

Relevance of Accrual Accounting for Indian Railways

Indian Journal of Public
Administration
71(1) 92–103, 2025
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DOI: 10.1177/00195561241284854
journals.sagepub.com/home/ipa



Manjusha Jain¹

Abstract

Recognising the need for transparency and accountability to build stake-holders' confidence, public service organisations worldwide have been undergoing administrative and accounting reforms, the latter leading to a shift to accrual accounting system. Financial reports produced through accrual accounting are valuable inputs for strategic business decisions for organisations while providing credibility and transparency to the accounts for external stakeholders.

Subsequent to the implementation of accrual accounting in the Indian Railways (IRs), for the first time ever in a Ministry of the Government of India, financial statements were prepared in universally acceptable commercial format to reflect its true and complete financial health and will further facilitate the introduction of the crucial performance costing system in IR. A paradigm shift in its accounting in conformity to international standards and incisive costing is expected to secure better business standards and financial returns for the mammoth commercial organisation.

Keywords

Accrual accounting, accounting reforms, Indian Railways, government accounting reforms, public sector accounting reforms

Introduction

'Public sector accounting reforms are usually embedded in broader modernisation of public financial management aimed at increasing accountability and performance of public management' (Pollitt & Bouckaert, 2011; Warzecha et al., 2022).

The traditional public finance priorities of efficient allocation of government resources and its effects, income distribution among people and economic stability evolved to

¹ The Energy and Resources Institute (TERI) School of Advanced Studies, New Delhi, Delhi, India

Corresponding author:

Manjusha Jain, The Energy and Resources Institute (TERI) School of Advanced Studies, New Delhi, Delhi 110003, India.

E-mail: jmanjusha67@gmail.com

emphasise fiscal prudence, transparency in accounting, efficiency in resource allocation and accountability in public spending. 'As a consensus in accounting literature and by conceptual accounting frameworks, accounting information in the public sector should be focused on two purposes: accountability to stakeholders, and supporting decision making' (van Helden & Reichard, 2019).

International Public Sector Accounting Standards Board (IPSASB) (2012) observed that 'The objectives of financial reporting by public sector entities are to provide information about the entity that is useful to users for accountability purposes and for decision-making purposes' (International Public Sector Accounting Standards Board, 2013).

Accordingly, accounting systems world over have been eschewing principle-based standards against rule-based and migrating to accrual-based from cash-based system accounting. Indian Railways (IR), a government-owned entity, is also a commercial organisation, maintaining its accounts in a unique mix of government accounting system in conformity to the rules laid down with the approval of the President of India on the advice of the Comptroller and Auditor General of India (CAG) and Controller General of Accounts, while also incorporating the elements of commercial accounting to enable presentation of finance accounts to the Parliament. The incorporation of commercial accounting principles is a must to assess the costs and returns of its business, as also for the right costing and pricing decisions, tracking of outcomes to inputs for strategic business decisions and presenting a true and fair picture of its accounts to all stakeholders.

Commenting on the present cash-based accounting system in the IR, the Bibek Debroy Committee stated,

important decisions like increase in fare, introduction of new trains, provisions of halts and investments in new projects are often taken on other than commercial considerations.... There is an imperative for IR to assess and reshape its accounting and costing practices in sync with the changing economic and market factors that may determine its viability in coming years. (Debroy, 2015)

Spurred by these imperatives, the IR initiated accounting reforms (AR) in 2003, 'to transform the Indian Railways into a customer-oriented organisation ... to generate costing data on passenger and freight services on commercial lines' (Budget Speech of Hon'ble Minister of Railways, February 2003). However, it gained momentum only in 2016, with the Hon'ble Minister of Railways declaring implementation of AR project on a mission mode as a 'Mission Beyond Bookkeeping' in his Budget speech,

Being a government undertaking, IR does not follow practices in accounting which aid detailed assessment of unit costs. Though we are moving from single entry to double entry systems and from cash-based to completely accrual-based accounting, I do not consider them as great reforms. As a thriving commercial entity, we also want IR to go a step further and establish an accounting system where outcomes can be tracked to inputs. This is a structural change which forms the bedrock of our transformation, as

right accounting would determine right costing and hence right pricing and right outcomes. (Ministry of Railways, Government of India, 2016)

The reforms were structured around three key components: accrual accounting, performance budgeting and outcome budget. While accrual accounting was to be initiated for a true and fair picture of the financials of the IR, it was also to be the basis for the crucial second step of introducing performance costing.

Starting with the financial year 2015–2016, IR moved to accrual accounting in addition to its cash-based accounting system and generated its first accrual-based balance sheet, as also that of the Government of India, in 2019 through the grafting method, soon followed by that of 2016–2017 (Ministry of Railways, Government of India, n.d.). Consecutively, standard annual financial statements for four years 2017–2018 to 2020–2021 were generated between 2019–2020 and 2020–2021, a mammoth task given the size of the organisation—comprising 17 zonal railways and 10 production/other units, with the size of the IR Balance Sheet 2020–2021 being about rupees ten lakh crores. After trial runs with high accuracy, accrual accounting through the Transaction Method, a better and system-run method, was initiated from 1 April 2023 over the entire IR for the first time to afford critical inputs and insights into the organisation's true financials through the annual financial reports generated therefrom at the end of the financial year. The balance sheets of each of the 27 railways/production units and of IR will now be seamlessly generated directly from the online transactions from the financial year 2023–2024 as the Accounting Reforms Management System is bridged to IR's accounting system, Integrated Payroll and Accounting System (IPAS) through an architecture of codes for classification of accounts that classifies each transaction as assets, liabilities, revenue or expenses.¹

Cash Accounting and Accrual Accounting

In reporting and recording of accounts and preparing financial statements, the cash basis of accounting recognises revenues and expenditures on receipt and payment of cash, respectively, thereby reflecting only cash inflows and cash outflows. This contrasts with the accrual-based accounting wherein revenues are recognised when income is earned, and expenses are recognised when liabilities are incurred or resources consumed. Thus, besides recording cash transactions, accrual accounting also recognises economic events in the period to which it relates, thus depicting the real income, real cost and real profitability of the organisation. This accords an organisation a complete view of its financial performance which was not possible with a cash-based accounting system.

'Accrual' is the 'recognition of revenues and costs as they are earned or incurred (and not as money is received or paid). It includes recognition of transactions relating to assets and liabilities as they occur, irrespective of the actual receipts or payments' (Research Committee, ICAI, 2019). The Guidance Note on Accrual Basis of Accounting, issued by the Council of the Institute of Chartered Accountants of India in 2021, lays down:

Certain fundamental accounting assumptions underlie the preparation and presentation of financial statements. 'Accrual' is one of the fundamental accounting assumptions. Framework for the Preparation and Presentation of Financial Statements under Accounting Standards (AS) considers the 'Accrual Basis' as a fundamental accounting assumption for the preparation and presentation of general-purpose financial statements. (Guidance Note on Accrual Basis of Accounting, ICAI, 2021)

Accrual accounting in the context of the public sector implies the recording of transactions on an accrual basis, and the preparation of accrual-based financial statements for the government as a whole. ... At a macro fiscal level, the importance of accrual accounting for macroeconomic policy arises from the fact that it measures assets and liabilities that are relevant to the overall stance of fiscal policy and fiscal sustainability, but which are not measured by cash accounting. In particular, whereas cash accounting measures only conventional debt, accrual accounting measures other quasi-debt liabilities such as accounts payable for the receipt of goods and services, and employee liabilities (e.g. for civil services pensions). (Khan & Mayes, 2009)

Accrual accounting is, therefore, far more comprehensive than cash accounting with its recognition of several costs and liabilities that are not recognised or captured under the cash-based system such as depreciation, debt, pensionary and payable dues liabilities, which make the accounts incomplete and inaccurate under the latter.

With depreciation or amortisation not provided for under cash accounting unlike under accrual accounting, the written-down value of assets is not captured, thus the fair value of assets may be misleading. The accounting allowances are also not provided for this reason under cash accounting, which are a handicap for business entities.

Besides, accrual accounting provides the underlying requisite system and data to compute costs of various business activities, unlike the cash-based accounting system which lacks the underlying structure to capture the granularities required for costing exercises.

An accrual accounting framework is essential to systematically determine the full costs of a government's activities. Full cost information (including noncash costs such as depreciation, and accrued civil service pensions) is essential for assessing the efficiency of government services and thus is a key element of any public sector performance management framework. (Khan & Mayes, 2009)

Accrual accounting, therefore, affords a wider picture of the government's financial commitments as compared to cash accounting as it accounts for non-financial resources, time and other indirect factors too in the accounting and costing of services.

Present System of Accounting in IR and its Limitations

The form of accounts of Union and the states in India is prescribed by the President of India under the provisions of Article 150 of the Constitution on the advice of

the CAG. Under provisions of Rule 74 of GFR (General Financial Rules), the form of accountkeeping is mandated by the CGA and the CAG of India. IR has a robust and very detailed accounting system which has stood the test of time for over a century since being devised by the Separation Convention (1924) (Pouluse, 1996) to keep IR financials self-sustaining and independent of the General Revenues, while also contributing to it. The present system of accounting in IR, as in the rest of the Ministries of the Government of India, is cash-based government accounting. IR prepare its accounts in the form of balance sheet, profit and loss account and block account as part of the appropriation accounts laid by the Ministry of Railways before the Parliament in compliance to rules requiring it to show that the actual expenditure done during the financial year is in conformity with the allocations made in the finance bill of IR. This is achieved by maintaining the accounts of IR on a commercial basis outside the regular government account and by maintaining a link between the two to show its earnings and expenditures.

However, the accountkeeping of IR has been found wanting in the audit by the CAG, which reported:

IR, as a departmental commercial undertaking, though prepares Balance Sheet and Profit and Loss Account besides Block Account, does not disclose the significant accounting policies which forms the basis of preparation of financial statements like accounting of fixed assets, depreciation, valuation of investments etc. As a result, key information like capital works-in-progress, depreciated value of assets, investments in property, plant and machinery, improvements in utility of assets etc. are either absent or cannot be recognized easily from the financial statements. (CAG, 2018)

Highlighting how with changing economic and market compulsions, it falls short to meet the emerging challenges and the role of IR. The Committee on Mobilisation of Resources commented,

The present accounting system of IR is also less than conducive for a transporter as it does not capture the service-wise cost, including the depreciation arising accurately. ... With diminishing government funding IR has little option but to look for non-government sources of funds. This imperative is a major driver for need based refinements in the way IR prepares and maintains accounts, and costs its businesses, activities and services. Unless commercial accounting is adopted, the IR becomes non-conducive for investment. (Debroy, 2015)

A major makeover of IR's accounting systems is, therefore, called for by the paramount need to put in place a responsive and reliable costing framework to cost its businesses, services and activities, which would underpin major managerial and strategic decisions of IR in the emerging economic milieu.

Examining the several drawbacks of the present cash-based accounting system of accounting, the Bibek Debroy Committee commented:

many decisions on IR—like increase in fare, introduction of new trains, provision of halts and establishment of new projects—are taken on the basis of other than commercial considerations. As commercial accounting principles too are not in use on the IR, the costs and the returns from such investments are also not easy to assess. (Debroy, 2015)

This imperative and several others detailed below are major drivers for need-based refinements in the way IR prepares and maintains accounts and costs its businesses, activities and services.

1. The financial statements prepared do not conform to the standard financial statements required to be prepared by a commercial entity and do not reflect the correct and complete financial status of the IR, creating an information gap for the stakeholders leading to a trust deficit. For an organisation like IR which needs huge extra-budgetary resources (EBR) for expansion and modernisation, this can be crippling ‘unless commercial accounting is adopted, the IR becomes non-conducive for investment’ (Debroy, 2015).
2. Cash-based accounts do not show complete assets and liabilities; therefore, it depicts incomplete financial position, as a result of which, the net worth of the organisation is not clearly ascertainable. The true value of assets under the present system is not known as they are not listed and current assets and non-financial assets are not tracked. The block account prepared by Railways as part of appropriation accounts shows the cumulative expenditure on account of capital but against this capital expenditure listing of assets is not done. The Final Report on Capital Restructuring headed by A. V. Pouluse quoted the Prakash Tandon Committee’s observation that the value of Railway assets, as shown in the railway accounts, are notional and largely theoretical and fictional (Pouluse, 1996).
3. Capital works in progress are not listed as assets in the Balance Sheet prepared as part of the block accounts; therefore, the investments made in them cannot be matched with the assets created. Besides, the block account under cash-based accounting lists only assets acquired through Capital, whereas assets are financed from revenue as well. Assets reflected in the balance sheet thus being incomplete, weaken IR’s financial position as reflected in its accounts.
4. Government’s liabilities such as unfunded and accrued retirement benefits, depreciation, lease obligations of leased assets and project financing, capital commitments, contingent liability and so on are not reflected in the balance sheet. A major part of rolling stock is taken on lease from the Indian Railway Finance Corporation (IRFC) whose liabilities are not shown in books, leading to under-casting of liability and an incomplete financial status. To that extent the financial position reflected in the balance sheet and the profit and loss account are also not correct.
5. Lack of financial and operational transparency results in the accounts making little or no reference to the liabilities that the organisation will be required to meet in the future nor does it recognise the benefits that will be obtained from purchased assets over a period of time. It also does not provide information on assets held by the government, ascertain the full cost of holding and operating these assets and on the full cost of providing services by the government’s departments or its future commitments. Independent outsiders such as multilateral agencies have often observed that the accounts of IR are inherently complex and do not reveal the true financial state of the organisation.

6. An important lacuna affecting the IR accounting system is its inadequate handling of depreciation. With the cash-based accounting system not providing for depreciation of assets, including those procured through EBR, the written-down value of the assets is not shown. The value of fixed assets is thus being overstated, the profit and loss account becomes overstated making true profitability unclear.
7. Conversely, appropriation to the IR's Depreciation Reserve Fund has often been insubstantial, resulting in the accumulation of assets overdue for replacements on the one hand and false surplus on the other. Sounding as alert, Paulose flagged the issue as 'the enforcement of correct depreciation accounting procedures to avoid accumulation of arrears in rehabilitation on the one hand and showing false surpluses on the other hand, keeping in view the fact that arrears once accumulated cannot be wiped out without endangering current revenues' (Pouluse, 1996).

The Committee on National Transport Development Policy commented,

In addition to the requirements for new investment for modernisation and remunerative capacity expansion, IR now has a considerable backlog of investment for track maintenance and repair. The existing managerial, financial and accounting systems are such that these new financial requirements cannot be met in a business-as-usual scenario. (Mohan, 2014)

8. The cash-based system of accounting does not support an efficient and incisive costing system. The cost of resources for any activity, service or policy decision is not ascertainable due to an inadequate costing system, resulting in severe handicap in true costing of activities for strategic business decisions, thereby of right pricing of services, in turn severely affecting profitability. As summed up by the Bibek Debroy Committee:

The current system also neither tracks assets nor assesses liabilities. With the underlying accounting system suffering from handicaps, the resultant costing suffers from corresponding shortcomings. The present costing system is on a fully distributed basis, whereas the business decisions are driven by variable cost. Establishment of a responsive and transparent accounting and costing system must, therefore, be the first step to a commercially viable Railway system. (Debroy, 2015)

9. With a balance sheet weighed down with above lacunae, the strength of bargaining for huge capital borrowings in the market is largely undermined. The Committee on Creative Financing for IR headed by Montek S. Ahluwalia on Accounting Reforms and Creation of Institutional Capacity commented,

The Committee is of the view that there is an urgent need to reorient the Railway mindset towards external borrowings and raising of market debt. This requires a large-scale capacity building effort. The accounting systems and procedures of the Railways also need to be aligned to current market practices, in the absence of which the revenue/cost allocation and access charge-based projects cannot be scaled up in a significant manner. (Ahluwalia, 2014)

10. The Public Sector Undertakings (PSUs) under the Ministry of Railways are companies which keep their accounts as per requirement of commercial and company accounts, while the rest of the Ministry and field units are on a cash-based government accounting system. A consolidated view of IR and its associated entities is, therefore, not available due to different accounting systems for ministry and field on the one hand and its PSUs on the other.
11. Cash-based accounting leads to ambiguity as revenues can be collected in excess during a period followed by high incidence of refunds. Payments can easily be deferred and passed on to future periods, revenues due in the future could be compromised by providing for one-time receipts and so on. With the cash-based accounting system allowing deferment or preponement of cash payment/receipts, there is room for fiscal manoeuvrability, challenging the reliability of financial data.
12. With increasing challenge from the road and air transports, IR has been losing its market share in freight with cross-subsidisation of low passenger fares by artificially high freight rates. The freight business earning the lion's share compensates for the losses of the coaching sector and further bears the brunt by scaling increasingly higher tariffs, generally to offset the low coaching fares, to give Railways sufficient operating revenue to meet its revenue expenditure. Non-transparent cross-subsidisation across business segments has led to losses not computed due to the inherent inability of its accounting and costing systems, resulting in eroding market share.
13. Arising from the non-segregation of the cost of social service obligations from commercial costs, hidden inefficiencies and unclear commercial returns have further eaten into the operating revenues of the IR. Despite a widely relevant practice in most countries of the central/federal or provincial governments providing for the subsidised carriage rates, it has not been done in IR so far due to the inability of the accounting and costing systems to separately work out the bill of its social service obligations. The issue was also flagged in the *Report of the Committee for Mobilization of Resources for Major Railway Projects and Restructuring of Railway Ministry and Railway Board*, thus

However, it is not yet clear where the IR stands financially, in the absence of accounting reforms. This Committee opines that once the accounting reforms are in place, it should be possible to clearly specify the costs to IR of various activities and therefore separate out the following: (a) investment on specified projects (this is already available); (b) expenditure on identified strategic operations, and (c) expenditure on PSOs. This Committee also suggests that subsidy should be borne by the Union government instead of IR. (Debroy, 2015)

14. Cash-based accounts do not facilitate strategic business decisions within the organisation due to an inadequate accounting system and an outdated costing system, crippling right pricing and business gains. Since the line of service (LOS), line of business (LOB) sector and so on wise

accounting and costing is not available, the organisation does not have sufficient details to identify and shed loss-making activities/businesses while building upon its profit-making activities/sectors.

Relevance of Accrual Accounting

While making passing references to the ongoing Accounting Reforms Project on the Railways, the National Transport Development Policy Committee (NTDPC) recommended that:

- (i) It is important that the accounts of the Railways should be recast into a company account format in line with Indian Generally Accepted Accounting Principles (GAAP) so that the 'true and fair' state of IR finances becomes clearer.
- (ii) It would provide activity-based revenue cost data meeting generally accepted accounting standards. Such an accounting reform would facilitate the assessment of profitability of different operations, routes and sections and accounting separation of various lines of business and services within the lines. (indianrailways.gov.in, Status of Accounting Reforms Project, Ministry of Railways, Government of India, n.d.)

Accrual accounting will enable depiction of accounts in a universally accepted format of a commercial concern along with its balance sheet with complete and current information for managerial and strategic decisions, better resource management, asset utilisation and a reliable costing framework in defined lines of business and services. The disclosures and notes to accounts make it further transparent and credible so that external stakeholders can rely upon it.

The introduction of performance costing in turn, which rests on accrual accounting, will give the precise cost of each of the services of IR segregated into LOB, LOS, section and route wise to enable business decisions for the financial viability of the organisation through identification and elimination of inefficient costs. Strategic business decisions regarding shelving of non-profitable services and identification of its core strength, made possible with accrual accounting augurs well for the organisation's viability, improved business planning, resource utilisation and investment decisions. The accrual-based architecture enables the preparation of profitability statements for each identified LOB and LOS to support critical management and strategic decisions.

An activity-based costing model is also one of the key deliverables which will enable separation between the cost of infrastructure services and the operational activities, resulting in rational pricing and train-wise, route-wise profitability analysis to help assess the usage charge of infrastructure and rolling-stock resources as also accurate allocation of overheads. (Pitroda, 2012)

IR's need for massive investments for its fast expansion and upgradation cannot be met by public funds alone. Private capital, public-private partnership and other off-budget sources are required to augment the governmental resources.

Stakeholders need transparent presentation of accounts to invest in any entity. The balance sheet prepared through accrual accounting is, therefore, of immense significance for market borrowings by IR. Drawing attention to this crucial need, the Bibek Debroy Committee stated that,

with the quantum of non-Railway funding required to be infused into IR in the foreseeable future getting pitched at much higher levels to meet the growing investment needs of the Railway system, and areas of investment changing to those perceived as riskier by investors, to draw such an indirect comfort would become increasingly difficult. This high quantum of resource mobilisation necessitates transparent and intelligible accounts of IR depicting a healthy business position of IR, for investors to derive adequate comfort. (Debroy, 2015)

The reformed accounting system enables provision of depreciation on all assets, thus depicting only the written-down value of assets in the balance sheet, making it accurate and reliable. Computation of a fair estimate of the depreciation to be provided for the year and the accumulated depreciation of the previous years would enable the profit and loss account to be correctly cast.

Accrual accounting will also provide a position of losses from subsidy separately from the commercial returns which will reflect the true efficiency of operations. For long, the demand to reimburse the subsidy in fares and freight on the pattern of other world railways could not be met as the true cost of subsidy could not be ascertained. The segregation will also reflect transparently the commercial efficiency and financial viability of operational and infrastructure costs as indirect subsidies serve to hide inefficiencies and are not only healthy for any commercial entity, but a burden on the taxpayer and the user, alike.

Since accrual accounting requires the preparation of government balance sheets, involving the identification, measurement and periodic reporting of government assets and liabilities, it requires governments to more systematically identify, track and value all assets and liabilities, leading to the development of systems (such as asset registers) and procedures for planning and management of assets and liabilities, highlighting the cost of holding and deploying assets. Similarly, assessment of liabilities, and the resulting enhanced transparency, can foster better financial planning to ensure that the government is able to meet its liabilities as they fall due. Accrual accounting, therefore, provides a barometer to assess the cost of government policies, programmes welfare measures or subsidies.

Accrual accounting being IT-driven, online availability of all concurrent and legacy financial and costing data is a major benefit. The repository of all data and its availability on a click becomes a powerful tool in decision-making echelons.

Conclusion

While the cash-based of accounting recognises a financial transaction on actual money receipt or payment, the accrual-based accounting recognises it on the occurrence of the economic event irrespective of the time of actual receipt or

payment. Recognition of transactions on the event improves the accounting since it recognises the income or the expense in the period to which it relates, hence, depicts the real income, real cost and real profitability of the organisation. With the changing role of governments, the present cash-based accounting in the government has become inadequate as it fails to provide a complete financial position at any given point of time nor enables a dynamic picture of the changes over time. The full cost of infrastructure, social and welfare provisions or commitments made by the government, therefore, cannot be ascertained, nor of their returns.

Accrual-based accounting, on the other hand, with its precise and incisive information has enabled public sector accounting reforms, resulting in enhanced accountability and improved decision-making. The financial information produced through accrual accounting, which is prepared in universal, transparent and commercial formats, facilitates analytical data for planning and forecasting, fiscal and investment decisions, cost-benefit analysis of projects and resource mobilisation for public schemes and investments along with improved resource allocations, all leading to better productivity from scarce public resources for effective governance. Furthermore, the standardisation of financial statements, notes to accounts and disclosures strengthen accountability of decisions and ensure transparency for all stakeholders.

For the first time, the fixed assets register was cast for IR with the true value of its assets. The true and fair presentation of its accounts with the complete depiction of its assets and liabilities in its Balance Sheet will enable IR to negotiate its borrowings at better terms and rates, which is so crucial for the future sustainability of the organisation, while an improved costing system will facilitate strategic business decisions, identifying loss-making businesses.

It, however, remains to be understood that the compilation of high-quality, reliable information under accrual accounting is not an end in itself and is a subset of a wide-ranging reforms of public sector management. The full potential benefits of the reforms can only be realised if this information is concretely used by decision-makers and made widely available to the public and other stakeholders to improve transparency and accountability.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author received no financial support for the research, authorship and/or publication of this article.

Note

1. The author headed the Accounting Reforms Team of Ministry of Railways, Government of India, that implemented Accrual Accounting on IR from 2021 August to 2023 June.

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