

Beyond the Headline Tax Rate

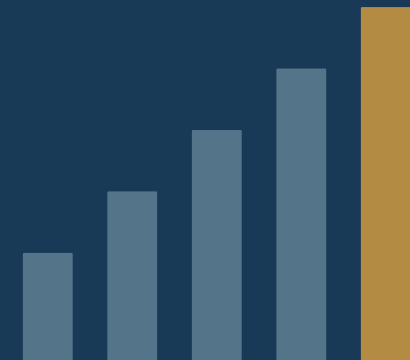
Measuring Ghanaian Firms' Effective Tax Burden

Taxes. Levies. Fees. Compliance. Cash exposure.

Commissioning institution: Institute of Development and Economic Research (IDER)

Authored by Dr. Felix Larry Essilfie
Executive Director, Institute of Development and Economic Research

FINAL PUBLICATION EDITION | SEPTEMBER 2026



INFORMATION CUT-OFF
27 SEPTEMBER 2026

Accounts: 2024–2025 | survey: 2023
Legal baseline and conditional cases

About this publication

Independent research • transparent evidence • reproducible calculations

TITLE AND SERIES

Beyond the Headline Tax Rate: Measuring Ghanaian Firms' Effective Tax Burden
IDER's Ghana Macroeconomic Policy and Business Intelligence Briefings

AUTHOR AND COMMISSIONING INSTITUTION

Dr. Felix Larry Essilfie
Executive Director
Institute of Development and Economic Research (IDER)

SUGGESTED CITATION

Essilfie, Felix Larry. 2026. Beyond the Headline Tax Rate: Measuring Ghanaian Firms' Effective Tax Burden. IDER's Ghana Macroeconomic Policy and Business Intelligence Briefings. Final publication edition. Accra: Institute of Development and Economic Research.

EDITION AND EVIDENCE DATES

Final publication edition: 27 September 2026.
Information cut-off: 27 September 2026.
Accounts: 2024–2025; survey: 2023.
Standardised enterprises are explicitly assumed.

RESPONSIBILITY AND INTERPRETATION

Independent IDER research; source citation does not imply endorsement. No national all-in effective tax rate or causal effect is claimed. The report is not a transaction-specific tax ruling.

DATA, CODE AND ENQUIRIES

Source transcriptions, assumptions, numerical outputs, editable exhibits and executable code accompany the publication. External source PDF bytes are not bundled. Research and corrections: info@iderafrica.com.

Contents

Report pages and slide numbers match; entries link to their destinations.

READING AND DECISION USE

About this publication	2
Reading guide	4
Structured research abstract	5
Two-page decision brief	6
Abbreviations and terms	8
Evidence conventions	9
List of figures	10
List of tables	11
Model and equation index	13

ANALYSIS

1 Measurement and definitions	14
2 Legal and sector framework	17
3 Observed company accounts	23
4 Historical survey evidence	33
5 Standardised enterprise cases	37
6 Size, margin and tax-base tests	48
7 Collections and cash exposure	56

APPLICATION AND TECHNICAL REFERENCE

8 Identification and coverage	63
9 Decision use	68
10 Empirical validation and robustness	70
11 Non-technical conclusions	89
12 SMART action programme	92
13 Models and equations	100
14 Limits and reproducibility	115
References and sources	117
IDER contact	124

NAVIGATION Running headers return to Contents. Source IDs link to the register. Model cards retain their own evidence status.

Read the tax base, enterprise account and payment calendar together

Three connected tests; one statutory rate cannot answer all three.

01 WHAT IS BORNE?

Separate profit taxes, non-recoverable indirect taxes, employer contributions and fees. Keep taxes collected for government outside the firm-borne numerator.

02 WHAT IS REPORTED?

Read tax expense, profit, deferred tax and cash paid on a matched entity and period basis. A cash payment can settle earlier liabilities.

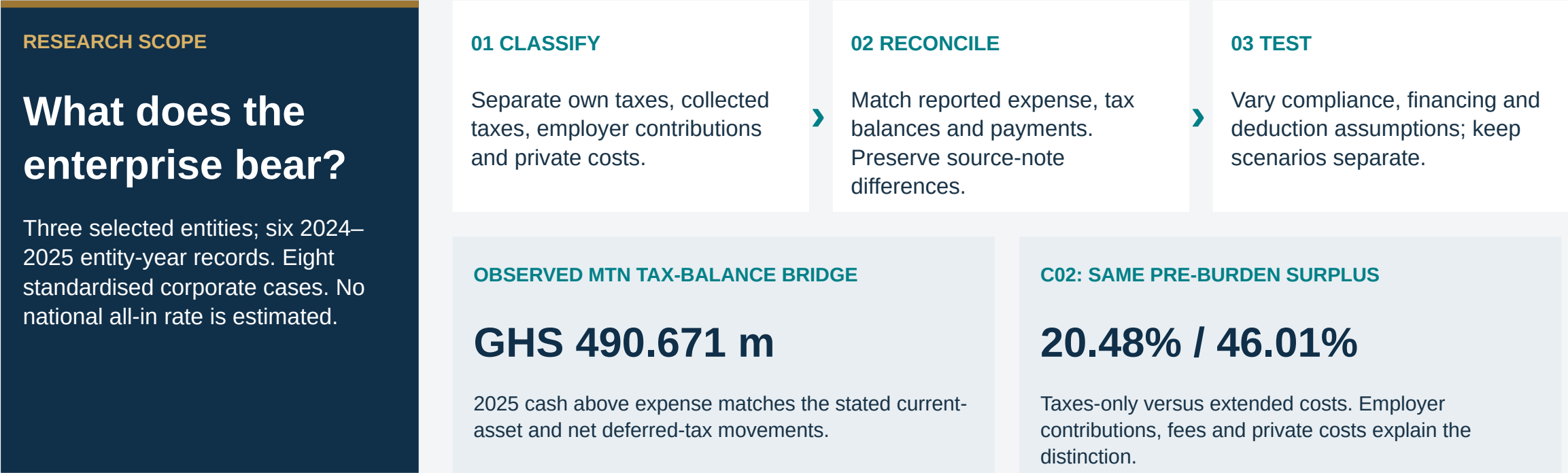
03 WHAT IS ASSUMED?

Compare standardised cases using disclosed cost structures. Keep observed accounts, survey evidence and imposed sensitivities in distinct categories.

Sources: IDER calculations [\[S99\]](#).

Measure the tax base. Reconcile the account. Test cash timing.

Research question: which costs sit outside the headline rate, and which cash flows are not costs?



Sources: MTN Ghana accounts [\[S11\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).
Note: Observed company accounts, statutory cases and conditional costs have distinct populations and denominators.

Three accounts prevent three costly interpretation errors

For GRA, MoF, Treasury, enterprise finance teams, accountants, lenders and investors.

01 | TAX EXPENSE

33.08%

Unilever, 2025

Reported income-tax expense includes the disclosed GSL and deferred-tax lines. Do not add those levies again.

CHECK: source note and profit denominator

02 | TAX CASH

GHS 10.453 m

Unilever, 2025

Reported tax paid exceeds expense. Current-tax balances and the deferred charge reconcile the aggregate difference.

CHECK: period, balances and payment status

03 | EXTENDED COST

46.01%

C02 assumed company

Includes employer contributions, fees, compliance and finance. Taxes-only are 20.48% of the same surplus.

CHECK: include each cost once

Sources: MTN Ghana accounts [\[S11\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: Amounts are company-specific or conditional. They do not establish current refund delays, national burdens or causal policy effects.

A 180-day evidence programme with observable completion tests

Proposed sequence; the clock begins after lawful access, confidentiality and institutional approval.

DAYS 0–30	DAYS 31–90	DAYS 91–180
PROPOSED OWNER GRA / MoF / enterprise CFOs Define payer, tax base, version and reporting perimeter. Open a matched tax-and-credit register. ACCEPTANCE TEST 100% of captured entries have a source, tax class and status; exceptions have owners.	PROPOSED OWNER Finance teams / data custodians Link returns, bank payments, balances and compliance tasks. Keep exits, unpaid claims and disputed records. ACCEPTANCE TEST Report count and value coverage; every unexplained residual remains visible.	PROPOSED OWNER IDER / independent reviewer Reproduce accounting results. Estimate population or causal effects only after the design and coverage tests pass. ACCEPTANCE TEST Release code and a signed assumptions checklist; unsupported effects remain unestimated.

Sources: IDER calculations [\[S99\]](#).

Note: These are proposed delivery milestones, not institutional commitments, promised statistical significance or directions on tax rates.

Abbreviations and reading terms

A common term does not guarantee a common numerator, tax base or reporting period.

CIT	Corporate income tax.	CA / DEP	Capital allowance / financial-statement depreciation.
GSL	Growth and Sustainability Levy.	WHT / PAYE	Withholding tax / pay as you earn.
FSRL	Financial Sector Recovery Levy.	MTS	Modified Taxation Scheme; eligible individuals, not all companies.
VAT	Value added tax.	ORC / MMDA	Registrar of Companies / metropolitan, municipal or district assembly.
NHIL / GETFund	National Health Insurance Levy / Ghana Education Trust Fund levy.	DTA / DTL	Deferred tax asset / liability; not immediately available cash.
GRA / MoF	Ghana Revenue Authority / Ministry of Finance.	B2B / B2C	Business-to-business / business-to-consumer.
SSNIT	Social Security and National Insurance Trust.	DiD / FE	Difference-in-differences / fixed effects; not causal by label alone.
PBT / PAT	Profit before tax / profit after tax; match the report perimeter.	pp / %	Percentage points / percent; distinct changes.
ETR	Effective tax rate; always state the numerator and denominator.	GHS; k; m; bn	Ghana cedi; thousand; million; billion.

How to interpret the evidence

Read the scope and status beside each result before using it in a model or briefing.

OFFICIAL RULE / DATED	Published statutory text or administering-authority guidance; eligibility, commencement and subsequent amendments matter.
OBSERVED COMPANY ACCOUNT	Published 2024–2025 financial-statement amounts for one stated entity; not a representative sample.
HISTORICAL SURVEY ESTIMATE	World Bank Ghana 2023 survey; formal eligible firms with 5+ workers, interviewed in 2023–2024.
CONDITIONAL ENTERPRISE	Assumed turnover, payroll, margins, fees and compliance cost; scenario ranges are not statistical confidence intervals.
ORIGINAL CALCULATION	Ratios, tax-base bridges and exact decompositions recomputed from disclosed inputs; arithmetic does not identify causality.
UNMEASURED / EXCLUDED	Unobserved fees, source-note components, micro-firm population and causal effects are not filled with invented estimates.

List of figures

Each figure links to its results page and has a machine-readable exhibit dataset.

01	MTN: tax charge and cash ratios	25	10	Tax-base adjustments and current tax	53
02	GCB: tax charge and cash ratios	29	11	Capital allowances and deferred tax	55
03	Management time on regulation by size	34	12	Outstanding-credit financing sensitivity	58
04	Tax-official contact by firm size	35	13	MTN tax-balance cash bridge	72
05	Standardised burden ratios: cases C01–C04	45	14	Unilever expense and tax-paid ratios	74
06	Standardised burden ratios: cases C05–C08	46	15	Unilever expense-to-tax-paid bridge	76
07	Fixed compliance cost and enterprise scale	48	16	C02 extended-burden components	78
08	Margin and extended-burden sensitivity	49	17	C02 joint compliance and timing sensitivity	79
09	Turnover tax expressed against profit	50	18	Historical licensing durations by size	81

List of tables — 1 of 2

Source data, standardised cases and methodological crosswalks retain their evidence labels.

01	Research questions and estimands	14	12	Observed-account comparability	30
02	Taxes borne versus taxes collected	15	13	Exact tax-rate change decomposition	31
03	Alternative effective-rate denominators	16	14	Profit-weighted pooled rates	32
04	Profit-tax and levy crosswalk	17	15	Survey population and size definitions	33
05	Individual and presumptive tax scope	19	16	Enterprise assumptions: C01–C04	38
06	Employer and employee pension components	20	17	Enterprise assumptions: C05–C08	39
07	Transaction-level legal verification	22	18	Fees and compliance: C01–C04	40
08	Observed account coverage	23	19	Fees and compliance: C05–C08	41
09	MTN profit-tax expense and GSL	24	20	Burden calculations: C01–C04	42
10	MTN cash versus expense bridge	26	21	Burden calculations: C05–C08	43
11	GCB reported charge and cash paid	28	22	Revenue-normalised burden comparisons	44

List of tables — 2 of 2

Native tables are editable; the evidence package records every displayed cell.

23	C02 surplus-to-residual reconciliation	47	34	Linked-data specification	67
24	Individual versus incorporated examples	51	35	Corporate and investor decision use	68
25	Incremental compliance task costing	52	36	Public-sector evidence requirements	69
26	Depreciation and deferred-tax timing	54	37	MTN matched tax assets and balances	71
27	VAT remittance versus enterprise cost	56	38	Unilever audited tax components	73
28	Withholding and current CIT	57	39	Unilever statutory-to-charge bridge	75
29	Partial recovery and financing cost	59	40	Unilever tax-note source exceptions	77
30	Import duty and recoverable border tax	60	41	C02 deduction-assumption sensitivity	80
31	Company and shareholder tax layers	61	42	Common-treatment rank diagnostic	83
32	Endogeneity threats and safeguards	64	43	Material source and coverage limits	115
33	Sample selection and missingness	65	44	Reproducibility and validation record	116

Model and equation index

The catalogue contains expressions, units, assumptions and evidence status—not only model names.

E01–E11 | MEASUREMENT

E01	Payer-classified burden	101
E02	Rate and denominator definitions	101
E03	Profit-based statutory case	102
E04	Employer and worker contributions	102
E05	Published tax-charge perimeter	103
E06	Cash–charge reconciliation target	103
E07	Exact two-factor rate change	104
E08	Pooled versus average rates	104
E09	Survey-weighted mean target	105
E10	Before-burden surplus	105
E11	Fiscal and extended burden	106

E12–E22 | CONDITIONAL METHODS

E12	Fixed compliance-cost scaling	106
E13	Margin normalisation	107
E14	Presumptive tax equivalent	107
E15	Incremental compliance resource cost	108
E16	Book-to-tax bridge	108
E17	Capital allowance and deferred tax	109
E18	Full-credit invoice account	109
E19	Withholding credit reconciliation	110
E20	Event-date credit financing	110
E21	Simplified import tax cash	111
E22	Company and investor layers	111

VALIDATION / PROSPECTIVE

E23	Tax-balance cash bridge	112
E24	Audited tax-note reconciliation	112
E25	Joint private-cost sensitivity	113
E26	Common-treatment rank diagnostic	113
P01	Prospective causal firm outcome	114
P02	Missing-outcome sensitivity	114

Five questions require five distinct measurement objects

The report answers defined accounting questions and states where population and causal evidence are absent.

Table 1. Five questions require five distinct measurement objects

Question	Object to measure	Evidence available
What does the firm bear?	Profit taxes + non-recoverable taxes; fees and employer contributions shown separately.	Eight assumed corporate cases; three selected published-account entities.
What does it remit?	Own taxes versus VAT, PAYE and withholding collected on behalf of others.	Explicit classification and reconciled examples.
What does compliance cost?	Incremental time, external services, systems and tax-credit financing.	Disclosed scenarios; historical all-regulation survey context.
How does burden vary?	Matched denominator by sector, scale, margin and accounting treatment.	Within-firm observations and controlled sensitivities.
What causes a change?	Counterfactual firm outcomes under an identified intervention.	Prospective design only; no fitted national causal model.

Sources: IDER calculations [\[S99\]](#).

A remittance total is not an economic burden total

Each cash entry needs a payer, recoverability flag and account treatment.

Table 2. A remittance total is not an economic burden total

Entry	Firm-borne classification	Do not do this
CIT / GSL / FSRL	Own liability for the stated taxpayer and base.	Do not add a levy already included in the tax line.
Output VAT / PAYE	Collected or withheld; economic incidence needs separate analysis.	Do not treat gross remittance as own profit cost automatically.
Eligible input VAT / incoming WHT	Recoverable asset or prepayment until utilised or lawfully denied.	Do not count its principal again as expense.
Employer pension / fees	Separate compulsory contribution and service-charge categories.	Do not call the whole pension remittance an employer cost.
Compliance / credit finance	Private resource cost, not tax revenue.	Do not count staff hours already in payroll twice.

Sources: GRA VAT notice [\[S05\]](#); GRA withholding [\[S06\]](#); SSNIT guidance [\[S07\]](#); IDER calculations [\[S99\]](#).

Choose the denominator before interpreting the rate

All ratios must state entity, period and included components.

Table 3. Choose the denominator before interpreting the rate

Measure	Numerator / denominator	Meaning and limit
Reported charge ratio	Reported tax charge / positive PBT.	Accounting-period measure; deferred tax can be included.
Cash/PBT timing ratio	Disclosed cash tax paid / current-year PBT.	Payments can concern other years; not current liability ETR.
Firm-borne fiscal/contribution ratio	Own taxes + fees + employer contribution / pre-burden surplus.	Custom measurement perimeter; not a statutory rate.
Extended private burden	Above numerator + incremental compliance + finance cost / pre-burden surplus.	Broader private-cost measure; not all government revenue.
Revenue-normalised exposure	Specified burden / net revenue or operating income.	Bank operating income is not directly comparable to trade turnover.

Sources: IFRS IAS 12 [\[S14\]](#); IDER calculations [\[S99\]](#).

The ordinary 25% corporate rate does not exhaust profit-based charges

Stated ordinary rules; positive profit; no holidays, losses or special contracts.

Table 4. The ordinary 25% corporate rate does not exhaust profit-based charges

Tax / contribution	Rate and base used	Control in this publication
Corporate income tax	25% of chargeable income.	Reconcile PBT to taxable income; do not presume equality.
GSL Category C	2.5% of PBT for covered other entities.	Not deductible for CIT; exclude individuals from this company case.
GSL Category A	5% of PBT for listed sectors, including covered banks and telecoms.	Use actual legal category, not firm size alone.
FSRL	5% of PBT for covered banks.	Not deductible; exclude rural/community bank cases.

Sources: GRA corporate tax [\[S01\]](#); Act 1095 [\[S02\]](#); Act 1131 [\[S03\]](#); GRA FSRL guidance [\[S04\]](#).

Note: 27.5%, 30% and 35% profit-tax cases require the same positive base; they are not all-in firm burdens.

Firm size is not a substitute for legal form or sector status

Standardised cases do not assign concessions solely because a business is small.

INCORPORATED ENTITY

CIT applies to a chargeable-income base. GSL category follows the statute. The ordinary private-company case assumes no SEC-category status or special incentive.

INDIVIDUAL BUSINESS

A qualifying individual can fall under the separately notified presumptive regime. An incorporated microenterprise is not automatically an individual taxpayer.

SPECIALIST OPERATIONS

Mining, petroleum, excise products, free zones, treaties and location incentives require their own legal and contractual schedules. They are not quantified as ordinary cases.

Sources: GRA corporate tax [\[S01\]](#); Act 1095 [\[S02\]](#); GRA September notice [\[S09\]](#).

Note: The examples are measurement templates, not taxpayer-specific eligibility determinations.

The new individual-tax notice changes the small-business boundary

GRA gives 1 September 2026 as the implementation date for its Act 1178 notice.

Table 5. The new individual-tax notice changes the small-business boundary

Item	Verified notice	Implication
Individual tax-free band	GHS 588 monthly; GHS 7,056 annual.	PAYE is primarily an employee-tax withholding record, not employer tax expense.
Presumptive turnover range	More than GHS 20,000 and no more than GHS 750,000 for in-scope individuals.	Confirm the taxpayer and scheme conditions before using the rule.
Presumptive charge	3% of annual business turnover in the notice.	A turnover tax has a different profit-equivalent burden at different margins.
Transition	Notice specifies an implementation date.	No invented January–December blended 2026 liability; steady-regime examples only.

Sources: GRA September notice [\[S09\]](#); IDER calculations [\[S99\]](#).

Note: The reproduced notice is not a complete consolidated statement of all individual-business eligibility restrictions.

The employer bears 13% in the stated basic-payroll example—not 18.5%

GHS 1,000,000 annual basic payroll; all assumed salaries within applicable contribution limits.

Table 6. The employer bears 13% in the stated basic-payroll example—not 18.5%

Flow	GHS	Classification
Employer contribution	130,000	Incremental employer cost before any tax deduction effect.
Employee deduction	55,000	Withheld from employee pay; not an additional employer expense.
Total remitted	185,000	Combination of the two payers.
Tier allocation	13.5% + 5%	Allocation of total contribution; not two additional levies.

Sources: SSNIT guidance [\[S07\]](#); IDER calculations [\[S99\]](#).

Note: The wage base, contribution ceiling/floor and benefit treatment require entity-level verification.

Build a fee register instead of inventing a national fee percentage

ORC confirms annual filing obligations; its reviewed process page did not supply a monetary tariff.

RECURRING PUBLIC FEES

Record assembly permit, property-rate, licence and regulator charges by issuing body, basis, due date and receipt. Separate government fees from private adviser invoices.

ONE-OFF VERSUS ANNUAL

Incorporation, registration or setup payments are not annual obligations by default. Disclose any amortisation convention and useful life before comparing recurring burdens.

SCENARIO TREATMENT

The enterprise cases impose fee amounts explicitly. They are neither ORC/MMDA quotations nor current schedules for actual manufacturers, banks or service firms.

Sources: ORC filing guidance [\[S10\]](#); IDER calculations [\[S99\]](#).

Freeze the legal rule before costing the transaction

The source register preserves the rule’s time, source and limits.

Table 7. Freeze the legal rule before costing the transaction

Area	Treatment	Residual verification
GSL period	Act 1131 extends the principal application period through 2028.	Later specialist mining changes are outside the quantified A/C cases.
VAT implementation	January 2026 ordinary 20% combined invoice; eligible levy credits.	Eligibility, exempt activity and refund conditions remain transaction-specific.
Income-tax update	September 2026 GRA notice used for individual/MTS distinctions.	Do not generalise individual bands to companies.
Incentives and customs	No location holiday or treaty rate assigned; customs rate imposed in examples.	Obtain current enactment, qualifying certificate, HS code and valuation.

Sources: Act 1131 [\[S03\]](#); GRA VAT notice [\[S05\]](#); GRA September notice [\[S09\]](#); GRA legal index [\[S15\]](#).

Note: This is a scoped research baseline, not a certification that every legal amendment or sector charge is captured.

Two published entities support a limited but verifiable comparison

Initial four entity-year records; the validation extension adds Unilever’s two audited years.

Table 8. Two published entities support a limited but verifiable comparison

Source entity	Scope and period	What is not recovered
MTN Ghana / Scancom Group	2025 and restated 2024; GHS thousand; separate income tax and GSL expense/cash lines.	Complete tax-return bridge, tax-specific compliance hours and fully classified total-contribution ledger.
GCB Bank standalone	2025 and 2024 summary Bank columns; GHS thousand; reported income-tax charge and cash.	Detailed CIT/GSL/FSRL/deferred split; no inference of zero undisclosed components.
Observed coverage	Publicly reporting telecom group and bank, selected for accessible accounts.	Not a sample of ordinary MSMEs, manufacturers, loss-making or informal firms.

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#).

Note: Group and standalone boundaries differ. All comparisons retain that difference visibly.

MTN’s separate GSL line must be included once—not omitted or duplicated

Published Group figures, GHS million; 2024 is the restated comparator.

Table 9. MTN’s separate GSL line must be included once—not omitted or duplicated

Account item	2024 restated	2025
Revenue	17,948.326	24,430.308
Profit before tax	7,590.467	11,312.005
Income-tax expense	2,183.215	2,906.475
Separate GSL expense	378.187	565.600
Profit after tax	5,029.065	7,839.930
Government and regulatory costs	408.240	420.204

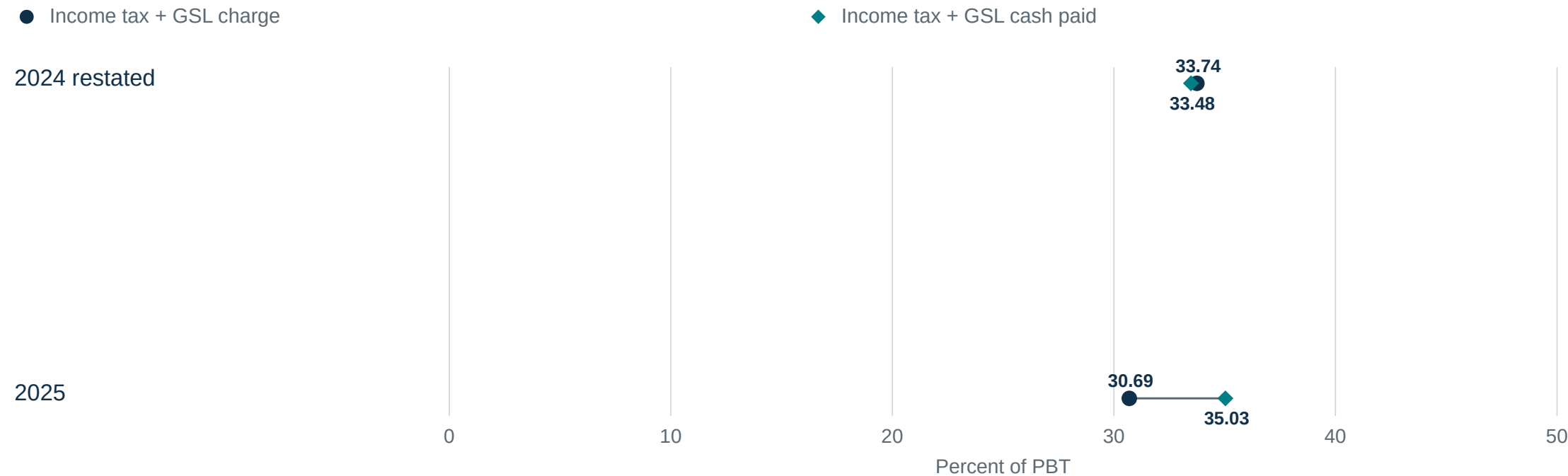
Sources: MTN Ghana accounts [\[S11\]](#).

Note: Government/regulatory costs are already above PBT; a broader ratio would need an adjusted denominator and verified component scope.

The reported charge ratio fell while the cash/PBT ratio rose

MTN Ghana Group; percent of the matching year’s positive PBT.

Figure 1. The reported charge ratio fell while the cash/PBT ratio rose



Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: Cash paid may settle prior periods or prepayments; the cash/PBT measure is a timing ratio, not a current-liability rate.

In 2025 disclosed profit-tax cash exceeds the charge by GHS 490.671 million

Group cash and expense, GHS million; no unobserved arrears allocation is inferred.

Table 10. In 2025 disclosed profit-tax cash exceeds the charge by GHS 490.671 million

Item	2024 restated	2025
Income-tax cash paid	2,135.187	3,394.101
Separate GSL cash paid	406.019	568.645
Combined disclosed cash	2,541.206	3,962.746
Combined reported charge	2,561.402	3,472.075
Cash minus charge	-20.196	490.671

Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: A difference is a reconciliation target, not proof of underpayment, overpayment or the year to which liability relates.

A “tax contribution” headline needs a payer-by-payer bridge

The source’s 2025 narrative reports direct/indirect taxes of GHS 10.5 billion and fees/levies of GHS 1.3 billion.

KEEP THE SOURCE LABEL

These narrative totals combine categories not fully mapped in the condensed notes. They are not silently substituted for the income-tax and GSL expense lines.

AVOID THREE ADDITIONS

Do not add the narrative totals, expense charge and cash-flow taxes together. They can overlap and can use different transaction periods.

REQUIRED RECONCILIATION

Obtain tax type, ultimate payer, cash/accrual date, refund or offset, and gross-versus-net treatment before calculating a total firm-borne burden.

Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: No national or company all-in burden is calculated from unclassified contribution totals.

The GCB summary tax line cannot be treated as a verified CIT-only charge

Bank standalone; GHS million; do not use Group columns interchangeably.

Table 11. The GCB summary tax line cannot be treated as a verified CIT-only charge

Account item	2024	2025
Operating income	4,448.016	6,261.683
Profit before income tax	1,911.282	3,163.498
Reported income-tax expense line	702.118	1,119.530
Profit after tax	1,209.164	2,043.968
Income-tax cash paid	783.951	1,137.350

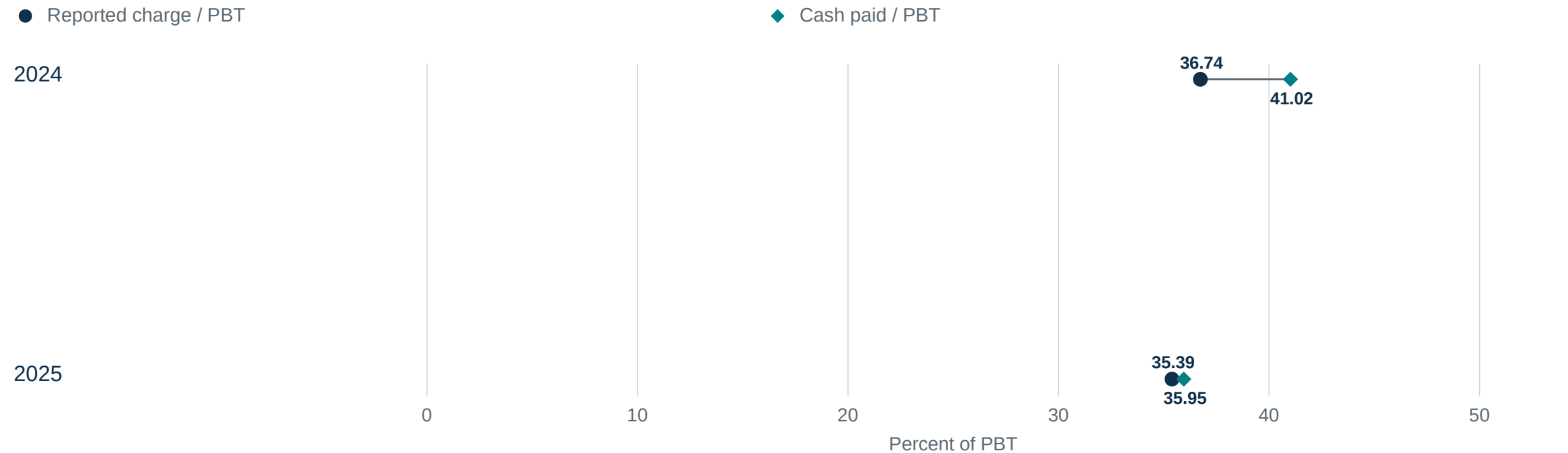
Sources: GCB Bank accounts [\[S12\]](#).

Note: The condensed statement does not split CIT, GSL, FSRL and deferred tax. Do not append assumed levies to the disclosed charge.

GCB’s reported charge and cash/PBT ratios both decline between the two years

Bank standalone; each measure retains the source’s undisaggregated tax perimeter.

Figure 2. GCB’s reported charge and cash/PBT ratios both decline between the two years



Sources: GCB Bank accounts [\[S12\]](#); IDER calculations [\[S99\]](#).

Note: Changes are descriptive. No attribution to rate reform, compliance, credit policy or bank efficiency is identified.

Do not interpret different reported ratios as a sector ranking

The two entities differ in accounting and institutional perimeter.

Table 12. Do not interpret different reported ratios as a sector ranking

Comparison dimension	MTN Ghana Group	GCB Bank standalone
Tax numerator	Income-tax expense plus separately reported GSL.	Source tax line; components not disaggregated.
Profit denominator	Group PBT; 2024 comparator restated.	Standalone PBT; 2024 comparator as published.
Sales denominator	Revenue from contracts with customers.	Operating income, not gross trading turnover.
Population inference	One selected group, two years.	One selected bank, two years.

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); IDER calculations [\[S99\]](#).

Note: Differences in disclosure are not evidence of legal compliance or an optimal tax treatment.

Tax amounts can rise while the tax/PBT ratio falls

2024–2025; symmetric accounting contributions in percentage points.

Table 13. Tax amounts can rise while the tax/PBT ratio falls

Entity	Charge change, %	PBT change, %	Charge effect, pp	PBT effect, pp	Net ratio change, pp
MTN Group	35.55	49.03	10.02	−13.08	−3.05
GCB Bank standalone	59.45	65.52	17.52	−18.86	−1.35

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); IDER calculations [\[S99\]](#).

Note: Contributions average the two endpoint update orders. This is an exact identity, not a causal decomposition.

A pooled rate weights the years by profit rather than by the calendar

Two-year descriptive comparison; positive PBT in each included year.

Table 14. A pooled rate weights the years by profit rather than by the calendar

Entity	Pooled charge / pooled PBT	Mean annual ratio	Pooled cash / pooled PBT
MTN Ghana Group	31.92%	32.22%	34.41%
GCB Bank standalone	35.90%	36.06%	37.86%

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); IDER calculations [\[S99\]](#).

Note: These are entity-specific two-year summaries, not national weights. No sampling interval is inferred from two years.

The enterprise survey supplies size-specific context—not a current tax-cost census

Ghana 2023 profile; interviews February 2023–February 2024.

Table 15. The enterprise survey supplies size-specific context—not a current tax-cost census

Universe / group	Included evidence	Interpretation
Eligible population	Formal private non-agricultural firms; 5+ workers; financial services excluded.	Not informal businesses, under-five-worker firms or the banking population.
Survey sample	713 firms: 374 small, 269 medium, 70 large.	Sample counts are not national population shares.
Time indicator	Senior-management time spent on all government regulations.	Not tax-only time, not staff hours, not a monetary compliance estimate.
Contact indicator	Visited by or required to meet tax officials.	Frequency of contact does not measure liability or wrongdoing.

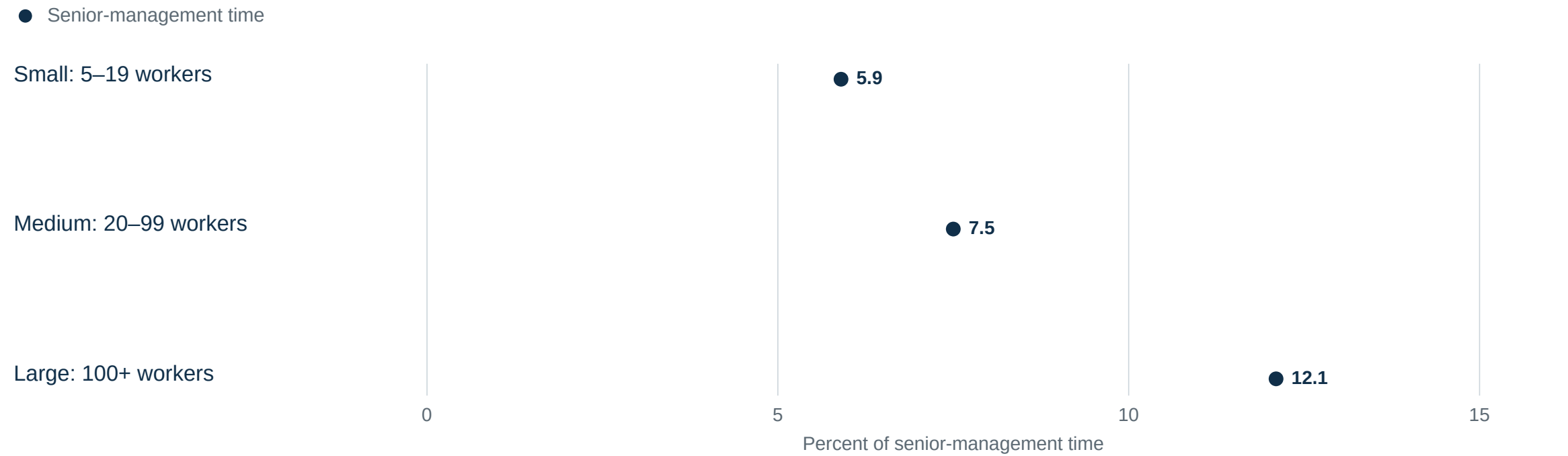
Sources: World Bank ES [\[S13\]](#).

Note: Published size estimates are retained as reported; design-based standard errors were not supplied in the profile.

Large eligible firms report more management time on regulation

Published point estimates, Ghana 2023 survey; all-government regulation, not tax-only work.

Figure 3. Large eligible firms report more management time on regulation



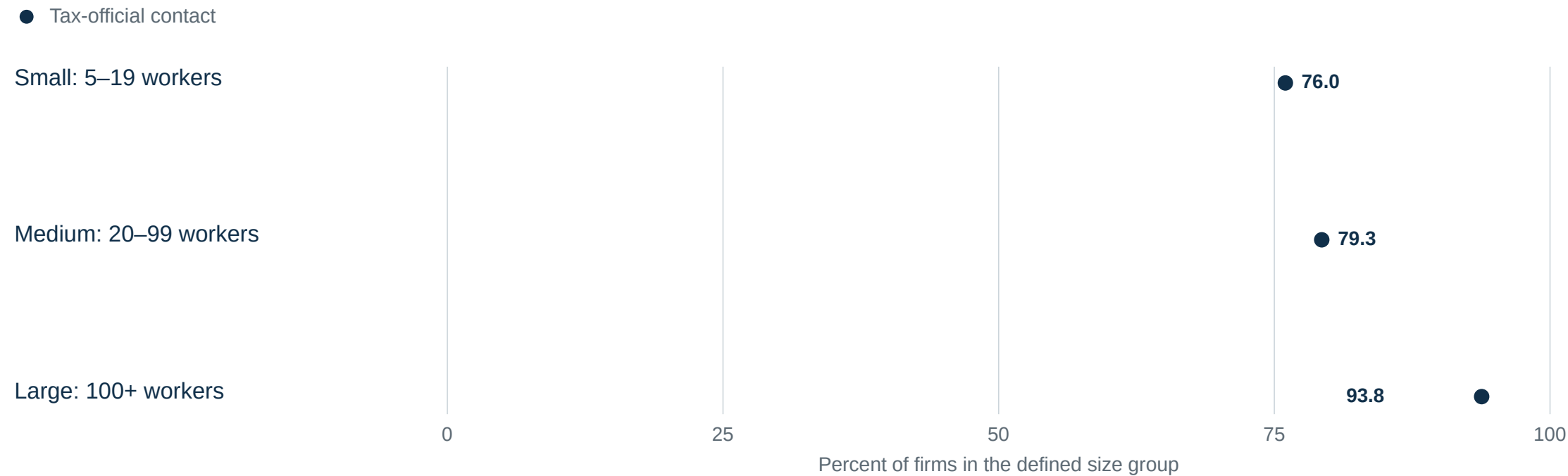
Sources: World Bank ES [\[S13\]](#).

Note: No confidence intervals or significance tests are fabricated. The survey cannot be used to cost all current Ghanaian firms.

Tax-official contact is widespread in the surveyed formal-firm population

Ghana 2023; visited by or required to meet officials; size-specific published percentages.

Figure 4. Tax-official contact is widespread in the surveyed formal-firm population



Sources: World Bank ES [\[S13\]](#).

Note: Contact is not a count of audits, time spent, a bribe measure or an effective tax rate.

Do not turn regulatory-time percentages into unsupported tax-cost estimates

A valid cost study needs a task log and a defined replacement-cost convention.

TASK BOUNDARY

Separate CIT, VAT, customs, payroll and general licensing tasks. Identify routine accounts preparation that would happen without tax compliance.

RESOURCE BOUNDARY

Record staff hours and loaded hourly cost, external advisers and software. A paid employee's hours must be reallocated, not added again to payroll.

POPULATION BOUNDARY

Collect independent records for non-filers, closed firms and informal or micro businesses before extending inference beyond the survey universe.

Sources: World Bank ES [\[S13\]](#); IDER calculations [\[S99\]](#).

Use the same accounting identity across eight explicit corporate cases

Every turnover, margin, fee and compliance input is imposed and available in the package.

BEFORE-BURDEN SURPLUS

Start with sales less resource purchases, basic wages, other non-tax costs and book depreciation. Exclude from that cost base the separately itemised burdens below.

DEDUCTIBLE OPERATING COSTS

Subtract employer contribution, fees, irrecoverable input tax, customs, incremental compliance and finance cost once. Baseline cases assume these are deductible.

PROFIT TAXES AND CASH

Apply CIT to chargeable income and GSL/FSRL to the stated positive PBT base. Recoverable credit principal is excluded from cost; only its financing is included.

Sources: GRA corporate tax [\[S01\]](#); Act 1095 [\[S02\]](#); GRA FSRL guidance [\[S04\]](#); IDER calculations [\[S99\]](#).

Note: The extended-burden measure is a private cost concept, not an OECD forward-looking EATR or a complete fiscal-incidence measure.

Standardised company assumptions — 1 of 2

Annual GHS million except workers; all values are scenario inputs.

Table 16. Standardised company assumptions — 1 of 2

Case	Sales / income	Pre-burden surplus	Basic payroll	Workers
C01 Micro incorporated retailer	1.00	0.12	0.10	3
C02 Small professional services	3.00	0.60	0.90	12
C03 Medium manufacturer	20.00	3.00	2.40	40
C04 Medium import wholesaler	25.00	2.00	1.20	30

Sources: IDER calculations [\[S99\]](#).

Note: C08 uses operating income; these are not sector-average cost structures. Size labels describe assumed staffing, not statutory tax classes.

Standardised company assumptions — 2 of 2

Annual GHS million except workers; all values are scenario inputs.

Table 17. Standardised company assumptions — 2 of 2

Case	Sales / income	Pre-burden surplus	Basic payroll	Workers
C05 Construction contractor	15.00	1.80	1.80	60
C06 Large ordinary company	100.00	15.00	12.00	200
C07 Telecommunications archetype	100.00	30.00	10.00	150
C08 Covered-bank archetype	100.00	35.00	20.00	300

Sources: IDER calculations [\[S99\]](#).

Note: C08 uses operating income; these are not sector-average cost structures. Size labels describe assumed staffing, not statutory tax classes.

Fees, permanent input taxes and compliance — 1 of 2

Annual GHS thousand; all amounts imposed, not official fee quotations.

Table 18. Fees, permanent input taxes and compliance — 1 of 2

Case	Fees	Irrecoverable VAT	Customs duty	Compliance	Credit / days
C01	2.0	6.0	0.0	9.0	0 / 0
C02	6.0	0.0	0.0	24.0	100 / 90
C03	30.0	50.0	120.0	75.0	400 / 90
C04	40.0	20.0	600.0	90.0	600 / 90

Sources: IDER calculations [\[S99\]](#).

Note: Credit is a stock in GHS thousand and days is its assumed finance duration at 25% annual simple interest. Payroll excludes separately allocated compliance labour.

Fees, permanent input taxes and compliance — 2 of 2

Annual GHS thousand; all amounts imposed, not official fee quotations.

Table 19. Fees, permanent input taxes and compliance — 2 of 2

Case	Fees	Irrecoverable VAT	Customs duty	Compliance	Credit / days
C05	45.0	30.0	0.0	80.0	300 / 120
C06	100.0	0.0	0.0	240.0	1,000 / 90
C07	2,000.0	0.0	0.0	300.0	500 / 90
C08	1,000.0	300.0	0.0	500.0	0 / 0

Sources: IDER calculations [\[S99\]](#).

Note: Credit is a stock in GHS thousand and days is its assumed finance duration at 25% annual simple interest. Payroll excludes separately allocated compliance labour.

From accounting profit to extended private burden — 1 of 2

Computed from the disclosed cases; GHS thousand and stated ratios.

Table 20. From accounting profit to extended private burden — 1 of 2

Case	PBT	Profit taxes	Fiscal + contributions	Extended burden	Extended / surplus
C01	90.00	24.75	45.75	54.75	45.63%
C02	446.84	122.88	245.88	276.04	46.01%
C03	2,388.34	656.79	1,168.79	1,268.45	42.28%
C04	1,057.01	290.68	1,106.68	1,233.67	61.68%

Sources: IDER calculations [\[S99\]](#).

Note: Fiscal + contributions includes own taxes, government fees and employer contribution; extended adds incremental compliance and financing.

From accounting profit to extended private burden — 2 of 2

Computed from the disclosed cases; GHS thousand and stated ratios.

Table 21. From accounting profit to extended private burden — 2 of 2

Case	PBT	Profit taxes	Fiscal + contributions	Extended burden	Extended / surplus
C05	1,386.34	381.24	690.24	794.90	44.16%
C06	13,038.36	3,585.55	5,245.55	5,547.19	36.98%
C07	26,369.18	7,910.75	11,210.75	11,541.58	38.47%
C08	30,600.00	10,710.00	14,610.00	15,110.00	43.17%

Sources: IDER calculations [\[S99\]](#).

Note: Fiscal + contributions includes own taxes, government fees and employer contribution; extended adds incremental compliance and financing.

Report the revenue share as well as the surplus share

Conditional cases; net sales for C01–C07, operating income for C08. Percent of the stated denominator.

Table 22. Report the revenue share as well as the surplus share

Case	Pre-burden surplus / revenue	Profit taxes / revenue	Fiscal + contributions / revenue	Extended burden / revenue
C01	12.00%	2.48%	4.58%	5.48%
C02	20.00%	4.10%	8.20%	9.20%
C03	15.00%	3.28%	5.84%	6.34%
C04	8.00%	1.16%	4.43%	4.93%
C05	12.00%	2.54%	4.60%	5.30%
C06	15.00%	3.59%	5.25%	5.55%
C07	30.00%	7.91%	11.21%	11.54%
C08	35.00%	10.71%	14.61%	15.11%

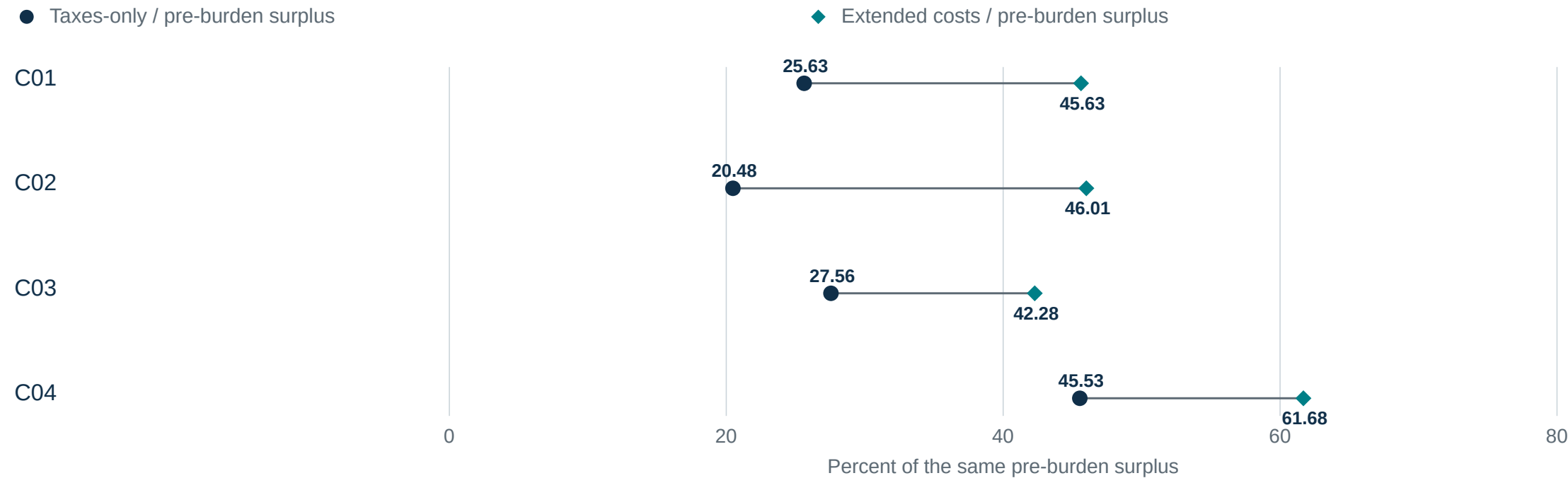
Sources: IDER calculations [\[S99\]](#).

Note: These are controlled examples, not sector averages. Bank operating income is not turnover; differing business structures prevent a like-for-like sector ranking.

Taxes-only and extended costs on a common denominator: smaller and medium cases

Conditional ratios use the same pre-burden surplus; the distance is additional cost coverage.

Figure 5. Taxes-only and extended costs on a common denominator: smaller and medium cases



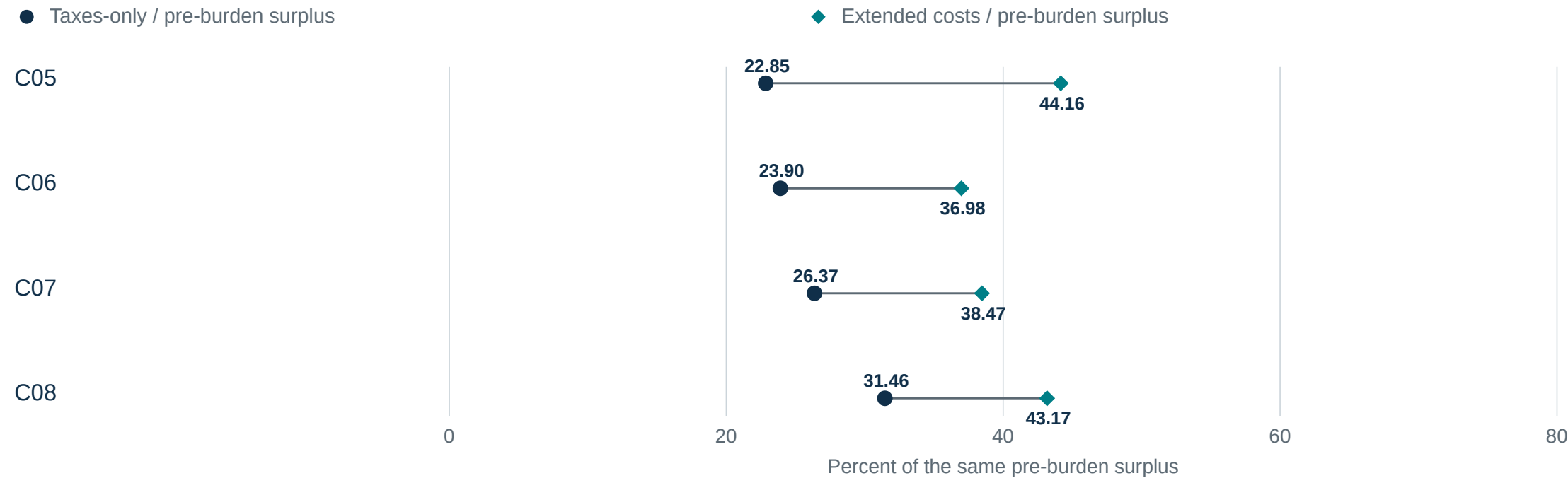
Sources: IDER calculations [\[S99\]](#).

Note: Every ratio is conditional on the declared enterprise inputs. These are not measured sector or size-group effective rates.

Taxes-only and extended costs on a common denominator: contractor and larger cases

Conditional ratios use the same pre-burden surplus; the distance is additional cost coverage.

Figure 6. Taxes-only and extended costs on a common denominator: contractor and larger cases



Sources: IDER calculations [\[S99\]](#).

Note: Every ratio is conditional on the declared enterprise inputs. These are not measured sector or size-group effective rates.

C02 reconciles GHS 600,000 before-burden surplus to GHS 323,955.82 retained

All inputs are hypothetical; use the bridge to replace assumptions with a client’s records.

Table 23. C02 reconciles GHS 600,000 before-burden surplus to GHS 323,955.82 retained

Bridge component	GHS	Treatment
Before-burden surplus	600,000.00	Sales less defined non-tax resource costs.
Employer contribution + fees	123,000.00	Separate compulsory employment cost and government fee.
Compliance + financing	30,164.38	Incremental private cost; not tax receipts.
CIT + GSL	122,879.79	Stated 27.5% of positive PBT in this same-base case.
After-burden surplus	323,955.82	Residual; not a forecast dividend or investment return.

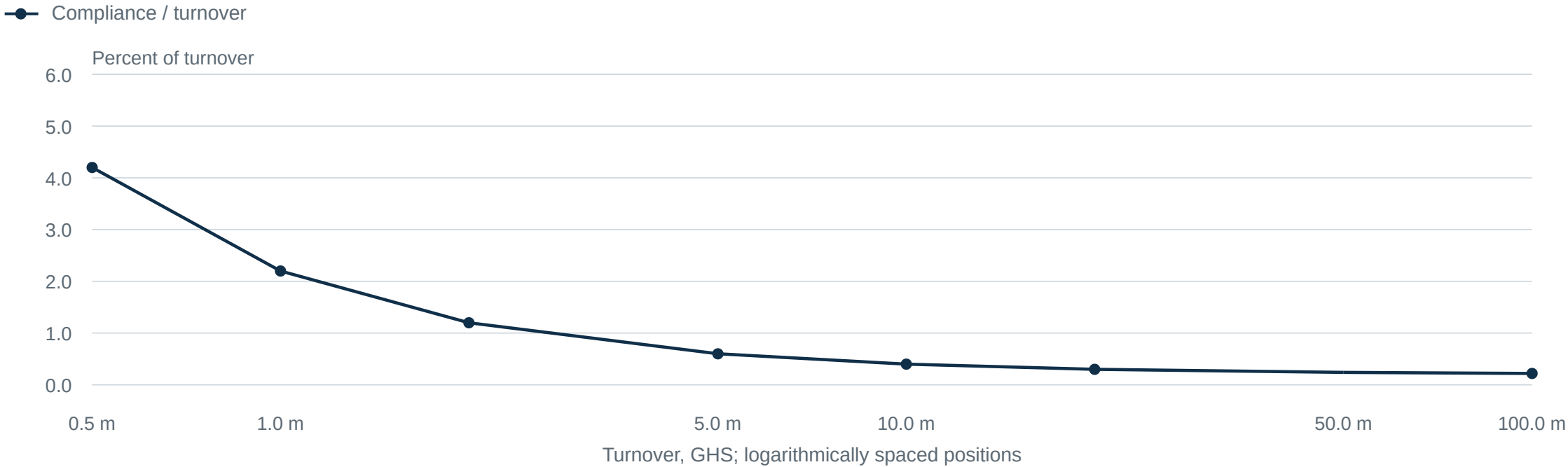
Sources: IDER calculations [\[S99\]](#).

Note: Identity: before-burden surplus = all included burdens + after-burden surplus. No recoverable credit principal is expensed.

A fixed compliance component weighs more heavily on smaller turnover

Assumed compliance cost = GHS 20,000 + 0.2% of turnover; identical costing rule.

Figure 7. A fixed compliance component weighs more heavily on smaller turnover



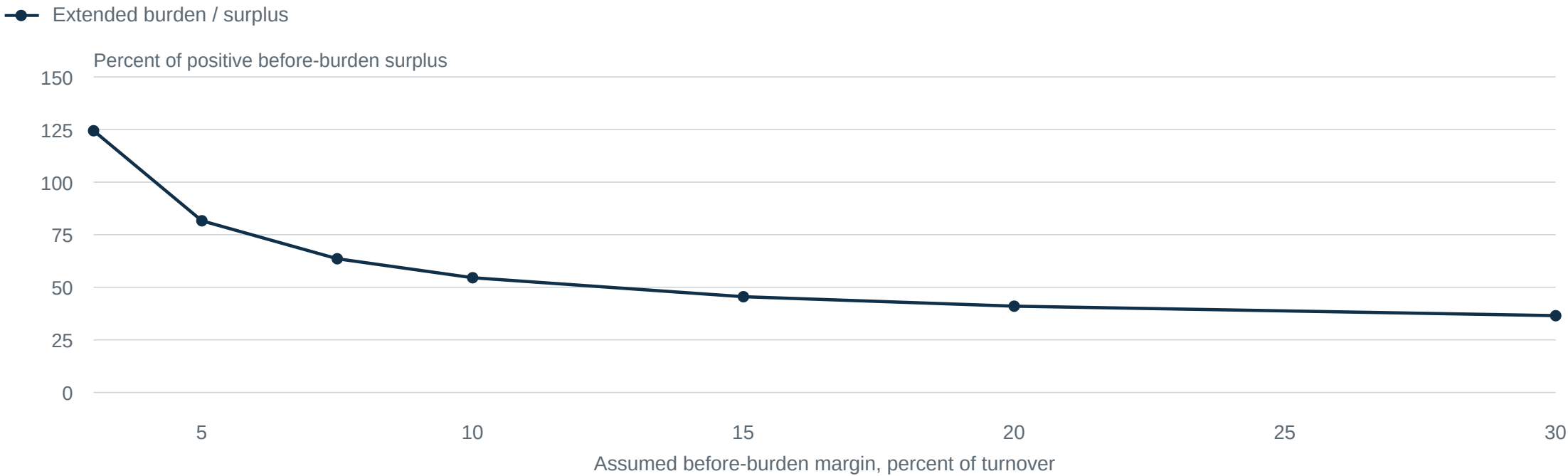
Sources: IDER calculations [\[S99\]](#).

Note: Horizontal labels show turnover in GHS millions. This is a deterministic scaling experiment, not an estimated size elasticity.

Low pre-burden margins amplify fixed and payroll-related obligations

Assumed GHS 3 m turnover; common payroll and fee rules; profit taxes apply only to positive PBT.

Figure 8. Low pre-burden margins amplify fixed and payroll-related obligations



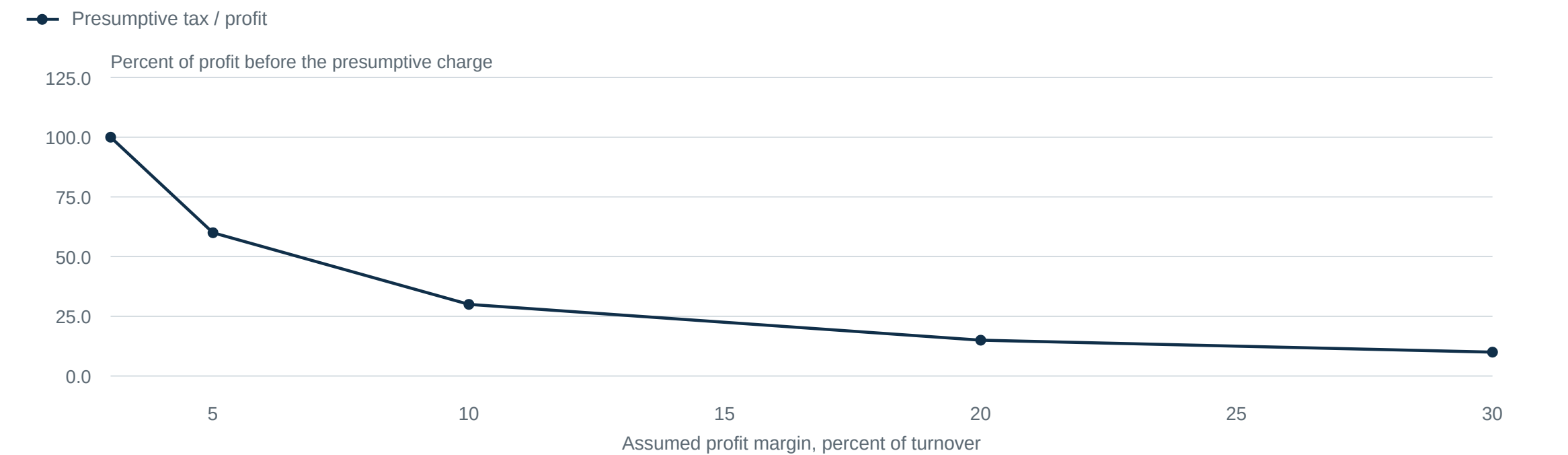
Sources: IDER calculations [\[S99\]](#).

Note: A burden above 100% means the stated operating costs and obligations exceed the defined surplus; it is not a statutory rate.

Three percent of turnover equals 60% of profit at a five-percent margin

Steady-regime illustration for an eligible individual; excludes other charges and compliance costs.

Figure 9. Three percent of turnover equals 60% of profit at a five-percent margin



Sources: GRA September notice [\[S09\]](#); IDER calculations [\[S99\]](#).

Note: This is not a blended 2026 assessment or proof of eligibility for every sole proprietor. Turnover and profit are distinct tax bases.

Legal form must remain explicit in the small-business example

GHS 300,000 turnover; eligible presumptive individual case only.

Table 24. Legal form must remain explicit in the small-business example

Pre-tax margin	Profit, GHS	3% turnover charge, GHS	Charge / profit	After-charge profit, GHS
3%	9,000	9,000	100.0%	0
5%	15,000	9,000	60.0%	6,000
10%	30,000	9,000	30.0%	21,000
20%	60,000	9,000	15.0%	51,000
30%	90,000	9,000	10.0%	81,000

Sources: GRA September notice [\[S09\]](#); IDER calculations [\[S99\]](#).

Note: No GSL is imposed on this individual example; no incorporation or deregistration choice is recommended.

Cost the task—not every hour in the accounts department

Illustrative incremental annual tax-compliance cost for one enterprise.

Table 25. Cost the task—not every hour in the accounts department

Input	Assumption	Annual cost, GHS
Tax-only internal tasks	120 hours × GHS 100 loaded hourly cost	12,000
External tax support	Incremental annual engagement, not general audit	8,000
Dedicated software allocation	Tax-specific incremental share	4,000
Total	No duplicate payroll or general accounting allocation	24,000

Sources: IDER calculations [\[S99\]](#).

Note: All quantities and prices are assumed. Opportunity cost and actual cash payments should be reported as separate subcomponents.

Tax-base adjustments alter the current profit-tax ratio without a rate change

GHS 500,000 PBT; CIT 25% plus GSL 2.5% PBT; no tax losses.

Figure 10. Tax-base adjustments alter the current profit-tax ratio without a rate change

	CA-DEP: -100 k	CA-DEP: 0	CA-DEP: +100 k
Add-back 0	32.5	27.5	22.5
Add-back 25 k	33.8	28.8	23.8
Add-back 50 k	35.0	30.0	25.0
Add-back 100 k	37.5	32.5	27.5

Current CIT plus GSL as percent of PBT

Sources: GRA corporate tax [\[S01\]](#); Act 1095 [\[S02\]](#); GRA capital allowance [\[S08\]](#); IDER calculations [\[S99\]](#).

Note: Add-backs and capital-allowance differences are imposed, not observed avoidance, preferences or assessments.

Faster tax depreciation changes current tax before it changes total accounting tax

Assumed eligible GHS 1 m machine; book depreciation 20% straight line; tax allowance 30% reducing balance.

Table 26. Faster tax depreciation changes current tax before it changes total accounting tax

Year	Capital allowance	Current CIT	Deferred expense	Total income-tax expense
1	300,000	75,000	25,000	100,000
2	210,000	97,500	2,500	100,000
3	147,000	113,250	−13,250	100,000
4	102,900	124,275	−24,275	100,000
5	72,030	131,993	−31,993	100,000

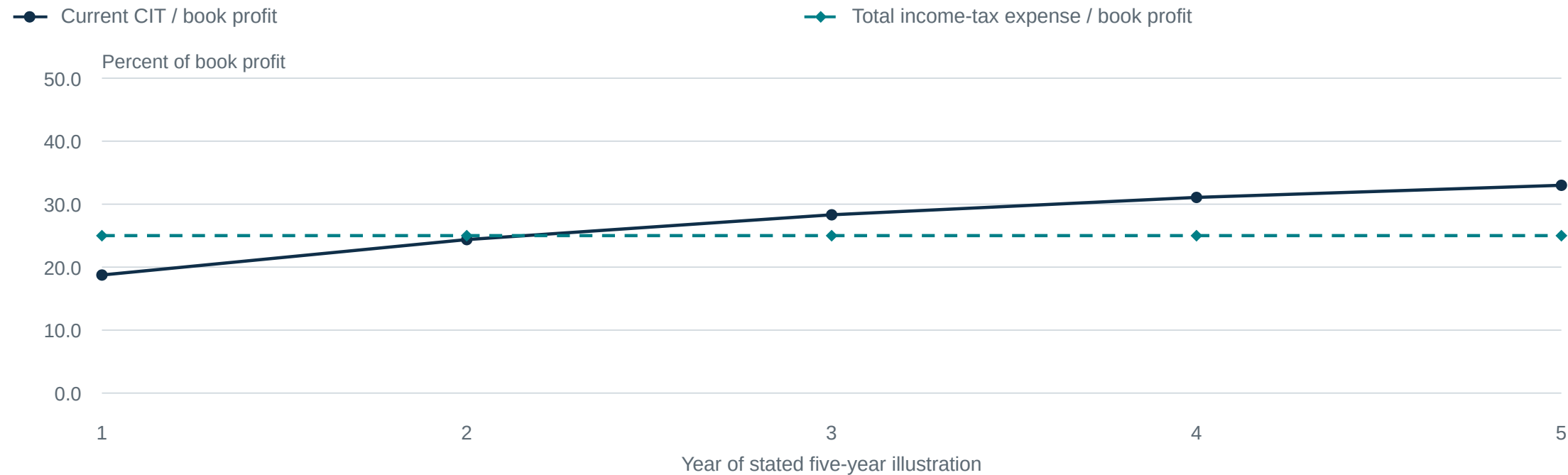
Sources: GRA capital allowance [\[S08\]](#); IFRS IAS 12 [\[S14\]](#); IDER calculations [\[S99\]](#).

Note: GHS; pre-depreciation profit 600,000 annually; sufficient taxable profits and recognition conditions assumed; GSL and other taxes excluded from this CIT-only bridge.

The current-tax ratio moves while the modelled total income-tax ratio stays at 25%

Same book-profit path; full allowance eligibility and deferred-tax recognition are maintained assumptions.

Figure 11. The current-tax ratio moves while the modelled total income-tax ratio stays at 25%



Sources: GRA capital allowance [\[S08\]](#); IFRS IAS 12 [\[S14\]](#); IDER calculations [\[S99\]](#).

Note: The closing deferred position can become an asset; it is not immediate cash or a guaranteed refund.

Adding remitted VAT to firm profit taxes can inflate the apparent burden

One unit: net sales 100, eligible net inputs 60, other resource cost 20; ordinary full-credit case.

Table 27. Adding remitted VAT to firm profit taxes can inflate the apparent burden

Account	GHS	Interpretation
Customer invoice / supplier invoice	120 / 72	20% combined charge; eligible input tax 12.
Net VAT/levy remittance	8	Output 20 less input 12; retained as a separate collection flow.
Profit before own profit taxes	20	100 – 60 – 20.
CIT + Category C GSL	5.50	27.5% of positive PBT in this same-base case.
Incorrect combined numerator	13.50	Adding 8 remittance produces 67.5% of profit; payer categories have been mixed.

Sources: GRA corporate tax [\[S01\]](#); Act 1095 [\[S02\]](#); GRA VAT notice [\[S05\]](#); IDER calculations [\[S99\]](#).

Note: Fixed tax-exclusive prices are assumed; the example does not identify ultimate consumer-versus-producer incidence.

A withholding credit can exceed current CIT without becoming another tax expense

Assumed eligible covered sales GHS 3 m; current CIT liability GHS 100,000.

Table 28. A withholding credit can exceed current CIT without becoming another tax expense

Supply type	WHT rate	Withheld, GHS	Extra CIT cash	Unutilised credit
Goods	3.0%	90,000	10,000	0
Works	5.0%	150,000	0	50,000
Services	7.5%	225,000	0	125,000

Sources: GRA withholding [\[S06\]](#); IDER calculations [\[S99\]](#).

Note: Valid credit assumed; no automatic cross-ledger offset against GSL, VAT or payroll obligations. Exemptions and final-withholding cases require separate treatment.

The cash cost depends on the balance, duration and actual funding rate

Illustrative GHS 200,000 credit; no partial recovery in this comparison.

Figure 12. The cash cost depends on the balance, duration and actual funding rate



Sources: IDER calculations [\[S99\]](#).

Note: These rates and durations are assumptions, not current lending quotes, legal refund deadlines or measured Ghanaian delays.

Charge financing only on the amount still outstanding

GHS 200,000 opening credit; assumed 25% annual simple rate.

Table 29. Charge financing only on the amount still outstanding

Recovery day	Opening balance	Amount recovered	Interval finance cost	Closing balance
30	200,000	50,000	4,109.59	150,000
90	150,000	50,000	6,164.38	100,000
180	100,000	100,000	6,164.38	0

Sources: IDER calculations [\[S99\]](#).

Note: Total cost is GHS 16,438.36 versus GHS 24,657.53 if the entire amount remains outstanding to day 180. Both are imposed schedules.

Recoverable border tax and customs duty belong on different lines

Assumed customs value GHS 1 m, duty 10%, and no other charges or relief.

Table 30. Recoverable border tax and customs duty belong on different lines

Component	GHS	Classification
Customs duty	100,000	Assumed HS-specific duty; cost or capitalised amount, not refundable VAT.
VAT/NHIL/GETFund taxable base	1,100,000	Value plus assumed duty; simplified border base.
Recoverable combined tax	220,000	20% on the stated base; eligible recovery assumed.
90-day finance at assumed 25%	13,561.64	Timing cost of tax cash, not another 220,000 expense.

Sources: GRA VAT notice [\[S05\]](#); IDER calculations [\[S99\]](#).

Note: This is not a Ghana customs quotation. Other border levies, valuation, relief and exchange-rate effects require a verified entry.

A dividend charge belongs to the recipient layer—not the company ETR

GHS 1 m pre-tax profit; full distribution to an assumed ordinary 8%-taxed recipient.

Table 31. A dividend charge belongs to the recipient layer—not the company ETR

Company profit taxes	Company tax, GHS	Dividend tax, GHS	Investor cash, GHS	Combined layers
27.5%	275,000	58,000	667,000	33.3%
30.0%	300,000	56,000	644,000	35.6%
35.0%	350,000	52,000	598,000	40.2%

Sources: GRA withholding [\[S06\]](#); IDER calculations [\[S99\]](#).

Note: Treaties, exemptions and recipient status may alter the result. No pension-fund or diaspora investor’s actual tax position is inferred.

An accounting burden is not a causal statement about who ultimately pays

Wages, customer prices, supplier terms and investment can adjust.

FINANCING EXPOSURE

Keep legal entitlement, the receivable, expected settlement and cash actually received separate. Finance the outstanding amount over its event dates.

COMMERCIAL RESPONSE

A firm may adjust prices, quantities, wages or margins. Tax expense alone does not show the share passed to consumers or workers.

INVESTMENT APPRAISAL

A project model needs timing of allowances, losses, credit use, finance and disposal. The backward-looking ratios here are not prospective EATR or EMTR estimates.

Sources: IFRS IAS 12 [\[S14\]](#); IDER calculations [\[S99\]](#).

Six selected entity-year records cannot identify a national causal tax effect

The publication increases measurable accounting evidence without manufacturing a regression.

WHAT IS OBSERVED

Three selected entities, two annual periods each, with non-identical tax perimeters. Public disclosure selection is part of the evidence limitation.

WHAT IS CALCULATED

Within-entity ratios, exact accounting changes and standardised sensitivities. No p-value is attached to an accounting identity.

WHAT IS STILL NEEDED

An eligible-firm roster, consistent accounts, legal treatment history and a credible comparison mechanism. More duplicated scenarios do not supply identifying variation.

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

The main threats arise before the regression is specified

Prospective empirical safeguards; none is claimed to have been resolved with the disclosed aggregates.

Table 32. The main threats arise before the regression is specified

Threat	Why it matters	Required control
Profit denominator	Profit responds to shocks, accounting choices and tax adjustments.	Report components, revenue normalisation and loss cases; model numerator and denominator separately.
Tax-status choice	Registration, incentives and legal form respond to business conditions.	Freeze pre-treatment exposure; document assignment and alternatives.
Disclosure selection	Listed profitable survivors differ from the unobserved firm population.	Start from an independent roster; retain non-filers, exits and loss-makers.
Common shocks	Currency, energy, demand and financing affect tax and profit together.	Credible comparison trends and pre-specified exposure controls; no automatic causal FE label.

Sources: IDER calculations [\[S99\]](#).

Note: Unverifiable instruments, invented inverse-probability weights and scenarios treated as observations are excluded.

Define the firm population before taking a weighted mean

The national study is prospective, not a completed result.

Table 33. Define the firm population before taking a weighted mean

Choice	Defensible treatment	What must be reported
Target population	Explicit sectors, legal forms, locations and size bands; separate individuals and companies.	Frame coverage and survey/tax linkage loss.
Weighting	Design weights or defensible response adjustment with overlap and missingness assumptions.	Weighted/unweighted results and non-response sensitivity.
Loss-making firms	Keep negative/near-zero PBT; report amounts and revenue shares.	Undefined ETRs, not arbitrary zero or 100% clipping.
Aggregation	Sum taxes / sum positive matched profit for a specified profitable subsample; disclose exclusions.	Do not pool different payer or tax-component perimeters.

Sources: IDER calculations [\[S99\]](#).

Note: A pooled rate is not the median firm’s rate; a population mean requires actual weights, not assumed equal representation.

Separate descriptive standardisation from an identified treatment effect

P01–P02 in the catalogue remain unestimated.

P01 | POLICY EXPOSURE

Where a defensible intervention exists, pre-specify treatment, timing, comparison, outcomes and spillovers. Assess anticipation and parallel trends; use assignment-relevant inference.

P02 | COVERAGE AND BOUNDS

Track response and survival from a baseline roster. Weighting requires stated assumptions. Report sensitivity to unobserved outcomes rather than presenting corrected estimates without evidence.

RELEASE CONDITION

If the counterfactual fails, publish the matched descriptive accounting result. Do not infer employment, investment or consumer-price causality from statutory arithmetic.

Sources: IDER calculations [\[S99\]](#).

Note: A national reform date and multiple firm observations do not by themselves create independent policy variation.

A tax-burden dataset needs four linked ledgers

Templates supplied with column headers only; no confidential firm records have been invented.

Table 34. A tax-burden dataset needs four linked ledgers

Dataset grain	Minimum fields	Quality control
Firm-year accounts	Entity ID, legal form, sector, revenue, PBT, tax charges, depreciation, losses, consolidation.	Restated versions and component scope retained.
Tax and fee event	Authority, type, base, liability, payment, credit, refund, due/value date.	Unique transaction IDs; no payer or period double counting.
Compliance task	Task, hours, staff grade/cost, vendor invoice, software allocation, recurring/one-off status.	Incremental allocation; reconcile to payroll and purchases.
Firm roster / treatment	Eligible universe, response, entry/exit, intervention, baseline exposure and assignment.	Missingness and design assumptions visible.

Sources: IDER calculations [\[S99\]](#).

Note: Confidential identifiers require access controls and disclosure-safe outputs.

Replace the archetype with the counterparty’s own reconciled ledger

For businesses, banks, funds, insurers, pensions, DFIs and private equity.

Table 35. Replace the archetype with the counterparty’s own reconciled ledger

Audience	Decision-relevant object	Evidence required
CFO / accountant / executive	Own liability, credit asset and private compliance cost.	Return-to-ledger bridge; dated tax/fee schedule and task allocation.
Manufacturer / trader / exporter	Irrecoverable input tax, border costs, credits and timing.	Verified input invoices, customs entries, recovery events and financing.
Lender / investor / fund	Liquidity conversion of tax assets and after-tax operating cash.	Counterparty-specific credit status and partial/delayed recovery cases.
Supplier / contractor / MSME	Withholding credit and invoicing versus settlement.	Valid certificates, receipt evidence and separate liability ledgers.

Sources: IDER calculations [\[S99\]](#).

Note: No sector ratio substitutes for diligence, and no security allocation or lending decision is prescribed.

A government-facing burden account needs more than revenue collections

For MoF, GRA, Treasury, Parliament, BoG, professional bodies and development partners.

Table 36. A government-facing burden account needs more than revenue collections

Question	Required evidence product	Interpretation limit
What do firms actually bear?	Payer-classified tax, fee and contribution account plus separate compliance cost.	Not all remittances are own taxes.
Which firms are covered?	Legal-form and sector roster with size and response coverage.	Do not generalise listed-company ratios to MSMEs.
What causes burden changes?	Identified policy comparison or clearly labelled accounting decomposition.	Observed profit growth is not a tax-policy effect.
Who receives the benefit or cost?	Linked wages, prices, ownership income and public-finance assumptions.	Firm ETR is not total household welfare.

Sources: IDER calculations [\[S99\]](#).

Note: This evidence framework does not select or rank a legislative tax-policy alternative.

The extension adds a manufacturing account and closes two cash–charge bridges

Observed 2024–2025 accounts remain separate from the 2026 legal examples.

EXPANDED OBSERVED COVERAGE

Unilever Ghana adds two audited entity-year observations. MTN Group, GCB Bank standalone and Unilever remain selected reporting entities—not a representative sector panel.

MATCHED ACCOUNTING

MTN’s aggregate cash difference reconciles with current-tax asset and net deferred-tax movements. Unilever’s statement and aggregate current-tax note reconcile; sub-note differences remain visible.

STRONGER CONDITIONAL TESTS

Thirty joint compliance, financing and deduction cases retain the C02 baseline. A numerical rank test exposes the absence of 2026 post-reform observations and identifying variation.

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: Audited-source status does not certify every note subtotal or transform selected accounts into a population estimate.

Current tax assets and deferred tax explain the aggregate cash difference

MTN Ghana Group; GHS million; 2024 balances are the reported comparative.

Table 37. Current tax assets and deferred tax explain the aggregate cash difference

Matched balance or flow	2024	2025
Income-tax asset	386.320	1,170.834
GSL asset	18.272	21.317
Combined current-tax assets	404.592	1,192.151
Net deferred-tax liability	735.206	1,032.094
Reported income-tax plus GSL expense	2,561.402	3,472.075
Disclosed income-tax plus GSL cash	2,541.206	3,962.746

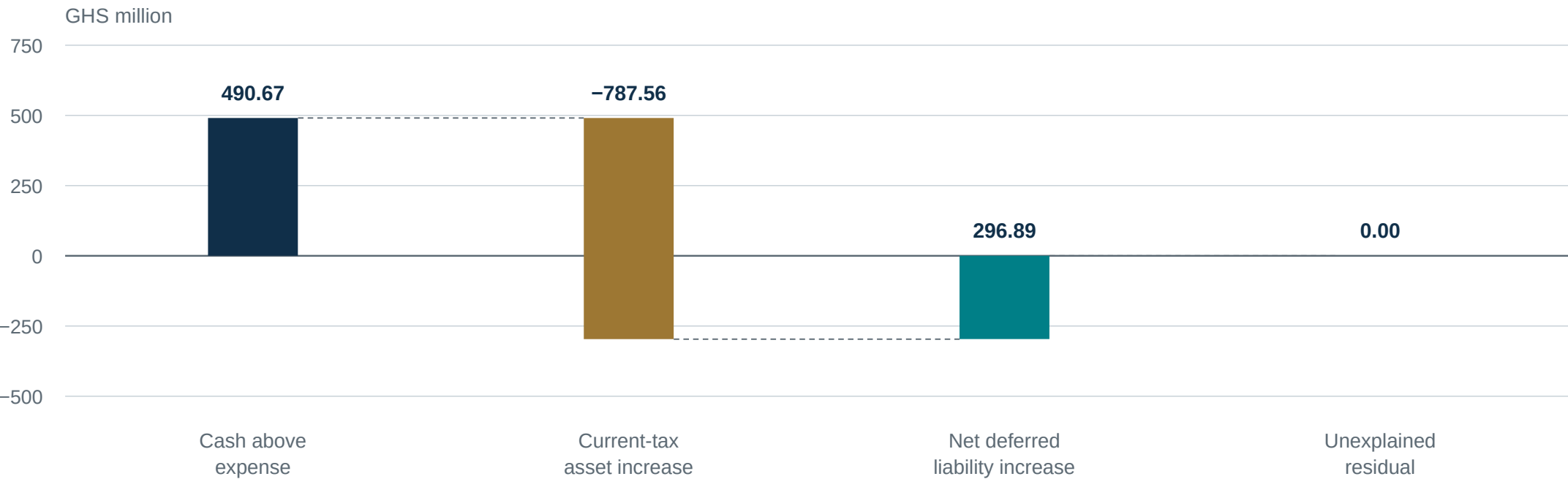
Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: Current tax assets and net deferred liabilities have different meanings. This is a numerical statement bridge, not a reconstruction of individual tax returns.

The GHS 490.671 million difference is numerically reconciled

2025 versus 2024 balance movements; MTN Group; no additional tax is inserted.

Figure 13. The GHS 490.671 million difference is numerically reconciled



Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: Cash – expense = increase in current-tax assets – increase in net deferred-tax liability. A zero aggregate residual is not proof of each underlying transaction.

Unilever's reported tax charge includes CIT, GSL and deferred tax

Audited company accounts, GHS million; both years use the 2025 annual-report comparator.

Table 38. Unilever's reported tax charge includes CIT, GSL and deferred tax

Statement or tax-note line	2024	2025
Revenue	930.806	1,039.181
Profit before taxation	92.249	143.055
Corporate income-tax charge	30.238	40.153
Growth and Sustainability Levy charge	4.613	7.030
Deferred-tax charge / (credit)	−0.653	0.143
Total reported income-tax expense	34.198	47.326
Reported tax paid	50.842	57.779

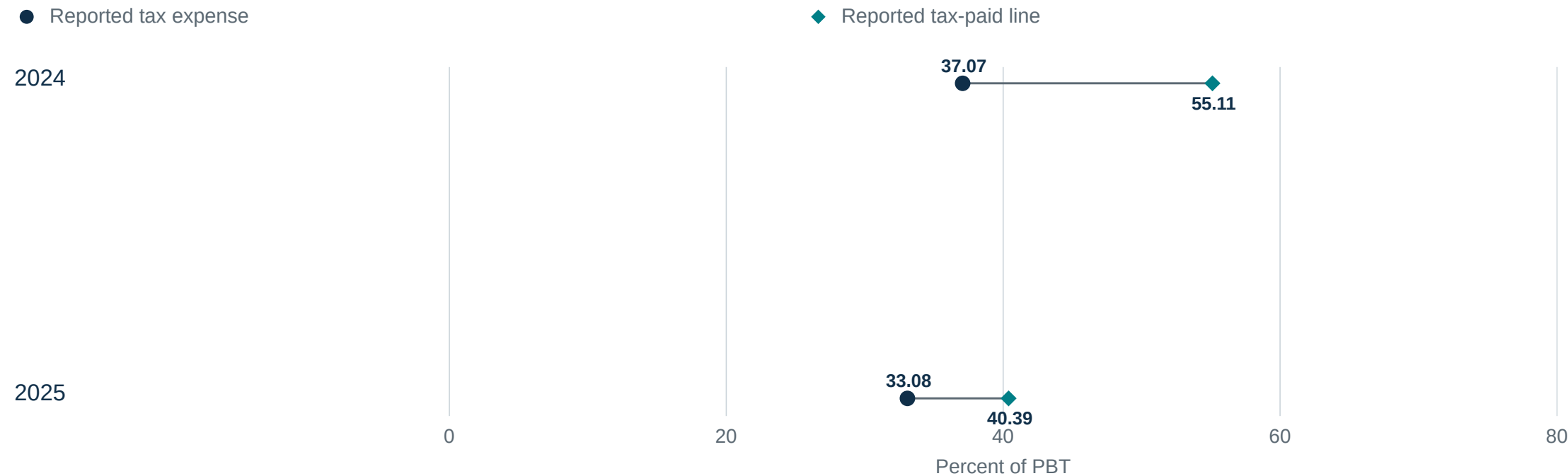
Sources: Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: The levy is already inside total income-tax expense. The cash-flow statement says tax paid; note 15(b) labels the same total payment/WHT credit. No extra levy is added.

Unilever’s cash and expense ratios fall by different amounts

Reported company amounts divided by same-year positive PBT; no manufacturer-average claim.

Figure 14. Unilever’s cash and expense ratios fall by different amounts



Sources: Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: 2025: 33.08% reported expense/PBT and 40.39% disclosed paid/PBT. The reported tax expense includes GSL and deferred tax; cash timing is not current-year liability.

The statutory benchmark does not reproduce the reported tax charge by itself

Audited note 15(d); GHS million; source labels and rounded amounts retained.

Table 39. The statutory benchmark does not reproduce the reported tax charge by itself

Source tax-reconciliation line	2024	2025
Tax at the stated 25% benchmark	23.062	35.764
Tax effect: non-deductible expenses	1.679	1.381
Tax effect: prior-year estimate changes	4.845	3.026
GSL in the rate reconciliation	4.612	7.155
Total reported income-tax expense	34.198	47.326

Sources: Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: The rate-reconciliation GSL line differs from the net current-charge line because the source includes prior-year adjustments. No legal rate is inferred for all manufacturers.

The 2025 aggregate tax-account bridge closes at source precision

GHS million; income-tax expense to reported tax paid, using signed current-tax balances.

Figure 15. The 2025 aggregate tax-account bridge closes at source precision



Sources: Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: $47.326 - 0.143 + 0.874 + 9.722 = 57.779$. The asset is not assumed to be a cash refund. Source sub-note differences are recorded on the next page.

Keep small note discrepancies visible instead of forcing agreement

Unilever 2025 audited report; GHS thousand. Main statement totals govern the reported ratios.

Table 40. Keep small note discrepancies visible instead of forcing agreement

Check	Source display	Recomputed / comparator	Difference
2025 GSL closing credit: roll-forward	-233	-236	3
2025 total current tax balance: component totals	-9,722	-9,719	-3
2025 deferred liability: detailed note vs statement	1,119	1,118	1
2025 deferred P&L: detailed note vs tax charge	144	143	1
2024 deferred P&L: detailed note vs tax charge	-652	-653	1

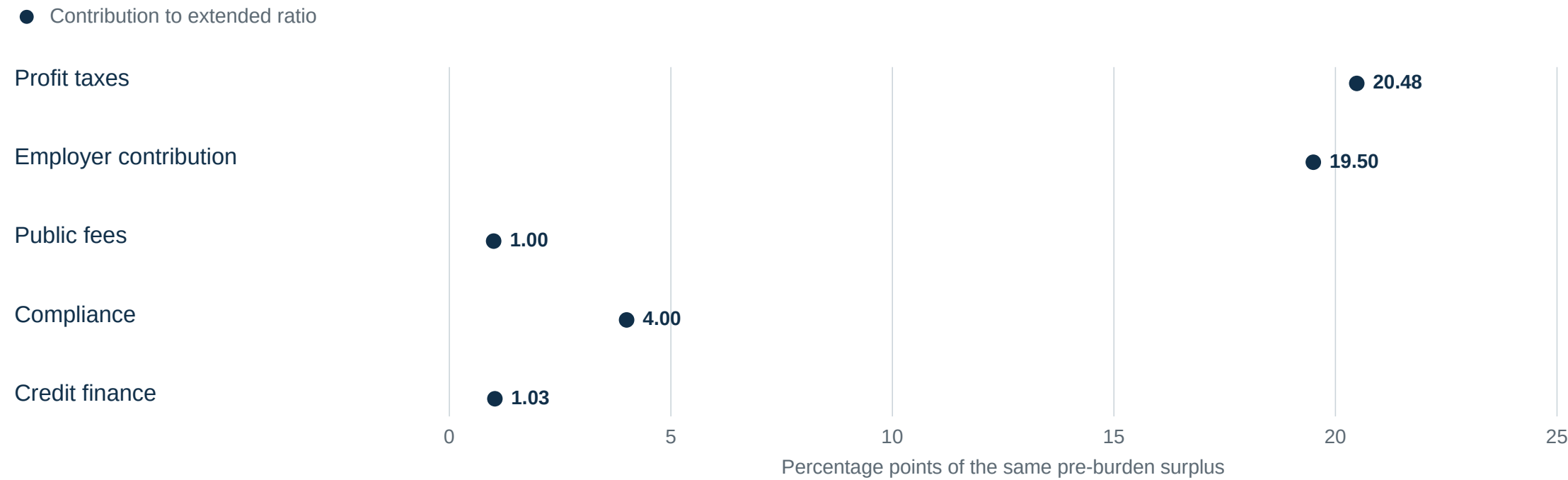
Sources: Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: The GHS 3,000 GSL residual is not attributed automatically to rounding. No source amount is overwritten and no missing cash or tax misconduct is inferred.

Only 20.48 percentage points of C02's 46.01% are taxes-only

Conditional small professional-service company; pre-burden surplus GHS 600,000.

Figure 16. Only 20.48 percentage points of C02's 46.01% are taxes-only



Sources: IDER calculations [\[S99\]](#).

Note: Employer contributions 19.50 pp; public fees 1.00 pp; compliance 4.00 pp; financing 1.03 pp. The combined private-cost ratio is not government tax revenue.

Compliance cost and recovery timing jointly affect the same enterprise

C02 revenue, payroll and fees fixed; 15 displayed full-deduction cases from a 30-case crossed design.

Figure 17. Compliance cost and recovery timing jointly affect the same enterprise

	0 days	30 days	90 days	180 days	270 days
Compliance GHS 12,000	43.81	44.06	44.56	45.30	46.05
Compliance GHS 24,000	45.26	45.51	46.01	46.75	47.50
Compliance GHS 48,000	48.16	48.41	48.91	49.65	50.40

Extended private burden / GHS 600,000 pre-burden surplus, percent

Sources: IDER calculations [\[S99\]](#).

Note: Days are economic financing assumptions on a GHS 100,000 credit at 25%, not legal deadlines. The original GHS 24,000 / 90-day baseline remains 46.01%.

A deduction restriction changes CIT without changing the expense already incurred

C02; GHS; compliance GHS 24,000 and financing GHS 6,164.38.

Table 41. A deduction restriction changes CIT without changing the expense already incurred

Same-cost scenario	Taxable profit	CIT	Extended burden	% of surplus
Baseline: both costs deductible	446,835.62	111,708.90	276,044.18	46.01%
Stress: both costs disallowed	477,000.00	119,250.00	283,585.27	47.26%

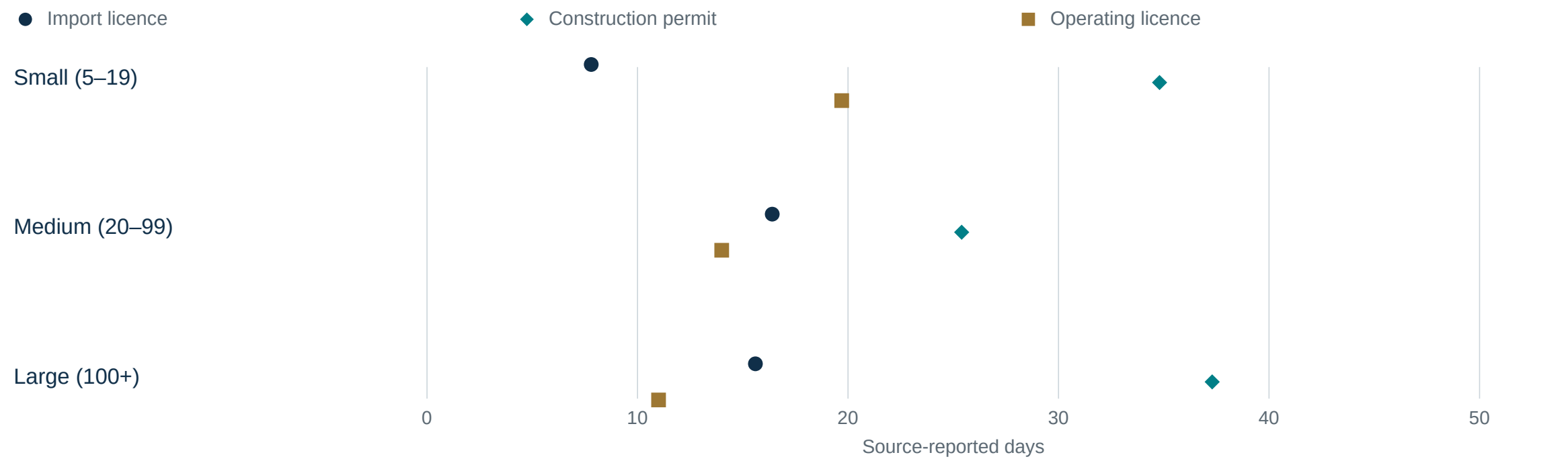
Sources: IDER calculations [\[S99\]](#).

Note: Deductibility is imposed only for this sensitivity, not ruled on for an actual taxpayer. Across all 30 cases, the range is 43.81%–53.17%; it is not a confidence interval.

Licensing durations differ by both procedure and firm-size group

World Bank Ghana 2023 profile; published days to obtain a licence or permit, conditional on the relevant application.

Figure 18. Licensing durations differ by both procedure and firm-size group



Sources: World Bank ES [\[S13\]](#).

Note: Application populations differ across indicators. Calendar duration is not staff hours or a monetary tax-compliance cost; no variance or causal size effect is recovered.

Do not monetise regulatory calendar days as tax-compliance labour

Observed indicators are informative only within their published populations.

LICENCE DURATION

A permit can take calendar days without occupying a staff member for every hour. Processing time, staff time and cash cost require separate records.

SURVEY COVERAGE

The enterprise profile covers its historical formal 5+ worker population. Its size-specific estimates do not cover microenterprises below that threshold or supply a tax-specific fee total.

ACCOUNTS COVERAGE

Listed-company statements and the enterprise survey use different populations and accounting units. Do not pool them or use the respondent counts as weights for the company cases.

Sources: World Bank ES [\[S13\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: Neither a difference between group means nor a ratio from a selected annual report identifies a causal size or sector effect.

The observed sample contains no 2026 post-reform firm outcome

Numerical design check: three selected entities, two annual dates; no fabricated 2026 outcomes.

Table 42. The observed sample contains no 2026 post-reform firm outcome

Diagnostic	Calculated result	Interpretation
Matched disclosed account records	6 records / 3 entities / 2 years	Observed accounting comparisons are possible; no national sampling frame.
Intercept, two firm indicators, 2025 year and 2026 post	5 columns; rank 4	The actual 2026 post indicator is zero in every row. A common-date change would also be absorbed by year effects.
Residual degrees of freedom	2 for the rank-4 design	This is not adequate evidence for routine clustered or national inference.
Observed 2026 post-reform firm outcomes	0 in this accounting dataset	No 2026 causal effect can be estimated from the 2024–2025 statements.

Sources: MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: The design matrix is supplied and its rank is independently reproduced. Robust standard errors, more scenario rows or an IV label cannot restore the missing identifying variation.

Define the intervention and outcome before choosing an estimator

P01 remains prospective; the annual accounts do not establish a treatment-assignment mechanism.

TARGET THE MECHANISM

For a supported administrative rollout, specify incremental compliance cost, cash recovery or investment as the outcome. Freeze pre-intervention legal form, tax exposure and the eligible roster.

USE A VALID COMPARISON

With defensible staggered assignment and conditional parallel trends, estimate group-time effects with comparable not-yet-treated or untreated firms. Spillovers and anticipation require explicit treatment.

DO NOT CONDITION AWAY EFFECTS

Post-treatment profitability, registration or refund success may be mediators or selection outcomes. Predetermined costs can address confounding only under a justified design.

Sources: Callaway–Sant’Anna [\[S17\]](#); Sant’Anna–Zhao [\[S18\]](#); IDER calculations [\[S99\]](#).

Note: The study estimates neither an ATT nor an instrumented effect. Doubly robust estimation still requires identification and support; it is not protection against every confounder.

Evaluate trends, support and dependence before releasing a causal headline

Required empirical controls for an authorised future panel—not diagnostics claimed to have passed here.

PARALLEL-TREND SENSITIVITY

Show pre-treatment paths and anticipation windows. A non-significant pre-trend test is not proof; assess conclusions under explicit, plausible departures from parallel trends.

DEPENDENCE AND PRECISION

Cluster at the assignment or shared-shock unit. Prespecify primary outcomes and horizons; assess power and simultaneous uncertainty. Three chosen firms do not justify asymptotic national inference.

INSTRUMENT RESTRICTIONS

Tax status, turnover, exchange rates and profits may directly affect outcomes or be chosen by firms. No variable becomes an instrument merely because it predicts tax payments.

Sources: Callaway–Sant’Anna [\[S17\]](#); Rambachan–Roth [\[S19\]](#); IDER calculations [\[S99\]](#).

Note: The relevant uncertainty is about design and coverage as well as sampling. All existing accounting figures remain descriptive.

A population burden cannot be recovered from disclosed profitable survivors alone

P02 distinguishes identified weighting assumptions from unobserved outcomes.

START WITH A ROSTER

Record legal form, sector, location and size before selecting accounts. Retain closures, non-filers, loss-makers and unlinked records; report both count and value coverage.

WEIGHT ONLY WITH EVIDENCE

Use genuine design or defensible response weights. Missing-at-random and overlap assumptions require pre-treatment predictors; trimming and inverse weights do not automatically remove selection.

BOUND THE RIGHT OUTCOME

For a bounded revenue-normalised cost outcome, report sensitivity to the missing-group mean and response share. Profit-denominator ETRs can be unbounded near zero; do not impose arbitrary 0–100% limits.

Sources: Callaway–Sant’Anna [\[S17\]](#); Sant’Anna–Zhao [\[S18\]](#); IDER calculations [\[S99\]](#).

Note: No missing-data weights or adjusted national mean are estimated. The unobserved national response share is not replaced with the fraction of listed firms recovered.

Use three different labels for three different uncertainty objects

Source rounding, scenario variation and statistical uncertainty are not interchangeable.

SOURCE ROUNDING

Unilever ratios retain the source's GHS-thousand precision. Nearest-thousand rounding enclosures are computed separately; they are not sampling confidence intervals or corrections of note discrepancies.

CONDITIONAL SENSITIVITY

The 30 C02 cases cross three compliance costs, five financing durations and two deduction assumptions. Their range is determined by chosen inputs, not a probability model.

STATISTICAL INFERENCE

No standard errors are attached to exact accounting identities. The published survey profile lacks design variances here; no standard error is reverse-engineered from its sample counts.

Sources: World Bank ES [\[S13\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: The package retains full-precision calculations, displayed-value rules and the exact distinction between source facts and analyst assumptions.

The core calculations stand; the evidence now resolves more of their meaning

Recalculation, source images and explicit assumptions jointly determine the validated scope.

RETAINED RESULTS	NEW OBSERVED EVIDENCE	LIMITS THAT REMAIN
The eight original corporate-case outputs and four original company records reproduce. The 46.01% C02 figure remains a broader-cost ratio; its taxes-only component is now prominently displayed.	The MTN aggregate balance-sheet bridge and Unilever’s audited expense/payment accounts are executed. The manufacturing tax-note exceptions remain disclosed rather than silently balanced.	Actual fee coverage, incremental compliance diaries, confidential tax-return links and a representative firm panel remain unavailable. No national all-in rate or causal policy effect is certified.

Sources: MTN Ghana accounts [\[S11\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).
Note: The next steps below are auditable operational deliverables, not a recommendation for a particular tax-rate or exemption policy.

Do not turn a broader business-cost ratio into a tax rate

For executives, MSMEs, manufacturers, traders, accountants and professional associations.

C02 | CONDITIONAL COMPANY

20.48% / 46.01%

Taxes-only / extended private costs, using the same GHS 600,000 pre-burden surplus.

WHAT THIS MEANS

Employer contributions, public fees, compliance work and financing costs sit outside the taxes-only numerator. Each belongs in its own cost category.

DO NOT INFER

A national rate, causal impact or guaranteed recovery from one ratio.

WITHIN 30 DAYS

CFO + tax accountant

Reconcile material payments and credits to their legal payer, tax base and account treatment.

MEASURABLE ACCEPTANCE

Every captured entry has source, amount, date and status. No payroll or credit principal is counted twice.

Sources: IDER calculations [\[S99\]](#).

Note: Source-specific observations and conditional examples are not national averages; proposed completion tests apply to the agreed scope.

Tax expense and tax cash belong in different parts of the forecast

For banks, funds, insurers, pensions, DFIs, private equity and diaspora investors.

MTN GROUP | OBSERVED 2025

GHS 490.671 m

Cash above expense numerically matches current-tax asset and net deferred-tax movements.

WHAT THIS MEANS

A cash-to-profit ratio can rise without an equivalent rise in current-period tax expense. A tax asset is not unrestricted cash or a guaranteed refund.

DO NOT INFER

A national rate, causal impact or guaranteed recovery from one ratio.

WITHIN 60 DAYS

Treasury + credit / investment analyst

Match the counterparty’s tax note, payment record and outstanding credits to its cash schedule.

MEASURABLE ACCEPTANCE

Classify recognised assets, usable offsets, disputes and bank receipts separately; disclose every timing assumption.

Sources: MTN Ghana accounts [\[S11\]](#); IDER calculations [\[S99\]](#).

Note: Source-specific observations and conditional examples are not national averages; proposed completion tests apply to the agreed scope.

Three transparent company cases still do not define the national burden

For MoF, GRA, Treasury, BoG, Parliament, consumers, media and development partners.

OBSERVED ACCOUNT COVERAGE 3 entities Six entity-year records across 2024–2025. No national firm weights or representative SME sample.	WHAT THIS MEANS The public accounts, the historical formal-firm survey and the standardised examples answer different questions. Keep their populations and evidence labels separate. DO NOT INFER A national rate, causal impact or guaranteed recovery from one ratio.	WITHIN 90 DAYS Data custodians + IDER research lead Publish separate firm-borne, collected-tax and settlement accounts for a documented pilot roster. MEASURABLE ACCEPTANCE Disclose size, sector, legal-form and nonresponse coverage; no unsupported national average or causal headline.
--	--	--

Sources: World Bank ES [\[S13\]](#); Unilever audited accounts [\[S16\]](#); IDER calculations [\[S99\]](#).

Note: Source-specific observations and conditional examples are not national averages; proposed completion tests apply to the agreed scope.

Make every included payment traceable to its payer and tax base

For GRA, MoF, Treasury, ORC and relevant sector regulators.

A01 Create a dated burden-classification dictionary

PROPOSED OWNER

GRA technical + MoF revenue leads

TIME

Day 30 after approved access

ACTION / DELIVERABLE

Record legal form, tax/fee authority, base, liable payer, recoverability and financial-statement treatment for every included charge. Preserve amendment dates and specialist exceptions.

MEASURABLE ACCEPTANCE TEST

100% of captured charge types have a source, effective date and payer flag. Unresolved items receive an owner; no aggregate is labelled all-in without its perimeter.

A02 Build a liability-to-payment-and-credit bridge

PROPOSED OWNER

Taxpayer finance + GRA data leads

TIME

Day 60
refresh monthly

ACTION / DELIVERABLE

Link liability, instalments, withholding, offsets, refunds and closing balances by tax component and period. Separate taxes collected for others from firm-borne liabilities.

MEASURABLE ACCEPTANCE TEST

Every reported balance has a reconciled opening-to-closing equation. Publish count and value of unexplained differences; do not force residuals to zero.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Make fee schedules and compliance costs auditable at enterprise level

For ORC, MMDAs, regulators, professional associations and business finance teams.

A03 Create a receipt-backed register of fees and licences

PROPOSED OWNER

Enterprise accountant + regulator liaison

TIME

Day 45 baseline
annual refresh

ACTION / DELIVERABLE

Identify each in-scope licence, permit and property charge, its assessment basis, authority, due date and receipt. Separate recurring obligations, setup charges and penalties.

MEASURABLE ACCEPTANCE TEST

Each material fee has a dated schedule or assessment and payment evidence. Assumed fees remain labelled and are not reported as national tariffs.

A04 Pilot a task-level incremental compliance-cost diary

PROPOSED OWNER

CFO + tax staff
professional association

TIME

Day 30 design
Day 90 first results

ACTION / DELIVERABLE

Log tax-specific hours, loaded staff cost, advisers and systems for a defined sample. Separate cash expenditure from opportunity cost and reallocate existing payroll rather than adding it twice.

MEASURABLE ACCEPTANCE TEST

Each included task has duration, costing rule and baseline. Report sample coverage, non-response and the excluded ordinary-accounting share.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Turn effective-burden analysis into a monthly finance control

For CFOs, accountants, manufacturers, traders, contractors and MSMEs.

A05 Reconcile book profit to the current tax base

PROPOSED OWNER

CFO + tax accountant

TIME

Day 30
quarterly review

ACTION / DELIVERABLE

Map depreciation, capital allowances, disallowances, losses and credits from signed accounts to returns. Record GSL and FSRL separately where applicable and identify amounts already in expense.

MEASURABLE ACCEPTANCE TEST

Every material bridge item has documentary support and a time/permanent flag. No levy is added twice; unresolved legal treatment is disclosed.

A06 Maintain a 13-week tax-and-credit cash schedule

PROPOSED OWNER

Treasury + receivables team

TIME

Day 30
update weekly

ACTION / DELIVERABLE

Forecast own-tax payments, collected-tax remittances, incoming withholding and eligible credit recovery. Run explicit delayed and partial-recovery cases using the actual funding rate.

MEASURABLE ACCEPTANCE TEST

All scheduled material cash flows identify component, due/value date and status. Receivables are not counted as unrestricted cash; closing cash reconciles.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Distinguish individual taxation, company liabilities and worker deductions

For MSME associations, professional bodies, payroll teams and taxpayer services.

A07 Run a documented legal-form and scheme assessment

PROPOSED OWNER

Taxpayer services + qualified advisers

TIME

Day 45 clinic
refresh on amendment

ACTION / DELIVERABLE

Assess individuals and incorporated enterprises separately, using turnover, activity, registration history and the effective legal version. Refer uncertain MTS, VAT or incentive cases for confirmation.

MEASURABLE ACCEPTANCE TEST

Every assessed case retains evidence and a named decision/referral route. No universal 3% or corporate 25% rule is assigned solely from business size.

A08 Split payroll deductions from employer contributions

PROPOSED OWNER

Payroll lead + pension administrator

TIME

Next payroll cycle
monthly thereafter

ACTION / DELIVERABLE

Reconcile basic payroll, worker deductions, employer contributions, tier remittances and PAYE. Verify applicable contribution limits and approved employee records.

MEASURABLE ACCEPTANCE TEST

100% of captured payroll totals reconcile to employee-level records. Employer cost is separately reported from deductions and combined remittances.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Use verified tax-asset recovery records in liquidity assessment

For banks, DFIs, private equity, funds, insurers, pensions and diaspora investors.

A09 Obtain an aged, component-level tax-credit schedule

PROPOSED OWNER

Credit analyst + counterparty CFO

TIME

Day 30 of review

ACTION / DELIVERABLE

Match tax assets to returns, eligibility evidence, disputes, offsets and bank receipts. Keep partial recovery and original claim dates visible in each material reviewed exposure.

MEASURABLE ACCEPTANCE TEST

Face value, eligible amount and recovered cash are shown separately. Coverage by count/value is reported; absent evidence is not treated as a zero balance.

A10 Stress the counterparty’s cash path—not a national ratio

PROPOSED OWNER

Risk + investment-operations teams

TIME

Day 60
quarterly refresh

ACTION / DELIVERABLE

Use entity-specific current taxes, instalments and recovery schedules in base, delayed and partial-recovery forecasts. Separate bank operating income from business turnover in comparisons.

MEASURABLE ACCEPTANCE TEST

Scenario assumptions, committed liquidity and funding costs are explicit. No tax ratio is converted into a default probability or a buy/sell/lend instruction.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Build the population frame before publishing an average firm burden

For IDER, GSS, GRA, business associations and authorised data custodians.

A11 Create a legal-form and sector-stratified firm roster

PROPOSED OWNER

IDER sampling lead + data custodians

TIME

Day 60 first frame

ACTION / DELIVERABLE

Define the target population, including small firms and loss-makers; record response, closures and tax-account linkage. Separate individuals, companies and specialist sectors.

MEASURABLE ACCEPTANCE TEST

Frame exclusions and row/value linkage coverage are published. No listed-company-only statistic is called a national ETR; non-reporters remain in the coverage account.

A12 Pre-register the estimation and missingness protocol

PROPOSED OWNER

IDER methods lead + independent reviewer

TIME

Day 90 before estimation

ACTION / DELIVERABLE

Specify estimands, denominators, weights, loss treatment, comparison groups and dependence structure. Assess support, anticipation and non-random missingness before causal estimation.

MEASURABLE ACCEPTANCE TEST

A signed design review documents assumptions and precision. Failed identification leads to descriptive or bounded reporting, not invented observations or causal claims.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Make every headline carry its scope and evidence status

For Parliament, MoF, Treasury, sector ministries, journalists and consumer organisations.

A13 Use a common evidence label in oversight briefings

PROPOSED OWNER

Parliamentary technical staff + publication leads

TIME

Day 30 template each briefing

ACTION / DELIVERABLE

Show period, legal form/entity scope, payer, numerator and denominator beside material figures. Separate liability, expense, cash paid and private compliance costs.

MEASURABLE ACCEPTANCE TEST

Every released chart or headline has those fields and a source. Scenario values and source-account ratios are never presented as population estimates.

A14 Publish a disclosure-safe reconciliation dashboard

PROPOSED OWNER

GRA reporting + MoF data-protection leads

TIME

Day 90 first release quarterly refresh

ACTION / DELIVERABLE

Summarise coverage, own taxes, collected taxes, credit aging and unresolved fee classification for the agreed pilot. Suppress identifying cells while retaining methodological notes.

MEASURABLE ACCEPTANCE TEST

All public totals reconcile to protected underlying records. Suppressions, missing groups and revisions are disclosed; no taxpayer-specific confidential account is released.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Release only conclusions supported by a reproducible evidence chain

For IDER, development partners, think tanks and independent reviewers.

A15 Complete an independently replayable pilot publication

PROPOSED OWNER

IDER research lead + independent reviewer

TIME

Day 180 after approval

ACTION / DELIVERABLE

Deliver frozen inputs, legal/source register, calculations, firm-scope comparisons and a non-technical brief. Include coverage and uncertainty rather than promise a statistically significant effect.

MEASURABLE ACCEPTANCE TEST

An independent analyst reproduces central tables and figures. Unresolved source, legal and identification limits accompany both the full report and its extracts.

A16 Maintain a documented legal and account-vintage update

PROPOSED OWNER

IDER publication lead + technical advisers

TIME

Quarterly and on material amendment

ACTION / DELIVERABLE

Track new enactments, fee schedules, restated accounts and source corrections. Recalculate only affected cases and keep historical versions and change logs available.

MEASURABLE ACCEPTANCE TEST

Each revision identifies changed inputs, affected results and review date. No previous-year account is silently relabelled as current evidence.

Sources: IDER measurement and implementation protocol [\[S99\]](#).

Note: Proposed owners, scope and targets; the clock starts after authorised access and institutional approval. No institutional mandate, tax-rate choice, lending or investment decision is prescribed.

Common conditions for every reported calculation

E01–E26 cover executed measurements, source statistics and conditional methods; P01–P02 remain unestimated.

A1 | MATCH SCOPE AND TIME

Use one entity, tax component, period and currency. Separate restated accounts, paid cash, lawful liability and explicitly imposed enterprise assumptions.

A2 | COUNT EACH COST ONCE

Separate taxes borne from collections and credits. Remove double-counted payroll, supplier taxes and already-expensed levies. Denominators must match the chosen cost boundary.

A3 | LIMIT THE INFERENCE

Positive-denominator ratios are descriptive. Scenario ranges are not confidence intervals. Causal language requires a supported assignment mechanism and observed comparison outcomes.

Sources: IDER calculations [\[S99\]](#).

Note: Additional conditions A4–A6: verify eligibility; document missingness; disclose timing, deduction and deferred-recognition assumptions.

Payer-classified burden / Rate and denominator definitions

E01: p. 15 | E02: pp. 16, 44

E01 Payer-classified burden

EXECUTED MEASUREMENT

$$T_b = T_{own} + T_{nonrec} \tag{E01.1}$$

$$T_{rem} = T_{own,paid} + T_{collected} \tag{E01.2}$$

T_b: taxes borne; nonrec: non-recoverable indirect taxes; rem: cash remittances. Fees, pensions and private costs are separate.

ASSUMPTIONS / AXIOMS

Classify legal payer and account treatment. A cash remittance does not by itself identify economic incidence.

No collected-tax amount is automatically an own cost.

E02 Rate and denominator definitions

EXECUTED MEASUREMENT

$$e_A = 100 T_{charge}/P \tag{E02.1}$$

$$e_C = 100 T_{cash}/P \tag{E02.2}$$

P: matched positive PBT; T_charge: reported-period expense; T_cash: disclosed cash payments.

ASSUMPTIONS / AXIOMS

Use the same entity scope. Cash can settle other years; negative or near-zero P requires amount-based reporting.

Cash/PBT is a timing ratio, not current-liability ETR.

Profit-based statutory case / Employer and worker contributions

E03: p. 17 | E04: p. 20

E03 Profit-based statutory case

CONDITIONAL STATUTORY ACCOUNTING

$$T_{CIT} = c \max(Y, 0) \tag{E03.1}$$

$$T_{profit} = T_{CIT} + (g + f) \max(P, 0) \tag{E03.2}$$

Y: chargeable income; P: profit before profit taxes; c=.25; g=.025 or .05; f=.05 for the stated bank case.

ASSUMPTIONS / AXIOMS

Ordinary verified categories, positive bases and no incentives; GSL/FSRL not deducted for CIT.

27.5%, 30% or 35% require a same-base case.

E04 Employer and worker contributions

EXECUTED CONDITIONAL ACCOUNT

$$E = 0.13W, \quad D = 0.055W \tag{E04.1}$$

$$Rem_{pension} = E + D = 0.185W \tag{E04.2}$$

W: eligible basic payroll; E: employer expense; D: employee deduction; remit: combined tiers.

ASSUMPTIONS / AXIOMS

Salaries and coverage must meet applicable limits. Employee amounts are not added to employer cost.

13.5% and 5% allocate the combined contribution.

Published tax-charge perimeter / Cash-charge reconciliation target

E05: p. 25 | E06: p. 26

E05 Published tax-charge perimeter

EXECUTED OBSERVED RATIO

$$T_{charge}^{MTN} = I + G \tag{E05.1}$$

$$P - T_{charge} - PAT = 0 \tag{E05.2}$$

I: income-tax line; G: separately disclosed GSL; P/PAT: same Group profit before/after tax. GCB uses its undisaggregated reported line.

ASSUMPTIONS / AXIOMS

Do not treat an undisclosed component as zero; do not add assumed bank levies again.

Observed entity ratios are not a national tax rate.

E06 Cash-charge reconciliation target

EXECUTED OBSERVED DIFFERENCE

$$Gap_t = T_{cash,t} - T_{charge,t} \tag{E06.1}$$

$$Gap_t \neq Arrears_t \tag{E06.2}$$

Tax cash and expense use their stated components; amounts are in GHS thousand in the source dataset.

ASSUMPTIONS / AXIOMS

No unobserved allocation across prepayments, prior years, current tax and deferred tax is invented.

A gap is not evidence of noncompliance.

Exact two-factor rate change / Pooled versus average rates

E07: p. 31 | E08: p. 32

E07 Exact two-factor rate change

EXECUTED SYMMETRIC IDENTITY

$$\Delta e = 100[\overline{(1/P)}\Delta T + \bar{T}\Delta(1/P)] \quad (\text{E07.1})$$

$$\bar{X} = (X_0 + X_1)/2 \quad (\text{E07.2})$$

T: same-scope charge; P: positive PBT; contributions are in percentage points.

ASSUMPTIONS / AXIOMS

Average both endpoint update orders. Positive denominators and unchanged tax perimeter are required.

Attribution is accounting, not causality.

E08 Pooled versus average rates

EXECUTED WEIGHTING CHECK

$$e_{pool} = 100 \frac{\sum_t T_t}{\sum_t P_t} \quad (\text{E08.1})$$

$$\bar{e} = \frac{1}{n} \sum_t 100 T_t / P_t \quad (\text{E08.2})$$

Pooled rate weights annual rates by positive profit. The mean weights each included year equally.

ASSUMPTIONS / AXIOMS

Do not mix entities, tax classes, missing years or loss exclusions silently.

Two years supply no population sampling interval.

Survey-weighted mean target / Before-burden surplus

E09: p. 34 | E10: p. 37

E09 Survey-weighted mean target

SOURCE STATISTIC / NOT RE-ESTIMATED

$$\hat{\mu}_w = \frac{\sum_i w_i y_i}{\sum_i w_i} \tag{E09.1}$$

$$y_i \neq TaxCost_i \tag{E09.2}$$

w_i: design/response weight; y_i: all-government management time or official-contact indicator.

ASSUMPTIONS / AXIOMS

Published profile estimates are retained; microdata weights and design variances are not recovered.

No tax-only hours are inferred from regulatory time.

E10 Before-burden surplus

EXECUTED ENTERPRISE IDENTITY

$$P = S - (E + F + V + U + H + J) \tag{E10.1}$$

$$Y = P + ND + DEP - CA \tag{E10.2}$$

S: before-burden surplus; E: employer contribution; F: public fees; V: irreversible VAT; U: duty; H: compliance; J: finance.

ASSUMPTIONS / AXIOMS

Baseline ND=0 and DEP=CA; all included operating costs assumed deductible. Separate effects when conditions fail.

Staff time and supplier taxes are counted once.

Fiscal and extended burden / Fixed compliance-cost scaling

E11: pp. 42, 43 | E12: p. 48

E11 Fiscal and extended burden

EXECUTED ENTERPRISE IDENTITY

$$B_F = T_{profit} + E + F + V + U \tag{E11.1}$$

$$B_X = B_F + H + J; \quad S = B_X + PAT \tag{E11.2}$$

B_F: taxes, public fees and compulsory contribution; B_X: extended private cost; PAT: residual in standardised case.

ASSUMPTIONS / AXIOMS

Tax receipts, social contributions and private resource costs are separately reported despite the combined ratio.

Extended burden is not government revenue.

E12 Fixed compliance-cost scaling

EXECUTED CONDITIONAL SENSITIVITY

$$H = H_0 + hR \tag{E12.1}$$

$$100H/R = 100(H_0/R + h) \tag{E12.2}$$

R: net turnover; H_0=20,000; h=.002 in the controlled size experiment.

ASSUMPTIONS / AXIOMS

Hold the costing rule fixed across scales. General accounts labour is not counted again.

Not a fitted cost function or size elasticity.

Margin normalisation / Presumptive tax equivalent

E13: p. 49 | E14: p. 50

E13 Margin normalisation

EXECUTED CONDITIONAL SENSITIVITY

$$S = mR; \quad e_X = 100B_X/(mR) \tag{E13.1}$$

$$m > 0 \tag{E13.2}$$

m: imposed before-burden margin; B_X: the explicit extended private-cost numerator.

ASSUMPTIONS / AXIOMS

Common turnover/payroll/fee rules; profit taxes apply only to positive PBT.

A ratio above 100% need not be a tax-rate error.

E14 Presumptive tax equivalent

EXECUTED CONDITIONAL SENSITIVITY

$$T_p = 0.03R \tag{E14.1}$$

$$100T_p/(mR) = 3/m \tag{E14.2}$$

R: eligible individual turnover; m: decimal profit margin before presumptive charge.

ASSUMPTIONS / AXIOMS

Steady-regime example after confirmed eligibility; not a blended 2026 transition liability. Other costs excluded.

At m=.05, profit-equivalent burden is 60%.

Incremental compliance resource cost / Book-to-tax bridge

E15: p. 52 | E16: p. 53

E15 Incremental compliance resource cost

EXECUTED CONDITIONAL COSTING

$$H = \sum_k h_k w_k + A + Q \tag{E15.1}$$

$$H \neq TaxRevenue \tag{E15.2}$$

h_k: task hours; w_k: loaded cost; A: incremental adviser cost; Q: dedicated system allocation.

ASSUMPTIONS / AXIOMS

Exclude routine accounting that would occur anyway and reallocate already-paid employee costs.

Opportunity cost and cash expenditure stay separate.

E16 Book-to-tax bridge

EXECUTED CONDITIONAL TAX-BASE TEST

$$Y = P + ND + DEP - CA \tag{E16.1}$$

$$T_{current} = .25\max(Y, 0) + gP \tag{E16.2}$$

ND: permanent non-deductible add-back; DEP: book depreciation; CA: eligible capital allowance.

ASSUMPTIONS / AXIOMS

Baseline positive P; no losses or incentives; current profit-tax charge excludes deferred tax in this table.

An unchanged rate can produce a changed ratio.

Capital allowance and deferred tax / Full-credit invoice account

E17: p. 55 | E18: p. 56

E17 Capital allowance and deferred tax

EXECUTED TIMING ILLUSTRATION

$$CA_t = .30TB_{t-1}; \quad TB_t = TB_{t-1} - CA_t \tag{E17.1}$$

$$T_{def,t} = .25\Delta(BV_t - TB_t) \tag{E17.2}$$

TB: tax written-down value; BV: book carrying value; 1m initial machine; book depreciation 200k per year.

ASSUMPTIONS / AXIOMS

Full-year eligibility, constant rate and recognition conditions; sufficient future taxable profit for any deferred asset.

Current plus deferred tax is not cash paid.

E18 Full-credit invoice account

EXECUTED CONDITIONAL IDENTITY

$$VAT_{net} = .20(B - I) \tag{E18.1}$$

$$P = B - I - C \tag{E18.2}$$

B: net sales; I: fully eligible net taxable inputs; C: other resource cost. Worked values 100, 60, 20.

ASSUMPTIONS / AXIOMS

Ordinary standard invoice; full eligible recovery and unchanged net prices. No ultimate incidence is estimated.

Net remittance 8 is not automatically own cost.

Withholding credit reconciliation / Event-date credit financing

E19: p. 57 | E20: p. 58

E19 Withholding credit reconciliation

EXECUTED CONDITIONAL ACCOUNT

$$WHT = wR; \quad C_{carry} = \max(0, WHT - T_{CIT}) \quad (E19.1)$$

$$Cash_{extra} = \max(0, T_{CIT} - WHT) \quad (E19.2)$$

w: stated covered goods/works/services rate; R: eligible net revenue; credit assumes valid documentation.

ASSUMPTIONS / AXIOMS

Credit against the same CIT ledger; no automatic GSL, VAT or other-component set-off.

Creditable withholding is not another CIT charge.

E20 Event-date credit financing

EXECUTED CONDITIONAL CASH TEST

$$J = \sum_k C_{k-1} r (d_k - d_{k-1}) / 365 \quad (E20.1)$$

$$C_k = C_{k-1} - Recovery_k \quad (E20.2)$$

C: outstanding credit; r: assumed annual simple rate; d: economic event date. Partial settlements reduce principal.

ASSUMPTIONS / AXIOMS

No legal deadline, observed refund delay or loan quotation is inferred. Discounting is an alternative valuation, not an additive loss.

Do not finance already-recovered amounts again.

Simplified import tax cash / Company and investor layers

E21: p. 60 | E22: p. 61

E21 Simplified import tax cash

EXECUTED CONDITIONAL BORDER ACCOUNT

$$U = uV_c; \quad VAT = .20(V_c + U) \quad (E21.1)$$

$$J_{VAT} = VATrd/365 \quad (E21.2)$$

V_c: assumed customs value; u: imposed duty rate; J: financing only of recoverable VAT/levies.

ASSUMPTIONS / AXIOMS

Other border charges and relief excluded; actual HS classification and valuation must be checked.

Duty and recoverable credit have different treatment.

E22 Company and investor layers

EXECUTED CONDITIONAL DISTRIBUTION

$$Div = (1 - t)P; \quad T_D = dDiv \quad (E22.1)$$

$$e_{layers} = 100[t + d(1 - t)] \quad (E22.2)$$

t: assumed company profit-tax fraction; d=.08 for the specified ordinary recipient; full profit distribution.

ASSUMPTIONS / AXIOMS

Recipient exemptions, treaties and distribution restrictions are excluded, not presumed absent for actual investors.

Do not add 8 percentage points to company ETR.

Tax-balance cash bridge / Audited tax-note reconciliation

E23: pp. 71, 72 | E24: pp. 73, 74, 75, 76

E23 Tax-balance cash bridge

EXECUTED MATCHED ACCOUNTING

$$C - T = \Delta A_{cur} - \Delta L_{def} + \rho \tag{E23.1}$$

$$\rho = 490.671 - 787.559 + 296.888 = 0 \tag{E23.2}$$

C/T: matched tax cash/expense; A_cur: current-tax assets; L_def: net deferred liability. MTN amounts are GHS million.

ASSUMPTIONS / AXIOMS

Aggregate closure only; do not infer individual settlement, classification or absence of other movements without the full note.

A zero residual is not a tax-return audit.

E24 Audited tax-note reconciliation

EXECUTED SOURCE RECONCILIATION

$$T = CIT + GSL + DT_{PL} \tag{E24.1}$$

$$C = T - DT_{PL} + L_{cur,0} - L_{cur,1} \tag{E24.2}$$

Unilever reported charge and tax-paid line; signed current-tax liability is negative for an asset. Source GHS thousand.

ASSUMPTIONS / AXIOMS

Keep payment/WHT wording, prior-year adjustments and disclosed note differences. Deferred OCI is not P&L expense.

No duplicated levy or forced note reconciliation.

Joint private-cost sensitivity / Common-treatment rank diagnostic

E25: pp. 78, 79, 80 | E26: p. 83

E25 Joint private-cost sensitivity

EXECUTED CONDITIONAL SENSITIVITY

$$P = S - E - F - H - J; \quad Y = P + (1 - d)(H + J) \tag{E25.1}$$

$$B_X = E + F + H + J + .25Y + .025P \tag{E25.2}$$

C02 positive-profit cases: d=1 permits both private-cost deductions; d=0 disallows them. H and J are compliance and finance.

ASSUMPTIONS / AXIOMS

Three H values, five lags and two deduction assumptions; fixed payroll, fees and credit rate. No legal ruling is inferred.

Thirty cases are not thirty observed firms.

E26 Common-treatment rank diagnostic

EXECUTED DESIGN CHECK

$$X = [1, F_2, F_3, Year_{2025}, Post_{2026}] \tag{E26.1}$$

$$\text{rank}(X) = 4 < 5 \tag{E26.2}$$

Six selected entity-year rows; three firms, two dates. The actual 2026 post indicator is zero in every observed row.

ASSUMPTIONS / AXIOMS

A supported intervention needs independent identifying variation. There are no observed 2026 outcomes in this file.

Robust errors cannot identify a collinear coefficient.

Prospective causal firm outcome / Missing-outcome sensitivity

P01: p. 66 | P02: p. 66

P01 Prospective causal firm outcome

PROSPECTIVE ONLY — NOT ESTIMATED

$$Y_{it} = \alpha_i + \lambda_t + \beta D_{it} + X'_{it}\gamma + u_{it} \tag{P01.1}$$

$$D_{it} \text{ requires justified assignment} \tag{P01.2}$$

Y: defined cash, cost or operating outcome; D: supported intervention; X: pre-specified covariates.

ASSUMPTIONS / AXIOMS

Identification, anticipation, common support and interference assessed before inference; fixed effects alone are insufficient.

No regression has been fitted to the cases.

P02 Missing-outcome sensitivity

PROSPECTIVE ONLY — NOT ESTIMATED

$$\mu = \pi\mu_{obs} + (1 - \pi)\mu_{miss} \tag{P02.1}$$

$$\mu_{miss} \in [L, U] \tag{P02.2}$$

pi: population response share; observed/missing group means; L,U: justified bounds for a defined outcome.

ASSUMPTIONS / AXIOMS

Population weights, response and support must be observed. Bounds are not invented from the selected public accounts.

No national adjusted mean is reported.

The unresolved questions remain part of the findings

Limitations are not removed by clean graphics or exact arithmetic.

Table 43. The unresolved questions remain part of the findings

Limit	Consequence	Treatment
Three selected observed entities	Public accounts omit many taxes, fees, private costs and firms.	No national or sector-average all-in ETR.
GCB summary components	No full tax-expense note recovered.	Preserve reported scope; do not append statutory levies.
Current fee universe	No consolidated actual MMDA/regulator tariff ledger.	Fees in cases are imposed; require actual assessments.
Survey vintage / scope	Historical formal 5+ worker universe, not all businesses.	No current MSME cost population estimate.
Legal special cases	Not every exemption, treaty, mining or excise provision is reconstructed.	Specialist cases excluded or require confirmation.

Sources: GRA corporate tax [\[S01\]](#); ORC filing guidance [\[S10\]](#); MTN Ghana accounts [\[S11\]](#); GCB Bank accounts [\[S12\]](#).

Note: Original external source PDF bytes could not be downloaded to the runtime; URLs, locators and transcriptions are supplied.

Every central number has an input, transformation and evidence status

The publication package is the calculation record, not an audit of original government or company systems.

Table 44. Every central number has an input, transformation and evidence status

Layer	Package item	Check
Observed accounts	inputs/observed_accounts.csv	PBT minus matching charge equals PAT; source units retained.
Standardised firms	enterprise_assumptions.csv; parameters.json	No scenario row relabelled as an observed enterprise.
Calculations	code/analyse.py; outputs/*.csv	Resource identities, ratio changes and timing calculations independently checked.
Exhibits	figure_data/ and table_data/	Displayed values and source labels bound to their datasets.
Production	code/build.py; model expressions; navigation registers	Editable source, PDF, excerpts and rendered review.

Sources: IDER calculations [\[S99\]](#).

Note: A successful replay shows what the stated model computes; it does not establish a causal policy effect.

References and source links — 1 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S01 Ghana Revenue Authority | Accessed 27 September 2026

Corporate Income Tax

General rate; sector rates; payment guidance.

S02 Republic of Ghana | 2023

Growth and Sustainability Levy Act, 2023 (Act 1095)

Sections 1–4, 12; Schedule, PDF p. 5.

S03 Republic of Ghana | 2025

Growth and Sustainability Levy (Amendment) Act, 2025 (Act 1131)

Section 1 substitutes section 4: years 2023–2028.

References and source links — 2 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S04 Ghana Revenue Authority | 28 April 2021

Administrative Guidelines: Financial Sector Recovery Levy Act 2021 (Act 1067)

Rate, persons liable, non-deductibility and instalments.

S05 Ghana Revenue Authority | 2026

Notice to All VAT Registered Taxpayers

Implementation from 1 January 2026.

S06 Ghana Revenue Authority | Accessed 27 September 2026

Withholding Tax

Resident supply and dividend schedule; credit rules.

References and source links — 3 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S07 Social Security and National Insurance Trust | Accessed 27 September 2026

Become an Employer

Employer obligation.

S08 Ghana Revenue Authority | Accessed 27 September 2026

Capital Allowance

Class 2 plant/machinery 30% reducing balance; general conditions.

S09 Ghana Revenue Authority | September 2026

Amendments—Income Tax Act, 2026 (Act 1178)

PDF p. 1; effective 1 September 2026; monthly/annual bands and MTS notice.

References and source links — 4 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S10 Office of the Registrar of Companies | Accessed 27 September 2026

Filing of Annual Returns

Annual return and financial statement/auditor report requirements.

S11 Scancom PLC (MTN Ghana) | 2026

Condensed Consolidated and Separate Financial Statements, year ended 31 December 2025

PDF pp. 12–13,16: Group profit, balance-sheet and cash-flow statements; 2024 comparative and 2025.

S12 GCB Bank PLC | 25 March 2026

Summary Separate and Consolidated Financial Statements, year ended 31 December 2025

PDF p. 1: BANK columns, profit statement and cash flow.

References and source links — 5 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

[S13 World Bank Enterprise Surveys | 2024](#)

Ghana 2023 Country Profile

PDF pp. 3–4 sample; p. 12 size-specific appendix.

[S14 IFRS Foundation | Accessed 27 September 2026](#)

IAS 12 Income Taxes

About IAS 12: current/deferred tax, temporary differences.

[S15 Ghana Revenue Authority | Accessed 27 September 2026](#)

Acts: current legislative index

Income-tax, VAT and levy enactments listed.

References and source links — 6 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S16 Unilever Ghana PLC | 31 March 2026

Report and Financial Statements for the Year Ended 31 December 2025

Printed pp. 18–19,21,41–43 (PDF pp. 19–20,22,42–44); auditor report pp. 13–17.

S17 Brantly Callaway and Pedro H. C. Sant’Anna | 2021; author manuscript 2018

Difference-in-Differences with Multiple Time Periods

Journal of Econometrics 225(2): 200–230; identification, group-time effects and simultaneous inference.

S18 Pedro H. C. Sant’Anna and Jun B. Zhao | 2020; author manuscript 2018

Doubly Robust Difference-in-Differences Estimators

Journal of Econometrics 219(1): 101–122; doubly robust ATT under identifying assumptions.

References and source links — 7 of 7

Titles open the original source; detailed locators and scope limits are retained in the package.

S19 Ashesh Rambachan and Jonathan Roth | 2023

A More Credible Approach to Parallel Trends

Review of Economic Studies 90(5): 2555–2591; sensitivity to departures from parallel trends.

S99 Institute of Development and Economic Research | 27 September 2026

Effective Firm Tax Burden: Validated Accounting, Source Bridges and Enterprise Sensitivities

This package: analyse.py, validation_analysis.py, validated source inputs, outputs and review records.

Institute of Development and Economic Research

EVIDENCE FOR YOUR NEXT DECISION

Evidence for informed decisions.

For research enquiries, supporting data, methodological documentation or corrections to this report, contact the Institute of Development and Economic Research.

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



VISIT IDER'S WEBSITE

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

All social media handles: @IDERAfrica