

Digital GST Governance and Tax Compliance in India: A Statistical Assessment of E-Way Bill Trends and Audit-Detected Risks

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Abstract

This paper examines digital GST governance and tax-compliance risks through descriptive statistics on e-way bill (EWB) trends and a structured analysis of audit findings. It draws on the Comptroller and Auditor General of India's Performance Audit Report No. 12 of 2025 on the E-Way Bill System under GST, its Compliance Audit Report No. 25 of 2025, the GSTN Annual Report 2023–24, the official “8 Years of GST” statistical report, the Economic Survey 2025–26, a Government of India Press Information Bureau publication, and the seminar brochure. The CAG trend series covers taxpayers under Central jurisdiction from 2018–19 to 2021–22; it is analysed separately from national GSTN/GST Portal totals. National EWB generation increased from 619.59 million in FY 2019–20 to 1,304.69 million in FY 2024–25 and was reported at 188.27 crore (approximately 1.883 billion) in FY 2025–26. The last figure is rounded in the source, so its implied year-on-year growth of about 44.3 per cent is approximate. The paper distinguishes system-use indicators from compliance outcomes and separates risk flags, audit observations, accepted observations and recoveries. Audit evidence identifies risks involving non-filing or under-reporting, registration status, input tax credit mismatches and preventive administration. The analysis uses descriptive statistics because annual aggregates and risk-based audit samples do not support causal or population-wide claims. It concludes with recommendations for interoperable validation, risk-based scrutiny, data quality, transparent case tracking and proportionate compliance design.

Keywords: Goods and Services Tax; e-way bill; digital governance; tax compliance; audit; data validation; India.

Introduction

The introduction of the Goods and Services Tax (GST) in India in July 2017 represented a major redesign of the indirect-tax architecture. The reform sought to consolidate multiple indirect taxes within a common framework and support a more integrated national market. The seminar brochure frames GST reform as a continuing process involving rate rationalisation, digitalisation, e-invoicing and return simplification, while also recognising concerns related to compliance costs, MSMEs, the informal sector, state revenue stability and household distributional effects (Department of Economics, University of Allahabad, n.d.). The present paper focuses on one institutional component of this reform: the e-way bill system.

An e-way bill is an electronic document associated with the movement of goods. The CAG's Performance Audit Report No. 12 of 2025 explains that the system was introduced from 1 April 2018 and was intended to capture movement-related information before goods were transported. Its stated objectives included helping check tax evasion, supporting GST revenue, reducing non-trade barriers and improving supply-chain efficiency (CAG, 2025a, Executive Summary). The system therefore has a dual character. It is a compliance instrument that produces data for tax administration, and it is a digital infrastructure through which movement of goods can be documented.

The existence of a digital record, however, is not equivalent to complete compliance. An EWB can indicate that a movement-related document was generated, but the tax position still needs to be assessed against returns, invoices, registration status, input tax credit (ITC), and other relevant records. A mismatch may represent a genuine compliance deficiency, a timing difference, an amendment, an error in data entry, or a legitimate transaction characteristic. Effective digital governance consequently requires more than data capture: it requires reliable matching, appropriate risk rules, accessible records, trained personnel, and timely resolution.

The CAG's 2025 performance audit provides an opportunity to examine this distinction. Its trend chapter reports year-wise EWB generation and the number of unique GSTINs involved for 2018–19 to 2021–22. Its substantive audit chapters document specific patterns of non- or short-discharge of tax, non-filing or under-reporting of returns, transactions after registration cancellation, and other mismatches. A separate CAG compliance audit, Report No. 25 of 2025, discusses high-value data inconsistencies and the functioning of return scrutiny and monitoring systems. Together, these reports provide evidence on both the expanding scale of digital transaction records and the limits of translating those records into effective compliance.

This paper is aligned with the seminar's sub-theme on GST administration and technology, including GSTN, e-invoicing and digital governance. It also relates to revenue mobilisation and the long-term sustainability of GST. The contribution is deliberately bounded: it does not estimate the causal effect of e-way bills on total GST revenue, nor does it claim that audit-detected amounts represent economy-wide tax evasion. Instead, it combines descriptive trend statistics with a structured reading of audit evidence to identify what digital records can reveal, what they cannot establish without further verification, and what institutional conditions are required for them to support compliance.

Research Problem, Objectives and Questions

The central research problem is the gap between the expansion of digital transaction documentation and the administrative capacity required to convert that information into accurate, timely and proportionate compliance action. A growing volume of EWBs can increase the visibility of goods movement, but it may also increase the volume of data that must be reconciled and monitored. Audit observations show that risk signals do not automatically translate into resolved cases or revenue recovery.

Objectives

- To describe the CAG's Central-jurisdiction EWB and GSTIN trends for 2018–19 to 2021–22 and the separate national EWB series through FY 2025–26.
- To calculate supported growth rates, index numbers, compound annual growth rates and EWB-per-GSTIN indicators, while marking rounded and non-comparable figures.

- To classify and interpret major tax-compliance risks documented in the CAG's EWB performance audit.
- To examine how the wider GST compliance audit identifies data-quality, validation and administrative-monitoring issues.
- To develop evidence-linked recommendations for strengthening digital GST governance while avoiding unnecessary compliance friction.

Research questions

- How did EWB generation and the number of unique GSTINs change during the audit period?
- Did EWB generation and GSTIN participation grow at the same rate?
- What types of compliance risks were identified through EWB-based audit checks?
- What do the audit findings imply about the relationship between digital data availability and enforcement effectiveness?
- What safeguards are needed to distinguish material non-compliance from data errors and legitimate mismatches?

Conceptual and Analytical Framework

Digital GST governance can be understood as the interaction of four connected layers. The first is transaction capture: the electronic generation of records such as EWBs. The second is data integration: linking movement records with returns, registration information, invoices and ITC records. The third is risk identification: using rules, analytics and audit procedures to identify inconsistencies that merit examination. The fourth is administrative resolution: verification, communication with taxpayers, assessment where warranted, recovery, correction of records, and feedback into system design.

The framework implies a sequence rather than an automatic causal chain: digital record, cross-system comparison, risk flag, verification, administrative decision, compliance or recovery outcome. Each transition can fail. Missing or incomplete records can weaken verification; inconsistent identifiers can produce false positives; a risk flag can remain unresolved; and a confirmed demand may not be collected immediately. For this reason, this paper treats EWB counts as measures of system use, audit observations as evidence of identified risks within defined audit procedures, accepted observations as an administrative response category, and reported recovery as a distinct outcome.

The distinction between visibility and compliance is especially important. A higher number of EWBs may reflect increased economic activity, more intensive use of the system, changes in the composition of transactions, regulatory coverage, or multiple other factors. Without a counterfactual or additional explanatory data, the annual trend cannot identify which factor caused the increase. Similarly, an audit sample selected through risk-based criteria is designed to locate issues, not to estimate the prevalence of non-compliance across all taxpayers. The analysis therefore interprets the reports as institutional evidence rather than as a representative survey of all GST registrants.

Review of Documentary Evidence

E-way bill performance audit

CAG Report No. 12 of 2025 covers EWB transactions from 1 April 2018 to 31 March 2022. The performance audit itself was conducted from February to July 2023. It adopted a risk-based approach, selecting 2,244 EWBs relating to 956 taxpayers for examination and reviewing preventive units for the

audit's enforcement objective (CAG, 2025a, Executive Summary). The audit reports that records were not produced for 108 of the 956 selected taxpayers, while partial records were produced for another 334. This limitation matters: conclusions drawn from the selected cases must be read alongside the report's documentation constraints.

The report's trend chapter states that the number of unique GSTINs generating EWBs increased by 8 per cent from 2018–19 to 2021–22, while total EWB generation increased by 37 per cent. It also reports that road transport accounted for 98 per cent of EWBs generated during the four-year period (CAG, 2025a, Chapter 3). The data indicate that EWB use expanded more quickly than the number of participating GSTINs. They do not, by themselves, reveal whether this reflected higher average transaction frequency, changes in transaction size, or shifts in the underlying economy.

Audit observations on EWB-related risks

The audit identifies several recurring patterns: composition taxpayers generating EWBs for inter-State outward supplies or exceeding scheme thresholds; taxpayers generating EWBs but not filing returns or not reporting turnover; taxpayers generating EWBs after registration cancellation; multiple EWBs associated with a single invoice; and mismatches involving ITC. These observations demonstrate the analytical value of connecting movement records with tax-return and registration records. At the same time, they are findings within an audit design and should not be treated as an estimate of the proportion of all GST taxpayers who fail to comply.

Wider GST compliance audit

CAG Report No. 25 of 2025 examines GST compliance and administrative processes, including return scrutiny, monitoring and data inconsistencies. It reports 10,124 high-value inconsistencies identified through pan-India data analysis across 18 parameters. The report gives an implication of ₹12,51,797.74 crore, explicitly including ₹3,53,838.20 crore of turnover associated with specified dimensions. This figure must not be described as tax evasion, confirmed tax loss or recoverable revenue. The Department responded to 8,106 cases; among those responses, 2,519 cases were classified as clear compliance deficiencies, with a revenue implication of ₹21,695.11 crore (CAG, 2025b).

The same report records the Department's position that a substantial share of deviations could involve clerical, typographical or reconciliation errors, and that some discrepancies had no immediate revenue implication. It also discusses the need to balance validation with ease of filing and genuine corner cases. This is a material qualification: digital governance should improve data quality and detection without treating every automated mismatch as wrongdoing.

Data and Methodology

Research design

The study uses a descriptive, documentary and quantitative design. The primary numerical series is the annual number of EWBs generated and unique GSTINs involved, as reproduced in Chapter 3 of CAG Report No. 12 of 2025. Audit findings from the same report are used for a structured risk analysis. CAG Report No. 25 of 2025 provides complementary evidence about GST return scrutiny, high-value inconsistencies and administrative monitoring. The seminar brochure is used to establish the paper's thematic alignment and submission context.

Data sources and period

The original CAG trend series covers financial years 2018–19, 2019–20, 2020–21 and 2021–22 for taxpayers under Central jurisdiction. For an updated national series, the GSTN Annual Report 2023–24

provides totals for FY 2019–20 through FY 2023–24, and the official “8 Years of GST” report provides the complete FY 2024–25 total. These are reported separately rather than combined because the CAG and GSTN series have different coverage. The audit findings were published in CAG reports issued in 2025, but the underlying EWB performance-audit period is 2018–19 to 2021–22 and the audit fieldwork took place in 2023. The study does not combine the annual EWB series with unrelated gross monthly GST collections or other revenue series.

Statistical measures

The following calculations are used:

1. Annual percentage change, calculated as $(\text{current-year value} \div \text{previous-year value} - 1) \times 100$;
2. An index with 2018–19 = 100;
3. Compound annual growth rate (CAGR) over three year-to-year intervals, calculated as $[(\text{2021–22 value} \div \text{2018–19 value})^{(1/3)} - 1] \times 100$; and
4. EWB per GSTIN, calculated by converting the EWB count from thousands to individual bills and dividing by the unique GSTIN count. These are descriptive transformations of the reported series.

Limitations of the data

The annual series covers taxpayers under Central jurisdiction as described in the report’s graph and accompanying notes; it should not automatically be interpreted as a complete census of every GST jurisdiction. The data are aggregate annual counts, not transaction-level microdata. The audit’s case selection is risk-based, and record availability was incomplete for some selected taxpayers. The two CAG reports use different audit designs and units of analysis. Their monetary figures are not added together because they may refer to different categories, populations, stages of examination and accounting concepts.

Statistical Analysis of E-Way Bill Trends

Table 1 reproduces the annual EWB and GSTIN values reported in the CAG performance audit. The EWB values are expressed in thousands, consistent with the source graph; the corresponding bill counts are therefore approximately 249.61 million, 287.62 million, 280.19 million and 341.53 million.

Table 1

Financial year	EWBs generated (thousand)	Unique GSTINs	Annual EWB growth (%)	Annual GSTIN growth (%)	EWB index (2018–19=100)	GSTIN index (2018–19=100)
2018–19	249,607.51	1,165,016	—	—	100.00	100.00
2019–20	287,624.07	1,274,411	15.23	9.39	115.23	109.39
2020–21	280,188.43	1,232,725	-2.59	-3.27	112.25	105.81
2021–22	341,532.23	1,257,295	21.89	1.99	136.83	107.92

Source: CAG (2025a), Chapter 3, Graph 1

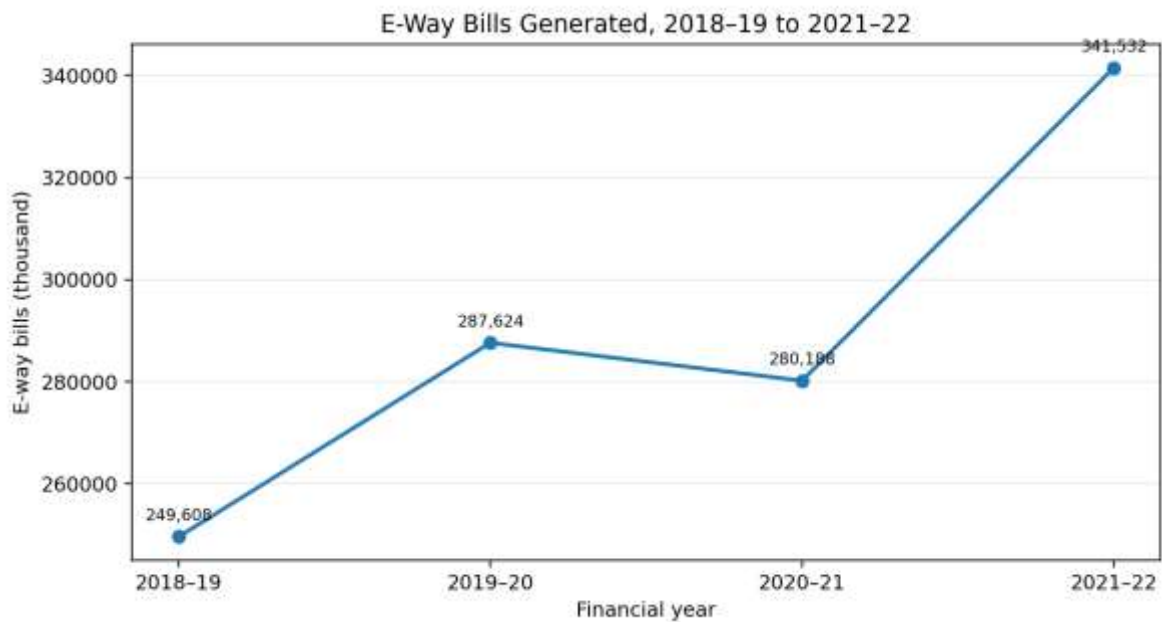


Figure1. Annual E-way bill generation, 2018–19 to 2021–22. Source: CAG (2025a);

Between 2018–19 and 2021–22, EWB generation increased by 36.83 per cent, from 249,607.51 thousand to 341,532.23 thousand. Over the same period, the number of unique GSTINs increased by 7.92 per cent, from 1,165,016 to 1,257,295. The calculated three-interval CAGR was 11.02 per cent for EWB generation and 2.57 per cent for unique GSTINs. These computed values closely reproduce the report’s rounded descriptions of a 37 per cent increase in EWBs and an 8 per cent increase in GSTINs. The difference between the two growth rates is analytically relevant. EWB generation expanded more quickly than the number of GSTINs generating the documents. This is consistent with a rise in the average number of EWBs per participating GSTIN, but the aggregate series cannot identify the distribution of that change across firms. A small number of high-volume taxpayers could influence the average; changes in product mix, consignment frequency, or economic activity could also matter.

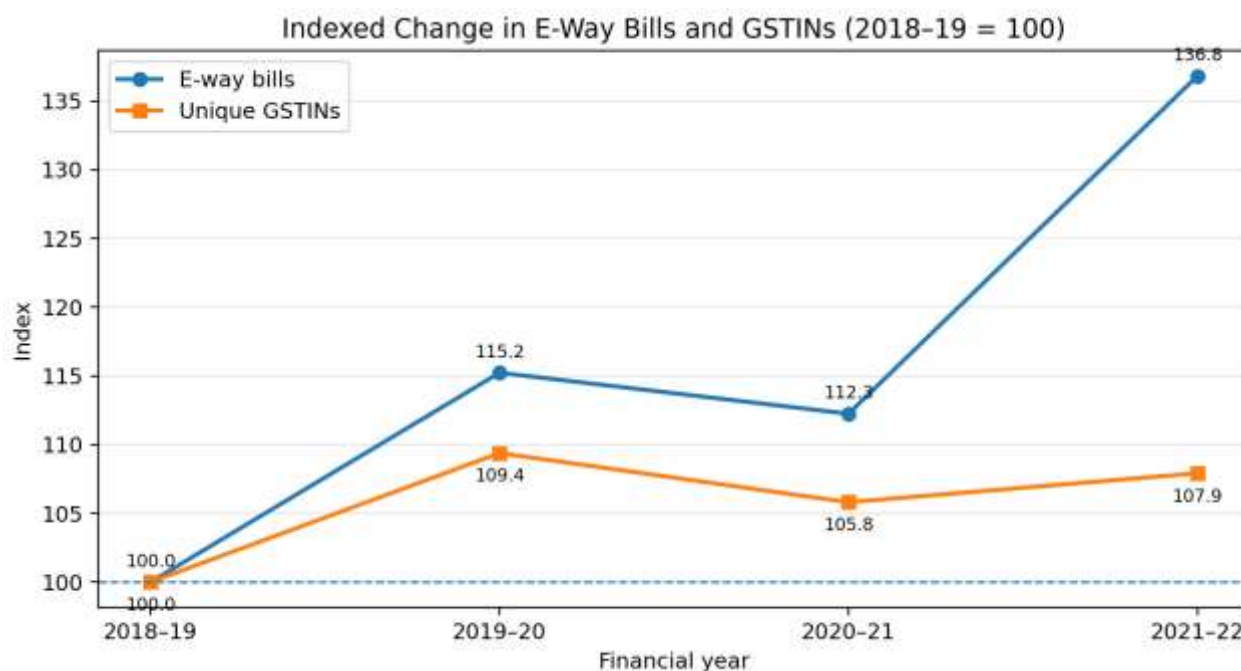
Year-to-year movement

EWB generation rose by 15.23 per cent in 2019–20, declined by 2.59 per cent in 2020–21, and increased by 21.89 per cent in 2021–22. GSTIN participation increased by 9.39 per cent in 2019–20, declined by 3.27 per cent in 2020–21, and rose by 1.99 per cent in 2021–22. Thus, both series show a decline in 2020–21 followed by an increase in 2021–22, but the magnitude of recovery was larger for EWB generation.

The annual sequence is descriptive, not a causal account of the economic or policy events affecting the period. The series alone does not isolate the influence of pandemic-related disruptions, policy changes, registration dynamics or changes in goods movement. Those explanations would require additional data and a design capable of separating competing influences.

Indexed comparison

Figure 2. Indexed comparison of EWB generation and unique GSTINs (2018–19 = 100).



Source: CAG (2025a);

By 2021–22, the EWB index reached 136.83, while the GSTIN index reached 107.92. The difference between the two indices is 28.91 index points. This shows the divergence in aggregate growth trajectories more clearly than the raw counts because both series share a common base year

E-way bills per GSTIN (The ratio is an aggregate mean, not a median or a description of a typical taxpayer).

Table 2

Financial year	EWBs generated (thousand)	Unique GSTINs	Approx. EWBs per GSTIN
2018–19	249,607.51	1,165,016	214.3
2019–20	287,624.07	1,274,411	225.7
2020–21	280,188.43	1,232,725	227.3
2021–22	341,532.23	1,257,295	271.6

Source: Author’s calculation from CAG (2025a), Chapter 3.

The aggregate ratio increased from approximately 214.3 EWBs per GSTIN in 2018–19 to 271.6 in 2021–22, an increase of 26.79 per cent. This calculation is a compact way to express the fact that document generation rose faster than the count of participating GSTINs. It should not be read as evidence that each taxpayer generated more EWBs, because the data do not show the distribution of EWB generation across GSTINs.

Transaction and transport composition

The CAG report states that ‘Supply’ was the largest transaction category in the reported period. It records 29.02 crore EWBs in this category in 2021–22 compared with 21.94 crore in 2018–19, an increase of about 32 per cent. It also reports increases of 21 per cent for exports/imports, 14 per cent for job work, 48 per cent for own use, and 158 per cent for the ‘Others’ category (CAG, 2025a, Chapter 3). These are the report’s published category-level growth figures; the paper does not reconstruct missing category counts from the chart image.

The report also states that road transport accounted for 98 per cent of EWBs during 2018–19 to 2021–22, while other transport modes together accounted for the remaining 2 per cent (CAG, 2025a, Chapter 3). This concentration indicates that road-movement records are central to the EWB system’s operational footprint. It does not mean that 98 per cent of goods by value or weight moved by road, because the reported statistic concerns the share of EWBs.

Updated national E-way bill series through 2025–26

The CAG performance-audit series in Sections 6.1–6.5 is explicitly limited to EWBs generated by taxpayers under Central jurisdiction. It must not be extended by appending all-India totals to the same table. To update the analysis without mixing populations, this subsection presents a separate national system series published by GSTN and the official GST portal. The GSTN Annual Report 2023–24 reports annual totals for FY 2019–20 through FY 2023–24; the official “8 Years of GST” report provides the complete FY 2024–25 total. The national series is therefore analysed separately from the Central-jurisdiction audit series.

Table 3

Financial year	National generated EWBs	Annual growth (%)	Index (2019–20=100)
2019–20	619,586,107	—	100.0
2020–21	599,564,323	-3.23	96.8
2021–22	736,058,912	22.77	118.8
2022–23	947,349,981	28.71	152.9
2023–24	1,101,124,868	16.23	177.7
2024–25	1,304,687,246	18.49	210.6
2025–26	≈1,882,700,000 (188.27 crore)	44.30	303.9

Source: GSTN (2024, p. 49) for FY 2019–20 to FY 2023–24; GST Portal, “8 Years of GST” (2025, p. 36) for FY 2024–25.

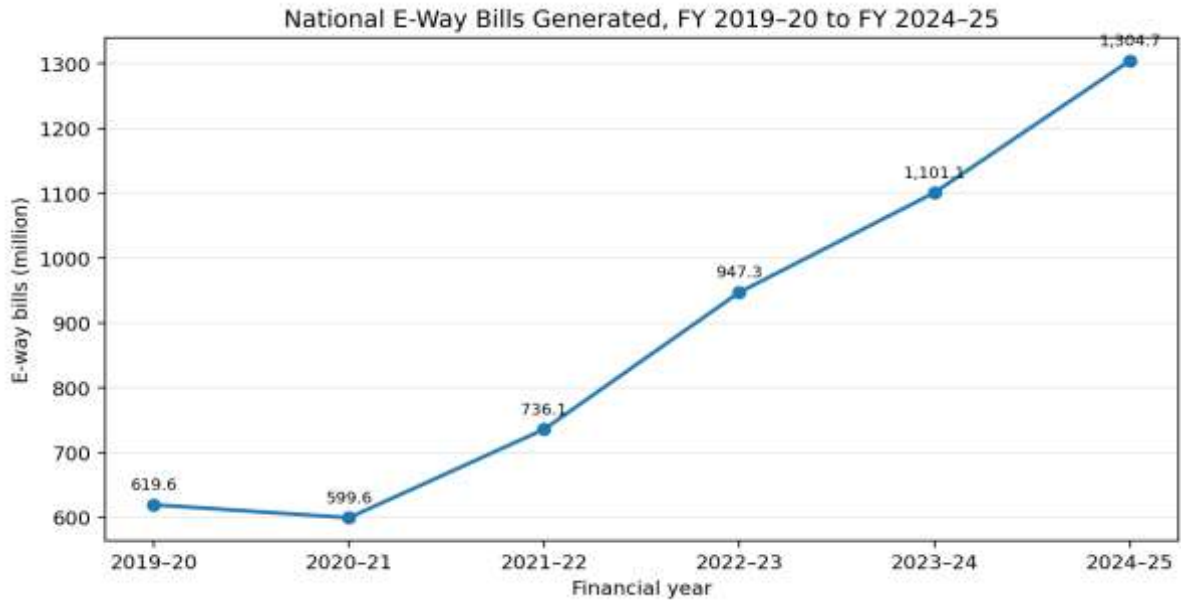


Figure 3. National E-way bill generation, FY 2019-20 to FY 2024-25.

Source: GSTN (2024) and GST Portal (2025);

Figure 4. Updated national E-way bill generation, FY 2019-20 to FY 2025-26.

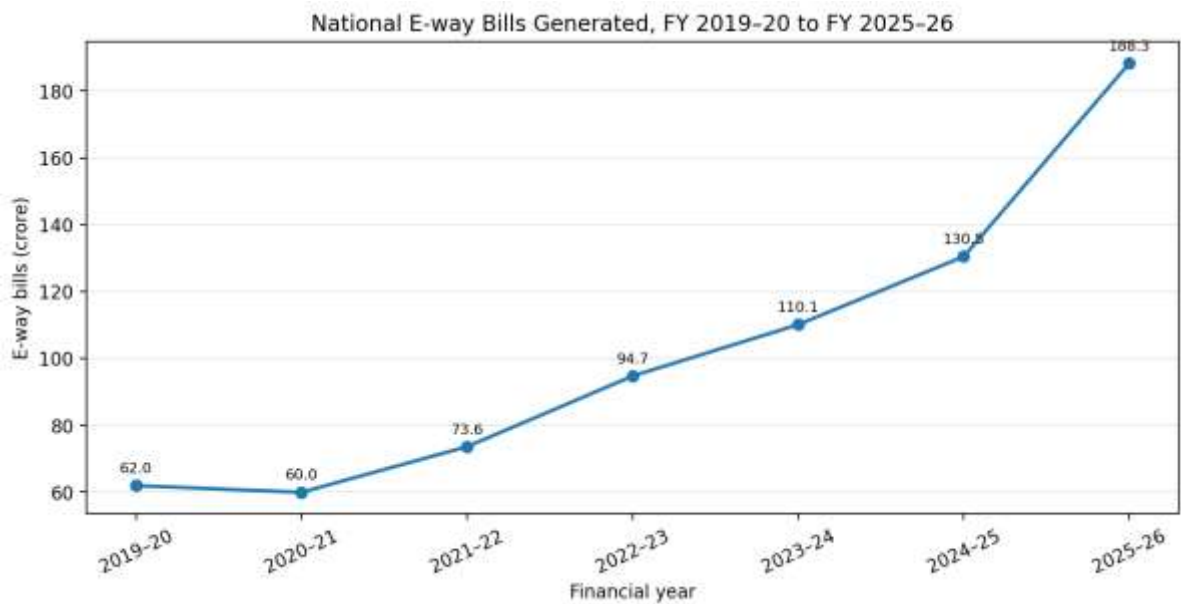
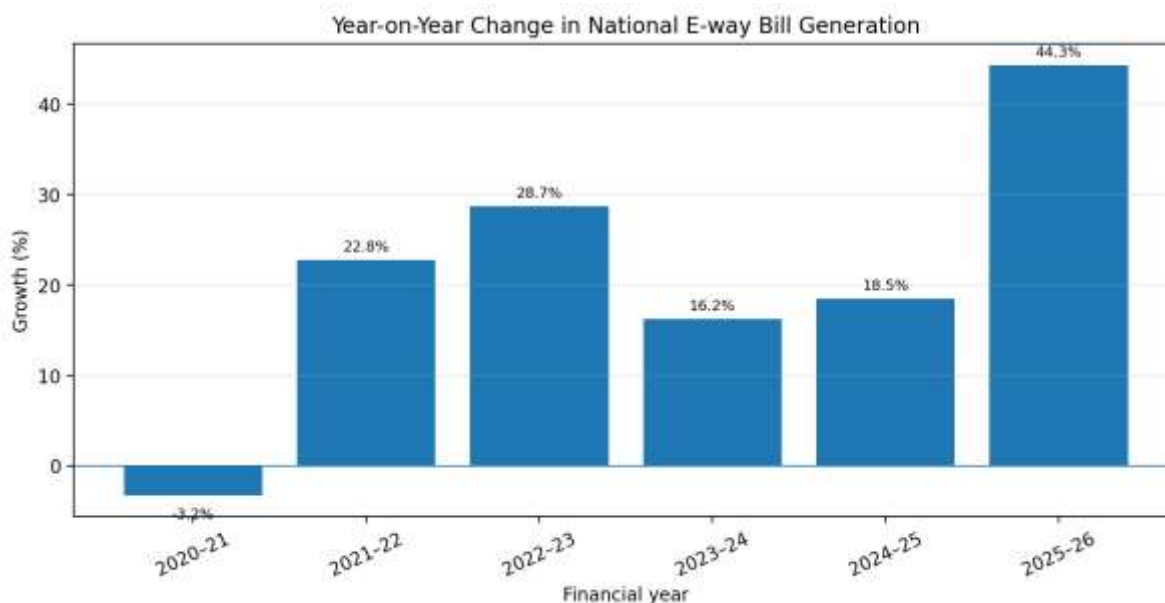


Figure 5. Year-on-year growth in national E-way bill generation. The FY 2025–26 growth rate is approximate because the published annual total is rounded to two decimal places in crore.



Growth after 2021–22

The national series records 736,058,912 EWBs in FY 2021–22 and 947,349,981 in FY 2022–23, followed by 1,101,124,868 in FY 2023–24 and 1,304,687,246 in FY 2024–25. The annual growth rates were 28.71 per cent in FY 2022–23, 16.23 per cent in FY 2023–24, and 18.49 per cent in FY 2024–25. Across the three-year interval from FY 2021–22 to FY 2024–25, total EWB generation increased by 77.25 per cent, equivalent to a CAGR of 21.02 per cent. These calculations describe the number of electronic movement documents generated; they do not measure tax revenue, the value of taxable supplies, or the proportion of transactions that complied with all GST requirements.

Longer-run movement and interpretation

Across the six annual observations from FY 2019–20 to FY 2024–25, national EWB generation increased by 110.57 per cent, corresponding to a five-interval CAGR of 16.06 per cent. The series declined by 3.23 per cent in FY 2020–21, then increased in each subsequent year. The index (FY 2019–20 = 100) reached 210.6 in FY 2024–25. The increase is consistent with a larger volume of EWB documentation on the national system, but it cannot be attributed to any single policy intervention or interpreted as a direct measure of improved compliance. Economic activity, transaction frequency, coverage, reporting practices and other factors may contribute; the available aggregate series cannot separate these effects.

The national data also permit a useful distinction between scale and control effectiveness. A rising count of EWBs indicates greater use of the digital documentation system, while the CAG's audit findings concern whether records can be reconciled with returns, registration status and ITC claims and whether discrepancies are resolved. The two sources therefore complement rather than replace each other: GSTN's national totals describe system volume, whereas the CAG audit describes selected compliance risks and administrative processes within its stated audit scope.

Evidence reported for FY 2025–26

A Government of India Press Information Bureau publication reports 188.27 crore e-way bills for FY 2025–26. This figure extends the national series beyond FY 2024–25, but the cited release reports the annual total rounded to two decimal places in crore; accordingly, the equivalent count in Table 3 is approximate. The implied year-on-year increase over the exact FY 2024–25 total is approximately 44.3 per cent. This estimate should not be interpreted as an exact growth rate because the FY 2025–26 numerator is rounded.

The Economic Survey 2025–26 separately reports that cumulative e-way bill volumes during April–December 2025 grew by 21 per cent year-on-year. This is a nine-month, year-on-year indicator and should not be added to the full-year series or treated as a full-year growth rate. It provides a useful cross-check on the direction of activity during the first three quarters of FY 2025–26, while the annual figure above is used for the full-year comparison.

Audit-Detected Compliance Risks

Figure 6. Number of CAG audit observations and observations accepted by the Department.

Source: CAG (2025a)

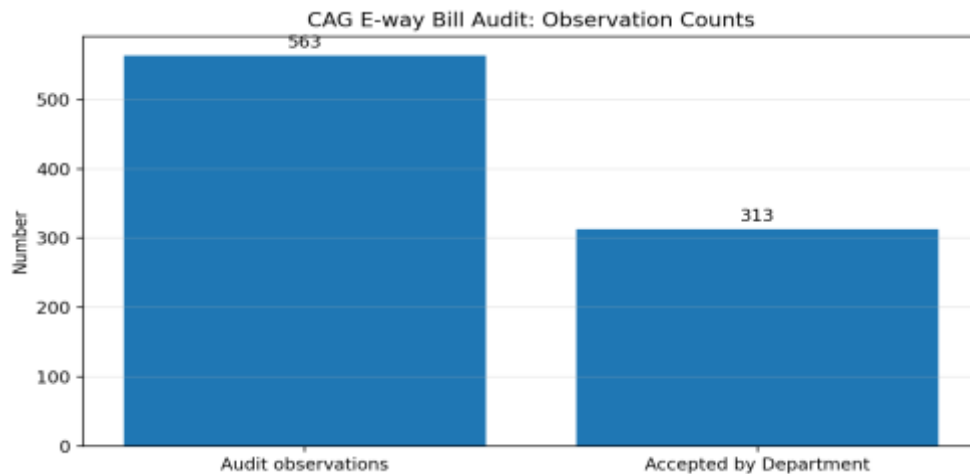


Figure 7. Reported monetary amounts at different audit-response stages.

Source: CAG (2025a)

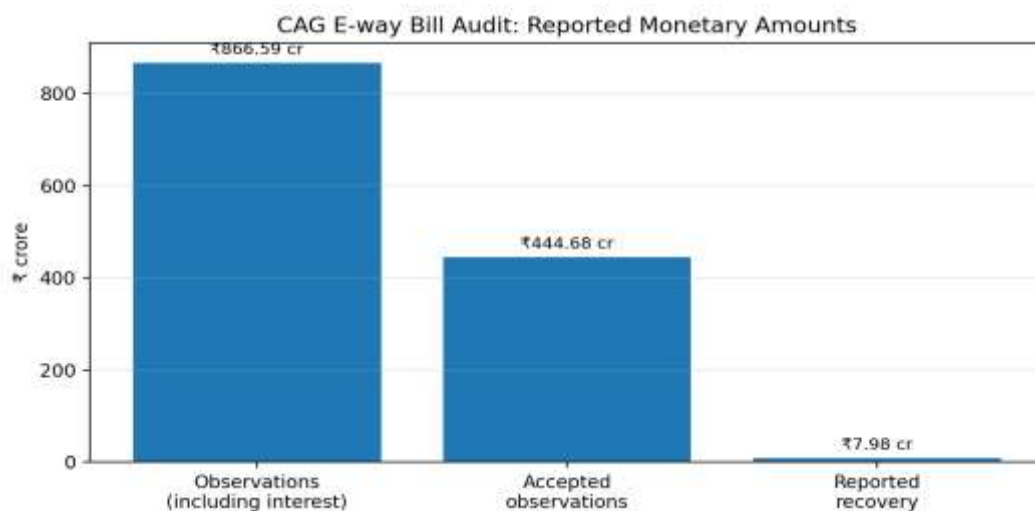


Table 4 summarises the principal aggregate audit outcomes reported in the CAG E-way bill performance audit. The monetary amounts refer to different stages of audit and administrative action and must not be read as a single realised revenue total.

Table 4. Audit observations, acceptance and reported recovery

Indicator	Reported figure	Interpretation
Audit observations	563	Count of observations
Observations accepted by the Department	313	Count; approximately 55.6% of observations
Value of observations (including interest)	₹866.59 crore	Audit-reported amount; not a population estimate
Value of accepted observations	₹444.68 crore	Accepted amount; not equivalent to recovery
Reported recovery	₹7.98 crore	Reported in 23 cases

The EWB audit's substantive findings are best understood as risk patterns detected through examination of selected taxpayers and transactions. They demonstrate how cross-system checks can reveal inconsistencies, but they do not provide a population-wide non-compliance rate. Table 3 summarises selected findings reported in the CAG's executive summary.

Risk pattern	Audit finding	Reported amount	Interpretive note
Composition-scheme conditions	36 taxpayers were found to have generated EWBs for inter-State supplies and/or crossed the relevant threshold.	Tax short-paid ₹6.74 crore; interest ₹0.51 crore.	Sampled audit cases; not a population estimate.
Returns not filed or turnover not reported	103 taxpayers had outward supplies supported by EWBs but did not file returns or omitted turnover.	Supplies ₹2,285.23 crore; tax ₹307.37 crore; interest ₹3.25 crore.	Turnover value is not the same as tax liability.
EWBs after registration cancellation	43 taxpayers generated EWBs for outward supplies after the effective cancellation date.	Supplies ₹152.60 crore; tax liability ₹23.56 crore; interest ₹0.94 crore.	Findings depend on records and applicable liability.
Multiple EWBs against a single invoice / related issues	The report identifies repeated or otherwise irregular EWB generation as an audit risk.	See report's specific paragraphs and aggregate conclusions.	Not combined with other rows to avoid double counting.

Source: CAG (2025a), Executive Summary and Chapter 4.

Non-filing and under-reporting

The finding involving 103 taxpayers is particularly relevant to digital governance because it illustrates the value of comparing EWB records with return filing and turnover reporting. The report records outward supplies of ₹2,285.23 crore and a tax amount of ₹307.37 crore, with interest of ₹3.25 crore, in the specified cases. The appropriate interpretation is that the audit identified cases in which EWB-supported outward supplies were not matched by the expected return filing or turnover disclosure. It is not appropriate to extrapolate the ratio of tax to turnover to all EWB transactions or to treat the entire EWB system as non-compliant.

Registration status and composition conditions

Registration and scheme status are dynamic variables. An EWB generated after cancellation, or by a taxpayer whose transactions conflict with composition-scheme conditions, can be a useful risk signal. Yet a robust administrative workflow must consider effective dates, amendments, appeals, transitional facts and the precise statutory position. Automated controls should therefore flag the relevant facts and route them for verification rather than impose an automatic adverse conclusion solely from a single field.

ITC mismatch and transaction reconciliation

The EWB system can be cross-referenced with return and ITC information, but these records represent different aspects of a transaction. A mismatch between ITC claimed and credit reflected in another system can arise from supplier reporting, timing, amendments, eligibility rules or other factors. The audit's role is to identify and test risk indicators. The administrative task is to determine whether a mismatch reflects a substantive tax issue, an explainable difference, or a data-quality problem.

Audit totals, acceptance and recovery

The conclusion of CAG Report No. 12 of 2025 states that the performance audit observed 563 instances involving tax effect or ITC mismatch of ₹866.59 crore, inclusive of interest. It states that the Ministry/Department accepted 313 observations with a money value of ₹444.68 crore, and reported recovery of ₹7.98 crore in 23 cases (CAG, 2025a, section 6.1). These figures refer to distinct stages: audit observations, acceptance, and reported recovery. The recovery amount should not be divided by the full audit-observation amount and described as a final recovery rate without confirming whether the populations, dates, and denominators are comparable. The figures also should not be added to other audit totals.

The report's press release describes 470 instances amounting to ₹576.86 crore for a specified group of EWB-related non/short-discharge issues. Because this is a separately framed summary, it is not merged with the broader conclusion total of 563 instances and ₹866.59 crore. The paper retains each figure with its own source context rather than forcing them into a single total.

Preventive enforcement and administrative capacity

The performance audit also identifies administrative constraints in preventive functions, including lack of dedicated arrangements for EWB verification, insufficient manpower and patrolling vehicles, inadequate or insufficient verification against targets, and insufficient use of analytical reports. These observations suggest that digital systems do not substitute for operational capacity. An effective model

requires both electronic risk detection and the ability to verify transactions in the field, document the result and pursue appropriate action.

Wider GST Audit: Data Quality and Scrutiny

CAG Report No. 25 of 2025 expands the picture from EWB-specific checks to GST return compliance and administrative monitoring. Its 10,124 high-value inconsistencies were identified across 18 parameters through data analysis. The report states that the monetary implication of these inconsistencies was ₹12,51,797.74 crore, including ₹3,53,838.20 crore of turnover associated with specified dimensions. This is a mixed measure that includes turnover and should not be presented as a direct estimate of tax loss. The Department responded to 8,106 cases; among these, 2,519 cases—reported as 30 per cent—were clear compliance deficiencies with a revenue implication of ₹21,695.11 crore (CAG, 2025b).

The arithmetic ratio 2,519/8,106 is approximately 31.1 per cent, while the report describes the cases as constituting 30 per cent. This difference may reflect rounding or the report's own presentation convention. To preserve source fidelity, the paper reports the CAG's stated 30 per cent and notes the simple ratio only as a calculation from the two counts, not as a correction to the audit report.

The report also indicates that data entry errors accounted for 6 per cent of cases and that in 22 per cent of cases the Department had already taken proactive action. The report records that 2,018 cases had not received a Department response at the time discussed. These categories should not be treated as mutually exclusive unless the report explicitly defines them as such. They show why the denominator and status of each case must be retained in any dashboard or performance metric.

The audit's discussion of validation controls is also nuanced. Stronger checks can reduce incorrect entries and improve data consistency, but hard validations may create friction where legitimate transactions produce unusual patterns. The Ministry and GSTN noted the need to avoid blocking genuine cases and referred to automated scrutiny and soft alerts. This supports a risk-based approach: use automated checks to prioritise attention, preserve explanations and corrections, and reserve coercive action for verified deficiencies.

Conclusion

Digital records increase observability, not automatic compliance

The trend data establish a clear expansion in EWB generation during the four-year period. This expansion matters because it creates a larger electronic record of goods movement and potentially more opportunities for cross-checking. But the audit findings demonstrate that record generation and tax compliance are not identical. Some taxpayers can generate movement documents while failing to file returns, omitting turnover, or operating in circumstances inconsistent with their registration or tax scheme. Digital governance should therefore be assessed not only by the number of records generated but by the quality and timeliness of matching, verification and resolution.

The growth divergence has operational implications

The faster increase in EWB generation relative to unique GSTINs implies a higher aggregate volume of EWB records per participating GSTIN. From an administrative perspective, that may increase the value of automated prioritisation. It can also increase the workload associated with exceptions, amendments and data reconciliation. A system that flags every discrepancy without ranking materiality may overwhelm field officers and impose unnecessary burdens on compliant taxpayers. The policy challenge is to improve signal quality, not simply to increase the number of alerts.

Data governance must include explainability and correction

Audit evidence about data entry errors, reconciliation issues and incomplete records points to the importance of explainable data controls. A risk alert should identify the relevant transaction, comparison rule, period and source fields. Taxpayers and officers should be able to trace why the alert was generated, submit an explanation, correct an error where legally permissible, and record the disposition. Such traceability can reduce repeated queries and create an audit trail for administrative accountability.

Compliance is a process outcome

The distinction between observations, acceptance and recovery shows that compliance is a process with multiple stages. A useful monitoring framework would report the number of alerts generated, cases screened, cases selected for verification, cases explained or closed, confirmed demands, amounts accepted, amounts assessed, amounts recovered, and time taken at each stage. Each indicator needs a clear definition, reporting period and denominator. Without those definitions, headline numbers can conflate detection with enforcement success.

Digital efficiency and taxpayer burden

The seminar brochure specifically includes MSME compliance costs and digital readiness among the relevant themes. The present reports do not provide a direct estimate of the compliance burden imposed on MSMEs by EWB rules. Nevertheless, they support a design principle: controls should be proportionate to risk and should distinguish avoidable data errors from substantive non-compliance. Better pre-submission validation, clear error messages, accessible correction routes and consistent administrative treatment can support both revenue protection and ease of compliance. The effect of these measures on MSMEs would need separate firm-level or survey data.

Recommendations

1. **Build calibrated validation rules.** Prioritise checks for high-risk patterns documented by the CAG: EWB generation alongside non-filing, significant turnover mismatches, registration-status conflicts, composition-scheme conditions and duplicate invoice references. Use hard blocks only where the legal rule is unambiguous; otherwise use soft alerts and verification.
2. **Integrate EWB, return and registration data.** Improve matching across EWB records, GSTR-1, GSTR-3B, relevant ITC information and registration history. Maintain consistent identifiers, effective dates and version histories so that amendments and legitimate timing differences can be understood.
3. **Use risk scoring with human review.** Prioritise cases by materiality, recurrence, confidence in the underlying data and the taxpayer's compliance history. Risk scores should assist, not replace, legal assessment and human review. The system should record why a case was selected.
4. **Create a case lifecycle dashboard.** Publish internal operational indicators for alerts, verified cases, cases closed without action, confirmed liabilities, accepted observations, recoveries and time-to-resolution. Report denominators and time periods explicitly, and avoid using the number of alerts as a proxy for revenue protected.
5. **Improve data quality at source.** Use field-level validation, clear definitions, duplicate detection, and user-facing explanations. Allow correction of genuine mistakes through lawful processes. Periodically review false-positive rates and the administrative cost of alerts.

6. **Strengthen field-level capacity.** Match digital risk outputs with adequate staffing, training, transport and analytical support for preventive verification. Ensure that officers can access relevant reports and that follow-up responsibilities are clearly assigned.
7. **Improve audit trail and accountability.** Maintain traceable records of the data used, rule applied, officer action, taxpayer response, final decision and recovery status. This supports auditability, consistent treatment and evaluation of whether a control is effective.
8. **Protect proportionate compliance for smaller businesses.** Assess whether digital workflows are usable by small and medium enterprises, including businesses with limited digital capacity. Provide clear guidance, accessible help and reasonable correction mechanisms while maintaining statutory obligations.
9. **Publish comparable, anonymised statistics.** Release annual or quarterly aggregate indicators using stable definitions. Where possible, distinguish central and state jurisdiction, transaction counts and value, risk flags and confirmed outcomes. This would support independent evaluation without disclosing taxpayer-specific information.
10. **Evaluate reforms before scaling them.** Pilot new validation rules and compare outcomes using defined metrics, such as the share of alerts confirmed after verification, average resolution time, repeat discrepancies and taxpayer correction rates. Where feasible, use phased implementation or comparison groups to assess effects.

Evaluation should consider both compliance yield and administrative burden. A rule that identifies a small number of material cases may be useful even if it generates relatively few alerts. Conversely, a rule that generates thousands of alerts but very few verified discrepancies may require redesign. Useful evaluation measures include the proportion of alerts confirmed after verification, the proportion closed as explainable or erroneous, median resolution time, repeated-alert frequency, and the amount recovered relative to the cost of administration. These indicators would help move the policy discussion from the volume of digital activity to the quality of governance outcomes.

A staged approach can reduce the risk that new controls create unnecessary filing friction. In the first stage, the administration can map existing data fields, document the matching rules and identify common sources of mismatch. In the second stage, selected rules can operate as non-blocking alerts, allowing officers to record whether the alert was useful and taxpayers to provide explanations through existing lawful channels. In the third stage, the administration can assess alert precision, time costs, repeated errors and the distribution of effects across taxpayer categories. Only after such review should a control be considered for wider implementation or conversion into a hard validation, and then only where the legal basis and operational evidence support it.

A staged implementation approach

A second requirement is to separate the value of transactions from the amount of tax at risk. A turnover mismatch, an EWB consignment value, a tax demand and an amount recovered are different quantities. They should be displayed in separate fields and aggregated only where the underlying definitions are compatible. Similarly, accepted audit observations, disputed observations, pending cases and recovered amounts should not be combined into a single ‘compliance’ total. The CAG reports demonstrate why this separation is necessary: figures refer to different stages of review and may include interest, turnover or other components. Consistent reporting would improve internal management and public interpretation.

A practical performance framework should distinguish inputs, process measures, outputs and outcomes. Input measures may include the availability of trained officers, analytical tools and preventive resources. Process measures may include the share of risk alerts reviewed within a specified period, the completeness of records available for review, and the time between an alert and a documented decision. Output measures may include cases verified, cases closed after explanation, and cases referred for further action. Outcome measures may include confirmed tax liabilities, recoveries, recurrence of the same discrepancy, and changes in the rate of avoidable data errors. Each measure should have a precise definition and a stable denominator. For example, ‘percentage of alerts resolved’ should specify whether the denominator includes all alerts generated, only alerts assigned to an officer, or only cases selected after preliminary screening. Without this distinction, a dashboard may make administrative performance appear better or worse merely because the case universe has changed.

Suggested monitoring indicators

Table 5. Suggested dashboard indicators for digital GST governance

Stage	Indicator	Suggested denominator / definition
Data quality	Share of records passing validation	Valid records ÷ records tested
Risk screening	Alert confirmation rate	Alerts confirmed after verification ÷ alerts verified
Resolution	Resolution within target time	Cases closed within target ÷ cases due for closure
Tax outcome	Recovery-to-confirmed-demand ratio	Amount recovered ÷ confirmed demand, with period stated
Taxpayer burden	Correction / repeat-alert rate	Corrections or repeated alerts per defined case population

Conclusion

This paper has examined digital GST governance through two distinct statistical lenses: the CAG’s Central-jurisdiction EWB series for 2018–19 to 2021–22 and national GSTN/GST Portal totals for FY 2019–20 to FY 2024–25, extended by the reported FY 2025–26 total. The CAG series shows an increase of approximately 36.8 per cent in EWB generation and 7.9 per cent in unique GSTINs over its period. Separately, national EWB generation rose from 619.59 million in FY 2019–20 to 1,304.69 million in FY 2024–25, and the Government of India reported 188.27 crore in FY 2025–26. Because the latter figure is rounded, the implied annual increase over FY 2024–25—about 44.3 per cent—is approximate. These series remain separate because their coverage and source definitions differ.

The audit reports show why digital documentation must be accompanied by robust cross-system checks and administrative follow-through. EWB records can help identify possible non-filing, under-reporting, registration-status issues and ITC mismatches. Yet a risk signal is not the same as a confirmed violation, an accepted audit observation is not the same as recovery, and a turnover figure is not the same as a tax-loss estimate. Maintaining these distinctions is essential for sound public-finance analysis.

The broader implication is that digital GST governance should be evaluated as an end-to-end institutional process: data capture, validation, risk identification, verification, decision, recovery or closure, and feedback. The CAG findings point to the importance of data integrity, analytical tools,

effective preventive administration and appropriate validation. A proportionate system should reduce genuine errors, identify material risks, and preserve a transparent route for taxpayers to explain or correct discrepancies.

The study is limited by aggregate annual data, the different coverage of the CAG and national GSTN series, risk-based audit samples and incomplete records in some cases. The national series extends the descriptive trend to FY 2024–25 but does not provide taxpayer-level outcomes or a direct measure of compliance. Further research could use monthly or quarterly EWB data, jurisdiction-level indicators, anonymised case outcomes and taxpayer-level evidence to examine seasonality, regional variation, alert precision and the effects of specific validation changes. Until such data are available, descriptive statistics and carefully bounded audit interpretation provide the most defensible basis for conclusions.

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