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www.manufacturingalliance.org.au

26th August, 2009.

Chair of the House Economics Committee
The Hon. Craig Thomson

Via email: economics.reps@aph.gov.au

Dear Mr. Thomson,

Please find attached our submission to your Committee's inquiry into Productivity.

The Manufacturing Alliance comprises two trade union organisations, the Australian Manufacturing Workers' Union (AMWU) and the Australian Workers' Union (AWU).

We are pleased to provide this joint submission to your Committee and we look forward to engaging with you and your colleagues at the appropriate time.

In the interim, if you or the Secretariat have any questions please feel free to contact Mr. Nixon Apple, AMWU or Mr. Brad Crofts, AWU

Sincerely,

Dave Oliver
National Secretary
AMWU

Paul Howes
National Secretary
AWU



**SUBMISSION TO
HOUSE OF REPRESENTATIVES ECONOMICS
COMMITTEE INQUIRY
INTO RAISING THE LEVEL OF PRODUCTIVITY
GROWTH IN THE AUSTRALIAN ECONOMY**

**AUSTRALIAN MANUFACTURING WORKERS UNION
AUSTRALIAN WORKERS UNION**

THE MANUFACTURING ALLIANCE

AUGUST 2009

EXECUTIVE SUMMARY

The AMWU and AWU have formed an alliance aimed at expanding Australian manufacturing at best practice. The Alliance is a formal expression of our combined Unions' commitment to manufacturing in this country and in our determination to see it prosper and thrive. This inquiry has an economy wide focus which fits well with our two union's membership.

The two unions represent more than 250,000 Australian workers in steel, glass, alumina/aluminium, brass and copper, energy (including LNG, gas, renewables and utilities) and other sectors including tobacco, chemicals, engineering, construction, food, wine and a wide range of agricultural activities, printing, auto and components, aerospace, defence, shipbuilding as well as many other manufacturing sub sectors and virtually all industries across the economy.

We therefore have a vested interest in an economy wide lift in productivity to strengthen the industries and firms our members work in, and to provide the opportunity for sustainable increases in their living standards. The issues in this inquiry are particularly important to the future of manufacturing in this country. The question is what needs to be done to achieve a significant lift to Australia's long term productivity growth? In our assessment, for the Australian economy in general, and manufacturing in particular, it is clear what needs to be done to lift Australia's long term productivity growth.

Just as suboptimal levels of investment in infrastructure, skills/education and innovation played a major part in the slow-down in productivity growth in this decade, so too will more appropriate investments in infrastructure, skills/education and innovation play a key role in lifting long term trend productivity growth in the decades ahead. As our submission demonstrates this will be particularly important at the level of the firm and in workplaces where workers make things.

Section One of our submission examines the data for international productivity comparisons over the last several decades and where Australia stands. Section Two considers the debate about the causes for the productivity slowdown in the current decade. Section three provides four agenda's that the Manufacturing Alliance suggests will help restore stronger productivity growth over the coming decades. The Appendix outlines the classic Harvard Business Review study by Professor Wickham Skinner "The Productivity Paradox" concerning what needs to be done at the firm and workplace level to lift productivity.

Our four proposed agenda's to accelerate productivity growth focus on:

- 1) The challenges that lie ahead for macro economic management and getting the fundamentals right.
- 2) Why Australia needs a decade of rising real investment in skills and workforce development rather than just more training.
- 3) Why Australia needs a decade of nation building investments in social and economic infrastructure.
- 4) A six point program for building better, fairer and more productive businesses and workplaces through co-operation and collaboration between government, employers, unions and employees.

**SUBMISSION TO
HOUSE OF REPRESENTATIVES ECONOMICS COMMITTEE INQUIRY
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AUSTRALIAN ECONOMY**

INTRODUCTION

In this submission the AMWU-AWU Manufacturing Alliance has primarily focused on that part of the terms of reference related to:

“The key reforms and measures that can be undertaken to lift Australia’s permanent rate of productivity growth.”

To do this we identify economy-wide issues relating to productivity, but we also focus some of our attention on manufacturing in particular as a case study of recent slowing of productivity growth. In doing this we are conscious of the Committee’s Terms of Reference which state:

“The Committee should not undertake detailed assessments of individual industry sectors or specific industry assistance measures.”

Accordingly, we use the manufacturing example to highlight economy-wide issues and possible economy-wide policy options for helping to accelerate the pace of long term productivity growth.

In this submission, the AMWU-AWU Manufacturing Alliance has focused on labour productivity given the difficulties of accessing consistent internationally comparable data on multi-factor productivity.

No doubt the Committee has been briefed on the technical issues relating to data collection and comparability of international productivity statistics. Where our submission relies on data to make international comparisons we draw on the three major data collections being from the OECD, United States Bureau of Labour Statistics and the collections with the Groningen Growth and Development Centre¹.

We turn now to our submission.

¹ For a good basic primer on productivity measurement issues and the strengths and weaknesses of existing data collections see Jeremy Smith: *“International Productivity Comparisons : An Examination of Data Sources”* www.csis.ca/ipm/6/smith-e.pdf. For the detailed standard summary of the issues see: OECD: *Measuring Productivity: OECD Manual: Measurement of Aggregate and Industry Level Productivity Growth 2001*

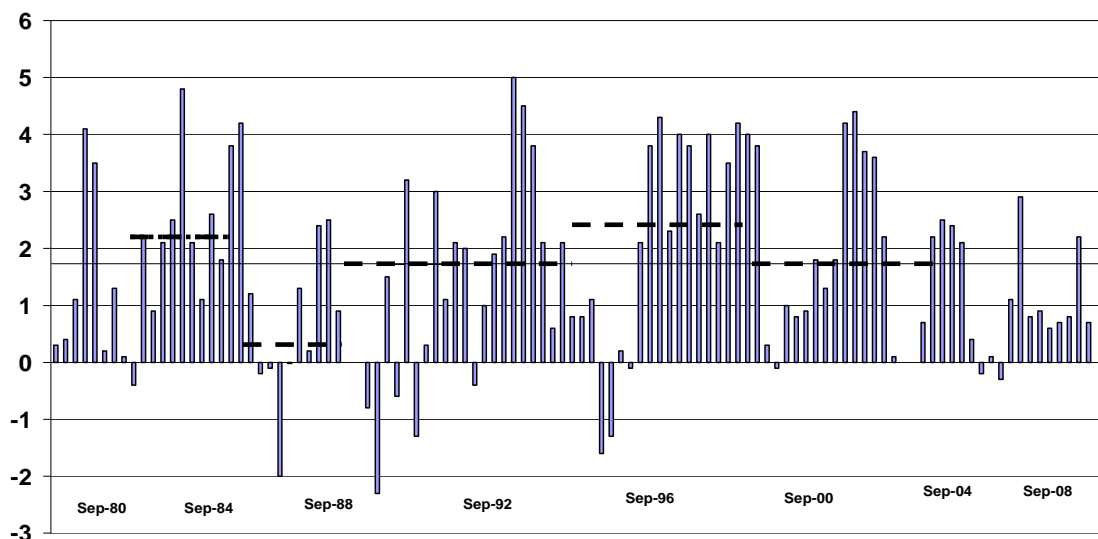
SECTION ONE:

THE SLOWDOWN IN AUSTRALIA'S PRODUCTIVITY GROWTH

The slowdown in Australia's productivity growth during the current decade (2000-2008) has been well documented in work undertaken within the Federal Treasury. Using labour productivity data (output produced per hour worked) and adjusting for the business cycle, the graph below graphically illustrates the slowdown. As the Treasury researchers conclude:

*"... Trend productivity growth rose markedly during the 1990s, particularly it was much stronger during the late 1990s than was the case earlier. Further, trend productivity growth appears to have weakened since the beginning of this decade."*²

Chart 1: Productivity Growth Cycles



The columns represent actual through-the-year growth; the broken lines represent annual average growth over the productivity growth cycles; and the thin line represents the benchmark.

Source: ABS National Accounts. (The table above was replicated by the AMWU from the Treasury working paper noted in footnote 2 below.)

Different measurements of productivity will of course yield some differences in measured outcomes. This is sometimes required to facilitate international comparisons.

As suggested in the table below from the Groningen collection, there has been a large and discernable slowdown in Australia's labour productivity growth.

- While labour productivity grew by 2.2% per annum in Australia over the 1990-2000 decade this has slowed to 1.0% per annum so far in the current decade (2000-2008).
- Of the 123 countries in the Groningen sample, 78 increased productivity more rapidly in the current decade compared to the previous decade.

² J. Rahman et al : *Estimating Trends in Australia's Productivity*. Treasury working paper 2009-01, February, 2009.

- **Only 18 countries (of which Australia was one) out of 123 have experienced a decline in the productivity growth rate of more than 50% in the current decade compared to the previous decade.**³

Table 1
World Labour Productivity Growth: Annual Average Growth Rates

	1990-2000	2000-2008
Australia	2.2%	1.0%
World	1.6%	2.7%
Northern and Western Europe	1.7%	1.2%
Southern Europe	1.3%	0.8%
Eastern Europe	-1.8%	5.8%
North America	1.6%	1.2%
Latin America	1.5%	1.2%
Africa	-0.1%	2.8%
Middle East	-0.4%	0.6%
East Asia and the Pacific	3.2%	5.5%
South Asia	3.4%	4.5%

Source: Groningen: World labour productivity growth is based on labour productivity of the 123 countries included. The Conference Board Total Economy Database June 2009 with GDP converted to US\$ Purchasing Power Parity (PPP) from Madison (2007). The table above is GDP per person. There is little difference for hourly productivity although the methodological consistency of international data collections on hours worked may make GDP per person in PPPs a more reliable measure. It should also be noted that unlike the Treasury data considered in Chart one this table does not adjust for the business cycle which is an important consideration.

In terms of the absolute level of productivity (GDP per hour worked and GDP per capita) Australia remains a high productivity economy and in the top twenty of the global league tables on either measure. Nevertheless the slowdown in productivity growth is of significant concern.

A similar slowdown in Australia's economy-wide labour productivity growth is recorded in the data collection accompanying the latest OECD Economic Outlook June 2009. In Annex Table 12: Labour productivity for the total economy, the data suggests:

- Average annual economy-wide labour productivity growth in Australia increased by just over 2% per annum over the 1992-2000 period compared to 0.7% over the 2001-2009 period (with 2009 being an OECD projection)
- Australia's labour productivity growth rate was almost 15% above the OECD average during the 1992-2000 period but more than 30% below the OECD average over the 2001-2009 period. **It is also of concern that the OECD projections for 2011-2016 suggest Australia's labour productivity growth could remain around 15% below the OECD average (1.3% pa compared to 1.5% pa).**⁴

The data for manufacturing is not directly comparable to the data for the total economy, but table 2 below calculated from the United States Bureau of Labour Statistics shows labour productivity growth in manufacturing in the current decade. For Australia it

³ Calculated from the Conference Board and Groningen Growth and Development Centre: Total Economy Database June 2009 Summary Statistics Table 7

⁴ OECD Economic Outlook : June 2009, Chapter 4.

suggests that manufacturing labour productivity growth is well below the average annual growth rates of the two previous decades. It also suggests that historically our manufacturing productivity performance trails that of many other major nations.⁵

Table 2
Output per Hour in Manufacturing:
Average Annual rates of Change

	1979-2007	1979-1990	1990-2000	2000-2007
U.S.	4.0	2.8	4.65	5.0
Canada	2.4	2.1	3.6	1.3
Australia	2.2	2.3	2.35	1.9
Japan	3.6	3.8	3.35	3.7
Korea	N/A	N/A	10.1	7.6
Singapore	N/A	N/A	6.7	1.7
Taiwan	5.8	6.1	5.15	6.4
Belgium	3.4	4.2	2.75	3.1
Denmark	2.4	2.2	2.25	2.7
France	3.8	3.8	4.0	3.5
Germany	3.1	2.1	3.3	4.3
Italy	2.2	3.4	2.6	-0.2
Netherlands	3.4	3.3	3.5	3.2
Norway	1.8	1.9	0.75	3.0
Spain	2.5	3.3	1.95	2.1
Sweden	4.5	2.1	6.15	6.0
U.K.	3.6	4.1	2.75	4.1

Source: Calculated from US Bureau of Labour Statistics International Manufacturing Productivity Comparisons. As indicated in Table 1, international comparisons are not usually able to measure/compare productivity over the business cycle. This is true of the data above. Productivity growth tends to accelerate during the economic expansion phase and decelerate during downturns. See the OECD Manual (2001) on *Measuring Productivity* section 5.6

⁵ Two factors largely explain the gap in Australia's productivity growth in manufacturing compared to other nations. The first, as shown in the work of Hughes, is the smaller size of Australia's high tech manufacturing industries relative to our competitors (in terms of high tech manufacturing share of manufacturing value added). Hughes' data shows Australia's high tech manufacturing productivity growth in the 1992-2004 period being 3.1% pa compared to 1.3% for "conventional manufacturing. The OECD STANS data base confirms that productivity growth is higher in more R&D intensive industries and hence the lower share of such industries in manufacturing value added is part of the compositional effect that lowers our productivity growth relative to other nations. The second factor relates to tyranny of distance and isolation from global markets which has a marked impact on productivity. (See B. Battersby : *Does Distance Matter : The Effect of Geographic Isolation on Productivity Levels*. Treasury working paper, 2006.

SECTION TWO:

WHY THE PRODUCTIVITY SLOWDOWN?

There have been a number of contributions to the debate about the slowing of productivity growth in Australia in the current decade.

Some commentators, including from the Productivity Commission, have suggested the performance of individual industries such as electricity, gas and water as well as communication services explain a significant part of the decline.⁶ More recently this has also been linked to the mining resources sector and the drought. As noted by the Productivity Commission in its December 2008 PC Update:

“Following a surge over the 1990s, productivity growth has slowed to below average. The slowdown cannot be fully explained but is in large part due to the combined effects of the mining export boom (because of stronger investment and lower yields) and drought. Compared with the 1990s, more effort in enterprises also seems to have gone into expanding production through investment and new hiring rather than cost cutting.”⁷

A similar assessment was provided at ABARE’s 2009 Outlook Conference where Productivity Commission Head of Office, Bernard Wonder, made the point:

“Following a period of high productivity growth in the 1990s, growth has slowed during the 2000s Mining and agriculture have had a dragging down effect on Australia’s productivity growth since 2003-04. However the downturn in mining and agricultural productivity can be expected to be temporary as drought eases and mining capital investments flow through.”⁸

Another popular explanation for the slow down in Australia’s productivity growth relates to “micro economic reform fatigue” or a perception that the reform wave of previous decades removed the “low hanging fruit” leaving tougher reform agendas to be dealt with later. The logic of this argument is that since the micro economic reform agenda had run out of puff, so had strong productivity growth.⁹

A variation on the “stalled micro economic reform agenda” comes in the work of John Quiggin. Quiggin’s argument is not about productivity in the current decade. Rather his analysis suggests that there was nothing particularly significant about productivity growth in the 1990s decade and little to suggest that micro reform had ushered in a “new golden age” of economic prosperity in Australia.¹⁰ Quiggin also raises the

⁶ Gary Banks: Chairman of the Productivity Commission : Productivity Perspectives 2006; Dean Parham and M.H. Wong : *How Strong is Australia’s Productivity Performance : Productivity Perspectives 2006.*

⁷ PC Update: December 2008 : *Productivity and Innovation*

⁸ ABARE Outlook 2009 : accessed at www.abareconomics.com/corporate/media/2009_releases/01_4mar_8_09.html

⁹ See, for example : AFR: *COAG Steps up to the Plate*, Friday July 3, 2009; J. Wilkie and A. Grant

“The importance of evidence for successful economic reform”

www.treasury.gov.au/documents/1496/RTF/04_Evidence_and_reforms. This argument can be found from time to time in speeches by members of Treasury and the Productivity Commission or newspaper editorials in the AFR and the Australian.

¹⁰ J. Quiggin: *The Australian Productivity “Miracle” : A Skeptical View*. Agenda, Volume 8, No. 4, 2001.

possibility that there may be an unmeasured increase in work hours (work intensification) as a factor in measuring the hypothesised increase in productivity.

The significance of Quiggin's work is that it calls into question the notion that there was a dominant factor such as micro economic reform or trade liberalisation that drove the previous decade's productivity growth to much higher levels and therefore the "run out of puff" argument requires greater scrutiny.¹¹

Similarly, the "weak sector" argument about productivity growth in the current decade is questionable. There have always been droughts and weak sectors and, with climate change, drought may be the rule rather than the exception.

However there is much more that needs to be said about leading and lagging sectors and their impact on productivity growth. Fortunately this Committee of Inquiry will have access to the leading work that has been done in this area by the internationally recognised authors Alan Hughes and Vadim Grinevich and their study for the Australian Business Foundation "The Contribution of Services and Other Sectors to Australian Productivity Growth 1980-2004". In a recent update of this work Alan Hughes suggests:

"The analysis of productivity growth acceleration between 1980-1992 and 1992-2004 reveals that nearly all of the post-1992 acceleration can be attributed to the performance of just three services sectors: financial intermediation, wholesale trade and other business activities not elsewhere classified. The remaining sectoral contributions effectively cancel each other out. Mining and quarrying which had played a positive role in labour productivity growth within each of the periods, nonetheless played a negative role in terms of productivity growth acceleration between periods.

The results of this research reveal a similar pattern of contributions to productivity growth acceleration to that observed for the US in the McKinsey Global Institute reports for the periods 1995-2003, with services sectors playing a dominant role in both economies. This is particularly true in relation to wholesaling and financial intermediation. It is notable that retailing has not played a significant part in the Australian context. In relation to the overall sectoral concentration of productivity growth acceleration, the picture is more concentrated in the case of Australia than is the case for the US. In the Australian context in most periods and sub-periods three or four sectors accounted for all or more than all of the total acceleration in productivity growth.

Thus the study shows that services sectors have dominated the acceleration of productivity growth in the Australian economy since 1992. It also shows that there are considerable variations in the importance played by different sectors to productivity growth both within and between periods. The analysis suggests that the forces which have driven productivity growth in services sectors have been central to the overall acceleration of labour productivity growth.

The transformation of productivity in the services sectors is intimately linked to the development and application of information technologies which in turn require the effective development of a wide range of complementary

¹¹ Examples of studies supporting the view that micro reform played a key role in the 1990s productivity revival can be found in : Productivity Commission : *Microeconomic Reforms and Australian Productivity : Exploring the Links*. Volume 1, Report and Volume 2, Case Studies.

*investments in management and other organisational and often intangible assets. One aspect of this is the extent to which lower unemployment is leading to tightening labour markets and a higher weight being placed on raising skill levels in pursuit of further output and productivity growth. Another is the extent to which major broadband infrastructure investments will be required to underpin further ICT based productivity gains ”.*¹²

The importance of this work is that it directs attention away from individual sectors (where there will always be leaders and laggards) and highlights economy wide transformative factors such as the take up and diffusion of ICT which some studies suggest contributed up to 30% of Australia’s productivity growth in the 1990’s. It also focuses attention away from sectors and on to firm level capabilities in taking advantage of these transformative technologies.

As we will argue later in this paper there is strong evidence to suggest that productivity growth has less to do with individual industry sectors and much more to do with broad economy wide drivers of productivity (infrastructure, skills and innovation) and firm level factors, particularly the management systems and organisational capabilities of businesses. This doesn’t mean we dismiss the reasons why some sectors have strong productivity growth while others do not during various periods. Rather, and as emphasised in the Committee’s terms of reference, the emphasis should be first and foremost on those economy-wide drivers of growth and their role in enhancing or inhibiting productivity growth.

We have not attempted an econometric “attribution analysis” to identify the weight that should be accorded to the “drought/weak sector” variable or the “run out of puff” variable in relation to micro economic reform. Too often such econometric attribution analysis becomes bogged down in duels of competing econometric models where observers could be forgiven for thinking that the participants had missed the forest for the trees.

However, we would suggest that if “stalled micro reform” and “drought/weak sector” were the only variables tested there would be what econometricians refer to as a very large “residual” left over requiring explanation in coming to grips with this decade’s productivity slow-down.

In our assessment the main explanation of the productivity slow down is:

“sub-optimal investment in infrastructure, skills and innovation”

A significant reform agenda around investments in infrastructure, skills and innovation is also what is required for Australia to achieve a significant acceleration in long-term productivity growth. To demonstrate and justify this proposition it is worth recalling some of the evidence in recent times of the consequences of underinvestment or sub optimal levels of investment in infrastructure, skills and innovation.

¹² www.cbs.com.ac.uk/research/programme/project 1-22.htm

INFRASTRUCTURE

In relation to infrastructure we find in March 2005 the Business Council of Australia joining many other organisations in identifying the costs and consequences of sub optimal levels of investment in economic and social infrastructure. According to the BCA there was a \$16 billion gain to be had through vital infrastructure reform in water, inter-state transport, urban transport and electricity.

“There is at present no overarching stocktake, vision or strategy that enables governments to quantify, prioritise and deliver Australia’s future infrastructure needs. There is no co-ordination between federal, State and local government, business and the wider community...no uniform database exists to keep track of the state of Australia’s \$300 billion infrastructure asset base. Infrastructure bottlenecks at our ports and rail links that are curtailing our export capacity are only one manifestation of the problem. The bottlenecks exist throughout our economy, in our ageing and inadequate water supplies, our stressed energy network and our transport networks.

The infrastructure designed and built to service a 1980’s economy cannot keep up with 21st – century levels of supply and demand. We need a new approach...the problems are not the result of high economic growth. Nor are they necessarily the consequence of a lack of investment.

The fundamental problem is the lack of frameworks and policies by governments and other decision makers to plan for and co-ordinate future infrastructure needs. Many of our basic infrastructure assets cross state boundaries, and therefore require a national approach, or are interdependent on the policies and practices of other jurisdictions. By getting consistent policies and signals in place, the required investment in our infrastructure will be encouraged and better financed.¹³

We generally agree with the thrust of what the BCA was suggesting for several reasons. First and most importantly much of the old competition policy reform agenda sought to achieve gains from cost cutting and labour shedding across Australia’s utilities to increase productivity. The reality of the new investment led reform agenda focused on the supply side of the economy, is that the next round of nation building productivity gains, particularly for the tradeables sector, will come from increasing investment including investment in social and economic infrastructure.

Most Australian studies of infrastructure investment have found that each 1% increase in public infrastructure leads to a long run increase in GDP of 0.1% to 0.2%. While questionable, some recent estimates suggest that because of under investment in infrastructure in Australia each 1% increase in public infrastructure investment increases GDP in the long run by 0.27% to 0.39%¹⁴. Along with investment in skills, innovation, boosting workforce participation and enhancing Australia’s capacity to win international business opportunities, investment in infrastructure is one of the core

¹³ R. Pearse, Chairman BCA, Sustainable Growth Task Force : *We Can Arrest a Crisis and Sieze Opportunities*. The Australian, March 28, 2005.

¹⁴ For a recent literature review on the impact of infrastructure investment see: AusCID and EconTech: *Modelling the Economic Effects of Overcoming Under Investment in Australian Infrastructure*, Aug 2004 pp. 3-6; and NIEIR: *State of the Regions 2004-2005* where this whole report is devoted to the central theme of the role of infrastructure in economic development.

drivers of the next round of productivity gains in Australia. With globalisation and increasing WTO regulation of what Government's can and cannot do to increase competitiveness, infrastructure becomes even more important as a major determinant of international competitiveness.

Several other examples of sub optimal investments in infrastructure in the recent past include the following:

- Australia's failure to keep pace with infrastructure investment for the mining sector most certainly reduced our exports of minerals during the resources boom. There was also a real danger that exports could suffer in the next decade as well. As the Fisher taskforce appointed by Prime Minister Howard pointed out: "Without action to remove impediments to efficient investment in infrastructure, Australia's export potential over the next five to ten years risks being compromised."¹⁵
- The underinvestment in infrastructure was much wider than the coal ports. As Econtech showed in their modelling for the Australian Council for Infrastructure Development, the supply side of the Australian economy was seriously constrained by underinvestment in infrastructure which lowered growth and productivity relative to what otherwise would be the case
- The recent debate on investment in high speed broadband has provided evidence that Australia was too slow in pursuing this agenda leaving us well behind our global competitors. The point referred to earlier by Alan Hughes also comes into play here about the dampening effects on productivity of failing to advance a key transformative technology (high speed broadband) to sustain the gains to productivity from the effective use and diffusion of ICT. We will develop a similar argument later in this paper about how ICT skills shortages inhibited economy wide productivity growth in the current decade.¹⁶
- The failure of the States and Commonwealth to develop a workable agenda for co-operative federalism to promote investment in water and management of the Murray Darling as well as the inappropriate efforts of the previous Government to try and tie reform of water infrastructure in Australia to industrial relations changes is yet another example of the failure of the infrastructure agenda to drive strong productivity growth.¹⁷
- It was widely acknowledged during the past decade that the State's underinvested in infrastructure because of a misguided fear about debt financed infrastructure. By the time the State's came to the party Australia's supply constraints had well and truly been locked in place and the build up in infrastructure investment programs occurred in an environment of skill shortages and inflationary pressures. As the Australian Industry Group pointed out in relation to this issue:

"Investment in long lived assets can generate benefits for both current and future generations. When such benefits are generated, both efficiency and

¹⁵ Quoted in Rod Sims: *A Policy Framework for Australia's Infrastructure, Economic and Social Outlook Conference*, November 2006

¹⁶ The key Australian study on productivity and high speed broadband is Access Economics: *Impacts of a National High Speed Broadband Network*: March 2009. For a constructive critique of the Access Findings see: Joshua Gans: <http://cite.018.au/store/catalogue/ideaCHECK GansMarch.pdf> For the Government's view, see Senator Conroy: *Address to the National Press Club*: April 28, 2009.

¹⁷ John Quiggin : *Co-operative Spirit Runs Dry* : AFR, May 2005

intergenerational equity considerations suggest that future generations should share in the costs incurred in generating these benefits.

To put it the other way round, if we rule out borrowing to make current investments in infrastructure and we deny ourselves the opportunity to share the cost across the generations that would benefit from those investments, we will under-invest and impose on future generations either the inconvenience of inadequate infrastructure or the costs of providing it themselves.”¹⁸

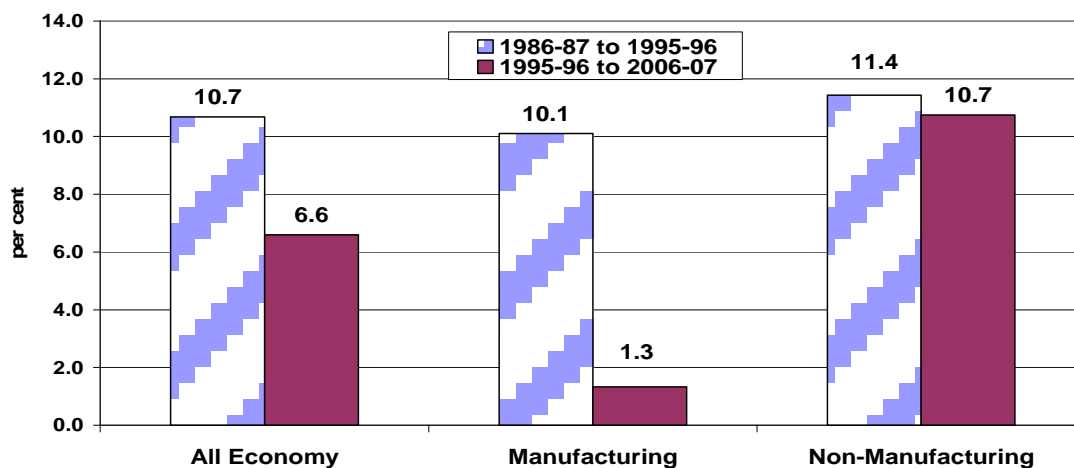
INNOVATION

In relation to innovation the consequences of underinvestment or suboptimal levels of investment were equally dramatic at both the economy wide and sectoral level. For example:

- The data below was constructed from ABS R&D data and GDP price deflators. It clearly shows that while non-manufacturing R&D investment remained strong in the current decade as well as the previous decade, manufacturing R&D “collapsed”. Given the strong correlation between the level of investment in manufacturing R&D and manufacturing export growth, particularly elaborately transformed manufactures (as shown in the study by the Centre For Strategic Economic Studies “Australia and the Knowledge Economy”)¹⁹ this sharp slump in investment hit ETM export growth hard and acted as a significant dampening effect on productivity growth along with skill shortages, and post 2003-04, the appreciation of the Australian dollar.

Table 3

Annual Average Growth Rate of Real Business Investment in Research and Development



- At a broader economy wide level there were other indicators of poor investment in innovation impeding economic performance and productivity growth. As pointed out in the Australian Government Report “Powering Ideas: An Innovation Agenda For the 21st Century”:

¹⁸ Heather Ridout: *Investing in the Future: Responsible Fiscal Policy and Building National Infrastructure*: 3rd National Infrastructure Summit Melbourne August 16 2004 p. 4

¹⁹ P.J. Sheehan *et al*: *Australia and the Knowledge Economy*: Centre for Strategic Economic Studies 1995, Chapter 8.

“Commonwealth spending on science and innovation has fallen by 22% as a share of GDP since 1993-94. Business spending on R&D collapsed in the late 1990’s.....The proportion of Australian firms introducing innovations has been stuck at one in three for years. A decade of policy neglect has hurt Australia’s innovation performance making us less productive and competitive and reducing our ability to meet the needs and aspirations of Australian families and communities.”²⁰

- It is also important not to mistake the drivers of a nation’s innovation system and their impact on productivity with a simple view of the importance of high tech industries, spin offs from universities and private sector venture capital as important as these factors may be. As Alan Hughes points out in his recent paper “Innovation Policy as Cargo Cult: Myth and Reality in Knowledge Led Productivity Growth”

“This paper questions the current emphases in innovation policy on a particular interpretation of US performance which emphasises R&D intensive high technology producing sectors, spin-offs from the science base and private sector venture capital. Whilst recognising the important role they may play it is argued that it is greatly exaggerated to the neglect of other key factors. One is the importance of the diffusion and use of ICT as a general purpose technology beyond the ICT and other R&D intensive high tech producing sectors. A second is the dominant role that performance transformation in existing firms plays in driving industry level productivity compared with the role of new entrants. A third is the diversified role played by universities in knowledge exchange which extends beyond a narrow focus on spin offs and licensing to encompass the creation of human capital and a wide range of formal and informal business interactions. Finally there is the major role that public R&D procurement policy has played in the US in the effective provision of public rather than private venture capital.”²¹

It is important to keep this position developed by Hughes in mind when we consider the productivity slowdown in Australia in the current decade and how to accelerate productivity growth in the decades ahead. Once again there is an emphasis on transformative technologies such as ICT and their diffusion throughout the innovation system as well as a focus on what is happening in existing firms with their management systems and organisational capabilities. This approach is reflected but not taken further in the Australian government’s innovation white paper, *Powering Ideas: An Innovation Agenda for the 21st Century*: “One future focus of the Australian Government’s industry and innovation policies will be on **building innovation capacity and performance at the enterprise level...** Government support for business innovation... must recognise the complexity of the innovation process and the different forms innovation can take.”

At the end of the day (like the case of infrastructure investment), sub optimal investments in the nation’s innovation system, a lack of attention to successful strategies for the diffusion and take up of advanced technologies such as ICT, and lack of attention to the role of public policy in encouraging innovation at the firm level all played some part in the slowing of economy wide productivity growth.

²⁰ Commonwealth of Australia : *Powering Ideas : An Innovation Agenda for the 21st Century*, p.2 2009

²¹ Alan Hughes : *Innovation Policy as Cargo Cult : Myth and Reality in Knowledge Led Productivity Growth* : Centre for Business Research, University of Cambridge Working Paper No. 348.

EDUCATION/SKILLS

Finally we come to the role of sub-optimal investments in skills/education and its role in the productivity slow-down of the current decade.

The issue surrounding investment in skills and education as core drivers of Australia's productivity growth are well summarised in Chapters 1 and 5 of the Cutler Report into Australia's innovation system "Venturous Australia".²²

In a number of areas Australia's investments in skills and education leave us behind many other nations. This is the case for total public and private investment in education in general and early childhood development in particular. It is particularly true of tertiary education infrastructure. There is also evidence suggesting that young Australians may not be doing as well as they could in core disciplines such as maths and sciences and the nation has fallen well behind in graduating technical and professional engineers.

The suboptimal levels of investment by employers in work related training may also be a factor. Research at the London School of Economics suggests a one percentage point increase in work related training is associated with an increase in value added per hour of about 0.6% and an increase in real hourly wages of about 0.3%.²³

The Cutler Report also summarises the work of the World Bank in this field suggesting skills upgrading, technological change and their interactions are major factors behind total factor productivity growth because:

- skilled workers are better able to adopt to change and therefore better able to exploit new technology;
- presence of skilled workers creates incentives for companies to develop new technologies that are more skill intensive;
- adoption and diffusion on existing technologies requires sufficient generalised levels of education in the workforce; and
- higher levels of education are needed to enable significant adaptations of existing technology.²⁴

The summary of issues in the Cutler Report on the importance of education/training to productivity growth reconfirms the findings of major studies in this field which are well summarised in the work of Professor Steve Dowrick²⁵ (also a member of the Cutler Review panel).

Dowrick's conclusion to his literature review is also relevant:

²² Report on the Review of the National Innovation System : *Venturous Australia – Building Strength in Innovation*. Chapter 5 : *Strengthening People and Skills*. Chapter 1 : *Stalling Not Sprinting*.

²³ L. Dearden et al : *The Impact of Training on Productivity and Wages : Evidence from the British Panel Data* : the Institute for Fiscal Studies, London School of Economics. WPO5/16 2005

²⁴ J. Innes : *Education, Training and Productivity : Exploring the Linkages*. The World Bank, 2005.

²⁵ S. Dowrick : *The Contribution of Innovation and Education to Economic Growth* : Melbourne Institute Economic and Social Outlook Conference, April 2002.

“To sum up, realistic targets for increased investment in the knowledge economy (Education and Innovation) would be likely to raise the annual rate of Australian economic growth by close to one half of a percentage point.”

There were many warnings about the consequences of skill shortages for the Australian economy from a variety of major reports during the current decade.²⁶ There were also warnings about employers under-investing in skills formation.²⁷

In the media, the issue was seen as one of the most important constraints to sustainable economic growth. As Tim Colebatch put it in the Age in February 2005:

*“Since the October election Kevin Andrews has talked about nothing but workplace reform. To keep control of the issue he probably has no choice. But a far more urgent issue ought to have prior claim on the Employment Minister’s time – and it is not getting it ... If the Reserve Bank raises interest rates next month, it will not be because of flaws in our workplace relations laws. It will be largely because Australia is facing skill shortages so widespread that they could become the weakness that throws this long boom off the rails.”*²⁸

In some cases the explanation for the skill shortages, particularly in the traditional trades, goes back several decades.

For example, few people anticipated that the privatisation of public utilities would dramatically reduce the flows of trained apprentices to the rest of the economy. The same is true of the outsourcing of much maintenance and production/process work to external contractors who, with few exceptions, do little by the way of training. When global competitive pressures began to impact on a number of Australian firms a narrow cost cutting approach was sometimes deployed which included cutting back on training existing workers and new entrants

Add to this the underinvestment and imbalances in Government investment in the education sector in the five years through 2004 and it’s not hard to understand how skill shortages put upward pressure on inflation and downward pressure on productivity growth in the 2004-2008 period.

**Table 4:
What has happened in the education sectors in five years 1999 to 2004?**

	Increase in total real funds
Government schools	10%
Non-government schools	33%
Public funded Australian University students	-2%
Vocational Education and Training VET	2%

Source: G. Burke and C. Shah, *AVETRA Annual Conference*, April, 2007.

²⁶ Dept. of Education, Science and Training : *Audit of Science, Engineering and Technology Skills : Summary Report*, July 2006; Australian Academy of Science, Mathematics and Statistics : *Critical Skills for Australia;s Future*, 2006. S. Morris: *Students bolt from Engineering*: AFR Thursday, January 5, 2006.

²⁷ Dr Hall, Dr Buchanan, G Considine : *You Value What You Pay For : Enhancing Employers’ Contributions to Skill Formation and Use* : Dusseldorf Skills Forum, July 2002

²⁸ T Colebatch : *We Must Move to Defuse the Skills Timebomb* : The Age, February 15, 2005.

The evidence about the impact of skill shortages and sub-optimal levels of investment in education/training on productivity growth is strong,²⁹ including the work of J. Haskel and his colleagues “Do Skill Shortages Reduce Productivity : Theory and Evidence from the UK” which was published in the Economic Journal (Vol. 103) in 1993.

Surveys of employers in Australia and overseas also highlight the negative impact skill shortages have on productivity. For example, in one US study of nearly 2,500 firms, those firms reporting skill shortages reported the following outcomes from the skill shortages:

- 63% said it reduced their firm’s productivity;
- 63% said it reduced their firm’s production;
- 56% said it reduced quality;
- 36% said it stopped the firm’s expansion plans;
- 33% said it stopped or interrupted the firm’s programs for new product development.³⁰

There is also the case of generic skills shortages such as in Information and Communications Technology (ICT) which can have a significant impact on inhibiting productivity at the firm level by restricting the rate at which firms adopt ICT and the intensity of post ICT usage. Future skill shortages in ICT are also likely to reduce the growth rate in business services as future outsourcing that would have stayed in Australia goes offshore.

Between January 2004 and January 2007 DEEWR’s ICT Vacancy Index went from 100 to more than 300 which was symptomatic of the impact ICT skill shortages were having on firms.³¹

THE BOTTOM LINE ?

Australia has experienced a significant slowdown in productivity growth and there are few clear indicators suggesting that a productivity resurgence is on the horizon even with the help of the coming recovery, a phase of the business cycle most favourable for strong productivity growth.³²

We were not alone in experiencing a productivity slowdown. It happened to the United States and most nations in Western (but not Eastern) Europe. Nevertheless, 78 of the 123 nations covered in the Groningen Growth and Development Centre collection did manage to increase the pace of productivity growth over the 2000-2008 period compared to the 1990’s decade.

²⁹ A comprehensive review of the literature is provided in the ACTU Discussion Paper : *The Economic and Social Impact of Increased Investment in Vocational Education and Training*, April 2007.

³⁰ Bryan Wilson : *Workforce Training : Employee Needs and Program Results* at www.learningconnections.org.sbctc/assets/Bryan/20/2010-29/20 presentation 2 ppt

³¹ The issue of the economy-wide consequences of ICT skill shortages are well presented in F Froth and G Mason : *Do ICT Skill Shortages Hamper Firms Performance : Evidence from the UK Benchmarking Surveys*, NIESR, No.281

³² At the time this paper was completed the last official estimates of labour productivity (market sector GDP per hour worked in trend terms) were from the March 2009 national accounts. Productivity was flat in the March Quarter 2009 and increased by 0.3% through the year. ABS 5206 March Quarter 2009.

There may have been some short-term or one-off factors impacting the productivity slowdown (developments in mining, agriculture, labour hoarding during the resources boom, the micro reform agenda running out of puff, etc). However, as suggested previously, these factors are not without precedent in previous decades and are unlikely to be the main factors explaining the slowdown. There is one possible exception to this proposition that we would draw the Committee's attention to. It may well be the case that the finance sector in the current decade in Australia and other nations played a role in the productivity slowdown through a misallocation of resources. This has to do with the fact that while accounting for 6% of total economy wide factor income (1990-2000) in Australia, it accounted for 13.3% of the growth in total economy wide factor income in the current decade. The profit share (gross operating surplus plus mixed income) in Australia's finance and insurance sector went from 35% (1990-2000) to 47.3% (2001-2008). Such a shift, part of which may have been unproductive/speculative in nature, may have directed resources away from real value adding activities. This issue warrants serious attention.³³

There has also been some speculation that the productivity slowdown could be a temporary phenomena as it takes time for major technological changes to work through the system. This position is advanced by, amongst others, former Federal Reserve Chairman, Alan Greenspan, in his biography, *"The Age of Turbulence"*. Greenspan suggests that the revolution in information communication technologies (ICT) may be one of those long waves of innovation, like the gradual displacement of the steam engine with the electric motor, where it takes some considerable time for the full effects to show up in the productivity data.³⁴

While not discounting either short-term/one-off factors or the possible long term factors that may be at work, our assessment is that the productivity slowdown relates primarily to sub-optimal investments in infrastructure, skills/education and innovation. We have provided a number of examples to support this proposition. Not surprisingly, this also suggests that strategies for accelerating long-term productivity growth should be focused on these key enablers of productivity growth in the years ahead. But first and foremost, we have to get the productivity debate back to the centre of the agenda where it belongs.

As former ANZ Chief Economist, Saul Eslake, put it, Australia needs:

*" ... a renewed focus on productivity growth as the basis for Australia's long-term prosperity, an issue that fell very much by the wayside during the minerals boom that preceded the onset of financial crisis."*³⁵

With the pundits already celebrating the coming energy boom in LNG, coal seam gas and uranium, Eslake's proposition is worth heeding as Australia can ill afford yet another resources boom nirvana derailing the more important economy wide productivity debate we need to have. With that in mind, we turn now to examine the Manufacturing Alliance's proposed agenda for kick-starting the nation's much-needed productivity resurgence

³³ Calculations done from ABS 5204.0 : *Australian System of National Accounts, 2007-08*, Table 46.

³⁴ Alan Greenspan: *The Age of Turbulence*: Allen Lane (2007) pp 171-173 and 472-477.

³⁵ Saul Eslake: *Policy at Fault Not Ideology*: 2009 Shann Memorial Lecture: Weekend Australian August 22-23, 2009

SECTION THREE:

THE WAY FORWARD: AN AGENDA FOR STRONG PRODUCTIVITY GROWTH IN THE DECADES AHEAD

The AMWU and AWU have formed an alliance aimed at expanding Australian manufacturing at best practice. The Alliance is a formal expression of our combined Unions' commitment to manufacturing in this country and in our determination to see it prosper and thrive. This inquiry has an economy wide focus which fits well with our two union's membership.

The two unions represent more than 250,000 Australian workers in steel, glass, alumina/aluminium, brass and copper, energy including LNG, gas, renewables and utilities and other sectors including tobacco, chemicals, engineering, construction, food and wine and a wide range of agricultural activities, printing, auto and components, aerospace, defence, shipbuilding as well as many other manufacturing sub sectors and virtually all industries across the economy.

We therefore have a vested interest in an economy wide lift in productivity to strengthen the industries and firms our members work in, and to provide the opportunity for sustainable increases in their living standards. The issue is also particularly important to the future of manufacturing in this country. The question is what needs to be done to achieve a significant lift to Australia's long term productivity growth?

In our assessment, for the Australian economy in general, and manufacturing in particular, it is clear what needs to be done to lift Australia's long term productivity growth.

Just as the sub-optimal level and form of investment in infrastructure, skills/education and innovation played a major part in the slow-down in productivity growth in this decade, so too will more appropriate investments in infrastructure skills/education and innovation play a key role in lifting long term trend productivity growth in the decades ahead.

There will always be a partisan debate surrounding the causes and consequences of sluggish and at times stagnant productivity growth as occurred during the first decade of the 21st Century. There will continue to be arguments attributing blame to Labor or the Coalition, unions or employers, not to mention the actions of Federal and/or State Governments.

However, at the end of the day, looking in the rear view mirror and apportioning blame won't restore stronger productivity growth and help Australia to secure a more prosperous future.

Accordingly, we conclude this submission with a brief outline of four agendas we see as critical to lifting Australia's long term productivity growth. We have deliberately kept our description of these agendas very broad which we think is in keeping with the letter and spirit of the terms of reference for this inquiry.

1. A Decade of Good Macro-Economic Management

At the end of the day getting the economic fundamentals right and providing sound, prudent macro economic management is the first necessary precondition for accelerating the nation's long term productivity growth. Keeping **both** unemployment and inflation low will remain a priority as will attending to the issues that arise as we transition from global recession to global recovery.

But there will be new challenges for the nation's macro-economic managers in the decade ahead. More than in the past issues such as climate change and Australia's levels of foreign debt, household debt and national savings will require policy makers to provide leadership and effectively and efficiently manage the pace of structural change.

It is also the case that our economy will become even more engaged with China and other emerging economies, and for the next decade and the foreseeable future this has significant consequences. As The Reserve Bank Governor put it in a speech to the Anika Foundation luncheon:

“Over the medium term, the emergence of China (and other countries such as India) will continue, and will offer opportunities for Australia. Plenty of observers, the RBA among them, have been saying this for years. But China's emergence also presents challenges. If commodity prices do stay at their current relatively high levels on the back of strong emerging world demand, the mineral extraction sector and all those parts of the Australian economy that service it and feel its flow-on effects, will expand. Other sectors will, relatively, contract over time. That is to say, the structural adjustment issues that faced us a year and a half ago, and which have received less attention since then, would resume. These sorts of adjustment in the economy have industrial, geographical and social dimensions.

Moreover, if we are more integrated into China's expansion, we will be similarly more exposed to the consequences of whatever might go wrong in that country. So our understanding of how the Chinese economy works, and of what risks may be accumulating there, will need continual work.”³⁶

This issues and questions this raises for macro economic management and the competitiveness and productivity of our non resource/energy extraction industries such as manufacturing, requires careful thought. At the moment all the attention seems to be focused on the size of the coming energy boom in Australia from LNG, coal seam gas and uranium. While important, attention is also required on how Australia manages an appreciating exchange rate from the “Gregory effect” or “Dutch disease”. It is an important question and one that Paul Cleary amongst others has explored.³⁷

The possibility/probability of another boom-bust cycle as a result of deepening our engagement with China and emerging Asia, and how best to manage that and the next

³⁶ Glenn Stevens : *Challenges for Economic Policy*. Address to the Anika Foundation, Sydney, 28 July, 2009.

³⁷ Paul Cleary : *Mining Boom Could Bust Us* : The Age Business Day, November 11, 2007. See also : A. McKissack et al : *Structural Effects of a Sustained Rise in the Terms of Trade*. Treasury working paper, 2008-01 for an exploration of the “stronger for longer” thesis and its consequences for different parts of Australia's tradeables sector. For the role of energy/LNG in fuelling Australia's next resources boom see: A. Burtell: *The Dragon Breathes Fire*: Resources from Weekend AFR August 22-23, 2009; Adele Ferguson: *Shaping up as a Powerhouse*: The Australian: August 24, 2009.

resources boom are issues that will weigh heavily on Australia's economic performance and productivity growth on the one hand, and the well being of our citizens and communities on the other hand. Too often in the past the prospect of a resources boom distracts attention from what should be the main game which is an agenda for accelerating productivity growth.

Clearly there will be new challenges for macro-economic management and we may need to expand the tool kit available to policy makers charged with the task of guiding Australia in turbulent times. In our assessment macro economic stabilisation policy will become more not less important in the decade ahead and the issue of dealing with the next resources boom and its aftermath will require serious attention from policy makers.

Some of these issues are explored in greater detail as we deal with the next three agenda's

2. A Decade of Nation Building Investments in Social and Economic Infrastructure

Infrastructure investment will take on much greater importance in the decades ahead. This has a great deal to do with the fact that the Australian economy requires a new set of drivers of economic growth and productivity.

We cannot as a nation sustain growth by over-relying on debt financed consumption and continuous increases in our foreign debt and our household debt as a proportion of household income.

In calendar year 1996 our gross foreign debt was just over 50% of GDP at \$281.5 billion. By March 2009 this had increased to \$1,227.4 billion or around 100% of GDP. In calendar year 1996 household debt was just over 70% of household disposable income. By March 2009 this had increased to 155%.³⁸

As a recent editorial in the Age put it:

“Australia's expansion over the era of economic liberalisation has been accompanied by a massive expansion of debt ... The Reserve and IMF used to gloss over the fact that our growth has been built on patently unsustainable foundations – but now they are blowing the whistle.

*Reserve Governor Glenn Stevens warns that we should see our increasing debt as a one-off episode, and not something to be sustained into the future. The International Monetary Fund warns that both forms of debt make Australia vulnerable in a world in which financial flows can turn on and off abruptly. We need a new basis for growth.”*³⁹

The solutions to these issues are likely to involve two significant changes. First the nation is likely to need an increase in national savings. Secondly, we almost certainly require structural change in the Australian economy resulting in a larger international tradeables goods and services sector that generates growth in net exports. Winning a larger share of international business opportunities (both trade and investment) across a diverse range of industries (both goods and services) and activities will be particularly important as it is almost certain that over the next

³⁸ Reserve Bank of Australia : Website Statistics

³⁹ The Age Editorial, Monday August 10, 2009.

several decades the growth in global trade and investment flows will be at least twice as large as the growth in global GDP.

The issue of strengthening and enlarging the size of our tradeables sector (those firms and industries that export and compete with imports) will be particularly challenging. Much will depend on our productivity and competitiveness. Investments in skills and innovation will be necessary to win higher value added international business opportunities. A world class social and economic infrastructure will be required to drive growth through net exports and attract global investment and those mobile workers in the knowledge economy (scientists, entrepreneurs who start new businesses, engineers, etc.) who will, together with our home grown talent, build stronger more prosperous businesses that employ an increasing number of Australians.

That is the challenge we face, and a decade of planned, prioritised investments in the nation's social and economic infrastructure will do much to meet the challenge.

To some extent, this is already occurring through the beneficial stimulatory effects on local businesses of the Government's stimulus and infrastructure packages. This has been recognised by the IMF among other commentators for its role in sustaining growth and employment.⁴⁰ The AMWU-AWU Manufacturing Alliance has been quick to applaud Government efforts to ensure that where possible, government infrastructure procurement seek out, advocate for and support Australian manufacturing suppliers in order to maximise returns to Australian producers and to provide a demand stimulus for strategic sectors such as steel which have seen their order books halved during the GFC.⁴¹ However the main game lies ahead during the next decade where we need to get it right in terms of the role that social and economic infrastructure investments play in lifting productivity.⁴²

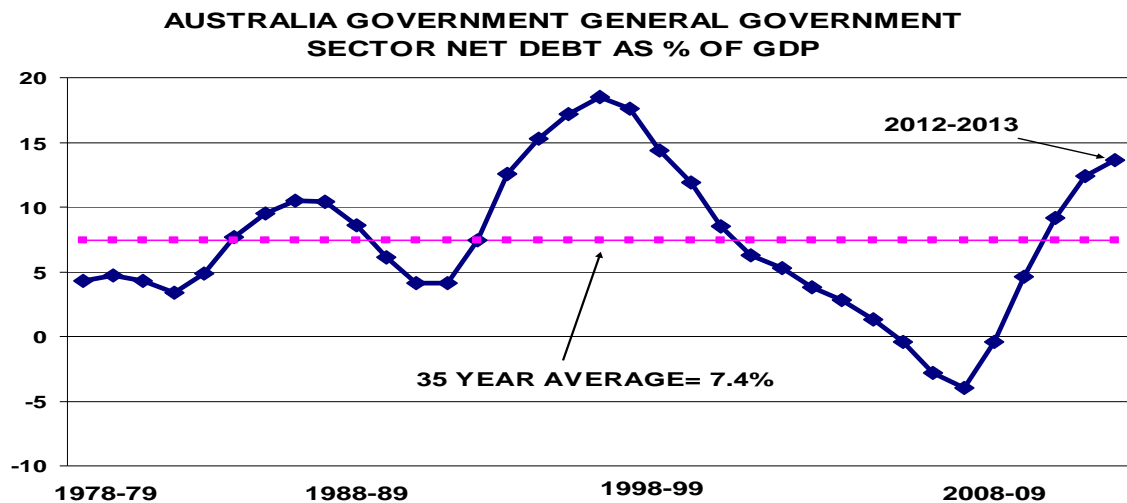
In making the points above, it needs to be emphasised that the issue of foreign debt and household debt is completely different than the debt incurred by the Commonwealth Government through its stimulus packages to protect the Australian economy from the worst of the global financial crisis. As Treasury data suggests, Commonwealth net debt always increases during recessions. In the early 1980s recession it peaked at 10.5% of GDP, in the early 1990s recession it peaked at 18.5% of GDP and in this downturn it is expected to peak at just under 14% of GDP. The fact that it came off such a low base this time round largely reflects the availability of a large fiscal dividend from the resources boom, asset privatisation (particularly Telstra), and a decade of sub-optimal investments in infrastructure, skills/education and innovation.⁴³

⁴⁰ See for example the speech by the Assistant Treasury, Senator the Hon Nick Sherry, *The Road to Recovery - Australia, the global financial crisis and the international path to economic recovery*. Address to The Australian American Leadership Conversation, New York, 13 July 2009

⁴¹ Manufacturing Alliance Unions welcome new Buy Australian initiatives; New Steel Industry Innovation Council a win for Australian jobs, see <http://manufacturingalliance.org.au/>

⁴² The output enhancing role of infrastructure investment is also supportive of what is known as "Verdoorn's Law" where it is output growth that drives productivity growth. See J McCombie et al: *Productivity Growth and Economic Performance: Essays on Verdoorn's Law* Macmillan Press 2003.

⁴³ Budget Paper No 1 : 2009-2010, Table 3, 10-18. For Government net debt statistics.



The nonsense being pedalled by some about deficits, debt and stimulus has been written off by virtually every respected economic commentator. As Ross Gittins put it:

“So how worried should we be about that (stimulus induced) debt? Much less than Turnbull wants us to be. He is exaggerating the size of the debt, misrepresenting the cause of the debt, exaggerating the difficulty we’ll have repaying it, misrepresenting its effect on our prospects and pretending we’ll end up with little to show for it.”⁴⁴

As the Age editorial put it:

“The bottom line is that the stimulus was necessary, affordable and effective. Lest we forget: even before Malcolm Turnbull met Godwin Grech, he was in deep trouble with voters because he kept telling us the stimulus was unnecessary, unaffordable and ineffective. That was nonsense, he knew it, everyone knew it. It’s time for the Coalition to move on, to build a new economic platform grounded in reality.”⁴⁵

The rationale for a decade of nation building investments in social and economic infrastructure is most certainly grounded in reality.

- The investments in our rail system and ports will reduce the time, cost and risk of getting our mineral, energy, rural and manufacturing exports to market.
- The investments in high speed broadband will empower the nation’s citizens and usher in the next wave of ICT innovations that strengthen productivity.

These and other nation building investments will be required to strengthen our export and import competing firms and industries. But there is much, much more to the infrastructure investment challenge than this.

⁴⁴ Sydney Morning Herald, Saturday August 8, 2009: *“Turnbull’s Take on Debt Has as Much Fudging as a Fake Email”*.

⁴⁵ Age Editorial : *“So Far, So Good, but Recovery Presents Some Big Tests.”*

As Anthony Albanese, Minister for Infrastructure, Transport, Regional Development and Local Government put it recently in his speech *Building 21st Century Cities*:

- By 2056 the nation's population will be more than 35 million and the number of people living in cities will have increased from 13 million to 23 million. Brisbane and Perth's populations will more than double and Sydney and Melbourne will each be home to 7 million people.
- How we deal with this is a huge issue: "Our cost of living ... our egalitarian culture, our economic productivity ... as commuters our sanity ... our very way of life in fact, all of these are at stake".
- Just to take one issue ... traffic congestion: "The Bureau of Infrastructure, Transport and Regional Economics estimates that the social cost of aggregate congestion in 2005 was \$9.4 billion. It forecasts that without action there will be an 87 per cent increase in (metropolitan average) per capita congestion costs by 2020. These facts make cutting congestion not just a quality of life issue, but also something of huge relevance to national productivity."⁴⁶

Besides increasing productivity by reducing congestion, the next decade's investments in public transport will improve the functioning of the labour market (better matching of employer vacancies and employee availability) by reducing the travel constraint. Importantly, building better cities is what will attract the mobile "high end" skilled workers in the global economy to come to live and work in Australia. But to make this a reality we need world class social infrastructure, including our health and education system as well as making sure we have the world's most liveable cities.

All of the issues discussed make clear that a decade of nation building investments in social and economic infrastructure is absolutely essential to accelerating Australia's long term productivity growth.

3. A Decade of Rising Real Investment in the Nation's Vocational Education and Training System

The AMWU-AWU Manufacturing Alliance advocates a decade of rising real investment in the nation's vocational education and training system as a necessary precondition for accelerating the rate of productivity growth in Australia.

As the ACTU explained this proposition in its Report "The Economic and Social Impact of Increased Investment in Vocational Education and Training":⁴⁷

"Australia has a wealth of resources. Foremost among these are the talents of the Australian people. If we are to continue to develop and to compete effectively in the world and improve our living standards – if we are to become and remain a high skill economy – then we must harness these resources and talents. If we do so we will prosper. If not we will have failed the needs of future generations.

In September 2006 Australia had 576,000 underemployed workers, 520,600 unemployed workers and over a million workers who want to work but were not

⁴⁶ A. Albanese: *Building 21st Century Cities* : Address to Partnerships 09 : Infrastructure and Investment Conference, Sydney, August 7, 2009.

⁴⁷ Australian Council of Trade Unions : *The Economic and Social Impact of Increased Investment in Vocational Education and Training* : Discussion Paper, April 2007, pp 28-29

looking for work at this time.⁴⁸ There is great potential here and a properly resourced VET can and must play a central role.

In thinking about what is to be done we must begin by being very clear about the long term consequences of another decade of the nation under-investing in VET. These consequences were made clear in work undertaken for the UK Skills Task Force by Jonathan Haskel and Richard Holt. As they conclude:

Skill shortages are widely seen as a problem and indeed the evidence confirms that they tend to lower productivity growth, raise costs and wage inflation and in some cases lower product quality. It is also likely that the reported level of shortages understates the true problem. In the long run firms may adapt to shortages by adopting lower skill technology than they otherwise would. This may lower the growth of the economy as a whole, and may leave the firms concerned vulnerable to cheap competition from abroad.⁴⁹

Such an outcome would seriously compromise the future of Australia's manufacturing and value adding service industries as they try and reposition themselves in an increasingly competitive global economy. Australia's skilled labour shortages and the stagnation of productivity growth in recent times reinforce the message of the urgent need for a long-term plan to increase investment in education generally and VET in particular."

There are many additional specific issues we could raise in relation to the future of investments in VET. For example a major discussion between the Government and the manufacturing unions has been about encouraging employers to retain rather than retrench their workforce in the current downturn. By and large firms and workers are only eligible for certain forms of government training assistance once workers receive notice of retrenchment.

With so many firms working a four day week or equivalent, the potential to utilise a system of training grants so firms could train their workforce during down days or non production time is significant. In simple terms such a scheme would involve the following

Objective

The objective of such a scheme would be to assist firms:

- Maximise labour productivity by building higher level skills to underpin flexibility, mobility and innovation
- Development, at the industry and enterprise level, of a workplace training and assessment capability;

⁴⁸ ABS 6220.0 September 2006, ABS 6105 January 2007

⁴⁹ J Haskel and R Holt : *Anticipating Future Skill Needs : Can it be Done? Does it Need to be Done*, January 1999. Similar conclusions can be found in S Redding : *The Low-Skill, Low Quality Trap; Strategic Complementarities Between Human Capital and R&D*, Economic Journal, Vol. 106 1996.

- Maximise future skills and labour retention by implementing a skills analysis and workforce planning & development strategy during periods of reduced production demand.
- Prevent and minimise attrition and maximise opportunities for employees to build and credential their skills through recognition of prior learning and training.

Key Components of the scheme

- Deployment of expertise required to assist with the development and implementation, at the enterprise level, of a skills analysis and workforce planning and development strategy consistent with the objectives outlined above;
- Provision of such preparatory or enabling training, including Language, Literacy & Numeracy and Occupational Health & Safety training as would be required to facilitate effective participation by the workforce in skills and workforce development programs;
- Provision of training, leading to nationally recognised qualifications, including recognition of prior learning to lift the vocational qualifications base of the workforce;
- A level of ‘short time compensation’ support for employees during days in which training occurs.

This type of an approach should be in any Government’s “downturn tool kit” and rolled out promptly before the scale of retrenchments deepens during a downturn.. That’s what timely, temporary and targeted is all about and in our assessment it can make a significant contribution to long term productivity growth in a wide range of industries. At the same time, we must “ensure that what is being done to minimise the impact of the downturn is consistent with long-term measures which governments and industry are taking... *Transformational change... will be necessary*”⁵⁰.

4. A Decade of Stronger Investment in Innovation and a New Agenda for Building Better, Fairer and More Productive Businesses and Workplaces

The AMWU, AWU, ACTU and the Australian Industry Group are the founding shareholders in the Industry Fund, STA (Superannuation Trust of Australia), now Australian Super, a fund with more than 1.4 million members and more than \$25 billion in assets.

In calendar year 2000 Australian Super union and employer trustees laid out a blueprint of the key success factors for manufacturing businesses to go for growth and win international business opportunities. Their findings are set out in the table below:

⁵⁰ Training and Skills Commission, *Skills for Jobs: Priorities for Developing South Australia’s Workforce*, SA Government, 2009.

Table 5
Building Better Manufacturing Businesses:
Five Key Success Factors of Manufacturers Pursuing Growth

1. The Chief Executive of the business and top management are committed to going for growth. Most importantly they have a long term view of the business and a vision/mission statement, strategic plan and appropriate operational strategies for pursuing growth objectives.
2. The leaders/owners of the business understand that achieving growth requires investment in new products and markets, new plant, equipment and technology, new engineering, design and R&D capability as well as investment in skills formation and work organisation change.
3. The most successful manufacturing companies improve the productive performance of their organisations by involving their workers, building relationships based on trust, relying mainly on innovation and developing their organisational capabilities as opposed to pursuing a narrow cost cutting agenda.
4. The most successful manufacturing companies will have a strong international focus and understand what is required to develop export markets and the importance of building long term relationships with their customers
5. The most successful manufacturing companies and their leaders understand that success or failure depends on their own efforts and initiatives. While a partnership role with Government, a favourable environment and appropriate incentives all help, in some case quite significantly, the buck stops with the CEO, the senior management team and the skills and commitment of their workers.

Source: Superannuation Trust of Australia: *The Future of Investing in Manufacturing Businesses* (2000)

We emphasise this point in our submission because so much of the productivity agenda, and so much of the agendas for investing in infrastructure, skills and innovation are about building firms with the management systems and organisational capabilities required to win international business opportunities whether the contracts they compete for against international competition are for work in Sydney, Singapore, Shanghai, San Francisco, Seattle or Stockholm.

A decade of sustained investment in innovation in Australia is needed to help win these international business opportunities and should involve:

- Strong, sustained growth in business investment in research and development.
- Better networking between public and private sector research networks and a significant increase in Commonwealth support for science and innovation.
- A significant build up in an experienced and expanded venture capital manager base supported by institutional investors and reinforced by an active network of business angle investors helping a new generation of start-up firms to grow.
- A significant increase in the number of start-up companies spun out of our universities, the CSIRO, the CRCs and other public sector agencies.
- A strong presence in the \$6 trillion environment and low carbon industries.

- A world class network of agencies like Enterprise Connect and the Commonwealth Commercialisation Institute to help increase the take-up and diffusion of new technologies across industry.

These outcomes would be consistent with the vision for 2020 outlined by the Commonwealth in its “Powering Ideas” Agenda:

“By 2020, the Australian Government wants a national innovation system in which:

- *the **Commonwealth** clearly articulates national priorities and aspirations to make the best use of resources, drive change, and provide benchmarks against which to measure success;*
- ***universities and research organisations** attract the best minds to conduct world-class research, fuelling the innovation system with new knowledge and ideas;*
- ***businesses of all sizes and in all sectors** embrace innovation as the pathway to greater competitiveness, supported by government policies that minimise barriers and maximise opportunities for the commercialisation of new ideas and new technologies;*
- ***governments and community organisations** consciously seek to improve policy development and service delivery through innovation; and*
- ***researchers, businesses and governments** work collaboratively to secure value from commercial innovation and to address national and global challenges.*

We embrace these aims not for what they are, but for what they represent – a radically expanded power to create jobs, build prosperity, save lives, eliminate disadvantage, protect our fragile planet, and increase happiness. Innovation can help us achieve all these things. It is our best hope for a better future.”⁵¹

Once again this vision reminds us that we don’t invest in innovation and build productivity as an end in itself. The only justification has always been to empower workers, increase their standard of living and enrich their lives and that of their families and communities.

However, if we want to achieve these things we need to carefully understand the messages from the leading thinkers behind Australia’s recent review of its national innovation system including Terry Cutler, Allan Hughes and Richard Lester, amongst others. As Terry Cutler put it in summing up the unfinished business from his Venturous Australia report:

“The innovation agenda must be kept alive. This is all the more important because of the need to draw lessons about innovation in times of recession, and in facing up to challenges like global warming ... It is necessary therefore to remain alert to areas of unfinished business ...

We need to keep the spotlight on fostering entrepreneurial firms and innovative workplaces (and) on the missing piece of the skills agenda including on-the-job training, workplace innovation and whole of life learning. We need business

⁵¹ Australian Government : *Powering Ideas : An Innovation Agenda for the 21st Century*, p.9

schools and professional service firms to focus more on management education for the practice of innovation on the ground; we need to reverse the decline in employer investment in training and we need to make life long learning the norm. In the US the Obama administration is talking about personal “life long learning accounts: and we need to be exploring the same thing here.”⁵²

Like the messages mentioned earlier in this paper from Allan Hughes, the message from Terry Cutler about productivity is for a much stronger focus on skills formation and innovation at the company/workplace level and what is required to build the capabilities of successful firms.

This message is highlighted below from one of Richard Lester’s colleagues, S. Berger, in reporting on the Massachusetts Institute of Technology five year study into 500 international companies.

“It’s not industry or sector that’s important, it’s firms’ capabilities.”

*Strategies based on exploiting low wage labour end up in competitive jungles, where victories are vanishingly thin and each day brings a new competitor – today from the coastal regions of China; tomorrow from the interior of China, or Vietnam and Indonesia; next year from India or Burma or Swaziland. As low end firms that compete on price move from one overcrowded segment of the market to the next, there is virtually no chance of gaining any durable advantage. **The activities that succeed over time are, in contrast, those that build on continuous learning and innovation. These allow companies to build capabilities – brand name, long-term working relationships with customers and suppliers, intellectual property, specialised skills, reputation – all of which are out of reach to companies whose only assets are their access to cheap labour.***

The core strengths of innovative and successful companies are not located in the products themselves, but rather in the capabilities a firm possesses and develops for carrying out particular functions.”⁵³

And, if there was any doubt about this being at the core of the next productivity revolution in Australia, let us recall what the Nobel Prize winning economist Robert Solow and his colleagues from MIT, including Richard Lester, had to say about investing in human capital:

“Without major changes in the ways schools and firms train workers over the course of a lifetime, no amount of macroeconomic fine-tuning or technological innovation will be able to produce significantly improved economic performance and a rising standard of living.”⁵⁴

That is why the AMWU-AWU manufacturing alliance has called for a new agenda for building better, fairer and more productive workplaces. As Roy Green has noted recently:

The Australian Government has already begun to move in this direction with its rapidly evolving Enterprise Connect program, which comprises business

⁵² Dr. Terry Cutler : *Fast Thinking* : Winter 2009

⁵³ S. Berger et al : *How We Compete : What Companies around the world are Doing to Make it in today’s Global Economy*. Doubleday, 2005.

⁵⁴ Dertouzos, Lester and Solow : *Made in America*. MIT Press, 1989

advisory centers, a "researchers in business" scheme and specialised innovation centers on creative industries, remote enterprises, innovative regions, mining technology, clean energy and defence. There is now an opportunity to extend this program in a more targeted way to enhance management and innovative capability at the workplace.

While funding for the Government's fiscal stimulus is inevitably limited, a growing body of international evidence suggests that support for innovation is a cost-effective approach to this critical area of public policy. And support for organisational innovation is particularly cost-effective because it addresses the challenge of linking short-term recovery to the longer-term development of a more dynamic, competitive and environmentally sustainable, knowledge-based economy.⁵⁵

The Work Choices regime has ended. It inhibited rather than enhanced productivity because at the end of the day it entrenched a narrow cost cutting approach and often resulted in a high stress low trust workplace culture.⁵⁶ As demonstrated by Professor Wickham Skinner from the Harvard Business School in his classic study "The Productivity Paradox" (see Appendix One of this paper for a summary of Professor Skinners work) the narrow cost cutting agenda diverts management's attention from the real issues where productivity gains can be achieved.

Professor Skinner's findings are strongly supported in the work of Professor Richard Lester, head of the MIT Industrial Performance Centre who, in examining what is necessary for a new national agenda for productivity growth in America came to the following conclusions:⁵⁷

- a) There is no evidence that the wave of corporate restructuring and downsizing during the first half of the 1990's has made a significant contribution to the nation's overall productivity performance.
- b) There is also no sign that total quality management, reengineering and many other strategies for improving operational effectiveness adopted by US companies over the past decade have produced a significant overall productivity benefit for the US economy.
- c) Even for individual firms, the benefits delivered by the tools and techniques for improving operational effectiveness have often fallen short of expectations.
- d) The most successful firms understand "best practice" not as a collection of independent techniques, but rather as a coherent system of mutually reinforcing processes, practices and strategies.
- e) For both individual enterprises and aggregate economies, a strategy of improving operational effectiveness is not enough to sustain productivity growth over long periods.
- f) By almost any measure, recent US investment performance has been poor.

⁵⁵ Roy Green, 'Innovation the key to recovery', *The Australian*, April 1 2009.

⁵⁶ For the negative consequences of Work Choices see the work of J. Buchanan and G. Considine : *Workplace Industrial Relations on the Eve of WorkChoices* and *Lowering the Standards : From Award to Work Choices in Retail and Hospitality Collective Agreements*.

⁵⁷ R. Lester : *The Productive Edge*. W.W. Norton and Co. 1998. pp 320-323 and on trust pp 223-227.

- g) Although macro economic conditions appear stable, other uncertainties are proliferating.
- h) During periods of rapid change, investment in intangible assets-knowledge, ideas, skills-takes on special importance.

Lester also concluded that, in the absence of trust, most workplace productivity projects are doomed to failure.

In calling for an agenda of productivity renewal within the firm and enterprise to build capability it is important that we understand the need for intermediaries and support structures. It is also important that we begin with a broad and comprehensive understanding of workforce development. As Kaye Schofield summarised this issue:

“Workforce development is defined as those activities which increase the capacity of individuals to participate effectively in the workplace throughout their whole working life and which increase the capacity of firms to adopt high performance work practices that support their employees to develop the full range of their potential skills.”⁵⁸

This broader notion of workforce development and the co-ordinating role that is required from intermediaries is gaining more acceptance in policy circles.

The Australian Government has correctly identified the need for Australia’s vocational education and training system to ‘...*undergo a fundamental shift, from a system driven by the needs of providers, towards a system that responds to the needs of industry and the economy – and which provides graduates with more relevant qualifications, greater support to complete training and, therefore, a better chance of securing a job*’.⁵⁹

A critical constraint for industry in relation to building and maintaining innovation and productivity growth is capability in skills and workforce development needs analysis. We lack the capability required within firms and union organisations to determine what skills are required to build innovation and productivity

Enterprises are not uniformly well placed to articulate their workforce skills development needs. Industry capability in this important area has declined in the decade or so since the successful MTFU/MTIA Award Restructuring Programs of the early 90s.

The Australian Industry Group report ‘*World Class Skills for World Class Industries*’ pointed out that ‘...*only 61 per cent of those that we surveyed have regular formal skills assessment processes in place*’.⁶⁰ The experience and feedback from Manufacturing Alliance organisers and delegates over the past 18 months confirms the existence of gaps in the capability of our own organisations and within firms where our members work to translate workforce development issues and work organisation change into strategic competitive advantages to help firms to lift their productivity and international competitiveness. This is particularly the case in small and medium size enterprises, but is by no means restricted to such firms.

Firms often recognise that they need a skilling strategy, but they can lack the internal capability to devise one by themselves. Subsequent Australian Industry Group work under the DEEWR-funded *Skilling the Existing Workforce Project* has found that many

⁵⁸ Government of South Australia, Skills South Australia. Final Report of the Ministerial Inquiry 2003 quoted in J. Buchanan : *Workforce Development and Use of Skills*. (Unpublished paper, Sept. 8, 2008).

⁵⁹ DEEWR : *Skilling Australia for the Future*, (p.2)

⁶⁰ Australian Industry Group : *World Class Skills for World Class Industries*, (p. 43)

enterprises need extensive support to be able to accurately determine the skills base of their employees, to identify the 'gaps' between the skills base and the skills the company will need to ensure its future competitiveness and assistance to navigate and negotiate their way through the VET system. This is particularly true for small and medium sized firms and this project has found the costs of undertaking this initial analysis can vary between \$2,000 and \$20,000 per company.

The other side of the skilling equation is the commitment of individuals. Again, we know from our broad industry consultations and specifically from the *Skilling the Existing Workforce Project* that while many workers are willing to undertake training, very many are not. As a general principle existing workers are most willing to take up training where they can see the link between the training and work – for many, this will not be immediately apparent and a committed effort will be required to make this clear.

There is no doubt that, in public policy terms, the best return for the community's investment in vocational education and training will be the effective identification of workforce skills development needs and the prioritisation and delivery of skilling solutions to meet those needs in a way that maximises the deployment of well skilled, competent and productive workers able to effectively perform in dynamic and increasingly sophisticated industries.

The analysis that must underpin this is best done by the industry in the interests of the industry, as it is at this level that it is possible to consider longer term industry and workforce wide development needs. This requires a cooperative and collective approach, as in Ireland's pioneering "national forum on the workplace of the future", which was endorsed in the Cutler review⁶¹ The review proposed that, "The aim of a national forum on the workplace of the future would be... a **shared vision of the future of Australia's workplaces**, based on evidence and data gathering... and [of] the actions and policy measures required to bring it about. [This] would strengthen innovation capabilities, leadership skills and management practices at the level of the workplace."

In this respect the Manufacturing Alliance welcomes the call of the Australian Industry Group and the Business Council of Australia (at recent round table meetings on the Future of Work convened by Minister Gillard) for a co-operative and collaborative approach to building better businesses and workplaces. It is in that spirit that we propose the following agenda to be overseen by a high powered tripartite working group committed to accelerating the long term trend in productivity through innovation at the firm and workplace level.

A key role for the working group is to utilise their contact networks and influence to ensure the widespread dissemination of the findings and ideas of the work program associated with the agenda outlined below. We are not interested in reports that collect dust on bookshelves or just result in a leader's dialogue. Productivity is too important for that. The working group would be supported by a combined Secretariat from DIISR and DEEWR - a good sign of breaking down the silos and entrenching co-operative collaboration.

The agenda is not a one off quick "fix". The participants must see this as a decade long journey. The agenda we propose includes six interrelated elements:

1. We must begin with a comprehensive economy-wide survey (as was done in 1990 and 1995) to be carried out in 2009-10 and once every five years thereafter to

⁶¹ R Green and E Walshe: *Organisational Model For the National Forum on the Workplace of the Future* May 2003

measure the health and performance of the nation's workplaces. Evidence based reform agendas around workforce development need a solid empirical foundation and a study such as this is required as a matter of urgency. The continuity of this approach in the UK is something Australia should follow. A reference group of industry participants to assist with suggestions on survey design, data collection and post survey focus group planning would assist this process.

2. A pilot program, with a long term institutional focus and funding to disseminate best practice from high performance workplaces. This should cover a wide range of workplaces in both the public and private sector. We suggested earlier that intermediaries were essential to the capacity building required to make this work. We recommend that Enterprise Connect and the relevant employer and union organisations work together to develop this program with a key objective being the building of internal capability within firms and sponsoring organisations such as unions and employer groups. This approach is needed to be able to progress the workforce development and work organisation change agenda across a wide range of firms and industries and to contribute to the development of a participative approach to leadership and management. This is an essential investment to link short term recovery measures to Australia's longer term competitive advantage.
3. An agenda for lifetime learning and "flex-security" arrangements needs to be developed so that never again in an economic downturn do so many workers get consigned to the scrap heap of unemployment including lifetime unemployment. We must also give meaning to the concept of workforce development as something that occurs over a lifetime with many transitions along the way. The ALP platform provides a mechanism for this issue to be progressed. We would strongly advocate examination of the successful experience of workplace 'learning representatives' in the UK, which links to our next point.
4. We need a program to support industry partnerships and capacity building in the area of skills and workforce development. As stated previously there is no doubt that, in public policy terms, the best return for the community's investment in vocational education and training will be the effective identification of workforce skills development needs and the prioritisation and delivery of skilling solutions to meet those needs in a way that maximises the deployment of well skilled, competent and productive workers able to effectively perform in dynamic and increasingly sophisticated industries.

The analysis that must underpin this is best done by the industry in the interests of the industry, as it is at this level that it is possible to consider longer term industry and workforce wide development needs. The industry parties are best placed to contribute to building the industry and enterprise capability that is required to conduct training needs analysis in conjunction with the relevant Industry Skill Councils, but lack the specific resources that are required to mobilise the culture change and specific skills that are required.

An investment in growing an industry capability in skills and workforce development needs analysis would complement the work being done by Manufacturing Skills Australia, giving the central skills body access to the more extensive outreach network necessary to realise the aims of the Productivity Places Program. In the manufacturing industry for example, this activity could also be linked into the work of the Education and Training Advisor network of the Australian Industry Group, the Skilled Trades Networks of the AMWU, and the

associated activities of the AWU around Australia. This should operate on an economy wide basis with other sectors besides manufacturing making their case for

funding support in partnership with their Industry Skill Councils and such funding being based on the merits of the proposals and the strengths of the industry partnerships put forward.

As we emphasised earlier it is important to see the six elements of this agenda as closely interrelated. It is important that linkages between Enterprise Connect, the Industry Skill Councils, sponsoring organisations, firms and employees are forged in a manner that brings all the participants together. It is also important that the participants share a common understanding that we are embarking on a decade long journey of building workforce capability, enhancing organisational innovation and creating more productive, innovative and prosperous businesses.

5. Importantly we also need to put in place an agenda for a systematic upgrading of the management systems of Australian businesses. New research on 4,000 medium size manufacturing firms by the London School of Economics and McKinsey (Management Practice and Productivity: Why They Matter) demonstrates the strong co-relation between high productivity and good management.

The inclusion of a large sample of Australian manufacturing firms in the study by a multi-university team led by Roy Green at the University of Technology Sydney has just occurred with the results to be announced in the near future. It is likely to reach similar conclusions including the identification of islands of excellence amongst Australian manufacturers and a large mediocre tail suggesting a broad based upgrading of the management systems and organisational capabilities of Australian firms is a necessary pre-condition for accelerating long term productivity growth.

This will require revisiting and going beyond the Karpin Report including in the area of management education. We also need to determine what part of this agenda can be delivered through Enterprise Connect and what part needs something different.⁶²

6. Finally, the agenda proposed by the Manufacturing Alliance requires a centre of excellence, like the former Bureau of Industry Economics, that sponsors high-powered on-the-ground research into workplace innovation, the upgrading of the management systems and organisational capability of firms as well as practical issues in the evolution of Australia's national innovation system.

We note that discussion is proceeding among a number of universities and organisations on the proposal in the Cutler review for a national innovation research centre to underpin innovation research capability in Australia, as is the case in many other developed economies.

One of the models being discussed is the recently funded UK Innovation Research Centre at Cambridge and Imperial College which also comprises a 'knowledge hub' for engagement between researchers, business and the community.

⁶² Centre for Economic Performance and McKinsey and Company: *Management Practice and Productivity: Why they Matter*. July 2007.

We say this agenda around the six issues identified matters. We say the agenda can make a substantial contribution to lifting productivity over the next decade and beyond by making workforce development and organisational innovation more central to the process of building better more prosperous businesses and more productive workplaces. We say doing this is the best way to achieve a sustainable improvement in the living standards of working people.

We also say, in concluding our submission, that the government, company and trade union leaders in Ireland were right when they pointed out:

“Although some of the most dynamic and competitive countries in the world have long recognised the importance of workplace innovation as a key to meeting their competitive challenges, few have developed a co-ordinated and focused national workplace strategy ...Developing our innovation and technology base depends as much on improving the ability of workplaces to change and innovate as it does on R&D.”⁶³

⁶³ Ireland : *Working to our Advantage : A National Workplace Strategy*, 2004. pg1X. See also R Green and E Walshe: *Organisational Model For the National Forum on the Workplace of the Future* May 2003.

APPENDIX ONE

PROFESSOR WICKHAM SKINNER AND THE PRODUCTIVITY PARADOX

INTRODUCTION

In a number of inquiries in which the Unions have participated we have drawn attention to an article by Professor Wickham Skinner from the Harvard Business School entitled 'The Productivity Paradox'.

Professor Skinner begins his article by referring to a typical American company which operates a large manufacturing plant which had a major productivity improvement program under way for the past three years. The key objective was to boost productivity so as to remove a 30 per cent competitive cost disadvantage. As he points out:

"The program included:

- *establishing department productivity committees;*
- *appointing a corporate productivity manager;*
- *raising the number of industrial engineering professionals by 50 per cent;*
- *carrying out operation-by-operation analyses to improve efficiency levels, avoid waste and simplify jobs;*
- *retraining employees to work 'smarter not harder';*
- *streamlining work flow and materials movement;*
- *replacing out-of-date equipment;*
- *retooling operations to cut operators time; tightening standards;*
- *installing a computerised production control system;*
- *training foremen in work simplification;*
- *emphasising good housekeeping and cleanliness; and*
- *installing computer-based, measured-day work plans, which allow for daily performance reports on every operation, worker, and department."*

(Harvard Business Review, July-August, 1986, page 55)

Despite all this the productivity program failed. As one of the company's executives summarised it:

"It's been great finally getting management support and the resources needed to get this plant cleaned up and efficient. But is extremely discouraging to have worked so hard, and after three years, to be in worse competitive shape than when we started. I don't know how long we can keep trying harder when it doesn't seem to be getting us anywhere."

(Ibid, page 55)

As Skinner notes about this company and 25 others he visited:

"Never have I seen so much energetic attention to productivity starting from the top and ricocheting all the way through organisations. This is American hustle and determination at its best. Productivity committees, productivity czars, productivity seminars, and productivity campaigns abound.

But the harder these companies work to improve productivity, the less they sharpen the competitive edge that should be improved by better productivity. Elusive gains and vanishing market share point not to a lack of effort but to a central flaw in how that effort is conceived. The very way managers define productivity improvement and the tools they use to achieve it push their goal further out of reach.

Resolutely chipping away at waste and inefficiency - the heart of most productivity programs - is not enough to restore competitive health. Indeed, a focus on simple cost reductions (that is, on raising output while keeping labour constant, or, better, reducing it) is proving harmful.

Let me repeat: not only is the productivity approach to manufacturing management not enough (companies cannot cut costs deeply enough to restore competitive vitality); it actually hurts as much as it helps. It is an instinctive response that absorbs managers' minds and diverts them from more effective manufacturing approaches.

(Ibid, page 55)

What Skinner is on about is something that unions believe is critically important when we start to think about issues like award modernisation, a new agenda to encourage training, as well as the work and management practices in high performance workplaces. These are important issues in any demonstration program on high performance workplaces. They are also critical issues for an economy wide lift in long term productivity growth.

Simply put a productivity strategy that looks at cutting operational costs by being preoccupied with direct labour efficiency and focusing excessively on the efficiency of factory workers won't work. It's like the two tier wage system back in the mid 1980s where around 60 per cent of companies in the metals engineering industry started negotiations by focusing on how to take away the workers smoko, wash-up time, free biscuits etc. A narrow cost cutting approach as occurred under Work Choices in the hospitality and retail industry where employers used template pattern bargaining to strip away conditions is another example of a failed productivity agenda.

As Skinner notes in a different context:

"By trying to squeeze out better efficiency from improved attitudes and tighter discipline on a person-by-person and department-by-department basis, the approach detracts attention from the structure of the production system itself."

(Ibid, page 56)

Skinner notes and our own experience confirm this view that:

- around 40 per cent of any manufacturing based competitive advantage comes from long term changes in manufacturing structure which involves decisions about the number, size, location and capacity of facilities, and basic approaches in materials

and workforce management;

- another 40 per cent comes from major changes in equipment and process technology; and
- the final 20 per cent - no more - stems from the narrower 'operational cost reduction approach to productivity'.

If in trying to improve competitiveness we simply develop a strategy that only concentrates on productivity improvements and cost cutting approaches that focus on this 20 per cent, we will not achieve our objectives for lifting productivity and making our manufacturing plants more internationally competitive. We will, as Skinner notes, ignore;

"other ways to compete that use manufacturing as a strategic resource. Quality, reliable delivery, short lead times, customer service, rapid product introduction, flexible capacity, and efficient capital deployment - these, not cost reduction are the primary operational sources of advantage in today's competitive environment."

(Ibid, page 56.)

If we get bogged down in short term cost cutting exercises we will, as Skinner and others argue, "Short-circuit the development of an aggressive manufacturing strategy." Skinner suggests that the key features of the appropriate strategy involves the following:

"A manufacturing strategy which allows the structure to be managed, not just the short-term, operational details of cost, quality and delivery. And it spells out an internally consistent set of structural decisions designed to forge manufacturing into a strategic weapon. These structural decisions include:

- *What to make and what to buy.*
- *The capacity levels to be provided.*
- *The number of and size of plants.*
- *The location of plants.*
- *Choices of equipment and process technology.*
- *The production and inventory control systems.*
- *The quality control system.*
- *The cost and other information systems.*
- *Workforce management policies.*
- *Organisational structure."*

(Ibid, page 58)

This is not to deny that further productivity and efficiency gains can and will be achieved within the existing structure of Australian industry. Rather it is to emphasise

that the gains are potentially far more significant when the investment decisions finally put in place a more appropriate structure of production at the plant level including:

- greater levels of advanced manufacturing technology;
- improved economies of scale and capacity utilisation in the plants;
- the most appropriate production and inventory control systems as well as the quality control and information systems;
- other key factors, particularly the work organisation and training system.

The Manufacturing Alliance is determined to make more of Australia's factories internationally competitive. But to do this we have to take the technology and work organisation of the 19th century out of the plants and put in the technology and work organisation of the 21st century. And we have to get rid of the remnants of Work Choices and, where required, address the issue of a high stress low trust workplace culture. These are amongst the more important preconditions required to forge skill formation and new forms of work organisation into strategic competitive advantages and to ensure fairness in the development and evolution of high performance workplaces.