

University of Wollongong Research Online

Faculty of Business - Economics Working Papers

Faculty of Business

1999

Trade Policy Reform and the textile, Clothing and Footwear Industry, Australia: 1993-97

Kankesu Jayanthakumaran University of Wollongong, kankesu@uow.edu.au

Publication Details

Jayanthakumaran, K, Trade Policy Reform and the textile, Clothing and Footwear Industry, Australia: 1993-97, Working Paper 99-18, Department of Economics, University of Wollongong, 1999.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au



University of Wollongong Department of Economics Working Paper Series 1999

Trade Policy Reform and the Textile, Clothing and Footwear Industry, Australia: 1993-97

Kankesu Jayanthakumaran

WP 99-18

TRADE POLICY REFORM AND TEXTILE CLOTHING AND FOOTWEAR INDUSTRY: AUSTRALIA 1993-97*

by

KANKESU JAYANTHAKUMARAN

Abstract

Textiles, clothing and footwear (TCF) industries in Australia experienced extensive trade reforms in the 1990s, which were expected to promote a competitive TCF activities. This paper examines two hypotheses of one (1) trade reforms have had a positive impact on TCF industries and the other (2) trade reforms have had an adverse impact on Small and Medium Enterprises (SMEs). Selected growth performance variables were intensively analysed. The results of the study are consistent with the hypothesis (1) but are inconclusive with the hypothesis (2). It was found that the positive productivity effect of SMEs does not appear to have been translated into export gain. The needs for further research to identify and focus upon the barriers inhibiting the export performance of SMEs is suggested.

Introduction

The agreement on liberalising trade and investment in the World Trade Organisation (WTO) and the Asia Pacific Economic Cooperation forum (APEC) accelerated the need for the removal of protection in Textiles, Clothing and Footwear (TCF) industries in Australia in a planned manner¹. TCF enterprises in Australia required improved efficiency to survive and grow within the context of worldwide intense competition. On the supply side there was: a growth in supply due to the emergence of China, Indonesia, the Philippines and the other low-wage countries as major suppliers; the emergence of OECD countries responding to the Asian competition; and, finally, the emergence of micro-electronic based capital goods for producing clothing. On the demand side there was a slow growth in demand for TCF products in OECD countries².

Australian TCF industries enjoyed special treatment from the government and experienced extensive trade reforms in the 1990s. This paper focuses on the issue as to the effects of recent trade reforms on the performance of the TCF industries as a whole and the performance of Small and Medium Enterprises (SMEs) specifically. The productivity growth, export growth and changes in price-cost margins are estimated as performance measures of this industry at the 4-digit level. A set of indicators of trade liberalisation is used to explain change in performance in a cross-sectional regression model. We conduct the analysis over the period 1993/94 to 1996/97. Also we compare the SMEs' performance with overall industry performance. The first section of the paper discusses TCF industries in Australia focusing upon trade policy reforms, industry structure and performance. It also reports SMEs structure and performance. The second section considers the methodology used in this study. The third section reports the results and the final section draws conclusions.

TCF industries in Australia

For most of the period from 1968 to 1992 TCF industries have received both tariff and non-tariff incentives. The introduction of quantitative import restrictions to TCF industries in 1974/75, and increased level of tariffs over time, was mainly to protect them from import competition. The initiation of a seven-year program of assistance in 1980, and bounty assistance to local production of most yarn in 1982, increased the effective protection of these industries³. The quotas built-up over time remained until the early 1990s. As a result TCF industries received the highest average effective rate of protection of 46 per cent for textiles, 84 per cent for clothing and 91 per cent for footwear even in

1991/92, compared to 13 per cent for all manufacturing (Appendix 1).

TCF industries were subject to a substantial increase in wage costs after 1974 partly due to an increase in real wages in the economy as a whole, and partly due to the introduction of wage parity for female workers following the 1972 Equal Pay Decision of the Arbitration Commission. Lloyd (1990) noticed that a substantial increase in wage costs after 1972 reduced the competitiveness of these industries. Australian TCF industries as a whole were net importers except for fibres such as wool; these industries in general were characterised as import competing. Anderson and Findlay (1995) employed a static analysis on costs of protection and concluded that the labour intensive TCF industries experienced a comparative disadvantage and generated tremendous costs especially to consumers due to higher assistance in the 1970s and 80s. They have shown that protection in TCF industries is costly, and tariffs would be relatively more efficient tools than that of quotas.

Import restriction by quota was no longer available for TCFs from 1993. The move to eliminate non-tariff barriers completely in TCF industries in 1993 and to reduce tariff barriers over time have been described as a major breakthrough in bringing about greater efficiency and competitiveness. Tariff protection was the only instrumentality of protection and tariff rates were substantially reduced in 1991. The Industry Commission (1995) estimated that the nominal tariff rates would be 21 per cent for clothing and 15 per cent for footwear and most textile industries by the year 2000.

Removal of quotas and phased tariff reductions increased the exposure of these industries to the forces of global competition and demanded restructuring in order for them to be competitive. For restructuring, sector-specific budgetary assistance from Commonwealth Government has been granted. For example, research and development tax concessions, export market development grants, infrastructure development grants and capital grants, allow exporters to earn credits on import duties and allow duty-free reimportation of certain types of Australian value-added contents⁴. As a result the average effective rate of assistance would be 15 per cent for textiles, 33 per cent for clothing and 24 per cent for footwear compared to 5 per cent for all manufacturing by the year 2000.

TCF industries contributed 5 per cent of total manufacturing output and employed 9 per cent of the manufacturing labour force in 1994/95 (Industry Commission 1997c). TCF manufacturing is broad and diverse covering varied activities such as wool scouring and top making, leather tanning, spinning, weaving, knitting, design and fabrication of clothing, leather and shoes and textiles. Much of the output is used as inputs within the sector. TCF activities in Australia have traditionally been characterised as receiving extensive government support, employing micro-electronic based machinery for producing clothing especially in large enterprises and having relatively more SMEs involving labour-intensive technology.

TCF industries are less dominated by large firms and highly geographically concentrated. The top four TCF enterprises accounted for around 15 per cent of TCF turnover and value-added. Larger firms are relatively more involved with activities closer to the raw materials and the activities that require capital intensive processes. For example spinning and weaving have been dominated by large firms. TCF industries are heavily concentrated in Victoria and New South Wales.

Table 1 indicates the industry structure in 1996/97. SMEs in TCF industries contributed 78.2 per cent of employment, 58 per cent of wages and salaries, 75 per cent of turnover and 73.4 per cent of gross output within the sector. Small business is defined as businesses which employ less than 20 persons and the medium sized business is defined as businesses which employ less than 200 persons (ABS 1997b). The role of SMEs is prominent in TCF industries compared to all other manufacturing in Australia. In the manufacturing sector as a whole, SMEs have contributed 65.9 per cent of employment, 58 per cent of wages and salaries, 54.5 per cent of turnover and 59.4 per cent of gross products.

Employment size	Employment		Wages and salaries		Turnover		Gross products	
	TCF	ALL	TCF	ALL	TCF	ALL	TCF	ALL
Small-Less than 20	35.5	24.9	24.1	17.1	23.1	14.8	25.7	19.1
Medium-Less than 200	42.8	41.0	48.0	40.9	51.9	39.7	47.7	40.3
persons								
Large-200 and more	21.7	34.1	27.9	42.0	25.0	45.5	26.6	40.6

Table 1: Industry Structure: TCF and All Manufacturing 1996/97 (in percentage)

Source: ABS, Manufacturing Industry 1996/97

TCF industries as a whole have contracted as a result of a drop in assistance and low growth in domestic and foreign demand for TCF products. The Industry Commission (1997c) has shown that a number of companies producing labour-intensive footwear and clothing moved some of their operations offshore and are importing a substantial proportion of their range. Another observation is that reform programs caused job losses in TCF manufacturing. However, increased employment in the TCF distribution sector offset about half the jobs lost in TCF manufacturing. A number of industries such as wool scouring, leather and leather product manufacturing, fabrics and textile products gained market share at the expense of imports. These products contributed about 69 per cent of TCF exports. There has also been rapid growth in exports of finished apparel in the recent past.

	TCF	All manufacturing
Proportion of firms making a	79.9%	78.2%
profit		
Profit margin	6.3%	9.2%
Return on assets	10.3%	10.4%
Return on net worth	35.3%	23.8%
Training expenditure to wages	1.8%	1.9%
and salaries		
Share of firms undertaking	8.3%	17.1%
innovation		
Exports directly to firms	71.7%	73.5%
overseas		
Exports per employee (\$'000)	71.5	54
Firm proportion exporting	9.7%	14.2%

Table 2: Performance: SMEs in TCF and All Manufacturing 1994/95

Source: Industry Commission (1997b)

The Industry Commission (1997c) noted poor linkages between producers and processors, especially in the wool and leather sub-sectors, and this was a structural weakness in this industry. Australia is the world's largest producer of apparel wool and a significant producer of cotton and animal hides and skins. Traditionally the bulk of these

products are exported after only rudimentary processing.

SMEs in TCF industries performed relatively well in the following compared to all manufacturing; making profits, return on assets, return on net worth, exports directly to firms overseas and exports per employee. Innovation and training in this sub-sector is low compared to all manufacturing. The Industry Commission (1997) found that there was an improvement in the aspects of innovation, training, technological sophistication and managerial skills following the reduction of assistance⁵.

Methodology

To test the hypothesis (1) that trade reforms have had a positive impact on performance in TCF industries we have estimated a number of performance variables and run regressions relating performance variables and trade variables. Performance variables are labour productivity growth, export growth and price-cost margins. Trade variables are effective rate of protection and internal and external demand. If the changes in one of the trade policy variables are significantly related with the performance variables with the expected sign, then it supports our hypothesis.

Variables used in this study are defined as follows:

- Labour Productivity Growth (GLP): Labour productivity growth is defined as (a) value-added per worker (GLP1) and (b) output per worker (GLP2) and both at constant 1989/90 prices; GLP is growth in labour productivity expressed in natural logarithms.

$$GLP(1) = Log(\frac{V}{W})_{1996/97} - Log(\frac{V}{W})_{1993/94}$$
(1)

$$GLP(2) = Log(\frac{O}{W})_{1996/97} - Log(\frac{O}{W})_{1993/94}$$
(2)

Where V is value-added, W is wages and O is output.

- Export Growth (GEXP): GEXP is growth in exports at constant 1989/90 prices at the 4-digit level.

$$GEXP = Log(EXP)_{1996/97} - Log(EXP)_{1993/94}$$
(3)

- Changes in Price-Cost Margins (CPCM): Change in price-cost margins is defined as follows:

$$CPCM = Log(\frac{V-W}{O})_{1996/97} - Log(\frac{V-W}{O})_{1993/94}$$
(4)

where V, W and O are as defined above. All variables are at current prices. A fall in this indicator reflects more competitive pricing.

- Change in Effective Rates of Protection (CERP): Effective Rates of Protection (ERP) is defined as domestic value-added to world value-added; a fall in ERP over time means increased trade liberalisation and referred to as CERP. These estimates are based on actual price comparisons rather than on scheduled tariff rates, they are supposed to capture the impact of both tariff and non-tariff barriers on trade.
- Change in Internal Demand (CIND): CIND is defined as change in internal demand at constant prices; total sales less exports for each branch.
- Change in Export Share in Total Sales (CXS): CXS is an export intensity variable defined as change in exports in total sales at constant prices; reflecting external demand.
- Trade Balance (TB): TB is defined as exports less imports for the branches concerned.

To test the hypothesis (2) that trade reforms have had an adverse effect on SMEs we have computed annual average growth in the output to worker ratio (GLP2) and exports (GEXP) for SMEs and compared them with the overall annual average growth of TCF industries. A fully comparable analysis is not possible because of lack of data for SMEs. GLP2 and GEXP are as defined above.

Data relating to number of workers, wages, value-added and output for the overall TCF industry have been obtained from surveys and census of ABS-Manufacturing industry for 1992/3 and 1996/7. Value-added for 1996/97 for the overall TCF industries has been obtained from the ABS on request, as this was not available in the Annual Census 1996/97. The census and surveys cover all manufacturing establishments in the states, government-owned business undertakings and private establishments. The disaggregated figures for imports and exports for 1992/93 and 1996/97 have been obtained from ABS-Customs on request. The estimates of effective rate of protection are available from the Industry Commission.

Data relating to number of businesses, output, number of workers, number of exporters and value of exports for the years 1994/95 and 1996/97 for the SMEs have been obtained from ABS- Business Longitudinal Survey on request. All business units in the Australian economy were included in the scope of the survey except non-employing business and government enterprises.

Results

We have analysed the growth performance between 1992/93 and 1996/97 at the 4-digit level taking 18 observations from the TCF industry as a whole. We have also analysed the growth performance of SMEs between 1994/95 and 1996/97 at the aggregate level. SMEs data is classified into age of business, ownership and legal status. Our calculations are limited by data constraints. Since we do not have SMEs data at the branch level and not before 1994/95 we used the aggregate level data for 1994/95 and 1996/97. The immediate effects of trade reform on SMEs cannot be captured and this would be the major limitation of this study.

Performance: Entire TCF industry

Table 3 indicates those TCF industries as a whole that have achieved a positive annual average growth in exports and output to worker ratio (GLP2) and internal and external demand. Wool scouring and leather manufacturing has generated a positive annual average growth in value-added to worker ratio (GLP1) and positive trade balance. The TCF industries as a whole have failed to generate growth in the value-added to worker ratio (GLP1). In addition, TCF industries as a whole have generated a negative trade balance. TCF activities as a whole generated negative annual average growth in price-cost margins.

ANZSIC*	GLP(1)	GLP(2)	CPCM	GEXP	CIND	CXS	CERP	TB93	TB97
2211	0.0278409	0.1098688	-0.0499742	0.0878808	0.2567895	0.0079271	6	1043473.9	1250738.7
2212	0.1286014	0.0292922	0.256812	0.245132	-0.0200905	0.2730277	-83	-914638.69	-780368.02
2213	-0.1178786	-0.1060653	-0.1662228	0.3375131	-0.0642566	0.1686385	1	-484631.31	-374867
2214	-0.0998433	-0.0013511	-0.2198266	0.3861598	0.0975079	0.5013634	5	-68827.931	-78421.796
2215	-0.0589394	0.1356764	-0.2063786	0.1984249	0.1782143	0.2093695	-16	-11143.644	-16288.596
2221	-0.1291901	0.0259564	-0.3397984	0.1032316	0.1441798	-0.0035617	-19	-50761.96	-61205.822
2222	-0.0738833	0.0113777	-0.1226419	0.3002252	0.1483397	0.3276488	-10	-101487.73	-128152.21
2223	-0.1871531	-0.0857454	-0.2274068	0.4797408	0.018796	0.3619871	-10	-28174.341	-26299.237
2229	-0.1278049	-0.1366118	-0.0266879	0.1736682	0.0878192	0.087578	-9	-160517.45	-169691.56
2231	0.0008596	0.1020888	-0.0526779	0.1579791	0.116157	0.1726073	-21	-21891.253	-25866.855
2232	0.1125816	0.111911	0.1729957	0.2492315	0.0874248	0.1952001	-41	-151739.48	-164014.91
2239	-0.0229062	0.0442246	-0.1301916	0.4568686	0.0288249	0.4000699	-20	-86882.319	-133348.75
2241	-0.0294763	0.0143058	-0.0453433	0.3079684	0.2112792	0.2963259	-17	-323774.59	-471925.94
2242	0.0761609	0.1300247	0.0515358	0.3430373	0.1808034	0.1921362	-15	-222581.53	-300142.11
2243	0.0252362	0.0020019	0.0742823	0.2813446	0.1729068	0.3475171	-28	-178455.07	-239378.11
2249	-0.1213563	-0.0892088	0.0360384	0.1678061	0.1459744	0.0926378	-12	-131097.72	-156784.5
2261	-0.0214117	0.110063	-0.1520967	0.2347229	0.0015434	0.1520959	-21	151443.52	315385.94
2262	0.0268592	0.058333	0.0208696	0.1700793	0.1112724	0.0192376	20	-216624.15	-298789.72
22	-0.0229244	0.0180864	-0.0042116	0.1684763	0.0569033	0.11819		-1958312	-1859420

Table 3: TCF Performance: 1993/94 to 1996/97

Note:

* (2211) Wool scouring, (2212) synthetic fibre textile manufacturing, (2213) cotton textile manufacturing, (2214) wool textiles manufacturing, (2215) textile finishing, (2221) made-up textile product manufacturing, (2222) textile floor covering manufacturing, (2223) rope, cordage and twine manufacturing, (2229) textile product manufacturing, (2231) Hosiery manufacturing, (2232) cardigan and pullover manufacturing, (2239) knitting mill product manufacturing, (2241) men's and boys' wear manufacturing, (2242) women's and girls' wear manufacturing, (2243) sleepwear, underwear and infant clothing, (2249) clothing manufacturing, (2261) leather tanning and fur dressing, (2262) leather and leather substitute product manufacture and (22) textiles clothing and footwear.

Source: Author's Calculations

Equation	Sample	Dependent	Independ	lent variable	es				
No.	size	variable	CERP	CIND	CXS	GLP1	Constant	R	F
1	18	GEXP	-	262	.798***		.161***	.76	23.3***
2	18	GLP1	595*	-	-		007**	.35	8.7*
3	18	CPCM	623*	-	-		14**	.35	10.2**
4	18	CPCM	-	-	-	.773**	*002	.57	23.8***

 Table 4: Regression Results: TCF Performance

Note: *** significant at the 1% level; ** significant at the 5% level; * significant at the10% level.

Table 4 shows the regression results. We have related growth in exports (GEXP) with change in internal demand (CIND) and the change in export share (CXS). The change in export share is positively and significantly (at the 1% level) related with export growth; reflecting the rising external demand for TCF activities. Internal demand is negatively related with growth in exports indicating that rising internal demand diverts goods from the export market. However they are not significantly related (Equation No.1).

As expected there was an inverse but weakly significant (at the 10% level) relationship between labour productivity growth and change in the effective rate of protection (Equation No.2). This implies that a fall in protection is associated with higher productivity growth.

The change in price-cost margins (CPCM) was negatively and significantly (at the 10% level) related with change in effective protection (Equation No.3). The unexpected negative sign implies that the lower is protection the higher the price mark-ups. Another observation is that a change in price-cost margins is positively and significantly related with growth in labour productivity (Equation No.4). The implication is that productivity

gains are passed on to producers as higher profit margins. The productivity gain has not been passed on to consumers in lower prices. In other words rising import competition in the TCF activities has failed to induce more competitive prices.

Performance: SMEs in the TCF industries

Table 5 indicates the performance of SMEs. SMEs have generated a positive annual average growth in the output to worker ratio (GLP2): the businesses operating 5 to 10 years, the domestic firms and the sole proprietors and partnerships have shown a positive annual average growth. We can also note a positive annual average growth in a number of firms: 2 years to less than 10 years, domestic firms and sole proprietors and partnerships have shown positive growth. A negative annual average growth is noted in number of workers in most of the categories: except 5 to less than 10 years and partnerships.

SMEs have achieved a negative annual average growth in exports (GEXP). The businesses operating 5 to 10 years and 10 to 20 years have generated a positive annual average growth in exports. The businesses with 100 per cent domestic ownership and 50 to 100 per cent foreign ownerships generated negative growth rates in exports. Export data for sole proprietors and partnerships for the year 1996/7 is not available. We can also note a negative annual average growth in the number of exporters for the SMEs as a whole. The number of exporters has grown among foreign ownership of between 50% to 100 per cent.

	No of Business	Output	Workers	GLP2	Exporters	Exports
Age	Growth	Growth	Growth	Growth	Growth	GEXP
2 to less than 5	0.1056818	-0.543844	-0.1334156	-0.4104285	NA	NA
5 to less than 10	0.1507106	0.3266551	0.1304967	0.1961584	-0.1660609	1.523048
10 to less than 20	-0.0043929	-0.1111016	-0.1776311	0.0665295	-0.2064739	0.3937665
20 or more	-0.0041166	0.0464608	-0.0226004	0.0690612	-0.1941895	0.5404598
Total	0.0097327	-0.0566632	-0.0729412	0.0162779	-0.1722394	-0.0462729
Foreign Ownership						
None	0.0140107	-0.0548931	-0.0783109	0.0234178	-0.2566757	-0.1232153
50%-100%	-0.1185046	-0.0462887	-0.0083597	-0.037929	0.0992512	-0.0145286
Total	0.0097327	-0.0566632	-0.0729412	0.0162779	-0.1722394	-0.0462729
Legal status						
Sole proprietor	0.0968021	0.2111588	-0.1249887	0.3361475	NA	NA
Partnership	0.0910232	0.5849234	0.1063366	0.4785868	NA	NA
Company	-0.0205806	-0.0762186	-0.0751653	-0.0010534	-0.2058962	-0.0526224
Other	-0.1454675	-0.2143507	-0.2015584	-0.0127922	0.0086002	0.1937212
Total	0.0097327	-0.0566632	-0.0729412	0.0162779	-0.1722394	-0.0462729

Table 5: Performance Results: SMEs 1994/95-1996/97

Note: NA- Not Available

Source: computed

From Tables 3 and 5, the annual average growth in output to worker ratio (GLP2) and exports (GEXP) were 1.8 per cent and 1.7 per cent for the TCF industries as a whole and 1.6 per cent and – 0.04 per cent for the SMEs. Positive productivity growth of SMEs reflects the efficiency gain over time; we do not relate the efficiency gain with the removal of assistance. Negative export growth reflects the lack of export market penetration; we do not relate the negative export growth with the factors inhibiting the export performance of SMEs.

Conclusions

Our results do show that the TCF industries as a whole achieved a positive annual average growth in output to worker ratio (GLP2) and exports (GEXP). The annual average growth rates in value-added to worker ratio and exports are positive in wool and

leather processing industries indicating their efficiency gain and long-term viability. We can note that Lloyd (1990) and the Industry Commission (1997c) have derived similar conclusions.

We do find a weak relationship between trade liberalisation and productivity growth for the TCF industries as a whole, indicating the resource allocation in response to tariff changes between 1993-97. We do find that the export market share of TCF industries is the determining force of export growth; we do not find strong evidence for rising internal demand diverting goods from the export market; we do not establish a link between improvements in price competitiveness and greater exports. We do find that the productivity effect of TCF industries has not been passed on to consumers in lower prices; instead it remained as profits. There may be some element of monopolistic control at work in TCF activities, which is reflected through slow reductions in price ratios underlying the effective protection estimates. Here we can note a similarity between TCF activities and Australian manufacturing as a whole. Jayanthakumaran (1999) argues that some elements of monopolistic control are at work in the distribution sector of manufacturing activities as a whole, which allows higher price mark-ups by local producers of import-competing goods.

We do not find strong evidence to support hypothesis (2). SMEs have generated positive annual average growth in labour productivity and negative annual average growth in exports. Positive productivity growth estimates of SMEs unambiguously reflect the efficiency gain of SMEs. It is interesting to note that TCF industries as a whole generated positive export growth estimates but not SMEs. In other words, productivity gains of SMEs have not been translated into export gain. SMEs, in my opinion, tend to face greater difficulties in accessing foreign markets largely because of a number of unknown factors such as differences in market environment, problems of communication, problems of overcoming established networks and lack of international business know-how. Future research needs to identify and focus upon the barriers inhibiting the export performance of SMEs. Analyses of this type are rarely conclusive but the results indicate some preliminary improvements in performance in the TCF industry after the trade liberalisation of 1993.

Reference

- ABS (1996/97), Manufacturing Industry Australia, Catalogue No. 8221, AGPS, Canberra.
- ---- (1992/93 and 1996/97), Manufacturing Industry Australia, Catalogue No. 8221, AGPS, Canberra.
- Anderson, K. and Findlay, C. (1995), Policies Affecting Australia's Primary Sectors, in Richards P. (ed), Australia's Trade Policies (Melbourne: Oxford University Press).
- Dixon, B. Peter and McDonald, D. (1993), An Explanation of Structural Changes in the Australian Economy: 1986/87 to 1990/91 (Economic Planning Advisory Council, Background Paper No.29).
- Industry Commission (1995), Assistance to Agricultural and Manufacturing Industries-Information Paper, AGPS, Canberra.
- Industry Commission (1997a), Micro-Economic Reform Scoreboard Annual Report Series, AGPS, Canberra.
- Industry Commission (1997b), A Portrait of Australian Business: Results of the 1995 Business Longitudinal Survey, Small Business Research Program - DIST Publication No. 007/97, Melbourne.
- Industry Commission (1997c), The Textiles, Clothing and Footwear Industries, Vol. 1-2 Report No. 59, Melbourne.
- Jayanthakumaran, K.(1999), Trade Reforms and Manufacturing Performance: Australia 1989-97, University of Wollongong, Department of Economics, Working Paper Series, WP 99/13.
- Lloyd, P.J.(1990), Textiles, Clothing and Fibres in Australia and New Zealand, Pacific

Economic Papers No.185, ANU, Canberra.

² Proportion of total consumption allocated to clothing and footwear has fallen by 29 per cent in Australia, 20 per cent in Italy, 19 per cent in the United Kingdom, 19 per cent in France and 17 per cent in the United States between 1980 to 1995. Nearly half of this can be attributed to declining relative prices, without any changes in the quantity demanded (Industry Commission 1997c).

³ The two forms of bounty assistance provided to TCF industries; specific output bounties were paid as a fixed dollar amount per unit of physical output; value-added bounties were paid as some proportion of value-added in production. The effect of a bounty for producers is similar to an equivalent tariff.

⁴ As adjustment assistance the Best Practice Program, Supply Chain Partnership Program, TCF Handbook and On-line Access Project, Quality and Business Improvement Program and TCF 2000 Benchmarking Project were currently in operation. In addition, a TCF Advisory Board has been established to advise the Government on issues confronting TCF industries.

⁵ Detailed performance data for textiles, clothing and footwear is not available.

Year	Textiles	Clothing	Footwear	All manufacturing
	NRA ERA	NRA ERA	NRA ERA	NRA ERA
1975/6	23 50	47 96	51 107	16 28
1976/7	24 51	65 148	55 121	15 27
1977/8	24 47	70 140	60 151	15 23
1978/9	24 47	69 140	60 153	15 24
1979/80	27 51	68 137	56 143	15 23
1980/1	28 55	66 135	63 161	15 23
1981/2	26 54	90 216	88 229	16 25
1982/3	23 68	72 189	71 232	13 21
1983/4	23 69	81 222	102 >250	13 22
1984/5	25 75	90 243	106 >250	13 22
1985/6	23 72	56 136	50 123	12 20
1986/7	23 68	64 168	64 185	12 19
1987/8	22 65	67 167	55 164	11 19
1988/9	24 72	67 159	63 217	10 17
1989/90	19 53	67 105	58 111	9 15
1990/1	18 51	66 106	61 116	8 14
1991/2	16 46	54 84	49 91	8 13
1992/3	14 41	44 66	35 67	7 12
1993/4	12 37	39 59	31 60	6 10
1994/5	11 33	36 54	28 54	5 9
1995/6	10 27	33 50	25 50	5 8
1996/7	9 25	30 47	23 46	4 6
2000/1	6 15	21 33	13 24	3 5

Appendix 1: Nominal and effective rates of assistance (in %): 1975/76 to 1996/97

Note: NRA- Nominal rate of assistance, ERA-Effective rate of assistance

Source: Industry Commission (1997c)

^{*} I am grateful for comments from Associate Professor Charles Harvie, Dr.Ann Hodgkinson and Dr. Moktar Metwally. Financial support from the Department of Economics, University of Wollongong is gratefully acknowledged.

¹ Under the WTO Textile and Clothing Agreement (TCA), all quantitative restrictions (Multi Fibre Agreement) are scheduled to be phased out over a ten year period ending 1 January 2005. Australia has committed itself to WTO and APEC liberalising trade and investment. ² Proportion of total consumption allocated to clothing and footwear has fallen by 29 per cent in Australia,