HE public sector in India, in its broadest measure as recorded in the National Accounts Statistics (NAS), currently contributes to about a quarter of the gross domestic product (GDP) increasing from slightly less than one-tenth in 1960-61 (the earliest year with firm estimates). The gross value added (GVA) of the administrative departments, broadly representing Adam Smith’s “duties of the sovereign”, account for 8-9 per cent of GDP; natural monopolies such as the railways and the postal system add another 3-4 per cent. But the largest share of public sector GVA, 12-13 per cent of GDP, comes from the non-departmental enterprises (NDEs), producing many private goods and services, but mainly from utilities and infrastructure, owned and operated by the central, state and local governments. NDEs are further disaggregated into (i) financial enterprises that are part of the financial sector [including the Reserve Bank of India (RBI)], and (ii) the non-financial enterprises, which account for much of the growth in public sector output during the last half century.

Such a rising share is justifiable on conventional economic as well as radical arguments. But extension beyond these activities has been criticised for being responsible for the widely cited inefficiency, and for the public sector’s financial losses. In the popular perception, Modern Bread and Ashok Hotel, for example, are emblematic of everything that is wrong with the extension of the state in the economic sphere. Since the public sector was an instrument of the development strategy, its microeconomic inefficiency was believed to have got translated into fiscal imbalances that periodically aggravated inflation and the balance of payments (BoP) (Joshi and Little, 1994).
Without denying these arguments, the growing spread of the public sector is often defended on strategic considerations as well as on the basis of many non-economic factors, with the proviso that the way to reconcile these conflicting aims is to evolve institutional mechanisms to insulate public sector management from short-term economic considerations and political interference. Many organisational innovations, with modest success, have been tried: setting up of holding companies, entering into a formal contract between the management and the government, called a memorandum of understanding (MoU), and so on.

Since the early 1990s, seized with fiscal imbalance, the government sought to dilute public ownership (and control) in order to impart capital market-based discipline on public sector management. In sectors with non-corporate entities (power and ports, for instance), corporate forms of organisation were encouraged, with (the tacit) prospect of an eventual change in their ownership. However, experience and political expediency seem to have changed the stance from disinvestment and privatisation to “public-private partnership” (PPP). The reforms sparked (an expectedly inconclusive) debate and political action, on the need for and the effects of the reforms on public sector performance.

But this has deflected attention away from a careful analysis of what has really happened. This paper seeks to redress the situation by taking a fresh look at public sector output, investment and saving behaviour over the last half century in relation to the national economic aggregates, mainly using the NAS that furnishes a complete and consistent time series since 1960-61, though restricted to a few aggregative measures. Using a set of graphs, the first section tries to diagnose public sector performance; the second section suggests an explanation for the findings, and the third section draws the main conclusions and their policy implications.

**Public Sector Performance**

**Output and Capital Formation**

Figure 19.1 describes public sector gross domestic capital formation (investment, for short) from 1950-51 and output (GVA) since 1960-61, both as a proportion of GDP at factor cost \((\text{GDP}_f)\) in current prices. The output share peaked in 1991-92 at 26.1 per cent, declining marginally
thereafter with considerable yearly fluctuations, suggesting an arrest of a steadily rising public sector share in domestic output.\textsuperscript{2} It also implies that with the acceleration of the domestic output growth rate after 1980-81, the public sector has contributed to the additional output growth in equal measure (Nagaraj, 1991). Figure 19.2 describes the output composition (in the NAS categories described above), as proportions of GDP\textsubscript{fc} in constant prices, for 22 years since 1980-81. Evidently, the relative shares of the three components of the public sector described above have also remained roughly stable after 1986-87. It suggests that in spite of industrial deregulation and growing import competition, the public sector has broadly maintained its share in domestic output in producing private goods and services, and its composition has also remained roughly the same.

\textit{Figure 19.1}

Public Sector’s Share in Output and Investment

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure19_1.png}
\caption{Public Sector’s Share in Output and Investment}
\end{figure}

In contrast, however, the public investment ratio, after peaking at 12.5 per cent of GDP\textsubscript{fc} in 1986-87, nearly halved to 6.4 per cent by 2001-02, taking the ratio back to the level where it was in the mid-1950s. Clearly, what took the ‘big planners’ three decades to accomplish, the ‘reformers’ undid in less than two decades.
Whether the fall in the share of public investment is by design (market-oriented reforms), or by default (the fiscal imbalance) is a moot point. But, undisputedly, the public sector has managed to deliver roughly an unchanging share of the accelerating domestic output for nearly 20 years, even when its investment share was halved—an impressive record of productivity growth by any yardstick, at least so far. Corroborating the finding, Figure 19.3 shows a steady decline in the public sector’s average capital output ratio (ACOR) in constant prices, from 7.0 in 1981-82 to about 4.4 in 2001-02. This holds true for most (1-digit) sectors of the economy as well (EPWRF, 2004).

It is arguable that the decline in ACOR could mean a shift in public investment to less capital-intensive activities. But this is not the case. In fact, the share of infrastructure (sum of mining, electricity, gas and water, and transport and communication) in public sector gross capital formation—representing capital-intensive industries—has increased from 33.3 per cent in 1973-74 to over 53.5 per cent in 2001-02; the manufacturing sector’s share has declined (Figure 19.4). Infrastructure’s share in public sector output narrowly fluctuated around 30 per cent (Figure 19.5); the manufacturing sector’s share has tumbled from 23.7 in 1974-75 to 5.5 per cent in 2001-02 (Figure 19.6). Thus, there is little basis to suggest a shift in public investment into less capital-intensive

Figure 19.2
Composition of Public Sector Output
sectors; on the contrary, the investment composition has moved in the desired direction of infrastructure that is capital-intensive, away from (much contested) manufacturing.

**Figure 19.3**

*Average Capital-Output Ratio*

![Graph showing the average capital-output ratio from 1982 to 2002.]

**Figure 19.4**

*Composition of Public Investment*

![Graph showing the percentage of public investment in infrastructure and manufacturing from 1961 to 2001.]

- **Total**
- **Public Sector**
- **Private Sector**
- **Infrastructure**
- **Manufacturing**
The above trend is consistent with the findings on total factor productivity (TFP) growth, though the evidence is limited to a shorter time period (Kumari, 1993). Thus, the public sector has shown remarkable progress that has gone virtually unnoticed. What could account for the improvement? It suggests a decline in what Harvey Leibenstein called X-inefficiency (in production and in organisation), and a deceleration in investment and employment. There is evidence of both.
Fall in Public Sector Employment Growth

A bloated workforce, often employed on non-economic considerations, is widely cited as a source of public sector inefficiency. But the evidence suggests that despite such pressures, the growth rate in public employment has declined drastically: from about 6 per cent per year in the mid-1970s to a negative 1 per cent in 2002-03 in public sector enterprises (PSEs) owned and managed by the Central government (central PSEs, for short), in quasi public sector, and in the public sector as a whole as well (Figure 19.7). Without denying the need for further rationalisation of the workforce, what can certainly be claimed is that public sector employment growth has got drastically reduced in spite of the compulsions to the contrary, contributing to the improved productivity.

Improvement in Efficiency of Thermal Power Plants

Gross inefficiency in thermal power plants, producing the bulk of the nation’s electricity generation, is also a widely cited reason for poor productivity. But the average plant load factor (PLF) for all the thermal power plants (a proxy for efficiency) has witnessed an uninterrupted rise from 44.3 per cent in 1979-80 to over 74.8 per cent in 2004-05 (Figure 19.8). Since the electricity sector roughly accounts for about a third of total public investment, such an improvement would have surely contributed to the overall productivity growth noted above.
Although the forgoing measures of physical efficiency display impressive strides, does it show up in the financial results?

**Figure 19.8**

*Electricity Sector Performance*

![Graph showing Plant Load Factor and Revenue to Cost Ratio over the years ending from 1976 to 2005. The graph indicates fluctuations in both metrics with notable peaks and troughs.](image)

**Public Sector Saving**

Public sector gross saving as a proportion of current GDP at market prices (GDPmp) peaked at 4.9 per cent in 1976-77, declined thereafter, turning negative in 1998-99 (Figure 19.9). But much earlier in 1986-87, the saving ratio of government administration turned negative, which is the same as the government’s revenue deficit ratio. It is the NDEs’ saving that has kept the public sector saving positive for over a decade.  

Figure 19.10 gives a break-up of the NDEs’ saving (as proportions of current GDPmp) into (i) non-departmental financial enterprises (NDFEs) that are part of the banking and financial system, and (ii) non-departmental and non-financial enterprises (NDNFEs) that comprise public entities producing goods and services at all levels of government. Over the four decades, savings of the non-financial enterprises contributed a greater share of NDEs’ saving; the financial sector’s share is consistently lower.
Between 1980-81 and 1994-95, NDNFEs’ share in gross public saving rose rapidly (though it declined in the following five years). But even this component of public saving does not seem to adequately reflect the improved physical performance noted above. In the absence of further disaggregation in the NAS, we turn to other data sources to seek an answer.
Central PSEs’ Profitability

What is the correct measure of profitability? It depends upon the purpose. From the view point of a private individual, the ratio of net profits to equity capital (or net worth) may be appropriate, but it may be unsuitable to measure a PSE’s contribution to the economy for many reasons. First, PSEs usually have a high depreciation cost since they have to invest not only in plant and machinery, but also on social overhead capital, for which budgetary provisions are made. Second, a PSE’s capital structure is not aimed to maximise return on shareholders’ investment, but provision of goods and services that the market has not (or inadequately) succeeded in supplying—the argument of ‘missing market.’ Third, very often PSEs start with a high proportion of debt as government expects a certain interest on its loans. When the enterprise commences production it is often saddled with a high debt-equity ratio, which is usually renegotiated to make the enterprise commercially viable. Finally, for the economy, what matters is not the capital structure but return on total capital employed. Thus, gross profit to total capital employed is a better measure of public sector profitability, which we have used below.

Thus measured, profitability of the central PSEs has increased from around 8 per cent in the mid-1970s to 21 per cent in 2003–04—a respectable figure by any reasonable reckoning (Figure 19.11). Such rosy estimates may conceal the effect of high mark-up, cost-based

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**Figure 19.11**

*CPE’s Profitability*

![Graph showing CPE’s Profitability](image-url)
administered pricing in the performance of petroleum companies. Surely, net of the petroleum sector, the profitability is lower, but with an unmistakable rising trend, at 18 per cent return on gross capital employed in 2003-04.

Thus, the central PSEs as a source of NDNFEs’ poor financial position is ruled out, leaving us mainly with the utilities and infrastructure services at the state level—that is, state electricity boards (SEBs) and road transport corporations (RTCUs). In principle, public irrigation would belong to this category, as it accounts for a sizeable share of plan expenditure in most states. But as it is included in the administrative department, its accounts are not available separately, hence not considered here. But railways are included in our analysis below as it also has similar features.

Problem of Pricing

Figure 19.8 also displays SEBs’ revenue-cost ratio since 1993-94, as a proxy for financial performance. Although the PLF has gone up from 55 per cent in 1975-76 to 75 per cent in 2004-05 (as noted earlier), the revenue-cost ratio has declined from 82.2 per cent in 1993-94 to 68.6 per cent a decade later. In other words, in spite of a sustained increase in the physical efficiency of power generation, the SEBs’ finances have deteriorated.

Similarly, Figure 19.12 records revenue-cost ratio for the railways for 53 years since 1950-51. The ratio was consistently greater than one up

![Figure 19.12](image-url)}
to 1990-91, but deteriorated thereafter. Although the information for the RTCs is limited to nine years, the trend is unmistakably similar: a decline from 91.4 in 1992-93 to 88.7 in 2000-01 (Figure 19.13).\textsuperscript{11}

\textbf{Figure 19.13}

\textit{RTCs’ Financial Performance}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure19_13}
\caption{Revenue to Cost Ratio}
\end{figure}

Thus, we identify these services as potential suspects for the public sector’s poor financial results. The finding is tentative as it is based on a single financial indicator and it warrants a more detailed analysis. But considering that they constitute the bulk of the non-financial public sector outside of the central PSEs, the finding seems robust.

Admittedly, deterioration in the revenue to cost ratio could be either due to relatively faster rise in costs and increase in inefficiency, or poor pricing and low recovery of user charges, or both. As there is an unmistakable rise in efficiency of thermal power plants for nearly 30 years now, the decline in revenue to cost ratio can only be on account of poor pricing and recovery of dues. One suspects the problem is no different in the railways and RTCs.

Thus, the real culprit of poor public sector saving is not the central PSEs (that have been the subject of much of reforms) but inadequate pricing of the utilities and infrastructure services, and lack of recovery of user charges for the services rendered. Perhaps a telling evidence of the problem, in the aggregate, is the movement of the public sector
price deflator, relative to the GDP deflator since 1960-61 (Figure 19.14). Over the last 40 years, public sector prices never exceeded the overall price level, and in 2003-04 the relative price stood just 83 per cent of what it was in 1960-61. In other words, public sector prices have risen 1951 at a slower rate than the overall prices in the economy over the long-run, adversely affecting its financial position. However, as these are decreasing cost industries, their prices can be expected to rise relatively slowly. But they are also capital-intensive industries, where the principle of access to these services on social considerations raises the cost of provision. Moreover, the public sector, being an instrument of public policy is often made to shoulder many social responsibilities, increasing its expenditure, which needs to be recovered from reasonably pricing the output or from the budget. With a growing fiscal imbalance, reasonable pricing is the only avenue to compensate for the services rendered.

To recapitulate the main findings so far,

1. There is a distinct improvement in the efficiency of resource use in the public sector in the aggregate since the second half of the 1980s, and a corresponding fall in the average capital-output ratio.
2. Improvement in physical efficiency, in part, may reflect a fall in public sector employment growth (however, measured).
3. Thermal power plants in India that account for the bulk of electricity generation (and a sizeable share of public investment) show an uninterrupted rise in efficiency.
4. These trends are, however, inadequately reflected in public sector financial performance, despite a sustained improvement in profitability of the central PSEs (even excluding the petroleum enterprises).

5. Thus, the source of financial distress is the utilities and infrastructure services, like the SEBs, RTCs and the railways.

6. The SEBs’ revenue-cost ratio deteriorated since the 1990s; the same is true of the railways and the RTCs.

7. That inadequate pricing of the output public sector utilities is the main reason for their deteriorating financial position is illustrated by a 17 percentage point fall in the public sector price deflator output relative to the GDP deflator over the last 40 years since 1960-61.

**Reasons and Implications**

What accounts for the changes in the performance of the public sector? Arguably, the market-oriented reforms since the 1980s could have induced the desired effect. But, such an explanation would seem too facile to be taken seriously, in the absence of a casual explanation between the reforms and the observed improvement. Since revenue to cost ratios deteriorated in the 1990s in an atmosphere of neglect and tacit threats of privatisation and retrenchment of workers, the argument of positive effects of the reforms on efficiency seems simply not a serious one.

But probably what has perhaps been happening is (i) a hardening of the budget constraint, accompanied by a greater managerial autonomy and (ii) a growing competition in the product market. In NDNFEs, between 1960-61 and 2002-03, government’s budgetary support (sum of equity capital and loans) declined, and the share of internal resources (depreciation and net saving) rose, as a proportion of gross fixed capital formation (Figure 19.15). In 1963-64, budgetary support was 97.6 per cent of fixed capital formation, which came down to as little as 16.9 per cent in 1996-97; the share of internal resource went up from 11.2 per cent in 1960-61 to 73 per cent in 2002-03. Changes in market conditions and financial governance could have ensured greater accountability and cost consciousness. But these advantages could not get translated into improved financial results, as pricing and recovery of user charges continued to remain a matter of public policy.
The problems of inadequate electricity pricing, incomplete metering of power usage and recovery of user charges are too well known to be recounted here. Railway finances were a victim of coalition politics and competitive populism, as evident from a sharp decline in the revenue to cost ratio in the 1990s. In the passenger road transport sector, open and covert deregulation of profitable long distance inter-city routes could have adversely affected RTCs’ revenues; increasing the subsidy burden on social considerations, without a rational rise in passenger fares could have seriously dented their financial viability.

Figure 19.15

*Financing of NDNFEs’ Capital Formation*

In principle, these financial losses can be withstood if buoyancy in tax collection as a proportion of domestic output is maintained by tapping producers and consumers at different points in the circular flow of commodities and incomes in an expanding economy. Alternatively, the growing public domestic debt burden could be monetised, if the financial system ensured a high and rising domestic saving rate—as China is currently doing (and as in much of east Asia earlier). In the absence of either of these means to finance the losses, there is little option but to squarely address the problem of pricing and recovery of user charges to maintain fiscal and macroeconomic balance.
Evolving a consensus on such matters is a time consuming process that requires—paraphrasing Arthur Lewis’ wise words—sensible politics and sound administration. But this is not easy to attain in the best of times; it is particularly difficult in an inequitable society with fractious and deepening democracy. But these problems cannot be wished away by relaxing the entry or exit barriers or more generally, by redrawing the boundaries of the state and market—though they may help deflect public attention and postpone the day of reckoning. Infusion of foreign capital in public utilities and services is inherently problematic, as it could face public hostility in the face of high tariffs, or reduction in service quality to maintain the desired level of profitability—as apparently happened in Odisha after the devastating ‘super cyclone’ a few years ago. The experience of Latin America in this respect in an earlier period in permitting liberal entry of foreign capital and its hasty exit in a decade or later would hold a lesson or two for us.  

In the electricity generation sector, private and foreign power producers are now offered assured payment by escrow accounts, to overcome the SEBs’ financial difficulties. But such a method will only ruin them further, as it fails to address the problem of pricing and recovery of dues, but only redeems private electricity suppliers. Similarly, in the currently fashionable PPP model, if the gains to the private party are well defined and up front, but the gains to the public sector are to come at the end of the period with incomplete contracts, then the social costs of such partnerships could be prohibitive and may not solve the essential problem of pricing and cost recovery.

More generally speaking, the liberal reforms incorrectly diagnosed public ownership to be the main culprit for poor performance. Conceivably, ownership changes could allow a greater freedom to charge market-related prices to those who can pay. But this seems a hypothetical question since public utilities and infrastructure are network industries with considerable externalities that attract regulations, hence the output pricing decision cannot be judged independent of the related public policy decisions. Thus, such entrepreneurial freedom appears to have limited practical significance in these industries.

Moreover, as is widely acknowledged, economic theory is agnostic about the effects of ownership on performance, but what matters is the market structure. Since much of public investments are in industries with considerable externalities, regulation is bound to play a critical role in their performance, regardless of ownership. Therefore, in such capital-
intensive industries, the sources of funding and corporate governance could be critical, which has apparently got little attention in the recent policy discourse.\textsuperscript{15}

\textbf{Conclusions}

This paper has examined some selected aspects of public sector performance in the second half of the last century, in relation to the national economic aggregates, mainly using the NAS. The public sector’s share rose steadily from about 9 per cent of the domestic output in 1960–61 to about 25 per cent by the mid-1980s, remaining roughly constant thereafter. But the sector’s share in domestic investment got reduced by half after the mid-1980s—from about 12.5 per cent to 6.4 per cent of GDP, implying an impressive rise in productivity in the aggregate. The finding is consistent with the decline in the average capital-output ratio in the public sector, a result that is also true for many one-digit sectors of the economy. The decline in the capital-output ratio is not on account of a shift in the investment composition in favour of labour-intensive sectors, but, on the contrary, it has changed in favour of infrastructure that is capital-intensive. There is indeed a rise in public sector productivity, sustained for nearly 20 years now.

This bold fact is at variance with the widely held perceptions of the performance and functioning of the public sector. Pending a deeper inquiry, the proximate causes of the productivity rise are (i) a decline in employment growth and (ii) a sustained rise in plant load factor of thermal power generation, which accounts for the bulk of electricity supply and a sizeable share of public investment.

If the physical performance has shown impressive gains, why has the public sector’s finances remained in a bad shape, adversely affecting the domestic saving ratio, and the fiscal balance? This is so in spite of a steady rise in the profitability of the central PSEs, even net of the oil sector enterprises. Perhaps, tightening of the budget constraint and a corresponding managerial autonomy explain the improved financial results.

But the improvement in physical performance has not been enough to halt the decline in public sector saving as a proportion of domestic output. Where, then, is the problem? The real culprits are electricity boards, state RTCs and the railways, whose growth in revenues has not kept pace with costs—as measured by the revenue to cost ratio, which is
less than one, and has deteriorated since the 1990s. This has happened in spite of an improvement in the physical measures of efficiency. Why? Because prices of these services have not kept pace with costs and collection of user charges has lagged behind. The most telling evidence of this is that the public sector price deflator, relative to the GDP deflator, has consistently been lower for over 40 years, standing 17 percentage points lower than what it was in 1960-61. In other words, the crux of the poor financial returns lies in incorrect pricing of these services and poor collection of user charges.

If our diagnosis is sound, it suggests that much of the preoccupation of current policy of changing public ownership and control to get greater efficiency seems misplaced. Such reforms are unlikely to make a difference as ownership has little relation to economic outcomes, either in theory or in contemporary experience. Moreover, as this study has shown, the real problem is not the lack of efficiency in production, but one of pricing and collection of user charges. Hence, unless these problems are squarely addressed, public sector finances are unlikely shape up.

Notes

[This is a revised version of the paper presented at the conference, “Macroeconomic Policy, Agricultural Development and Rural Institutions”, held in honour of A. Vaidyanathan at the Institute of Economic and Social Change, Bangalore, in April 2006. Following the usual disclaimers, I thank A. Vaidyanathan, Gita Sen and Chiranjib Sen for their quarries and comments that were helpful in revising the paper.]

1. A term apparently borrowed from the UK chancellor of the exchequer Gordon Brown’s product differentiation of Thatcher’s privatisation policy.
2. Data sources for this graph are Eapen (1982) and EPWRF (2004).
3. This figure is taken from EPWRF (2004). The figure also suggests that the decline in ACOR in the economy is almost entirely on account of the public sector.
4. Drabu (1992) had found that much of the increase in ICORs during 1961-1981 was on account of electricity, gas and water. There is a reversal of the trend in the following decades.
5. In Figures 19.4 to 19.6, all variables are in current prices.
6. Data on central PSEs are taken from the department of public enterprises’ Survey of Public Enterprises and for the remaining series, from DGET, as reported in the Economic Survey.
7. Data for this graph are taken from the official annual Economic Survey and Tata Energy Research Institute’s TEDDY, various issues. As PLF could vary either because of demand for or supply of electricity, it is strictly not an efficiency measure. But, in a supply constrained situation as in India, PLF might be considered as a measure of efficiency.
8. There is, however, a turnaround since 2002-03 that is not captured in the graph.
9. However, the importance of these sectors can be gauged from the following facts. One, in most of the states, electricity and irrigation have consistently accounted for more than a half of plan
expenditure in all the plans; two, financial losses of SEBs and RTCs account for the bulk of the deficits in most states.

10. Data sources are: Saxena (1991) and Handbook of Indian Railways, various issues.

11. Thomas (2000), and the web site of the Central Institute of Road Transport, Pune (www.cirtpun.com) are the sources of data for this graph.

12. Since the late 1990s, both the variables described have witnessed some stagnation with considerable fluctuation. One suspects these reflect the effects of disinvestment and privatisation on the capital finance account of the non-financial enterprises.

13. For example, a large fraction of the modest investment in railways in the 1990s was frittered away in the ambitious ‘unigauge’ project (to replace metre gauge tract with broad gauge) that added marginally to revenue but rendered a sizeable metre gauge rolling stock unusable. One suspects this grandiose and irrational project severely dented railway finances.

14. Although written from the perspective of the risks for international firms, Wells and Gleason (1995) highlight the potential economic and political difficulties in pricing of infrastructure services in Latin America.

15. For a critical review of disinvestment and privatisation, and suggestions for the reform of corporate governance with public sector, see Nagaraj (2005).

References


An Update*

Tracing the long-term trends, the 2006 paper demonstrated—contrary to the popular perception—efficiency in physical terms, and financial performance of public sector in India had, in the aggregate, improved significantly during the last three decades. Public sector enterprises (PSEs) had shown a steady improvement in their profitability, as measured by gross profits to capital employed; this was true even excluding the petroleum sector enterprises. Where, then, was the problem? The paper contended that sectors like electricity, railways and road transport had improved efficiency in physical indicators, but their financial performance had deteriorated because of government’s poor pricing policy and non-recovery of the user charges. Definitive evidence for the proposition was that implicit deflator for public sector output had declined relative to GDP deflator over four decades. In other words, public sector output prices were not rising at the same rate as general price level. The paper, therefore, argued that to get better return on its investment, government should reform its pricing policies, and recover the dues from users for the goods and services provided.

The question now is: close to a decade later, after witnessing a cycle of an unprecedented boom and bust from 2003-04 to 2013-14, are the findings reported in the paper still valid? The question, we believe, merits attention for the following reasons. During last 10 years, the economy got on a higher growth path at over 7 per cent per year, whose engine was, for the first time, private corporate sector, replacing public sector. It was also, for the first time, an export-led boom in IT services and capital and skill intensive manufactures, at a time when manufacturing sector’s share in domestic output and employment had stagnated. During the boom, public investment was curtailed to reign in fiscal deficit, public sector disinvestment made some headway, and PPP replaced public investment to build infrastructure—with generous bank credit, and abundant foreign private capital in flows in various forms.

* An Update to the above paper by the author, July 2014.
How did public sector withstood in such an adverse policy environment? This update provides an answer, mainly based on NAS, for 2004-05 to 2011-12. The principal observations are as follows:

1. Public sector’s share in GDP declined during the boom, from 22.9 per cent in 2004-05, to 21.2 per cent in 2007-08, but the share recovered by 2012. Composition of public sector output between administrative departments and enterprises (departmental plus non-departmental) has remained roughly the same.

2. The industrial composition, however, has undergone some changes, with public sector manufacturing contracting; this is true of infrastructure as well but to a smaller extent.

3. Public sector savings, as proportions of GDP, have declined from 4 per cent in 2004-05 to 3 per cent in 2011-12, entirely on account of public authorities—that is, government, in terms of revenue deficit—while the saving of the non-departmental enterprises remained the same. However, on further disaggregation, savings of the non-departmental non-financial enterprises (NDNFES), as a percentage of GDP, declined from 2.5 per cent in 2004-05 to 1.8 per cent, but the savings of the non-departmental financial enterprises (NDFES) did not change.

4. Public sector’s share in fixed investment, as a proportion of GDP, went up during the boom from 7.5 per cent in 2004-05 to 9.1 per cent in 2008-09, before receding to 7.9 per cent in 2011-12.

5. Public sector’s share in the economy’s renewable capital stock has declined from 37 per cent in 2004-05 to 30 per cent by 2011-12. The decline is shared by administrative departments and the enterprises.

6. PSEs profitability has declined marginally. However, excluding that of petroleum sector enterprises, profitability has remained the same, implying the fall was on account of the petroleum sector.

7. Ratio of the price deflators for public sector output and GDP has declined from 96.6 in 2004-05 to 85.2 in 2011-12. The same holds true of the ratio of price deflator for electricity—most important public sector output—and GDP. This represents the continuation of the long-term trend reported earlier.
8. Public sector employment declined by about 400,000 workers (2.2%) mostly in central government.

9. Efficiency of thermal power plants was maintained at a high level—plant-load factor (PLF) was fluctuating in the range of 75 per cent to 80 per cent during this period.

What can be inferred from the forgoing observations? Public sector certainly lost ground during the boom, but recovered as fiscal policy was loosened to stimulate domestic demand after the global financial crisis—as per the Keynesian remedy. However, public sector continues to lose ground as its saving, as a proportion of GDP contracted, on account of under-pricing of petroleum products.

Fall in the price of public sector output, relative to general price index, clearly demonstrates continuation of under-pricing of public sector output, re-enforcing our earlier finding.

In sum, public sector just about managed to retain its significance in domestic economy. Its output price continues to fall relative to general price level on account of under-pricing of its output, and non-payment of dues to public sector entities.