

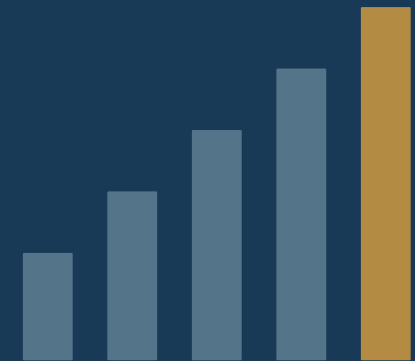
GHANA

Macroeconomic Policy and Economic Development

1992–2026

Policy episodes • long-run outcomes • comparative evidence

Authored by Dr. Felix Larry Essilfie
Executive Director, IDER



EVIDENCE CUT-OFF
18 SEPTEMBER 2026

Six observations that frame the evaluation

Different indicators describe different dimensions—and end in different years.

OUTPUT PER PERSON

2.54×

Real GDP per capita,
1992 → 2025

NATIONAL POVERTY

52.7 → 23.4%

GLSS 1991/92 → 2016/17;
not a 2026 estimate

HUMAN DEVELOPMENT

0.432 → 0.628

HDI, 1990 → 2023;
nearest published baseline

INFLATION

54.1 → 5.0%

December 2022 → August 2026;
year-on-year CPI

PRIMARY BALANCE

-2.1 → +2.1%

Commitment basis, % GDP;
2024 → 2025 preliminary

PUBLIC-SECTOR DEBT

70.1 → 48.8%

IMF coverage, % GDP;
2024 → 2025 preliminary

Economic development is not one variable

Evaluate levels, distribution, stability, productive capacity and resilience separately.

Dimension	Empirical question	Evidence used
Production	Did output per person expand?	Real GDP per capita; growth episodes
Macroeconomic stability	How persistent were price and financing pressures?	CPI; fiscal balances; debt; reserves
Distribution	Who shared in changes in living standards?	GLSS poverty, poverty gap and regional patterns
Human capability	Did health, education and basic access change?	HDI; electricity access; service-delivery questions
Productive transformation	Did growth translate into productive work?	Sector evidence; unemployment; private credit
Resilience	Can gains withstand shocks?	Commodity, FX, SOE and financial-sector exposures

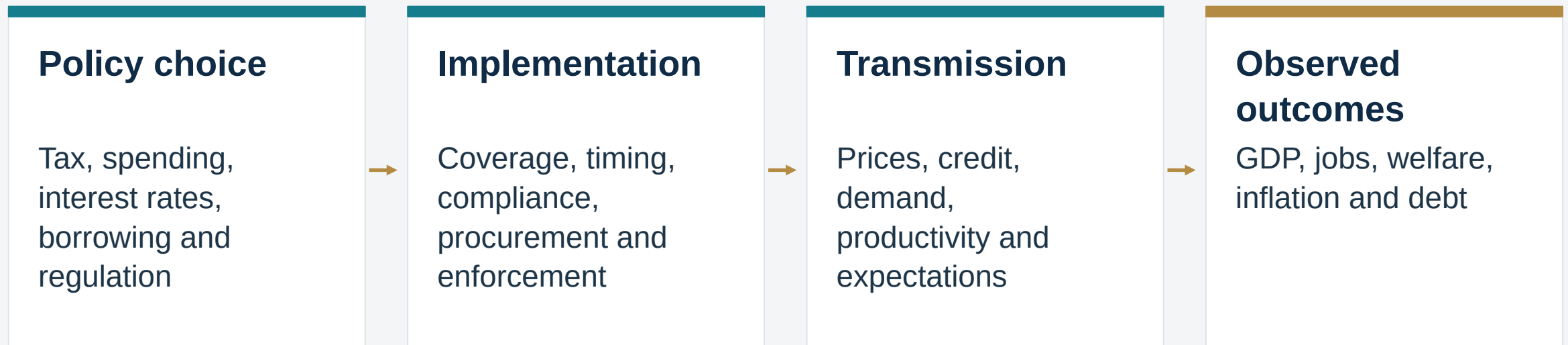
An evidence cut-off is not a common observation year

“1992–2026” defines the review horizon, not an invented complete annual dataset.

Evidence block	Latest point used	Status / limit
GDP per capita, six countries	2025	Published annual series; subject to revision
Fiscal and debt accounts	2025 / 2026	2025 preliminary; 2026 IMF projection
CPI inflation	August 2026	Observed monthly year-on-year rate
National monetary poverty	2016/17	Comparable selected historical GLSS series
HDI	2023	UNDP 2025 publication vintage
Labour, national MPI, food insecurity	Q3 2025	GSS dashboard; distinct indicator definitions

Observed outcomes are not isolated policy effects

A causal claim requires a credible counterfactual, not a before-and-after narrative.



External shocks + inherited liabilities + policy lags + statistical revisions

Policy episodes and financing conditions

Analytical intervals—not party or administration scorecards.

1992–2000

**Production growth
and price volatility**

2001–2008

**HIPC; inflation targeting;
bond-market entry**

2009–2016

**Oil-era expansion;
energy stress; 2015 ECF**

2017–2019

**Output expansion;
financial-sector repair**

2020–2022

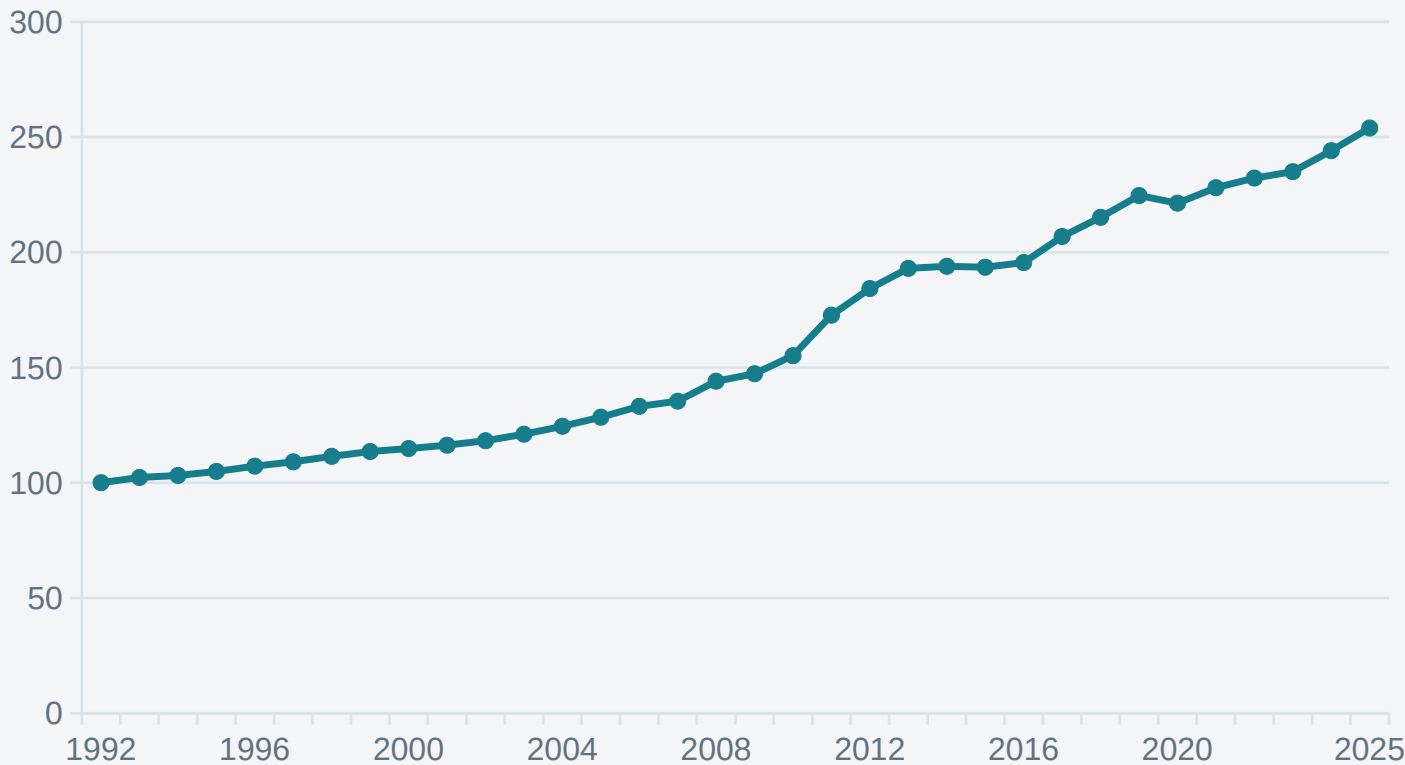
**Pandemic finance;
market-access crisis**

2023–2026

**Debt exchange; ECF;
disinflation and recovery**

Real output per person rose to 2.54 times its 1992 level

Ghana real GDP per capita, index 1992 = 100; annual observations through 2025.



What this measures

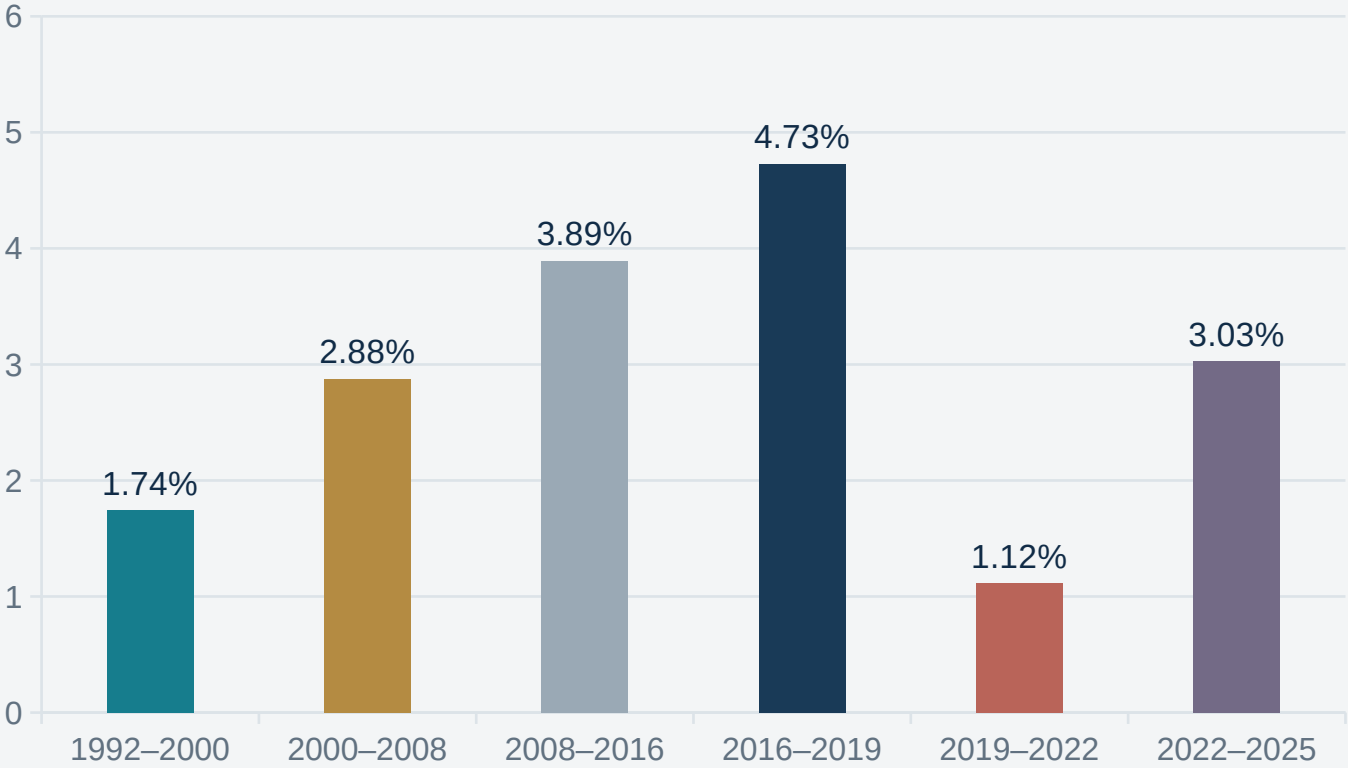
Average production per resident, not median consumption or the distribution of income.

1992–2025 compound annual growth: 2.86%.

+153.9% in 33 years

The growth path varied across economic episodes

Compound annual growth in real GDP per capita; dates are exact endpoints.



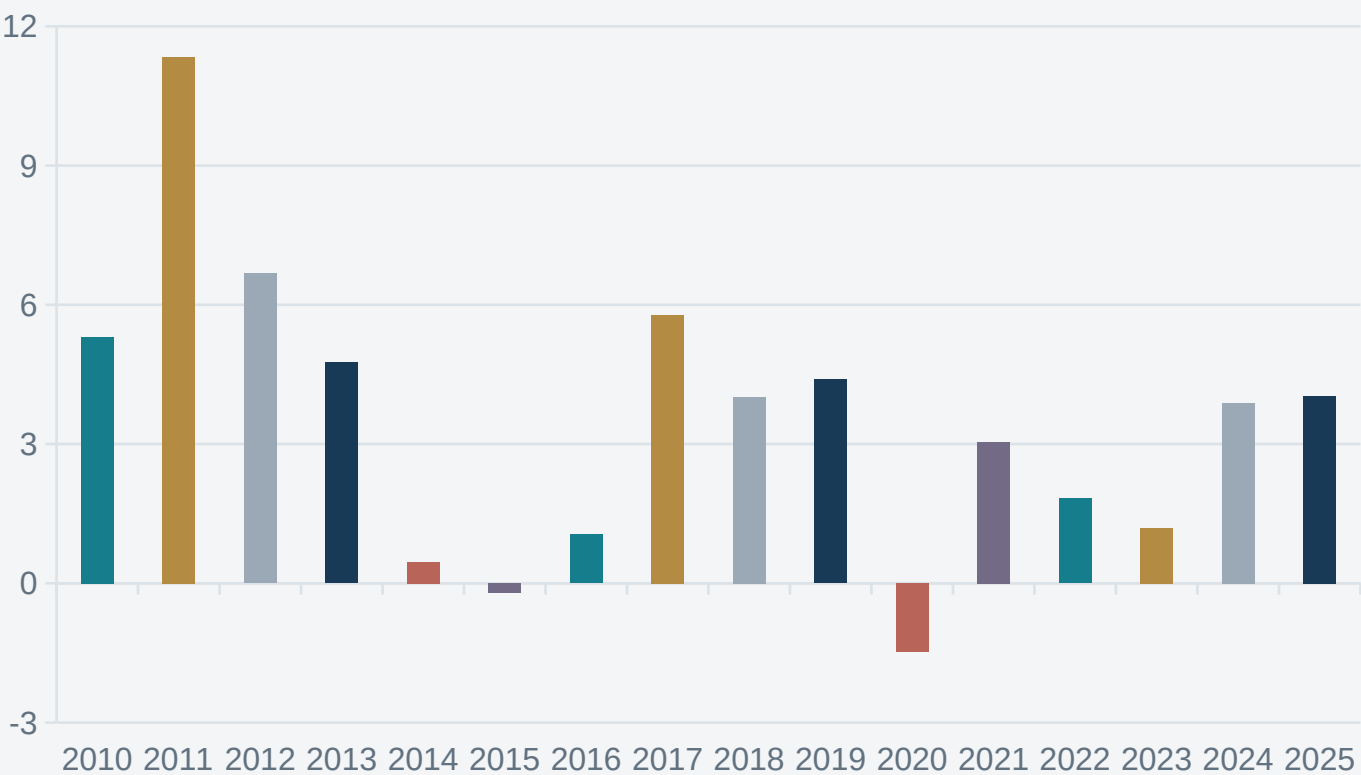
Reading the intervals

The oil-era level expansion and later rebound affect period averages.

A growth rate is not a measure of debt sustainability, job quality or policy causality.

Oil-era acceleration coexisted with slowdowns and reversals

Annual change in real GDP per capita, 2010–2025; calculated from one series.



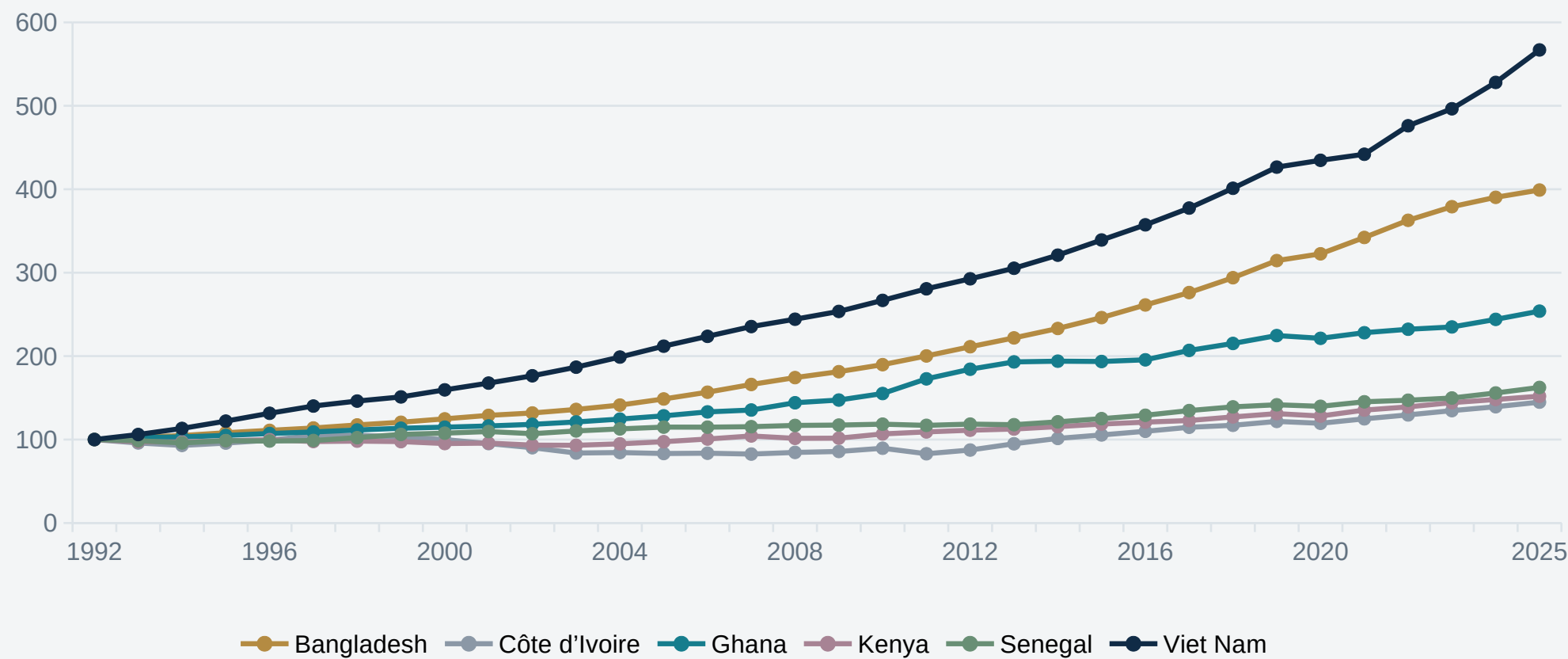
Level shocks matter

2011: +11.34%
2015: -0.21%
2020: -1.47%

A one-year growth spike cannot establish sustained productivity acceleration.

Peer paths provide context, not a policy league table

Real GDP per capita indexes, 1992 = 100; same 1992–2025 horizon.



What the common-horizon comparison actually says

Alphabetical presentation; no normative weights or country ranking are applied.

Country	2025 index	Change, 1992–2025	CAGR, % per year
Bangladesh	399.0	+299.0%	4.28
Côte d’Ivoire	144.8	+44.8%	1.13
Ghana	253.9	+153.9%	2.86
Kenya	151.9	+51.9%	1.27
Senegal	162.4	+62.4%	1.48
Viet Nam	566.9	+466.9%	5.40

Start-date sensitivity is reported in the appendix; peers are contextual comparators, not counterfactuals.

1992–2000: output gains amid volatile inflation

The early interval establishes the starting conditions for later debt and institutional reforms.

REAL GDP PER CAPITA

+14.8%

1992 → 2000

Equivalent to 1.74% compound growth per year.

NATIONAL POVERTY

52.7 → 39.5%

1991/92 → 1998/99

Survey-based headcount, not an annual interpolated series.

PRICE SETTING

Volatile

The annual CPI series records large changes during the decade; nominal gains require deflation.

Reform effects cannot be separated from initial conditions and concurrent shocks using these trends alone.

1995–1998: policy changes and implementation differed

Contemporaneous records distinguish adopted measures from the reform agenda.

1995 | Adjustment

ESAF-supported programme.

Reserve-money control and fiscal expenditure management were central policy instruments.

1996 | Implementation

Monetary tightening and road-contract renegotiation.

Bank and telecom divestiture; the initial formula-based fuel-price increase was not implemented.

1997–1998 | Tax design

The agenda covered tax exemptions, administration and consumption taxation.

VAT was reintroduced in 1998 after the initial 1995 attempt.

Policy announcements, implementation and subsequent outcomes are separate pieces of evidence.

2001–2008: debt relief, a new monetary framework and bond finance

Three documented changes altered the policy and financing environment.

2004 | HIPC completion

US\$3.5bn nominal debt-service relief committed by creditors.

NPV relief: US\$2.2bn.
Different units, not two cash amounts.

2007 | Inflation targeting

Monetary policy moved to an explicit inflation-targeting framework with exchange-rate flexibility.

Adoption is distinct from target attainment.

2007 | Market access

International bond financing expanded the borrowing menu.

Commercial funding also introduced refinancing and foreign-currency exposure.

Observed output-per-person growth, 2000–2008: 2.88% per year; no single-reform effect is identified.

2009–2016: oil-era expansion, energy constraints and fiscal adjustment

The 2015 ECF programme responded to financing pressures already visible before the pandemic.

2011–2014 CONTEXT

9.2%

Current-account deficit in 2014, % GDP, as estimated in April 2015.

2015 programme design

Fiscal adjustment and revenue measures; wage and payroll controls; reduced monetary financing; social-spending safeguards.

Observed output path

2008–2016 GDP-per-capita CAGR: 3.89%.

The interval contains the 2011 expansion and the 2014–2016 slowdown.

The programme's projected rebound is not treated as an observed effect of the programme.

The 2015 policy response followed earlier fiscal and external gaps

Contemporaneous April 2015 estimates, % GDP; not a rebased long-run fiscal series.

Indicator, % GDP	2011	2012	2013	2014 estimate
Overall fiscal balance	-4.0	-11.6	-10.4	-9.4
Gross central-government debt	42.6	49.1	55.1	67.6
Current-account balance	-9.0	-11.7	-11.7	-9.2

Historical publication vintages document the information available when policies were designed.

2017–2019: expansion alongside financial-sector repair

Production growth and balance-sheet repair must be evaluated on separate accounts.

OUTPUT PER PERSON

+14.9%

2016 → 2019
4.73% compound growth per year.

ANNUAL AVERAGE CPI

17.5 → 7.1%

2016 → 2019
One revised annual-average series.

Balance-sheet context

Financial-sector repair generated fiscal costs.

The IMF's 7.1%-of-GDP estimate spans 2017–2021—not just this interval.

Output expansion is compatible with accumulating contingent and explicit fiscal liabilities.

2020–2022: pandemic finance and a rollover crisis

The IMF diagnosis combines external shocks with pre-existing fiscal and financing exposures.

External disturbances

Pandemic disruption

Global financing-cost increases

Commodity and import-price shocks

Exposure differed by sector and household.

Domestic transmission

Debt refinancing needs

Revenue and expenditure rigidities

Central-bank financing

Energy and other public liabilities

Observed: real GDP per capita –1.47% in 2020; year-on-year CPI 54.1% in December 2022.

2023–2024: debt exchanges and programme implementation

Relief to the sovereign also changed the cash flows and balance sheets of domestic investors.

Policy component	Intended channel	Evaluation issue
Domestic debt exchange	Reduce / reprofile sovereign debt service	Loss allocation; pension and bank balance sheets
External debt treatment	Reduce financing gaps and rollover pressure	Creditor coverage; timing; remaining claims
Fiscal adjustment	Change primary spending and revenue balance	Arrears; spending composition; household incidence
Monetary-financing limits	Reduce liquidity pressure and fiscal dominance	Compliance; liquidity operations; central-bank capital

2024: real GDP growth 5.8%; December CPI 23.8%; primary commitment balance –2.1% of GDP.

2025–September 2026: recent changes and unfinished observation

A lower inflation rate and stronger fiscal balance do not complete the development assessment.

2025 REAL GDP

6.0%

Annual total-output growth; distinct from 4.0% real GDP-per-capita growth.

MONTHLY CPI

5.0%

August 2026 year-on-year inflation.

This is not the 2026 annual average.

Remaining observation

Debt maturities, bank repair, household real incomes and public-service delivery require continued measurement.

2026 projections remain conditional.

The final ECF review was completed in July 2026; programme milestones are not a welfare index.

The fiscal question is composition as well as balance

The same headline balance can arise from very different changes in taxes, services and investment.

Revenue

Tax base × effective rates
Compliance and exemptions

Primary spending

Wages, transfers, services
and investment

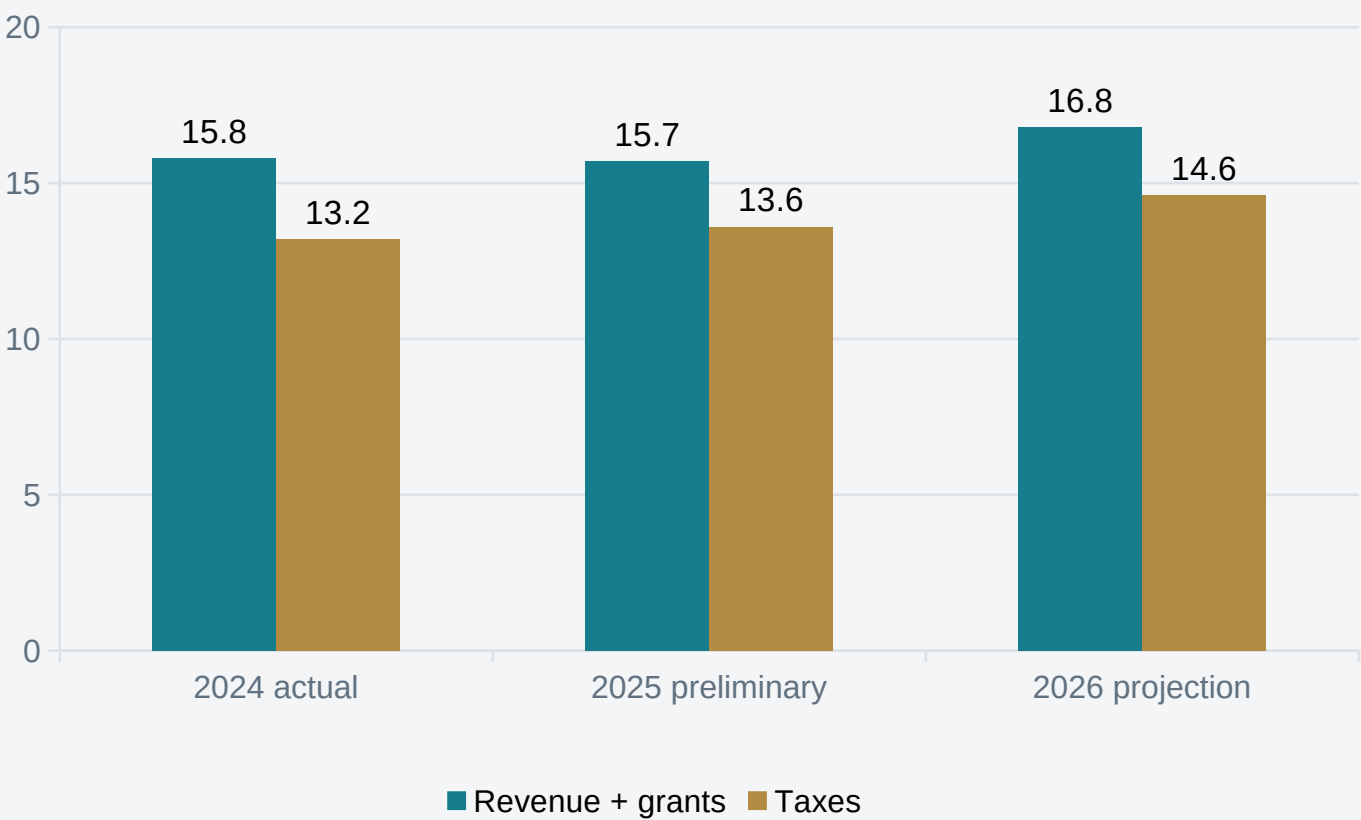
Interest + payables

Debt terms, refinancing
and settlement timing

Primary balance = revenue + grants – non-interest expenditure

Revenue and tax ratios remain distinct measures

Budgetary central government, % GDP; August 2026 IMF reporting vintage.



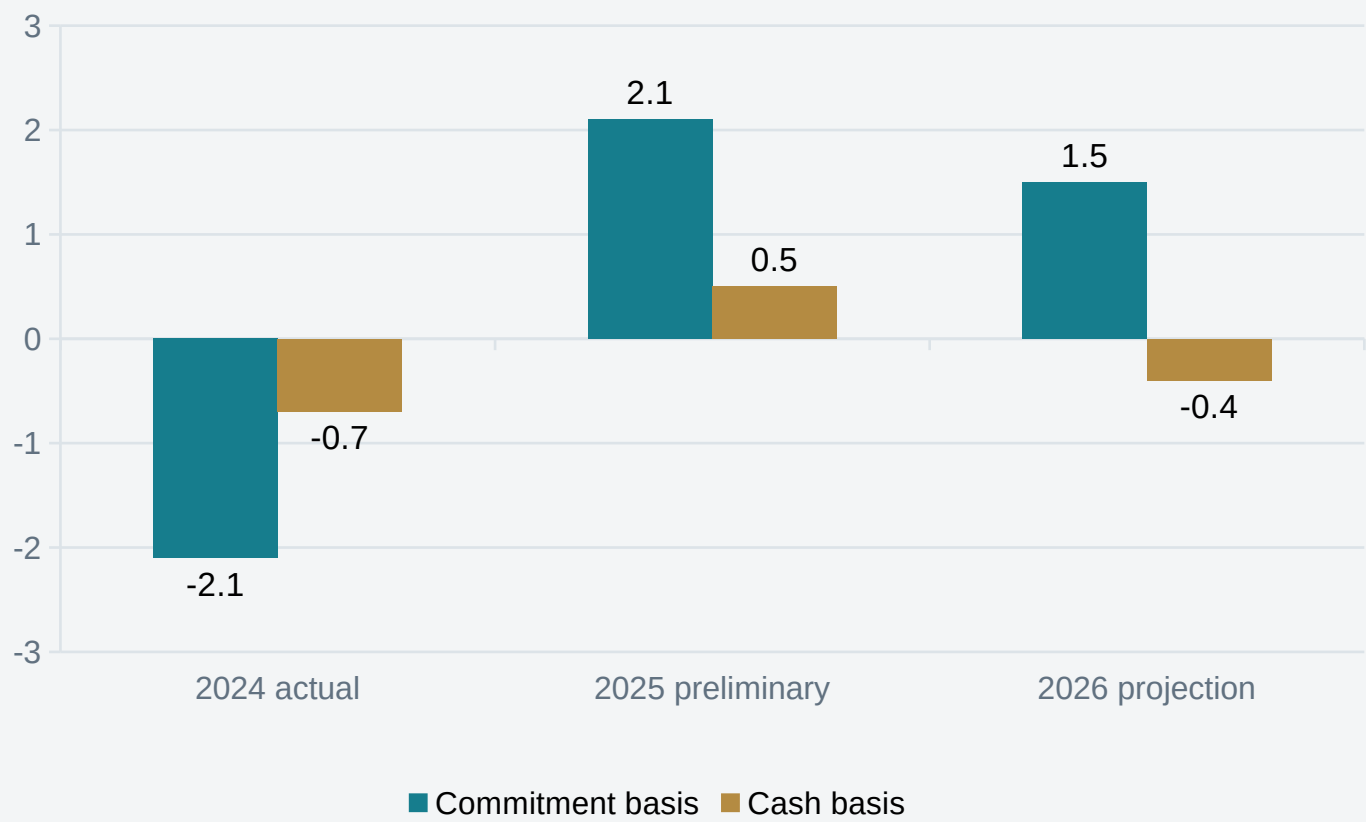
Attribution test

Separate changes in tax design from inflation, real activity, enforcement, refunds and commodity revenue.

Compare revenue with collection costs and incidence.

Cash and commitment balances tell different stories

Primary balance, % GDP; source coverage is held constant within this chart.



Do not interchange

2025 commitment primary surplus: 2.1% of GDP.

2025 cash primary surplus: 0.5% of GDP.

Both can be correct.

The recent adjustment also changed expenditure composition

Selected budgetary-central-government items, % GDP; not the whole public sector.

Item, % GDP	2024 actual	2025 preliminary	2026 projection
Primary expenditure	17.8	13.5	15.3
Employee compensation	5.7	5.5	5.7
Interest	4.0	3.5	3.7
Net nonfinancial-asset acquisition	2.5	1.4	3.0
Transfers to energy producers	1.5	1.2	0.9

Evaluate payment execution, arrears, service quality and investment completion—not only allocations.

Published fiscal revisions materially change comparisons

Keep institutional coverage, accounting basis and publication vintage visible.

2024 primary commitment balance	Reported value	Treatment in this report.
MoF annual-debt-report narrative	–2.9% GDP	Retained in the discrepancy log
MoF annual-debt-report Table 2.1	–3.9% GDP	Retained in the discrepancy log
IMF August 2026, Table 3a	–2.1% GDP	Used with the same-vintage 2025 and 2026 series

A statistical revision is not automatically a policy change or a cash transaction.

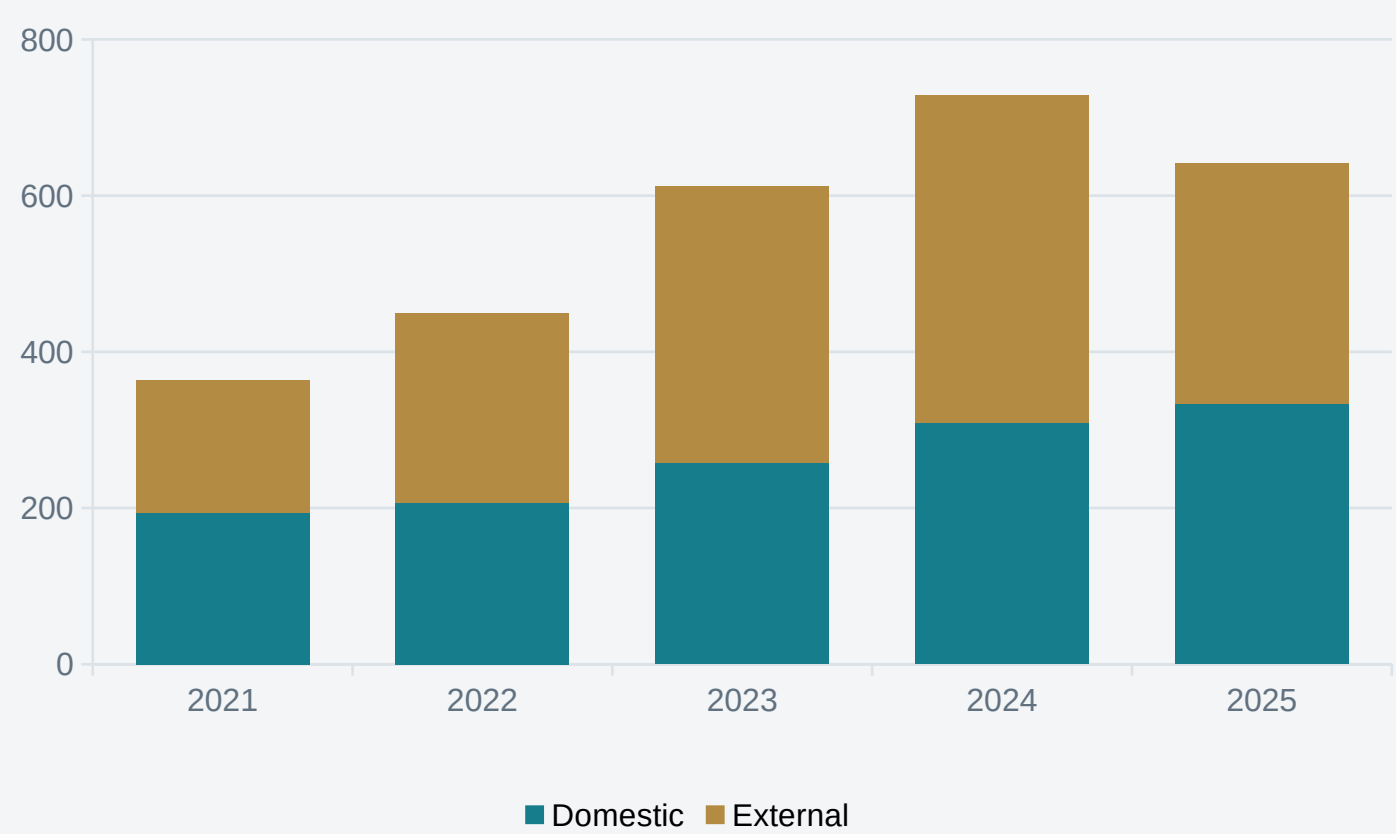
HIPC relief and the later debt exchanges are different interventions

Their instruments, creditor groups and transmission channels differ.

Feature	HIPC completion, 2004	Debt exchanges, 2022–2024
Debt focus	Eligible external obligations	Domestic and external instruments
Main mechanism	Creditor relief under HIPC	Coupon, maturity and principal treatment
Domestic financial link	Less direct than a domestic bond exchange	Banks, funds and other resident bondholders
Evaluation unit	NPV / service relief actually delivered	NPV / service relief minus associated support costs
Welfare evidence needed	Budget incidence and service delivery	Same, plus distribution of investor losses

Debt-stock changes require both currency and coverage labels

MoF central government and government-guaranteed debt; GH¢ billion, year-end.



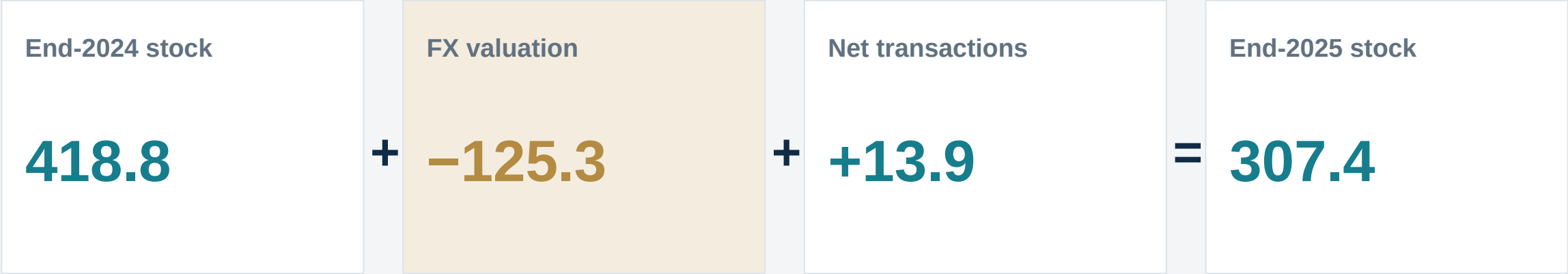
What a stock omits

- Debt service relative to revenue
- Refinancing concentration
- Currency and interest-rate exposure
- Arrears and contingent claims

All affect financing capacity.

Cedi valuation explains part of the 2025 debt-stock movement

External debt bridge in GH¢ billion, using the MoF’s reported components.



Total debt in GH¢: -12.0%
Current-currency stock, 2024 → 2025

Total debt in US\$: +23.9%
Same report; different currency valuation

44.7% and 48.8% are not the same debt perimeter

End-2025 debt / GDP: preserve the source-specific scope.

MOF, END-2025

44.7%

Central government and government-guaranteed debt.

MoF annual-debt-report coverage.

IMF, END-2025

48.8%

Broader public-sector / DSA coverage.

Includes recognized arrears and selected additional liabilities.

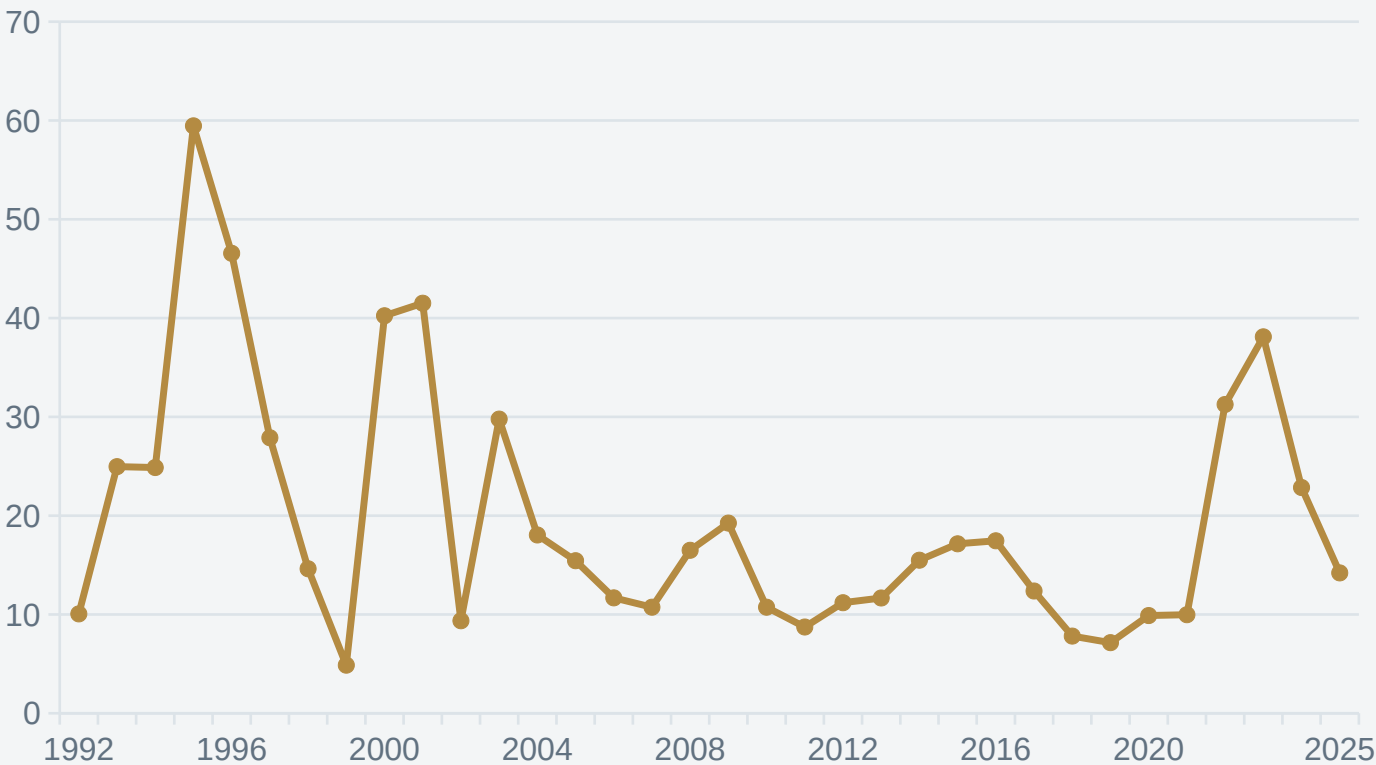
2026 remains conditional

52.6% of GDP is the IMF's full-year 2026 projection.

It is not an observed September or December debt ratio.

Inflation volatility is visible across the full review period

Annual-average consumer-price inflation, 1992–2025; this is not December inflation.



One consistent series

1992–2025 median:
15.5% a year.

27 of 34 annual averages
were at least 10%.

These are descriptive
statistics—not a target-
compliance score.

Monetary transmission interacts with fiscal and supply conditions

Interest-rate policy alone does not isolate the sources of an inflation movement.

Policy-rate channel

Funding costs → credit demand → spending and expectations.

Transmission depends on bank liquidity, loan risks and market structure.

Fiscal–monetary link

Government financing needs → liquidity and central-bank exposure.

Debt exchanges can also affect central-bank capital.

Supply and FX channel

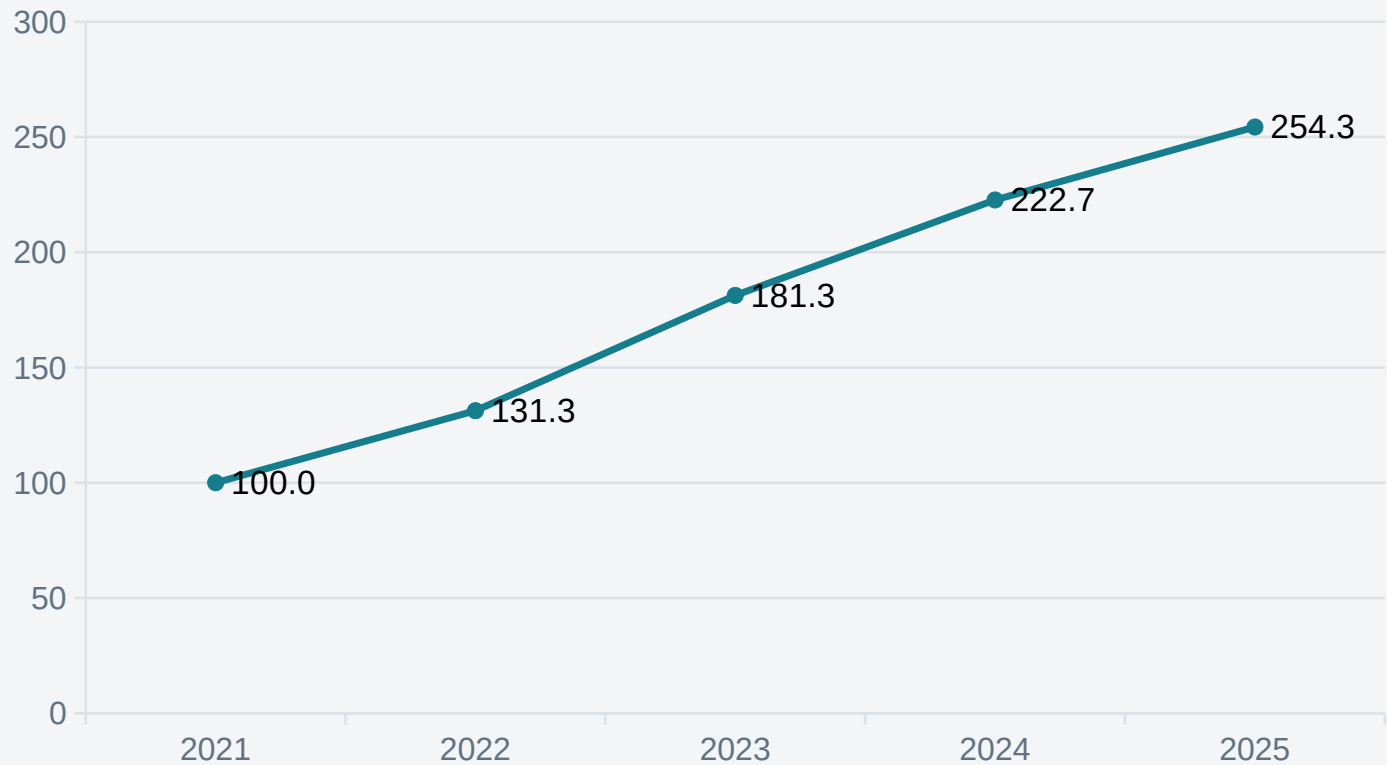
Food, fuel, power and imported inputs → production costs and consumer prices.

These shocks may coincide with policy changes.

Distinguish the policy instrument, the transmission mechanism and the observed price outcome.

Disinflation does not restore the earlier price level

Reconstructed average CPI level, 2021 = 100, from annual-average inflation rates.



Household interpretation

Average price level in 2025: about 2.54 times its 2021 level.

A 5% inflation rate is not a 5% price fall.

Wage and transfer adequacy must be assessed in real terms.

Exchange-rate movements create different exposures

A stronger cedi can reduce import costs while changing exporters' cedi receipts.

GH¢ PER US\$

14.72 → 10.46

End-2024 → end-2025.

The GH¢ price of one dollar fell by 29.0%.

Importers / FX borrowers

Lower cedi value of a fixed US-dollar payment, other things equal.

Consumer-price pass-through may be incomplete or delayed.

Exporters / recipients

Lower cedi receipts from a fixed US-dollar inflow, other things equal.

Imported inputs and hedging modify the net exposure.

External balances changed, but definitions remain essential

2024 actual and 2025 preliminary; IMF August 2026 vintage.

CURRENT-ACCOUNT SURPLUS

1.8 → 7.9%

% GDP, 2024 → 2025.

A surplus does not by itself identify export diversification or private capital inflows.

PROGRAMME RESERVES

2.4 → 4.0

Months of prospective imports,
2024 → 2025.

US\$6.5bn → US\$11.9bn.

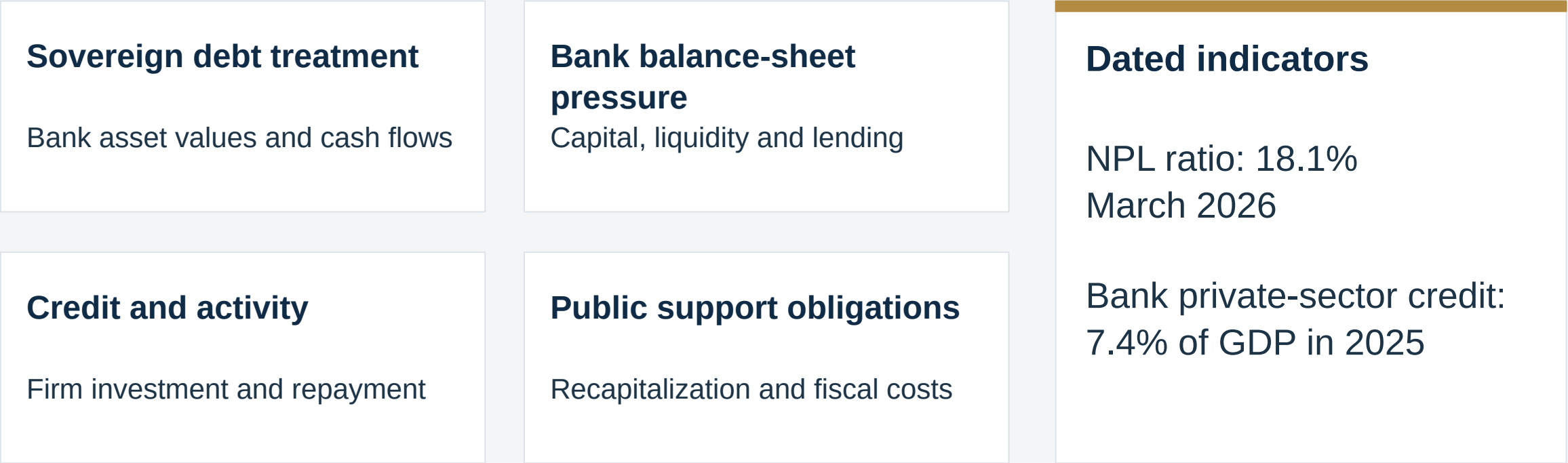
Coverage qualification

MoF headline reserves and IMF programme reserves exclude different assets.

Compare like with like before describing reserve adequacy.

The sovereign–bank connection transmits fiscal stress

The flow diagram shows mechanisms; the metrics are dated observations.



Loan volume, capital adequacy, NPLs and credit allocation require separate interpretation.

Energy policy links service provision, tariffs and fiscal costs

Cost recovery, affordability and operational efficiency are distinct evaluation questions.

Policy component	Potential channel	Evidence needed for evaluation
Tariff adjustment	Revenue adequacy and customer bills	Cost coverage; price incidence by household group
Distribution and collection	Reduce technical / commercial losses	Metering, cash collection and independently audited losses
Generation contracts	Capacity and payment obligations	Dispatch, take-or-pay liabilities and renegotiation terms
Targeted affordability support	Protect low-income customers	Coverage, exclusion, payment timeliness and real benefit

2025 transfers to energy producers: 1.2% of GDP. This flow is not the stock of arrears.

Commodity policies change both revenue opportunities and exposures

Evaluate cocoa and gold arrangements through transparent consolidated accounts.

Gold-related channels

Export receipts and reserve accumulation
Purchase, financing and valuation costs
Central-bank and public-entity exposures
Environmental and formalization effects

Cocoa-related channels

Producer income and export receipts
Crop volumes, prices and disease shocks
Trading and financing costs
Cocobod debt and quasi-fiscal obligations

Gold + cocoa account for about 80% of goods exports in the IMF's 2026 assessment.

Output growth is not a direct measure of productive transformation

Separate within-sector productivity, labour reallocation and capital-intensive extraction.

2025 TOTAL GDP

6.0%

Aggregate real output growth.

This is not a job-growth rate.

2025 NON-EXTRACTIVE

7.0%

Excludes extractive activities.

Do not substitute the non-oil growth measure.

2025 EXTRACTIVE

-0.9%

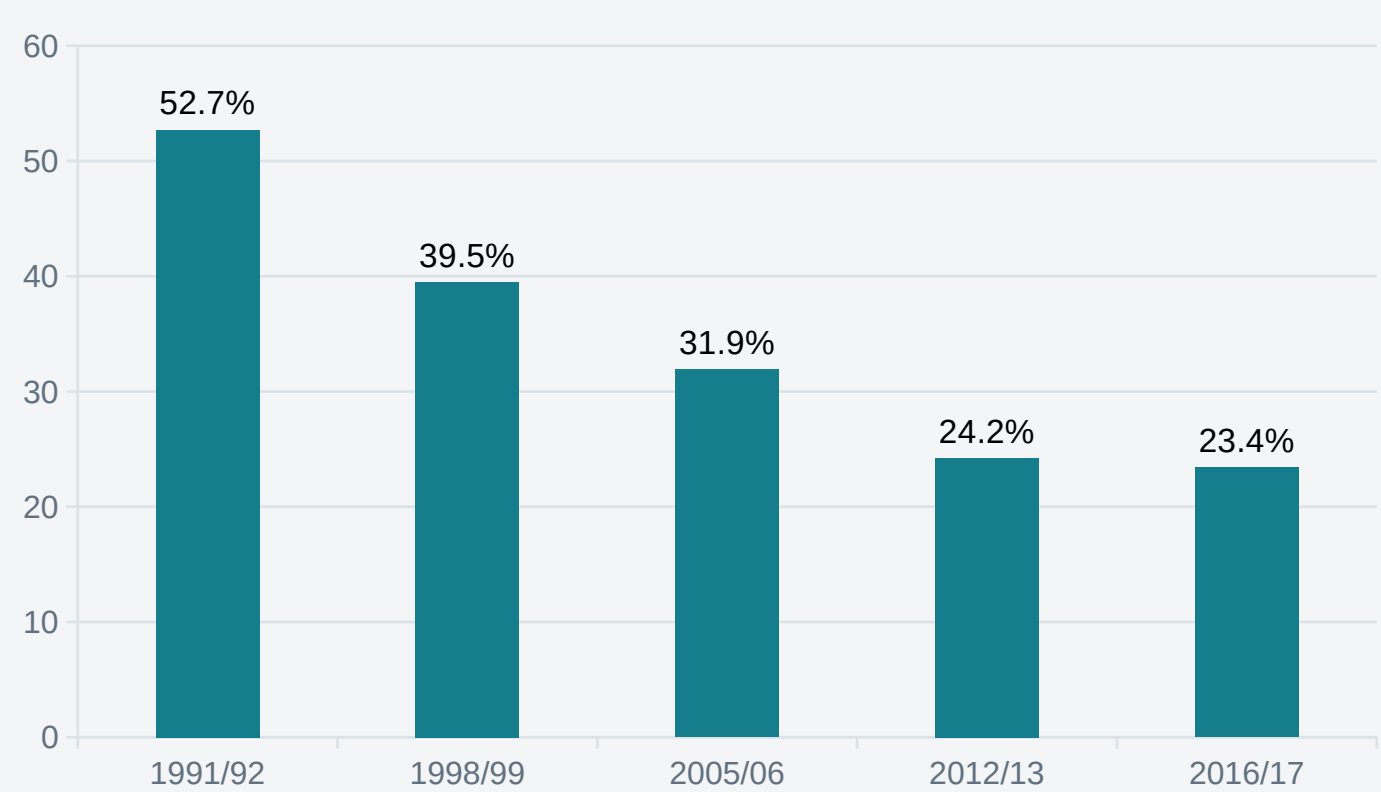
A separate sector aggregate.

Value added and employment can have different weights.

A transformation assessment also needs value added per worker, formal earnings and export complexity.

National monetary poverty fell, with a slower later decline

World Bank’s reported historical GLSS series; selected comparable rounds.



Observed survey change

1991/92 → 2016/17:
–29.3 percentage points.

2012/13 → 2016/17:
–0.8 percentage points.

No annual interpolation or
2026 extrapolation.

Regional poverty changes differed within the same survey interval

2012/13 and 2016/17; historical ten-region boundaries, not today's regional map.

Historical region	2012/13, %	2016/17, %	Change, pp
Ashanti	14.8	11.6	-3.2
Brong Ahafo	27.9	26.8	-1.1
Central	18.8	13.8	-5.0
Eastern	21.7	12.6	-9.1
Greater Accra	5.6	2.5	-3.1
Northern	50.4	61.1	+10.7
Upper East	44.4	54.8	+10.4
Upper West	70.7	70.9	+0.2
Volta	33.8	37.3	+3.5
Western	20.9	21.1	+0.2

The headcount does not capture poverty depth or inequality

The same historical assessment records different movements across distributional measures.

HEADCOUNT

24.2 → 23.4%

Share below the national poverty line.

Change: -0.8 percentage points.

POVERTY GAP

7.7 → 8.4%

Average normalized shortfall from the poverty line.

Change: +0.7 percentage points.

CONSUMPTION GINI

0.42 → 0.43

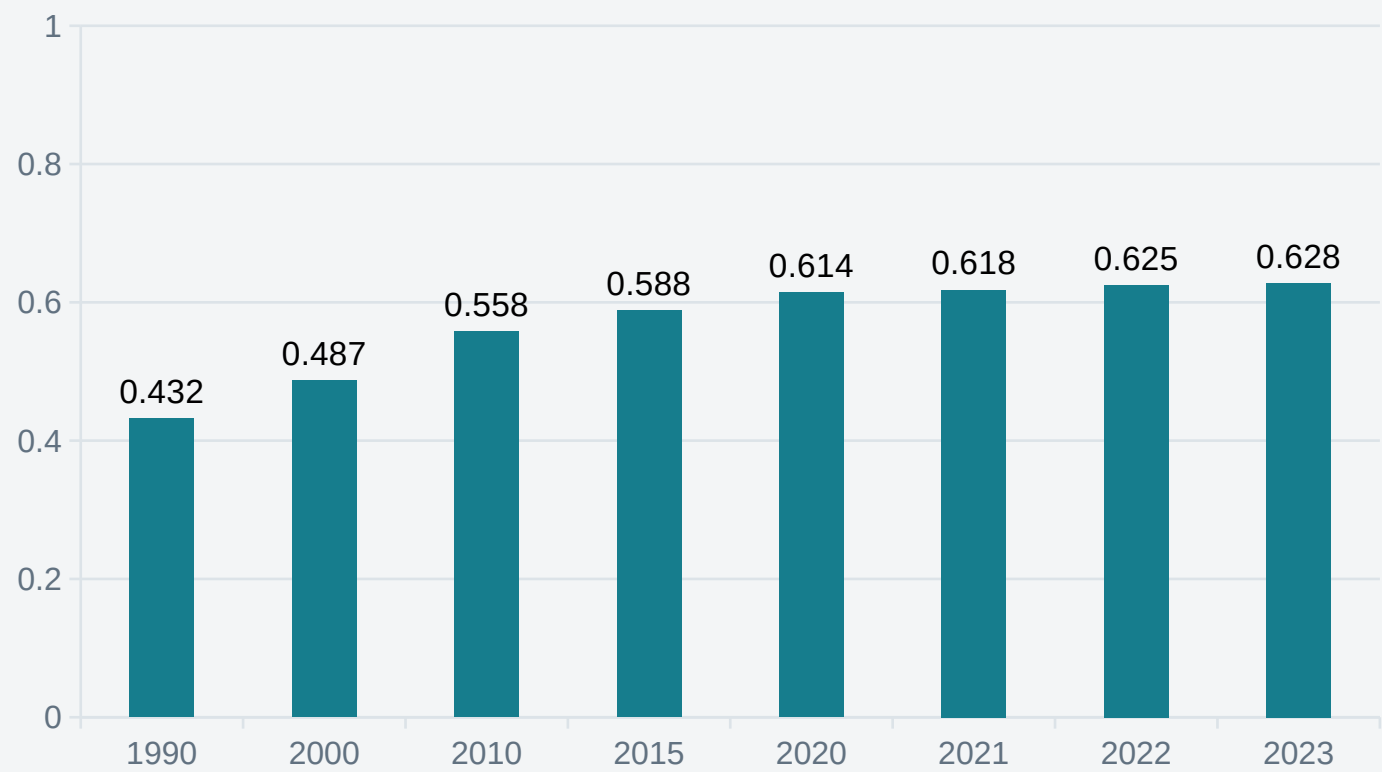
Rounded inequality measure.

The average and distribution must be assessed together.

All three comparisons refer to 2012/13 → 2016/17, not to the 2022 crisis or 2026 recovery.

Human-development indicators show long-run change

Selected HDI benchmark years; one UNDP 2025 vintage, with 1990 as the nearest published baseline.



Level and distribution

HDI in 2023: 0.628.

Inequality-adjusted HDI:
0.399 in the same report.

The adjustment changes the
aggregate; it is not a
household poverty measure.

Access to basic infrastructure expanded across historical surveys

Access, reliability, affordability and service quality are not equivalent outcomes.

NATIONAL ELECTRICITY ACCESS

36 → 79%

1996 → 2017
World Bank historical
assessment.

POOR-HOUSEHOLD ACCESS

13.3 → 53%

1991 → 2016
Different population and
endpoints.

Beyond access

Connection ≠ reliable supply.
Enrolment ≠ learning.
Insurance ≠ effective
treatment.

Development measurement
must retain these distinctions.

These historical access statistics are not current 2026 coverage estimates.

Recent household indicators do not share the GDP observation year

GSS dashboard observations: Q3 2025; retrieved 18 September 2026.

UNEMPLOYMENT

13.0%

Q3 2025.

A labour-market measure—not the share of all residents without a job.

NATIONAL MPI HEADCOUNT

21.9%

Q3 2025.

Different from GLSS monetary poverty and global MPI.

FOOD INSECURITY

38.1%

Q3 2025.

Use the GSS survey definition and denominator.

Do not splice these percentages into the historical national monetary-poverty series.

Fiscal choices reach households through several channels

A net-incidence analysis links taxes, transfers, services, prices and earnings.

Channel	What to measure	Relevant comparison
Taxes and fees	Effective burden, exemptions and compliance	By consumption group, sex and location
Cash transfers	Coverage, adequacy and payment timeliness	Nominal and real benefit values
In-kind services	Access, quality and fiscal unit cost	Health and learning outcomes, not spending alone
Prices and earnings	Food, fuel, utilities, wages and self-employment	Household-specific real purchasing power
Adjustment exposure	Debt-holder losses and service interruptions	Net incidence, including indirect channels

GDP accounting does not settle environmental and shock resilience

The evaluation extends beyond current output and fiscal ratios.

External resilience

Commodity concentration
Reserve usability
Debt-service concentration
Capital-flow reversals

Measure exposure, not just current receipts.

Household resilience

Food-price exposure
Weather-sensitive livelihoods
Savings and insurance
Transfer responsiveness

Assess recovery after shocks.

Natural-capital accounting

Water and land quality
Resource depletion
Restoration liabilities
Agricultural resilience

GDP alone omits part of the balance sheet.

A longer-run development assessment needs environmental accounts and repeated household observations.

Observed 2026 data and full-year projections must remain separate

Different reference periods answer different questions.

Indicator	Value	Observation / status
Real GDP growth, Q1 2026	6.4%	Observed quarter, year-on-year
CPI inflation, August 2026	5.0%	Observed month, year-on-year
Real GDP growth, full-year 2026	4.8%	IMF projection, August 2026
CPI inflation, annual average 2026	5.9%	IMF projection, August 2026
CPI inflation, December 2026	8.0%	IMF projection; also original budget target
Primary commitment balance, 2026	+1.5% GDP	Programme target / projection—not outturn

Policy options involve empirically testable trade-offs

The table identifies mechanisms and evidence requirements; it does not recommend a political choice.

Policy instrument	Potential intended effect	Possible offset / incidence issue
Fiscal adjustment	Lower primary financing requirement	Demand, services, public investment and arrears
Monetary tightening	Lower inflation pressure	Borrowing costs and credit allocation
Exchange-rate flexibility	Absorb external-price / financing shocks	Import prices and FX-denominated liabilities
Debt treatment	Reduce / reprofile debt service	Creditor losses and recapitalization needs
Tax-base / administration reform	Increase revenue collection	Compliance costs and distributional effects
Tariff and SOE changes	Change cost recovery and fiscal exposure	Affordability, reliability and implementation costs

What the assembled evidence establishes

A multidimensional empirical record—not a composite success score.

Dimension	Documented observation	Inference limit
Output per person	+153.9%, 1992–2025	Not median income or a causal policy effect
National monetary poverty	52.7% → 23.4%, 1991/92–2016/17	No comparable 2026 value established here
Human development	HDI 0.432 → 0.628, 1990–2023	Average index; distribution still matters
Price stability	27 of 34 annual CPI averages ≥10%	Not monthly target compliance
Fiscal and debt accounts	Recent balance / stock changes; restructuring	Valuation, scope and revisions affect comparison
Jobs and household conditions	Q3 2025 dashboard indicators available	Different definitions; no common welfare index

What these data do not identify

The limits are consequential for any claim about overall policy performance.

Unidentified causal quantities

The fraction of GDP change caused by each reform.

How Ghana would have evolved under a different policy sequence.

Net welfare effects after financing and distributional costs.

Incomplete measurement

Comparable current monetary-poverty endpoint.

Consistent long-run fiscal coverage and all contingent liabilities.

Full-year 2026 growth, prices, debt and welfare outcomes.

Descriptive precision is not a substitute for causal identification or a complete measurement system.

A research design for identifying policy effects

Proposed designs—not analyses already carried out in this report.

Question	Potential design	Required checks
National reform / financing regime	Synthetic control or comparative time series	Pre-period fit; donor validity; concurrent shocks
Staggered programme rollout	Group-time difference-in-differences	Pre-trends; anticipation; spillovers; attrition
Eligibility-based social policy	Regression discontinuity / linked panels	Threshold integrity; continuity; treatment take-up
Monetary or fiscal transmission	Identified shocks + local projections	Exogeneity; lags; robustness; sample size
Household incidence	Tax-benefit microsimulation + surveys	Coverage; price response; uncertainty; fiscal closure

A reproducible measurement system for subsequent updates

Keep outcomes, assumptions and sources in separate fields.

Monitoring block	Minimum disaggregation	Update control
Macro accounts	Total / per capita; extractive / non-extractive	Annual revision log; quarterly versus annual tags
Fiscal and debt	Cash / commitment; stock / flow; perimeter	Arrears bridge; valuation reconciliation
Prices and finance	Average / end-period; nominal / real	Basket and base changes; balance-sheet coverage
Household welfare	Sex, age, disability, region, consumption group	Survey design, weights and confidence intervals
Service quality and resilience	Access, reliability, outcomes, shock exposure	Comparable baselines and repeated follow-up

Calculation definitions used throughout the report

Growth, inflation and accounting checks can be rerun from the accompanying CSV files.

Measure	Calculation	Interpretation
GDP-per-capita index	$100 \times y(t) / y(1992)$	Within-country growth; not a PPP level comparison
Compound annual growth	$100 \times [(y(T) / y(0))^{(1 / (T-0))} - 1]$	33 intervals from 1992 to 2025
Annual per-capita growth	$100 \times [y(t) / y(t-1) - 1]$	Adjacent-year growth, one consistent series
Percentage-point change	Final percentage – initial percentage	52.7% → 23.4% = –29.3 pp
Average CPI level index	$P(t) = P(t-1) \times [1 + \text{inflation}(t) / 100]$	Compounds annual-average inflation, not December CPI

Debt dynamics: stocks, flows and valuation

The identity explains accounting channels; it does not estimate their causal magnitudes.

$$d(t) = [(1 + i) / (1 + g)] \times d(t-1) - pb(t) + sfa(t)$$

Interest–growth term

Interest cost relative to nominal GDP growth changes the inherited debt ratio.

Primary balance

A primary surplus reduces financing requirements, holding other terms constant.

Stock–flow adjustment

FX valuation, restructuring, arrears recognition and other balance-sheet changes.

Growth comparisons depend on the starting date

CAGR of real GDP per capita to 2025, % per year; alphabetical rows.

Country	1992–2025	2000–2025	2010–2025	2019–2025
Bangladesh	4.28	4.76	5.08	4.05
Côte d’Ivoire	1.13	1.50	3.25	2.94
Ghana	2.86	3.23	3.34	2.07
Kenya	1.27	1.89	2.38	2.49
Senegal	1.48	1.66	2.13	2.31
Viet Nam	5.40	5.20	5.15	4.86

Common data definitions do not eliminate differences in initial conditions or exposure to shocks.

Reconciliation log: comparisons that need qualification

These checks prevent avoidable claims based on non-equivalent numbers.

Potential confusion	Resolution
MoF 44.7% vs IMF 48.8% debt, 2025	Label the debt perimeter and publication vintage; do not splice.
MoF US\$13.8bn vs IMF US\$11.9bn reserves	Separate headline assets from programme-eligible reserves.
Cedi +40.7% vs GH¢/US\$ –29.0%	Use reciprocal quote arithmetic; state the convention.
Annual average vs December CPI	Use different time labels; do not infer a price-level decline.
GLSS poverty vs national / global MPI	Keep different concepts and survey populations separate.
Revised HDI or national-account series	Use one vintage for each time comparison; retain revision notes.

Data completeness and validation record

The deliverable includes source-linked data extracts, calculations and replay code.

Check	Result / retained limitation
Series length and calculation replay	Six GDP series × 34 years; 34 CPI observations; deterministic replay
Accounting checks	Selected fiscal identities and external-debt bridge reconcile within rounding
Source integrity	Primary-document page checks; dates and definitions retained
Causal identification	Descriptive analysis only; no estimated national treatment effects
Coverage gaps	Current comparable monetary poverty; full 2026 outcomes; historical fiscal harmonization
Unreviewed document	Oversized 2026 mid-year budget PDF not used as a verified source

References and source links 1 / 4

Institutional data and primary methodological references; full URLs appear in the author's notes.

S01	World Bank WDI via FRED Real GDP per capita: Ghana 2026 series vintage	SOURCE
S02	World Bank WDI via FRED Real GDP per capita: Bangladesh 2026 series vintage	SOURCE
S03	World Bank WDI via FRED Real GDP per capita: Côte d'Ivoire 2026 series vintage	SOURCE
S04	World Bank WDI via FRED Real GDP per capita: Kenya 2026 series vintage	SOURCE
S05	World Bank WDI via FRED Real GDP per capita: Senegal 2026 series vintage	SOURCE
S06	World Bank WDI via FRED Real GDP per capita: Viet Nam 2026 series vintage	SOURCE
S07	World Bank WDI via FRED Ghana consumer-price inflation, annual average 2026 series vintage	SOURCE

References and source links 2 / 4

Institutional data and primary methodological references; full URLs appear in the author's notes.

S08	World Bank Ghana Poverty Assessment 2020	SOURCE
S09	UNDP Human Development Report 2025, statistical annex 2025	SOURCE
S10	Ghana Statistical Service Official statistics dashboard Accessed 18 September 2026	SOURCE
S11	Ghana Ministry of Finance 2025 Annual Public Debt Report Report for 2025	SOURCE
S12	IMF Ghana: 2026 Article IV and sixth ECF review, Country Report 26/212 4 August 2026	SOURCE
S13	IMF Board completes sixth ECF review and concludes 2026 Article IV 27 July 2026	SOURCE
S14	IMF / Ghana Ministry of Finance mirror Request for an ECF arrangement, Country Report 23/168 May 2023	SOURCE

References and source links 3 / 4

Institutional data and primary methodological references; full URLs appear in the author's notes.

S15	IMF Approval of US\$918 million ECF arrangement 3 April 2015	SOURCE
S16	IMF / World Bank Ghana reaches HIPC completion point 13 July 2004	SOURCE
S17	Bank of Ghana Our Monetary Policy Framework Official institutional description	SOURCE
S18	Ghana Ministry of Finance 2026 Budget Statement and Economic Policy 13 November 2025	SOURCE
S19	World Bank Ghana country overview Accessed 18 September 2026	SOURCE
S20	IMF 1997 Article IV consultation: contemporary policy record 1 December 1997	SOURCE
S21	World Bank Introducing a Value Added Tax: Lessons from Ghana Publication record accessed 18 September 2026	SOURCE

References and source links 4 / 4

Institutional data and primary methodological references; full URLs appear in the author's notes.

S22	Callaway and Sant’Anna Difference-in-Differences with Multiple Time Periods 2021 journal article; author preprint	SOURCE
S23	Lee and Lemieux Regression Discontinuity Designs in Economics Journal of Economic Literature, 2010	SOURCE
S24	Abadie Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects Journal of Economic Literature, 2021	SOURCE

Read the development record through its separate dimensions

Growth, distribution, stability and resilience answer different empirical questions.

Higher measured output and human capability

Different distributional outcomes across places and households

Repeated changes in inflation, debt and financing conditions

2026 remains an incomplete observation year.



Institute of Development and Economic Research

EVIDENCE FOR YOUR NEXT DECISION

Clarity for your next commitment.

Commission a market study, feasibility assessment or investment-research assignment. Invite IDER to strengthen your research consortium.

ACCRA OFFICE

Suite 402, 4th Floor, Atlantic Tower
Airport City, Accra, Ghana

TELEPHONE +233 302 955 289

WHATSAPP +233 24 317 9345

EMAIL info@iderafrica.com

WEBSITE www.iderafrica.com



START A CONVERSATION

Monday - Friday | 8:00 am - 5:00 pm GMT

All social media handles: @IDERAfrica