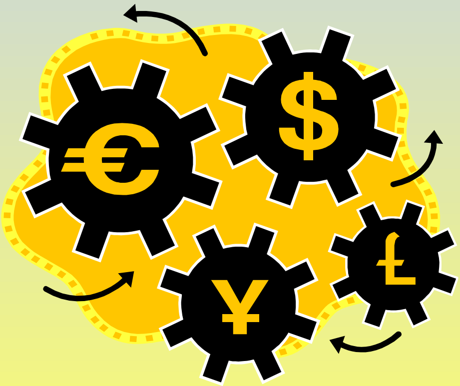
ECONOMICS
15B11HS211



Title: Economics
Course Code: 15B11HS211 (2 – 1 – 0)

Learning Goal:

The course is designed to enable students to understand the concepts of economics and to appreciate the application of these concepts in the real world. It allows them to evaluate economics of business objectives, market structure, business forecasting, costs and make effective economic decisions. The course also aims to make the students understand the basic macro-economic concepts.

Course Outcomes (COs):

- *Explain* the basic micro and macro economics concepts.
- *Analyze* the theories of demand, supply, elasticity and consumer choice in the market.
- *Analyze* the theories of production, cost, profit and break even analysis
- *Evaluate* the different market structures and their implications for the behavior of the firm.
- *Examine* the various business forecasting methods.
- *Apply* the basics of national income accounting and business cycles to Indian economy.

Learning Outcomes

- Studying Economics will enable students to understand:
- How demand, supply and their elasticities interact in the market and determine price and quantity of a good.
- The links between production, cost, profit and break even analysis.
- The major characteristics of different market structures and the implications for the behavior of the firm.
- The basics of national income accounting.
- The causes and consequences of business cycles
- The roles of fiscal and monetary policy in fighting recessions and inflation

Methodology

The course will commence with making the students understand the basic economic theories and subsequently learn about practices followed by the organizations. The tutorials focus on the core topics and numerical problems on these topics.

Books

Text Book

Managerial Economics, (Fourth edition) H.Craig Petersen, W. Cris Lewis

Reference books

Managerial economics in a global economy, Dominick Salvatore
Managerial economics, Damodaran, Suma
Managerial economics, Dwivedi, D.N.
Managerial economics, H.L.Ahuja
Managerial economics, Truett Lila J.
Managerial economics, Hirschey, Mark
Modern Economic Theory, K.K.Dewitt & Navalkur
S.K. Misra & V. K. Puri, Indian Economy, Himalaya Publishing House, 2011.

Course Content

1.	Introduction
2	Basics of Demand, Supply and Equilibrium
3	Theory of Consumer Choice
4	Demand forecasting
5	Production theory and analysis
6	Cost Theory and Analysis
7	Market Structure
8	National Income Accounting
9	Macro Economics Issues

Evaluation Scheme

Exam	% of Marks	Duration	Coverage
T-1	20	1 hr	Syllabi covered up-to T-1.
T-2	20	1hr	Syllabi covered between T-1 & T-2.
End Sem. Exam	35	2 hr	Full Syllabi
TA	25	Entire Semester	Project, class tests, Regularity in attendance and discipline.

Economics

- **Economy** – A system that provides living to the people.
- **Economic activity** – any activity performed for earning money for the satisfaction of human wants.
- **Economics** is the social science that seeks to describe the factors which determine the production, distribution and consumption of goods and services.

Economics

- A social science concerned with those aspects of social behavior and those institutions which involve the allocation of scarce resources among unlimited and competing uses, to produce and distribute goods and services in the satisfaction of human wants, which are innumerable and insatiable.

Scarce Resources

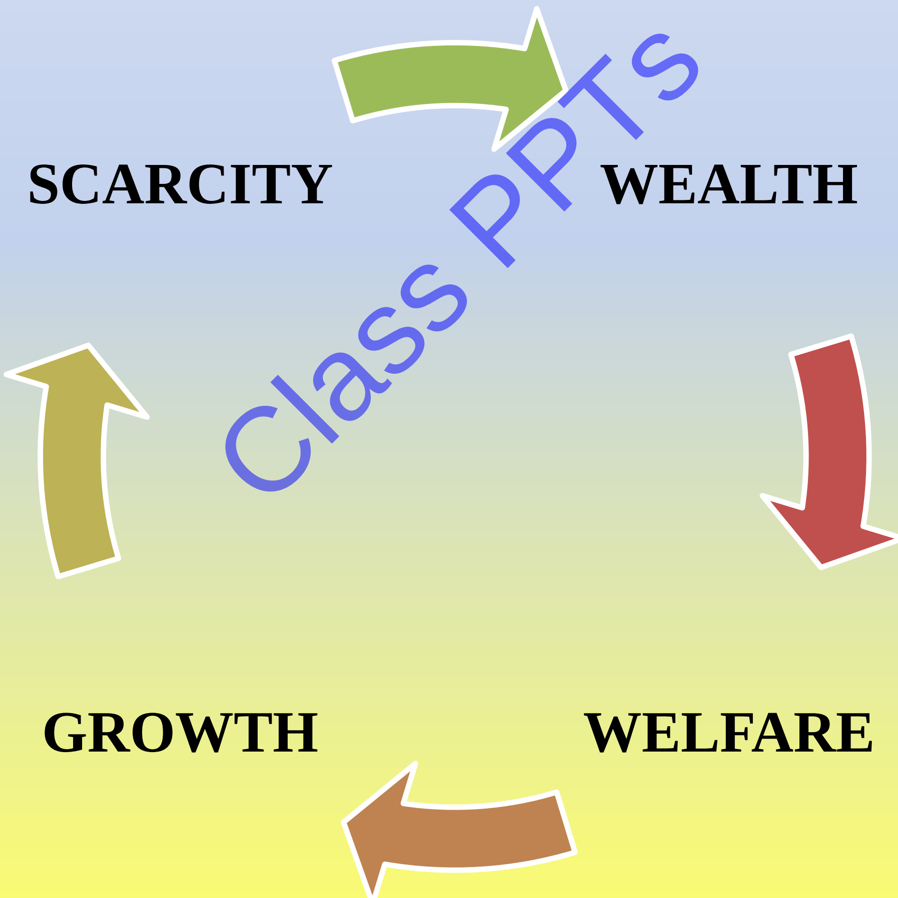
Unlimited Wants

Alternative uses of resources

Produce & distribute goods & services

Origin and Scope of Economics

Brandon Dupont (2017)[1] analyses the origin as below:



- **Wealth Definition by Adam Smith**
  - a science which studies the nature, causes and growth of the wealth of nations
  - Adam Smith – Father of economics
  - Author of Wealth of Nation (One of the pioneer work in Economics)

- **Criticism**
  - No attention was paid to man for whom wealth is really meant.

- **Welfare Definition by Alfred Marshall**
  - study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the use of the material requisites of well being. Thus it is, on the one side, a study of wealth; and on the other, and more important side the study of man.

- **Criticism**
  - Non-material goods are not acknowledged by Marshall.
  - Limited to those activities which increase human welfare.

Scarcity Definition by Lionel Robbins

- is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.

Four characteristics

- Man has unlimited wants or ends.
- The means or resources to satisfy them are limited.
- These resources are not specific & have alternate uses.
- Man has therefore to choose between wants.

Criticism

- Aggregates of the entire economy (national income, total output etc.) and the problem of unemployment and instability are not covered
- The causes and growth patterns of national income and per capita income are left untouched.

- **Growth Definition by Paul A. Samuelson**
  - is a study of how man and society choose, with or without the use of money, to employ scarce productive resources which could have alternate uses, to produce various commodities over time and distribute them for consumption now and the future among various people and groups of society.

Concerns & Significance of Modern Economics

- Allocation of society's resources among alternative uses
- Efficiencies and inefficiencies of economic system
- Distribution of the society's output among individuals and groups
- Ways in which production and distribution change over time
- Very useful for Consumers, Producers, Administrators, Planners and Academicians

Micro Economics

Micro Economics studies individual units like individual household, pricing of a firm, wages of a worker, profits of an entrepreneur, and so on.

It helps us understand the micro economics issues like:

- choices: *what*, *how* and *for whom*
- the concept of opportunity cost
- rational economic decision making: marginal costs and marginal benefits
- microeconomic objectives of efficiency & equity
- Covers : Theory of Demand, Theory of Production, Price determination in Commodity market and Price determination in Factor market.

Macro Economics

Macro Economics deals with the average and aggregates of the system rather than the particular items in it, and attempts to define these aggregates in a useful manner and examines their relationship.

- Theory of National Income: GDP/GNP/NDP
- Theory of Employment: Unemployment, its types and rate
- Theory of Money: Commodity money (barter), modern money (paper), banking and insurance, interest rates.
- Theory of General Price Level: Wholesale Price index, consumer price index
- Theory of International Trade: Balance of payment, foreign exchange rate and purchasing power parity theory
- Economics of Growth: Four factors – human resource, natural resource, capital formation and technological changes and innovation
- Macroeconomic issues: growth, unemployment, inflation, balance of payments problems, cyclical fluctuations

Examples of microeconomic and macroeconomic concerns

	Production	Prices	Income	Employment
Micro Economics	Production/Output in Individual Industries and Businesses How much steel How many offices How many cars	Price of Individual Goods and Services Price of medical care Price of gasoline Food prices Apartment rents	Distribution of Income and Wealth Wages in the auto industry Minimum wages Executive salaries Poverty	Employment by Individual Businesses & Industries Jobs in the steel industry Number of employees in a firm
Macro Economics	National Production/Output Total Industrial Output Gross Domestic Product Growth of Output	Aggregate Price Level Consumer price index Producer Price index Rate of Inflation	National Income Total wages and salaries Total corporate profits	Employment and Unemployment in the Economy Total number of jobs Unemployment rate

References

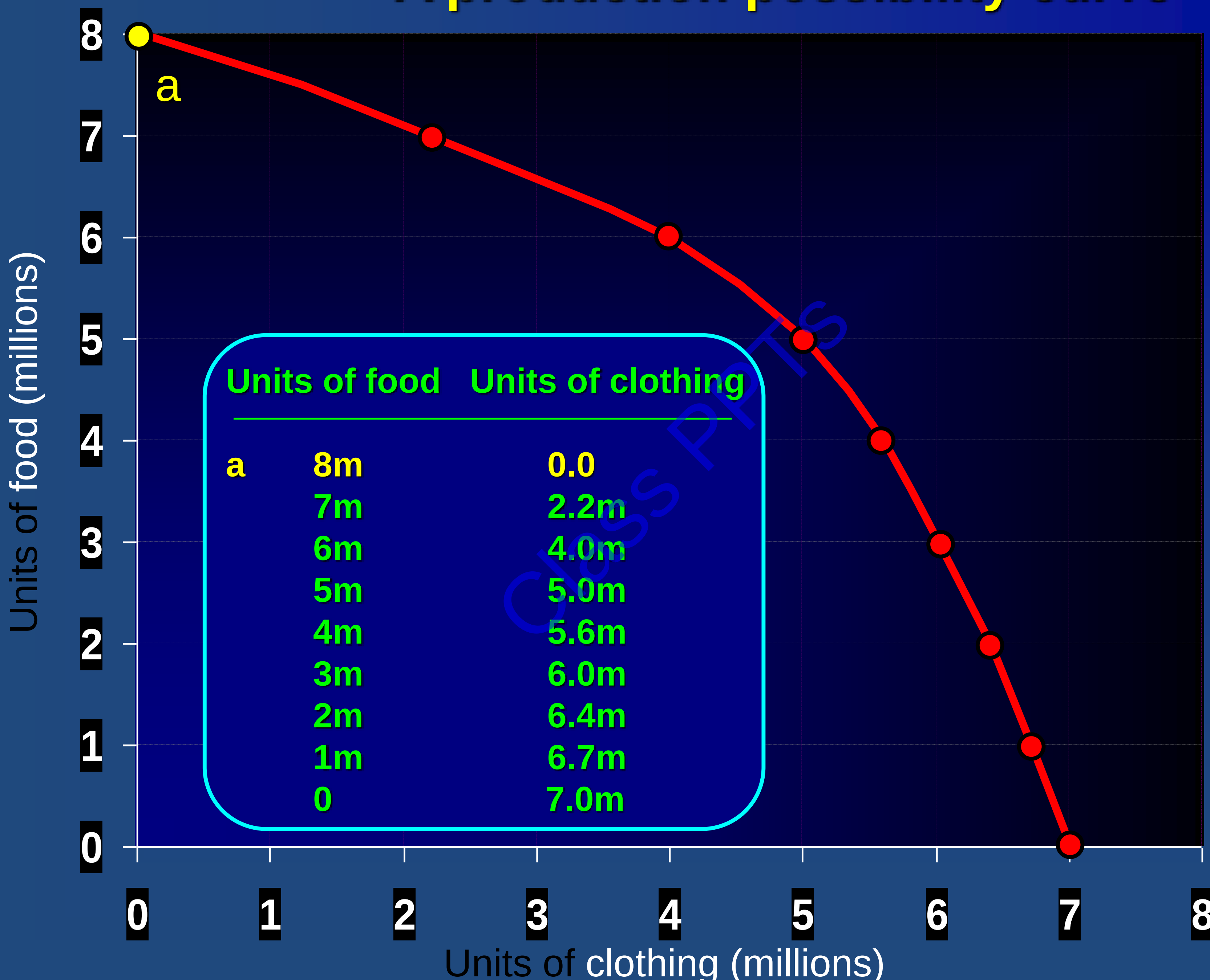
1. Brandon Dupont,“The History of Economic Ideas:Economic Thought in Contemporary Context". Routledge, Taylor & Francis Group. Chapter 1, 2017.
2. Frank H. Knight, “The Economic Organization”,The Chicago University Press, pp 59-60, 1933.
3. Bogdan Daraban, "Introducing the Circular Flow Diagram to Business Students". Journal of Education for Business, 85 (5) pp 274-279,2010

Production Possibility Curve

Illustrates the fundamental economic problem faced by an individual or society or state or nation i.e., principles of constrained choice, opportunity cost and scarcity.

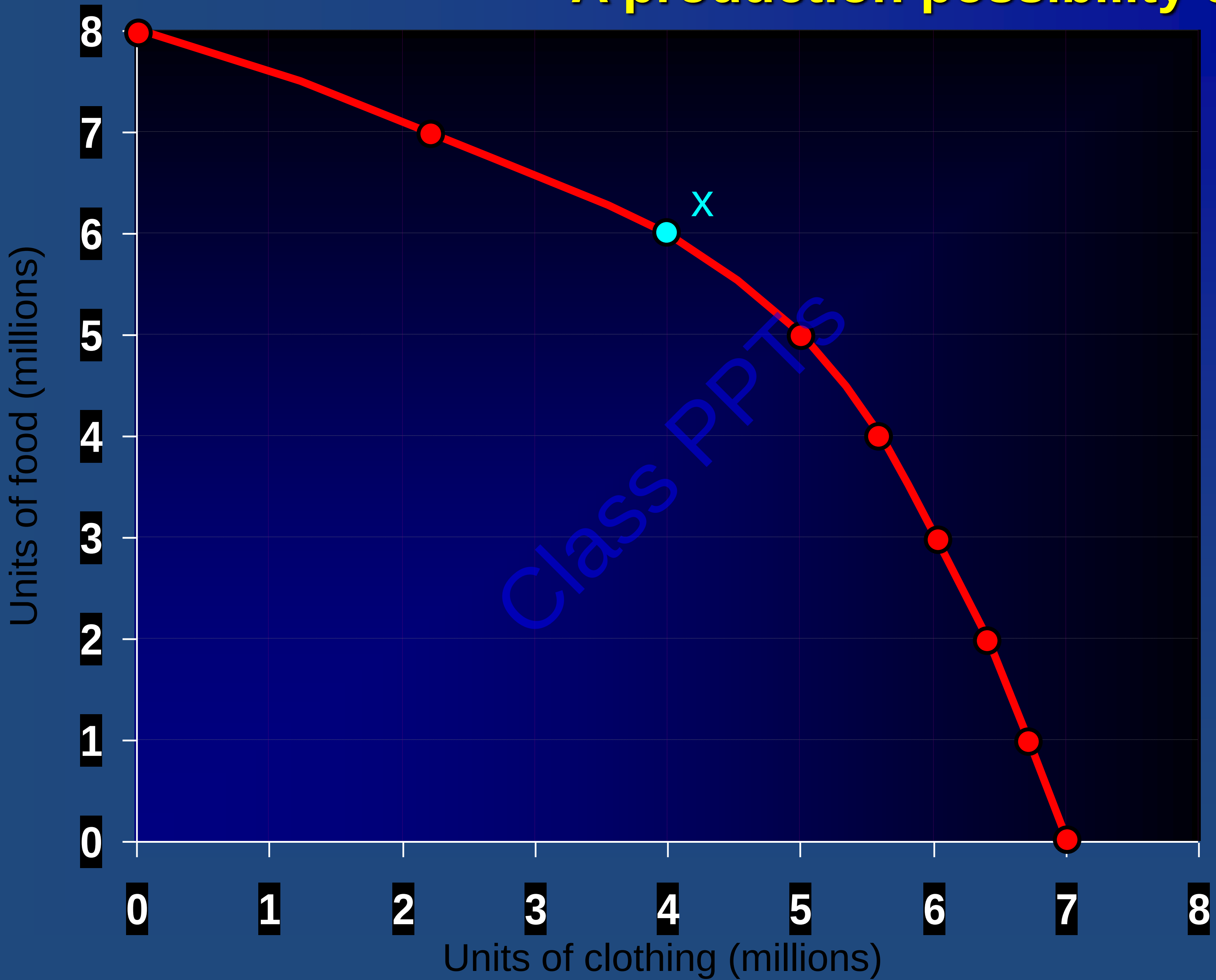
A graph that shows all the combinations of goods and services that can be produced if all of society's resources are used efficiently

A production possibility curve

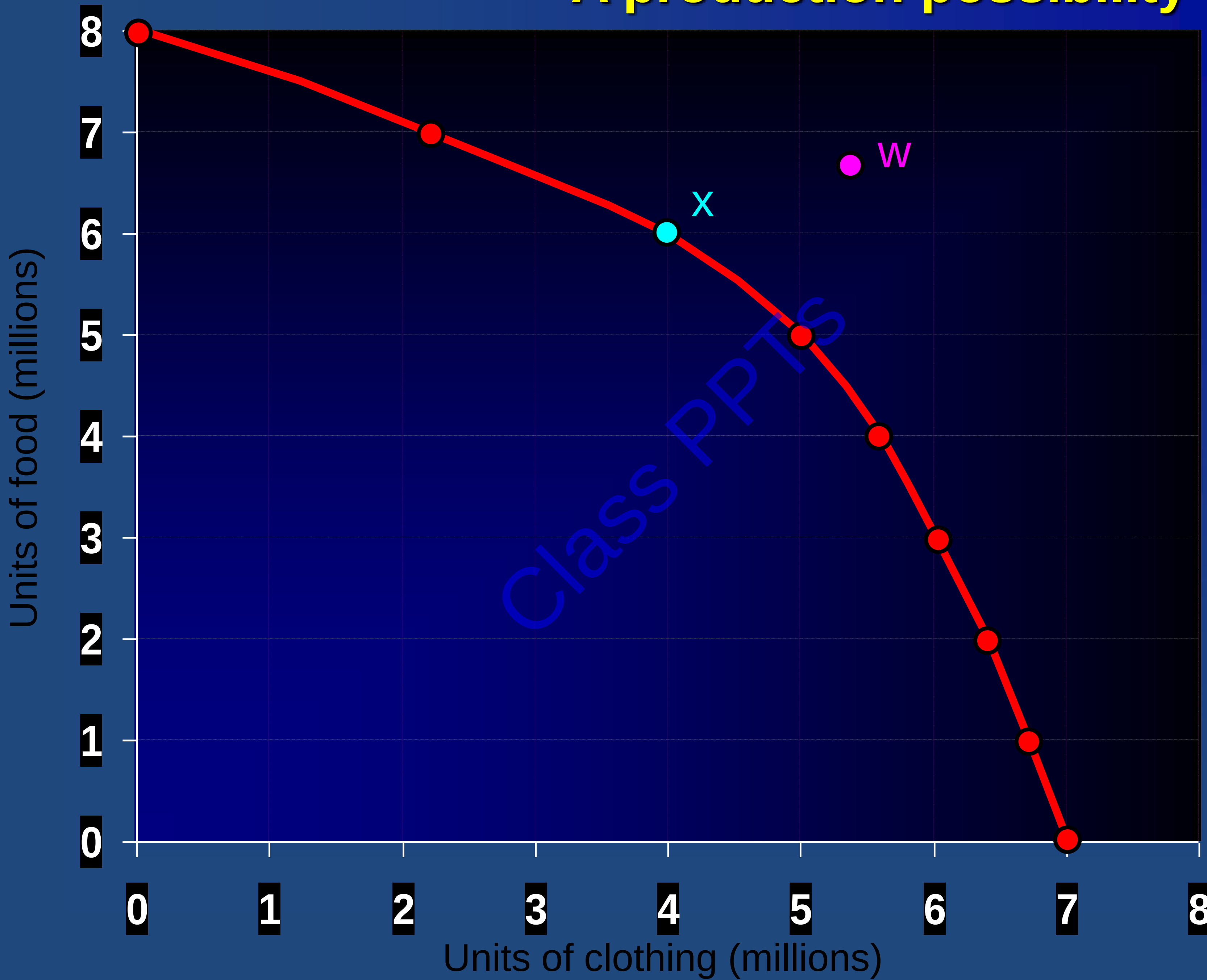


	Units of food	Units of clothing
a	8m	0.0
	7m	2.2m
	6m	4.0m
	5m	5.0m
	4m	5.6m
	3m	6.0m
	2m	6.4m
	1m	6.7m
	0	7.0m

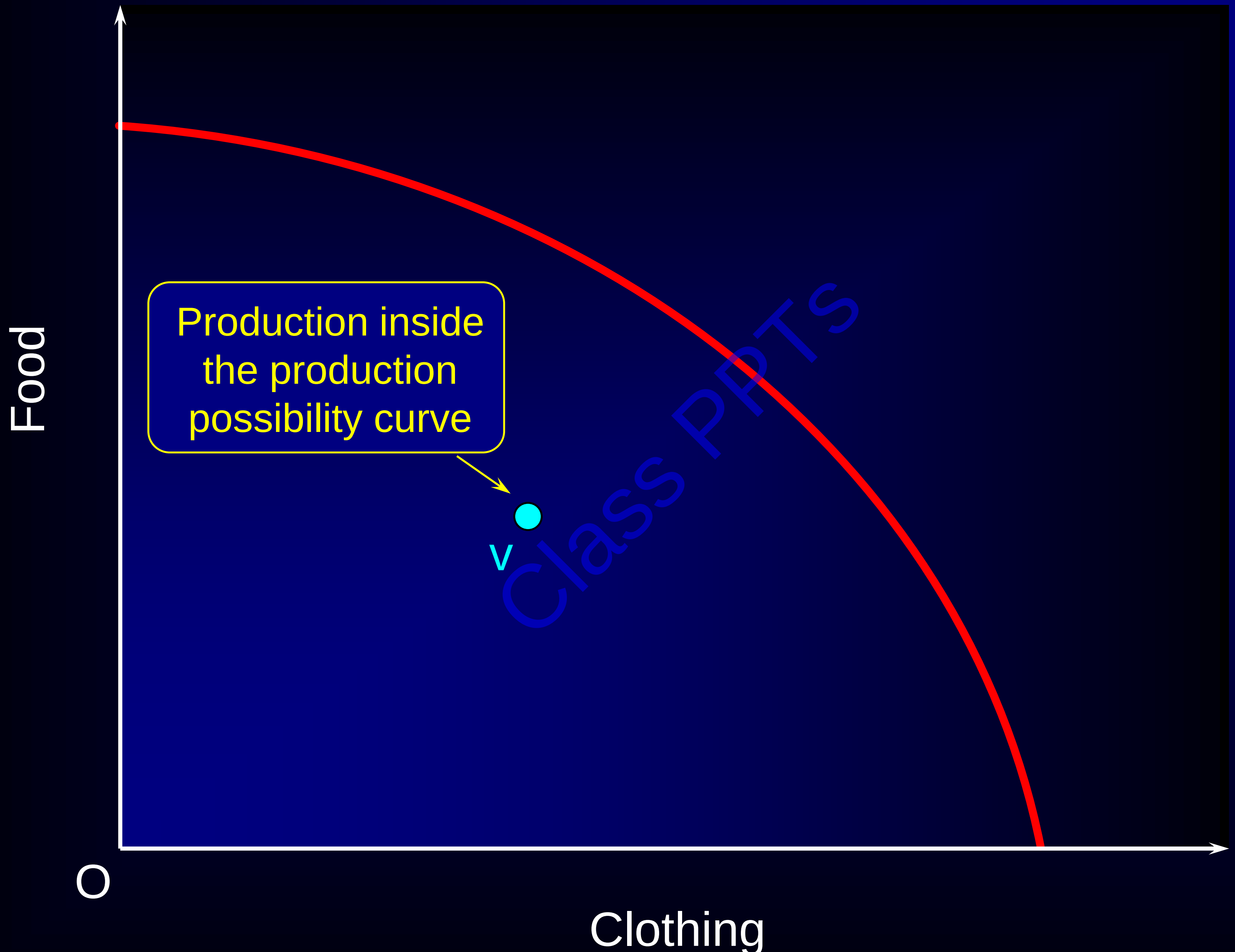
A production possibility curve



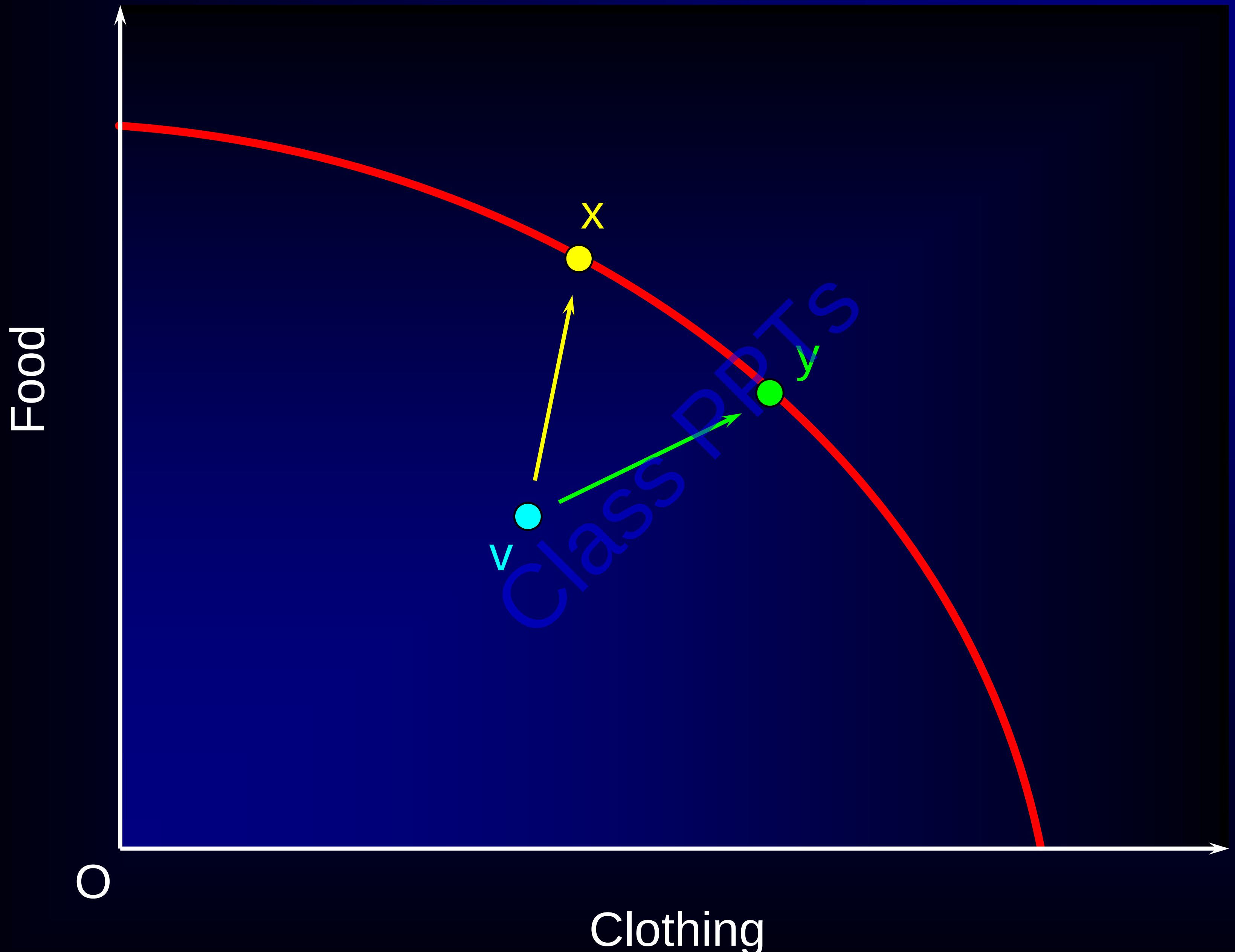
A production possibility curve



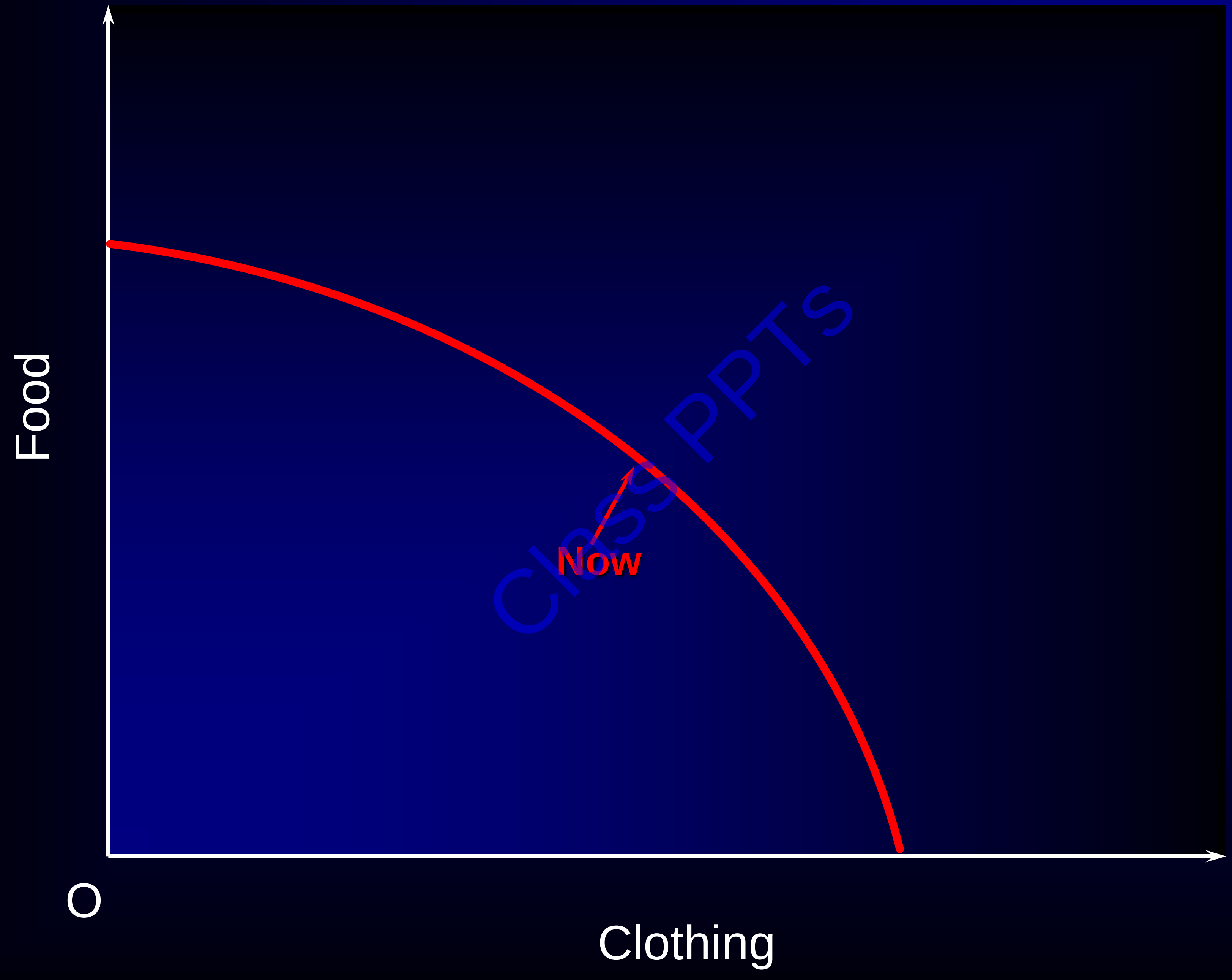
Making a fuller use of resources



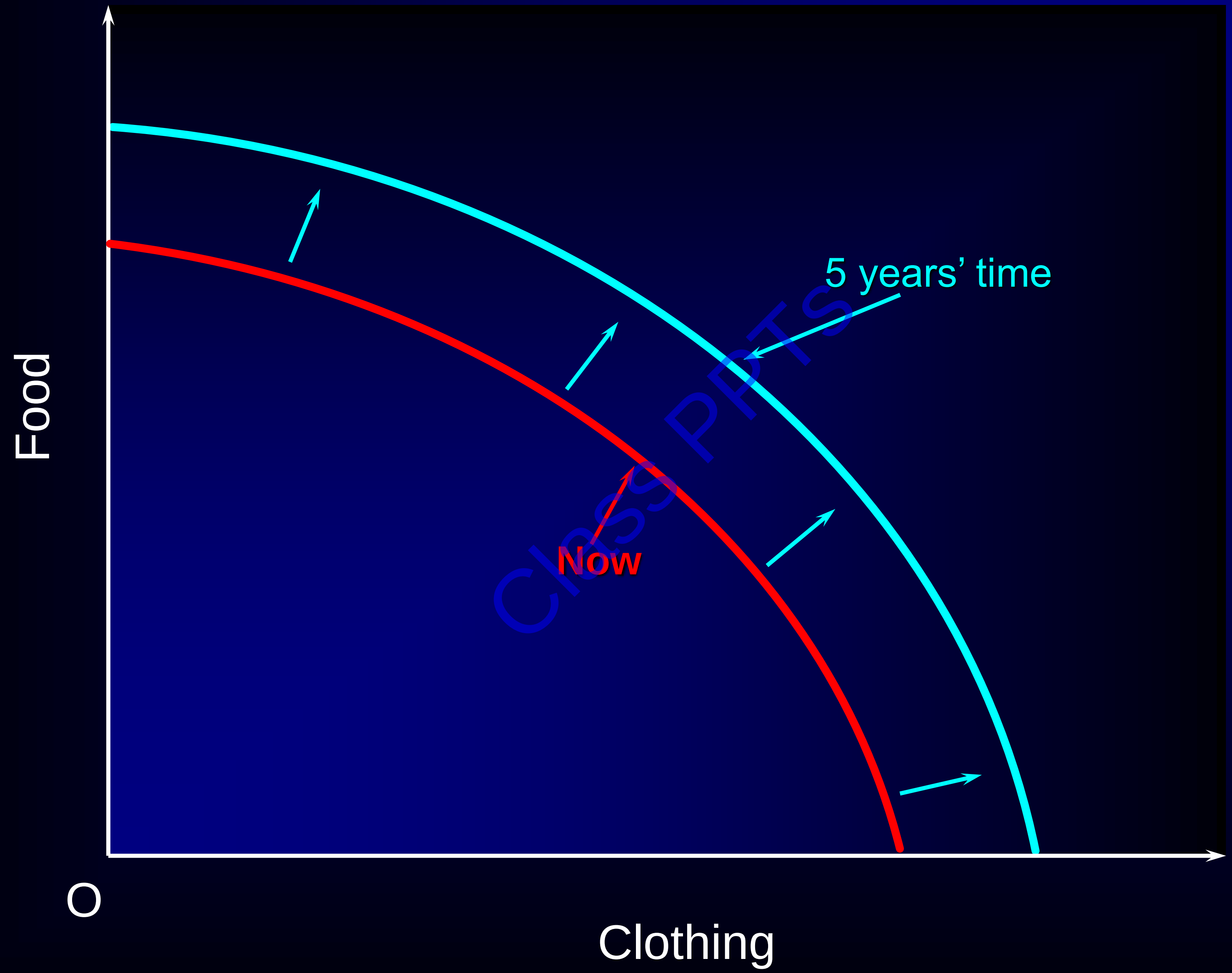
Making a fuller use of resources



Growth in potential output



Growth in potential output

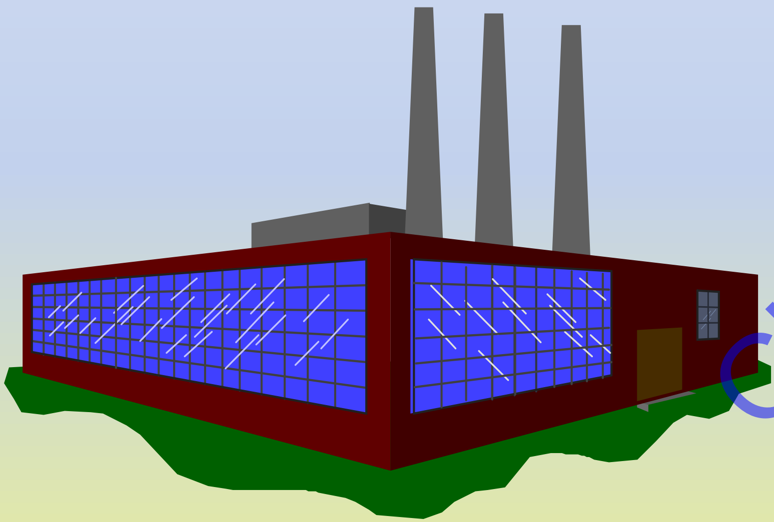


CIRCULAR FLOW OF ECONOMIC ACTIVITY

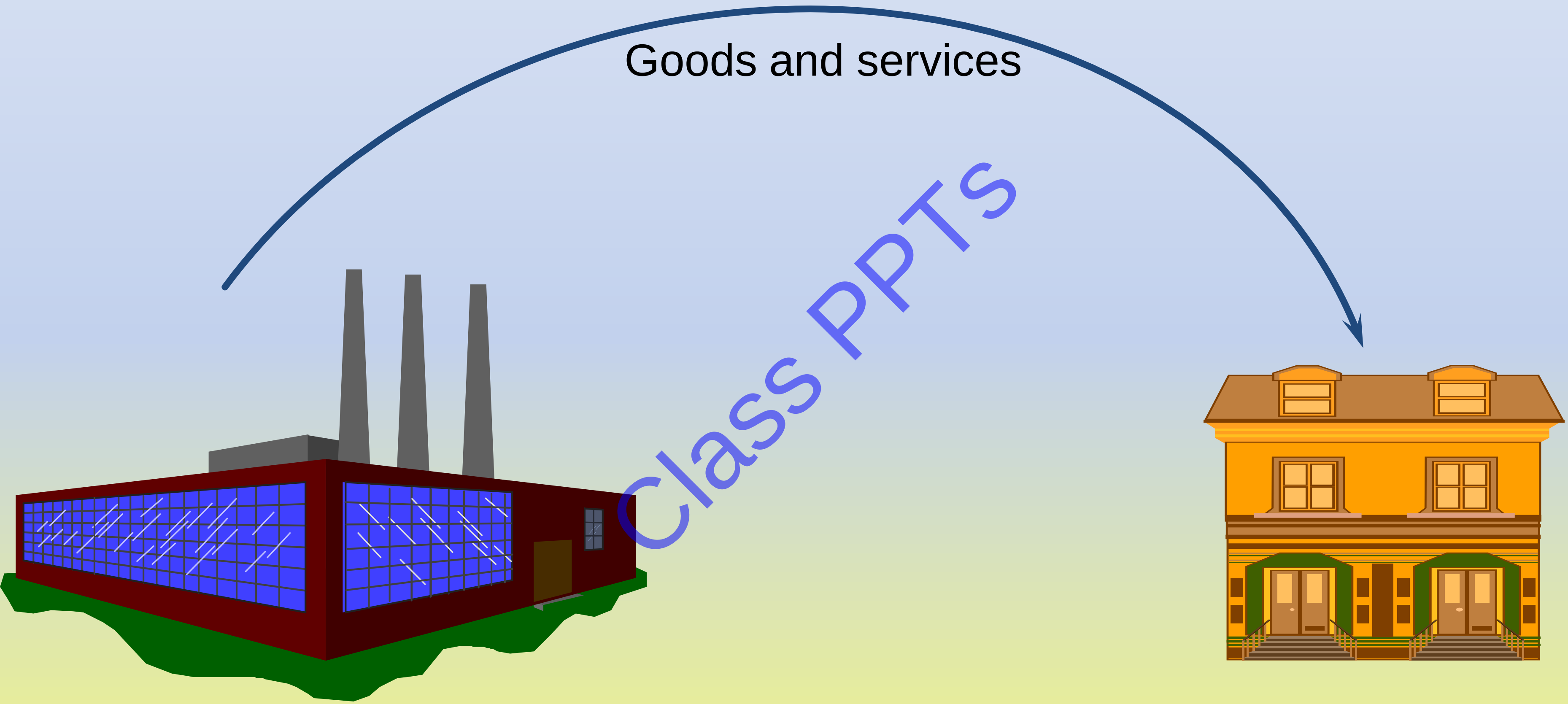
Circulation of economic value between individual and business entreprises (Knight,1933)[2]

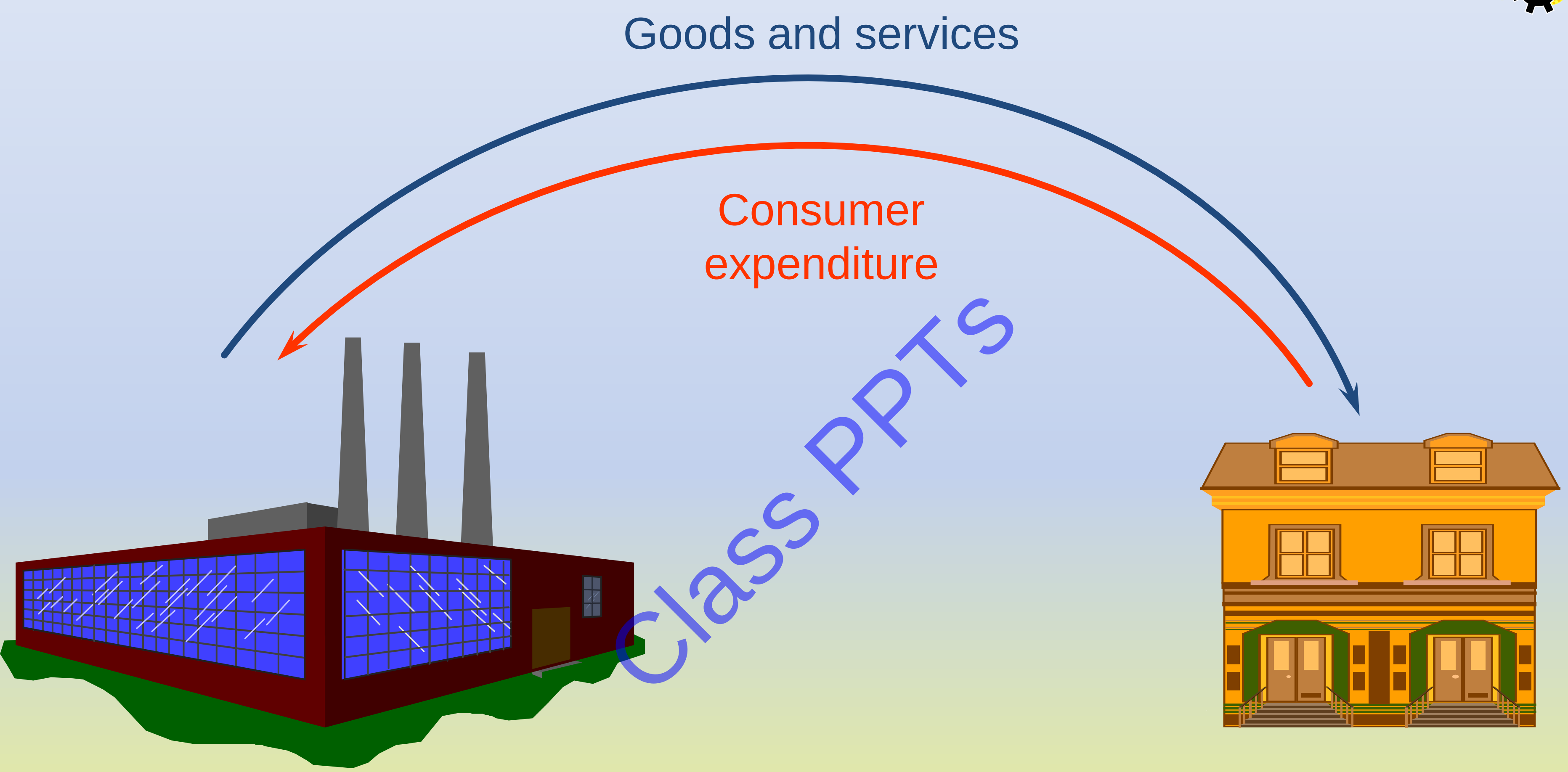
- **Households**
  - The consuming units in an economy
- **Firms**
  - The producing units in an economy
- **Product or Output markets**
  - The market in which goods and services are exchanged
- **Input or Factor markets**
  - The markets in which the resources used to produce products are exchanged
  - Labor market
  - Capital market
  - Land market

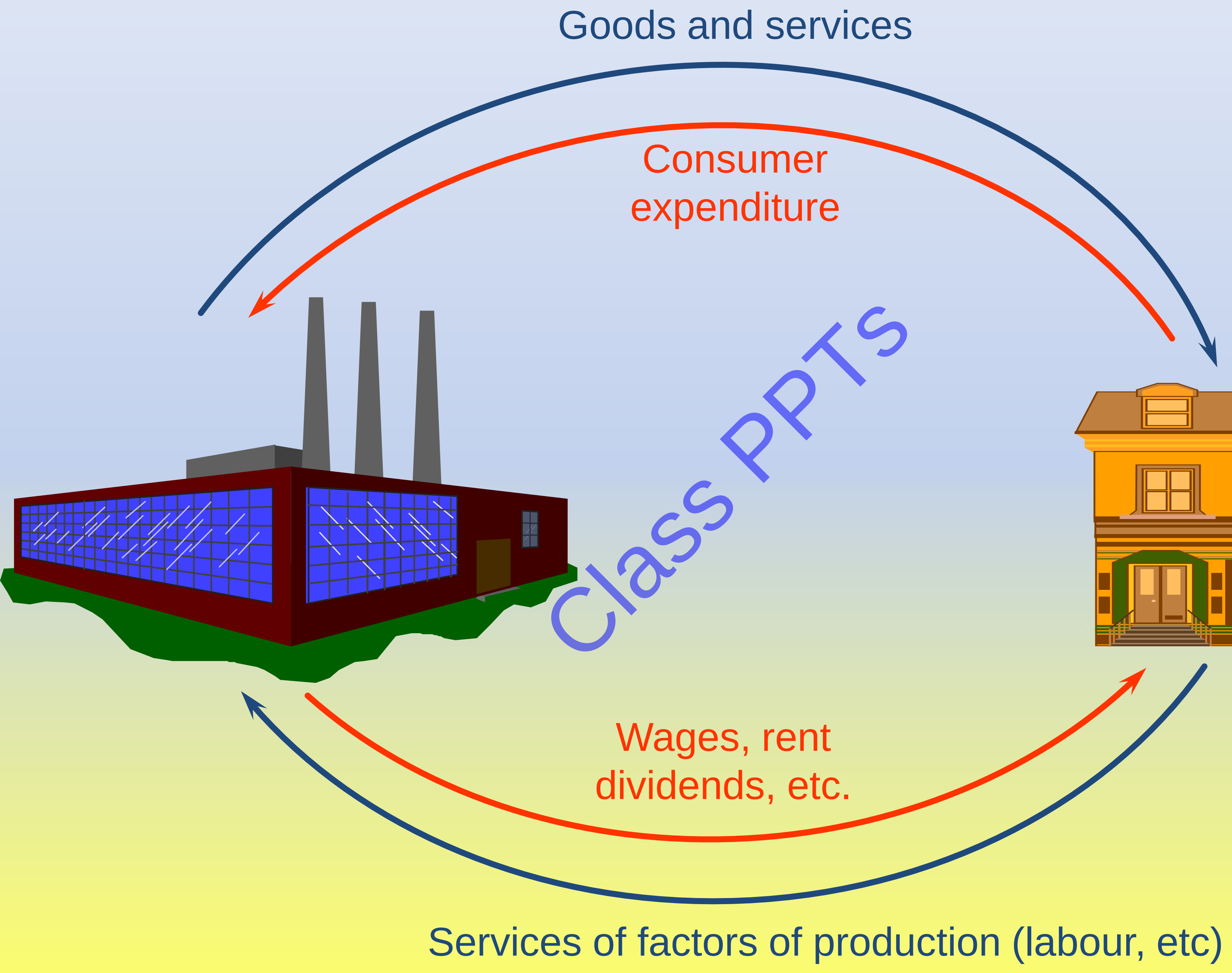
The circular flow of goods and incomes



The circular flow of goods and incomes

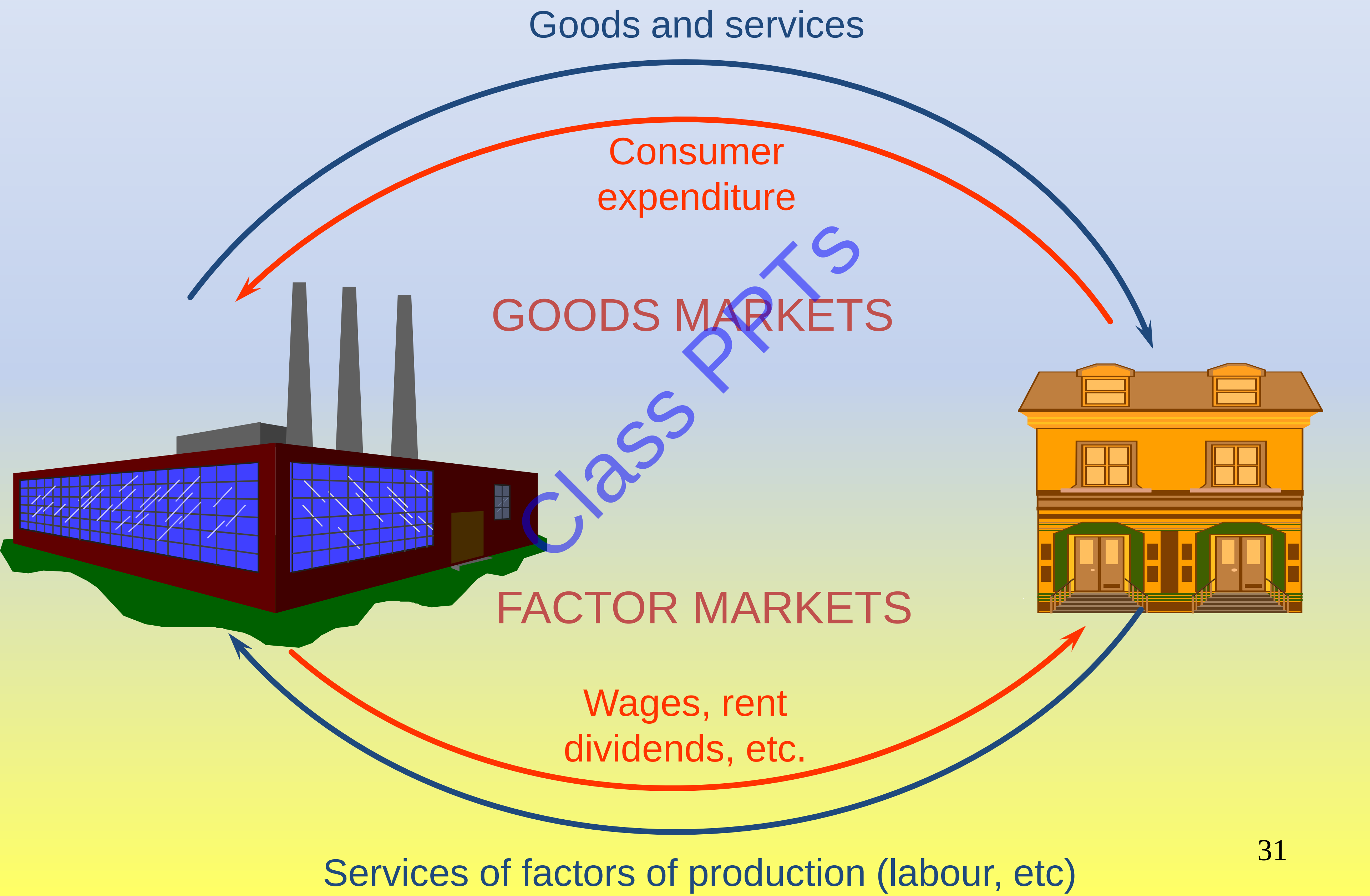



Goods and services
Consumer expenditure



(Daraban,2010)[3]

The circular flow of goods and incomes



NATURE AND FUNCTION OF PROFIT

- Difference between the revenues earned from the sale of goods and services and the costs incurred in earning these revenues

Profit = Revenues – Costs

Revenues, Costs, Profit

- **Revenue** is the income earned by a firm through its normal course of business
- **Costs –**
  - **Explicit costs** are the actual out of pocket expenditures of the firm to purchase/ hire the inputs it requires in production
  - **Implicit costs** refer to the value of the inputs owned and used by the firm in its own production processes
- **Accounting/Business Profit:** Total revenue minus the explicit or accounting costs of production.
- **Economic Profit:** Total revenue minus the explicit and implicit costs of production.

Example:

- A graduate turns down a job offer at Rs. 60,000 per year to start his own venture. He is considering investing Rs. 200000 of his own money, which has been in a bank account earning 5% per year. The projected income statement for the year as prepared by an accountant is:

Income statement prepared by an accountant:

				(in Rs)
Sales				**90,000**
Less cost of goods sold				**40,000**
Gross Profit				**50,000**
Less:	**Advertising**	**10,000**		
	Depreciation	**10,000**		
	Utilities	**3,000**		
	Property Tax	**2,000**		
	Misc. expenses	**5,000**	**30,000**	
Net accounting profit			**20,000**	

Implicit costs

- Rs.200000 invested in business can earn interest in the bank account @ 5% per year

- Annual wage of a graduate being Rs.60000 per year

Why should engineers study economics?

Engineering is a great applied science that studies how to make solutions to practical scientific problems.

- While engineering deals with **how to solve these problems**, economics is the complementary science of **how to optimize** these solutions.
- Economics analyses production mathematically and statistically. For engineering, microeconomics is the invaluable tool to determine optimization with given resource constraints
- The best solutions in engineering are not always the **best-designed** or the ones of highest quality but also the ones which are **cost-effective** and efficient given constraints. Economics can master these concepts.

References

1. Brandon Dupont,“The History of Economic Ideas:Economic Thought in Contemporary Context". Routledge, Taylor & Francis Group. Chapter 1, 2017.
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