

CA14 ECONOMICS

SECTION 1: FOUNDATIONS OF ECONOMICS

Scarcity, choice, opportunity cost, production possibility frontiers, economic analysis and economic systems

Purpose. These notes develop the first CA14 syllabus cluster into examinable knowledge. They are original DatalytlQs teaching material aligned to the KASNEB Revised Syllabus (June 2024). They do not reproduce proprietary past-paper questions.

Traceability: MIC-01 to MIC-07 | **Suggested study time:** 6-8 hours | **Assessment threshold:** 70%

Learning outcomes

By the end of this section, the learner should be able to:

1. distinguish microeconomics from macroeconomics; 2. explain scarcity, choice and opportunity cost; 3. construct and interpret a production possibility frontier; 4. distinguish positive from normative statements; 5. compare planned, market and mixed economic systems; and 6. evaluate consumer sovereignty and its limitations.

How CA14 typically tests this area

Demand	What the examiner expects
Define/distinguish	Short, precise terminology plus one valid contrast.
Illustrate	A correctly labelled diagram followed by an explanation of its economic meaning.
Calculate	Formula or reasoning, substitution, units and interpretation.
Discuss/evaluate	Both supporting and limiting arguments, applied to the stated context, followed by a reasoned conclusion.

1. The economic problem

Economics studies how individuals, firms, governments and societies allocate scarce resources among competing uses. Scarcity does not mean that a resource is absent. It means that available resources are insufficient to satisfy every want at zero sacrifice. Scarcity therefore creates choice, and every choice creates an opportunity cost.

1.1 Wants, resources and allocation

Human wants are numerous, recurring and capable of expansion. Resources are limited at a point in time. Land includes natural resources; labour is human effort; capital is produced means of production; enterprise coordinates the other factors and bears risk. Allocation answers three linked questions: **what** to produce, **how** to produce and **for whom** to produce.

Decision maker	Scarcy question	Illustration
Household	How should limited income and time be used?	Pay examination fees now or replace a phone.
Firm	Which output and technique should limited capital support?	Hire additional analysts or automate a reporting process.
Government	Which public needs receive budget priority?	Fund diagnostic equipment or expand a road network.

Exam distinction: A free good is abundant relative to demand at a particular place and time and has no opportunity cost at the margin. An economic good is scarce and therefore commands a sacrifice. A good can move between these categories when circumstances change.

1.2 Opportunity cost

Opportunity cost is the value of the best alternative forgone when a choice is made. It is not the sum of all rejected alternatives. It is the next-best alternative. If a county can use KES 20 million either for a maternity wing, an ambulance fleet or office renovation, and it chooses the maternity wing while the ambulance fleet was the next-best option, the opportunity cost is the value of the ambulance fleet.

Worked example 1

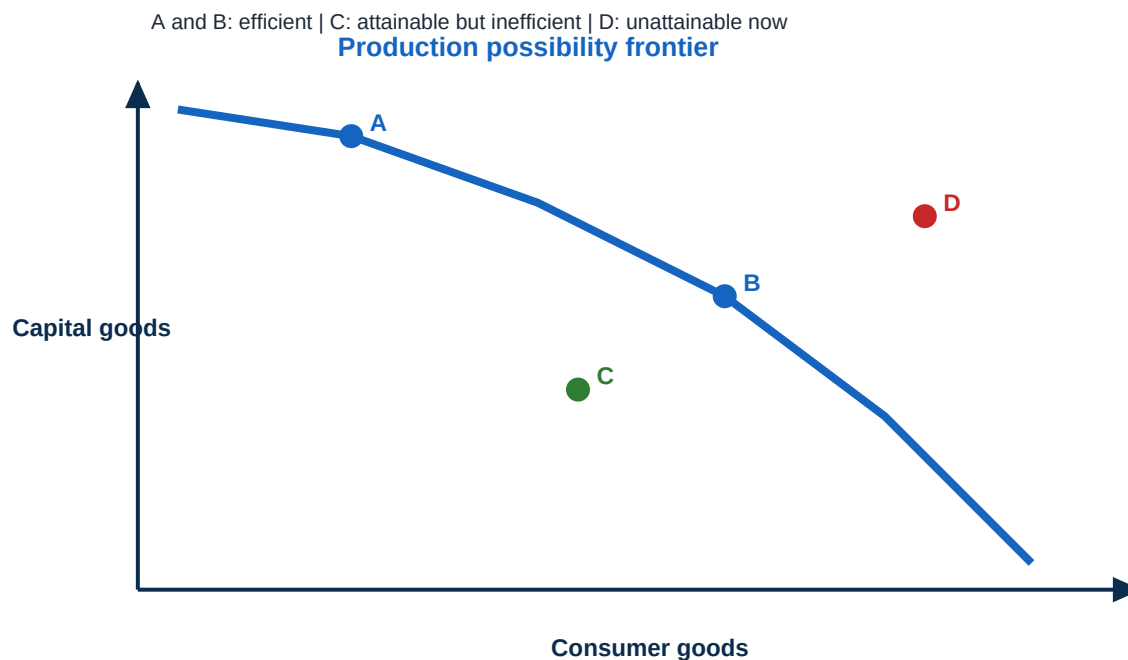
A learner has four evening hours. The alternatives are: revision worth an expected 12 examination marks, paid work worth KES 1,000, and leisure valued at KES 600. If revision is selected, the opportunity cost is KES 1,000 - the value of the best rejected alternative - not KES 1,600.

Common error

Do not define opportunity cost as merely “what is given up.” State that it is the value of the next-best alternative forgone. The word “value” matters because alternatives may be measured in output, income, utility or another relevant benefit.

2. Production possibility frontier

A production possibility frontier (PPF or PPC) shows the maximum attainable combinations of two goods or categories of goods that an economy can produce during a given period when resources and technology are fixed and resources are fully and efficiently employed.



Points on the frontier are productively efficient: more of one good requires less of the other. A point inside the frontier is attainable but inefficient because some resources are unemployed or misallocated. A point outside is currently unattainable, although growth or improved technology may make it attainable later.

2.1 Why the frontier is usually bowed outward

The bowed-out shape reflects increasing opportunity cost. Resources are not equally suitable for all uses. As production shifts toward one good, resources increasingly specialised in the other good must be transferred, causing progressively larger sacrifices.

Change	Diagram treatment	Interpretation
Movement along the PPF	Move between two points on the same curve	Reallocation changes the output mix; productive capacity is unchanged.
Outward shift	Whole curve moves away from the origin	Capacity increases through investment, technology, skills or resources.
Inward shift	Whole curve moves toward the origin	Capacity falls through conflict, disaster, capital destruction or labour loss.
Rotation	One intercept changes more than the other	Innovation or resource growth is biased toward one sector.

Worked example 2: opportunity cost from a schedule

Combination	Capital goods	Consumer goods	Opportunity cost of next 10 consumer goods
A	50	0	-
B	47	10	3 capital goods
C	41	20	6 capital goods
D	31	30	10 capital goods
E	16	40	15 capital goods

The rising sacrifice - 3, 6, 10 and 15 capital goods - demonstrates increasing opportunity cost. If the question asks for the opportunity cost of moving from C to D, state **10 capital goods**, not merely 10.

3. Microeconomics and macroeconomics

Microeconomics studies individual decision-making units and particular markets: consumers, firms, industries, prices, output and factor rewards. **Macroeconomics** studies economy-wide aggregates and relationships: national income, inflation, unemployment, economic growth, money, fiscal and monetary policy and the balance of payments.

Question	Classification	Reason
Why did the price of maize rise in Kisumu?	Microeconomics	It concerns price formation in a particular market.
Why is Kenya's overall inflation rate rising?	Macroeconomics	It concerns the general price level across the economy.
How will a tax affect a firm's output?	Microeconomics	It concerns an individual producer or market.
How will higher government spending affect national income?	Macroeconomics	It concerns an aggregate expenditure and output relationship.

Interdependence

The distinction is analytical, not absolute. Macroeconomic outcomes emerge from many microeconomic decisions, while inflation, interest rates, taxes and exchange rates influence households and firms. A strong answer classifies the immediate unit of analysis and then recognises relevant cross-effects.

4. Positive and normative economics

A **positive statement** describes, predicts or explains what is or may be. In principle it can be tested against evidence, even if the evidence later shows it to be false. A **normative statement** expresses what ought to be and depends partly on values or ethical judgement.

Statement	Type	Reason
A higher excise duty will reduce demand for cigarettes, other factors held constant.	Positive	It is a testable prediction.
The government should raise excise duty on cigarettes.	Normative	"Should" reflects a policy judgement.
Kenya's annual inflation rate was 6%.	Positive	It is an empirically verifiable claim.
A 6% inflation rate is unfair to low-income households.	Normative	"Unfair" invokes a value standard, though evidence may inform the judgement.

High-level point: Normative analysis is not meaningless. Good policy evaluation makes its value criterion explicit - efficiency, equity, freedom, stability or sustainability - and then uses positive evidence to estimate consequences.

5. Economic systems

An economic system is the institutional arrangement through which ownership, production, distribution and coordination decisions are made. No modern economy is purely planned or purely market-based; classification depends on the dominant mechanisms and institutions.



Real economies lie on a continuum; institutions determine the actual mix.

Dimension	Market system	Planned system	Mixed system
Ownership	Predominantly private	Predominantly state	Private and public
Coordination	Price mechanism and contracts	Administrative plans and directives	Prices plus regulation, taxation, spending and public provision
Strength	Incentives, choice and decentralised information	Can mobilise resources for strategic or social priorities	Can combine incentives with correction of market failures
Risk	Inequality, monopoly, externalities, under-provision of public goods	Weak incentives, information burdens, bureaucracy	Policy inconsistency, regulatory capture and public-sector inefficiency

5.1 Price mechanism

In a market system, relative prices transmit information and create incentives. Rising demand raises price, encouraging producers to expand supply while inducing consumers to economise. Profit and loss redirect resources. However, the result is efficient only under demanding conditions, including competition, information and the absence of significant externalities.

5.2 The mixed economy

A mixed economy retains markets while government supplies public and merit goods, redistributes income, stabilises aggregate demand, regulates harmful conduct and corrects externalities and information failures. The relevant exam question is rarely whether intervention is always good or bad. It is whether a specific intervention addresses a defined failure at lower social cost than alternative instruments.

6. Consumer sovereignty

Consumer sovereignty is the proposition that consumer preferences, expressed through purchasing decisions, guide what firms produce. In competitive markets, firms that satisfy demand earn revenue while firms that ignore it lose customers and resources.

Conditions that strengthen consumer sovereignty

Meaningful choice, competition, reliable information, affordable market access, responsive supply and the ability of consumers to switch suppliers all strengthen consumer influence.

Limitations

Limitation	Why consumer sovereignty weakens	Example
Income inequality	Market demand reflects purchasing power, not need alone.	Essential services may remain inaccessible to low-income households.
Market power	A dominant producer can restrict choice or influence terms.	A local monopoly may provide only one service package.
Imperfect information	Consumers cannot evaluate quality, risk or hidden terms accurately.	Complex financial or health products.
Advertising and behavioural influence	Preferences may be shaped or exploited rather than merely served.	Manipulative targeting or misleading claims.
Externalities	Private choices impose costs or benefits on others.	Pollution or vaccination.
Public and merit goods	Individual purchasing decisions may underprovide socially valuable goods.	Street lighting or basic education.

Evaluation technique

Avoid a one-sided conclusion. State that consumer sovereignty is a useful coordinating principle when competition, information and effective choice exist, but it is neither complete nor automatically socially optimal. The policy response should target the specific limitation without unnecessarily eliminating choice.

7. Integrated worked case

Case. A county government has KES 120 million available. It can finance a digital civil-registration platform, renovate administrative offices or purchase emergency vehicles. The digital platform is expected to reduce waiting time and improve record quality; the vehicles provide the next-highest estimated social benefit. The county chooses the platform.

Required and model analysis

Topic	Model answer
Identify the economic problem	Limited finance must satisfy competing public wants; scarcity forces prioritisation.
State the opportunity cost	The expected social benefit of the emergency vehicles, because they are the next-best rejected alternative.
Positive statement	"The platform will reduce average waiting time by 30%" is testable against service data.
Normative statement	"The county should prioritise the platform" depends on the value assigned to efficiency, access and competing services.
PPF interpretation	If the platform raises public-sector productivity, it can expand attainable service combinations and shift the relevant frontier outward.
System interpretation	The decision occurs in a mixed economy: public planning allocates county revenue while private suppliers may compete for the technology contract.

8. Examination practice

Question 1 - Multiple choice

Which statement best defines the opportunity cost of enrolling in an evening course? A. The total fee paid. B. Every activity the learner cannot undertake. C. The value of the best alternative forgone. D. The learner's future salary.

Answer: C. Opportunity cost is the value of the next-best alternative sacrificed. The fee is a direct financial cost and may form part of opportunity cost only where it represents resources that could have supported the best alternative.

Question 2 - Classification

Classify each statement as positive or normative: (i) A minimum wage above equilibrium may create excess labour supply. (ii) Government should always prioritise employment over price stability.

Model answer: (i) Positive: it is a testable prediction derived from labour-market analysis. (ii) Normative: "should" and "always prioritise" express a value judgement about competing policy objectives.

Question 3 - Structured diagram (8 marks)

Using a production possibility frontier, explain productive efficiency, unemployment of resources and economic growth.

Model answer guide: Award 2 marks for correctly labelled axes and a frontier; 2 marks for a point on the frontier identified as productive efficiency; 2 marks for a point inside the frontier explained as unemployment or misallocation; and 2 marks for an outward shift explained by increased resources, improved skills, capital accumulation or technological progress. A diagram without narrative should not receive full marks.

Question 4 - Evaluation (10 marks)

"Consumer sovereignty makes government intervention unnecessary." Discuss.

Model answer guide: Define consumer sovereignty (2); explain how competitive choice, price signals and switching discipline firms (2); analyse at least three limitations such as market power, imperfect information, externalities, income inequality or public goods (3); explain targeted interventions and possible government failure (2); provide a balanced conclusion linked to conditions (1).

9. Independent practice and evidence

Complete the following evidence tasks before the section quiz:

Evidence ID	Learner output	Acceptance criterion
E1.1	Scarcity decision matrix using a household, firm and government case	Each case identifies the scarce resource, alternatives, chosen option and next-best alternative.
E1.2	One original PPC with at least five combinations	Axes, units, efficient/inefficient/unattainable points and one shift are correctly labelled.
E1.3	Positive/normative classification of eight statements	At least 7/8 correct with a one-sentence justification each.
E1.4	Economic-system comparison	Ownership, allocation, incentives, strengths and risks addressed for three systems.
E1.5	250-word consumer-sovereignty evaluation	Contains conditions, at least three limitations and a reasoned conclusion.

Section mastery checklist

Claim	Result
I can explain why scarcity exists even in a relatively wealthy society.	
I can identify opportunity cost without adding all rejected alternatives.	
I can distinguish movement along a PPF from a shift of the PPF.	
I can classify positive and normative statements and justify the classification.	
I can compare systems using institutions, not slogans.	
I can evaluate consumer sovereignty under stated market conditions.	
Progression rule: Attempt the section quiz only after completing E1.1-E1.5. A mark below 70% triggers targeted review of the failed reference IDs before a new attempt.	

References and provenance

KASNEB. *Certified Public Accountants (CPA) Revised Syllabus, June 2024*, Paper No. 4: Economics. Qualification structure and syllabus scope accessed through KASNEB and an accessible mirrored copy of the official syllabus. This DatalytlQs pack is original instructional content prepared for syllabus alignment and learner assessment; it is not an official KASNEB publication.

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