

Economic Issues

**Where Do We Go From Here?
South Australia's Economic Prospects
Going Forward and the
Role of Government**

Economic Issues

No. 45

Where Do We Go From Here? South Australia's Economic Prospects Going Forward and the Role of Government

Authors:

**Assoc Professor Michael O'Neil, Executive Director, SACES
Steve Whetton, Deputy Director, SACES
Darryl Gobbett, Visiting Fellow, SACES
Professor Christopher Findlay AM, University of Adelaide**

July 2015

South Australian Centre for Economic Studies

ISSN 1445-6826

Copyright: All rights reserved. The Copyright Act 1968 permits fair dealing for study, research, news reporting, criticism or review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included. Otherwise, no part of this publication may be reproduced, stored or transmitted in any form or by any means without the prior permission in writing of the Publisher.

Disclaimer: While embodying the best efforts of the investigators/authors, and while every reasonable effort has been made to ensure accuracy, neither the South Australian Centre for Economic Studies, the parent Universities, nor the individual authors/investigators, take any responsibility or will accept any liability for any consequences that might arise from reliance on the information presented in this paper.

The views expressed in this paper are the views of the author(s), and should not be taken to represent the views of the South Australian Centre for Economic Studies or of the two parent Universities of the Centre.

Published by: South Australian Centre for Economic Studies
PO Box 3192
Rundle Mall SA 5000
AUSTRALIA
Telephone: (61+8) 8313 5555
Facsimile: (61+8) 8313 4916
Internet: <http://www.adelaide.edu.au/saces>
Email: saces@adelaide.edu.au

© SA Centre for Economic Studies, 2015

Subscription and Corporate Membership:

Information on Corporate Membership of the SA Centre for Economic Studies may be obtained by contacting the Centre or at our website, www.adelaide.edu.au/saces

Executive Director's Note

Welcome to the forty fifth issue of *Economic Issues*, a series published by the South Australian Centre for Economic Studies as part of its Corporate Membership Program. The scope of *Economic Issues* is intended to be broad, limited only to topical, applied economic issues of relevance to South Australia and Australia. Within the scope, the intention is to focus on key issues – public policy issues, economic trends, economic events – and present an authoritative, expert analysis which contributes to both public understanding and debate. Papers will be published on a continuing basis, as topics present themselves and as resources allow.

This paper is the second of four papers in the *Economic Issues* series to review South Australia's macroeconomic performance with reference to historical developments and more recent history, including a pointer to sustainable comparative advantages (EIP No. 44); this second paper examines the prospects for growth through a more detailed examination of the state's manufacturing sector including the role that the state government can play in assisting the potential to be realised; and two further *Economic Issues* Papers will examine regulation and industry policy and a consideration of policy responses to reinvigorate this State's economy.

The authors of this paper are Associate Professor Michael O'Neil (Executive Director, SACES), Steve Whetton (Deputy Director, SACES), Darryl Gobbett (Visiting Fellow, SACES) and Professor Christopher Findlay AM, Executive Dean, Faculty of the Professions, University of Adelaide. The views expressed in the report are the views of the authors.

Michael O'Neil
Executive Director
SA Centre for Economic Studies
July 2015

Recent Issues Papers

44. "Should South Australians Really Be 'Down in the Mouth'? Macroeconomic Performance", by Michael O'Neil, Steve Whetton, Darryl Gobbett and Christopher Findlay AM, June 2015.
43. "Exceeding the Limit: How Excessive Speeding Fines May Undermine Community Engagement with Government Road Safety Policies", by Michael O'Neil and Lauren Kaye, June 2015.
42. "Structural Change: Lessons from Port Augusta's Experience in the 1990s", by Michael O'Neil, July 2014.
41. "The Labour Market, Competitiveness, Employment and Economic Prospects", by Michael O'Neil, Lauren Kaye and Mark Trevithick, June 2014.
40. "Providing Local Economic Stimulus and Promoting Local Economic Development: Possibilities for Councils in South Australia", by Michael O'Neil, Cliff Walsh, Anthony Kosturjak and Mark Trevithick, October 2013.
39. "The Task of Strengthening Regional Development", by Michael O'Neil, September 2013.
38. "Localism: Learning from Federal Nation Building (Economic Stimulus) Projects", by Michael O'Neil, Steve Whetton and Suraya Abdul Halim, September 2013.
37. "Re-Thinking Social Policy: Place-Shaped As Well As People-Focussed", by Cliff Walsh and Michael O'Neil, May 2013.
36. "South Australian Centre for Economic Studies: 30 Year Anniversary", by Gary Banks AO and Gary Sturgess AM, April 2013.
35. "Is Adelaide a University City?", by Michael O'Neil and Mark Trevithick, April 2013.
34. "Assisting Regions and Communities to Cope with Structural Change: Context, Objectives, Principles and Good Practice", by Cliff Walsh and Michael O'Neil, August 2011.
33. "The Economic Consequences of the Euro" by Colin Rogers, July 2011.
32. "Banking Competition: The Rhetoric and the Reality" by Dr Penny Neal, May 2011.
31. "South Australian Labour Markets: 2000 to 2010" by Michael O'Neil and Mark Trevithick, February 2011.
30. "Migration Trends in South Australia, 1998/99 to 2008/09" by Mark Trevithick, January 2011.
29. "Decline and Rejuvenation: The Provincial Cities of South Australia" by Michael O'Neil, Mark Trevithick, Daisy McGregor and Antony Pietsch, January 2011.
28. "Re-Thinking the Approach to Regional Development in South Australia", by Michael O'Neil and Cliff Walsh, December 2010.
27. "Identifying the Main Economic Issues Facing the South Australian Wine Industry", by Nicola Chandler, April 2010.
26. "Nuclear Power in Southeast Asia: Implications for Australia and Non-Proliferation", by Andrew Symon, April 2009.
25. "The Global Economic Crisis of 2008: Some Thoughts on Causes and Remedies", by Colin Rogers, January 2009.
24. "Assisting Injured Workers Return to Work: The Economy Needs You!", by Michael O'Neil and Peter Lumb, November 2008.
23. "A Review of the Literature of Active Labour Market Policies", by Michael O'Neil and Penny Neal, June 2008.
22. "Self Managed Superannuation Funds: Some Public Policy Issues Regarding Their 'Decumulation' Phase, by Owen Covick, April 2008.
21. "Australia's Productivity Growth in the 21st Century", by Dean Parham, September 2007.
20. "Building a Local Defence Industry: Workforce Requirements 2006-2010", by Michael O'Neil, Steve Whetton and Edwin Dewan, March 2007.
19. "Running on Empty: The Risk of Continuing to Dither While the Empty Light is Flashing", by Professor Peter Cullen, AO, FTSE, January 2007.
18. "South Australia's Recent Productivity Performance" by Jim Hancock and Wing Hsieh, April 2006.
17. "Mining the Labour Market: The Estimated Demand for Labour in the SA Mining Sector, 2006-2014" by Michael O'Neil and Paul Huntley, April 2006.
16. "Australia's New Trade Agreements: Beneficial Liberalisation or Harmful Policy?" by Andrew Symon, November 2005.
15. "Wind Generation and the South Australian Economy" by Stephen Nelson, April 2005.
14. "South Australia's Overseas Exports" by Paul Huntley, March 2005.
13. "The 2004/05 South Australian Budget" by Jim Hancock, July 2004.

12. "The Relative Decline of Manufacturing Employment in South Australia" by Anthony Kosturjak and Joshua Wilson-Smith, July 2004.
11. "An Ageing Australia: Small Beer or Big Bucks?" by Gary Banks, May 2004.
10. "Enhancing Trust in Australia's Tax System" by Owen Covick, April 2004.
9. "Inquiry into the Management of Electronic Gaming Machine Numbers" by Michael O'Neil and Steve Whetton, April 2004.
8. "Review of the South Australian Economy, 1990-2003" by Michael O'Neil, Penny Neal and Anh Thu Nguyen, March 2004.
7. "Darwin: A Gateway to Asia?" by Andrew Symon, March 2004.
6. "Innovation Activity and Income Levels: A Summary of Indicators" by Jim Hancock, Marianne Herbert and Steve Whetton, April 2003.
5. "The SA Labour Market Through the 1990s" by Anthony Kosturjak, February 2003.
4. "The 2002/03 Commonwealth Budget" by Owen Covick, August 2002.
3. "An Assessment of the Impact of Gaming Machines on Small Regional Economies" by Michael O'Neil and Steve Whetton, May 2002.
2. "Timor Sea Natural Gas Development: Still in Embryo" by Andrew Symon, August 2001.
1. "The 2001/02 South Australian Budget" by Jim Hancock, August 2001.

As noted in Economic Issues Paper No. 44, since the early 1990s South Australia's GSP per capita in real terms has averaged growth in line with the national average and so has remained around 85 per cent of the national average.

... State is facing headwinds

Whilst the relative underperformance has its roots in the policy choices of the 1930s to 1960s, it is not unreasonable to expect a lagging region to 'catch up'. As this has not happened it suggests that the State is facing headwinds through some combination of ongoing negative pressures on growth through structural change; barriers to growth in the state's current labour force and natural resources; limitations in the State's business community; or policy errors by government.

This paper examines the prospects for future growth through a more detailed look at the state's manufacturing sector and the evidence for comparative advantage provided by trade data. It then reviews what role the state government can play (either actively, or by getting out of the way) in allowing this potential to be realised.

The role of manufacturing

...changes in manufacturing

An examination of the changes that have occurred in the South Australian manufacturing sector over the last twenty or so years is particularly important in understanding the broader performance of the South Australian economy.

This is because:

1. at least from the start of the 1990s and through to the mid-2000s, the manufacturing sector was the biggest employer; the largest generator of profit, as represented by Gross Operating Surplus (GOS)¹ and Gross Mixed Income (GMI); and has generally been one of the largest users of investment capital since data on each has become available. On these measures it also made a greater relative contribution than in the other States;
2. any decline would therefore have a more marked impact than in other States in the absence of other mitigating factors; and
3. not only has local manufacturing been affected by global and national issues, there also appears to be some local South Australian factors at work.

In South Australia, as in the other States, other sectors were growing employment and incomes through this period, as discussed below.

By 2007/08, growth in employment in each of the health care and social assistance sector and retail trade sector and steady to lower employment in manufacturing saw each pass the latter as South Australia's biggest employer.

The weight of manufacturing employment and activity in the South Australian context at the start of the period under review, however, is illustrated by it remaining the biggest full time employer until the end of 2010.

It was only then passed by the combined full time employment in the wholesale and retail trade sectors. It was not until end 2014 that full time employment in health care and social assistance matched that of manufacturing.

Looking at the employment impacts through hours worked, and presumably paid for, is more relevant in getting a better understanding of the impact on output and incomes of the falling employment in the State's manufacturing sector and how growth in other sectors, both in aggregate and separately, could and did offset these impacts.

... manufacturing based on hours worked ...

It was not until 2006/07 that aggregate hours worked in manufacturing was exceeded by that in the combined wholesale and retail trade sectors and until 2010/11 for the health care and social assistance sector to do it. On an hours worked basis, manufacturing remains the third largest employer and in the year to February 2015 still accounted for over 10 per cent of the total hours worked. In 2013/14, manufacturing still provided 10 per cent of South Australia's employee compensation on a National Accounts basis.

The differences between the sectoral changes in headline employment and in hours worked reflects that each started the period under review with a higher share of part-time workers, of some 33 per cent in the wholesale and retail trades collectively and 40 per cent in healthcare and social assistance, than did manufacturing at around 9 per cent.

In addition, these sectors have seen ongoing increases in their shares and absolute size of part-time employment with the wholesale and retail trade sectors in combination and that for healthcare and social assistance now each at around 45-50 per cent.

... decline in full-time employment ...

The overall impact in South Australia of the strongest employment growth being in sectors with the high and growing part-time shares and the severe weakness in manufacturing full-time and total employment since 2008 has been an overall decline in full-time employment in South Australia since the start of 2011. (Full time employment averaged 538,300 in 2010 and 534,200 in 2014.)

Structural change in the South Australia economy has therefore had an 'Alice Through the Looking Glass Red Queen' element to it: with the initial high share of manufacturing employment in the South Australian economy and the fast pace at which it has been falling since 2007/08, the other sectors have had to run faster to keep

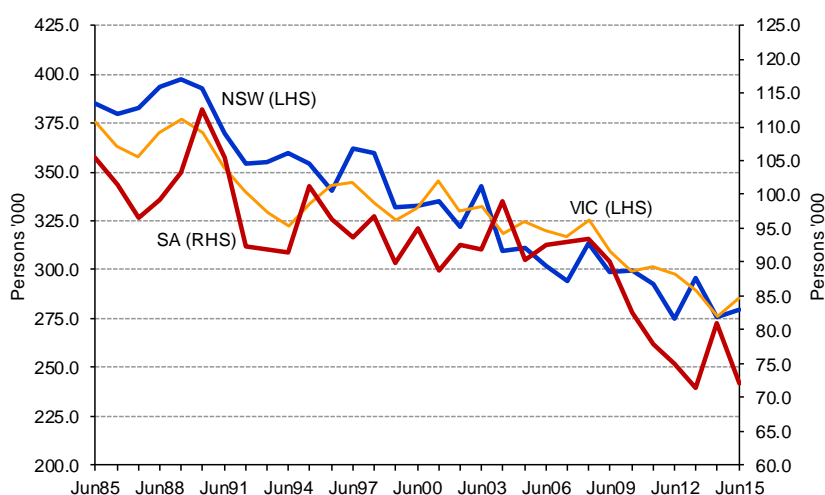
employment growing overall and to just maintain full-time employment levels.

While there will be some who prefer part-time employment for family, lifestyle, career, study and/or other reasons, national surveys suggest most people working part time would prefer full-time employment. Employers also often like the flexibility of part-time employees but, when conditions permit, are likely to turn part-time employment to full-time. Stronger growth overall in the latter seems likely to require a combination of stabilisation of job losses in manufacturing, with its high propensity for full-time employment, and increased business confidence in the other sectors.

Looking at point 1, it is generally the case across mature developed economies that the relative share of manufacturing employment and value added in the overall economy falls as the more income elastic and generally higher wage and higher profit generating sectors such as services expand. This effect has been accentuated in many developed countries since the 1970s by increased national and global trade liberalisation and the emergence of much lower cost competitors, which also often developed additional significant economies of scale advantages.

For New South Wales, Victoria and South Australia, total manufacturing employment peaked in each between 1989 and 1991. From these peaks, by end 2014 manufacturing employment was down by 30 per cent in New South Wales, by 28 per cent in Victoria and 39 per cent in South Australia (see Figure 1).

Figure 1: Manufacturing Employment, Annual, Total



Source: ABS (2014a), Labour Force, Australia, Detailed, Quarterly, Cat. No. 6291.0.55.003.

In contrast, in Queensland and Western Australia, manufacturing employment and value-added each continued to grow until the mid to late 2000s. Manufacturing for the respective mining investment booms was presumably a major driver, more than offsetting the other

national and global issues adversely affecting manufacturing in the other States.

That does, however, beg the question of why the other States' manufacturing sectors did not participate more in that growth.

In the context of the long term changes in the South Australian economy and performance over the last decade or so, the comparison with the changes in the manufacturing sectors of New South Wales and Victoria as the more "traditional" manufacturing States is probably most instructive.

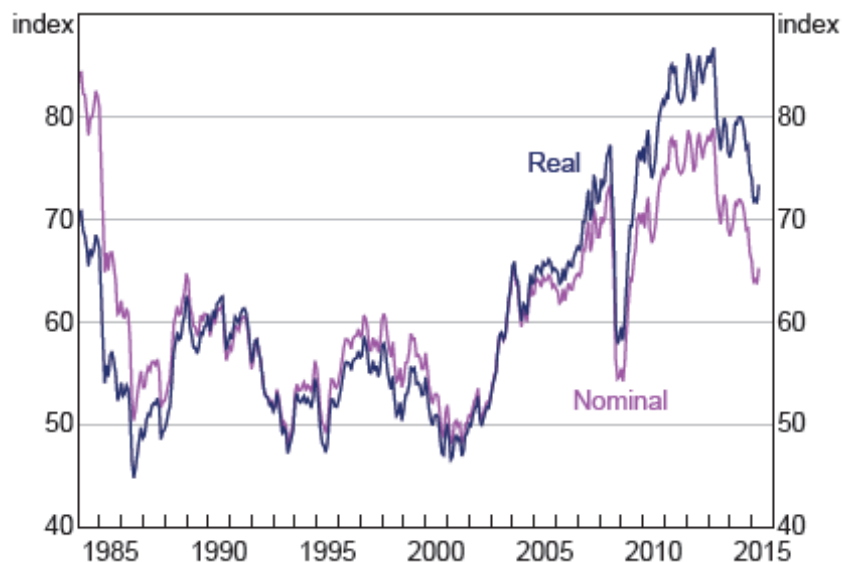
... two broad phases of decline ...

For South Australia, Victoria and New South Wales, the decline in manufacturing employment over the last 25 years or so appears to have proceeded in two broad phases.

There were first falls during the "recession we had to have" at the start of the 1990s which were not recovered with the ending of that recession. While volatile, total manufacturing employment then largely moved sideways until around 2007/08.

A new period of decline then started, precipitated by the impact on Australian consumer spending of the Global Financial Crisis and the ongoing lift in the \$A until early 2013 in both nominal and real terms, as shown in Figure 2 for the Trade Weighted Index. The latter (i.e. real terms) include adjustment for Australia's relatively higher Consumer Price Inflation than most of our trading partners since the GFC.

Figure 2: Australian Dollar TWI*



Note: * May 1970 = 100 for nominal; real indexed to equate post-float averages.
Source: ABS; RBA; Thomson Reuters; WM/Reuters.

In South Australia, total employment in manufacturing held up until late 2008, although employment in the motor vehicle assembly and parts manufacturing had already started to move sharply lower from end 2006.

In 2003, total employment in motor vehicle assembly and parts manufacturing had averaged some 16,000. In 2006, total employment in this sector was still some 15,000. For 2008, with the closure of Mitsubishi assembly in South Australia and the cutback in new car purchases by Australian consumers (auto sales plummeted in the US at the same time), total employment in this sector had dropped around 5,000.

... offsetting gains in employment ...

Total manufacturing employment in South Australia had largely held up at around 95,000, however, with offsetting gains principally in Food Manufacturing. Employment in this subsector was up by some 4,600 by 2008. Most of this came from the rise in Meat and Meat Products.

The period to 2014/15 has seen a further decline in motor vehicle and parts manufacturing in South Australia which has not been offset by gains in other sectors of manufacturing. In fact, the South Australian experience has been of greater relative declines overall in employment (see Table 1) in manufacturing outside of motor vehicle and parts manufacturing than has been the case in New South Wales or Victoria.

We have used as the base and end periods the averages of the ABS May, August, November and February employment surveys in an attempt to smooth out the seasonal and survey fluctuations for what are generally now relatively small employment numbers at the subsector level.

The base period of May 2005 to February 2007 has been set as this covers the most recent high point of employment in motor vehicle and motor vehicle part manufacturing and the later peak in South Australian manufacturing employment overall.

The latest ABS data is for February 2015 and we have used the averages of this and the previous seven survey periods.

Over this period of some eight years, the overall loss in South Australian manufacturing employment was about 10 percentage points higher than the average for New South Wales and Victoria. This was in part due to the proportionately larger loss in South Australia of employment in motor vehicle and motor vehicle part manufacturing.

Table 1: South Australian Manufacturing Employment

	May 2005 – Feb 2007	Per cent of Total	May 2013 – Feb 2015	Per cent of Total	Change '000	Percentage Change		
						South Australia	New South Wales	Victoria
Manufacturing Total	93.8	100.0	76.5	100.0	-17.3	-18.4	-6.9	-11.2
Food Product Manufacturing	12.1	12.9	14.6	19.1	2.5	20.8	4.1	9.7
Meat and Meat Products	3.0	3.2	4.3	5.7	1.4	45.2	-9.1	-4.5
Seafood, Dairy, Fruit and Veg and Oil and Fat Products	2.1	2.2	3.1	4.0	1.0	48.3	-1.7	-23.9
Grain Mill and Cereal Product Manufacturing	0.5	0.6	0.6	0.7	0.0	7.9	5.3	-55.9
Bakery Product Manufacturing	4.7	5.1	4.9	6.5	0.2	4.2	-3.5	16.4
Sugar and Confectionery Manufacturing	0.7	0.7	0.7	0.9	0.0	0.7	-20.0	-9.7
Other Food Products	1.1	1.1	1.0	1.3	-0.1	-8.8	51.9	113.9
Beverage and Tobacco Product Manufacturing	7.8	8.3	9.4	12.2	1.6	20.4	31.8	-12.8
Beverages	7.8	8.3	9.3	12.2	1.6	20.1	45.1	-17.1
Textile, Leather, Clothing and Footwear Manufacturing	2.9	3.1	2.7	3.5	-0.2	-6.9	-28.5	-30.3
Clothing and Footwear Manufacturing	1.9	2.0	1.7	2.2	-0.2	-11.3	-32.1	-25.8
Wood Product Manufacturing	4.8	5.2	3.2	4.2	-1.6	-33.3	-16.2	5.6
Pulp, Paper and Converted Paper Product Manufacturing	2.6	2.8	1.3	1.6	-1.4	-51.9	-35.4	-51.7
Printing (including the Reproduction of Recorded Media)	3.2	3.4	3.1	4.1	0.0	-1.6	-0.3	-30.4
Petroleum and Coal Product Manufacturing	0.2	0.2	0.3	0.4	0.1	58.7	-29.7	-24.7
Basic Chemical and Chemical Product Manufacturing	2.0	2.1	1.7	2.2	-0.3	-16.4	30.7	13.7
Polymer Product and Rubber Product Manufacturing	4.4	4.7	2.2	2.8	-2.3	-51.3	-27.5	-20.3
Non-Metallic Mineral Product Manufacturing	3.0	3.2	3.0	3.9	0.0	1.3	-10.0	-22.5
Primary Metal and Metal Product Manufacturing	6.6	7.0	5.6	7.3	-1.0	-15.0	-16.9	-18.0
Basic Ferrous Metal Manufacturing	3.2	3.4	2.5	3.3	-0.6	-19.8	-22.0	-26.1
Basic Non-Ferrous Metal Manufacturing	2.4	2.6	1.9	2.5	-0.5	-19.8	13.4	-4.1
Basic Metal Product Manufacturing	1.0	1.1	1.0	1.3	0.0	3.6	-32.9	11.8
Fabricated Metal Product Manufacturing	8.3	8.9	3.9	5.1	-4.4	-52.9	-9.8	-36.1
Structural Metal Product Manufacturing	4.1	4.3	2.0	2.6	-2.1	-50.6	16.1	-15.6
Other	4.0	4.3	2.0	2.6	-2.0	-50.6	-20.0	-48.8
Transport Equipment Manufacturing	16.4	17.5	8.6	11.3	-7.7	-47.3	-8.4	-32.3
Motor Vehicle and Motor Vehicle Part Manufacturing	14.4	15.4	5.1	6.7	-9.3	-64.7	-24.6	-38.8
Other Transport Equipment Manufacturing	2.0	2.1	3.6	4.6	1.6	80.9	8.2	8.3
Machinery and Equipment Manufacturing	11.8	12.6	9.5	12.4	-2.3	-19.6	27.5	10.8
Professional and Scientific Equipment Manufacturing	1.6	1.7	1.0	1.3	-0.6	-39.1	60.1	55.0
Computer and Electronic Equipment Manufacturing	2.2	2.4	1.6	2.0	-0.7	-29.4	-7.8	-11.1
Electronic Equipment Manufacturing	2.1	2.2	0.8	1.1	-1.3	-60.2	-0.8	-17.3
Domestic Appliance Manufacturing	1.3	1.4	0.7	0.9	-0.6	-48.2	9.7	-18.3
Pump Compressor, Heating & Ventilation Equipment Manufacturing	0.4	0.4	0.3	0.4	-0.1	-13.3	85.3	87.2
Specialised Machinery and Equipment Manufacturing	1.7	1.8	2.1	2.7	0.4	20.6	56.3	16.0
Other Machinery and Equipment Manufacturing	2.5	2.7	3.0	4.0	0.6	22.2	37.8	18.5
Furniture Manufacturing	4.0	4.3	2.2	2.9	-1.8	-45.3	-4.4	-0.2
Other and Not Defined	3.8	4.0	5.3	6.9	1.5	39.6	-56.6	31.6

Source: ABS (2014a), Labour Force Australia, Detailed, Quarterly, Cat. No. 6291.0.55.003..

This loss reflects the much longer term trend of declining market share in Australian sales of domestically assembled motor vehicles, despite record new car sales, in conjunction with falling use of Australian made automotive components in the remaining vehicles assembled. This decline seems likely to continue.

The impact of the closure of Mitsubishi's manufacturing in 2008, including its South Australian assembly plant has already been felt. The announcement by GM that it will close its manufacturing in Australia by 2017, again including its assembly plant in South Australia, is already being seen in falling employment. The withdrawal of Toyota and Ford from assembly in Victoria is also likely to see further job losses in automotive component manufacturing in South Australia.

While South Australia lost 9,300 jobs in this subsector versus Victoria's substantially greater loss of 15,400, this represented a loss of 65 per cent of South Australian jobs in this subsector compared to 39 per cent of Victoria's.

*... greater loss in terms
manufacturing employment*

This loss also represented 10 per cent of the total employment in South Australian manufacturing in 2005-2007, compared with the 4.9 per cent loss it represented of Victorian manufacturing employment in 2005-2007.

New South Wales lost a net 2,100 or 25 per cent of its jobs in motor vehicle and motor vehicle part manufacturing but now has more employment in this subsector than does South Australia.

The fall in South Australia's employment in this subsector is not the whole story about manufacturing job losses, however. Forces other than the structural adjustment in this industry at a national level, and the associated flow-on effects, seem to be involved.

If the direct losses in motor vehicle and motor vehicle part manufacturing are excluded, South Australian manufacturing employment declined by 8,000 or 10 per cent since 2005-2007, compared with falls of 18,500 or 6.4 per cent in New South Wales and 19,900 or 7.2 per cent in Victoria.

For South Australia, the larger absolute net declines were in the following subsectors with the rate of change in New South Wales and Victoria shown in parentheses:

- wood products – 1,600, -33 per cent (New South Wales -16 per cent, Victoria +6 per cent);
- pulp, paper and converted paper products – 1,400, -52 per cent (New South Wales -35 per cent, Victoria -52 per cent);
- polymer products and rubber products – 2,300, -51 per cent (New South Wales -28 per cent, Victoria -20 per cent);

- structural metal products – 2,100, -51 per cent (New South Wales +16 per cent, Victoria -16 per cent);
- electrical equipment – 1,300, -60 per cent (New South Wales -1 per cent, Victoria -17 per cent); and
- furniture – 1,800, -45 per cent (New South Wales -4.4 per cent, Victoria -0.2 per cent).

... more than the impact of structural change ...

The losses in South Australia in these subsectors are broadly in line with the direction of changes in New South Wales and Victoria although the pace of loss in South Australia was generally substantially greater. This suggests more than the impact of structural change nationally.

The changing composition of manufacturing employment in South Australia presumably also shows comparative advantage at work and not all sectors have seen heavy declines. Some have seen growth in both the absolute level of employment and the share of manufacturing and total South Australian employment.

Food product manufacturing grew by 2,500 or 21 per cent, substantially faster than in either New South Wales (4 per cent) or Victoria (10 per cent). The growth in South Australia was broadly spread and in those areas that would appear to complement the principal areas of production in the primary spheres of importance in South Australia in agriculture: principally, meat and meat products; seafood; dairy and fruit and vegetable processing; and grain milling and bakery products.

Employment also lifted by some 1,600 in beverages, despite the difficulties in the South Australian wine industry.

In total, food product manufacturing and beverages employment averaged 23,900 over the 2 years to February 2015, around 3 per cent of total South Australian employment and up from a share of some 2.7 per cent 8 years ago.

The other identifiable areas to show significant growth were:

- other transport equipment, up a net 1,600 jobs or 81 per cent;
- specialised machinery and equipment manufacturing, up a net 400 jobs or 21 per cent; and
- other machinery and equipment manufacturing, up a net 600 jobs or 22 per cent.

In combination these three subsectors now account for 48 per cent of employment in the combined transport equipment manufacturing and machinery and equipment manufacturing, 11.3 per cent of South Australian manufacturing employment and just over 1 per cent of total employment.

More analysis is needed as these subsectors, by each being in the “other” categories, have been too small for separate recording. They do, however, represent interesting issues for South Australia’s industrial development as they are apparently growing employment while other larger and more established subsectors have been reducing employment.

It is likely this employment growth is occurring in generally small and very specialised or adaptive firms flying below the usual analytical radar and servicing other growth sectors in agriculture, horticulture and mining, particularly in production and logistics; and healthcare.

In contrast, the more publicised net job losses are generally occurring in big firms, such as the global car makers and their suppliers. In turn, these firms and organised labour are often much more effective at lobbying policy makers than are the smaller firms.

There is also the likelihood that some of the employment growth in these “other” transport, machinery and equipment subsectors would be related to Australian Defence procurement and maintenance. It is therefore likely to be under some pressure through the next few years as the so called “valley of death” approaches with the end of major defence shipbuilding projects.

*... South Australia
competitive in
manufacturing ...*

This data does suggest, however, that South Australia can be competitive in manufacturing in the right areas. So rather than dwelling on what is being lost, which contributes to the sense of being “Down in the Mouth”, the focus for policy makers, business and employees should be on:

- what are the sustainable factors, natural and created, that South Australia can use to advantage to have competitive and growing manufacturing businesses in very specialist areas; and
- what are the regulatory; other public policy issues, such as defence or nuclear cycle policies; and cost and training issues that might hinder or support such growth.

The cost issue is an important one as it is a major factor in the profitability of business and the expectation of making a certain rate of profit is why an enterprise is undertaken. Some mix of maintaining that expectation of future profit along with actually making a certain rate of profit and being cash flow positive is also how businesses generally survive, invest using internal and external capital and, in turn, provide employment.

Those outcomes in turn are reflected in which businesses, industries and types of employment shrink or grow.

For while we may assume external capital is readily available at the right price, internal cash flow and owners’ other sources of finance remain for many businesses the principal sources of investment and

working capital. This is particularly the case for smaller and medium sized enterprises that now likely form much of the base of South Australian manufacturing as most of the traditional big manufacturing employers have downsized or departed.

As noted above, while there are common elements affecting manufacturing across the different States, the larger relative decline in South Australia seems to have been due to some local influences which we will seek to explore, along with the public policy implications, in later papers.

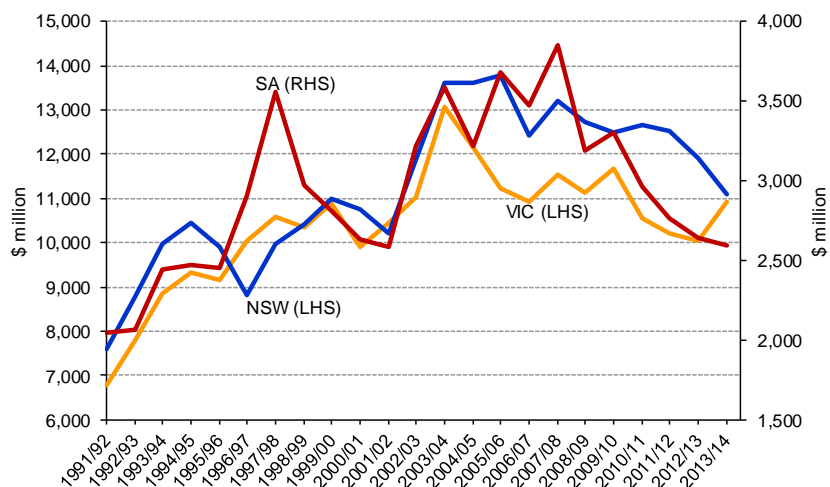
The sector's profitability will therefore have been, and will continue to be although at a lesser degree, a major influence on how each of these important inputs to economic activity perform within manufacturing. Along with the spinoff effects to other sectors through the employment incomes, spending on other inputs and investment expenditure.

Just as important, however, in South Australia's economic development, is what impact the level and trend of profit in manufacturing may have had in making funds, at a macro-economic level, available for investment elsewhere in South Australia. Again, while we may assume capital is readily available at the right price, there is a local bias in investment decisions and historically it is the local savers and businesses that provide much of the capital for the development and expansion of new businesses and industries.

... profitability trending lower ...

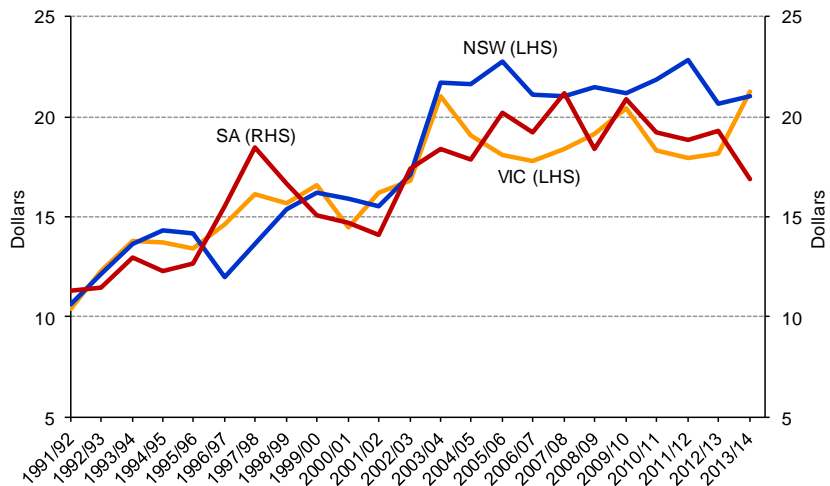
In the case of South Australian manufacturing, it appears profitability, at least as represented by Gross Operating Surplus and mixed income, has trended lower since the mid-2000s than in New South Wales or Victoria when measured in absolute current price terms (Figure 3) or per hour worked (Figure 4). This was after stronger gains through the first half of the decade.

Figure 3: Gross Operating Surplus and Mixed Income, Current Prices, \$m



Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

Figure 4: Manufacturing Gross Operating Surplus and Mixed Income per Hour Worked

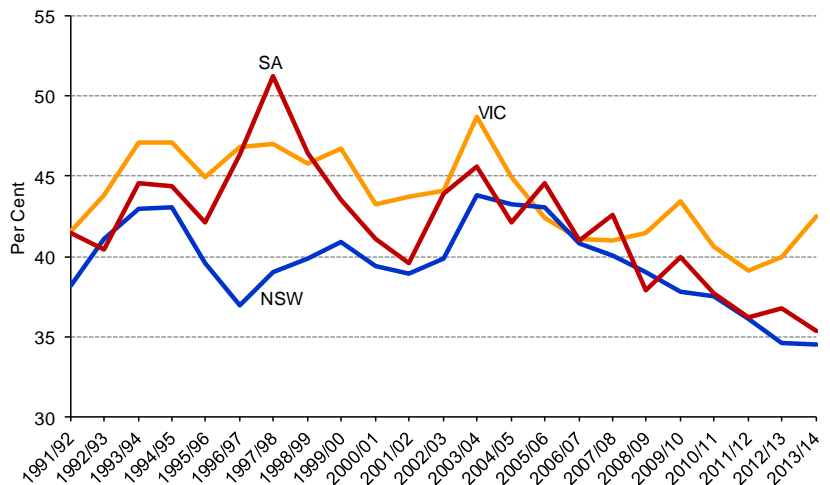


Source: ABS (2014a), Labour Force, Australia, Detailed, Quarterly, Cat. No. 6291.0.55.003 and ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

... employee compensation rising faster in South Australia ...

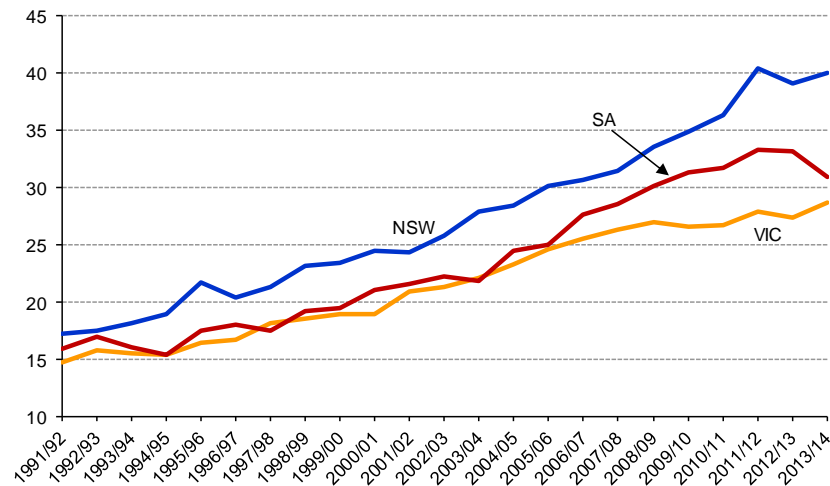
As a share of manufacturing total factor income, South Australian GOS and mixed income has moved about in line with New South Wales and declined relative to Victoria (Figure 5). This at least in part reflects South Australian employee compensation on a per hours worked basis rising from an average of 105 per cent of the Victorian levels in the decade to 2007/08 to an average of 118 per cent in the last 6 years (Figure 6). South Australia's relativities on this measure to New South Wales have broadly stayed the same, at around 85 to 86 per cent.

Figure 5: Manufacturing: Gross Operating Surplus and Mixed Income as a Percentage of Total Factor Income



Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

Figure 6: Manufacturing Employee Compensation per Hour Worked



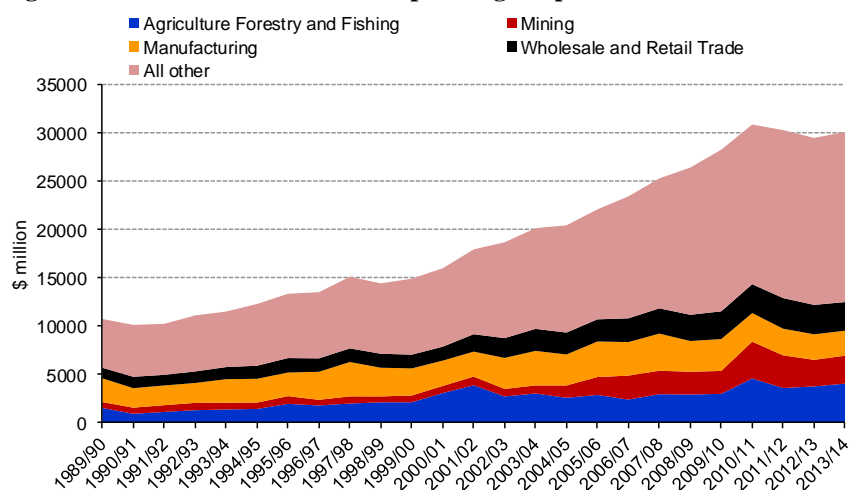
Source: ABS (2014a), Labour Force, Australia, Detailed, Quarterly, Cat. No. 6291.0.55.003 and ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

... rising employee costs
and structural challenges
...

On the face of it, the manufacturing sector in South Australia was facing through the last 8 years or so a combination of more rapidly rising per hour employee costs than in Victoria and arguably more severe industry structural challenges due to the higher relative employment in the mid-2000s (17.5 per cent of South Australian manufacturing vs 14.5 per cent in Victoria) in motor vehicle and motor vehicle part manufacturing.

The fall in South Australian manufacturing's GOS and mixed income has also, because of the large scale of this sector in the South Australian economy, been a major factor in the slow overall growth of South Australian GOS and mixed income through much of the last 8 years.

Figure 7: South Australian Gross Operating Surplus and Mixed Income^(a)



Note: (a) Excluding Public Administration and Safety and Dwellings.

Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0, Table 5.

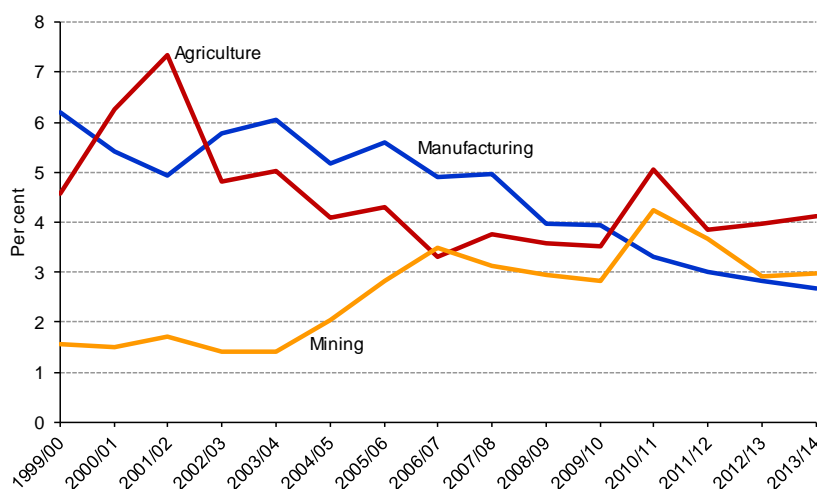
Through the 1990s, Manufacturing GOS and Mixed Income (GOSMI) averaged over 20 per cent of the total for South Australia, excluding public administration and safety and dwellings. Manufacturing remained the single largest generator of GOSMI until 2008/09, when it was passed by financial and insurance services. It was not until 2010/11 it was exceeded by each of mining and agriculture.

In New South Wales and Victoria, the GOSMI in current dollars of financial and insurance services exceeded that of manufacturing by 1995/96 and 2005/06 respectively. In 2011/12 the GOSMI for wholesale and retail trade exceeded that of manufacturing in each of New South Wales and Victoria for the first time.

Looking at the GOSMI for each sector as a share of GSP for each of South Australia, New South Wales and Victoria gives another view as to how the reduction in manufacturing GOSMI influenced the overall situation and how other sectors performed. What is of note across each is:

- the broad stability of GOSMI as a share of GSP over the last 25 years and with South Australia's being higher than New South Wales and Victoria until 2013/14; and
- the increasing share of each of financial and insurance services and "other", in line with the overall increase in services growth.

Figure 8: South Australia's Gross Operating Surplus and Mixed Income^(a) as a Percentage of Gross State Product (Agriculture, Manufacturing and Mining)



Note: (a) Excludes GOS and Mixed Income of Dwellings and Public Administration and Safety.
Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

... boom in agriculture and mining ...

In the case of South Australia, (see Figure 8 above) with the boom in commodity prices and good seasonal conditions, the growth in GOSMI in agriculture and mining collectively largely offset Manufacturing's decline from the mid-2000s to 2010/11. Overall GOSMI as a percentage of GSP in South Australia lifted to around to the highest levels since 1989/90. This effect from agriculture and

mining occurred in Victoria and New South Wales but nowhere near as strongly (see Appendix A: three states).

Since 2010/11, the ongoing decline in South Australia's manufacturing GOSMI in current dollars and a generally weak performance from the other major sectors has seen a drop in South Australia's GOSMI in current dollars and as a share of GSP. The latter ratio is at its lowest in the last 25 years.

From the Table 2 below, it can be seen this decline reflects the fall overall in the current dollar value of South Australia's GOSMI. GSP in current dollar values increased by 8 per cent from 2010/11 to 2013/14, compared with 12 per cent in Victoria and 11 per cent in New South Wales.

... main contributors to growth ...

Of that 8 per cent growth for South Australia's GSP, the main contributors were:

- healthcare and social assistance (2.0 per cent);
- ownership of dwellings (1.2 per cent);
- electricity, gas, water and waste (1.2 per cent);
- professional, scientific and technical services (0.7 per cent);
- public administration and safety (0.7 per cent); and
- education and training (0.7 per cent).

Table 2: Change in Gross Operating Surplus and Mixed Income and Gross State Product, 2010/11 – 2013/14, Per cent – Current Dollar Values

	South Australia	New South Wales	Victoria
Agriculture	-12	-12	+1
Mining	-24	-32	+27
Manufacturing	-13	-13	+4
Wholesale and Retail Trade	-1	+5	+18
Financial and Insurance Services	+18	+25	+21
Transport, Postage and Warehousing	-2	+24	+14
Other	+4	+5	+25
Total GOSMI	-2	+5	+19
Total Gross State Product	+8	+11	+12

Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

... expectation of future profits drives investment ...

If, as posited above, it is a combination of current profitability and the expectation of future profits that drives private sector employment and investment, along with profits providing a substantial portion of the funding of businesses, a reversal of the recent trend in the GOSMI of South Australia may be required for sustainably stronger employment and GSP growth.

That reversal overall seems unlikely to come from a return to the contribution provided by manufacturing in the early 2000s. That does not mean, however, that manufacturing's contribution to employment, GOSMI and investment in South Australia is necessarily on a continued downward path. There are signs, as noted above, of

*... manufacturing
subsectors growing ...*

subsectors within manufacturing that are growing. This is presumably because those activities are profitable.

Where is our comparative advantage: what can we see from the patterns of trade²

At the highest level, South Australia appears to be slightly underperforming in terms of exports, accounting for 4.6 per cent of commodities exports in 2010/11 and 4.0 per cent of services exports, well below the State's share of national gross value added (6.2 per cent).

In terms of commodities exports this relative underperformance is largely driven by the lack of the large deposits of iron ore in Western Australia and coal which together accounted for 42 per cent of Australia's exports in 2010/11. If they are excluded then South Australia accounts for 7.2 per cent of national exports for the remaining commodities.

*... sector remains (on an
export basis) an area of
comparative advantage ...*

We can aggregate across commodities to construct a measure of manufacturing sector exports and this measure suggests that the sector remains an area of comparative advantage for the state, with South Australia accounting for 9.4 per cent of national manufacturing exports, well in excess of its 8.0 per cent share of manufacturing GVA in 2010/11.

*... what is the legacy of
high protection ...*

On the other hand, the share of 'motor cars and other motor vehicles' is lower than might have been expected given the extent to which the industry is concentrated in South Australia at 14 per cent of national exports for this commodity, and for 'parts and accessories of the motor vehicles' South Australia accounted for only 6 per cent of national exports (with a total value of \$42 million) – these data suggest that South Australia car component manufacturers have not succeeded in integrating themselves into global supply chains. High protection for that sector appears to have left no legacy in terms of performance.

The closure of manufacturing by GM of Motor vehicles in South Australia by 2017 will see the vehicle component of South Australia's exports fall substantially. It is also problematic whether 'parts and accessories of the motor vehicles' exports will be sustained although anecdotal evidence suggest this is a very specialised area for South Australia and may well continue even as the broader components' manufacturing sector declines.

Three commodities: wheat; copper (+ copper ore); and alcoholic beverages account for 45 per cent of South Australian exports. South Australia's export share is well above average for all of these, at 29 per cent, 34 per cent and 57 per cent respectively. Indeed South Australia accounts for more than 13 per cent of national exports in all

of South Australia's ten largest export commodities except for iron ore.

The commodities in which South Australia enjoys the greatest relative comparative advantage are (share of Australia's total exports for the commodity in national exports):

- silver (67 per cent);
- lead (60 percent);
- alcoholic beverages (57 per cent);
- fish (50 per cent); and
- rotating electric plants (42 per cent).

Cross border services exports are much less important for the South Australian economy than commodities exports, with a value of \$2 billion compared to \$11 billion (about 15 per cent of the total exports). This is less than their apparent share of world exports of over 20 percent. More difficult to measure is the income from international delivery of services in other modes of supply, including offshore establishments and the movement of people.

There are very few sectors in which South Australia's performance in services stands out. The only sectors in which South Australia produced more than 10 per cent of the national total exports were

- construction;
- operational leasing services;
- other business services nei.; and
- other personal, cultural and recreational services

However, the total value of these four sectors was only \$180 million in 2010/11.

...the largest services export ...

Education was the largest services export with a value in 2010/11 of \$911 million (making it South Australia's fifth largest export 'commodity'). However this performance seems in line with our share of the national economy, with South Australia accounting for only 5.9 per cent of education exports in 2010/11.³

Reform and the prospects for growth

In these data, we can see opportunities for South Australia – in agriculture, in some minerals, in knowledge intensive industries (interestingly in financial services perhaps), and in some parts of manufacturing (though apparently not consumer auto related). There may be others, it's hard to pick those areas which will perform relatively better.

If the conditions are right and then those sectors grow, success would follow which would mean a rising income level relative to the rest of Australia, a slowdown in outward migration and retention of higher skilled workers, and a change in the age mix of the population, all of which would be good news.

The age mix issue requires further analysis in the context of industrial development and economic growth in South Australia in particular as this State, along with Tasmania, has both the oldest population and that which is both growing below the national average and ageing at the fastest pace.

It is not stretching the bow too far to say that over the last five years the principal growth industry in South Australia has been meeting the health and social assistance needs of an ageing community.

... the biggest share of employment and also GVA

Employment growth in health care and social assistance over the last five years to end 2014 totalled 9,500, about 57 per cent of the employment growth for the State. This sector is now by far the biggest by share of employment, at 14.2 per cent, and also by GVA at 8.2 per cent. The next biggest being retail trade with an employment share of 11 per cent.

The employment gains were in medical and other health care services of 3,300 or 14 per cent; in residential care of 1,800 or 24 per cent; and in social assistance excluding child care services of 5,100 or 6.5 per cent. Employment in hospitals actually fell by some 2,800.

Not all of these gains will necessarily be due to the ageing of the community but it is quite likely it will have been a driving force. Certainly it will become even more important.

How we deal with meeting the various needs of an ageing community, including the rising demands on the workforce and public spending, along with the outcomes of debates on retirement income tax policies and health funding, are important public policy issues.

... how we sustain our living standards ...

The public policy responses are particularly important in the South Australia context as on current trends our workforce and local tax base will be declining faster in relation to the overall South Australian population than will be the case in most other States. How we sustain our living standards relative to the other States will therefore likely depend increasingly critically on how effectively local public policy responses impact workforce productivity; business investment and profitability; industrial adaptiveness and flexibility; and the efficiency and efficacy of public sector spending.

Alongside these, the ethical issues related to the last year of life are raising important and politically difficult public policy issues.

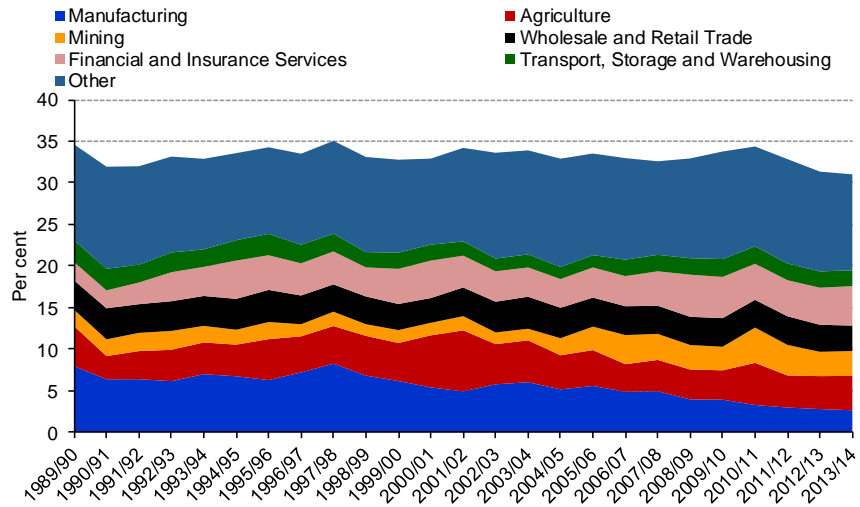
Returning to the issues of which sectors can grow relatively faster to help improve South Australia's economy relative to the rest of Australia, we should not try to pick winners. We can, however, discuss what may be the 'right conditions' for increasing sectoral and overall employment and income growth.

We can also propose what may be the appropriate public policy responses to bring about those conditions.

We will deal with those issues in our forthcoming Economic Issues Papers (46 and 47).

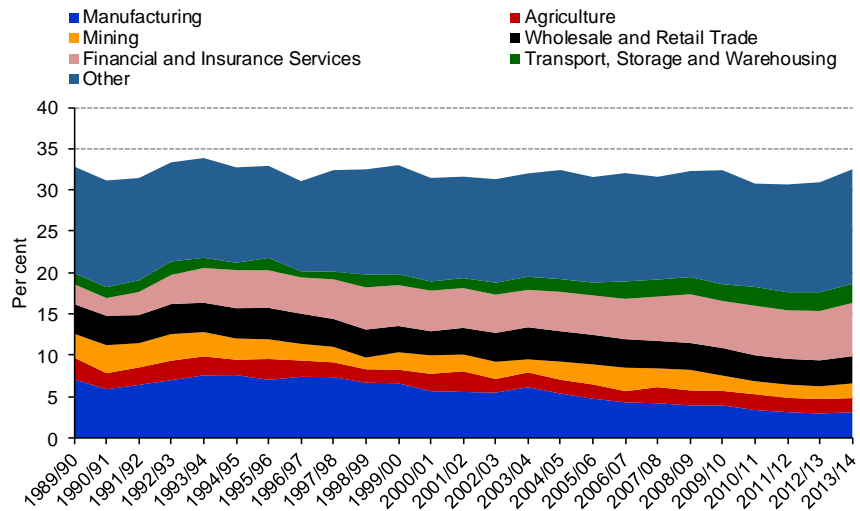
Appendix A

Figure A.1: South Australia's Gross Operating Surplus and Mixed Income^(a) as a Percentage of Gross State Product at Current Prices



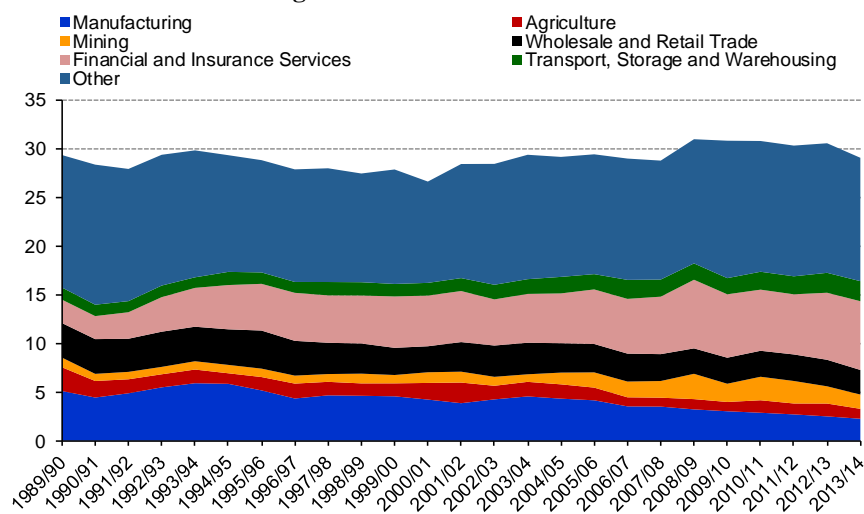
Note: (a) Excludes GOS and Mixed Income of Dwellings and Public Administration and Safety.
Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

Figure A.2: Victoria's Gross Operating Surplus and Mixed Income^(a) as a Percentage of Gross State Product at Current Prices



Note: (a) Excludes Dwellings and Public Administration and Safety.
Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

Figure A.3: New South Wales Gross Operating Surplus and Mixed Income^(a) as a Percentage of Gross State Product at Current Prices



Note: (a) Excludes Dwellings and Public Administration and Safety.

Source: ABS (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

References

Australian Bureau of Statistics (ABS) (2014a), Labour Force, Australia, Detailed, Quarterly, Cat. No. 6291.0.55.003.

_____ (2014b), Australian National Accounts: State Accounts, 2013-14, Cat. No. 5220.0.

Endnotes

- ¹ GOS)and gross mixed income are defined as gross value added minus compensation of employees, minus taxes payable plus subsidies receivable on production and imports. GOS represents the gross income derived by corporations, both financial and non-financial, dwellings owned by persons and general government. In the case of general government, gross operating surplus represents only consumption of fixed capital. *Gross mixed income* (GMI) represents the gross income derived by unincorporated enterprises).
- ² States' and Territories' shares of exports relative to the State's shares of output or to a sector's share of national exports can provide a rough indication of the comparative advantage (or international competitiveness) of various sectors. This is imperfect as interstate trade data are not available, and the commodities-basis of trade data can only be mapped roughly onto industries.
- ³ In 2012/13 the education export value had fallen back to \$879 million in South Australia and \$14,461 million nationally; the 2010/11 data in text allows a comparison with merchandise trade data. The fall in the rest of Australia was slightly larger than the South Australia fall so South Australia's share of national education exports rose to 6.1 per cent in 2012/13.