

Capital Spending in India: Bridging the Data Gaps

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Abstract

Building on our previous analyses of off-budget borrowing and subsidy spending, this paper extends the methodologies developed in earlier papers to critically examine capital expenditure (capex) reporting practices in India. Capex plays a pivotal role in economic development and fiscal policy, involving investments in durable assets that enhance productivity, generate employment, and foster private-sector participation. While the reported capex has risen significantly in recent years, a deeper examination reveals inconsistencies, data gaps, and misclassifications that undermine the accuracy, accountability, and effectiveness of these estimates. India's current reporting practices often obscure the true nature and impact of these investments. Significant portions of the reported capex are allocated to loans and advances to state governments, public sector enterprises, and debt repayment rather than direct asset creation. The paper compares India's reporting practices with international standards, emphasising the need for accrual accounting, comprehensive reporting, and eliminating misclassification of capex. It proposes adjusted capital spending estimates that align with the global standards and the reforms required to improve transparency and accountability practices in India.

Keywords: Capital Spending, Fiscal Transparency, Data Gaps, Government Finance Statistics, Public Finance Management

Publication Date: 25 May 2025

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[#] The authors would like to thank Kandarp Patel, Subodh Mathur and colleagues at CSEP for their valuable insights and comments. The authors are solely responsible for any errors.

1. Introduction

Capital expenditure (capex) is a cornerstone of economic development and fiscal policy, encompassing investments in physical and social infrastructure such as roads, bridges, railways, ports, energy plants, schools and hospitals. These investments create durable, non-financial assets that yield long-term economic benefits by enhancing productivity, generating employment, and fostering private-sector participation. Capex can also have strong multiplier effects, boosting growth by stimulating ancillary industries such as cement and steel, improving logistics efficiency, and addressing regional infrastructural disparities.

For a developing economy like India, where urbanisation and population growth drive the need for enhanced infrastructure, capital spending is essential for achieving long-term developmental goals sustainably. Given India's ambitious targets for economic expansion and social welfare improvements, the composition and effectiveness of its capex framework are crucial for both public service delivery and private sector competitiveness.

1.1 Scope and Objectives

This paper critically examines key issues surrounding capex in India, with a particular focus on:

1. **Centre and State-Specific Practices:** Understanding how the Centre and states allocate and manage asset creation in capital spending, identifying best practices and inefficiencies.
2. **Transparency and Reporting Challenges:** Evaluating expenditure reporting and classification inconsistencies, off-budget liabilities, and fiscal transparency issues.
3. **Alignment with International Standards:** Comparing India's reporting practices with global benchmarks to assess the need for reforms.
4. **Adjusted Capex Estimates:** Refining reported capex data to reflect actual nonfinancial asset creation.
5. **Policy Recommendations:** Proposing measures to enhance capex reporting, fiscal oversight, and governance structures.

1.2 Methodology and Approach

This paper utilizes a combination of government finance data, Comptroller and Auditor General (CAG) audit reports, International Monetary Fund's (IMF) fiscal transparency standards, and international accounting frameworks and best practices to critically assess India's capital spending framework.

The paper analyses capex trends at both the central and state levels. Since 2000, the reported capex has surged from approximately 2% to nearly 8% of GDP. As this paper explains, this is an overestimation primarily due to the inclusion of financial assets, such as loans and equity, in the calculation of capex. These practices are inconsistent with both India's official definitions of capex

and international standards, underscoring the need for improved transparency and alignment. Thus, this paper adjusts central and state capex to align with the Government Finance Statistics Manual (GFSM) 2014 definition of ‘net acquisition of nonfinancial assets’ and disaggregates public sector capital spending into government and PSE expenditures. The paper also spotlights several other data gaps that hinder public accessibility, oversight and accountability of public funds. Additionally, we explore international best practices in fiscal transparency and accountability.

This paper continues our previous work on off-budget borrowings (Gupta and James 2023) and estimating actual subsidy spending (Gupta, Malani, and Singh 2025) to bring attention to the data gaps hindering fiscal transparency in India.

The paper is structured as follows:

- Section II examines central and state capex trends, highlighting key sectors and regional variations.
- Section III evaluates international standards and best practices in capex reporting, comparing India’s approach with global norms.
- Section IV explores the challenges in capex reporting, estimating adjusted capex after accounting for classification issues, fiscal transparency, and off-budget spending.
- Section V summarises these challenges in the form of data gaps in capital spending accounting by the Centre and the states, as spotlighted by the CAG.
- Sections VI and VII present policy recommendations and the agenda for improving capex reporting and transparency.
- Building on our previous research on the opacity of subsidy spending and off-budget borrowings, this paper comprehensively evaluates India’s capital expenditure classification gaps as part of the overall agenda to improve fiscal transparency.

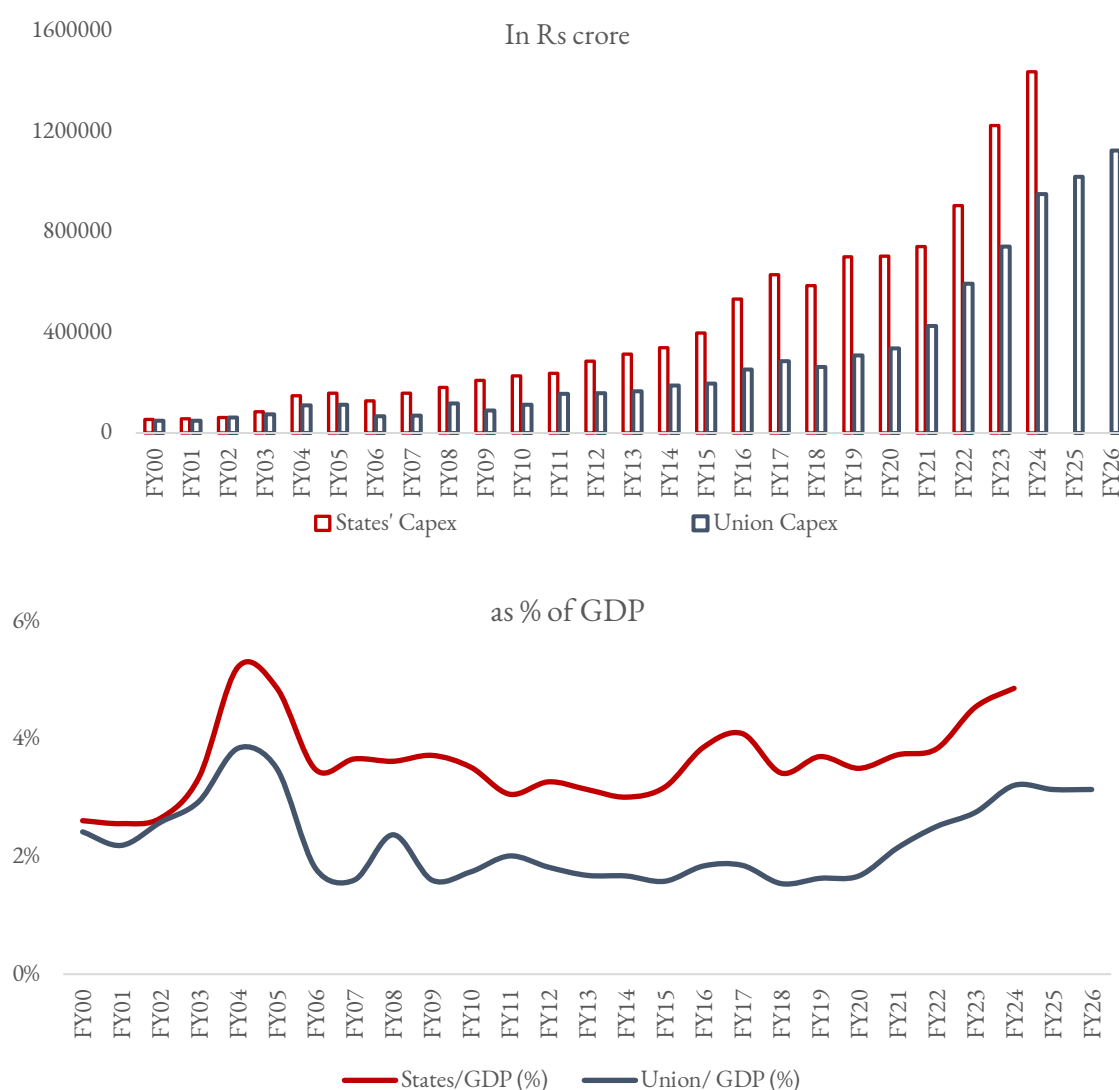
2. India’s Capex Landscape

India’s total capex is divided between the central and state governments¹. Both levels of government have the authority to invest in infrastructure, health, education, and public services, although their spending priorities and capacities differ. While the central government primarily invests in national infrastructure—such as highways, rail networks, defence, and large-scale energy projects—state governments focus on localised infrastructure, public services, health, and education.

Since 2000, India has witnessed a significant increase in reported capex by the central and state governments, from approximately 2% of GDP to nearly 8% of GDP, with a pronounced acceleration in recent years. The reported capex has consistently risen since 2014 (Figure 1), reflecting the renewed focus on infrastructure, transportation, defence, and energy. Central flagship programs such as Bharatmala Pariyojana, Sagarmala, and the Smart Cities Mission underscore this strategic emphasis. These initiatives aim to modernise India’s infrastructure and catalyse economic growth by attracting

private investment and enhancing the country's long-term growth potential. The reported central capex stood at 3.2% of the GDP in FY24, while the states' reported capex was estimated to be nearly 5%. Compared to the start of the millennium, the gap between the central and the states' capex has widened, with states spending much more, reflecting the increased devolution of funds following the 14th Finance Commission. A discussion, therefore, on the capex of both the tiers of government is warranted.

Figure 1: Union and States' Capex



Source: Union Budgets; Handbook of Statistics on Indian Economy, RBI; Handbook of Statistics on Indian States, RBI

Note: Data for States' cumulative capex in FY25 is unavailable.

2.1. Central Government's Capex

Since 2014, successive Union budgets have increasingly emphasised public investment as a key driver of economic growth. The central government has prioritised transport, energy, and urban

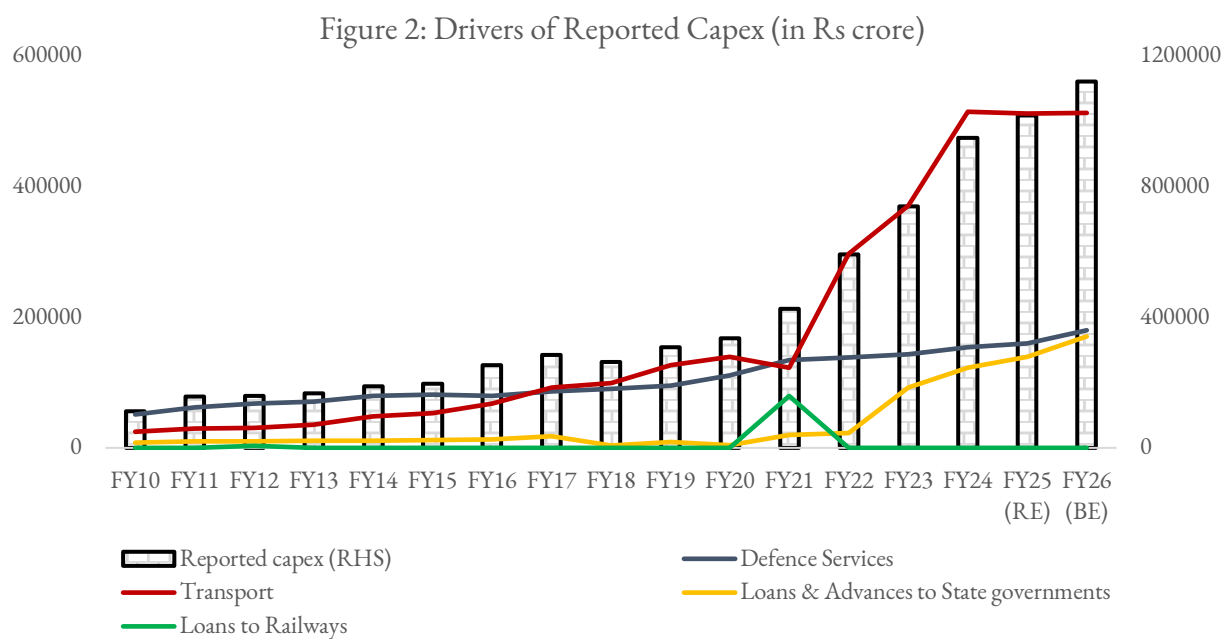
infrastructure. These investments address critical infrastructure gaps and stimulate private sector participation by improving logistics, connectivity, and efficiency.

Key Trends

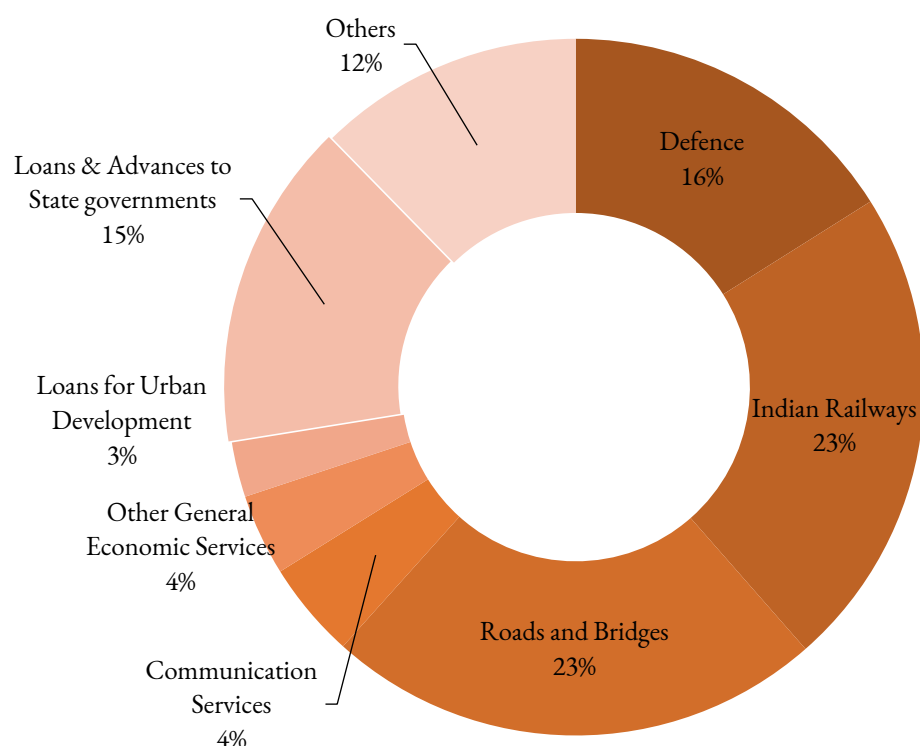
Among the key trends:

- Figure 2 presents the key reported components that drive central government capex growth since FY10.
- Figure 3 provides the sectoral distribution of the Centre's capex for FY26, showing that as much as 75% of the Centre's capital spending is on building road infrastructure, railways, defence, and communications. The remaining one-fourth comprises mainly loans and advances, the nature of which we discuss below.

Figure 2: Composition of Reported Capex (in Rs crore)



Source: Union Budgets

Figure 3: Sectoral Distribution of Capex in FY26 (Budgeted Expenditure (BE))

Source: Union Budgets

Rise of Loans and Advances to States

A significant trend in recent budgets has been the rise in loans and advances to state governments, recently driven by the Scheme for Special Assistance to States for Capital Investment, launched in 2022. These loans, often interest-free, aim to incentivise state-level infrastructure investments. However, their effectiveness and timing in tangible asset creation at the state level remains uncertain due to variations in states' fiscal capacities, implementation capabilities, and the diversion of funds for other purposes, such as loan repayment.

Among recent trends:

- **FY25 Budget Allocation:** The central government allocated Rs 11 lakh crore for capex, about 3.4% of GDP, an 11% increase from the previous year. Of this amount, Rs 1.6 lakh crore was designated for interest-free loans to state governments, representing 15% of the total allocation.
- **FY26 Projections:** The allocation has remained at Rs 11 lakh crore, with Rs 1.7 lakh crore earmarked for loans and advances to states, accounting for approximately 15% of the total capex.

As with loans to state governments, a significant portion of Centre's capex also comprises financial assets, such as loans and equity infusions to public sector enterprises (PSEs), which do not directly

contribute to physical asset creation, thereby overstating capex spending. Questions, therefore, remain about its classification.

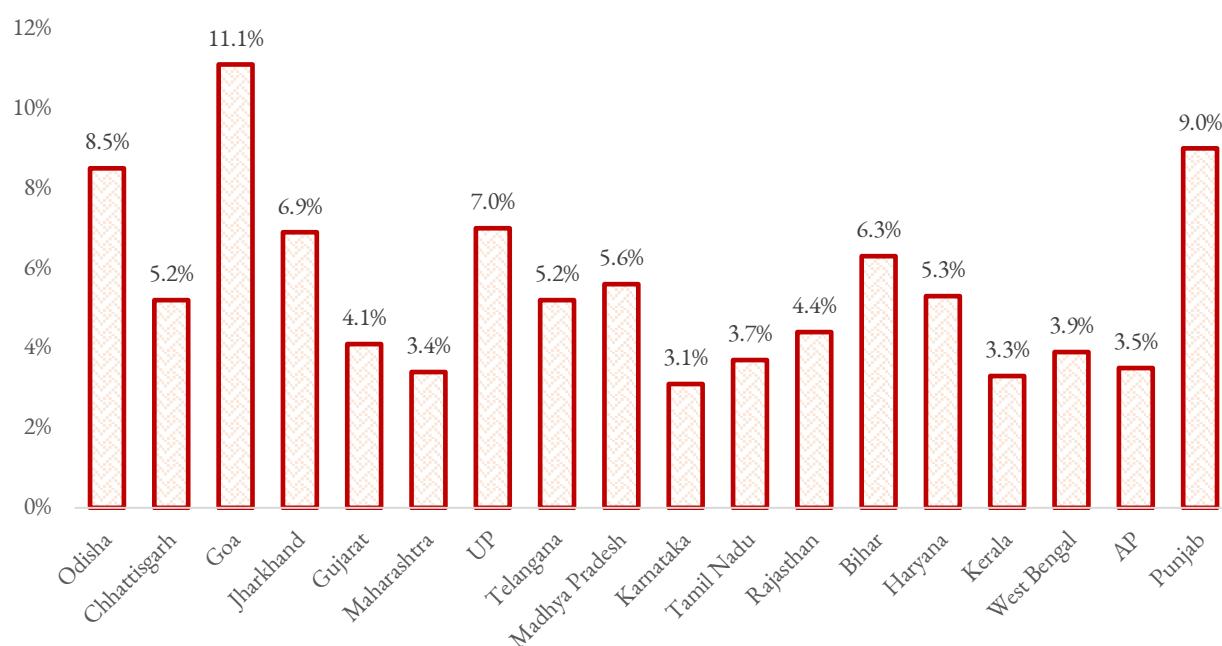
2.2. State Governments' Capex

State governments are major contributors to India's overall capex, reportedly accounting for 3-4% of GDP (Figure 4).

Their spending priorities include local infrastructure, social welfare programs (for, e.g., education and healthcare) and power sector investments. However, substantial variations exist across states in fiscal discipline, governance quality, and administrative capacity, leading to disparities in states' capex efficiency and effectiveness, capacities and developmental priorities. As discussed later, significant and varying data gaps across states complicate the transparency of the reporting of their tangible asset creation.

In this context, Niti Aayog's (2025) Fiscal Health Index (FHI) of Indian states in FY23 ranks them on major indices like quality of expenditure, revenue mobilisation, fiscal prudence, and debt indicators². The graph below showcases the states ranked in ascending order based on their performance on FHI. One of the determinants of this is the capital outlay to GSDP ratio, which measures how much of a state's resources are reportedly leveraged for long-term investments. Among all states, Odisha is ranked the highest in overall fiscal health, with a higher percentage of its economic resources utilised for capital projects. As can be seen, the capital spending of higher-ranked states³ is on the higher end, Goa and Jharkhand being the prime examples.

Figure 4: Capex of State Governments as % of GSDP in FY24



Source: Handbook of Statistics on Indian States, RBI

Note: Data for Goa and Gujarat is for FY23.

Key Trends in FY24

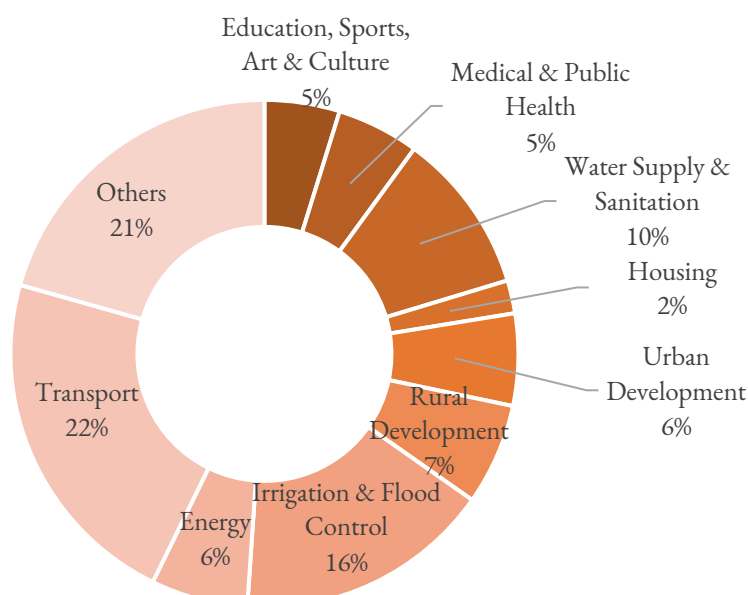
- States' combined budgeted capex was Rs 14 lakh crore, of which just over one-half was directed toward actual capital outlays through tangible asset creation. The remaining 42% was allocated to debt repayment.
- The share of loans and debt repayment in total reported capex varies widely across states, ranging from 20% to 85%. This underscores the differences in states' fiscal strategies, transparency, and debt profiles.

Regional Variations

- **High-Spending States:** Odisha and Punjab emerged as leading states in reported capex spending as % of their GSDP amounting to over 8%. Investments were focused on transport, rural infrastructure, and social development.
- **Low-Spending States:** Gujarat reported one of the lowest capex levels relative to GSDP at 4%, reflecting its relative fiscal conservatism and probable reliance on private investments and public-private partnerships (PPPs) for infrastructure development.
- **Smaller and Hilly States:** States like Manipur and Arunachal Pradesh allocated over 15% of their GSDP to capex, driven by central transfers and loans and high infrastructure needs.

Sectoral Priorities

Figure 5: Breakdown of states' combined capital outlay in FY24 (BE)



Source: State Finances: A Study of Budgets, RBI

Figure 5 illustrates the breakdown of states' combined capital outlays⁴ for FY24, emphasising transportation, irrigation, water supply, and sanitation. Together, these sectors accounted for nearly half the total budgeted capital outlay. The 'others' component includes expenditure on family welfare, industry and minerals, tourism, and general services. Social infrastructure, including health and education, received relatively lower allocations, presumably reflecting the challenges of balancing developmental priorities with fiscal constraints.

2.3. Challenges in Reported Capex

As explained above, a significant portion of reported capex represents grants or support to other entities, including loans and debt repayment, unlinked to capital outlay and development priorities. As a result, the reporting of capex faces several challenges in transparency and accountability, such as accounting misclassifications, exclusion of off-budget and contingent liabilities, and diversion of capex funds.

These practices contradict official rules and definitions of capex in India, such as the Government Accounting Rules (GAR) 1990 and the General Financial Rules (GFR) 2017, where:

- Capex is defined as expenditure incurred to acquire “tangible” or “concrete” assets of a “permanent nature” or “enhancing the utility of existing assets” (Rule 84 of GFR, Rule 30 of GAR).
- GAR explicitly clarifies that spending on a temporary asset must not be classified as capital spending.
- GFR 2017 requires that a register of fixed assets must be maintained in a prescribed format (Rule 209 (i)), and physical verifications must be conducted annually (Rule 213(1)).

India's current reporting practices are also similarly at odds with internationally set standards and global best practices. They, therefore, are in urgent need of improved transparency and alignment with global standards.

By addressing these issues, India can better focus on real capital investment and effectively achieve its developmental goals. This discussion sets the stage for the next section to examine international standards and their relevance for improving India's capex reporting practices.

3. International Reporting Standards

International codes and guidelines, such as the GFSM 2014 and the Fiscal Transparency Code 2019 (the Code) of the IMF, as well as the World Bank's Debtor Reporting System (DRS) Manual 2000 provide guidelines and global standards⁶ for reporting public finance data, including capital spending. These frameworks aim to ensure consistency, transparency, and comparability across countries. Table 1 highlights key principles from the GFSM 2014 and the Code, which serve as benchmarks for India's reporting practices.

Table 1: Global Standards for Capital Spending Reporting

Principle	International Standard
Accrual-Based Accounting	Governments are encouraged to adopt accrual-based accounting systems to ensure expenses ⁷ are recorded when they occur rather than when cash transactions happen. This includes recognising non-monetary transactions, depreciation, and valuation of intangible assets. (Para 1.27, GFSM 2014, Principle 1.3.1, the Code).
Consistent Reporting	Capital spending should be clearly distinguished from revenue expenditure ⁸ , ensuring that only expenditures resulting in nonfinancial asset creation are classified as capital spending. (Principle 1.3.1, 3.3.2, the Code; Para 4.25, 7.17, 8.3, Table 8.1, GFSM 2014)
Comprehensive Reporting	Governments must report extra-budgetary spending, contingent liabilities and public sector entities, including those by Special Purpose Vehicles (SPVs) and Public-Private Partnerships (PPPs), to capture fiscal risks and obligations. (Para 1.80, 2.80, 4.15, GFSM 2014; Principle 3.2.1, 3.3.2, 3.2.4, the Code)
Timely and Consolidated Reporting	Frequent and timely publication of fiscal data ensures public scrutiny and data-driven policymaking. Consistent subnational reporting and consolidation of general government and public sector finances are required for a unified view of public spending. (Principle 1.2, 2.2.2, 3.3.1, 3.3.2, 1.4.3, the Code; Para 3.156, GFSM 2014).
Granularity	Governments must provide detailed breakdowns of capital spending, including revenue and expenditure projection, sector-wise allocation, asset types, and project-specific cost-benefit analyses. This is particularly crucial for multi-year projects to track long-term financial commitments. (Principle 2.1.3, 2.1.4, the Code)
Debt-Financed Spending Transparency	Disclosure is required for the economic classification of long-term external debt, including debt-financed projects and their economic sectors, along with associated debt service costs, to ensure transparency in government borrowing and fiscal sustainability. (Form 1, Item 7, 16-21, DRS)
Outcome and Impact Reporting	Public spending must be linked to measurable outcomes, such as infrastructure quality, service delivery improvements and economic impact. Governments should publish regular progress reports on capital projects (Principle 2.3, the Code)

3.1. International Experience

A growing number of emerging and advanced economies have adopted practices aligned with the GFSM standards, offering valuable insights for India to enhance its capex reporting systems. Among these, China, Brazil, and Canada have completely shifted to accrual accounting.

1. China: China has made significant achievements in implementing GFSM 2014 reporting standards, including quarterly general government data dissemination, public debt management, and timely financial soundness indicators under the G20 Data Gaps Initiative (DGI-2). In contrast, India partially fulfils these criteria and could benefit from enhanced policy alignment, debt reporting, and local accountability mechanisms.

2. Brazil: Brazil has leveraged IT systems and incentives for the timely sharing of fiscal data at the subnational level to produce consolidated general government data (Blagrove & Gouguet 2020). Brazil emphasises detailed sectoral reporting of capex, focusing on infrastructure and social investments. As mandated by the Fiscal Responsibility Law 2000, Brazil also publishes a Fiscal Risk Appendix along with the annual budget, which evaluates contingent liabilities (IMF 2018, 98). India can adopt Brazil's approach to detailed sectoral reporting, including contingent liabilities in fiscal documents, and mandate fiscal risk disclosures in budget documents.

3. South Africa: South Africa's fiscal framework includes sector-wise capex tracking and reporting, linking expenditures to socioeconomic outcomes such as improved healthcare and education. The National Treasury publishes seven-year economic and fiscal outlooks, including three forward years (IMF 2018, 83). India should focus on outcome-based reporting, linking capex to measurable impacts, and developing systems to track the effectiveness of investments in achieving developmental goals.

4. Canada: Canada employs accrual-based accounting with rigorous project-level tracking and ensures public accessibility to fiscal data. The country has a robust monitoring system where each federal department has set up an evaluation unit (IMF 2018, 79). Additionally, Canada caps the guarantees issued to third parties to be judicious with public resources. India could adopt accrual-based accounting and more responsible capex reporting while developing detailed project-level tracking and public access mechanisms.

5. Chile: Chile focuses on comprehensive project-level reporting, offering granular details and emphasising sustainability in capex planning. The budget includes a medium-term financial projection of the investment projects financed through the budget and PPPs. A detailed summary of the following three years is provided with an ex-ante cost-benefit analysis. Additionally, an ex-post analysis is done for completed projects (IMF 2018, 67). India can improve the granularity of its capex reporting by providing project-specific details.

3.2. India's Performance vis-a-vis International Standards

These international practices highlight actionable steps for India to align with GFS standards, enhance transparency, and optimise capex reporting for better fiscal management and developmental outcomes.

The IMF has placed India behind most G20 economies in fiscal transparency and reporting. India is also one of the few G20 countries which does not provide disaggregated general government fiscal data⁹ as per GFS standards. This is despite India's G20 DGI commitment to produce quarterly general government GFS data by 2021 (Blagrove & Gonguet 2020). A step in this direction has been the development of cash-based GFS-aligned data for the central government by the Controller General of Accounts (CGA) since FY21¹⁰, but subnational reporting remains inconsistent. Thus, (partially) comparable GFS data are available only for the central government.

India's fiscal reporting diverges significantly from GFS standards due to its adherence to cash-based accounting¹¹ under the GAR 1990. The key points of divergence are:

1. Cash-based accounting: India continues to adhere to cash-based accounting under GAR 1990. As India does not follow accrual-based public sector accounting, it does not track and report receivables and payables. The recording and reporting of assets and liabilities are also limited.

2. Lack of nonfinancial asset reporting: India does not publish data on the fixed asset registries prescribed by GFR 2017, which record the purchase or creation of new fixed assets by type of assets. Despite guidelines from the Ministry of Finance (MoF) and CGA regarding the development of e-asset registers, implementation remains incomplete.

3. Inclusion of financial assets in reported capital spending: India's reported capex includes financial assets such as loans, advances, and equity infusions, which may not directly result in physical asset creation. For instance, interest-free loans provided by the Centre to states for capex are counted as capex, regardless of their end-use.

4. Lack of consumption of fixed capital accounting: As India does not follow accrual accounting, it does not measure and record the consumption of fixed capital. Thus, net investment in capital assets is overestimated due to the non-recording of consumption of fixed capital.

5. Exclusion of Off-Budget: Significant portions of capex by PSEs¹² are excluded from budgetary reports, obscuring the true extent of public investment. Many large government projects are carried out by PSEs, which often use off-budget borrowings. Therefore, their inclusion at the time when the capex is incurred is crucial to understanding the true extent

Due to these divergences, India's estimation of capital spending includes financial assets as well—estimates of capital spending vary considerably. As per the CGA's GFSM data, the Union's actual capital spending, i.e. net investment in non-financial assets¹³ is lower than its budgetary gross estimates. Table 2 presents estimates for FY21- FY23.

Table 2: Estimates of Union Capital Spending as per GFS Manual 2014 compared with Union Budgets (in Rs. crores)

	FY21	FY22	FY23
Capex as per Union Budgets	426,317	554,236	750,246
Net Investment in Nonfinancial Assets (Capital Spending) as per GFSM 2014	217,852	239,408	251,216

Further, if India were to move to accrual accounting and calculate the consumption of fixed capital, capital spending, i.e. net investment in nonfinancial assets, would be much lower. As we show in Section IV, the estimates as per GFSM 2014 are closer to our adjusted estimates of the Centre's capital spending.

A similar exercise by the IMF to calculate adjusted fiscal deficit estimates by taking into account off-budget financing showed that the central government's fiscal deficit was greater than the budget's 'headline' figures (Blagrove & Gonguet 2020). An important adjustment to headline estimates was the inclusion of the borrowing requirements of PSEs. In a similar stride, the following section adjusts the Centre's capital spending estimates to approximately align with GFSM 2014 and disaggregates adjusted public sector capital spending into government spending and PSE spending. This approximately aligns with the methodology adopted by other experts (Gupta & Ladha 2025).

Nevertheless, the preparation and availability of the central government's GFSM fiscal data by CGA, as per India's G20 DGI strategy, is a move towards improved reporting and transparency. However, the data gaps discussed in Section V reflect areas where India needs to do more.

4. Adjusted Capital Spending

As highlighted in the previous section, the calculation of capital spending must be limited to the acquisition of nonfinancial assets to align with international standards. Primarily, two types of transactions contribute to this misalignment:

(i) Loans and Advances to other entities, including repayment of debt

- Central Government: The Centre includes loans and advances to state governments and government employees in its calculation of capex. For instance, the Centre has, in recent years, provided 50-year interest-free loans to the state for capex. However, this expenditure should be recorded as capital spending by the state governments when these loans are utilised by states to create non-financial assets and not by the Centre.
- State Governments: State governments report capex from the Consolidated Fund, which includes:
 - Loans and advances extended to other entities, including State PSEs (SPSE) and local bodies.

- Repayment of loans received from the Centre or market borrowings.

Loan repayments do not lead to the creation of new public assets and should, therefore, be excluded from the calculation of adjusted capital spending.

(ii) Budgetary support to Public Sector Enterprises (PSEs)

The Union and state governments also report equity infusion and loans to PSEs as capex. These financial transactions, collectively termed budgetary support to PSUs, do not necessarily translate into infrastructure creation or physical assets.

These must be excluded from reported capex to estimate adjusted capital spending.

This methodology enables us to:

1. Differentiate between actual capital spending and financial asset creation,
2. Distinguish the capital spending of PSEs from that of the government, hence avoiding double-counting,
3. Ensure that capex aligns with international standards by focusing on physical asset creation.

4.1. Capital Spending of CPSEs

PSEs finance their capex through:

1. Budgetary support from the government through loans and equity infusions,
2. Funds generated internally or raised through external resources such as extra-budgetary resources (IEBR).

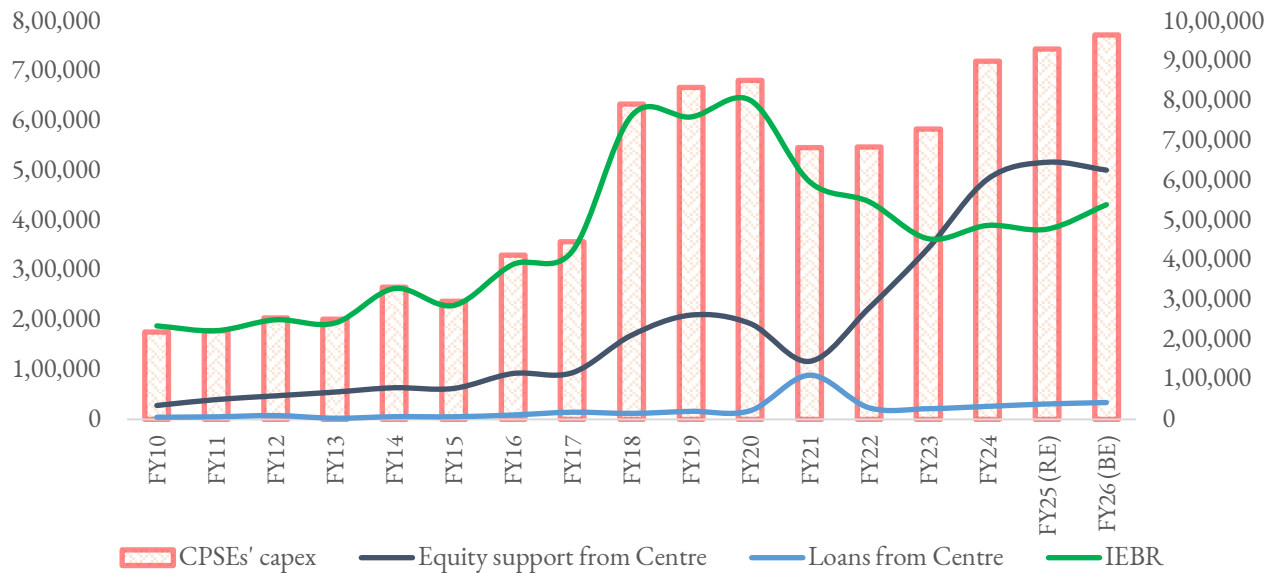
As per Statements 25 (Resources of Public Enterprises), 26 (Investment in Public Enterprises) and 1 (Summary of Expenditure) of the Union Budget, the summation of loans, equity and IEBRs represents the reported capital outlay of CPSEs.

Key Trends in CPSEs' Capital Spending:

- There has been an increase in budgetary equity infusions, corresponding with a slight decline in IEBRs in recent years. This has resulted in a nominal net increase in the capital outlay of CPSEs.
- As budgetary support to PSEs in the form of loans and equity is included in the reported capital spending of the central government, the increase in equity infusion has inflated the Centre's reported capex. This budgetary support, if it translates to non-financial asset creation, should be included in CPSEs' capex during the period when it does.
- The corresponding decline in IEBRs is not reflected in the Centre's reported estimates. This raises concerns that the increase in the Centre's reported capital spending driven by increased equity support is not fully incremental.

- The CAG and other analysts have noted a trend in allocating budgetary support to loss-making PSEs, raising concerns about the sustainability and efficiency of such expenditures (CAG 2024a).

Figure 6: Capital Outlay of CPSEs (in Rs. crore)



Source: Union Budgets

Equity infusion, loans, and IEBR translate into actual capital spending for PSEs if they are used to create tangible and durable assets. However, there are significant discrepancies between:

1. What the Centre and state governments report as capital outlay of PSEs, and
2. What the PSEs themselves report as capex in their finance accounts.

Box 1 describes the issue of discrepancies and the need for reconciliation of budgetary capital outlay and actual capital spending of PSEs.

Box 1: Reconciliation of reported budgetary support with actual capital spending of PSEs

The Department of Public Enterprises (DPE), through its financial monitoring dashboard, publishes actual capital spending data reported directly by CPSEs since FY21. The table below shows that actual CPSE capital spending is consistently lower than the capital outlay reported in the Union budgets, suggesting that:

- A portion of budgetary allocations (equity infusions and loans) or IEBRs are not being utilised for asset creation.
- Reported capex is overstated compared to actual physical investments.

Capital Spending of CPSEs – Reported v/s Actual (in Rs crore)

		FY21	FY22	FY23	FY24	FY25
Reported	Total Capital Spending as per Union Budgets	683,233	684,847	729,184	840,468	913,670
Actual	Total Capital Spending as per DPE Dashboard	502,696	575,634	645,920	741,883	776,691
Actual as % of reported		73.6	84.1	88.8	88.3	85

Similar discrepancies exist for state PSEs. CAG audits (2024b) have highlighted discrepancies in financial records between state finance accounts and state PSE balance sheets.

For instance:

- In Punjab, CAG found that the state government reported an equity infusion of Rs 19,000 crore into 16 PSEs in FY23, but the PSEs' financial records accounted for Rs 23,000 crore (ibid, 54).
- This discrepancy raises concerns about accountability and the need for timely reconciliation of financial records.

Thus, CAG recommended the required time-bound reconciliation of accounts to address these discrepancies and close the gap.

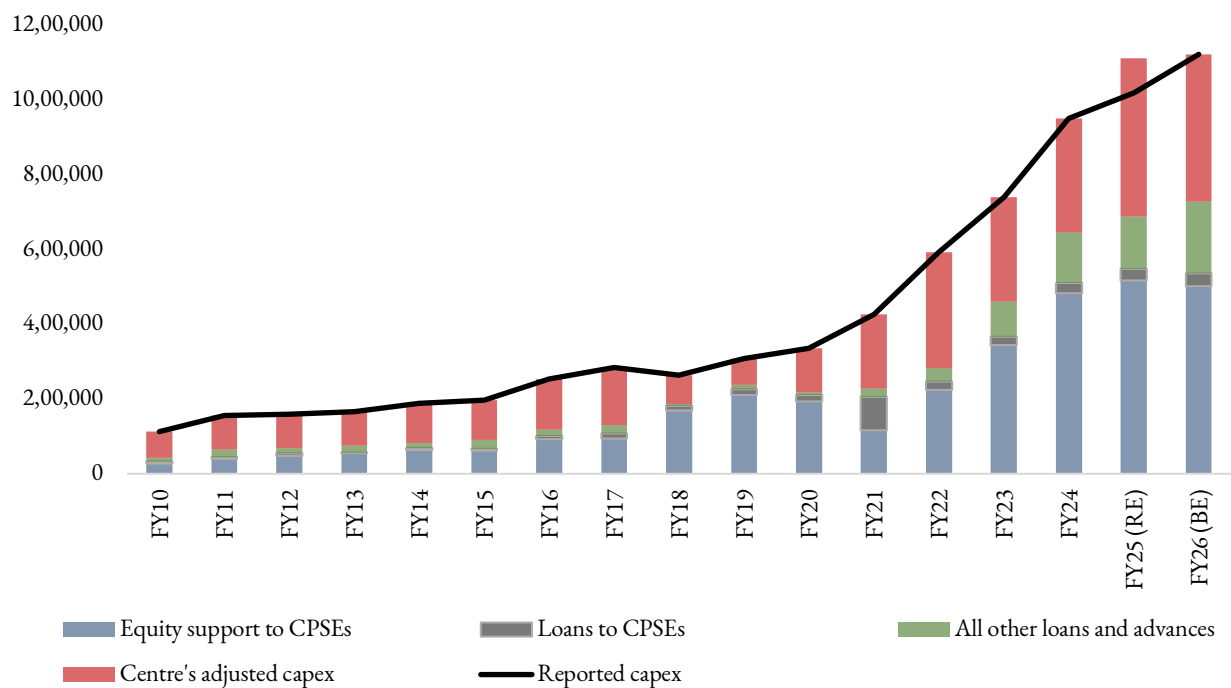
4.2. Centre's Adjusted Capex

By excluding budgetary support to PSEs and loans/ advances, we can estimate the Centre's actual capital spending (or capital outlay), which we term adjusted capital spending.

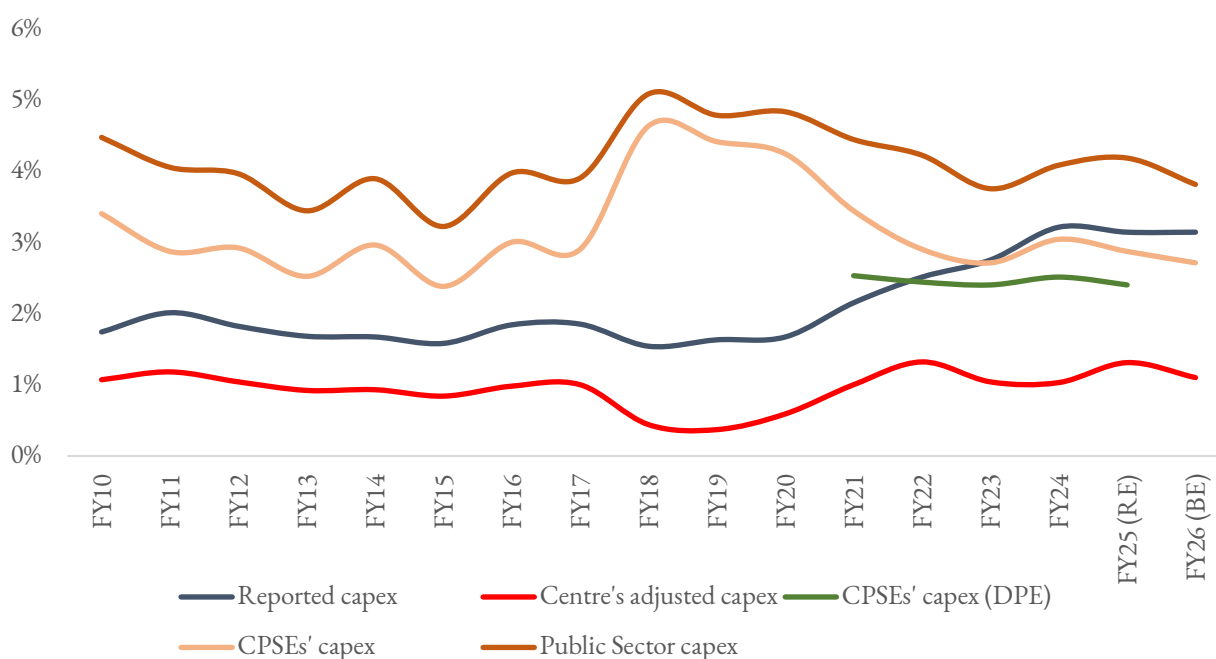
Figures 7 and 8 highlight:

- In recent years, reported capital spending has been inflated by equity infusion to CPSEs and loans to state governments. For instance, in FY26, 45% of reported capex is budgeted for equity support to CPSEs, and 15% for loans to state governments.
- When financial assets (loans and equity) are excluded, adjusted capex as a percentage of GDP does not show the increasing trend in reported capex.
- In particular, for FY25 and FY26, adjusted central government capex is far lower than reported estimates. While capex is reported to be 3.14% of GDP in both FY25 and FY26, adjusted capex is estimated to be 1.1-1.3 % of GDP.

Figure 7: Centre's Reported v/s Adjusted Capital Spending



Source: Union Budgets

Figure 8: Centre's Public Sector Adjusted v/s Reported Capex as % of GDP

Source: Union Budgets; DPE Dashboard

Note: 1. Indian Railways and National Highways Authority of India are included in CPSEs' capital spending. 2. Public Sector Capital Spending includes CPSEs' data as per Union Budgets and the Centre's adjusted capital spending.

- The Centre's adjusted capital spending as a percentage of GDP shows a decreasing trend in recent years, contrary to the trend of reported spending.
- CPSEs' capital spending, as given in the Union Budgets, has also decreased. Total public sector capital spending, thus, has fallen from its peak in FY18.
- CPSEs' capital spending, as per DPE data, is lower than Union Budget estimates, further reducing total public sector capital spending as % of GDP.

4.3. States' Adjusted Capex

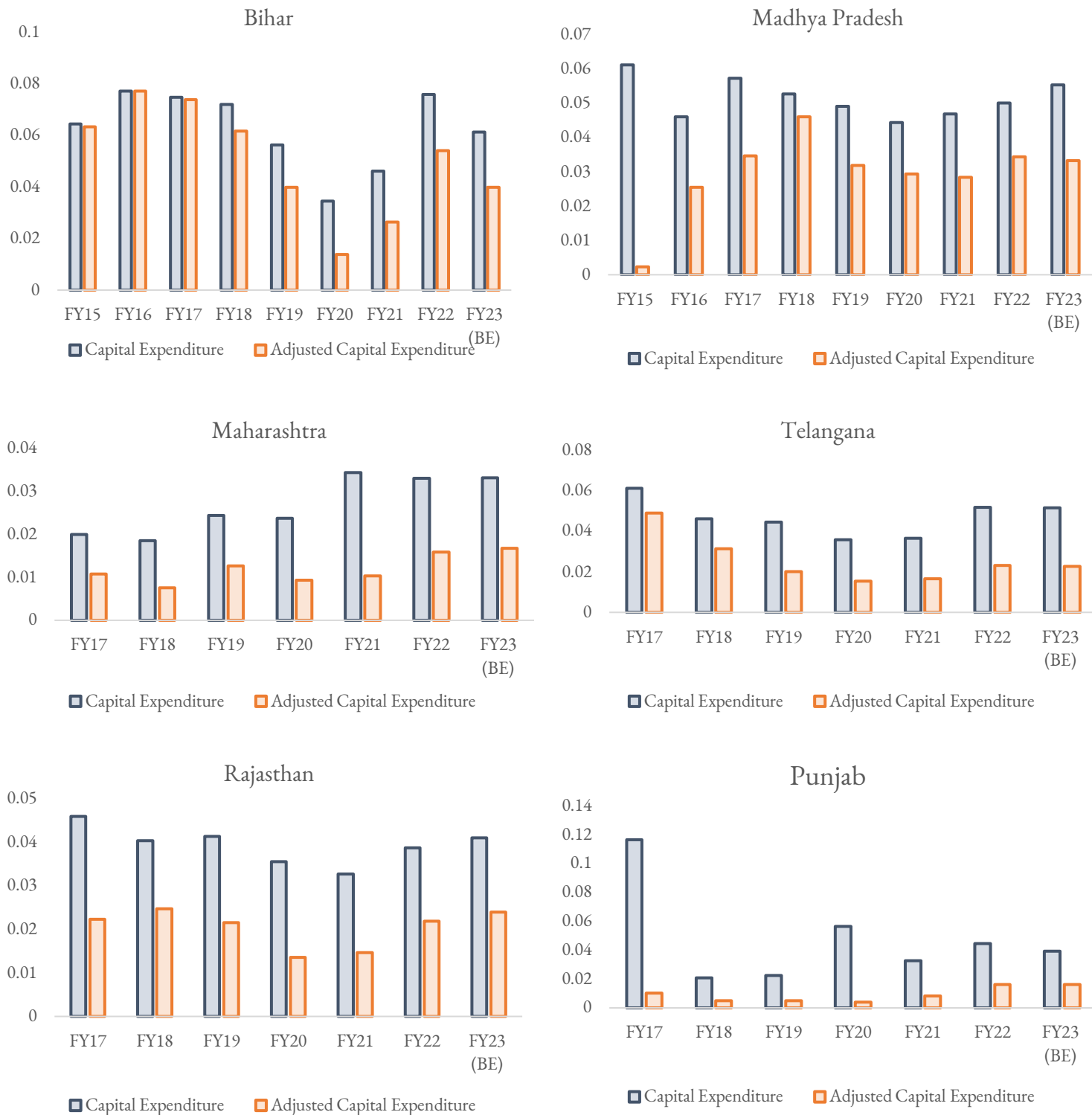
Using a similar methodology, the reported and adjusted capex of six states is presented in the figure below. To arrive at the adjusted capex:

- **Exclusion of Financial Assets:** Loans to other entities, including state PSEs (SPSEs) and other states, and the discharge of internal debt were deducted from the reported capex.
- **Exclusion of Equity Investments:** Equity investments by states in their SPSEs were excluded to provide a more accurate estimate of actual capex.
- **Correction of Misclassification:** The adjusted capex also accounts for "misclassification"—the erroneous accounting of revenue expenditure as capex. This issue has persisted across states and years, and addressing it helps derive more accurate estimates.

The adjusted estimates could only be calculated for states where details of SPSE equity infusions were provided to the CAG. Blagrove & Gonguet (2020) have also noted the absence of comprehensive

and compiled data on SPSEs. As such, this analysis could not be extended to other states. The incompleteness of the data is discussed later in the paper.

Figure 9: States' Reported v/s Adjusted Capital Spending as % of GSDP



Source: State Finances: A Study of Budgets, RBI; Handbook of Statistics on Indian States, RBI; CAG State Finance Audit Reports

A significant portion of this equity infusion is directed toward state power companies. For instance, Bihar State Power Holding Company Limited accounted for nearly 90% of the state's capital infusions over the years. Similarly, in Punjab, most of the allocation went to the State Power Corporation.

Key Trends

- State budgets systematically overstate capital spending by including financial assets (loans, equity infusions, and debt repayments). Hence, adjusted capex provides a more accurate picture of the public investments of states.
- It should, however, be noted that the adjusted numbers might be overstated as data for misclassifications is not consistently available across all states and all years.
- For example, Bihar's FY23 adjusted capex was 4% compared to the reported 6% of the state GDP, with a similar difference in previous years.
- In the case of Madhya Pradesh, in FY15, the reported capex was over 6% of the state GSDP. However, after removing the component of loans and PSE equity, the adjusted capex remained merely 0.23%. In FY23, the reported capex was above 5.5%, almost half of which comprised loans and PSE equity.
- A similar trend can be seen for the other states in Figure 9.
- Better reconciliation and transparency in reporting are needed to ensure fiscal accuracy and efficiency.

5. Data Gaps in Capex

Aside from the issues in the calculation of capex, the CAG has consistently highlighted other inefficiencies, mismanagement, and systemic weaknesses in India's capex reporting, including misclassification of expenditures, underreported liabilities, and reliance on off-budget borrowings that evade public scrutiny. These issues are particularly pronounced at the state level, where differences in fiscal capacity, governance quality, and financial reporting standards result in an uneven capex landscape. These data gaps undermine the accuracy, efficiency, and credibility of India's public investment framework, with significant consequences for fiscal policy and developmental planning.

The key data gaps can be classified into the following dimensions:

5.1. Inconsistencies in Reporting

A significant data gap exists in the misclassification of expenditures, with some states (and occasionally the Centre) reporting revenue expenditures as capex. Among the states:

- **Andhra Pradesh:** The state has frequently included revenue expenses, such as contributions to minor works and grants-in-aid, inflating its reported capex. For instance, in FY23, Andhra Pradesh misclassified more than Rs 700 crore in revenue expenses as capex, primarily in grants

for irrigation. This misclassification misrepresents its actual capital investment and distorts the state's fiscal deficit (CAG 2024c, 106).

- **Madhya Pradesh:** The state often reports grants, routine maintenance expenses and salary payments linked to capital projects as capex. In FY23, the state misclassified Rs 2382 crore worth of revenue expenditure as capital spending, including Rs 256 crore in grants-in-aid (CAG 2024d). This misclassification artificially inflates capital spending figures and deflates revenue spending and the deficit.

GAR establishes clear guidelines for classifying maintenance and working expenses as capital spending before the project has been open for service and for further additions and improvements. Once the project has been opened, all subsequent maintenance charges should be accounted for as revenue expenditure (Rule 31 (2)).

Additionally, GAR prescribes that grants-in-aid provided to local bodies or other institutions to create capital assets must be considered capital spending of the grantee. Thus, the grant-giving State must not account for this in its capital spending (Rule 30 (1)). Irrespective of its purpose, all grant-in-aid must be recorded as revenue expenditure in the grantor's books, as per Indian Government Accounting Standards (IGAS)-2 (CAG 2015a, 123). The Centre includes grants-in-aid for the creation of capital assets (for example, its spending on the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA) and the Smart Cities Mission) to its reported capital expenditure to calculate the 'effective capital expenditure'.

Other states have similarly exhibited misreporting trends:

- **Maharashtra:** The state has been found to classify grants to local bodies and PSEs as capex, irrespective of whether the funds are used for asset creation. In FY23, grants-in-aid worth Rs 3,440 crore were misreported as capital spending (CAG 2024e). This practice distorts the state's fiscal position and undermines the credibility of its financial reporting.
- **Rajasthan:** The state has also included grants and transfers to local bodies under capital spending, even when these funds are used for operational purposes. In FY23, grants worth Rs 330 crore were misreported as capital spending (CAG 2024f, 104). Reconciliation and verification of accounts can prevent such errors.

5.2. Incompleteness of Data

5.2.1. Off-Budget Borrowings and Hidden Liabilities

Off-budget borrowings through state-owned enterprises (SOEs), PSEs, and SPVs are substantial but often underreported or undisclosed in India's government accounts. These borrowings, often routinely used to finance capital projects, frequently fall outside the reported official budget and public debt data, creating hidden fiscal vulnerabilities and adversely affecting long-term sustainability.

For instance, **Maharashtra** State Road Development Corporation Limited (MSRDCL) financed Rs 20,400 crore in FY24 through extra-budgetary means (DoE 2024), but these borrowings were excluded from state budgetary accounts. This creates fiscal opacity and complicates the assessment of actual public debt and capital spending, making fiscal sustainability harder to evaluate. Additionally, contingent liabilities like guarantees for loans to state entities are only partially disclosed, further obscuring the true financial health position and underreporting capex.

The Fifteenth Finance Commission (FFC) recommended that states must not resort to off-budget or any other non-transparent source of finance to meet developmental expenditure (FFC 2020, 376). The CAG has also raised concerns about the use of off-budget borrowings to finance capex. In its reports on state finances, the CAG has noted that several states rely on off-budget financing for capital projects, but the nature of these liabilities is often unclear. This practice distorts fiscal deficit figures, as liabilities are not fully reflected in the budget. Off-budget measures also mask India's actual fiscal deficit and borrowing requirements, as highlighted by Blagrove & Gonguet (2020).

Among other states:

- **Kerala:** The state had outstanding off-budget borrowings to the tune of Rs 29,476 crore by the end of FY23, with 60% raised through the Kerala Infrastructure Investment Fund Board (KIIFB) (CAG 2024g, 64). The funds borrowed by it were not disclosed in the state's fiscal accounts. KIIFB is a statutory body of the Kerala Government that undertakes critical infrastructure development projects. The KIIFB has no revenue source of its own, and its loans are direct liabilities of the state government (ibid, 65). Therefore, this financing of capital spending does not appear in the state's budget, obscuring the true debt burden of the State.
- **Punjab:** Several PSEs rely on off-budget borrowings through SOEs and SPVs for financing. The Punjab Infrastructure Development Company and the Great Mohali Development Authority, among others, use extra-budgetary resources for rural electrification and irrigation (DoE 2024). These have inflated reported capex without adequately disclosing the contingent liabilities.
- **Tamil Nadu:** The state also relies on PSEs for funding power and rural housing infrastructure projects, with limited disclosure of associated liabilities (Gupta & James 2023).
- **Telangana:** The state's reliance on off-budget borrowing, especially for irrigation and water supply, has been significant. In FY22, Telangana disclosed Rs 30,000 crore for the Kaleshwaram Irrigation Project (DoE 2024). The state's Water Supply Corporation and Water Supply Resources Infrastructure Development Corporation frequently borrow to finance projects. All of which were not reflected in the state's formal fiscal accounts.

Often, off-budget expenditure forms a significant part of a state's total expenditure. However, it could not be included in the adjusted capex of states due to

1. The unavailability of year-wise data across states and years, and
2. Lack of clarity regarding whether the off-budget spending is revenue or capital expenditure

5.2.2. PPPs and Private Sector Contributions

Capital investments in India often involve PPPs, but data on these projects are poorly reported and not systematically collected by the government. Key information on the financial structure, government guarantees, and private sector contributions is often incomplete or unavailable. This lack of transparency obscures the true scale of capital investment and associated risks, particularly when government guarantees or contingent liabilities are involved, leading to underestimation of public sector involvement and fiscal exposure.

The CAG has highlighted gaps in transparency and financial accountability in PPP projects, where hidden liabilities for the government are often not reported in budget documents, particularly contingent liabilities arising from government guarantees or commitments in the event of project failure. In its audits of several PPP projects, especially in sectors like highways (CAG 2014a), ports (CAG 2015b) and airports (CAG 2013), the CAG raised concerns about inadequate risk-sharing between the government and private entities, with some financial obligations not properly disclosed and unfavourable to the government. The lack of transparency in PPP projects can create fiscal risks that remain hidden in public accounts, potentially burdening future public finances and limiting the government's financial flexibility.

- **Rajasthan:** The state's PPP Cell reported to the CAG the number and value of the projects completed, ongoing and planned as of FY23. However, CAG's audit showed that PPP details were unavailable in the State's budget documents, including revenue projections for both the private and the public sector (CAG 2024f, 48). The lack of transparency in PPP projects can create fiscal risks that remain hidden in public accounts, potentially burdening future public finances and limiting the government's financial flexibility. For example, the state's highway projects were financed through PPPs, but the associated liabilities were not disclosed in the state's fiscal accounts.

5.3. Fragmented & Untimely Reporting

5.3.1. Delayed Reporting of State-Level Data

Many Indian states delay reporting financial data, especially capex, and sometimes fail to report expenditures across sectors or projects, resulting in fragmented and inconsistent data. Retrospective and inconsistent reporting hampers accurate assessments of public investment, affecting national fiscal planning and real-time monitoring. While central government data is usually timely, state-level data can be delayed, incomplete, or non-standardised, reducing transparency. As a result, consolidated fiscal data prepared by the RBI is also retrospective and lacks granularity.

5.3.2. Fragmented Reporting Systems

India publishes separate fiscal data for the central and state governments scattered across innumerable reports and statements. The RBI provides consolidated data on government spending,

but it is often retrospective and lacks the detail and timeliness needed for regular GFS-compliant reporting. India's financial reporting and budgeting systems, particularly at the state level, rely on outdated and poorly integrated mechanisms, leading to fragmented data. Inconsistencies across ministries and departments at both the central and state levels complicate tracking and comparing capex, creating gaps in fiscal data and hindering policymaking. Significant variability exists in the categorisation and detail in states' capex reporting. This complicates cross-state comparisons, undermines consistency, and limits the ability to address regional disparities. The lack of a uniform accounting framework impedes data consolidation.

5.4. Lack of Granular Data

5.4.1. Project-Level Capital Spending

Capex is often reported in aggregate terms, lacking the granularity to assess spending on specific projects. Both central and state governments do not consistently provide detailed data on large projects, including cost breakdowns, timelines, and progress. This absence of project-level data makes it difficult for policymakers, auditors, and the public to monitor project progress and cost-effectiveness or hold agencies accountable for cost overruns and delays. While Appendix IX of the state finance accounts provides the status of incomplete capital projects, the level of detail falls short of GFSM standards. The CAG has also noted that Appendix IX may not be complete for all states and years (CAG 2024a, 51).

Some best practices at the state level establish benchmarks for transparency and accountability through consistent capital spending reporting. Known for its robust fiscal reporting and project transparency, **Tamil Nadu** develops public dashboards for ongoing projects to improve visibility into project progress, implementing agency, mode of implementation, budgets, and timelines (Tamil Nadu Infrastructure Development Board, n.d.).

A related issue is the lack of strong Public Investment Management (PIM) practices, a critical component of PFM reforms. The CAG has observed that many projects proceed without thorough feasibility assessments, resulting in mid-project design changes and resource misallocation. Such incomplete projects block funds due to inordinate delays and deprive the citizens of project benefits for extended periods. This further leads to additional debt and interest-servicing burdens (CAG 2024a, 51). In its many reports on irrigation and infrastructure projects, the CAG found that numerous initiatives lacked detailed project reports, cost-benefit analyses, or environmental impact assessments, creating significant implementation challenges. For example, Andhra Pradesh did not disclose the financial results of any irrigation projects, as a result of which the viability of the projects could not be assessed (CAG 2024c, 53). Insufficient feasibility studies have also led to abandoned or incomplete projects.

In the absence of data on the viability of capital projects, oversight and monitoring are also thwarted. The CAG has frequently found that capital projects are often approved based on overly

optimistic¹⁴ revenue projections or inadequate financial prudence. For instance, in its audit of Indian Railways, CAG noted that projects were approved based on unrealistic financial projections, unjustifiable pricing and costing, and projected traffic and earnings were significantly overestimated (CAG 2014b). Thus, many infrastructure projects, including toll roads or utility projects, frequently fail to meet revenue targets, undermining their financial viability. When actual revenues fall short, the projects face financing gaps, resulting in debt accumulation or incomplete infrastructure.

5.4.2. Debt-Financed Capex

Both the Centre and states depend on borrowings to finance capex, yet data linking these borrowings to specific projects is often unavailable or not disaggregated. Borrowing data is typically amalgamated with overall debt figures, making it challenging to ascertain how much is utilised for productive asset creation. The World Bank has recommended public disclosure of all public debt at transaction level, with a level of granularity that permits stakeholder awareness, oversight and accountability. This is also imperative to ascertain if national assets, including physical infrastructure, have been used as collateral against the debt (Maslen & Aslan 2022). The Centre reports all long-term external debt to the World Bank, including the economic purpose of the debt (Form 1, DRS 2000)—this is published in the Statement 19 (Externally Aided Projects) of the Union Budgets. India does not perform the same exercise for internal debt. The absence of detailed borrowing data associated with capital projects obstructs evaluations of debt sustainability and the effective utilisation of borrowed funds for long-term infrastructure investment. While Indian states report government borrowings, the specific capital projects financed by these funds are frequently not identified. Furthermore, states often employ off-budget borrowings for capital projects without full disclosure, thereby failing to satisfy GFS transparency standards. These practices are in variance with internationally set global standards of debt disclosure, discussed in Table 4.

Among the states:

- **Telangana** reports substantial borrowing by state-owned entities to fund capital projects, contributing to notable urban and rural infrastructure development efforts (Gupta & James 2023). However, this data does not provide any information about the actual utilisation of these borrowings for specific projects.
- **Andhra Pradesh** relies heavily on financing from SOEs, which is not always transparent in the main budget documents (CAG 2023a, 61). The state could improve its capex reporting by detailing specific project liabilities.
- Known for significant industrial and infrastructure investments, **Gujarat** provides detailed capex data for key projects. However, the state could improve transparency in its off-budget expenditures, which are occasionally understated. Gujarat has introduced better tracking for state-level industrial and infrastructure projects with portals like online Project Management System or ePMS (Chand 2014) but lacks consistent reporting on debt-financed activities. Many other

Table 2: Disclosing government debt for improved transparency and accountability

Standard	Key Guideline	Applicability
IMF GFSM 2014	Requires reporting of gross and net debt and comprehensive disclosure of explicit and implicit contingent liabilities (Para 7.236 - 7.260).	Applied in IMF member countries as the basis for compiling and disseminating government finance statistics.
World Bank DRS 2000	Requires borrowing countries to provide detailed information about their long-term external debt, including publicly guaranteed private debt. Form 1 also requires a brief description of the economic usage of the loan (Item 7, Form 1).	Applied to countries receiving World Bank assistance.
OECD Best Practices on Budget Transparency 2002	Recommends disclosing debt levels in pre-budget, mid-year, year-end and monthly reports. Borrowings are suggested to be classified by their interest rate, maturity profile and debt management instrument, among others. (Para 1.2, 2.3)	Used as a guide in OECD member countries to improve budget transparency.
IPSAS	Suggests comprehensive disclosure of risks associated with financial instruments, including interest rate and currency risk (IPSAS 30). It also issues implementation guidelines with illustrative examples to guide the accounting of assets funded through borrowings (IPSAS 5).	Serve as generally accepted accounting principles to be adopted by the government sector across the world.
European Union Stability and Growth Pact (SGP)	Recommends reduction in public debt levels, alongside high-quality and green public investments to guide sustainable growth and fiscal consolidation.	Rules to ensure coordination of sound fiscal policies among European Union member states.
Public Expenditure and Financial Accountability (PEFA) Framework	Recommend debt management for a transparent PFM system. This includes recording and reporting of debt and guarantees, approval of debt and guarantees, and a strong debt management strategy.	Provides a measurement framework to over 125 countries, including IMF and European Commission members.

5.4.3. Output Data

India's budget documents focus primarily on allocations rather than output. The Centre's Outcomes Budget releases targets for outputs and outcomes for major government schemes but does not provide details of achievements vis-a-vis targets. While data on inputs and budget allocations are

recorded, there is a significant lack of output data to track actual results, such as improvements in infrastructure quality or public service delivery (e.g., roads built, hospitals constructed).

For example, while Rs 50,000 crores were allocated by the Centre to a loan guarantee scheme to support the setting up of private hospitals in non-metro areas in 2021, there has not been any utilisation of funds (Dutta 2022). Without publicly available data on output achievements, there is a disconnect between spending and infrastructure development, making it difficult to assess the effectiveness and value for money of capital investments.

The CAG has noted that many capital projects in India lack a clear focus on outputs or outcomes, which are integral for a robust PIM framework. In its audits of rural and urban infrastructure projects, the CAG found that, although funds were disbursed, the impact on local communities was not adequately assessed. Key metrics, such as access to public services, infrastructure quality, and economic outcomes, were often missing from evaluation frameworks. For example, Bharatmala Pariyojana, a program under the Ministry of Road Transport and Highways for national highway development, laid down some output measurement parameters in Phase I. However, no mechanism was laid for the measurement of these outputs. CAG audits also found that other important output parameters, like accident reduction, user satisfaction, etc., were missing (CAG 2023b, 13). Without a focus on outputs, assessing the effectiveness of capex becomes challenging, potentially leading to inefficient resource use, substandard infrastructure, and wasted public funds.

5.5. Underutilisation of Allocated Spending

5.5.1. Utilisation and Disbursement Gaps

A recurring issue highlighted in the CAG's reports is the underutilisation of budgeted capex. There is often a significant gap between budgeted capex and actual disbursement at the central and state levels. Despite substantial allocations for capital projects, actual spending frequently falls short due to delays in procurement, procedural bottlenecks, and project management issues. For instance, in FY24, the central government's revised capex estimate was Rs 50,000 crore lower than budgeted. The Ministry of Railways allocated Rs 1.2 lakh crore for infrastructure in 2022, but only 70% was utilised due to procurement delays.

The CAG has noted that funds earmarked for infrastructure projects remain unused, particularly at the state level. For example, Pradhan Mantri Jan Vikas Karyakram, a centrally sponsored scheme under the Ministry of Minority Affairs, builds infrastructure units/projects and basic amenities in certain targeted areas. More than 58,000 projects meant to be completed by 2019 were shelved, and funds amounting to nearly Rs 4,500 crore remain unutilised. States have also been unable to provide utilisation certificates for the expenditure incurred (Mishra 2023). Such underutilisation of allocated funds compromises infrastructure development. The gap between allocations and actual spending is frequently not transparent, leading to a misleading picture of investment levels.

5.5.2. Inefficiencies in the Use of Central Transfers to States

The Centre often transfers funds to states for capital projects as loans, grants, or through centrally sponsored schemes. As observed above, in the FY26 budget, Rs 1.7 lakh crore has been allocated as interest-free loans to states out of the Rs 11 lakh crore earmarked for capex. However, states sometimes fail to fully utilise these funds within the prescribed period, resulting in unspent balances. Data on the use and remaining unspent amounts of central transfers are also often inadequately reported. This underutilisation delays capital projects, hindering infrastructure development in key areas such as health, education, and rural development, while the lack of transparency prevents effective oversight.

The CAG has observed that many states lack the administrative and technical capacity to plan, execute, and monitor large-scale capital projects. This results in project delays, poor execution quality, and underutilisation of capital budgets. In several reports on state capex, the CAG highlighted that states consistently underutilise funds for projects such as rural roads, irrigation systems, and public buildings due to a shortage of trained personnel, poor project management practices, and inefficient procurement systems.

Among the states, **Uttar Pradesh** often struggles to utilise funds allocated by the Centre for centrally sponsored schemes and its budget provisions. Of the Rs 79,000 crore transferred to the State Nodal Agency by the Centre (51%) and the State (49%) for the implementation of CSS by the end of FY23, Rs 29,000 crore remained unspent, possibly due to delays in procurement and project approvals. Despite budgeting over Rs 100 crore for certain schemes, no spending was incurred on at least 22 schemes in FY23. For example, Rs 400 crore was provided in the FY23 budget for the construction of a Court Campus and another Rs 200 crore for developing school infrastructure. Both these provisions were unutilised in FY23 (CAG 2024a). This indicates procedural lapses, insufficient prudence in the budgeting process or poor project management. The State's inability to utilise available funds delays project implementation and also reduces public trust in the government's ability to deliver on its promises.

5.6. Mismanagement of Funds

Finally, India is lagging in effective oversight and monitoring of capex projects. Many projects fail to implement mechanisms to track progress, ensure timely completion, and manage finances, leading to delays, cost overruns, and poor execution. For instance, in its reports on railway projects, the CAG identified weak internal controls and poor oversight as key factors behind delays and budget overruns in new rail line construction. Issues such as inadequate inter-departmental coordination and contractor management were also highlighted (CAG 2024h). The current practice of annual allocations is not suited for multi-year capital projects, leading to incomplete projects due to non-allocation of funds mid-way.

The CAG has consistently pointed out cost overruns and delays in major infrastructure projects, often attributed to poor planning, delayed approvals, and weak project management. This issue recurs in CAG audits of capex across sectors such as power, irrigation, highways, and public works. In its

report on highway projects, the CAG highlighted significant delays that increased costs, driven by land acquisition challenges, contractor inefficiencies, and inadequate oversight. For example, the financial indiscipline shot the cost of per kilometre construction of Dwarka Expressway between Delhi and Gurugram to Rs 257 crore as against the approved per km cost of Rs 18 crore (CAG 2023b, 27). These delays and cost overruns elevate project expenses, reduce the economic return on investments, and increase the fiscal burden on the government.

Among states, Bihar consistently reports delays in implementing infrastructure projects, particularly in sectors like health, education, and housing. For instance, the Patna Smart Cities Mission faced delayed and incomplete project execution primarily due to fund diversions (Press Trust of India, n.d.). The state's reporting systems are outdated, leading to inconsistencies in tracking capital spending across departments. The CAG has also frequently identified obvious cases of fund mismanagement, where capital project allocations were redirected to meet short-term revenue expenditures, a problem particularly common at the state level.

6. Looking Ahead: Agenda for Transparency Reforms

As per the Open Budgets Survey 2023¹⁵, India's budget transparency score is 51 out of 100, reflecting insufficient publication of budget material to support public debate. The country's public participation score is low at 6 out of 100, placing India behind most neighbours¹⁶. Additionally, India's budget oversight score is 61 out of 100, indicating limited legislative oversight but adequate audit oversight (International Budget Participation 2024).

The data gaps identified above explain India's sub-par performance on international indices of budget and fiscal transparency. Issues such as misclassifications by multiple agencies, aggregate reporting that obscures project-level details, and a focus on input-based data rather than measurable outcomes continue to undermine the accuracy and efficiency of India's fiscal management. For instance, the lack of granular data on projects under flagship schemes like Bharatmala Pariyojana makes it difficult to assess their progress and impact. Fiscal transparency requires more than just the availability of more data; it also needs user-friendly and accurate information which is suitable to understand by non-specialists. Further, these must be standardised across states and the central government to ensure equal access to all citizens (Blagrove & Gonguet 2020). Strengthening transparency is, therefore, not just about compliance—it is crucial to ensuring the efficient allocation of public funds, fostering accountability, and building public trust. Hence, India's evolving capex reporting framework requires comprehensive reforms to align with global best practices and address systemic inefficiencies.

The following agenda outlines a roadmap to enhance transparency in capex reporting:

I. Standardise classification and definitions

- **Establish and enforce a consistent definition of capex** across all government levels. This definition must clearly distinguish between capital and revenue expenditures and investments

in financial and non-financial assets, ensuring that only spending on tangible, long-term non-financial assets is classified as capex. For example, the UK's Capital Spending Framework separates financial and non-financial assets, ensuring transparency (HM Treasury 2024).

- **Adopt a unified and standardised accounting and reporting framework** for capex, which separates financial and non-financial assets across all government levels. This can be done by following international public financial management standards, such as those set by GFSM and IPSAS. Many comparable countries have successfully transitioned to accrual accounting, improving fiscal transparency.
- **Adopt automated tools** for expenditure classification and implement training programs for government officials to standardise practices. Countries are expanding their use of AI in public financial management and find that this has significantly reduced errors and improved efficiency.

II. Enhance the budgetary process and reporting

- **Prepare financial reports at the general government level** to eliminate inter-government/inter-entity transfers and reveal net investment in nonfinancial capital assets.
- In the Union and state budgets, provide **detailed breakdowns of capex** by sector, department, and project. The CGA's Chart of Accounts can be reviewed to reflect program/project-based reporting. Including information on the allocated budget and actual spending will help track project progress and ensure funds are used as intended. For example, Australia's Mid-Year Economic and Fiscal Outlook provides ongoing accountability through detailed mid-year reviews.
- In this regard, **publishing data from e-assets registers can be a first step**. Government Accounting Standards Advisory Board (GASAB)¹⁷ has recommended the introduction of an annual statement in the finance accounts regarding 'Capital Expenditure for the acquisition of Fixed Assets' (CGA 2019).
- **Publish mid-year and end-year reports on capex**, highlighting deviations from budgeted figures. This would help identify variances and provide an ongoing assessment of how funds are utilised.
- **Include a dedicated capex supplement** in budget documents, highlighting all ongoing and new projects, including timelines, funding sources, and expected outcomes.

III. Improve project-level and outcome-based tracking

- **Implement a centralised digital Public Financial Management System (PFMS) system** and a National Fiscal Dashboard to report real-time project-level capex data across all ministries and states. This system should track funds allocated, disbursed, and spent, alongside real-time

project updates and outcomes. Brazil's Transparency Portal is a successful example of real-time fiscal data dissemination (Gracida and Rivero Del Paso 2019).

- **Implement international best practices in Public Investment Management (PIM)**, ensuring social cost-benefit analyses are conducted for major/mega projects, construction and maintenance costs over multi-years are budgeted for, and implementation mechanisms, outputs and outcomes are defined.
- **Regularly require progress reports** for all capex projects, with physical and financial progress updates. This reporting should include milestones achieved, challenges faced, and adjustments made to project plans or budgets.
- **Use geotagging and digital monitoring tools** to provide verifiable evidence of infrastructure projects' progress. This approach has been successfully used in other countries to ensure that reported expenditures correspond to project completion and quality. MGNREGA has also employed geotagging to track progress.
- **Strengthen outcome-based reporting** by developing standardised metrics for linking expenditures to measurable benefits, such as infrastructure quality, public access, and economic benefits. Ex-ante and ex-post evaluations can then be conducted to assess the effectiveness and value for money of projects, and future budgetary allocations can be tied to the demonstrated outcomes of past projects.

IV. Increase audit coverage and depth

- **Strengthen the role of the CAG** by increasing the frequency and depth of audits on capex projects, focusing on high-value projects and sectors with significant public impact. Regular audits by the CAG can also enforce stricter adherence to classification norms and mitigate this issue.
- **Strengthen internal monitoring** and review processes by upgrading internal audit/review mechanisms within ministries/departments.
- **Conduct independent performance audits** that assess the efficiency, effectiveness, and economy of capex projects. These audits should look at whether projects achieve intended outcomes and whether they are implemented within budget and timelines. Among other countries, South Africa's performance audits have been instrumental in improving public service delivery (Auditor General, South Africa 2023, 56).
- **Establish independent oversight committees** to monitor high-value projects with a focus on their efficiency, effectiveness, and outcomes.
- **Publish summary reports of audit findings in accessible formats** to ensure that citizens are informed about how capital funds are used and any issues found in project implementation.

V. Increase public access and participation

- **Create an online user-friendly portal for public access to real-time capex data**, including project-level details, timelines, and updates. The portal should integrate data from all ministries, states and PSEs. Kenya's Open Data Initiative is a successful example of improving citizen engagement (Centre for Public Impact 2016).
- **Consult stakeholders** such as civil society organisations, think tanks, and communities in monitoring capex. Public consultations and citizen-led audits can help improve grassroots accountability and ensure that capital projects align with local needs and priorities.
- **Consider implementing participatory budgeting mechanisms**, where citizens have a say in deciding capex priorities, particularly at the local and state levels. This can ensure that capital investments reflect public demand and enhance trust in government spending. Porto Alegre, Brazil, is a global pioneer in participatory budgeting (World Bank 2008, 12), which has increased citizen representation in the budgeting process.

VI. Strengthen data quality and accuracy

- **Implement data validation checks** within government departments to ensure the accuracy of reported capex. This may include automated checks, internal audits, and cross-verification with other datasets.
- Encourage all departments and states to **use standardised data collection methods** for capex reporting. This will facilitate better aggregation and comparison of data, improving overall data quality.
- **Invest in data aggregation tools** that allow for the seamless consolidation of capex data across departments and states, ensuring that reported figures reflect actual spending accurately and consistently.
- **Provide training and technical assistance** to government officials for accurate classification and monitoring of spending data. Singapore's Civil Service College offers a model for capacity development (Civil Service College, n.d.).

VII. Link fiscal transfers to transparency and accountability

- **Link fiscal transfers from the central government to states' adherence to transparency**, reporting norms and accountability in capex reporting. States that meet high standards in data disclosure and reporting could receive additional funding.
- **Create incentives for states and ministries to adopt best practices** in capex reporting. This could include recognition programs, additional grants, or other rewards for entities that excel in transparency and accountability. Open Government Awards, an initiative of Open

Government Partnership, promotes transparency, accountability, and civil engagement (Open Government Partnership 2021).

VIII. Align with international standards

- India can improve transparency by **aligning its accounting practices with IPSAS**, which promotes accrual accounting for improved governance and accounting quality. GASAB has developed the Indian Government Financial Reporting Standards (IGFRS) for public sector accrual accounting with IPSAS's guidance to facilitate pilots and research on India's transition from cash accounting. Indonesia's adoption of IPSAS has significantly improved fiscal transparency (The Association of Chartered Certified Accountants 2017, 11).
- **Regularly benchmark India's capex reporting practices against global best practices** to identify areas for improvement. This could involve adopting elements from countries with advanced public expenditure frameworks, such as Australia, Germany or Canada.

IX. Promote transparency in off-budget expenditures

- **Ensure that any off-budget expenditures and government liabilities** related to capital projects by PPP projects, PSEs, and SOEs **are mandatorily disclosed** and integrated with government finance accounts and budget documents. This transparency will provide a more comprehensive view of the government's capex commitments.
- **Report contingent liabilities** associated with capital projects (e.g., government guarantees for loans taken by PSEs) to give a clearer picture of the potential financial risks and obligations. South Africa's inclusion of contingent liabilities in budget documents is a best practice (Rodriguez et al., 2024).

By adopting these strategies, India can significantly enhance transparency in capex reporting, thereby improving accountability, fostering public trust, and ensuring that resources are allocated efficiently. These improvements will help India align with international best practices in public financial management, ultimately leading to more effective use of public funds for long-term development goals.

7. Conclusion

India's journey toward a transparent, efficient, and outcome-driven capital spending framework is both a challenge and an opportunity. India's capex landscape is a critical component of its developmental strategy, with a focus on fostering economic growth, bridging infrastructure deficits, and promoting equitable regional development. The government's focus on flagship programs like Bharatmala Pariyojana and Sagarmala reflects a strong commitment to infrastructure-led growth. However, translating these ambitions into outcomes requires addressing systemic inefficiencies. Thus, while progress has been made in increasing budgetary allocations and implementing major

infrastructure projects, significant challenges remain in reporting, transparency, and the effective utilisation of funds.

Persistent Challenges in India's Capex

India has, in recent years, made strides toward improving the transparency and reporting of capex, especially at the central level. However, India's current reporting system and management of these expenditures suffer from significant gaps and inconsistencies. The CAG's assessments of India's capex reveal marked challenges in the planning, execution, and monitoring of capital projects at both the central and state levels. Additionally, the country still falls short of complete compliance with international standards in several areas. The key issues highlighted include underutilisation of funds, project delays, cost overruns, mismanagement of resources, and lack of transparency, particularly in off-budget expenditures and PPPs. These data gaps not only restrict data-driven policymaking but also impede our ability to track capital spending outcomes and hold implementing agencies accountable.

State practices in managing capital spending also vary widely, reflecting differences in fiscal discipline, administrative capacity, and governance priorities. Punjab's reliance on off-budget mechanisms, Kerala's use of the KIIFB, and Tamil Nadu's welfare-driven expenditures highlight the diverse challenges across states. These variations underscore the need for a standardised reporting framework that aligns with global standards like the GFS and the IPSAS.

The Need for Comprehensive Reforms

Despite incremental improvements in fiscal transparency, India still falls short of full compliance with global reporting standards.

To address these challenges, India must prioritise the following:

- Transitioning to accrual-based accounting to align with international PFM standards.
- Enhancing project-level transparency through PFMS, geotagging, and real-time fiscal dashboards.
- Mandating disclosure of off-budget borrowings and ensuring comprehensive reporting of liabilities.
- Establishing performance-linked fiscal incentives to encourage state-level compliance with global best practices.
- Conducting an IMF Fiscal Transparency Evaluation (FTE) to benchmark India's reporting against global standards.
- Leveraging technology, institutional reforms and digital innovations like Direct Benefit Transfers (DBTs), which have already saved Rs 348,500 crore by March 2023.

A robust capex framework must ensure regional equity by channelling investments to underserved areas, integrate environmental sustainability into infrastructure planning, and strengthen governance mechanisms to enhance PPPs.

By bridging data gaps, enforcing international reporting standards, and leveraging technology, India can transition towards a more transparent and accountable capex framework.

India's Long-Term Fiscal Vision

India's economic growth ambitions depend on its ability to sustain high levels of public investment while maintaining fiscal prudence and transparency. Achieving this vision will require a collaborative effort between the central and state governments, the private sector, and civil society. With a robust capex framework in place, within a comprehensive fiscal framework that promotes data-driven policy decisions, India can meet its infrastructure needs and lay the foundation for sustainable and inclusive growth.

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Notes

- ¹ The paper does not focus on capital expenditure by the third tier of governments, which is still relatively small, but the transparency reforms discussed in this paper are equally important at every tier.
- ² However, as discussed later below, much depends on the clarity of the measures and their comparability across states (Rao 2025).
- ³ An exception to this is Punjab, as the FHI uses data for FY23.
- ⁴ Capital outlay is capex net of discharge of internal debt, repayment of loans to the Centre, loans and advances by the state governments and inter-state settlement.
- ⁵ 48% on average for states and 65% on average for the Union in FY24.
- ⁶ In addition to GFSM 2014 and the Code, IPSAS is another important global accounting standard which lays out guidelines for both cash-based and accrual accounting for public sector entities. These have been developed in alignment with the International Accounting Standards Board's (IASB) International Financial Reporting Standards (IFRS) by adapting them to the context of the public sector.

⁷ Accrual-based accounting records expenses, i.e. costs incurred irrespective of whether they are paid for in cash, and not expenditures. Cash-based accounting records expenditures, i.e. cash payments made for expenses.

⁸ In accrual-based accounting, this is termed expenses, i.e. transactions which do not affect assets or liabilities.

⁹ As per GFSM 2014, the general government includes the central, state, and local governments and social security funds. GFSM data is, therefore, disaggregated at all levels of the general government. It also provides a consolidated estimate of fiscal metrics for the general government.

¹⁰ This is available on CGA's website under "Accounts".

¹¹ As per the International Federation of Accountants' International Public Sector Financial Accountability Index 2018, India is among 46 countries which follow the cash basis of accounting (International Federation of Accountants 2018).

¹² As per GFSM 2014, decentralized agencies, especially those which majorly rely on government financial support, or directly under government control, or are non-market producers (i.e. do not price output at market prices), can be considered extra-budgetary units, and therefore, part of the general government.

¹³ CGA has been releasing a Statement detailing quarterly budgetary revenue, expenditure and operating balance for the central government in line with the G20 Data Gaps Initiative-2 recommendation number 15 which follows GFSM guidelines, since FY21. IMF recommends this to be done on the accrual-basis of accounting. However, CGA provides this data on the cash-basis. Additionally, CGA's cash-based GFSM data does not measure consumption of fixed capital. Hence, net and gross investment in nonfinancial assets is equal.

¹⁴ Principle 2.1.2 of the Fiscal Transparency Code discusses the "optimism bias" faced by countries in their macroeconomic and fiscal forecasts.

¹⁵ The 2023 Survey assessed the FY22 budgets of 125 countries.

¹⁶ Nepal (31), Pakistan (15) and Bangladesh (11).

¹⁷ GASAB formulates and recommends IGAS under the CAG.