# The Victorian Government's Final Policy Contribution to the Productivity Commission Inquiry into the Textiles, Clothing and Footwear Industry

### Introduction

The Victorian Government welcomes the Productivity Commission's inquiry into the Textile, Clothing and Footwear (TCF) industry – an industry that has faced considerable upheaval and is rapidly adjusting to change in order to survive and grow. It is pleasing that in its Position Paper, the Productivity Commission (PC) has acknowledged a number of important factors – that there has been enormous change in the TCF industry over the past 10 years (a reduction in national output or value added from \$3.6b to \$2.6b between 1991 and 2001 and a reduction in national employment from 91,000 to 58,000 over the same period) and that a pause in trade liberalisation at least until 2010 is needed to give the industry time to adapt to the changes already taking place. The PC has also acknowledged that the Strategic Investment Program (SIP) has played a critical role in assisting TCF companies to innovate and invest in new technologies, and that there is a need for continuing and targeted labour market assistance for employees affected by change in the TCF industry.

## Victorian Government's vision for the TCF Industry

The Victorian Government is strongly committed to ensuring that the TCF industry is a viable, innovative and sustainable industry into the future and actively supports the industry through various industry programs and initiatives such as the Melbourne Fashion Festival and the Mercedes Australian Fashion Week. The Victorian Government supports the principle of trade liberalisation, as it can lead to improved economic welfare. However, it is the Victorian Government's position that a policy drive to reduce tariffs should not be undertaken <u>unless</u> there is a set of principles in place to support the industry in making that transition. In its initial policy contribution, the Victorian Government advanced a vision for the industry, and outlined six principles that are necessary prerequisites for further trade liberalisation in the TCF sector:

- ongoing and adequate support for labour market adjustment;
- maintaining a critical mass of the manufacturing base in Australia;
- improving export market access;
- providing for increased innovation and R&D;
- developing a highly skilled and collaborative workforce; and
- encouraging inter-firm collaboration.

The PC's Position Paper acknowledges some of these factors as necessary ingredients for success in the TCF industry. However, it is the Victorian Government's view that the PC has not adequately addressed the needs of the industry, and that its recommendations fall short in a number of areas. This Submission addresses these key deficiencies. The Submission also outlines the consultation and research undertaken by the Victorian Government. There is also a section that provides information on Victorian Government taxes and charges in response to the PC's Position Paper comment that State Government taxes and charges have the potential to disadvantage Australian TCF firms in the international marketplace and hinder the transition to a lower assistance environment. The final section of this Submission responds to the PC's position on outworkers.

# Consultation

Since the Victorian Government made its initial policy contribution, it has undertaken significant consultation with Victorian industry and local communities. Given that almost half of the TCF industry is based in Victoria, it has been absolutely essential to ensure that the views of Victorian TCF companies are understood. Within the short time available, the Victorian Government has canvassed the views of TCF companies, industry groups, unions and local councils by holding forums and meetings with interested parties. This Submission is informed by the concerns of these and other stakeholders.

## Additional Victorian Government research

Since its initial policy contribution, the Victorian Government has commissioned the following research:

- the National Institute for Industry and Economic Research (NIEIR) was engaged by the Manufacturing Industry Consultative Council to undertake econometric modelling work on the likely impacts over 20 years of the PC's preferred approach on local government areas. The results of this work are at **Attachment A**;
- the Victorian Department of Treasury and Finance (DTF) has undertaken modelling of the PC's preferred position, using the MONASH general equilibrium model. These results form a valuable addition to existing econometric work undertaken and are at **Attachment B**; and
- the Centre for Work and Society in the Global Era (WAGE) at Monash University has been engaged to research the impacts of recent restructuring on the industry's employees. An important component of any industry restructure, particularly the TCF industry's, is how its employees adapt to that change. The results of this work will be available in late July and will be able to assist the Commonwealth Government in developing labour market assistance packages to meet the future needs of the industry, and to give greater consideration to ways of increasing labour mobility, particularly in regional Victoria.

#### Victorian Government's response to PC Position Paper

The Victorian Government is concerned that the PC has recommended a package of measures which includes tariff reduction and the eventual abolition of the SIP program, despite the following:

1. The PC has been unable to establish that national welfare gains would flow from significant tariff reductions in the TCF industry;

- 2. The PC has established (and this is supported by both DTF and NIEIR research) that tariff reductions (and SIP abolition) would lead to significant job and output loss in Victoria, including regional Victoria;
- 3. The Position Paper lacks serious consideration of ways to assist labour market adjustment following from further restructuring of the industry;
- 4. The SIP program has brought about significant innovation and capital investment in the TCF industry;
- 5. Unilateral tariff reduction would seriously jeopardise Australia's trade policy objectives and impact on the competitiveness of Australian firms that face ongoing market access barriers; and
- 6. The PC has not established that any competition resulting from tariff reductions would lead to lower prices for consumers.

These six areas of concern are addressed below.

#### **1.** Benefit of tariff reduction to national economic welfare

It has generally been accepted for many years that trade liberalisation leads to overall gains for an economy, as it increases the likelihood that scarce resources are allocated to their most productive use. Econometric modelling has generally supported this. However, the PC's inquiry into the TCF industry demonstrates that the debate has now shifted and it cannot be assumed that further liberalisation will result in any substantial national economic gain.

Econtech's modelling for the PC (on the impact of TCF tariffs reduced to 5% in 2010 and SIP abolished in 2010) shows that *at best*, liberalisation of the TCF industry would lead to a national welfare gain of 0.04%. The Centre of Policy Studies estimates the gain to be even more marginal, at 0.00%. Work by ACIL Tasman for the Council of Textile and Fashion Industries of Australia estimates a gain of 0.01-0.02% for the same scenario of tariff and SIP reduction. It is disappointing that the PC has not publicly released modelling of its preferred policy position. The Victorian Government has sought to fill this void by undertaking its own econometric work through the Department of Treasury and Finance. Its advisory body, the Manufacturing Industry Consultative Council, also commissioned NIEIR to model the PC's preferred approach.

The Victorian Department of Treasury and Finance used a version of the MONASH dynamic general equilibrium model to estimate the impact of the PC's preferred option at the national and state levels. It concluded that there would be a small national gain of 0.01% of GDP or \$70 million per annum. This reflects the removal of distortions in the use of resources as they are moved away from the protected industry to other industries (mainly export oriented mineral industries). These 'allocative efficiency' gains are partly offset by a fall in Australia's terms of trade, because exporters need to reduce prices on world markets to expand output.

The Victorian Government's Manufacturing Industry Consultative Council commissioned NIEIR to model the same option but using a base case from 2001. It estimated a long-term decline in GDP of 0.4%, and a corresponding drop in exports and employment in the industry (refer to Chart 1 in **Attachment A**).

Each of these models is based on different assumptions. The NIEIR model is an input/output model, and is therefore providing results at a point in time. Its strength is that it is able to show how different regions could be affected by trade liberalisation and the flow-on effects to other industries, both core considerations in any debate about industry restructuring.

The econometric models used all have their own limitations and the Victorian Government does not endorse the use of one model over another. The critical point is that despite the fact that each model is predicated on different assumptions, <u>not one</u> of them shows that there would be a real and substantial benefit to the Australian economy if tariffs were reduced in the TCF industry. The PC acknowledges this, when it states in its introduction (page xxiii) that "*removing special support for TCF production would provide little measurable allocative efficiency gain.*"

Thus the PC has not been able to establish that tariff reductions will lead to increased efficiency in the TCF industry. It is the Victorian Government's position that the Commonwealth Government ought not make policy decisions which would cause significant disruption to an industry of high national importance, and would place several thousand jobs at risk in Australia (9,000 TCF and 27,000 total jobs according to NIEIR), without establishing that it would lead to productivity or efficiency gains. The PC has instead based its rationale for change on a judgement call (referred to in the Overview of the Position Paper). This does not constitute robust policy making, and the Victorian Government calls on the Commonwealth Government to justify any decision it makes for the TCF industry on sound economic and social principles supported by extensive research, consultation and modelling.

#### 2. Impact on Victoria and regional areas

The PC has not paid sufficient regard to the impact of tariff reductions on regional Australia. While the national impact is uncertain, all of the modelling has demonstrated that Victoria, and in particular a number of regions in Victoria, will suffer disproportionately as a result of reducing TCF industry assistance after 2005. Econtech estimates a long-run decline in Victorian GSP of 0.4%, and the modelling undertaken by NIEIR estimates a decline of 0.6%.

In modelling the PC's preferred option, the Victorian Department of Treasury and Finance found a proportionally larger negative impact on Victorian GSP (around 0.02 per cent or \$36 million per annum). This was primarily due to around half of the TCF industry in Australia being concentrated in Victoria. This reflects an estimated long-run decline in the national output of the TCF industry of around 4% as a result of the proposed policy changes.

According to the Centre of Policy Studies, the five worst affected regions in terms of employment and regional activity will all be in Victoria - Barwon (Geelong), Melbourne, Wimmera, Central Highlands, Loddon-Campaspe and Ovens Murray. This is supported by Econtech modelling commissioned by the PC, which estimated that 5000 jobs in Melbourne and 1500 jobs in Western Victoria could be lost.

The work undertaken by NIEIR estimates the likely job and GSP impacts of the PC's preferred option. Overall it estimated that the implementation of the PC's preferred

option would lead to the loss of 6,300 TCF jobs, and 19,600 direct and indirect jobs in Victoria. It found that the local government areas most affected by job loss include Yarra, Whittlesea, Whitehorse, Greater Geelong and Wyndham. The local government areas that would experience the greatest reduction in GSP include Wangaratta, Whittlesea, Southern Grampians, Moreland and Wyndham. More detail on the impacts of tariff reduction by local government area is at **Attachment A**. The results of the work by NIEIR is also available on the Victorian Government website – www.business.vic.gov.au.

The Victorian Government is particularly concerned about the pressure that future reductions in industry assistance would place on key firms in regional centres. In regional centres such as Wangaratta and Geelong, TCF firms contribute significantly to the economy and the social fabric of the area, and a reduction in assistance would impact on jobs in the local area, both direct and indirect.

#### 3. Labour market adjustment

The PC acknowledged in its Position Paper that there are serious concerns about the ability of the TCF industry to adjust to further job losses and that there is a need for targeted support, given the characteristics of the TCF workforce. However, it does not provide any constructive suggestions on how to ameliorate the impacts of these adjustments. Labour market adjustment is a key concerns of the Victorian Government in relation to this industry. As past research by Weller and Webber (2001) demonstrated, a large proportion of employees in the TCF industry are older, unskilled females from non-English speaking backgrounds who find it extremely difficult to regain employment. Indeed, the research showed that five years after being retrenched, a third of the workers studied were still unemployed and only a third had found commensurate employment. Therefore it is not realistic for econometric modelling to assume labour market clearance in the TCF industry, which is characterised by employees with low mobility and skill transferability.

The PC has <u>assumed</u> that since 2001, economic conditions and the TCF workforce have changed such that the Weller and Webber results should be treated with caution (page 52 of the Position Paper). The Victorian Government has commissioned WAGE at Monash University to examine the post-retrenchment experiences of workers in the TCF industry. This research will be completed around late July and will provide more recent evidence of the experiences of the TCF workforce. It will be incumbent on the Commonwealth Government to utilise the results of the research in formulating necessary labour market adjustment programs.

Even with the already announced reductions in tariffs, it is generally acknowledged that the TCF industry will face further job loss in the coming years. It is essential that the Commonwealth Government has appropriate labour market programs in place to assist the industry in its adjustment <u>prior</u> to any policy implementation. There are many examples of planned labour market adjustment programs that have mitigated the impacts of policy change or unpredicted events.

The Victorian Government recently implemented a labour market adjustment scheme as part of the *Our Forests, Our Future* Program. The Victorian Government knew this policy would result in significant job loss in Victoria's forestry industry. It therefore implemented an industry transition program <u>at the same time</u> as the introduction of the policy. A package worth \$80m was provided for the industry (\$36m for worker assistance), which has been used to compensate retrenched workers (over and above award entitlements); provide relocation assistance to ex-employees; fund an incentive scheme for employers in other industries to employ ex-forestry workers; enable forestry workers to retrain; and offer counselling and training to employees both preand post-closure of firms in the industry. The scheme has led to the re-employment of over two thirds of those retrenched, and has enabled 600 workers and their families to remain in regional Victoria.

Another labour market assistance package which met with considerable success was implemented in response to the closure of a manufacturing company, the Bradmill Undare Group. Again, the critical component of the policy, *Life After Bradmill*, was that it assisted employees in the transition period, by providing assistance while they were still employed. The project was funded by the receivers of the company, and involved the employment of three project officers to deliver a range of services to 410 retrenched workers. The project ensured that workers received specialised and individual assistance to return to work, access further education and training, or to make a smooth transition to retirement. Over 70% of workers returned to the workforce and this was in areas of relatively high unemployment (the western region of Melbourne and a rural area of Victoria).

In summary, the Victorian Government firmly believes that it is <u>incumbent</u> on governments, when introducing major policy changes which will negatively impact on an industry's labour force, to ensure that there are mechanisms in place to assist workers. It is particularly important for this to occur prior to the contraction of the industry, as workers are most likely to be re-employed if they are seeking work and/or retraining *prior* to being retrenched. Such assistance needs to take the form of ongoing assistance in finding alternate employment, and in dealing with the vast array of employment providers, training providers and job search networks. There are a number of best practice models that could assist the Commonwealth Government in tailoring packages to suit the individual needs of TCF workers, who generally have low skill transferability and often lack English proficiency.

# 4. Reduction in Strategic Investment Program funding and its abolition

There is no doubt that investment in innovation leads to gains in the long term in the TCF industry, and extensive consultation with the TCF industry in Victoria has confirmed that SIP has been very successful in improving the long-term international competitiveness of the industry. In its Submission to the PC, the Australian Industry Group noted that its survey of 123 companies found that those firms which had accessed SIP funding were more focused on future growth strategies and technological improvement, and placed a higher value on boosting R&D activity and capital investment, compared to firms that did not receive SIP funding.

Modelling by NIEIR has confirmed the Victorian Government's belief that SIP plays a vital role in ensuring the industry's future competitiveness. It shows that the impact of SIP on output is both cumulative and long term (refer to **Attachment A)**.

Given the positive feedback from industry, and the importance for this industry to focus on innovative growth strategies, the Victorian Government is strongly opposed to *any* reduction in funding for the SIP. It is also opposed to diverting funds away from SIP towards labour market programs, as each of these are meeting different and important needs.

However, the Victorian Government believes that SIP can be improved. Consultation with industry has highlighted a number of concerns about the current structure of the scheme. The Victorian Government suggests that the delivery of SIP would be improved by the following:

- specific funding, based on different criteria, should be set aside to encourage growth and innovation in small firms;
- there should be some provision for innovation through better design, branding and marketing and other value adding processes;
- there should be further consideration of the inclusion of early stage processing for funding; and
- the scheme could be administratively simpler to access.

Some of the trade benefits from tariff reductions, as the PC's modelling has shown, are likely to come from an increase in low value added exports. The depreciation of the \$A as a result of the tariff reductions may make export industries more exposed to currency fluctuations, especially those exports that are price sensitive. The Commonwealth needs to be aware of this and implement appropriate policies (such as SIP), that support innovation and encourage investment in value added production.

#### 5. Unilateral tariff reduction

The Victorian Government's position is that there are two reasons why further tariff reduction should not be countenanced unless there are corresponding reductions in the tariff barriers of our major trading partners. Consultation with industry has shown that additional tariff reduction would place an unreasonable burden on the industry due to ongoing market access barriers in overseas markets. Secondly, further tariff reduction would compromise Australia's negotiating position in future bilateral and multilateral trade negotiation rounds.

#### (i) Barriers for Australian TCF firms to access export markets

Given the size of Australia's domestic market, it is generally accepted that to increase national economic welfare, the export base needs to grow. To increase exports, it is essential for Australia to negotiate improved market access through bilateral and multilateral agreements. This will enable firms to gain better access to overseas markets which are currently distorted by a range of tariff and non-tariff barriers.

Consultation with TCF companies has highlighted that considerable tariff *and* nontariff barriers currently exist in the TCF industries of our major trading partners. The tables at **Attachment C** provide some examples of tariff rates and typical non-tariff barriers that Australian exporters encounter. There is clearly a contradiction between reducing tariff levels in Australia, and requiring Australian companies to be internationally competitive in markets which continue to impose significant tariff and non-tariff barriers. As TCF firms are required to adapt to lower trade barriers in the domestic market, they are being prevented from accessing key international markets because of high tariff and non-tariff barriers. The result is that firms that would otherwise be internationally competitive are prevented from exporting and therefore unable to maintain the production levels necessary to survive as import penetration increases in Australia.

#### (ii) Jeopardising Australia's negotiating position

It is our strongly held view that Australia's position in trade negotiations following from Doha, as well as in relation to the US-Australia and Thailand-Australia Free Trade Agreements, would be seriously prejudiced if the Commonwealth Government announced tariff reductions in the TCF industry prior to the conclusion of these negotiations. The TCF industry in Australia contributes 4% of value added to manufacturing and employs 58,000 people. Further, through various supply chain links, it generates substantial employment in strategic industries, such as the automotive industry. Australian TCF tariffs are of particular interest to some of our key trading partners, including Thailand. It is incumbent on the Commonwealth Government to take these trade matters into account when making a decision about access to Australia's domestic markets.

While it may be argued that the benefit to Australia of tariff reductions in other countries is small (refer to page 208 of the PC's Position Paper), this does not detract from the point that unilateral tariff reductions by Australia could jeopardise Australia's trade negotiating position. From a <u>trade policy</u> perspective, it is critical that Australia retains as many negotiating tools as possible, and as noted above, access to Australia's TCF industry is important to a number of overseas markets, including those with which Australia is currently negotiating bilateral agreements.

In conclusion, the Victorian Government supports trade liberalisation, provided it occurs within the context of <u>international</u> trade liberalisation. It is our view that this is not occurring at a fair rate as yet, and Australia would seriously jeopardise its chances of negotiating at bilateral and multilateral levels if it were to announce further tariff reductions in the TCF industry at this early stage.

Therefore, the Victorian Government proposes that a limited review of the TCF industry be undertaken in 2008, prior to making a decision about further tariff liberalisation post 2010. Such a review should include consideration of progress in trade liberalisation in the TCF and other industries of Australia's major trading partners. It should also examine whether Australian TCF companies continue to face significant tariff and non-tariff barriers in the international marketplace.

#### 6. Impact on competition

The PC has argued that further reductions in assistance to the TCF industry will reinforce the competitive pressures on firms, resulting in productivity gains and reduced prices for consumers.

The premise that increased competition will result in efficiency gains is, as the PC has acknowledged, difficult to quantify. The Victorian Government is concerned that the PC has relied on this argument without adequately demonstrating how these efficiencies will be achieved.

The issue of cost reduction following from tariff reduction was raised with the Victorian Government during its consultation process. Implicit in the gains from the tariff reductions is that lower import prices will result in reduced prices for all TCF products. However, conflicting evidence has been presented at the public hearings. For example, the carpet industry has stated that increased import competition has resulted in price reductions over the past decade. On the other hand, evidence presented by the TCFUA and the Australian Industry Group suggest that in certain market segments, such as branded products, high prices will still be commanded regardless of lower tariffs. Accordingly the gains from tariff reductions to consumers may be less than those presented by the PC.

## **Government charges and regulations**

The PC's Position Paper commented that State Government taxes and charges have the potential to disadvantage Australian TCF firms in the international marketplace and hinder the transition to a lower assistance environment.

The Victorian Government's consultation with industry groups and companies did not highlight any strong views regarding State regulations and charges in terms of how they apply to the TCF industry. An analysis of individual company submissions to the PC Inquiry shows minimal reference to State government regulations and charges. The main exception is Godfrey Hirst, which argued that payroll tax is an inappropriate taxation measure and that workers compensation premiums inhibit the expansion of existing employment levels.

This is an important industry policy issue, but not one specific to the TCF sector and is therefore not central to the PC's inquiry. By far, the main tax imposition on firms is company income tax and the administrative cost of collecting and remitting the GST to the Commonwealth Government.

The Victorian Government has undertaken a comprehensive review of its business taxes and has implemented a number of reforms since 1999, including a cut in payroll tax and a reduction in the number of business taxes imposed. Further details on payroll tax and WorkCover charges are at **Attachment D**.

# Outworkers

The PC has acknowledged in its Position Paper that the use of outworkers in the TCF industry has increased since 1997, with outworker employment making up 25 - 40% of total employment in the sector, and that some exploitation of outworkers may occur.

The Victorian Government notes the PC's finding that 'balance is required in regulatory and other initiatives that seek to protect outworkers'. The Victorian

Government has recently enacted legislation that strikes a balance between voluntary mechanisms and enhanced regulation.

In relation to the preliminary findings of the PC, the Victorian Government makes the following points:

- a primary role of the Ethical Clothing Trades Council of Victoria established under the *Outworkers (Improved Protection) Act 2003 (Vic)* (the Act) is to monitor and foster the development within the industry of voluntary selfregulatory mechanisms as a means of ensuring that outworkers receive their entitlements;
- the Council will promote, as may be appropriate, the Homeworkers Code of Practice; and
- a mandatory code of practice in Victoria with respect to outworkers can only be made under the Act if it is considered that current self-regulatory mechanisms are inadequate to achieve improvements in the level of compliance or that persons in the industry are not attempting in good faith to negotiate improvements or extensions to those voluntary self-regulatory mechanisms.

#### Conclusion

The Victorian Government does not support the PC's preferred position, which involves further unilateral tariff reduction and the eventual abolition of SIP funding. While the Government supports trade liberalisation, it is our contention that this needs to be undertaken within a broader context than that considered by the PC.

Firstly, it is essential that any tariff reduction takes place only if it can be shown to be in the national interest. <u>The PC's modelling has been unable to show that there would</u> <u>be unambiguous gains to the economy</u>. It *has* demonstrated that there would be considerable output and employment losses in Victoria.

The TCF industry is supported by a diverse product base, with an increasing emphasis on value-added products. It needs policies which encourage greater product differentiation, through innovation and R&D. In addition, there is no evidence that further tariff reductions will necessarily improve competition and lower prices for consumers.

The Victorian Government is seriously concerned that the <u>PC has inadequately</u> addressed the need for appropriate labour market adjustment programs. It is incumbent on any government which seeks to make a policy change that impacts on employment in an industry, to initiate tailored labour market programs to assist the transition. If workers are not supported through transition <u>while</u> they are still employed, particularly in an industry characterised by workers with low mobility and relatively low skills, the long term ramifications will be significant. In the main, retrenched workers in the TCF industry have found it incredibly difficult to gain reemployment. There are examples of successful labour market assistance packages which the Commonwealth can draw on.

The PC has acknowledged the success of SIP, and submissions it has received, particularly from the Australian Industry Group, attest to this. The research

undertaken by NIEIR also supports this conclusion by demonstrating the negative impact that a SIP reduction would have on the industry in terms of reductions in capital investment. The Victorian Government is vehemently opposed to any lessening of this program, given its widespread industry support and success. It is imperative for the TCF industry, in facing additional restructuring, that it <u>continues to focus on innovation and capital investment</u>, and SIP has made a significant contribution in this regard.

Finally, the Victorian Government <u>cannot endorse tariff reductions in an environment</u> which is characterised by high market access barriers, and which would be undertaken without corresponding reforms by our overseas competitors. The Australian Government's negotiating position with the US and Thailand, as well as at a multilateral level, would be seriously compromised if it announced tariff reform prior to the commencement of these negotiations.

In conclusion, the Victorian Government supports trade liberalisation when it is undertaken in the context of meeting the conditions set out in this Submission. The PC has not properly addressed these issues, however, and it would be unwise and premature for the Commonwealth Government to announce unconditional tariff reductions beyond 2005. It is therefore proposed that the Commonwealth Government undertake a limited review of the industry in 2008 to examine progress regarding trade liberalisation in the TCF and other industries of Australia's major trading partners.

# National Institute for Economic and Industry Research Results and Methodology

#### Results

Chart 1: The Impact of the PC's Preferred Option on Australia's TCF Industry



Note: These figures include early stage (wool) processing.

#### Table 1: Number of TCFL Employees Working in the Local Government Area

The National Institute for Economic and Industry Research estimates for 2005 to 2020 are based on the Productivity Commission's preferred option for industry assistance.

Local Government Area	1991	1996	2001	2005	2010	2015	2020	% Change	% Change
Alpine (S)	77	52	36	33	33	32	29	-54%	-20%
Ararat (RC)	142	82	38	31	31	29	20	-74%	-45%
Ballarat (C)	523	530	433	399	396	390	342	-17%	-21%
Banyule (C)	346	376	382	349	345	339	292	10%	-24%
Bass Coast (S)	165	198	35	29	29	28	19	-79%	-46%
Baw Baw (S)	106	192	211	194	192	189	165	100%	-22%
Bayside (C)	368	316	214	187	184	180	142	-42%	-34%
Boroondara (C)	926	632	403	359	355	347	285	-56%	-29%
Brimbank (C)	1776	1753	1408	1315	1306	1289	1157	-21%	-18%
Buloke (S)	44	4	25	18	17	16	5	-42%	-80%
Campaspe (S)	130	68	26	23	22	22	17	-80%	-34%
Cardinia (S)	83	40	77	67	66	64	50	-6%	-35%
Casey (C)	646	256	269	228	223	216	157	-58%	-42%
Central Goldfields (S)	63	80	24	22	22	21	18	-61%	-27%
Colac-Otway (S)	53	8	22	20	20	20	16	-58%	-26%
Corangamite (S)	63	0	11	9	8	8	5	-82%	-59%
Darebin (C)	3874	3516	1861	1757	1747	1728	1581	-52%	-15%
Delatite (S)	176	212	203	189	187	185	164	15%	-19%
East Gippsland (S)	50	12	32	25	24	23	12	-36%	-62%
Frankston (C)	485	373	235	204	201	196	153	-52%	-35%
Gannawarra (S)	3	0	10	9	9	9	8	221%	-24%
Glen Eira (C)	545	364	216	194	192	188	156	-60%	-28%
Glenelg (S)	12	0	21	18	18	18	14	72%	-36%
Golden Plains (S)	23	20	6	3	3	2	-3	-72%	-144%
Greater Bendigo (C)	980	763	560	515	511	503	441	-43%	-21%
Greater Dandenong (C)	2684	2147	1676	1593	1584	1570	1452	-38%	-13%
Greater Geelong (C)	2676	2570	1991	1864	1851	1829	1649	-26%	-17%
Greater Shepparton (C)	218	203	203	189	188	185	166	-7%	-18%
Hepburn (S)	96	92	52	44	43	42	31	-46%	-41%
Hindmarsh (S)	9	7	7	6	6	6	5	-20%	-37%
Hobsons Bay (C)	591	459	290	263	260	256	218	-51%	-25%
Horsham (RC)	134	128	11	8	8	7	3	-92%	-69%
Hume (C)	1595	1192	1132	1062	1055	1042	943	-29%	-17%
Indigo (S)	44	42	7	5	4	4	1	-85%	-86%
Kingston (C)	2508	1546	1320	1250	1243	1230	1131	-47%	-14%
Knox (C)	1274	924	703	646	640	630	548	-45%	-22%
Latrobe (C)	462	148	55	42	41	39	21	-88%	-61%
Loddon (S)	56	20	8	6	6	5	2	-85%	-76%
Macedon Ranges (S)	88	99	89	80	79	78	65	1%	-27%

Manningham (C)	135	177	165	142	140	136	103	22%	-38%
Maribyrnong (C)	1751	2537	2113	2037	2029	2016	1907	21%	-10%
Maroondah (C)	906	598	517	464	459	450	374	-43%	-28%
Melbourne (C)	1319	801	514	422	413	397	267	-61%	-48%
Melton (S)	18	20	152	137	135	133	112	751%	-26%
Mildura (RC)	52	39	34	30	30	29	24	-34%	-31%
Mitchell (S)	279	132	85	74	73	72	57	-70%	-32%
Moira (S)	64	54	24	21	21	20	16	-62%	-35%
Monash (C)	2022	1352	873	805	799	787	691	-57%	-21%
Moonee Valley (C)	547	549	333	281	276	267	195	-39%	-41%
Moorabool (S)	44	20	20	14	14	13	6	-56%	-71%
Moreland (C)	4959	3620	2199	2102	2093	2076	1939	-56%	-12%
Mornington Peninsula (S)	462	207	204	180	178	173	139	-56%	-32%
Mount Alexander (S)	75	40	105	99	98	97	88	41%	-16%
Moyne (S)	34	45	12	6	6	5	-3	-65%	-124%
Murrindindi (S)	286	28	20	16	16	15	9	-93%	-53%
Nillumbik (S)	106	61	60	44	42	39	16	-43%	-73%
Northern Grampians (S)	153	184	77	71	71	70	61	-50%	-21%
Port Phillip (C)	589	301	276	247	244	239	197	-53%	-29%
Pyrenees (S)	65	16	7	5	5	4	1	-89%	-85%
Queenscliffe (B)	0	0	0	0	0	0	0	na	na
South Gippsland (S)	59	122	69	61	60	59	47	17%	-31%
Southern Grampians (S)	4	50	48	35	33	31	12	1135%	-75%
Stonnington (C)	1217	864	693	655	651	645	591	-43%	-15%
Strathbogie (S)	98	27	10	7	7	7	3	-90%	-67%
Surf Coast (S)	133	187	164	153	152	150	135	23%	-18%
Swan Hill (RC)	31	16	22	20	20	19	16	-28%	-30%
Towong (S)	16	7	5	4	4	4	2	-67%	-52%
Wangaratta (RC)	761	871	795	766	763	758	716	4%	-10%
Warrnambool (C)	332	148	106	103	103	103	99	-68%	-6%
Wellington (S)	62	68	154	139	137	135	114	147%	-26%
West Wimmera (S)	4	4	7	6	6	6	4	73%	-39%
Whitehorse (C)	931	887	1005	870	857	833	643	8%	-36%
Whittlesea (C)	1774	1628	1428	1281	1266	1240	1033	-20%	-28%
Wodonga (RC)	291	158	132	131	131	130	128	-55%	-3%
Wyndham (C)	436	574	366	258	247	228	75	-16%	-80%
Yarra (C)	5177	4674	2549	2376	2360	2329	2085	-51%	-18%
Yarra Ranges (S)	203	96	188	165	163	159	126	-7%	-33%
Yarriambiack (S)	16	8	17	16	16	16	15	10%	-11%
Unincorporated Vic	0	0	0	0	0	0	0	na	na
Total Victoria	49505	40589	29854	27500	27269	26853	23523	-40%	-21%

# <u>Table 2: Contribution of the TCFL Industry to the Gross Regional Product of the Local Economy</u>

The National Institute for Economic and Industry Research estimates for 2005 to 2020 are based on the Productivity Commission's preferred option for industry assistance.

The table shows the total contribution (direct and indirect) of the Australian TCFL sector to the local economy.

Local Government Area	2001	2005	2010	2015	2020	% Change 2001 to
	1.00/	1.00/	1.00/	1.00/	1.00/	2020
Alpine (S)	1.9%	1.8%	1.8%	1.9%	1.8%	-0.1%
Ararat (RC)	5.7%	5.4%	5.6%	5.8%	5.4%	-0.3%
Ballarat (C)	3.0%	2.9%	3.0%	3.1%	2.9%	-0.2%
Banyule (C)	3.4%	3.2%	3.3%	3.4%	3.2%	-0.2%
Bass Coast (S)	3.5%	3.3%	3.4%	3.6%	3.3%	-0.2%
Baw Baw (S)	6.5%	6.2%	6.4%	6.6%	6.2%	-0.3%
Bayside (C)	3.5%	3.3%	3.4%	3.5%	3.3%	-0.2%
Boroondara (C)	2.2%	2.1%	2.2%	2.2%	2.1%	-0.1%
Brimbank (C)	5.4%	5.2%	5.3%	5.5%	5.1%	-0.3%
Buloke (S)	5.7%	5.4%	5.6%	5.8%	5.4%	-0.3%
Campaspe (S)	0.8%	0.8%	0.8%	0.8%	0.8%	0.0%
Cardinia (S)	1.9%	1.8%	1.8%	1.9%	1.8%	-0.1%
Casey (C)	3.4%	3.3%	3.4%	3.5%	3.3%	-0.2%
Central Goldfields (S)	1.9%	1.8%	1.9%	1.9%	1.8%	-0.1%
Colac-Otway (S)	1.1%	1.1%	1.1%	1.2%	1.1%	-0.1%
Corangamite (S)	1.5%	1.4%	1.4%	1.5%	1.4%	-0.1%
Darebin (C)	6.9%	6.6%	6.8%	7.1%	6.6%	-0.4%
Delatite (S)	7.0%	6.7%	6.9%	7.1%	6.7%	-0.4%
East Gippsland (S)	1.4%	1.3%	1.4%	1.4%	1.3%	-0.1%
Frankston (C)	3.6%	3.4%	3.5%	3.6%	3.4%	-0.2%
Gannawarra (S)	0.8%	0.7%	0.8%	0.8%	0.7%	0.0%
Glen Eira (C)	2.2%	2.1%	2.2%	2.3%	2.1%	-0.1%
Glenelg (S)	1.1%	1.1%	1.1%	1.1%	1.1%	-0.1%
Golden Plains (S)	6.0%	5.7%	5.9%	6.1%	5.6%	-0.3%
Greater Bendigo (C)	4.1%	3.9%	4.1%	4.2%	3.9%	-0.2%
Greater Dandenong (C)	2.9%	2.7%	2.8%	2.9%	2.7%	-0.2%
Greater Geelong (C)	4.5%	4.3%	4.4%	4.6%	4.3%	-0.2%
Greater Shepparton (C)	1.6%	1.5%	1.6%	1.6%	1.5%	-0.1%
Hepburn (S)	7.6%	7.3%	7.5%	7.8%	7.2%	-0.4%
Hindmarsh (S)	1.2%	1.1%	1.1%	1.2%	1.1%	-0.1%
Hobsons Bay (C)	1.9%	1.9%	1.9%	2.0%	1.8%	-0.1%
Horsham (RC)	1.0%	1.0%	1.0%	1.0%	1.0%	-0.1%
Hume (C)	1.7%	1.7%	1.7%	1.8%	1.7%	-0.1%
Indigo (S)	1.7%	1.7%	1.7%	1.8%	1.7%	-0.1%
Kingston (C)	2.6%	2.4%	2.5%	2.6%	2.4%	-0.1%

Knox (C)	2.8%	2.7%	2.8%	2.9%	2.7%	-0.1%
La Trobe (S)	1.7%	1.7%	1.7%	1.8%	1.7%	-0.1%
Loddon (S)	2.1%	2.0%	2.1%	2.2%	2.0%	-0.1%
Macedon Ranges (S)	2.9%	2.8%	2.8%	2.9%	2.7%	-0.2%
Manningham (C)	3.2%	3.1%	3.1%	3.3%	3.0%	-0.2%
Maribyrnong (C)	7.4%	7.1%	7.3%	7.6%	7.0%	-0.4%
Maroondah (C)	3.2%	3.1%	3.2%	3.3%	3.0%	-0.2%
Melbourne (C)	0.8%	0.8%	0.8%	0.8%	0.8%	0.0%
Melton (S)	5.1%	4.9%	5.1%	5.2%	4.9%	-0.3%
Mildura (RC)	0.7%	0.7%	0.7%	0.7%	0.7%	0.0%
Mitchell (S)	5.5%	5.3%	5.4%	5.6%	5.2%	-0.3%
Moira (S)	1.2%	1.2%	1.2%	1.3%	1.2%	-0.1%
Monash (C)	2.0%	1.9%	1.9%	2.0%	1.9%	-0.1%
Moonee Valley (C)	2.9%	2.8%	2.9%	3.0%	2.8%	-0.2%
Moorabool (S)	3.3%	3.2%	3.3%	3.4%	3.2%	-0.2%
Moreland (C)	8.3%	7.9%	8.2%	8.5%	7.9%	-0.4%
Mornington Peninsula (S)	1.7%	1.7%	1.7%	1.8%	1.6%	-0.1%
Mount Alexander (S)	5.1%	4.8%	5.0%	5.2%	4.8%	-0.3%
Moyne (S)	3.7%	3.6%	3.7%	3.8%	3.5%	-0.2%
Murrindindi (S)	3.5%	3.4%	3.5%	3.6%	3.4%	-0.2%
Nillumbik (S)	4.2%	4.0%	4.1%	4.3%	4.0%	-0.2%
Northern Grampians (S)	3.4%	3.2%	3.3%	3.4%	3.2%	-0.2%
Port Phillip (C)	1.2%	1.2%	1.2%	1.3%	1.2%	-0.1%
Pyrenees (S)	4.8%	4.6%	4.8%	4.9%	4.6%	-0.3%
Queenscliffe (B)	0.6%	0.6%	0.6%	0.7%	0.6%	0.0%
South Gippsland (S)	2.8%	2.7%	2.8%	2.9%	2.7%	-0.1%
Southern Grampians (S)	8.4%	8.0%	8.3%	8.6%	8.0%	-0.4%
Stonnington (C)	2.4%	2.3%	2.4%	2.4%	2.3%	-0.1%
Strathbogie (S)	3.3%	3.1%	3.2%	3.3%	3.1%	-0.2%
Surf Coast (S)	4.4%	4.2%	4.3%	4.5%	4.2%	-0.2%
Swan Hill (RC)	1.0%	1.0%	1.0%	1.0%	1.0%	-0.1%
Towong (S)	2.0%	1.9%	1.9%	2.0%	1.9%	-0.1%
Wangaratta (RC)	9.6%	9.2%	9.5%	9.8%	9.1%	-0.5%
Warrnambool (C)	0.9%	0.8%	0.8%	0.9%	0.8%	0.0%
Wellington (S)	1.0%	0.9%	0.9%	1.0%	0.9%	-0.1%
West Wimmera (S)	1.5%	1.4%	1.5%	1.5%	1.4%	-0.1%
Whitehorse (C)	4.7%	4.4%	4.6%	4.7%	4.4%	-0.2%
Whittlesea (C)	8.8%	8.4%	8.7%	9.0%	8.4%	-0.5%
Wodonga (RC)	0.6%	0.6%	0.6%	0.6%	0.6%	0.0%
Wyndham (C)	8.1%	7.7%	8.0%	8.2%	7.7%	-0.4%
Yarra (C)	6.3%	6.0%	6.2%	6.4%	6.0%	-0.3%
Yarra Ranges (S)	2.0%	1.9%	1.9%	2.0%	1.9%	-0.1%
Yarriambiack (S)	0.5%	0.5%	0.5%	0.5%	0.5%	0.0%
Total Victoria	2.8%	2.6%	2.7%	2.8%	2.6%	-0.1%

Table 3: Total Number of People Working in the Local Government Area with Jobs Dependent on the TCFL Industry

The National Institute for Economic and Industry Research estimates for 2005 to 2020 are based on the Productivity Commission's preferred option for industry assistance.

The table shows the total jobs (direct and indirect) arising from the Australian TCFL sector

Local Government Area	2001	2005	2010	2015	2020	Jobs at Risk 2020
Alpine (S)	98	90	89	88	76	13
Ararat (RC)	239	219	217	214	187	33
Ballarat (C)	1280	1176	1166	1148	1002	174
Banyule (C)	1255	1154	1144	1126	982	171
Bass Coast (S)	228	209	207	204	178	31
Baw Baw (S)	644	592	587	578	504	88
Bayside (C)	1014	932	924	910	794	138
Boroondara (C)	1643	1510	1497	1474	1286	224
Brimbank (C)	3509	3226	3198	3148	2748	479
Buloke (S)	284	261	259	255	223	39
Campaspe (S)	123	113	112	111	96	17
Cardinia (S)	383	352	349	343	299	52
Casey (C)	1561	1435	1422	1400	1222	213
Central Goldfields (S)	92	85	84	83	72	13
Colac-Otway (S)	81	75	74	73	64	11
Corangamite (S)	91	84	83	82	71	12
Darebin (C)	3910	3594	3563	3508	3061	533
Delatite (S)	549	505	500	493	430	75
East Gippsland (S)	278	255	253	249	217	38
Frankston (C)	1144	1052	1043	1026	896	156
Gannawarra (S)	35	32	32	31	27	5
Glen Eira (C)	841	773	766	754	658	115
Glenelg (S)	107	98	97	96	84	15
Golden Plains (S)	129	119	118	116	101	18
Greater Bendigo (C)	1665	1531	1517	1494	1304	227
Greater Dandenong (C)	3128	2876	2851	2806	2449	427
Greater Geelong (C)	4777	4391	4353	4285	3740	651
Greater Shepparton (C)	514	472	468	461	402	70
Hepburn (S)	298	274	272	267	233	41
Hindmarsh (S)	38	35	35	34	30	5
Hobsons Bay (C)	1000	920	912	897	783	136
Horsham (RC)	102	94	93	91	80	14
Hume (C)	2626	2414	2393	2355	2056	358
Indigo (S)	81	74	74	72	63	11
Kingston (C)	2646	2432	2411	2374	2072	361
Knox (C)	2162	1987	1970	1939	1692	295

La Trobe (S)	467	429	425	419	365	64
Loddon (S)	88	81	80	79	69	12
Macedon Ranges (S)	333	306	304	299	261	45
Manningham (C)	873	803	796	783	684	119
Maribyrnong (C)	2878	2645	2623	2582	2253	392
Maroondah (C)	1994	1833	1817	1788	1561	272
Melbourne (C)	3442	3164	3137	3088	2695	469
Melton (S)	554	509	505	497	433	75
Mildura (RC)	150	138	137	135	118	20
Mitchell (S)	378	347	344	339	296	52
Moira (S)	120	110	109	108	94	16
Monash (C)	2553	2347	2327	2290	1999	348
Moonee Valley (C)	1923	1768	1753	1726	1506	262
Moorabool (S)	193	177	176	173	151	26
Moreland (C)	3634	3341	3312	3260	2845	496
Mornington Peninsula (S)	908	834	827	814	711	124
Mount Alexander (S)	241	221	219	216	189	33
Moyne (S)	208	192	190	187	163	28
Murrindindi (S)	148	136	135	133	116	20
Nillumbik (S)	617	567	562	554	483	84
Northern Grampians (S)	221	204	202	199	173	30
Port Phillip (C)	1104	1015	1006	990	864	151
Pyrenees (S)	84	78	77	76	66	12
Queenscliffe (B)	5	4	4	4	4	1
South Gippsland (S)	298	274	272	268	234	41
Southern Grampians (S)	502	461	457	450	393	68
Stonnington (C)	1426	1311	1300	1280	1117	194
Strathbogie (S)	92	84	84	82	72	13
Surf Coast (S)	413	380	377	371	324	56
Swan Hill (RC)	93	85	85	83	73	13
Towong (S)	37	34	34	33	29	5
Wangaratta (RC)	1104	1015	1006	991	865	151
Warrnambool (C)	91	84	83	82	71	12
Wellington (S)	564	518	514	506	442	77
West Wimmera (S)	39	36	35	35	30	5
Whitehorse (C)	5054	4646	4606	4534	3957	689
Whittlesea (C)	5515	5069	5026	4947	4317	752
Wodonga (RC)	65	59	59	58	51	9
Wyndham (C)	4070	3742	3710	3652	3187	555
Yarra (C)	6474	5951	5900	5808	5068	883
Yarra Ranges (S)	855	786	780	767	670	117
Yarriambiack (S)	26	23	23	23	20	3
Total Victoria	88386	81252	80551	79291	69199	12053

Table 4: Total Number of People Living in the Local Government Area with Jobs Dependent on the TCFL Industry

The National Institute for Economic and Industry Research estimates for 2005 to 2020 are based on the Productivity Commission's preferred option for industry assistance.

The table shows the total jobs (direct and indirect) arising from the Australian TCFL sector

Local Government Area	2001	2005	2010	2015	2020	Jobs at Risk 2020
Alpine (S)	116	107	106	105	91	25
Ararat (RC)	318	293	291	288	250	69
Ballarat (C)	1307	1203	1195	1183	1025	281
Banyule (C)	2915	2683	2665	2638	2287	628
Bass Coast (S)	464	427	424	420	364	100
Baw Baw (S)	669	616	611	605	525	144
Bayside (C)	1425	1312	1303	1290	1118	307
Boroondara (C)	2747	2528	2511	2486	2155	592
Brimbank (C)	4157	3827	3801	3763	3262	896
Buloke (S)	101	93	92	91	79	22
Campaspe (S)	219	202	201	199	172	47
Cardinia (S)	733	675	670	664	575	158
Casey (C)	3292	3030	3009	2979	2583	709
Central Goldfields (S)	160	147	146	145	125	34
Colac-Otway (S)	108	99	99	98	85	23
Corangamite (S)	123	113	113	111	97	27
Darebin (C)	3480	3203	3181	3149	2730	750
Delatite (S)	490	451	448	443	384	106
East Gippsland (S)	144	132	131	130	113	31
Frankston (C)	1824	1679	1667	1651	1431	393
Gannawarra (S)	47	43	43	43	37	10
Glen Eira (C)	1931	1777	1765	1748	1515	416
Glenelg (S)	165	151	150	149	129	35
Golden Plains (S)	325	299	297	294	255	70
Greater Bendigo (C)	1860	1712	1700	1683	1459	401
Greater Dandenong (C)	1994	1835	1823	1805	1564	430
Greater Geelong (C)	5100	4694	4663	4616	4002	1099
Greater Shepparton (C)	492	453	450	446	386	106
Hepburn (S)	320	294	292	289	251	69
Hindmarsh (S)	54	50	49	49	42	12
Hobsons Bay (C)	1638	1508	1498	1483	1286	353
Horsham (RC)	302	278	276	274	237	65
Hume (C)	3053	2810	2791	2763	2396	658
Indigo (S)	122	113	112	111	96	26
Kingston (C)	2283	2101	2087	2066	1791	492
Knox (C)	2729	2512	2495	2470	2141	588

La Trobe (S)	532	490	486	482	417	115
Loddon (S)	131	120	119	118	102	28
Macedon Ranges (S)	747	687	683	676	586	161
Manningham (C)	2363	2175	2161	2139	1854	509
Maribyrnong (C)	1346	1239	1231	1219	1056	290
Maroondah (C)	2027	1865	1853	1834	1590	437
Melbourne (C)	729	671	666	660	572	157
Melton (S)	1318	1213	1205	1193	1034	284
Mildura (RC)	141	130	129	128	111	30
Mitchell (S)	641	590	586	581	503	138
Moira (S)	182	168	167	165	143	39
Monash (C)	2630	2421	2405	2381	2064	567
Moonee Valley (C)	2738	2520	2503	2478	2148	590
Moorabool (S)	492	453	450	446	386	106
Moreland (C)	3544	3262	3240	3207	2780	763
Mornington Peninsula (S)	1501	1381	1372	1358	1178	323
Mount Alexander (S)	174	160	159	158	137	37
Moyne (S)	211	194	193	191	166	45
Murrindindi (S)	254	234	232	230	199	55
Nillumbik (S)	1680	1546	1536	1520	1318	362
Northern Grampians (S)	367	338	335	332	288	79
Port Phillip (C)	1308	1204	1196	1184	1026	282
Pyrenees (S)	121	111	111	109	95	26
Queenscliffe (B)	30	28	27	27	24	6
South Gippsland (S)	393	362	360	356	309	85
Southern Grampians (S)	395	364	361	358	310	85
Stonnington (C)	1538	1416	1406	1392	1207	331
Strathbogie (S)	143	132	131	130	112	31
Surf Coast (S)	594	547	543	538	466	128
Swan Hill (RC)	69	64	63	63	54	15
Towong (S)	37	34	34	33	29	8
Wangaratta (RC)	1356	1248	1240	1228	1064	292
Warrnambool (C)	229	211	209	207	180	49
Wellington (S)	582	535	532	526	456	125
West Wimmera (S)	129	118	118	116	101	28
Whitehorse (C)	2657	2446	2429	2405	2085	572
Whittlesea (C)	3909	3598	3574	3538	3067	842
Wodonga (RC)	165	152	151	149	130	36
Wyndham (C)	2154	1983	1970	1950	1690	464
Yarra (C)	1786	1644	1633	1616	1401	385
Yarra Ranges (S)	2469	2272	2257	2234	1937	532
Yarriambiack (S)	90	83	82	81	71	19
Total Victoria	91110	83859	83295	82464	71484	19625

# The TCF modelling methodology



# The TCF modelling methodology

The TCF modelling exercise was carried out in two stages. The first stage was at the State and national levels. The second stage was at the Victorian regional level.

#### The State and national modelling

The State modelling used NIEIR's integrated model of all eight Australian States and Territories. The model is built around 106 industry input-output relationships for each State. The 106 industries include all the three digit ANZSIC textiles, clothing and footwear (TCF) industries. The six TCF industries included in the model are:

- textile fibre, yarn and woven fabric;
- textile product manufacturing; •
- knitting mills; •
- clothing manufacturing;
- footwear manufacturing; and •
- leather and leather product manufacturing.

Each industry for each State has functions for:

- apparent domestic consumption; •
- employment; .
- exports; •
- imports; •
- domestic producer prices; •
- investment; .
- capital stocks;
- material demands; and •
- wage rates, etc. •

The TCF industry data base was extended back to 1972. This was done by combining the four digit ASIC industry data into industry groupings comparable with the three digit ANZSIC groupings. Thus the TCF industry parameters are estimated using a data base existing back nearly 30 years.

The State models are integrated by the use of interstate trade flow matrices for each industry. There are thus 106 8 by 8 inter-industry trade flow matrices in the model. This allows the sum of the State total for any variable from gross State product to leather industry employment to determine the national total.

The first step in model application was to prepare a control solution based on the level of assistance remaining at 2001 levels. Excluding the SIP component, the average level of assistance for each of the six TCF industries was assessed at:

•	textile fibres, etc.	5 per cent;
•	textile manufacturing	10 per cent;
	1	20

20 per cent;

- clothing manufacturing
- footwear manufacturing

• leather industry

21 per cent; 13 per cent; and 3 per cent.

The SIP scheme was not treated in the model as an addition to the assistance rate as measured by the nominal rate of assistance in output, as was the case for the Productivity Commission (PC) models. Instead it is treated as a direct addition to industry cash flow. The industry cash flow variable, or gross operating surplus less taxes, is the key variable determining investment expenditure. Investment expenditure, in turn, determines effective capacity installed. The export and apparent domestic consumption functions for each TCF industry are modelled as a ratio to capacity installed. This means that the additional cash flow created by the SIP will directly influence domestic industry activity as outlined in Figure 1.

In the PC models the key parameter determining the TCF industry response to the SIP scheme is the elasticity of substitution between imports and domestic production. In the NIEIR models the key parameter is the propensity of the industry to invest out of cash flow.

The control solution was then run to 2020. This involved holding assistance levels at 2001 levels to 2020, as well as the average annual SIP funding for the 2001 to 2002 period.

Next a disturbed solution was constructed using the PC preferred option. This option entailed the following assumptions.

(i) By 2005 the non-SIP assistance rates becoming:

•	textiles, fibres etc.	5 per cent;
•	textile manufacturing	7 per cent;
•	knitting mills	14 per cent;
•	clothing	15 per cent;

footwearleather

15 per cent; 7 per cent; and 3 per cent.

Figure 1: The SIP scheme a	nd TCF industry response
SIP grants	
Increase in TCF industry cash flow	
Increase in TCF industry investment	



(ii) The rates of assistance stay at this level until 2010 when the rates become:

•	textiles, fibres etc.	5 per cent;
•	textile manufacturing	7 per cent;
•	knitting mills	9 per cent;
•	clothing	9 per cent;
•	footwear	5 per cent; and
•	leather	3 per cent.

(iii) The assistance levels stay at this level until 2015 when all rates above 5 per cent are set equal to 5 per cent.

It should be noted that there will be differences between average assistance levels and average tariff levels, especially in the early years.

For the SIP scheme the annual allocations are, in 2002 \$ million:

2006	135
2007	135
2008	135
2009	135
2010	68
2011	68
2012	68
2013	68
2014	0
2015	0

This compares with a control solution level of SIP funding of \$135 million from 2006 to 2020.

There is no doubt that the SIP scheme plays a large role in explaining the difference between the two sets of national results for the TCF industry. This is because under the NIEIR treatment the SIP impact will be cumulative. A dollar of SIP grant today adds \$x of capacity. A dollar of SIP scheme tomorrow will add \$x of capacity so that the impact of today and tomorrow is \$2x of capacity. Under the PC modelling a dollar of SIP today, tomorrow and the next day will only add the \$x of capacity, no matter how long the scheme runs for.

The national model results showed the impact on the TCF industry by State of the PC option taking into account:

- (i) the direct impact on the TCF sector; and
- (ii) the impact on the TCF sector of the feedback effect of the TCF on the State economies as a result of the alteration in its activity as a result of the TCF sector.

This also meant that for Victoria the loss of interstate exports for all 106 industries as a result of TCF industry contraction was a model output.

#### The Victorian regional impacts

The Victorian regional impacts were carried out by a step by step approach. In the Victorian regional models, the Local Government Area (LGA) level are based on a 99 industry input-output framework with all 99 industries in all 79 LGAs linked by interregional trade flow matrices. In the model, industry output determines industry employment, housing income, etc. Thus the model generates dynamic Type II multipliers.

The first step was to shock the Victorian model by LGA and by TCF industry. That is, for each LGA in turn each three digit TCF industry output was set equal to zero. Each run allowed the estimation of the significance of each TCF industry in a given LGA to the level of economic activity in all other Victorian LGAs, as well as the inter-regional trade flow impact on the exports of all other industries in the LGA contracting as a result of the feedback effects of the initial TCF output elimination.

The national and State model results showed the percentage contraction in, say, the textiles, fibres industry output in Victoria, compared to 2001. This percentage was applied to all the textile fibre outputs in Victorian LGAs, and the textile fibre significance sensitivity study results were used to estimate how this contraction would affect all LGAs in Victoria. The same process was repeated for the other five TCF industries and the results summed. In addition to these results were added the overall impact of the loss of Victorian exports from non-TCF industries. This loss was distributed on the basis of the share of output in each LGA for a given non-TCF industry. This last adjustment was not done for the previous motor vehicle study.

The overall summed LGA impacts were then scaled to be consistent with the results from the State-National model. Hence the results sent to the Department.

# **Attachment B**

# Victorian Department of Treasury and Finance Modelling

#### Introduction

The following attachment outlines the modelling results of the Victorian Department of Treasury and Finance using the MONASH model. It is important to note that the Victorian Treasury modelling is not directly comparable to the NIEIR work commissioned because of differences in assumptions used, model structures and databases.

The Victorian Department of Treasury and Finance used a version of the MONASH dynamic general equilibrium model to estimate the impact of the PC's *preferred option* at the national and state levels. MONASH is a dynamic, computable general equilibrium model of the Australian economy. The version of the model used identifies 113 industries producing 115 commodities.

#### Assumptions

The key assumptions underlying the modelling include:

- Real wages adjust slowly in the short-run but are fully flexibility in the long-run.
- Real public consumption spending is fixed and the Commonwealth replaces the lost tariff revenue through higher consumer taxes.
- Consumer spending is related to household income, which in turn is indirectly affected by the impact of tariffs on economic activity.
- Investment in each industry responds to movements in post-tax rates of return.
- The rates of technical progress in production and capital creation in each industry are the same as in the basecase forecast simulation.

#### Findings

The Victorian Treasury modelling results point to a small national GDP benefit as a result of the proposed policy changes (0.01 per cent or \$70 million per annum). Reducing assistance to the TCF industry moves resources away from the TCF industry to more efficient uses. In the model, these "allocative efficiency" gains are partly offset by a fall in our terms of trade, reflecting the need for export prices to decline (relative to import prices) to generate the export revenue needed to pay for increased (TCF) imports.

While the Victorian Treasury estimates a small positive impact on national GDP, there is a proportionally larger negative impact on Victorian GSP (around 0.02 per cent or \$36 million per annum) due to around half of the TCF industry in Australia being concentrated in Victoria. This reflects an estimated long-run decline in the national output of the TCF industry of around 4 per cent as a result of the proposed policy changes.

# Discussion of "Critical assumptions" underlying the modelling for post-2005 TCF industry assistance

The assumptions underpinning the results of the PC commissioned modelling (apart from differences in model structures, databases and levels of aggregation) are extensive. While only four of the key assumptions are discussed below, it is important to note that the use of assumptions plays a crucial role in explaining the results of the modelling, with slight changes to important assumptions potentially altering the conclusions reached from the modelling.

#### Export demand elasticities

- A higher elasticity implies that, to achieve a given increase in export volumes, there needs to be a smaller decrease in export prices. Hence, a higher elasticity implies a less severe terms of trade decline and a stronger net positive impact on the economy as a result of the tariff cuts.
- There is no definitive consensus on what elasticity number should be used for various TCF products. Nonetheless, there is general consensus among economic modellers that export demands are highly elastic (greater than 1) because Australia generally exerts little influence on the world markets for most commodities.

#### Import/domestic substitution elasticities

- Another important elasticity is that of the substitution between imports and domestically produced TCF products, controlling the responsiveness of the import/domestic mix to changes in relative prices. This so called "Armington elasticity".
- The implication of using a finite Armington elasticity is that if a given domestic TCF product becomes relatively more expensive then this does not mean that all demand for that product will switch to imports.

#### Real wage rigidities and employment assumptions

- The standard assumption in macroeconomic models is that there is some rigidity in real wages in the short run with impacts of policy changes reflected in aggregate employment changes, while in the long run there is full real wage flexibility and aggregate employment returns to an assumed level. Hence, in the long run, policy changes are reflected in real wage movements and shifts in employment between industries and regions rather than changes in the level of aggregate employment. Victorian Treasury's own internal modelling has used the assumption of real wage inflexibility in the short-run and real wage flexibility in the long-run.
- The other criticism that can be made regarding labour market assumptions (this criticism extends not only to the specific modelling for the PC but

macro modelling in general) is that the models assume free movement of labour between industries and regions. That is, contracting industries and regions lose employment to expanding regions and industries in the long-run but the modelling does not explicitly account for any immobility in labour between regions and industries.

#### Offsets to lost tariff revenue: Income tax versus consumption tax

- The modelling assumes long-run "budget neutrality" through either income tax changes or consumption tax changes. The budget neutrality assumption means that the public sector deficit and debt levels remain sustainable in the long run, and that the impact of the tariff cut on consumer spending reflects its effect on economic welfare.

# **Tariff and Non- Tariff Barriers**

Australian TCF companies encounter significant tariff and non-tariff barriers when trying to export. These barriers are not only apparent in developing countries but also exist in developed countries with so called 'open economies'.

Sector	Product	Tariff	
Apparel	Circular knitted cotton	Mauritius 80%	Mexico 23%
Textiles	containing 5% or more	Vietnam 40%	China 22%
	of elastometric yarn	India 35%	South Africa, Thailand
		Pakistan 30%	and Malaysia 20%
		Israel 27.4%	Japan 15.7%
Industrial	Woven Nomex	Vietnam 40%	South Africa 22%
Textiles		Pakistan, China and	Malaysia and Thailand
		India 30%	20%
Footwear	Protective metal toe-	Japan 60% (without	Another work-boot
	cap footwear	quota)	also with a protective
		Vietnam 50%	metal toe-cap attracts a
		Thailand and Papua New	tariff of 37.5% upon
		Guinea 40%	entering the US
		Malaysia and South	
		Africa 30%	
Leather Apparel	Apparel and clothing	Vietnam 50%	Japan 20%
and Handbags	accessories	India and Mexico 35%	Korea 16%
_		South Africa and	Indonesia and Canada
		Thailand 30%	15%
Woollen	Men's knitted woollen	Vietnam 50%	India 35%
Apparel	cardigans	South Africa 40%	Thailand and Pakistan
-	-	Israel 36%	30%
			US 16.3%

#### **Tariff Barriers in Developing Countries on Selected Items**

Source: Apical International, (2003), *Market Access Industry Participation Program*, commissioned by the TFIA.

#### **Applied Tariff Rates in Developed Countries 2002/03**

	Australia	USA	European Union
Yarn			
– Silk	0%	0.5%	0-5.2%
– Wool	0-5%	4.1-6.3%	2-5.3%
– Cotton	0-5%	3.7-12%	0-5.8%
– Other vegetable fibre	0-5%	0-3%	0-5.2%
– Manmade	0-5%	4.4-13.4%	4.4-5.8%
Woven fabric			
– Silk	15%	0-4.3%	3-7.5%
– Wool	15%	7%	5.3-9.8%
– Cotton	0-15%	7-15.5%	8.4%
– Other vegetable fibre	0%	0.3-15.6%	4.9-9.2%

– Manmade	0-15%	12.2-15.1%	8.6%
Knit fabric	10-15%	4.4-18.8%	6.5-8.8%
Non woven fabric	5%	0%	4.3%
Industrial fabric	0-15%	0-8.8%	4.4-8.8%
Apparel	25%	2.8-28.8%	6.3-12.4%
Home furnishings: bed, bath,	25%	3.2-21.2%	0-12.4%
kitchen			
Carpets	15%	0.4-8.2%	2.8-9.2%
Leather	5%	0-5%	0-3.5%
Footwear	15%	0-37.5%	17%

Source: TCFL Forum (2003), TCF&L Market Access Study, prepared by Werner International and Krietals Consulting Group

#### TCF Non-Tariff Barriers in Developing and Developed Countries

Barrier	Examples
Quantity Control	US fibre specific quotas handicap Australian woollen fabrics and
Measures (Quotas)	garments by inequitable tariffs on other natural fibres
	Chinese quotas are first allocated to state-owned factories producing
	US exports which limits the use of Australian textiles in China
	Japanese footwear quotas favour high-value footwear and major
	international brands, limiting Australian opportunities
Monopolisation	Vertical monopolisation and inaccessible distribution systems limit
Measures	market penetration in Indonesia and other South East Asian countries
Inequitable Principles	Inequitable principles (often called corruption) within industry,
	particularly in Asia, limit market participation
Technical Measures	US Customs recently increased the amount of documentation on
	product descriptions. New rules require stitch counting on knitwear
	imports
	New North American requirements, testing for chemical emissions
	from carpets, cost importers both time and money
	The EU is increasingly introducing technical standards which
	frustrate imports
Subsidies	The South American export subsidy, the South American Motor
	Industry Development Plan, had negatively impacted on the
	Australian industry
TCF Market Access	Countries around the world fund TCF advocates to actively promote
Advocacy	their interests internationally. Advocacy groups work in direct
	competition with Australian companies that are attempting to gain
	access to international markets without such well-funded assistance
Distance	Australian TCF exporters reported that distance from export markets
	is a major impediment to trade, as international customers insist on
	120 to 180 day payment terms, commensurate with delivery and
	shipping lead times
Freight Costs	Exporters also noted that freight costs from Australia are typically
	higher than freight costs to Australia

Source: Apical International, (2003), *Market Access Industry Participation Program*, commissioned by the TFIA.

# Victorian Government Taxes and Charges

#### Payroll tax

- As of July 2003, Victoria has the second lowest payroll tax rate at 5.25% compared with NSW's rate of 6% and South Australia's rate of 5.67%. Queensland has the lowest payroll tax rate at 4.75%.
- Victoria has the equal lowest number of State taxes.
- In 2001/02 Victoria (State and Local Government combined) collected \$2,559 million in payroll tax revenue compared with \$4,014 million in NSW and \$1,199 million in Queensland.

#### Workcover

- WorkCover works closely with firms to reduce the incidence of injuries and thereby reduce the premium levels in each industry.
- Currently in Victoria, the WorkCover insurance premium is 5.78% for the majority of the TCF industry subdivisions (apart from wool scouring, 7%; textile finishing, 7% and knitting mills, 4.78%).
- In Victoria, the TCF industry premium is comparable to that in other industries. The insurance premium rate is the same for the Basic Manufacturing and Steel, Structural Metal Products and Motor Vehicles and Parts industries. The Furniture and Mattresses industry has an insurance premium of 4.78% and the Paper and Paper Products industry is 2.23%.
- Currently in NSW, the average WorkCover insurance premium for the TCF industry subdivisions is 5.95% slightly higher than in Victoria. Queensland has relatively low insurance premiums in all industries the average premium for the TCF industry is 1.95%.
- States have different industry breakdowns, therefore it is difficult to compare premium rates at the subdivisional level.

#### **Other Charges/Regulations**

- Other charges and regulations which may inadvertently affect the competitiveness of the TCF industry in Victoria include local government rates and planning restrictions, water pricing, the cost of waste disposal and other environmental levies. However, these charges and regulations are consistent with the Victorian Government's social and environment priorities and with charges/regulations in other States and Territories.