# Performance of Australian Government Trading Enterprises: An Overview*

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## Abstract

Assessing the performance of Government Trading Enterprises (GTEs) has become increasingly important in the context of the push towards privatisation. This paper provides an overview of GTE performance over the 5 years to 1996 using the IBIS Enterprise Database, following the method of analysing firm performance as outlined by the Steering Committee (1998). The bulk of the results are made up of a balanced panel of firms who were able to provide EBDIT figures over the five years to 1996. The results indicate that there are large differences in performance across firms, and more particularly, across industries.

**Key words:** GTE performance, performance measures.

## Working papers from the 'Performance of Australian Enterprises' project

| **Title** | **Number** | **Author(s)** |
|---|---|---|
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# 1 Introduction

Assessing the performance of Government Trading Enterprises (GTEs) has become increasingly important in the context of the push towards privatisation, given the oft held belief that private enterprises in some way can perform the same task ‘better’. Following the method of analysing firm performance as outlined by the Steering Committee (1998), this paper provides an overview of GTE performance over the past 5 years using the IBIS Enterprise Database. This database contains information on an annual basis for medium to large firms in Australia over the period 1979 to the present. In total, the database currently has historical data for approximately 700 government enterprises. The following section provides a brief theoretical overview of monopoly power, how this applies to GTEs and the relationship to the various performance measures reported here. Section 3 provides statistics calculated from the IBIS database. We also provide one other measure of performance, research and development (R&D). Finally, some conclusions are drawn in Section 4.

# 2 GTEs, Performance Measures and Monopoly Power

According to the Steering Committee on National Performance Monitoring of Government Trading Enterprises, ‘the accounting rate of return is only a partial measure of financial performance and [is] thus unable to adequately inform about *value*’ (Steering Committee, 1996, p 8, emphasis in original). The 1996 report recommended a number of different measures that should be adopted in assessing GTE performance, including a weighted average cost of capital and the capital asset pricing model. However, given the paucity of the data, not all the measures outlined by the Steering Committee will be calculated here.

This paper considers selected performance measures for GTE’s which are based primarily on those reported in the Steering Committee report *Government Trading Enterprises Performance Indicators 1992-93 to 1996-97* (1998). The principal profitability measures used are return on assets (ROA), return on equity (ROE) and an EBDIT (Earnings Before Depreciation, Interest and Tax) margin. Each of these assesses, to some extent, the ability of an enterprise to earn profits through its operations. One of the important aspects of GTEs is that some of them have a relatively high degree of monopoly power. This presence of monopoly power—often due to the inherent characteristics of the market—implies that a profit maximising firm can make monopoly profits. Given this situation, it is worthwhile considering the theoretical underpinnings of the EBDIT margin.

The EDBIT margin—also called the Price Cost Margin (PCM)—indicates the amount of profit generated from a dollar of revenue. The PCM can be linked to the Lerner measure of monopoly power, L, which is defined as:

$$L \quad \frac{(P - MC)}{P} \qquad [1]$$

Where P represents price and MC is marginal cost. If firms possess some degree of monopoly power, profit maximisation will lead the firm to set price above marginal cost. The Lerner index can take on values between 0 and 1, with a value of zero indicating a perfectly competitive market. As the index approaches one, firms gain greater market power. If marginal cost is assumed to equal average cost (i.e. constant returns to scale) the above can be modified to:

$$L' = \frac{(P \quad AC)}{P} = \frac{(P \quad AC)}{P} . \frac{Q}{Q} = \frac{TR \quad TC}{TR} = \frac{\pi}{TR} \qquad [2]$$

The far right of equation [2] shows the EBDIT margin as used in this paper, hence it can, under certain assumptions, be considered as equaling the Lerner measure of monopoly power (see Schmalansee, 1989, p 960 or Krouse, 1990, for further discussion).

ROA is a measure of profit generated by the total assets employed by the company, calculated irrespective of how the assets have been financed. The ratio is calculated before interest deductions since these are payments to the debt holders who have financed part of the assets employed. Total assets can be valued at depreciated historical cost, gross historical cost, net replacement cost, gross displacement cost, net realisable value, or net present value. If net assets are used, rather than gross, conventional depreciation methods can give misleading results (Parker, 1984, p.152). In addition to this, advertising and R&D cost are usually classed as expenses rather than assets. Subsequently the rates of returns for firms in industries for which these are high may be biased upwards, since the denominator is lower than it would be if R&D etc had been incorporated.

ROE measures the rate of return generated by management on the shareholders' investment in the business. Net profit after tax is used as the numerator because the ratio should provide an indication of the overall efficiency of management, not just in the operations of the business, but also in the financing and taxation affairs of the company for the benefit of shareholders (Parker, 1984). It is important to note that a firm's return on equity can be manipulated, to some extent, by the firm's choice of financial structure. For example, if profits are in decline a firm might shift the financing of its assets to debt, reducing the equity base, and improving the return on equity ratio.[1] Negative observations in the panels for averaged shareholders' funds were excluded from the subsequent analysis since it is not logical to have a return on negative values for equity. A negative return on equity implies that net liabilities exceed net assets and therefore any profit generated by the firm would be paid to debtors before any return is paid to shareholders. In addition, if net profit after tax and shareholders' equity are both negative, a positive rate of return would be calculated which is clearly misleading.

Other financial performance measures included in the following analysis are:

- Total liabilities to equity ratio, (a proxy for a debt to equity ratio), which provides some indication as to how highly geared an enterprise is. A lower liabilities to equity ratio implies that a firm is less sensitive to interest rate changes;
- Current ratio, which provides an indication as to how well (relatively) liquid assets can cover short-term liabilities;
- Interest cover, a measure of a firms ability to cover its debt repayments;
- Sales revenue per employee, a crude productivity measure;

[1] The Australian Financial System Inquiry (1982, p.249) stated "firms will try to maintain the return on shareholders' funds by varying the debt/equity ratio to offset changes in basic profitability".

- R&D as a share of sales, a measure of the amount of resources a firm devotes to innovation.

# 3 Data Analysis

### *3.1 Overall*

The results presented here are based on 199 firms who, in 1995, reported enough variables to calculate earnings before interest, depreciation and tax (EBDIT). The ratios are calculated by summing all the numerators for the relevant industry and dividing by the sum of the denominators (rather than taking a simple average of all the firms' ratios).

**Table 1. Performance Indicators (1995)**

| | Return on Equity | Return on Assets | EBDIT margin | Total Liabilities to Equity | Current Ratio | Interest Cover | Sales revenue per employee | R&D Expenditure | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | over sales | % of total |
| Utilities | 0.04 | 0.10 | 0.37 | 0.71 | 0.99 | 2.7 | 322.4 | 0.09 | 1.68 |
| of which: Electricity | 0.05 | 0.11 | 0.36 | 0.97 | 1.12 | 2.8 | 368.7 | 0.09 | 1.23 |
| Gas | 0.31 | 0.18 | 0.29 | 4.56 | 0.54 | 2.7 | 435.4 | 0.00 | 0.00 |
| Water | 0.02 | 0.07 | 0.43 | 0.33 | 0.61 | 2.3 | 191.3 | 0.15 | 0.45 |
| Wholesale trade | 0.20 | 0.11 | 0.11 | 1.44 | 0.65 | 2.3 | 4088.1 | 0.00 | 0.02 |
| Transport, Storage & Communication | 0.05 | 0.13 | 0.28 | 6.29 | 0.84 | 0.8 | 121.6 | 0.33 | 7.57 |
| of which: Rail | -0.06 | 0.03 | 0.15 | 0.60 | 0.55 | 1.6 | 78.7 | 0.00 | 0.00 |
| Ports | 0.08 | 0.11 | 0.53 | 0.45 | 1.41 | 5.1 | 292.1 | 0.05 | 0.03 |
| Australia Post | 0.29 | 0.20 | 0.16 | 1.58 | 0.90 | 23.7 | 85.5 | 0.00 | 0.00 |
| Telstra | 0.16 | 0.22 | 0.36 | 9.89 | 1.09 | 0.9 | 156.7 | 0.53 | 7.35 |
| Other | -0.01 | 0.06 | 0.15 | 0.87 | 0.52 | 3.6 | 101.9 | 0.08 | 0.19 |
| Finance & Insurance | 0.16 | 0.01 | 0.06 | 10.46 | 1.48 | 0.1 | 1685.8 | 0.00 | 0.00 |
| of which: Reserve Bank | 0.20 | 0.06 | 0.90 | 3.81 | 2.25 | 6.0 | 1533.8 | 0.00 | 0.00 |
| Property & Business | 0.07 | 0.07 | 0.26 | 0.71 | 1.13 | 3.0 | 144.4 | 33.43 | 72.30 |
| of which: CSIRO | 0.00 | 0.04 | 0.08 | 0.37 | 0.83 | 87.1 | 29.8 | 308.78 | 68.95 |
| Education | 0.04 | 0.05 | 0.12 | 0.27 | 1.42 | 38.8 | 41.0 | 8.36 | 16.77 |
| Health & Community | -0.03 | 0.01 | 0.01 | 0.26 | 0.97 | 1.8 | 15.2 | 0.86 | 1.39 |
| Cultural & Recreational | 0.33 | 0.27 | 0.10 | 0.33 | 1.24 | 32.2 | 552.0 | 0.04 | 0.27 |
| All Industries | 0.06 | 0.06 | 0.20 | 1.86 | 1.26 | 1.39 | 176.96 | 1.28 | |

Margins for GTEs are, in general, substantially higher than those reported for private companies, which tend to have EBDIT margins under 20 per cent. Given that GTEs should be able to appropriate a good proportion of the monopoly rent, this is unsurprising.

The following analysis is made up of a balanced panel of companies who were able to provide EBDIT figures over the five years to 1996. Given the relatively small number of enterprises contained within each grouping, the results should be interpreted cautiously.

### *3.2 Utilities*

Made up of the electricity, gas and water industries, this sector has come under increasing scrutiny given the penchant of State governments to split their energy providers into electricity and gas segments, and to sell the rights to the provision of these services.

**Electricity and Gas**

The general picture for this industry is one of a fairly steady performance. Returns on equity and assets dipped between 1993 and 1994, and have increased only marginally in the intervening two years. EBDIT margins are large relative to what one would expect from most private sector companies, although given that these companies are typically not subject to price changes to the same extent as other industries, this is unsurprising. One interesting observation is the fairly solid growth made in sales per employee. However, closer examination reveals that this is primarily an outcome of the fact that, for the 10 firms represented here, employment numbers have fallen from over 36,000 in 1992 to around 21,000 in 1996.

The overall figures mask some dramatic changes in performance for a number of firms. The State Energy Commission of WA, for example, has improved its liabilities to equity ratio from 21.0 in 1992 to 5.3 in 1996 (although this is still above the industry average of 1.05). Integral Energy Australia went through a period of (presumably) significant debt reduction, given that their interest expense fell dramatically resulting in an interest cover measure of 32.1 in 1994, compared to an average industry measure of around 3 (a fairly standard size).

**Table 2. Performance Indicators, Electricity and Gas[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 7.5 | 7.0 | 4.8 | 5.0 | 5.8 |
| Return on Assets | 14.1 | 12.8 | 11.1 | 11.3 | 12.1 |
| EBDIT margin | 35.6 | 37.7 | 35.0 | 34.5 | 35.5 |
| Total Liabilities to Equity | 1.28 | 1.01 | 0.90 | 0.88 | 0.98 |
| Current Ratio | 0.95 | 0.93 | 0.94 | 0.86 | 0.77 |
| Interest Cover | 2.3 | 2.7 | 2.8 | 3.0 | 3.3 |
| Sales per employee ($ '000) | 302.1 | 329.5 | 365.7 | 400.3 | 492.1 |
| Employees | 36211 | 33982 | 30089 | 27234 | 20858 |
| R&D expenditure (share of sales) | 0.14 | 0.11 | 0.15 | 0.11 | 0.15 |

a. Power & Water Authority of the Northern Territory, State Energy Commission of Western Australia[2], Pacific Power, State Electricity Commission of Victoria, ACTEW Corporation, ETSA Corporation, Hydro-Electric Corporation, Integral Energy Australia[3], Energy Australia[4], Gas & Fuel Corporation of Victoria[5], Snowy Mountains Hydro-Electric Authority.

The overall performance of water providers is relatively similar to that of electricity and gas, with nothing to really take exception to. Margins tend to be a bit higher than the energy providers whereas current assets as a share of current liabilities are quite a bit lower. Similarly to the previous analysis, while sales revenue has actually fallen over the reported 5-year period, sales per employee have risen due to labour shedding. Specifically, Melbourne Water (the largest firm in the sample) has reduced its workforce from 5057 people in 1992 to 828 people in 1996. Hunter Water and Melbourne Water were the only two GTEs to provide R&D statistics, and both spend approximately the same percentage of earnings on R&D.

**Table 3. Performance Indicators, Water[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 3.2 | 3.6 | 6.9 | 5.6 | 4.5 |
| Return on Assets | 9.8 | 9.7 | 11.7 | 11.3 | 8.8 |
| EBDIT margin | 53.2 | 53.5 | 62.0 | 60.4 | 58.4 |
| Total Liabilities to Equity | 1.16 | 1.16 | 1.13 | 1.05 | 0.59 |
| Current Ratio | 0.41 | 0.36 | 0.26 | 0.26 | 0.27 |
| Interest Cover | 1.5 | 1.6 | 2.1 | 2.1 | 2.1 |
| Sales per employee ($ '000) | 129.2 | 160.7 | 241.5 | 318.8 | 351.6 |
| Employees | 10030 | 8436 | 6675 | 4292 | 3229 |
| R&D expenditure (share of sales)[b] | 0.07 | 0.74 | 0.43 | 0.47 | 0.48 |

a. Hunter Water Corporation, Barwon Region Water Authority, SA Water Corporation, Melbourne Water Corporation.

b. Hunter Water only until 1994 and Hunter Water and Melbourne Water in 1995 and 1996.

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2 Now Western Power and Alinta Gas.

3 Previously Illawarra Electricity and Prospect Electricity.

4 Previously Sydney Electricity and Orion Energy.

5 Now Gas Transmission Corporation and GASCOR.

### *3.3 Wholesale trade*

This area is made up primarily of public marketing authorities, including the Australian Dairy Corporation and the Queensland Sugar Corporation.

As a general rule, significant changes in the profitability indicators for statutory marketing authorities should not be overly surprising, given that these businesses tend to be at the mercy of climate patterns and the changing fortunes of our major trading partners. Perhaps two of the more interesting features of Table 4 are that current assets are more than adequate coverage for current liabilities, and that sales per employee are significantly higher than any other industry grouping. The primary reason for such high sales is that these enterprises tend to be the central buyers of the bulk of primary produce, and are in charge of marketing this overseas.

**Table 4. Performance Indicators, Wholesale Trade[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 0.9 | 5.4 | 7.8 | -1.3 | 4.9 |
| Return on Assets | -0.4 | 2.9 | 4.5 | 0.0 | 3.2 |
| EBDIT margin | -0.1 | 0.7 | 1.1 | 0.0 | 0.8 |
| Total Liabilities to Equity | 0.55 | 0.90 | 0.80 | 0.92 | 0.96 |
| Current Ratio | 1.46 | 1.30 | 1.30 | 1.23 | 1.44 |
| Interest Cover | -0.3 | 2.0 | 3.7 | 0.0 | 2.0 |
| Sales per employee ($ '000) | 3337.0 | 3973.2 | 5456.0 | 6063.9 | 6488.0 |
| Employees | 545 | 572 | 518 | 504 | 540 |
| R&D expenditure (share of sales) | 0.03 | 0.03 | 0.02 | 0.01 | 0.01 |

a. Grain Pool of WA, NSW Grains Board, Queensland Sugar Corporation, WA Meat Marketing Corporation, Australian Dairy Corporation, Dairy Industry Authority WA, Victorian Dairy Industry Authority.

Wool International, by far the largest marketing authority in this group, was excluded from the summary results presented in Table 4, simply because their changing fortunes swamped the results of the other enterprises, making any sensible analysis somewhat problematic. For example, net profit after tax for Wool International changed from a loss of $668 million in 1993 to a profit of $657 million in 1994. The swings in earnings can be accounted for in part by the observation that Wool International is in charge of having to dispose of the Australian wool stockpile by 31st December 2000. However, up until recently, sales were bounded between 182,000 and 192,000 bales per quarter, which meant that they were unable to smooth out revenue through varying quantities as prices changed.[6] As a consequence, analysis of standard financial performance indicators is rendered meaningless, given that their primary agenda is to allow for their winding-up by following three objectives:

- management and disposal of the stockpile;
- management and repayment of the accumulated debt;
- return of surplus funds from the sale of the stockpile and the non-wool assets after repayment of the accumulated debt to unit holders.

### *3.4 Transport, Storage and Communication*

The performance of the three enterprises included in rail (Australian National Railways Commission-ANRC, State Rail Authority of NSW-SRANSW and WA Government Railways Commission) has been relatively poor. This is quite important, given that the Federal government has promised $100 million for the Darwin to Adelaide railway, is devoting $250 million to upgrading tracks over a four year period and has promised a substantial contribution to the Eastern Seaboard to Darwin rail link. Several of these initiatives are designed to compete with road transport, but with relatively low sales per employee compared to private road transport companies it may be some time before the gains from such investment are fully realised. For four of the five years reported here, net profit after tax has been negative, and EBDIT was also negative in 1996, thanks largely to a very poor result from both the ANRC and the SRANSW. Current assets as a share of current liabilities have fallen, and the ability to service debt was practically nonexistent in 1992, 1995 and 1996. The only positive feature in these reported results is the observation that total liabilities as a share of total equity has been scaled back substantially, and that sales per employee have increased.

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[6] Recent legislation has recognised the gains made in debt repayment and reduction of the wool stockpile, such that the bounds are now between 90,000 and 350,000 bales per quarter.

**Table 5. Performance Indicators, Rail[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | -20.8 | -5.2 | 8.6 | -9.0 | -9.7 |
| Return on Assets | 0.7 | 4.7 | 10.0 | 1.5 | -0.3 |
| EBDIT margin | 1.7 | 12.9 | 30.5 | 7.1 | -1.6 |
| Total Liabilities to Equity | 3.09 | 1.64 | 1.04 | 0.52 | 0.55 |
| Current Ratio | 0.85 | 0.90 | 0.67 | 0.56 | 0.57 |
| Interest Cover | 0.3 | 2.3 | 5.0 | 0.9 | -0.2 |
| Sales per employee ($ '000) | 61.6 | 68.7 | 79.9 | 83.8 | 90.9 |
| Employees | 34367 | 31629 | 28319 | 26581 | 24668 |
| R&D expenditure (share of sales) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

a. Australian National Railways Commission, State Rail Authority of NSW, WA Government Railways Commission.

The measures reported here indicate that our sample of ports have been performing relatively well. Notwithstanding the decline in several figures in 1996, the financial performance measures are healthy, with current assets as a share of current liabilities increasing in 1996, and the share of total liabilities to equity declining. EBDIT margins have also been consistently high. Sales per employee have increased, but once again, this is the result of labour shedding (employee numbers fell from 2094 in 1992 to 1214 in 1996), rather than an increase in sales revenue.

**Table 6. Performance Indicators, Ports[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 5.4 | 9.3 | 9.2 | 8.8 | 2.6 |
| Return on Assets | 10.6 | 12.6 | 12.2 | 12.9 | 8.6 |
| EBDIT margin | 41.0 | 49.6 | 49.2 | 56.1 | 39.1 |
| Total Liabilities to Equity | 0.95 | 0.77 | 0.56 | 0.51 | 0.34 |
| Current Ratio | 1.11 | 1.24 | 1.39 | 1.17 | 1.45 |
| Interest Cover | 2.4 | 3.1 | 3.5 | 4.8 | 3.9 |
| Sales per employee ($ '000) | 155.4 | 187.4 | 233.6 | 235.4 | 262.4 |
| Employees | 2094 | 1790 | 1516 | 1484 | 1214 |
| R&D expenditure (share of sales) | na | na | na | 0.09 | 0.06 |

a. Cairns Port Authority, Fremantle Port Authority, Gladstone Port Authority, Port of Melbourne Authority and Port of Brisbane Corporation.

Other transport and storage companies (which include ANL and Airservices Australia) have also performed tolerably well, although the only significant improvement has been the decline in the liabilities to equity ratio.

**Table 7. Performance Indicators, Other Transport and Storage[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 6.2 | 1.6 | 0.4 | 2.6 | 2.3 |
| Return on Assets | 13.2 | 12.3 | 10.3 | 10.3 | 12.0 |
| EBDIT margin | 19.9 | 20.6 | 18.1 | 18.9 | 23.5 |
| Total Liabilities to Equity | 1.19 | 1.44 | 1.08 | 1.11 | 0.75 |
| Current Ratio | 0.91 | 1.01 | 0.95 | 0.60 | 0.72 |
| Interest Cover | 3.9 | 3.8 | 3.5 | 3.7 | 4.9 |
| Sales per employee ($ '000) | 141.7 | 149.1 | 147.0 | 142.5 | 146.7 |
| Employees | 14529 | 12907 | 12579 | 13779 | 12946 |
| R&D expenditure (share of sales) | 0.11 | 0.06 | 0.17 | 0.14 | 0.19 |

a. Metropolitan (Perth) Passenger Transport Trust, State Transit Authority of NSW, ANL, Civil Aviation Authority[7], Federal Airports Corporation, Australian Tourist Commission, Queensland Tourist and Travel Corporation.

No analysis of public trading enterprises would be complete without the inclusion of Australia Post and Telstra. Pre and post-tax earnings at Australia Post increased significantly in 1995 and 1996, as reflected in the return on equity and assets measures (the increase in ROE in 1994 was due to a large decline in measured equity). In line with the increase in the total liabilities to equity ratio, interest cover has declined since 1993, although it remains at relatively high levels. Against the general trend, the increase in sales per employee has been primarily driven by a 27 per cent increase in sales revenue between 1992 and 1996, with employee numbers only falling by 5 per cent over the same time period.

Telstra has been under increasing scrutiny in association with the deregulation of the telecommunications industry and Telstra's subsequent listing. By all accounts, Telstra's performance has been relatively solid. The profitability measures reported here indicate a strengthening in earnings over the five years under analysis. Liabilities to equity have fallen, with an associated rise in their ability to service their debt. Sales per employee have fluctuated somewhat, but this has been primarily due to fluctuations in employee levels. Indeed, with the 1996 announcement of a 20,000 person reduction in their workforce over a number of years, it would seem reasonable to suggest that sales per employee will increase in the near future.

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7 Now Airservices Australia.

**Table 8. Performance Indicators, Australia Post (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 12.5 | 12.1 | 20.2 | 28.9 | 27.8 |
| Return on Assets | 13.7 | 15.1 | 16.9 | 20.5 | 20.9 |
| EBDIT margin | 12.4 | 12.5 | 13.1 | 15.6 | 16.6 |
| Total Liabilities to Equity | 1.01 | 1.06 | 1.44 | 1.58 | 1.71 |
| Current Ratio | 0.86 | 0.85 | 0.99 | 0.90 | 0.76 |
| Interest Cover | 81.2 | 116.4 | 68.5 | 23.7 | 20.8 |
| Sales per employee ($ '000) | 67.2 | 74.4 | 80.6 | 85.5 | 89.4 |
| Employees | 33605 | 31934 | 31130 | 31621 | 32040 |
| R&D expenditure (share of sales) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Table 9. Performance Indicators, Telstra (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 3.0 | 8.7 | 15.7 | 15.6 | 18.9 |
| Return on Assets | 16.7 | 21.5 | 24.0 | 22.1 | 35.1 |
| EBDIT margin | 30.9 | 39.0 | 39.8 | 35.5 | 55.8 |
| Total Liabilities to Equity | 1.30 | 1.13 | 0.97 | 1.05 | 0.92 |
| Current Ratio | 0.74 | 0.77 | 0.93 | 0.87 | 0.87 |
| Interest Cover | 3.1 | 5.4 | 7.1 | 9.9 | 16.0 |
| Sales per employee ($ '000) | 156.9 | 178.4 | 196.7 | 156.7 | 165.4 |
| Employees | 73181 | 68000 | 65000 | 86885 | 88995 |
| R&D expenditure (share of sales) | 0.68 | 0.70 | 0.63 | 0.53 | 0.58 |

### *3.5 Finance and Insurance*

Interest cover in the finance and insurance industry is fairly low. However, measured interest cover masks the fact that, overall, this industry actually receives more interest than it pays out.

**Table 10. Performance Indicators, Finance and Insurance[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 0.8 | 10.7 | 16.6 | 21.2 | 27.9 |
| Return on Assets | 0.5 | 1.4 | -0.7 | -0.5 | -0.1 |
| EBDIT margin | 3.9 | 12.8 | -6.0 | -4.7 | -1.3 |
| Total Liabilities to Equity | 40.65 | 47.82 | 39.54 | 54.94 | 38.64 |
| Current Ratio | 1.16 | 1.17 | 1.10 | 1.28 | 1.03 |
| Interest Cover | 0.1 | 0.2 | -0.1 | -0.1 | 0.0 |
| Sales per employee ($ '000) | 1797.2 | 1167.1 | 1724.7 | 2137.3 | 5453.3 |
| Employees | 6503 | 8765 | 5293 | 5137 | 1649 |
| R&D expenditure (share of sales) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

a. Treasury Corporation of Victoria, Tasmanian Public Finance Corporation, QIDC, NSW Treasury Corporation, Queensland Treasury Corporation, SA Asset Management Corporation, AIDC, Rural Finance Corporation of Victoria, Suncorp Insurance and Finance, Joint Coal Board, Territory Insurance Office, Insurance Commission of WA, Motor Accident Commission.

### *3.6 Property and Business*

The firms under this category represent a number of diverse interests. Hence, given the unique nature of CSIRO and ANSTO, the results are separated out from those reported for property and business services.

**Table 11. Performance Indicators, Property and Business[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 0.7 | 1.9 | 2.2 | 7.4 | 2.3 |
| Return on Assets | 1.8 | 3.2 | 3.3 | 5.7 | 3.6 |
| EBDIT margin | 10.7 | 16.2 | 16.2 | 25.3 | 20.2 |
| Total Liabilities to Equity | 0.85 | 0.79 | 0.88 | 1.40 | 0.58 |
| Current Ratio | 0.76 | 0.68 | 1.69 | 1.57 | 1.15 |
| Interest Cover | 0.6 | 1.0 | 1.1 | 1.7 | 1.4 |
| Sales per employee ($ '000) | 234.1 | 161.9 | 187.0 | 246.2 | 192.9 |
| Employees | 2092 | 3229 | 2928 | 2075 | 2680 |
| R&D expenditure (share of sales) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

a. South Australian Housing Trust, State Housing Commission of WA, Urban Land Authority Victoria, Australian Trade Commission.

CSIRO and the Australian Nuclear Science and Technology Organisation undertake all the recorded research and development in the property and business industry, and as at 1995, more than 70 per cent of reported R&D for the 198 enterprises in Table 1. Practically all revenue obtained is subsequently spent on further R&D, which is why, in this instance, we report R&D expenditure in terms of total revenue rather than earnings. Whilst analysis of standard financial performance measures may provide a means of determining whether either CSIRO or ANSTO are at least performing up to some minimum criteria, the bulk of balance sheet measures do not adequately account for the true public nature of the services provided. Margins are fairly tight, although given that these two firms probably most closely match that of a 'non-profit organisation', with practically the only requirements being that they function within their budget. Other measures cited by CSIRO suggest performance measures such as a benefit cost ratio, where according to their analysis, "studies of specific projects show a typical benefit:cost ratio in the range of 4:1 to 8:1" (http://www.csiro.au/csiro/about3.htm).

**Table 12. Performance Indicators, CSIRO and ANSTO (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | -4.8 | 0.5 | 1.0 | 0.3 | -3.5 |
| Return on Assets | 1.2 | 4.4 | 5.3 | 4.6 | 2.3 |
| EBDIT margin | 1.6 | 6.4 | 8.8 | 8.0 | 4.2 |
| Total Liabilities to Equity | 0.33 | 0.37 | 0.33 | 0.34 | 0.34 |
| Current Ratio | 1.07 | 1.01 | 0.92 | 0.92 | 0.71 |
| Interest Cover | nc | nc | nc | nc | nc |
| Sales per employee ($ '000) | 26.6 | 30.1 | 30.1 | 30.1 | 35.4 |
| Employees | 8346 | 8402 | 8233 | 8198 | 7606 |
| R&D expenditure (share of total revenue) | 87.38 | 88.39 | 88.20 | 92.06 | 96.69 |

### *3.7 Education*

This group comprises of higher education institutions. Unsurprisingly, a large proportion (17 per cent in 1995, see Table 1) of research and development undertaken by GTEs is done by this sector. Overall, education institutions tend to have fairly healthy performance measures, with the four years to 1996 indicating relatively good profit outcomes. Liabilities to equity have been consistently low over the five years under analysis, with correspondingly high interest cover. Liquid assets are more than able to cover short-term liabilities; the education sector has one of the highest current ratios out of the industry groups represented here. Sales per employee also increased, with a 65 per cent increase in sales between 1992 and 1996 only partially offset by a 10 per cent rise in employment levels.

**Table 13. Performance Indicators, Education[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | -0.1 | 4.9 | 2.2 | 3.0 | 2.7 |
| Return on Assets | 1.5 | 5.7 | 3.7 | 4.2 | 4.2 |
| EBDIT margin | 3.7 | 13.3 | 9.4 | 10.4 | 10.7 |
| Total Liabilities to Equity | 0.23 | 0.27 | 0.22 | 0.23 | 0.22 |
| Current Ratio | 1.30 | 1.63 | 1.43 | 1.59 | 1.72 |
| Interest Cover | 18.1 | 57.8 | 43.6 | 48.4 | 61.7 |
| Sales per employee ($ '000) | 28.5 | 28.7 | 24.7 | 42.5 | 42.7 |
| Employees | 22429 | 27137 | 27921 | 24247 | 24628 |
| R&D expenditure (share of sales) | 29.32 | 3.66 | 16.10 | 12.68 | 2.66 |

a. Swinburne University of Technology, Australian National University, Griffith University, Murdoch University, Royal Melbourne Institute of Technology, University of Canberra, University of Melbourne, University of Queensland, Queensland University of Technology.

### *3.8 Health and Community Services*

Out of the 72 public health and community service providers that reported earnings figures for 1995, less than half reported positive numbers. In the five years to 1996, this sector has had relatively dramatic swings in profits and the corresponding profitability performance measures. As an example, the Northern Sydney Area Health Service reported an overall EBDIT profit of $8.4 million in 1992, which deteriorated to a $300.2 million loss in 1995, before recovering to post a $12.7 million profit in 1996. Although four of our sample earned positive profits on a consistent basis,[8] they also experienced relatively large swings in earnings. The best performing measures have been the liabilities to equity ratio and the current ratio. Sales per employee declined, with a 3 per cent fall in sales over 1992 to 1996 exacerbated by a 25 per cent increase in employment.

**Table 14. Performance Indicators, Health and Community[a] (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | -4.0 | 1.5 | 2.8 | -11.5 | -2.5 |
| Return on Assets | -0.3 | 4.5 | 5.7 | -6.2 | 1.9 |
| EBDIT margin | -0.5 | 6.6 | 7.9 | -9.1 | 2.2 |
| Total Liabilities to Equity | 0.19 | 0.19 | 0.18 | 0.25 | 0.29 |
| Current Ratio | 0.80 | 0.86 | 0.95 | 0.96 | 1.00 |
| Interest Cover | -0.5 | 8.9 | 12.0 | -14.6 | 3.0 |
| Sales per employee ($ '000) | 16.8 | 15.0 | 13.2 | 14.4 | 13.0 |
| Employees | 32457 | 31511 | 34839 | 35883 | 40701 |
| R&D expenditure (share of sales) | 0.00 | 0.07 | 0.02 | 0.83 | 0.76 |

a. Southern Regional Health Board, Ballarat Base Hospital, Hunter Area Health Service, King Edward Memorial and Princess Margaret Hospitals, Northern Sydney Area Health Service, Royal Alexandra Hospital for Children, Royal Children's Hospital, Royal Perth Hospital, Southern Sydney Area Health Service, Fremantle Hospital and Health Service, Metropolitan Ambulance Service.

### *3.9 Cultural and Recreational Services*

An eclectic mix of firms is represented in this sample. The overall performance of this industry looks to be relatively impressive. Returns on assets and equity are quite large, margins are consistently positive, and the ability to service their debt is more than adequate. Against the general trend for most industries in this sample, a 19 per cent

8 Fremantle Hospital and Health Service, King Edward Memorial and Princess Margaret Hospitals, Royal Alexandra Hospital for Children, Royal Children's Hospital.

increase in sales revenue, rather than a decline in employment levels have underpinned the increase in sales per employee. The overall figures mask varying performances across firms. The enterprises associated with gambling account for the majority of sales, and tend to have large returns on assets and equity. For the most part however (barring a couple of years) most enterprises perform relatively well on these measures.

**Table 15. Performance Indicators, Cultural and Recreational (1992 – 1996)**

| | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|
| Return on Equity | 41.1 | 45.5 | 79.8 | 72.1 | 59.8 |
| Return on Assets | 28.3 | 31.3 | 49.2 | 43.6 | 39.0 |
| EBDIT margin | 6.4 | 6.8 | 10.3 | 9.4 | 9.5 |
| Total Liabilities to Equity | 0.65 | 0.86 | 0.81 | 0.80 | 0.60 |
| Current Ratio | 0.92 | 1.02 | 1.01 | 1.29 | 1.28 |
| Interest Cover | 22.8 | 15.3 | 26.2 | 29.3 | 28.7 |
| Sales per employee ($ '000) | 587.8 | 623.6 | 654.7 | 674.7 | 704.9 |
| Employees | 10040 | 9812 | 9912 | 10092 | 9970 |
| R&D expenditure (share of sales) | 0.01 | 0.01 | 0.01 | 0.02 | 0.04 |

a. ABC, Special Broadcasting Service Corporation, Zoological Parks Board of NSW, Sydney Opera House Trust, Australian Sports Commission, Lotteries Commission of SA, Lotteries Commission of WA, NSW Lotteries Corporation, SA TAB, TAB of WA, TAB of NSW, TAB Tasmania, ACTTAB, Racing and Gaming Authority.

# 4 Conclusion

The purpose of this paper has been to provide a general overview of the GTEs contained in the IBIS database, using performance measures that are cited in various Steering Committee reports. What is immediately obvious is the large differences in performance across firms, and more particularly, across industries. What should be remembered is that a number of these enterprises provide public benefits (externalities) that are not easily measurable. Although this does not excuse poor financial performance, it may nevertheless be more sensible to analyse financial and economic performance measures alongside public benefit measures such as customer satisfaction.

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# Appendix

Definitions of performance indicators

| | |
|---|---|
| Return on equity | $\frac{\text{Net profit after tax}}{\text{Average total equity}}$ |
| Return on assets | $\frac{\text{Earnings before depreciation, interest and tax}}{\text{Average total assets}}$ |
| EBDIT margin | $\frac{\text{Earnings before depreciation, interest and tax}}{\text{Total revenue}}$ |
| Total liabilities to equity | $\frac{\text{Total liabilities}}{\text{Total equity}}$ |
| Current ratio | $\frac{\text{Current assets}}{\text{Current liabilities}}$ |
| Interest cover | $\frac{\text{Earnings before depreciation, interest and tax}}{\text{Gross interest expense}}$ |
| R&D expenditure over sales | $\frac{\text{Expenditure on research and development}}{\text{Sales revenue}}$ |

## Government Trading Enterprises included in the 1995 sample

Accident Rehabilitation & Compensation Insurance Corp
ACTEW Corporation Limited
ACTTAB Limited
Adelaide Festival Centre Trust
AIDC Ltd
Ambulance Service of New South Wales
ANL Limited
Australian Broadcasting Corporation
Australian Dairy Corporation
Australian Film Finance Corporation Limited
Australian Maritime Safety Authority
Australian Meat and Live-stock Corporation
Australian National Audit Office
Australian National Railways Commission
Australian National University
Australian Nuclear Science & Technology Organisation
Australian Postal Corporation
Australian Securities Commission
Australian Sports Commission
Australian Tourist Commission
Australian Trade Commission
Ballarat Base Hospital
Barwon Region Water Authority
Box Hill Hospital
Cairns Port Authority
Canberra Institute of Technology
Central Coast Area Health Service
Central Queensland University
Central West Health Service
Centre for Information Technology & Communication
Charles Sturt University
City West Water Limited
Civil Aviation Authority
Comcare Australia
Commonwealth Scientific & Industrial Research Organisation
Curtin University of Technology
Dairy Industry Authority Western Australia
Deakin University
Defence Housing Authority
Eastern Health Care Network
Eastern Sydney Area Health Service
Edith Cowan University
Electricity Corporation
Electricity Transmission Authority
ETSA Corporation
Evans Health Service
Export Finance and Insurance Corporation
Federal Airports Corporation
Flinders Medical Centre
Fremantle Hospital and Health Service
Fremantle Port Authority
Gas Corporation (Alinta Gas)
Gas Transmission Corporation
GASCOR
Geelong Hospital
Generation Victoria
Gladstone Port Authority
Golden Casket Lottery Corporation
Goulburn-Murray Rural Water Authority
Grain Pool of WA
Griffith University
Healthlink South Limited
HomeStart Finance Corporation
Hume Health Service
Hunter Area Health Service
Hunter Water Corporation Ltd
Hydro-Electric Corporation
Illawarra Electricity
Insurance Commission of Western Australia
James Cook University of North Queensland
Joint Coal Board
King Edward Memorial Hospital for Women
Latrobe Regional Hospital
Library Council of New South Wales
Lotteries Commission of South Australia
Lotteries Commission of Western Australia
Lower North Coast Health Service
Loy Yang Power Ltd
Macleay Hastings Health Service
Maritime Services Board of New South Wales
Medibank Private
Melbourne Water Corporation
Mercy Public Hospitals Incorporated
Metropolitan (Perth) Passenger Transport Trust
Metropolitan Ambulance Service
Mid North Coast Health Service
MidCentral Health Limited
Mildura Base Hospital
Monash Medical Centre
Monash University
Mornington Peninsula Hospital
Motor Accident Commission
Murdoch University
National Library of Australia
Natural Gas Authority of South Australia
Nelson Marlborough Health Services Ltd
New England Health Service (Old)
New South Wales Grains Board
New South Wales Lotteries Corporation
North West Hospital
North West Regional Health Board
Northern Melbourne Institute of TAFE
Northern Rivers Electricity
Northern Sydney Area Health Service
Northern Territory University
NorthPower (Old)
NSW Department of Housing
NSW National Parks and Wildlife Service
NSW Treasury Corporation
Orion Energy
Pacific Power
Peter MacCallum Cancer Institute
Port of Brisbane Corporation
Port of Geelong Authority
Port of Melbourne Authority
Ports Corporation of Queensland
Potato Marketing Corporation of Western Australia
Power & Water Authority of the Northern Territory
PowerNet Victoria
Preston and Northcote Community Hospital
Princess Margaret Hospital for Children
Prospect Electricity

## Government Trading Enterprises included in the 1995 sample (continued…)

Public Transport Corporation of Victoria
QIDC Limited
Queen Elizabeth Centre Ballarat
Queensland Generation Corporation
Queensland Rail
Queensland Sugar Corporation
Queensland Tourist and Travel Corporation
Queensland Transmission & Supply Corporation
Racing and Gaming Authority
Reserve Bank of Australia
Richmond Health Service
Riverina Health Service
Royal Alexandra Hospital for Children
Royal Children's Hospital
Royal Melbourne Hospital
Royal Melbourne Institute of Technology
Royal Perth Hospital
Royal Women's Hospital
Rural Finance Corporation of Victoria
Sagric International Pty Limited
Snowy Mountains Hydro-Electric Authority
South Australian Asset Management Corporation
South Australian Housing Trust
South Australian Totalizator Agency Board
South Australian Water Corporation
South East Water Limited
South Western Sydney Area Health Service
Southern Regional Health Board
Southern Sydney Area Health Service
Southern Tablelands Electricity
Southern Tablelands Health Service
Special Broadcasting Service Corporation
State Electricity Commission of Victoria
State Housing Commission of Western Australia
State Rail Authority of New South Wales
State Superannuation Fund
State Transit Authority of New South Wales
Suncorp Insurance & Finance
Swinburne University of Technology
Sydney Electricity
Sydney Opera House Trust
Sydney Water Corporation Limited
Tasmanian Public Finance Corporation
Telstra
Territory Insurance Office
Totalisator Agency Board of Western Australia
Totalizator Agency Board of New South Wales
Totalizator Agency Board Tasmania
Transport Accident Commission
Treasury Corporation of Victoria
TT-Line Company Pty Limited
University of Adelaide
University of Canberra
University of Melbourne
University of Queensland
University of South Australia
Urban Land Authority Victoria
Victoria University of Technology
Victorian Arts Centre Trust
Victorian Dairy Industry Authority
Victorian WorkCover Authority
Wangaratta District Base Hospital
Water Authority of Western Australia
Wentworth Area Health Service
Western Australian Government Railways Commission
Western Australian Meat Marketing Corporation
Western Hospital
Western Melbourne Institute of TAFE
Western Power
Western Sydney Area Health Service
Wool International
WorkCover Corporation of South Australia
WorkCover Queensland
Yarra Valley Water Limited
Zoological Parks Board of New South Wales