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The Relative
Decline of
Manufacturing
Employment in
South Australia

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Director's Note

Welcome to the twelfth 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 this scope, the intention is to focus on key economic issues — public policy issues, economic trends, economic events — and present an authoritative, expert analysis which contributes to both public understanding and public debate. Papers will be published on a continuing basis, as topics present themselves and as resources allow.

The authors of this paper are Anthony Kosturjak, Research Economist, and Joshua Wilson-Smith, Research Assistant, SA Centre for Economic Studies.

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Michael O'Neil Director SA Centre for Economic Studies July 2004

The Relative Decline of Manufacturing Employment in South Australia

Overview

This Issues Paper investigates employment outcomes for the South Australian manufacturing sector since 1986. The topic of this paper was inspired by data presented in a previous Issues Paper – *The South Australian Labour Market Through the 1990s* – which showed that manufacturing employment in South Australia fell substantially relative to nation-wide manufacturing employment between 1990 and 2000. Calculations suggest that South Australia may have accounted for 41.4 per cent of the 38,000 jobs lost in the manufacturing sector at the national level over this period. The purpose of this paper is to more closely assess the performance of the South Australian manufacturing sector in terms of employment outcomes.

An analysis of trends in manufacturing employment, particularly over a longer time period, reveals that the data from the previous Issues Paper exaggerates the relative decline of employment in South Australia's manufacturing sector. There are two reasons for this. Firstly, the time period used in the previous Issues Paper excludes important changes in manufacturing employment on the fringes of the period. These include a significant fall in manufacturing employment in other States just prior to 1990, particularly in Victoria and New South Wales, and a rebound in employment in South Australia since 2000. The earlier fall in employment for other States reflects that they were further along their economic cycles and that the causes of the national recession emerged first in these States. The recovery in manufacturing employment for South Australia more recently is to a large extent due to a surge in exports, particularly of motor vehicles and parts and wine.

The second reason for the exaggerated relative decline in South Australian manufacturing employment was the use of Australian data for comparison. Large rises in manufacturing employment in Western Australia and Queensland obscured large falls in the traditional manufacturing States (i.e., Victoria, New South Wales and Tasmania). South Australia was responsible for only 4.9 per cent of the 93,000 manufacturing jobs lost in the four traditional manufacturing States between 1986 and 2003.

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1.3 provides a brief historical overview of the changing policy climate in which the Australian and South Australian manufacturing industries have developed. Section 2 analyses trends in State and national aggregate employment levels, while Section 3 examines changes in manufacturing employment including changes in the structure of the manufacturing industry. Section 4 looks at other elements of the performance of the South Australian manufacturing sector. Section 5 presents concluding comments.

1.2 Overview of The SA Labour Market Through the 1990s

The main findings to emerge from the Labour Market Issues Paper were that South Australia had poorer employment outcomes for the decade relative to all other mainland States and Australia as a whole. Total employment for South Australia rose by only 3.2 per cent between 1990 and 2000, which compared with a rise of 15.1 per cent for Australia, while South Australia had an average unemployment rate of 9.3 per cent for the decade versus 8.3 per cent for Australia.

South Australia's disappointing employment outcomes reflected the poor performance of the State economy over this period. The State economy – as measured by growth in Gross State Product – grew more slowly than any other State or Territory with the exception of Tasmania between 1990-91 and 1999-00.² Factors identified as contributing to the poorer performance of the State economy included, *inter alia*:

- The collapse of the State Bank which compounded the initial impact of the recession by requiring a government bailout that led to a contraction in public sector spending, both of which had the further impact of reducing confidence in the State economy;
- The detrimental effects of structural change impacted on South Australia relatively more heavily since the State had a higher dependence on those sectors which had suffered decline, particularly manufacturing;
- At the beginning of the decade the State had weak trade and investment linkages with the international economy, and although trade linkages improved remarkably late in the decade with a large surge in merchandise exports, investment linkages remained poor; and
- Economies of scale effects, whereby the relatively smaller size of the South Australian economy encouraged businesses to relocate to interstate markets or avoid locating in South Australia.

While the inability to substantially grow the aggregate economy was ultimately responsible for the State's poor ability to generate jobs, demographic factors, especially a slower rate of population growth, were found to exaggerate the extent of South Australia's inferior aggregate economic and employment performance.

Slower population growth for South Australia was explained by several factors, including the older age structure of the State population, which resulted in a slower rate of natural increase; a poor performance in attracting overseas migrants, which deteriorated in the 1990s; and an increase in interstate emigration flows during the 1990s.

The significant rise in interstate emigration flows and less than exemplary record of attracting overseas migrants during the 1990s could be attributed to the relatively weak performance of the South Australian economy. Poor job prospects and a gloomy economic outlook intensified

had grown to the point where there was sufficient political will to implement a major program of microeconomic reform to address structural weaknesses that had evolved under protectionism and other forms of government intervention. Reforms implemented from 1983 onwards included, *inter alia*: deregulation of financial markets, floating of the currency, commercialisation of government business enterprises, including privatisation of some public sector activities, reductions in barriers to foreign direct investment and international trade.⁸

In terms of protectionist policy, major reform commenced in 1988 when the government announced a four-year program of across the board reductions in tariffs with those above 15 per cent cut to 15 per cent, and those between 15 and 10 per cent reduced to 10 per cent. However, tariffs applying to motor vehicles, textiles, clothing and footwear were excluded from the reductions. Another round of cuts were announced in 1991, with general tariffs ratcheting down to 5 per cent between 1992 and 1996.

Major reform of the motor vehicle industry commenced in 1984 with the Button Car Plan. The main thrust of the plan was to improve the competitiveness of the industry by gradually placing it under higher levels of international competition through a reduction in effective assistance. Under the plan, import quotas were replaced with tariffs that were to be phased out by 1992. Tariff reductions ended up proceeding more intensely than planned following favourable exchange rate movements under the recently floated currency. Import quotas were abolished in 1988 while tariffs were reduced to 45 per cent, phasing down to 35 per cent by 1992. Another schedule of cuts began in 1993 with tariffs being phased down to their current level of 15 per cent in 2000.

While the Button Car Plan initiated a significant reduction in protection for the car manufacturing industry, it did introduce other forms of assistance, some of which were designed to cushion the impacts of adjustment. These measures included:

- A broadening of the export facilitation scheme;
- Labour Adjustment Training Arrangements;
- A Component Development Grants Scheme; and
- Initially, an expansion of tariff quotas to other segments of the industry (i.e., light commercial vehicles and 4WDs).¹⁰

The textiles, clothing and footwear industry (TCF) had become the most heavily protected sector of the manufacturing industry by the early 1980s, abolish5(tex)-13h5(t)-10(uring)9.3

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and firms by providing inappropriate incentives. Quite a few of these projects and firms served to narrow the base of the economy still further.

Two other features of the pattern of employment growth illustrated in Figure 2.1 suggest that South Australia's labour market performance may have been related to structural problems within the economy.

Firstly, South Australia and Victoria had similar patterns of employment growth in the early 1990s, with both States experiencing large falls in employment relative to other States following the recession, although Victoria experienced a larger fall and in fact tended to drive the national recession. The more severe decline for Victoria was the result of a relatively larger commercial asset price bubble in Victoria, with the subsequent fall exacerbated by a collapse of the State Bank of Victoria. Nevertheless, the similar experiences may reflect not only the common incidents of State Bank collapses, but also a common dependence on the manufacturing sector as a result of their history of development, whereby manufacturing flourished behind trade barriers and other forms of government assistance. However, the similarity ends in late 1993 when solid employment growth in Victoria took hold and continued for the remainder of the decade.

Secondly, much of the growth in national employment during the 1990s was due to rapid growth in Queensland and Western Australia. This is interesting as both have industrial structures which are only loosely based on the old protectionist model, and instead place greater emphasis on industries of natural comparative advantage — tourism in the case of Queensland and mineral resources in Western Australia. This suggests that those economies with relatively larger manufacturing sectors such as Victoria, South Australia and New South Wales had to endure a greater degree of restructuring and job shedding as their economies adjusted to greater competitive pressures.

Table 2.2
Total Employment
Selected States and Australia – 1986 to 2001, Annual Average

	Total Employment ('000)		Cha	Change (Per Cent)				
	1986	1991	1996	2001	'86 to '91	'91 to '96	'96 to '01	'86 to '01
NSW	2,357	2,611	2,794	3,040	10.8	7.0	8.8	1.7
VIC	1,846	1,983	2,095	2,314	7.4	5.6	10.5	1.5
QLD	1,108	1,300	1,524	1,698	17.3	17.2	11.4	2.9

3. Employment in the Manufacturing Sector

3.1 Trends in Overall Manufacturing Employment

In the introduction we observed that data presented in the Centre's Labour Market Issues Paper (No. 5) suggested that South Australia accounted for a disproportionately large share (41.4 per cent) of the fall in national manufacturing employment between 1990 and 2000. We now turn to an investigation of the trend in manufacturing employment to better understand the performance of the South Australian manufacturing sector.

Table 3.1 presents estimates of the change in manufacturing employment between 1990 and 2000 for South Australia, other mainland States, and the nation as a whole. The data shows that South Australia accounted for about 15,600 of the 37,700 jobs lost at the national level over this period. However, looking more closely reveals that the South Australian manufacturing sector has not performed as badly relative to the other New South Wales suffered a much larger manufacturing States. aggregate fall in manufacturing employment over this period (down 41,000 jobs), while Victoria (9,600 jobs) and Tasmania (6,600 jobs) also experienced significant falls. The result is that South Australia was responsible for 21.6 per cent of the 72,200 jobs lost in the four traditional manufacturing States (i.e., New South Wales, Victoria, South Australia and Tasmania) between 1990 and 2000. This is well below the State's share of the fall in national manufacturing employment over this period (41.4 per cent).

Table 3.1
Changes in Manufacturing Employment
Australia & States – 1990 and 2000, Annual Average (to November Quarter)

	Employm	ent ('000)	Change: 1990 to 2000		
	1990	2000	Number ('000)	Per Cent	
New South Wales	403	362	-40.5	-10.1	
Victoria	378	368	-9.6	-2.5	
Queensland	157	183	25.9	16.5	

employment in 1990 (12.3 per cent), indicating that the South Australian manufacturing sector did endure a relatively larger fall in employment during the 1990s.

However, the estimated fall in manufacturing employment is also very sensitive to the time period chosen for the analysis, and looking over a longer time period reveals that South Australia has not performed as badly relative to other States and Australia as it did during the 1990s. This is demonstrated by Figure 3.1 and data in Table 3.2 which shows that between 1986 and 2003 manufacturing employment fell by a

decline of manufacturing employment in South Australian does not seem to have been disproportionately more severe.

Table 3.2

Manufacturing Employment

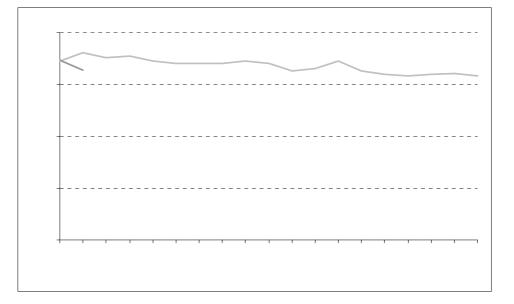
Australia & States – Selected Years, Annual Average (to November Qf-9.

being reliant on demand from the eastern States. The boom-bust cycle in economic activity in the eastern States during the late 1980s and early 1990s was an important factor behind the rise and fall in South Australian manufacturing employment during this period.

The second significant trend not captured by the 1990-2000 time period is a significant rebound in South Australian manufacturing employment since 2000 which has not taken place in other traditional manufacturing States. South Australian manufacturing employment grew by 7.4 per cent between 2001 and 2003, whereas nationally employment fell by 0.9 per cent due to falls in Victoria and New South Wales. In fact, growth for South Australia was stronger than for any other State between 2001 and 2003. Whether or not this recovery proves to be transitory remains to be seen, but a positive aspect is that it seems to partly reflect structural factors. For instance, some manufacturing sectors and firms have made strategic investments to cultivate and target overseas markets, and/or

Finally, while the performance of the South Australian manufacturing sector is not so bad compared to the other traditional manufacturing

Figure 3.3
State's Share of National Manufacturing Employment
States – 1986 to 2003, Annual Average



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analysis with data from the Manufacturing Census to better understand structural changes within the sector. The Census of Population and Housing is not used because of concerns over the quality of data for earlier years. ¹⁶

Table 3.3 presents data on employment levels at the subdivision level for the South Australian manufacturing industry for select years between 1986 and 2003. The years are chosen so as to shed light on the major shifts in total manufacturing employment during this period. These While employment in the "metal product" manufacturing sector also benefited from solid growth in domestic demand during the late 1980s, it may also have received a boost from exports. Metal product manufacturing exports rose by \$204 million (76 per cent) between 1988 and 1990.

Reflecting that domestic demand was an important driver of employment in manufacturing, employment levels rose between 1986 and 1990 in all other subdivisions with the exception of the "textile, clothing, footwear and leather", and "non-metallic mineral product" subdivisions.

1990 to 2001: Sustained Decline

Table 3.4
Largest Increases and Falls in Manufacturing Employment by Group
South Australia – 1989-90 to 1999-00

Groups with largest increases	Persons	Groups with largest falls	Persons
Beverage & malt	653	Iron & steel	-2,928
Other wood product	577	Motor vehicle & part	-2,732
Other transport equipment	575	Clothing	-1,882
Electronic equipment	424	Meat & meat product	-1,540
Other food	367	Electrical equipment & appliance	-1,214
Other chemical product	350	Textile fibre, yarn & woven fabric	-1,049

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examined in closer detail in Section 4.3.1.) Employment growth in "motor vehicle and part" manufacturing would also reflect stronger domestic sales over recent years.

Looking at employment growth in other subdivisions within the manufacturing sector between 2001 and 2003, there were increases in the "printing, publishing and recorded media" (up 1,300 persons), "metal product" (900 persons) and "non-metallic mineral product" (700 persons) manufacturing sectors. These were offset by falls in the remaining manufacturing subdivisions.

1986 to 2003: Longer Term Structural Change in the Manufacturing Sector

Despite growth in manufacturing employment during the late 1980s and in recent years, employment in most manufacturing subdivisions fell between 1986 and 2003. This is illustrated by Figure 3.5, which shows the change in the number of persons employed by manufacturing subdivision between 1986 and 2003. Only the "food, beverage and tobacco" manufacturing, "machinery and equipment" manufacturing and "printing, publishing and recorded media" subdivisions experienced increases in employment over this period. Growth for the first two subdivisions largely reflects growth experienced over recent years in response to a significant increase in overseas exports as mentioned above, and to a lesser degree, stronger domestic sales.

Food, Beverage & Tobacco Machinery & Equipment Printing, Publishing & Recorded Media Non-Metallic Mineral Product Other Manufacturing Wood & Paper Product Petroleum, Coal, Chem & Assoc Product Metal Product Textile, Clothing, Footwear & Leather -5.0 -1.0 0.0 1.0 2.0 3.0 -4.0 -3.0 -2.0Number ('000)

Figure 3.5
Change in Persons Employed in Manufacturing Subdivisions
South Australia – 1986 to 2003, Year Average

Source: ABS, AusStats, Data Cubes, Labour Force, Cat. No. 6291.0.

The "textile, clothing, footwear and leather manufacturing" (TCF) subdivision experienced the largest aggregate fall in employment of any sector between 1986 and 2003, with employment falling by a little over 4,000 persons over this period. In fact, as data in Table 3.3 reveals, TCF was the only subdivision to experience a fall in employment in all three periods examined between 1986 and 2003. The decline of this sector is an ongoing phenomenon reflecting structural factors, especially substantial reductions in trade barriers for this once heavily protected industry, which has exposed it to competition from international producers.

There was also a large fall in employment in the "metal product manufacturing" subdivision between 1986 and 2003 (down almost 3,000 persons), while there were smaller falls in the "petroleum, coal, chemical and associated product", "wood and paper product", "other manufacturing" and "non-metallic mineral product" manufacturing subdivisions.

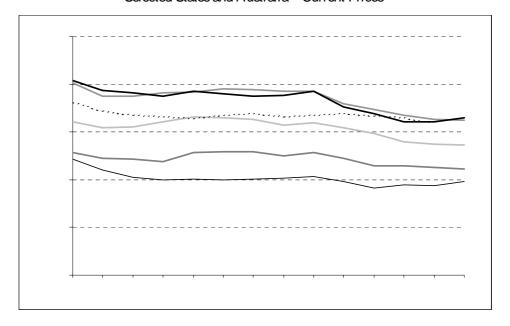
With employment growth being concentrated in "beverage and malt" and "motor vehicle and part" manufacturing, the South Australian manufacturing sector has become more narrowly based. These two groups' share of total manufacturing employment has increased from 17 per cent in 1986 to 25 per cent in 2003. This indicates that changes affecting these sectors will have a relatively greater impact on the manufacturing sector in South Australia (e.g., job losses at Mitsubishi). However, any negative impacts are likely to be more significant for workers seeking manufacturing jobs rather than the broader State economy itself. This is because the State economy has become more diversified and less dependent on manufacturing to hetrn8.1(er)s-4.3(n)-2.1(g-pla manufacturing sector than it was in the 1980s and early bigger challenge for policy makerseffectively leverage manufacturing workers who become unemployed to other sectors of the economy given the limited job opportunities available 6 6 in manufacturing.

4. Other Aspects of the South Australian Manufacturing Industry This section examines particular aspects of the performance of the South				
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The relative importance of manufacturing to the aggregate economy has fallen in all States, including Queensland and Western Australia despite their experience of substantial growth in manufacturing on the back of strong population growth. This is illustrated by Figure 4.2, which shows that manufacturing's share of TFI for the whole economy fell in all States and Australia between 1989-90 and 2002-03. The manufacturing sector's share of TFI for the South Australian economy fell from 20 per cent in 1989-90 to 17 per cent in 2002-03, while the share at the national level fell from 16 per cent to 13 per cent over this period.

Figure 4.2

Manufacturing Factor Income as Proportion of
Total State/National Factor Income
Selected States and Australia – Current Prices



Productivity Commission estimates that 50 per cent of household income was devoted to consumption of services in 1959-60 compared to 65 per cent by 2002-03.

In its report on *Trends in Australian Manufacturing*, the Productivity Commission concluded that rising incomes and changing consumer preferences were the most important determinants of the *relative* decline of manufacturing over the long term. The Commission also examined other potential contributing factors, including:

- statistical transfer resulting from outsourcing of activities; and
- shifting trade patterns.

Figure 4.3

Table 4.1 Manufacturing Sector Private New Capital Expenditure Selected States and Australia – Select Years

	NSW	VIC	QLD	SA	WA	Australia
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\$ million – constant prices

An important point to pick up from Figure 4.4 is how significant manufacturing is to South Australian exports, and how this importance has increased over time. The share of manufactured goods in South Australia's total overseas goods exports increased from 55 per cent in 1988 to 68 per cent in 2002. In comparison, manufactured export goods share of total goods exports for Australia rose from 57 per cent in 1988 to a peak of 66 per cent in 1995, and then fell steadily to 58 per cent in 1998. The stronger rise in the share of total manufactured exports for South Australia reflects stronger growth in exports of manufactured goods — exports of all other goods in total grew as strongly for South Australia as for Australia as a whole over the period examined.

Interestingly, the rise in total exports of manufactures between 1988 and 2002 reflected greater exports across all manufacturing subdivisions (refer Table 4.2).²³ The largest rises over this period occurred for the "machinery and equipment" (\$2.0 billion) and "food, beverage and tobacco" (\$1.8 billion) sectors, while there were also significant rises in the "metal product" (\$0.7 billion) and "petroleum, coal, chemical and associated product" (\$0.3 billion) sectors.

Table 4.2 South Australian Exports of Manufactured Goods by Subdivision

	1000	1002	1007	2000	2002	Change: 88 to 03	
1988	1992	1990	2000	2002	\$m	AAGR*	

Food, Beverage & Tobacco

internationally competitive. As Figure 4.5 shows, the Australian dollar fell to a low level against the trade weighted index and US dollar in the 1990s. The floating of the Australia dollar in December 1983 contributed to the fall in the exchange rate as the Australian dollar was exposed to market forces and no longer kept artificially high.

Figure 4.5
Australian Dollar in Trade Weighted Index and US Dollar Terms

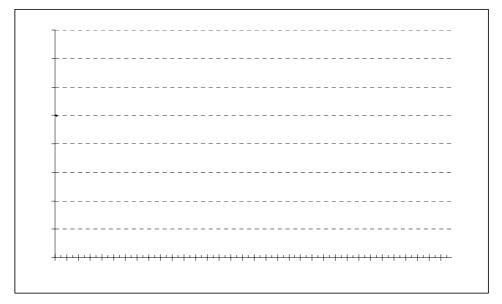
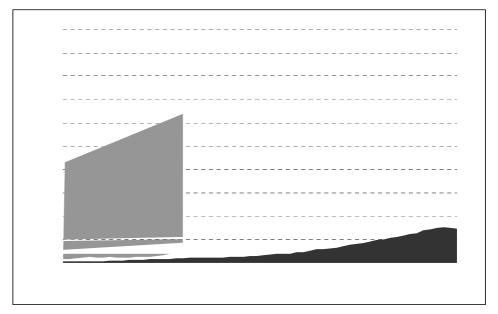


Figure 4.6
Road Vehicle, Beverage and Other Exports
South Australia – December Quarter 1988 to September Quarter 2003



Economic Issues

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Nevertheless, employment in South Australia's manufacturing sector did fall sharply in the 1990s. The decline was brought on by the recession which was accentuated by the State Bank collapse. However, it also reflects longer term pressures such as labour-saving technological change, reductions in subsidies and protection coupled with greater competition from imports, and shifts in consumer preferences, particularly towards services. It is likely that these pressures have been steadily building up over time with the recession acting as a trigger that led to the downsizing and collapse of uncompetitive firms.

Perhaps more importantly, the relative decline of manufacturing reflects an ongoing long-term trend whereby economic growth has been increasingly concentrated in the services sector. This relative decline is evident in almost all developed economies and at the domestic level even in those States which have been successful growing the aggregate size of their manufacturing sector, i.e., Western Australia and Queensland. The decline ultimately stems from those longer-term pressures mentioned above with the shift in consumer preferences towards services appearing to be the most dominant factor.

The long-term relative decline of manufacturing as an employer points to several important policy implications. Firstly, it suggests that policies designed to artificially support the manufacturing sector will ultimately fail, serving only to prolong the adjustment process, and thus delay the eventual benefits derived from an economy geared more heavily towards areas of natural comparative advantage. Secondly, there is the significant challenge of leveraging workers from the manufacturing sector who become unemployed to other sectors of the economy given the lack of job opportunities in manufacturing.

Finally, while the decline in manufacturing employment has had negative consequences, particularly for those persons who have become unemployed, the decline reflects a positive underlying shift, namely the reorientation of the State economy away from fragile inward-looking activities with little potential for growth, towards more outward-looking and competitive activities. Importantly, this shift has also occurred within manufacturing, with uncompetitive activities and firms receding, while competitive activities and firms, such as those in motor vehicle and parts manufacturing, electronics, food and beverage processing, have grown strongly, making positive contributions to employment, exports and investment. Importantly, growth in these sectors has been driven by structural factors, such as an emphasis on developing overseas markets and growing exports, investing in research and development to improve productivity and product quality, and improving competitiveness to compete on an international basis. It follows from this that policies that seek to facilitate and promote such factors are the key to growing manufacturing activities and other sectors of the economy.

References

Anderson, K. (2000), Lessons for Other Industries from Australia's Booming Wine Industry, Centre for International Economic Studies, Policy

End Notes

- Economic Issues No. 5, 'The South Australian Labour Market Through the 1990s', SA Centre for Economic Studies.
- For instance, South Australia had an annual average growth rate in Gross State Product between 1990-91 and 1999-00 of 2.0 per cent, which compares with 3.4 per cent for Australian Gross Domestic Product the corresponding national aggregate.
- ³ SACES (2003), p. 16.
- McLean (1989).
- ⁵ Productivity Commission (1999, p. 135).
- McLean (1989) provides a brief overview of the role of the Butler and Playford administrations in developing local manufacturing.
- A list of structural problems is presented in Productivity Commission (1999, p. XVI).
- ⁸ Parham, D. (2002).
- Productivity Commission, (1999b, p. 50-53).
- ¹⁰ Industry Commission (1998, p. 40-46).
- 11 Productivity Commission (2003, p. 148).
- For more information see Rogers, C. (1993).

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