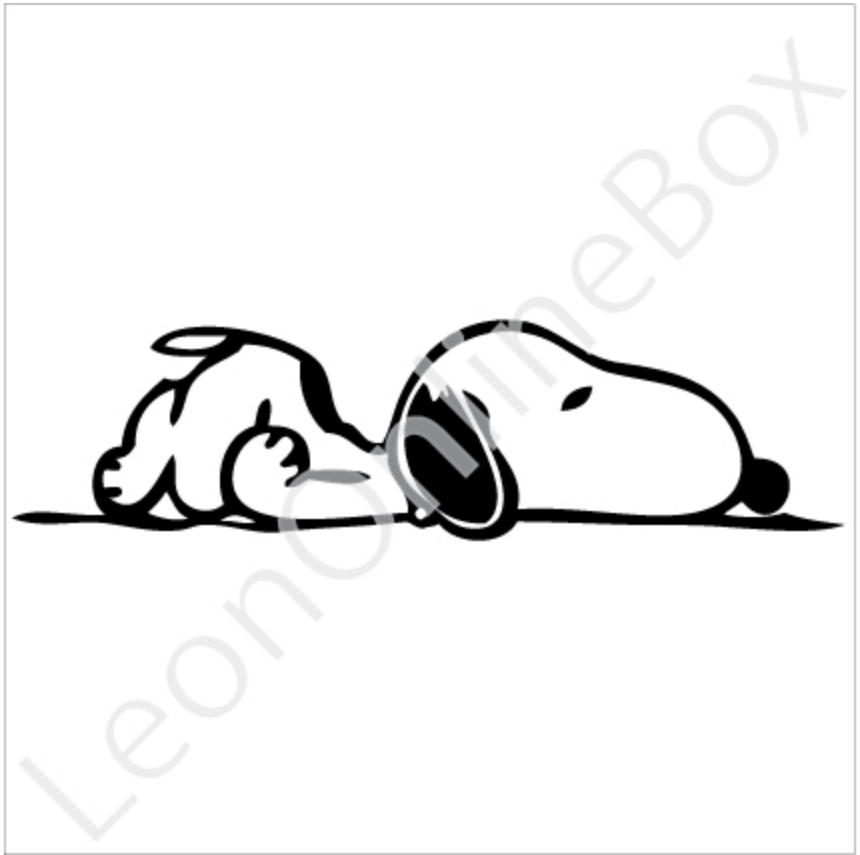
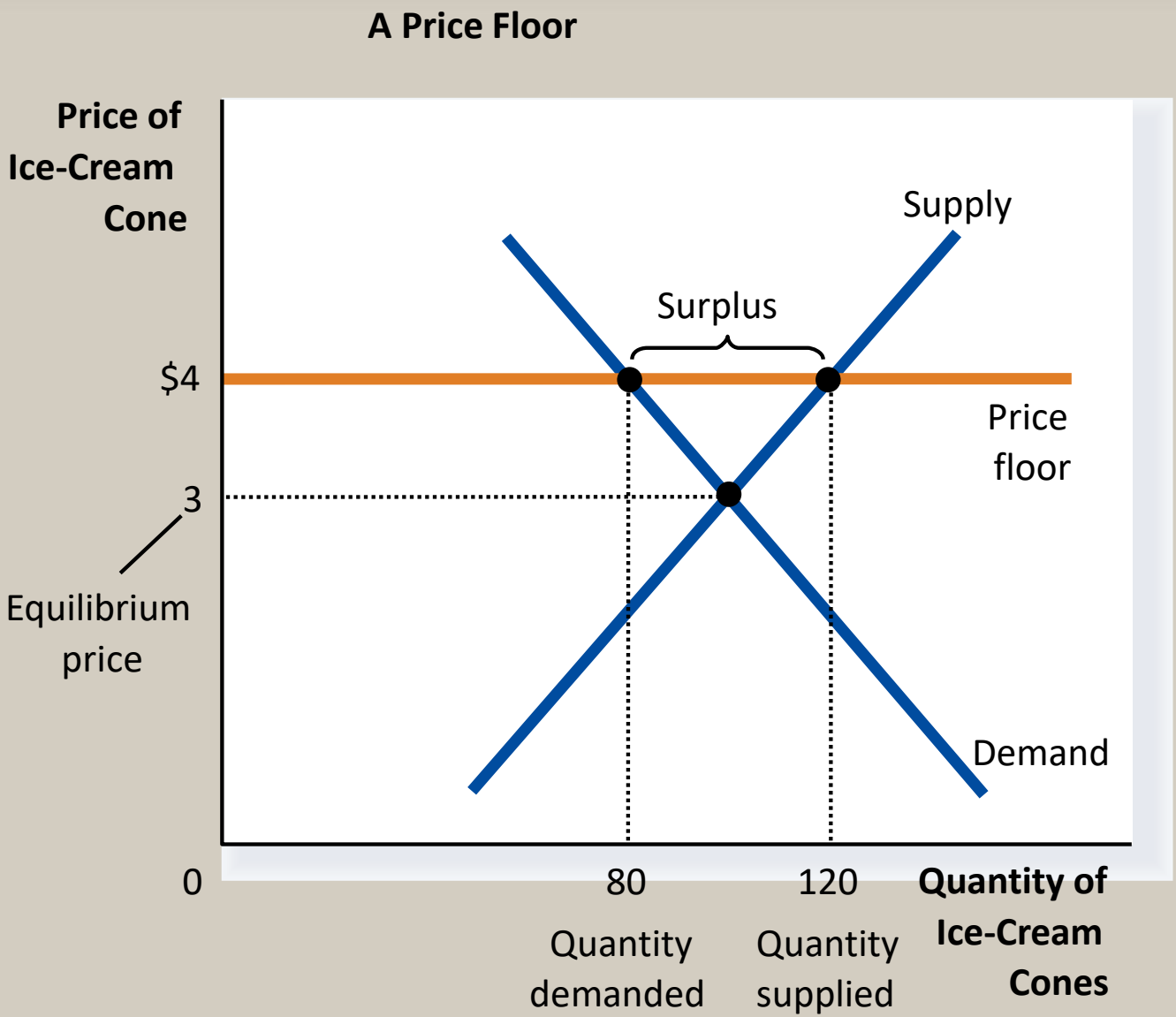
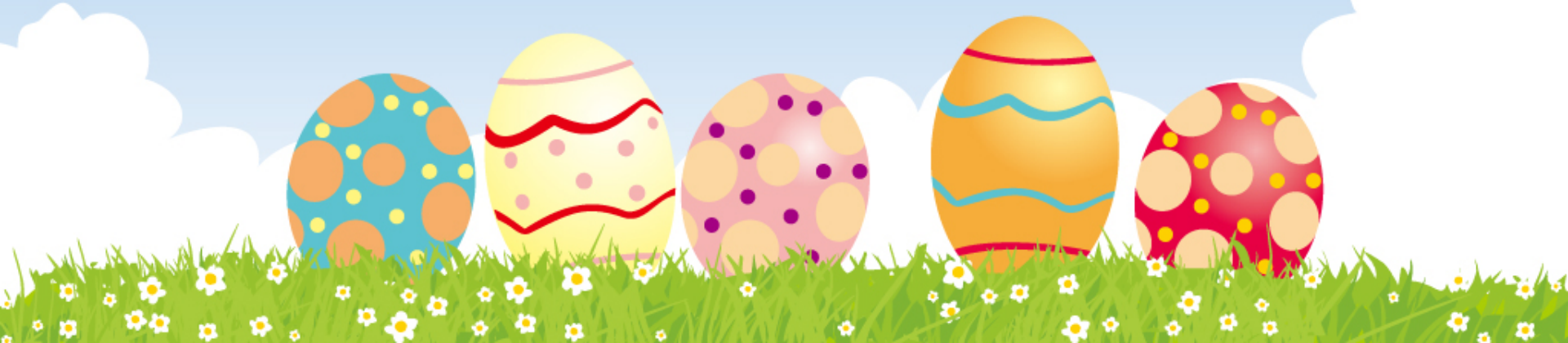


Figure 4 A Market with a Price Floor



How Price Floors Affect Market Outcomes

- A price floor prevents supply and demand from moving toward the equilibrium price and quantity.
- When the market price hits the floor, it can fall no further, and the market price equals the floor price.



How Price Floors Affect Market Outcomes

- A price floor causes . . .
  - a surplus because $Q_S > Q_D$.
  - *nonprice rationing* is an alternative mechanism for rationing the good, using discrimination criteria.
    - Examples: The minimum wage, agricultural price supports

The Minimum Wage

- An important example of a **price floor** is the **minimum wage**. Minimum wage laws dictate the lowest price possible for labor that any employer may pay.

Figure 5 How the Minimum Wage Affects the Labor Market

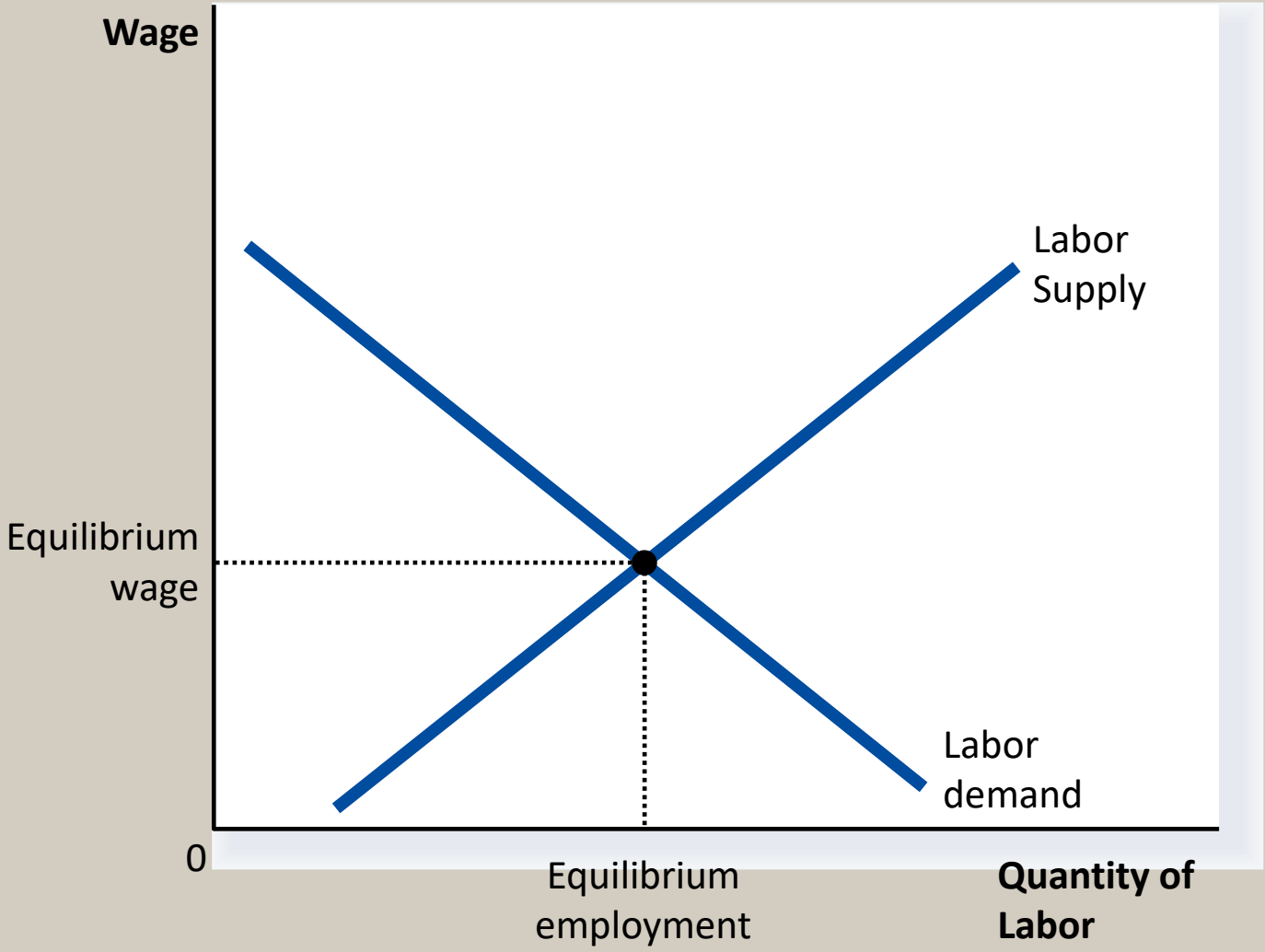
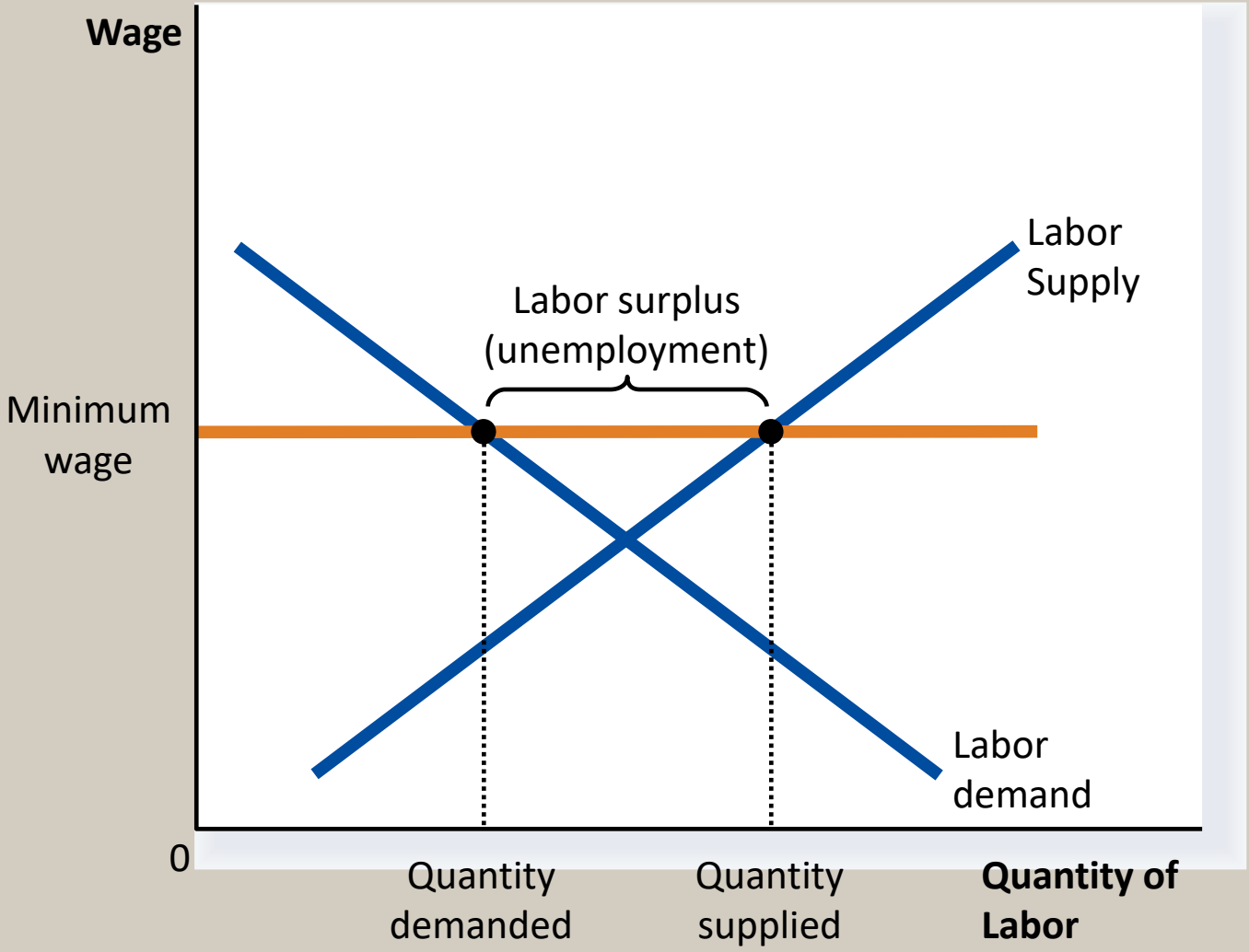


Figure 5 How the Minimum Wage Affects the Labor Market



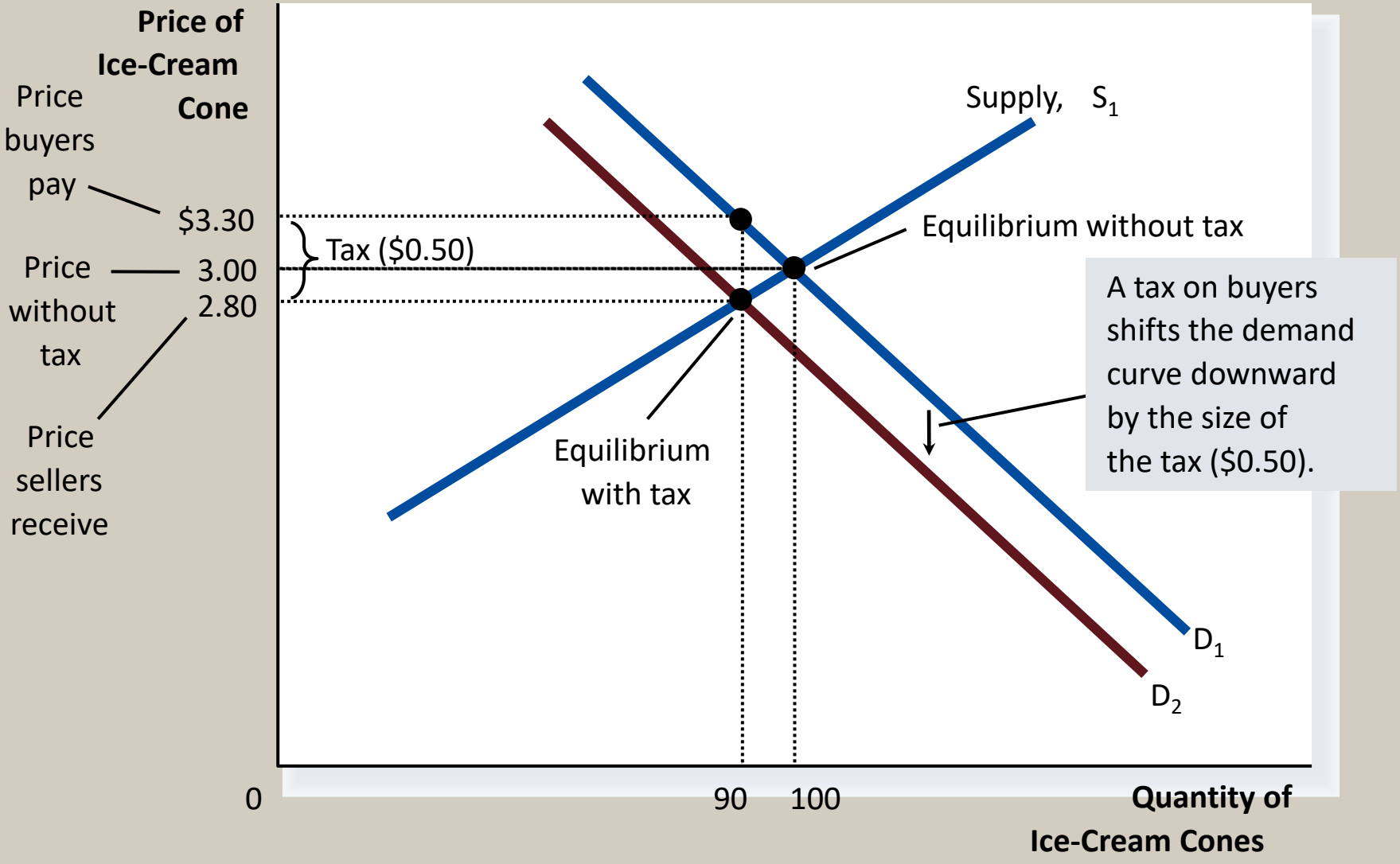
TAXES

- Governments levy taxes to raise revenue for public projects.

How Taxes on Buyers Affect Market Outcomes

- Taxes discourage market activity.
- When a good is taxed, the quantity sold is smaller.
- Buyers and sellers share the tax burden.

Figure 6 A Tax on Buyers

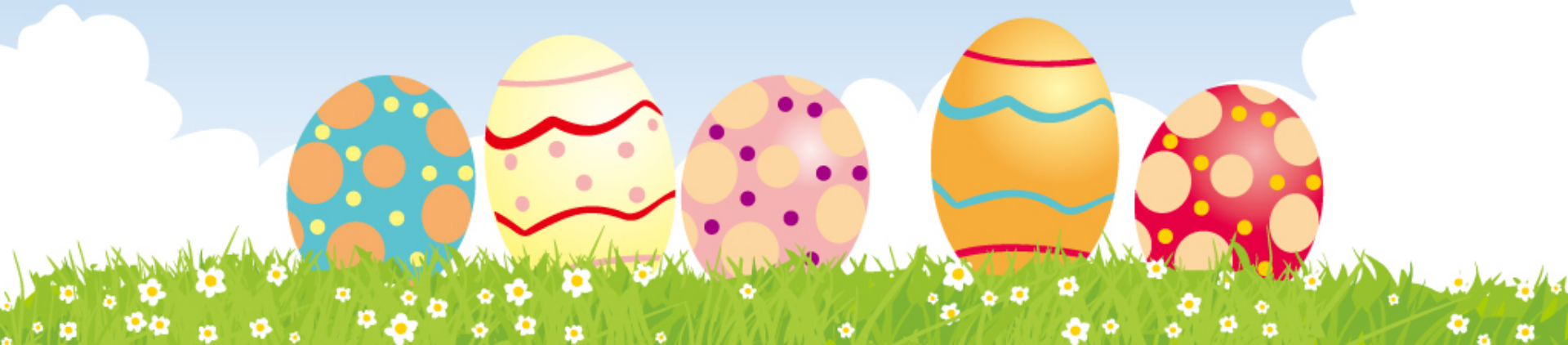


Summary

- Price controls include price ceilings and price floors.
- A price ceiling is a legal maximum on the price of a good or service. An example is rent control.
- A price floor is a legal minimum on the price of a good or a service. An example is the minimum wage.

Summary

- Taxes are used to raise revenue for public purposes.
- When the government levies a tax on a good, the equilibrium quantity of the good falls.



Any Questions?

Measuring A Nation's Output and Income

Measuring a Nation's Income

- Microeconomics
  - ↳ *Microeconomics* is the study of how individual households and firms make decisions and how they interact with one another in markets.
- Macroeconomics
  - ↳ *Macroeconomics* is the study of the economy as a whole.
  - ↳ Its goal is to explain the economic changes that affect many households, firms, and markets at once.

Measuring a Nation's Income

- Macroeconomics answers questions like the following:
  - Why is average income high in some countries and low in others?
  - Why do prices rise rapidly in some time periods while they are more stable in others?
  - Why do production and employment expand in some years and contract in others?

THE ECONOMY'S INCOME AND EXPENDITURE

- When judging whether the economy is doing well or poorly, it is natural to look at the total income that everyone in the economy is earning.

THE ECONOMY'S INCOME AND EXPENDITURE

- For an economy as a whole, *income must equal expenditure* because:
  - Every transaction has a buyer and a seller.
  - Every dollar of spending by some buyer is a dollar of income for some seller.

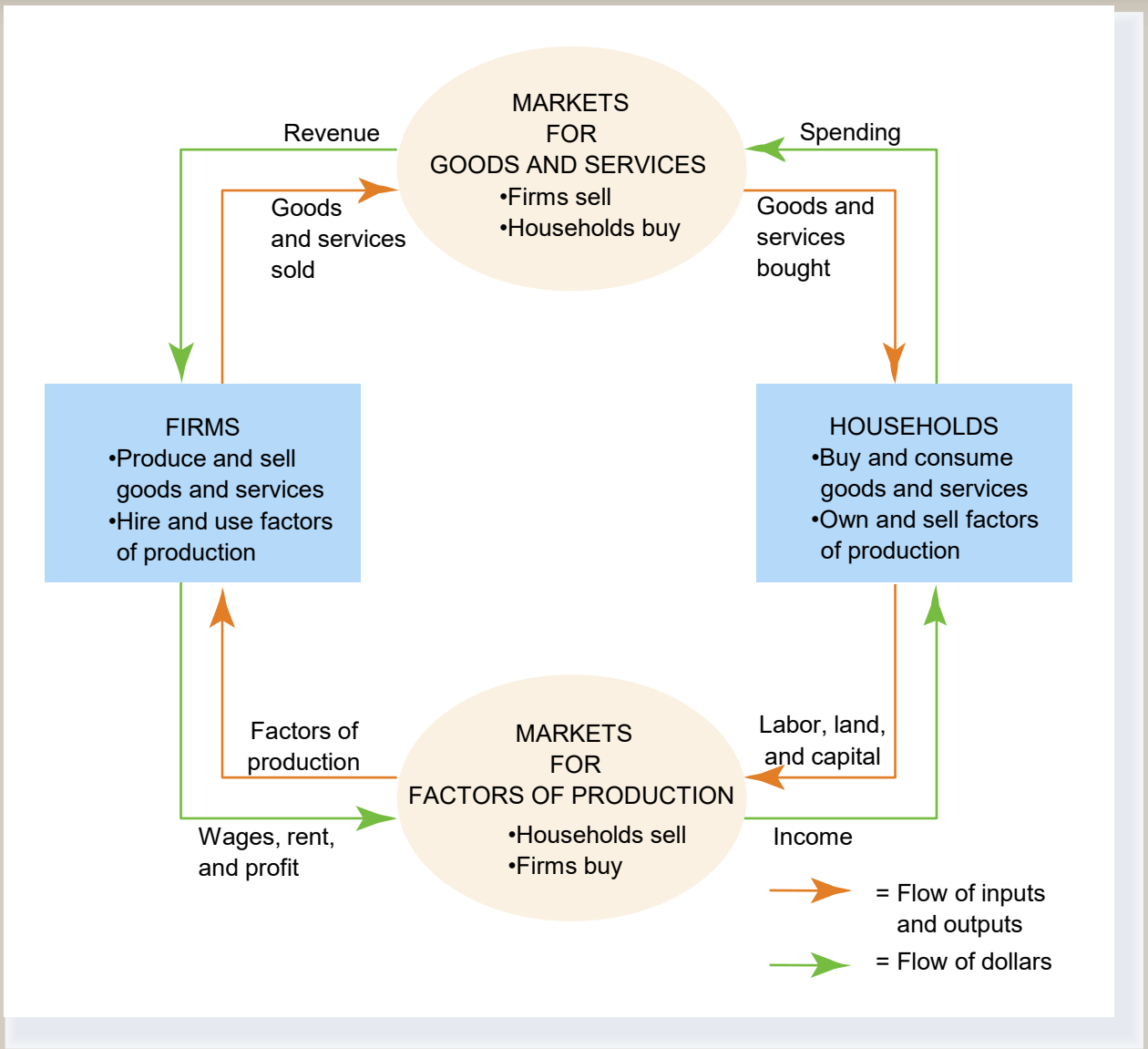
THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- *Gross domestic product (GDP)* is a measure of the income and expenditures of an economy.
- It is the total market value of all final goods and services produced within a country in a given period of time.

THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- The equality of income and expenditure can be illustrated with the circular-flow diagram.

Figure 1 The Circular-Flow Diagram



THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- GDP is the market value of all final goods and services produced within a country in a given period of time.

THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- "GDP is the Market Value . . ."
  - ↳ Output is valued at market prices.
- ". . . Of All Final . . ."
  - ↳ It records only the value of final goods, not intermediate goods (the value is counted only once).
- ". . . Goods and Services . . . "
  - ↳ It includes both tangible goods (food, clothing, cars) and intangible services (haircuts, housecleaning, doctor visits).

THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- "... Produced ..."
  - ↳ It includes goods and services currently produced, not transactions involving goods produced in the past.
- " ... Within a Country ..."
  - ↳ It measures the value of production within the geographic confines of a country.

THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- "... In a Given Period of Time."
  - ↳ It measures the value of production that takes place within a specific interval of time, usually a year or a quarter (three months).

THE COMPONENTS OF GDP

- GDP includes all items produced in the economy and sold *legally* in markets.

THE COMPONENTS OF GDP

- What Is Not Counted in GDP?
  - GDP excludes most items that are produced and consumed at home and that never enter the marketplace.
  - It excludes items produced and sold illicitly, such as illegal drugs.

THE COMPONENTS OF GDP

- GDP (*Y*) is the sum of the following:
  - Consumption *(C)*
  - Investment *(I)*
  - Government Purchases *(G)*
  - Net Exports *(NX)*

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

THE COMPONENTS OF GDP

- *Consumption (C)*:
  - ↳ The spending by households on goods and services, with the exception of purchases of new housing.
- *Investment (I)*:
  - ↳ The spending on capital equipment, inventories, and structures, including new housing.

THE COMPONENTS OF GDP

- *Government Purchases (G)*:
  - The spending on goods and services by local, state, and federal governments.
  - Does *not* include transfer payments because they are not made in exchange for currently produced goods or services.
- *Net Exports (NX):*
  - Exports minus imports.

REAL VERSUS NOMINAL GDP

- An accurate view of the economy requires adjusting nominal to real GDP by using the GDP deflator.

GDP AND ECONOMIC WELL-BEING

- GDP is the best single measure of the economic well-being of a society.
- GDP per person tells us the income and expenditure of the average person in the economy.

GDP AND ECONOMIC WELL-BEING

- Higher GDP per person indicates a higher standard of living.
- GDP is not a perfect measure of the happiness or quality of life, however.

GDP AND ECONOMIC WELL-BEING

- Some things that contribute to well-being are not included in GDP.
  - The value of leisure.
  - The value of a clean environment.
  - The value of almost all activity that takes place outside of markets, such as the value of the time parents spend with their children and the value of volunteer work.

Summary

- Because every transaction has a buyer and a seller, the total expenditure in the economy must equal the total income in the economy.
- Gross Domestic Product (GDP) measures an economy's total expenditure on newly produced goods and services and the total income earned from the production of these goods and services.

Summary

- GDP is the market value of all final goods and services produced within a country in a given period of time.

Summary

- GDP is the market value of all final goods and services produced within a country in a given period of time.
- GDP is divided among four components of expenditure: consumption, investment, government purchases, and net exports.

Summary

- Nominal GDP uses current prices to value the economy's production. Real GDP uses constant base-year prices to value the economy's production of goods and services.

Summary

- GDP is a good measure of economic well-being because people prefer higher to lower incomes.
- It is not a perfect measure of well-being because some things, such as leisure time and a clean environment, aren't measured by GDP.

Add Your Company Slogan

Measuring Cost of Living

Measuring the Cost of Living

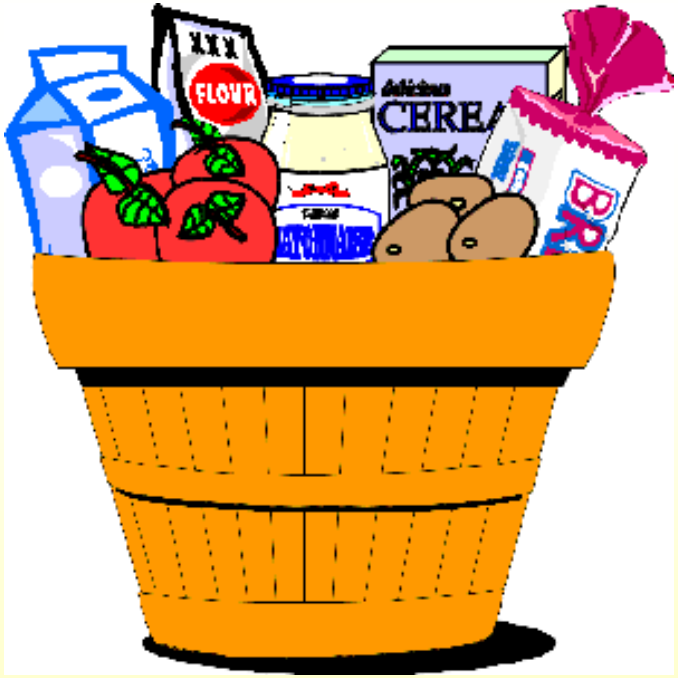
- **Inflation refers to a situation in which the economy's overall price level is rising.**
- **The inflation rate is the percentage change in the price level from the previous period.**

THE CONSUMER PRICE INDEX

- The *consumer price index (CPI)* is a measure of the overall cost of the goods and services bought by a typical consumer.
- In Thailand, the Ministry of Commerce reports the CPI each month.
- It is used to monitor changes in the cost of living over time.

THE CONSUMER PRICE INDEX

- **When the CPI rises, the typical family has to spend more dollars to maintain the same standard of living.**



How the Consumer Price Index Is Calculated

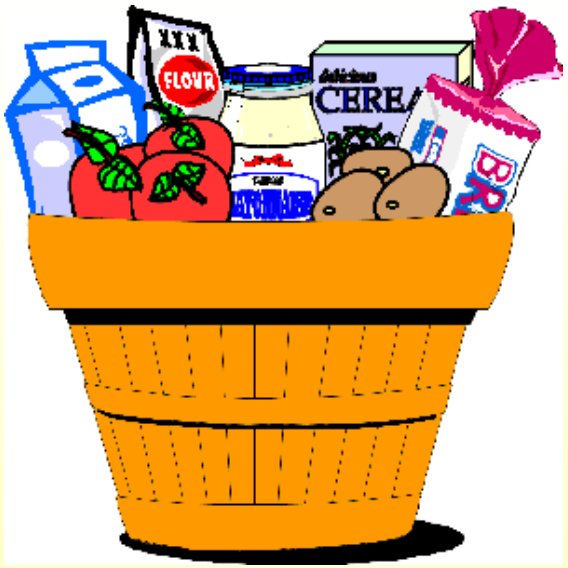
- ***Fix the Basket:*** **Determine what prices are most important to the typical consumer.**
  - The Ministry of Commerce identifies a market basket of goods and services the typical consumer buys.
  - The Ministry of Commerce conducts monthly consumer surveys to set the weights for the prices of those goods and services.

How the Consumer Price Index Is Calculated

- ***Find the Prices:*** **Find the prices of each of the goods and services in the basket for each point in time.**

How the Consumer Price Index Is Calculated

- ***Compute the Basket's Cost:*** **Use the data on prices to calculate the cost of the basket of goods and services at different times.**



How the Consumer Price Index Is Calculated

- ***Choose a Base Year and Compute the Index:***
  - Designate one year as the base year, making it the benchmark against which other years are compared.
  - Compute the index by dividing the price of the basket in one year by the price in the base year and multiplying by 100.

What is Inflation?

Inflation is defined as a general increase in prices, which we proxy by the Consumer Price Index (CPI).

It implies that each baht we earn will be worth less as it purchases less than it did before.

How the Consumer Price Index Is Calculated

- ***Compute the inflation rate:*** **The inflation rate is the percentage change in the price index from the preceding period.**

How the Consumer Price Index Is Calculated

- **The Inflation Rate**
  - The *inflation rate* is calculated as follows:

$$\text{Inflation Rate in Year 2} = \frac{\text{CPI in Year 2} - \text{CPI in Year 1}}{\text{CPI in Year 1}} \times 100$$

How the Consumer Price Index Is Calculated

- **Calculating the Consumer Price Index and the Inflation Rate: Another Example**
  - Base Year is 2002.
  - Basket of goods in 2002 costs $1,200.
  - The same basket in 2004 costs $1,236.
  - CPI = ($1,236/$1,200) $\times$ 100 = 103.
  - Prices increased 3 percent between 2002 and 2004.

CORRECTING ECONOMIC VARIABLES FOR THE EFFECTS OF INFLATION

- **Price indexes are used to correct for the effects of inflation when comparing dollar figures from different times.**

Baht Figures from Different Times

- **Do the following to convert (inflate) Company A's wages in 2000 to Thai Baht in 2011:**

$$Salary_{2011} = Salary_{2000} \times \frac{\mathrm{Pr}iceLevel_{2011}}{\mathrm{Pr}iceLevel_{2000}}$$

Real and Nominal Interest Rates

- Interest represents a payment in the future for a transfer of money in the past.

Real and Nominal Interest Rates

- **The *nominal interest* rate is the interest rate usually reported and not corrected for inflation.**
  - It is the interest rate that a bank pays.
- **The *real interest rate* is the nominal interest rate that is corrected for the effects of inflation.**

Real and Nominal Interest Rates

- You borrowed $1,000 for one year.
- Nominal interest rate was 15%.
- During the year inflation was 10%.

Real interest rate = Nominal interest rate – Inflation

= 15% - 10% = 5%

Summary

- The consumer price index shows the cost of a basket of goods and services relative to the cost of the same basket in the base year.
- The index is used to measure the overall level of prices in the economy.
- The percentage change in the CPI measures the inflation rate.

Summary

- Baht figures from different points in time do not represent a valid comparison of purchasing power.
- The real interest rate equals the nominal interest rate minus the rate of inflation.

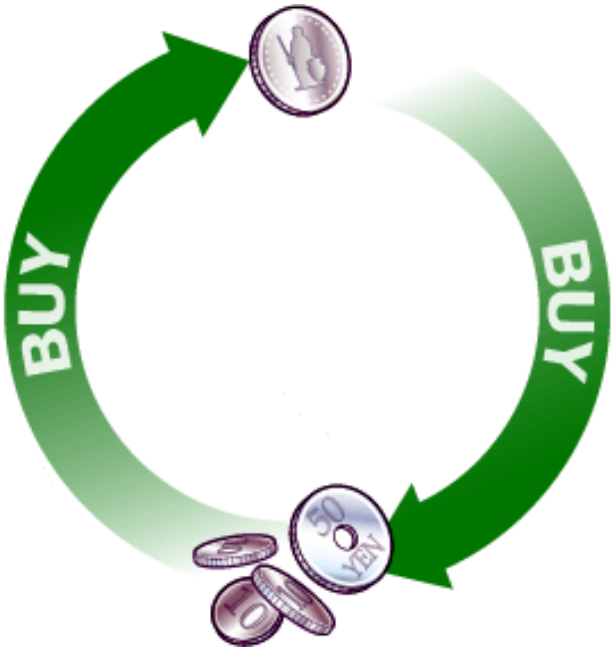
International Transaction and Exchange Rate

THE PRICES FOR INTERNATIONAL TRANSACTIONS: REAL AND NOMINAL EXCHANGE RATES

- International transactions are influenced by international prices.
- The two most important international prices are the **nominal exchange rate** and the **real exchange rate**.

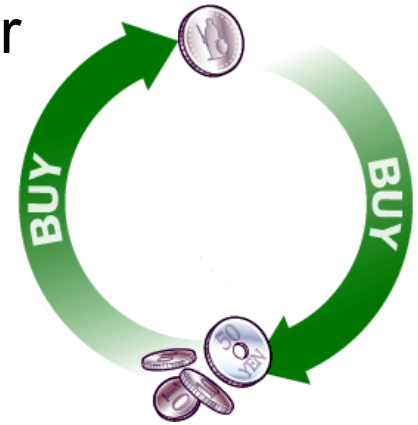
Nominal Exchange Rates

- The ***nominal exchange rate*** is the rate at which a person can trade the currency of one country for the currency of another.



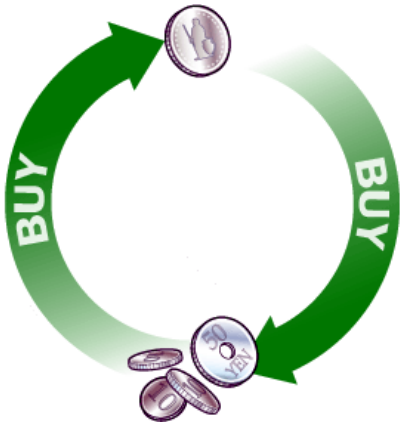
Nominal Exchange Rates

- The **nominal exchange r**ate is expressed in two ways:
  - In units of foreign currency per one baht.
    - e.g., how many Japanese Yen per one baht
  - And in units of baht per one unit of the foreign currency.
    - E.g., how many baht per one US dollar



Nominal Exchange Rates

- Assume the exchange rate between the Korean Won and Thai baht is 40 Won to one baht.
  - One baht trades for 40 won.
  - One won trades for 1/40 (= 0.025) of one baht.

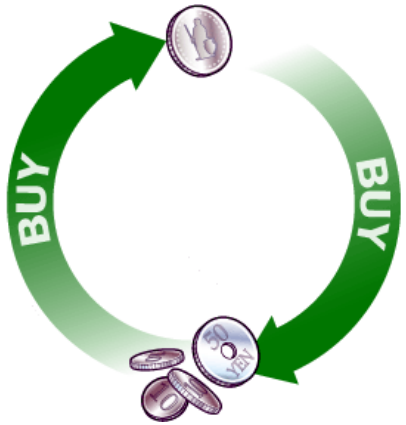


Nominal Exchange Rates

- ***Appreciation*** refers to an increase in the value of a currency as measured by the amount of foreign currency it can buy.
  - E.g., If we can use less amount of Thai baht to exchange a USD (for example, from 32 baht/ 1 US$ to 30 baht/1 US$). → Thai baht **appreciates.**

Nominal Exchange Rates

- *Depreciation* refers to a decrease in the value of a currency as measured by the amount of foreign currency it can buy.
  - E.g., If have to use more Thai baht to exchange a USD (for example, from 30 baht/ 1 US$ to 35 baht/1 US$). → Thai baht **depreciates.**



TEST!

- If one baht buys more foreign currency, there is a(n) _____of Thai baht.

- If it buys less there is a(n) _____ of Thai baht.

Real Exchange Rates

- The ***real exchange rate*** is the rate at which a person can trade the goods and services of one country for the goods and services of another.

Real Exchange Rates

- The ***real exchange rate*** compares the prices of domestic goods and foreign goods in the domestic economy.
  - If a case of the U.S. Hamburger is twice as expensive as Thai hamburger, the real exchange rate is 1/2 case of the U.S. hamburger per case of Thai hamburger

Real Exchange Rates

- The ***real exchange rate*** depends on the **nominal exchange rate** and **the prices of goods** in the two countries measured in local currencies.

Real Exchange Rates

- The real exchange rate is a key determinant of how much a country exports and imports.

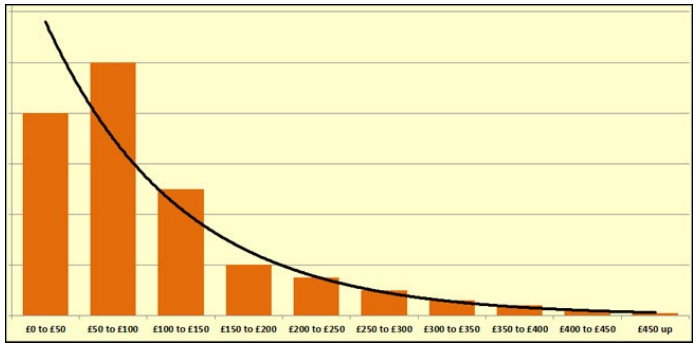
$$\text{Real exchange rate} = \frac{\text{Nominal exchange rate} \times \text{Domestic price}}{\text{Foreign price}}$$

Real Exchange Rates

- A depreciation (fall) in the Thai real exchange rate means that Thai goods have become cheaper relative to foreign goods.
- This encourages consumers both at home and abroad to buy more Thai goods and fewer goods from other countries.

Real Exchange Rates

- As a result, Thai exports rise, and Thai imports fall, and both of these changes raise Thai net exports.
- Conversely, an appreciation in the Thai real exchange rate means that Thai goods have become more expensive compared to foreign goods, so Thai net exports fall.



Summary

- The nominal exchange rate is the relative price of the currency of two countries.
- The real exchange rate is the relative price of the goods and services of two countries.

Summary

- When the nominal exchange rate changes so that baht buys more foreign currency, Thai baht is said to **appreciate** or **strengthen**.
- When the nominal exchange rate changes so that each baht buys less foreign currency, the dollar is said to **depreciate or weaken**.

Thank you

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