

CA14 ECONOMICS

SECTION 10: INFLATION AND UNEMPLOYMENT

Syllabus references: INF-01 to INF-03

Purpose. Original DatalytIQs Academy teaching notes aligned to the KASNEB Revised Syllabus (June 2024).
Suggested study time: 8-10 hours. **Assessment threshold:** 70%. No KASNEB endorsement is implied.

Learning outcomes

After this section, the learner should be able to measure and interpret inflation; distinguish demand-pull, cost-push, structural and expectations mechanisms; analyse effects and policy responses; classify unemployment; calculate labour-market indicators; and evaluate inflation-unemployment relationships.

Contents

1. Price indices and inflation measurement
2. Measurement limitations
3. Causes of inflation
4. Consequences and policy
5. Labour-market concepts
6. Types of unemployment
7. Phillips curve and policy trade-offs

1. Price indices and inflation measurement

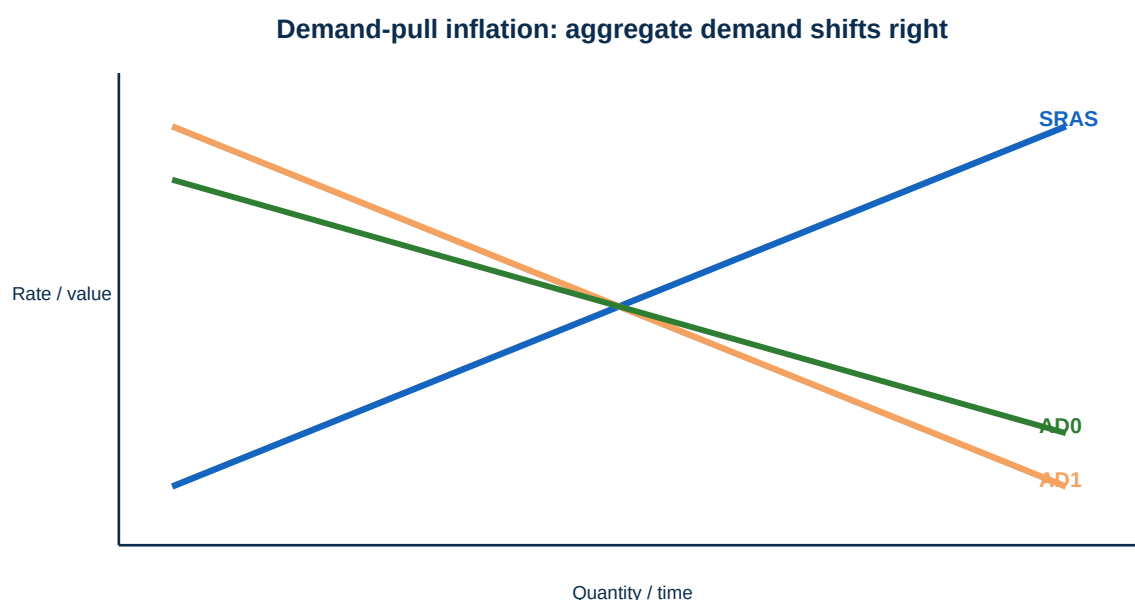
Inflation is a sustained rise in the general price level, not a one-off increase in one price. A consumer price index compares the cost of a representative basket with its base-period cost. Inflation between periods is the percentage change in the index. The GDP deflator covers domestically produced final output, whereas the CPI concerns a consumer basket. Headline and underlying measures answer different questions.

Calculation	Formula
Item expenditure weight	Base-period expenditure on item / total basket expenditure
CPI	Current basket cost / base basket cost x 100
Inflation rate	$(\text{CPI } t - \text{CPI } t-1) / \text{CPI } t-1 \times 100$
Real value index	Nominal value index / price index x 100

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

2. Measurement limitations

A fixed basket may develop substitution bias when consumers switch toward relatively cheaper goods. Quality change, new products, outlet shifts, informal markets, regional price differences and household-specific spending patterns create further limitations. Rebasing updates weights; it does not mean past price increases disappear.



Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

3. Causes of inflation

Demand-pull inflation arises when aggregate demand grows faster than productive capacity. Cost-push inflation follows higher unit costs such as energy, wages not matched by productivity, imported inputs or taxes. Structural bottlenecks restrict supply responsiveness. Expectations can produce wage-price persistence. Imported inflation depends on foreign prices and the exchange rate.

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

4. Consequences and policy

Unexpected inflation redistributes purchasing power between fixed-rate borrowers and lenders, distorts signals, raises menu and planning costs, may reduce competitiveness and harms fixed nominal incomes. Moderate anticipated inflation

has different effects from volatile or accelerating inflation. Policies include monetary restraint, credible fiscal adjustment, supply measures, competition, targeted protection and expectations management; diagnosis is essential.

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

5. Labour-market concepts

The working-age population is divided into labour force and people outside the labour force. The labour force comprises employed and unemployed people actively available and seeking work under the stated definition. The unemployment rate is $\text{unemployed} / \text{labour force} \times 100$; labour-force participation is $\text{labour force} / \text{working-age population} \times 100$. Definitions and reference periods must accompany comparisons.

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

6. Types of unemployment

Frictional unemployment reflects search and matching; structural unemployment reflects skill or location mismatch; cyclical unemployment follows deficient aggregate demand; seasonal unemployment follows recurring production patterns; real-wage or classical unemployment may result when wages remain above market-clearing levels. Disguised underemployment occurs when marginal contribution is very low, common in some informal or family activities.

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

7. Phillips curve and policy trade-offs

The short-run Phillips relationship can show lower unemployment with higher inflation when expectations are given. Once expected inflation adjusts, the short-run curve shifts. The long-run relationship is commonly drawn vertical at the natural or non-accelerating unemployment rate. Supply shocks can raise inflation and unemployment together. The model is conditional, not a permanent menu for policymakers.

Examination technique: State the proposition, explain the mechanism, apply it to the question and qualify the conclusion where assumptions or context matter.

Worked examples

Worked example 1

CPI rises from 128.0 to 136.3. Inflation= $(136.3-128.0)/128.0 \times 100 = 6.48\%$. A nominal income rise of 4% therefore implies an approximate real-income fall of 2.48%, or exactly $1.04/1.0648 - 1 = -2.33\%$.

Reasonableness check: Confirm the direction, units and economic interpretation before finalising the answer.

Worked example 2

Working-age population=12m, employed=7.5m, unemployed and actively seeking=.5m. Labour force=8m; unemployment rate= $.5/8 \times 100 = 6.25\%$; participation= $8/12 \times 100 = 66.67\%$.

Reasonableness check: Confirm the direction, units and economic interpretation before finalising the answer.

Worked example 3

An illustrative basket contains food weight .5 with price relative 1.10, housing .3 at 1.06 and transport .2 at 1.20. Index relative= $.5(1.10) + .3(1.06) + .2(1.20) = 1.108$; inflation=10.8%.

Reasonableness check: Confirm the direction, units and economic interpretation before finalising the answer.

Common errors and corrections

Error	Correction
Giving a definition without mechanism	Explain the causal link and apply it to the facts.
Using accounting language for an economic concept	Identify opportunity cost, implicit cost or real/nominal basis explicitly.
Drawing an unlabeled diagram	Label axes, curves, initial position, change and result.
Treating a historical pattern as a guarantee	Use it only to guide emphasis; cover the full syllabus.

Original DatalytlQs examination-style practice

Question 1 - Calculate

CPI moves from 150 to 162. Find inflation.

DatalytlQs model answer: $(162-150)/150 \times 100 = 8\%$.

Question 2 - Distinguish

Demand-pull and cost-push inflation.

DatalytlQs model answer: Demand-pull begins with excess aggregate spending; cost-push begins with higher unit cost or adverse supply. Show AD/SRAS changes and different output implications.

Question 3 - Calculate

Employed=9m, unemployed=.75m, working-age=15m. Find unemployment and participation.

DatalytlQs model answer: Labour force=9.75m; unemployment=7.69%; participation=65%.

Question 4 - Evaluate

Can lower unemployment always be purchased with higher inflation?

DatalytlQs model answer: No. Explain expectations, long-run vertical relationship, supply shocks and policy credibility; distinguish short and long run.

Revision summary

Core rule: Reconstruct the model from definitions, assumptions, relationships and diagrams. Memorised labels without mechanism do not earn strong analytical marks.

Evidence requirements

Evidence ID	Learning Objectives	Assessment criteria
E10.1	Reconstruct a weighted price index and inflation rate.	Correct method, complete interpretation, labelled working and original learner submission.
E10.2	Draw and explain demand-pull and cost-push diagrams.	Correct method, complete interpretation, labelled working and original learner submission.
E10.3	Calculate unemployment and participation with definitions.	Correct method, complete interpretation, labelled working and original learner submission.
E10.4	Diagnose unemployment types from original Kenyan scenarios.	Correct method, complete interpretation, labelled working and original learner submission.
E10.5	Evaluate an anti-inflation policy mix with distributional effects.	Correct method, complete interpretation, labelled working and original learner submission.

Mastery checklist

Check	Score
I can reconstruct a weighted price index and inflation rate..	
I can draw and explain demand-pull and cost-push diagrams..	
I can calculate unemployment and participation with definitions..	
I can diagnose unemployment types from original Kenyan scenarios..	
I can evaluate an anti-inflation policy mix with distributional effects..	
Progression rule: Complete E10.1-E10.5 before the section quiz. A score below 70% triggers targeted remediation.	

References and version

KASNEB. *Certified Public Accountants (CPA) Revised Syllabus, June 2024*, Paper No. 4: Economics. Version 1.0, revised 18 October 2026. This is original DatalytlQs Academy instructional content.

Source links: <https://www.kasneb.or.ke/cpa/> | <https://sgb.ac.ke/wp-content/uploads/2024/12/CPA-Syllabus-Reviewed-June-2024.pdf>