



Worth Noting

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Worth Noting is the weekly management journal of research and conferences company L21. It is focused on management strategy issues of relevance to senior executives.

Productivity at the Macroeconomic and Organisation Level

The desire to boost productivity should be close to the hearts of senior executives. When capital is relatively fixed, only a boost in productivity can increase output. Focusing on productivity makes sense because it is within the control of management, it need not cost any money, and improvements in it flow directly to the profit and loss account. And most executives accept that their teams could be more productive. Particularly in tight times, productivity is an obvious issue to address.

When measured properly, productivity brings together virtually all of a company's internal operations into one metric. Low morale leading to poor on-the-job performance? Good productivity analysis will capture it. Inventory turns too slow because of problems with suppliers? Good productivity analysis will capture it. Errors on the factory floor reducing the ratio of completed products per day? Good productivity analysis will capture it.

What interests us, then, is the lack of sophistication of productivity analysis in many organisations. In many cases, productivity isn't measured at all. Warehouses might track how many packages are shipped per worker per hour, call centres might measure calls per hour and average length of calls. Some functions are easy to measure, others aren't: guess which group gets measured more often.

In this edition of *Worth Noting*, we look at productivity in the Australian economy, and provide some ideas on useful productivity practices. We also contrast the macroeconomic factors affecting productivity with the more mundane, day-to-day details of productivity within companies.

Aggregate Measures and the Productivity Commission

At the national level, productivity is measured and analysed by the Federal Government's Productivity Commission. The Commission focuses on two main classes of productivity:

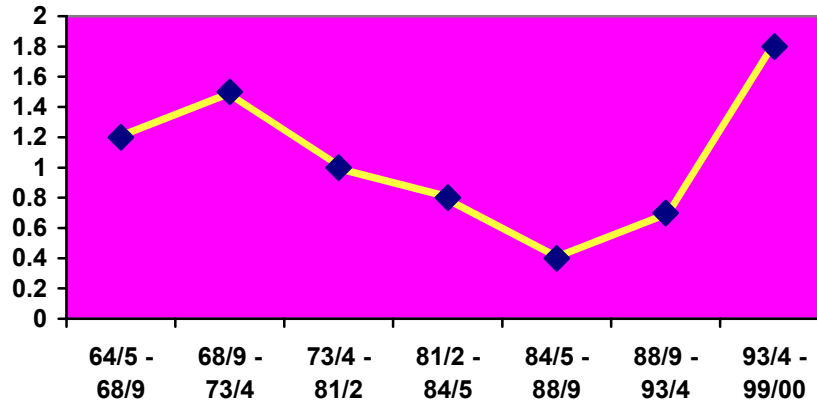
- Labour Productivity; and
- Multifactor Productivity (MFP)

Labour Productivity is a straightforward measure. It captures output (as expressed by GDP) per hour worked. So if national GDP was 100 and hours worked were 50, the labour productivity rate would be 2. This is akin to the basic productivity measures used in many companies: x hours of work equals y packages distributed, or telephone calls answered, etc. The problem with the straight labour productivity measures is that it does not take into account capital employed, and clearly workers in a factory with a high level of capital employed are likely to produce more output than workers in a factory with low capital investment.

Consequently, MFP is the Commission's preferred approach to measuring productivity. It takes into account the effectiveness of the combination of labour and capital in generating output. Failing to take into account the cost of capital in determining productivity provides artificially high productivity results, if one assumes that capital investment increases over time.

It is worth looking at the Productivity Commission's data on Australian productivity performance over time.

Australian Average Annual MFP Increase (%)



Source: Productivity Commission, *Australia's 1990s Productivity Surge and its Determinants*

In the chart above, years are grouped together to smooth out the effects of the economic cycle and provide a true picture of underlying productivity growth.

A clear trend of gradual deterioration followed by a sharp increase in productivity is shown by the chart. In the 1990s, Australian productivity increased rapidly. Three reasons are generally advanced for this:¹

- Microeconomic reforms reduced structural impediments to productivity. Examples of these reforms include changes to industrial relations legislation, the floating of the Australian dollar, and the deregulation of the financial system
- The labour force became more skilled as education rates increased
- Information technology became more widespread

The improvement in productivity led to Australia improving its world ranking in GDP per capita from 15 in 1990 to 7 in 2000.

The Productivity Commission's view is that microeconomic reform was by far the largest factor in increasing Australia's productivity during the 1990s.²

In a sense, national productivity measures are largely irrelevant to companies. They are of most use as benchmarks, but do not provide any real help to businesses in maximising their own internal productivity. This is because the factors that distinguish productive companies from unproductive companies are

¹ Productivity Commission, *Australia's 1990s Productivity Surge and its Determinants*, 20 June 2002

² *ibid*

very different from the factors that distinguish productive nations from unproductive nations. Even in a nation with, say, restrictive industrial relations laws, some companies will find a way to make the system work much better than others. Productivity leaders understand the internal drivers of output better than their competitors.

Internal Drivers of Productivity

In our view, productivity within organisations is generally driven by one of two factors:

- “Soft” initiatives which impact specifically on employees and have a direct correlation with employee output
- “Hard” initiatives which drive output at a company-wide level

We are over-simplifying a little here, but not too much. Most productivity improvements will come from one of these two sources.

Measuring the relative importance of these areas is very difficult. The greatest employee motivation system won't increase output if technology doesn't do its job, and the most thorough Six Sigma implementation will fail to meet its goals unless employees buy in to the process. Both aspects of productivity are necessary but not sufficient on their own. Human Resources practitioners tend to associate employee productivity with these softer people issues, while operations managers focus on issues such as inventory management, process design, and so on. Both are important.

Soft Initiatives

Much of the research on employee productivity makes a link between motivation and output. Intuition suggests that a motivated worker will produce more than a disgruntled one, and this has been borne out by numerous statistical analyses. The more sophisticated of these models then go on to analyse the factors that drive employee motivation.

One of the most interesting works in this area is “The Hinds Model of Company Success”, by Sydney Human Resources consultant and former academic Dr Joan-Mary Hinds.³

Hinds argues that the motivation of employees fits into four broad categories:

“Enterprise” – generally characterised by a high degree of autonomy and independence, often seen in small business or autonomous groups within larger corporations

³ Dr Joan-Mary Hinds, *The Hinds Model of Company Success*, Aiken Press, Sydney, 1995

“Corporation” – less independence than the enterprise model, but still characterised by professionalism, freedom of speech, and appropriate levels of support

“Institution” – employees perceive an environment of confinement, supervision and control

“Penal Institution” – fear of punishment and no control over work life

Gold stars for all readers who guessed that the enterprise model produces the most productive workers and the penal institution model the least.

The levers which Hinds identifies as driving motivation include limiting red tape, appropriately appreciating and recognising employees, developing clear career development practices, clearly articulating company objectives, and getting out of a this-is-a-crisis-that-requires-a-response mentality.

There are numerous other soft issues which we see as driving productivity.

- Devolution of power – studies indicate that people perform best when they have a sense of ownership over their work: nobody likes to feel like an automaton.
- Incentives – perhaps surprisingly, a great deal of literature suggests that financial incentives are not a strong driver of productivity. We’re not buying that argument. The key reason why incentives don’t work is inappropriate structuring, not the lack of employee interest in incentives themselves.
- Workplace agreements – more productive companies make the best use of legislation and other instruments to structure reasonable working practices, while inertia leads others to rely on making the best of outdated and inefficient processes.
- Training and development – properly used, there is no question that training budgets can be used to boost productivity.

Of course, none of these ideas are revolutionary – any decent Human Resources Director could identify them. But actually implementing them throughout an organisation is not easy, and distinguishes highly productive organisations from the also-rans.

Hard initiatives

The other main group of productivity-enhancing initiatives occurs in a broader operational context. They need not rely on capital expenditure, but often involve establishment costs.

Six Sigma is an example of a productivity technique with demonstrable benefits. As regular readers of *Worth Noting* will recall from Issue VI this year, Six Sigma is a company-wide process review which focuses on minimising errors. The goal

of a Six Sigma implementation is to reduce errors so that 99.9997% of products are error free – or expressed in another way, only 3.4 products per million will be anything less than faultless. Contrast this against a rate of, say, 99.9%: in that instance, 1,000 errors per million would be acceptable. At high volumes of production, a difference of this nature has a large impact on productivity. Diversified industrial giant Honeywell is one of the most successful proponents of Six Sigma. It has followed the simple steps of Six Sigma:

Define the problem

Measure its cost

Analyse potential improvements

Improve processes

Control process to lock in improvements

Like most ideas that work, it sounds almost too simple. But as always, the difference is in the execution. Few companies are disciplined enough to execute a Six Sigma review thoroughly.

Many other hard productivity-enhancing initiatives have been used successfully by major corporations in recent years. Let us provide a few examples:

- Adoption of wireless technology, particularly in industries such as retail, wholesale, and manufacturing. Employees are able to update stock data at its shop floor location, rather than collecting information and later entering it into a fixed PC. It is worth noting that wholesale trade was the industry with the greatest productivity growth in the 1990s, and a significant proportion of this growth is attributed to the use of technology. Wireless technology has also delivered substantial productivity gains in the distribution / courier industries.
- Lease-back programs, where corporations sell unnecessary property holdings and lease them back from the new owner. Capital efficiency is increased which drives through to productivity results.
- Implementation of measurement tools which focus management attention on productivity outcomes, and automatically re-allocate resources in a manner which maximises productivity. Quality warehouse management software systems have a marked impact on improving scheduling and use of space in distribution environments.

There are many examples of companies putting in place new systems aimed at boosting productivity, and then inadequately measuring the outcomes of the new initiative. Management enthusiasm for a new tool is not always matched by management enthusiasm for measuring the results produced by that new tool. Leaders capture data and then do something about it; others don't capture the right data and react on intuition rather than fact. Measurement and constant improvement based on data is at the heart of productivity analysis in all organisations. Only senior management commitment to continuous

measurement and reaction can boost productivity in the long run, regardless of whether the initiatives being pursued are hard, soft, or somewhere in between.