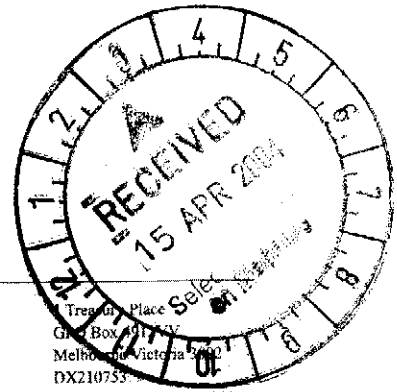




Premier of Victoria



15 APR 2004

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Our Ref: 17/02/0123

Senator The Hon Peter Cook  
Chair, Senate Select Committee on the Free Trade Agreement between  
Australia and the United States of America  
Commonwealth Parliament of Australia  
Parliament House  
CANBERRA ACT 2600

Dear Senator Cook *Peter,*

**PROPOSED AUSTRALIA-UNITED STATES FREE TRADE AGREEMENT**

Please find attached a Victorian government submission to your inquiry into the proposed Australia-United States Free Trade Agreement.

Victoria supported negotiations for an AUSFTA in principle, but has a number of concerns and questions about the proposed Agreement that require further scrutiny before we can take a final position.

I am also sending a copy of our submission to the Joint Standing Committee on Treaties.

I look forward with interest to your report.

Yours sincerely

*Steve Bracks*  
HON STEVE BRACKS MP  
Premier of Victoria

Your details will be dealt with in accordance with the *Public Records Act 1973* and the *Information Privacy Act 2000*. Should you have any queries or wish to gain access to your personal information held by this Department please contact our Privacy Officer at the above address.



**AUSTRALIA-UNITED STATES FREE TRADE AGREEMENT:  
VICTORIAN GOVERNMENT SUBMISSION TO  
COMMONWEALTH PARLIAMENTARY COMMITTEES**

**INTRODUCTION**

1. Victoria supported negotiations for an Australia-United States Free Trade Agreement (AUSFTA).
2. Some aspects of the proposed Agreement are disappointing. Our preliminary analysis is that an AUSFTA would have a mixed impact on Victoria. We note that the Commonwealth Government is commissioning further economic modelling on the AUSFTA, and that it now plans to identify State and Territory impacts in this.
3. We believe that several areas of the proposed Agreement (audiovisual, intellectual property, pharmaceuticals, cross border trade in services, investment, environment, rules of origin, temporary entry of business persons and dispute settlement) merit particularly careful scrutiny.
4. Victoria welcomes this opportunity to submit to the Parliament of the Commonwealth our views on the proposed Agreement and the related negotiation process.

**PROCESS**

5. Victoria has long recognised that an AUSFTA could potentially deliver substantial benefits to the Australian economy. Premier Bracks wrote to Prime Minister Howard in February 2003, informing him that Victoria supported negotiations, subject to the following principles:
  - the proposed AUSFTA should be comprehensive in scope;
  - before entering into negotiations, the Commonwealth should have established a clear walk away position, to be used if the proposed Agreement became anything less than a proper and comprehensive free trade agreement
  - the Commonwealth needed to clearly identify those industries that would suffer from the proposed Agreement, and have in place appropriate adjustment mechanisms; and
  - the Commonwealth must keep States and Territories fully involved throughout the negotiation process.
6. Following the commencement of negotiations in March 2003, Victorian officials sought to remain in close touch with Commonwealth officials and provided input on a range of issues.
7. For the first time in negotiations for a free trade agreement, State and Territory representatives were able to observe some aspects of the negotiations. A senior Victorian official attended the fourth and fifth round of negotiations in Canberra (October 2003) and Washington (December 2003).

8. During negotiations, the Commonwealth indicated that it was not inclined to model the likely impact of an Agreement at State and Territory level. Accordingly, Victoria commissioned its own modelling from Monash University's Centre of Policy Studies (COPS). This was made available publicly in February 2004, and a copy is attached for the information of Parliament (**Attachment A**).

## **LIKELY IMPACT OF THE PROPOSED AGREEMENT**

9. The COPS modelling concluded that an AUSFTA could yield benefits to Victoria of some \$230 million per annum by 2020. Negative impacts for some industries (including motor vehicles and parts; plastics and chemicals) would be offset by gains elsewhere (including an estimated 270% long-run increase in exports of dairy products). Victorian Government consultations with industry broadly supported the modelling conclusions.
10. However, the modelling conclusions were based on the important assumption that an AUSFTA would lead to across-the-board elimination of all forms of import and export taxes on Australia-US merchandise trade (including trade in primary and secondary agricultural products). As is now clear, free trade has not been achieved in a number of areas, including dairy, beef and sugar. **This is disappointing.**
11. For **merchandise trade**, our preliminary analysis is that implementation of the proposed AUSFTA would result in net positive impacts for Victoria in the electronic equipment, dairy, beef, wine and horticulture sectors. However, we would expect net negative impacts for Victoria in the automotive, plastics and chemicals and metal and minerals sectors (**Attachment B**).
12. It is more difficult to assess the likely impact on **non-merchandise trade**. Over time, we might expect economic gains from closer integration of the Australian and US economies and increased access to US government procurement. However, we believe that proposed provisions for audiovisual and intellectual property could also result in negative impacts.
13. We note that the Commonwealth Government is commissioning further economic modelling on the AUSFTA, and that it now plans to identify State and Territory impacts in this. **We continue to consider it essential that the Commonwealth:**
- **identify those industries, that would suffer from the proposed Agreement;**
  - **identify the impact on places/population groups associated with those industries;**
  - **identify the impact of the proposed Agreement on small business; and**
  - **state clearly how it would address the needs of groups adversely affected by the Agreement (including via transitional assistance).**
14. In future, the Commonwealth should identify likely economic impacts of proposed Treaties on States and Territories at the outset of negotiations.

## KEY ISSUES

15. We believe that several areas of the proposed Agreement merit particularly careful scrutiny:

- Audiovisual: the AUSFTA introduces significant new constraints on the ability of Australian governments to maintain and adopt policy measures to support audiovisual and cultural objectives (Chapters 10 and 11 and Annex II-6). We are concerned at the potential impact that this may have both on Australian cultural objectives and on Australia's audiovisual industry. **We need a clearer view of the likely effect of these provisions.**
- Intellectual property: we understand that the AUSFTA would require Australia to adopt major elements of US copyright and patent law, including longer copyright terms, new enforcement provisions and new obligations for Internet Service Providers dealing with allegedly infringing material on their systems and networks. While new enforcement provisions would improve the ability of copyright holders to enforce existing rights, it seems probable that Australia, as a net importer of copyright material, would face net costs as a result of extended copyright terms. **We need a clearer view of those costs. We also need a clearer view of the likely impact of the AUSFTA on the biotechnology and generic pharmaceutical industries.**
- Pharmaceuticals: while we welcome steps to increase transparency in the Pharmaceuticals Benefits Scheme, the proposal for a review panel poses some practical problems. Pharmaceutical companies can already resubmit to the Pharmaceutical Benefits Advisory Committee if they have new information. So **key questions** are:
  - would the independent review panel have different criteria for listing a drug?
  - who would sit on the review body?
  - would the proposed review mechanism also apply to Cabinet decisions?

**We would also welcome more information on how the proposed provisions for adjustments to reimbursements would work in practice.** If a drug performed worse than expected, would the listed price of that drug drop?

- Cross-Border Trade in Services: we note that Australia's reservation in respect of social services (Annex II-5) does not refer to public utilities or public transport (unlike the equivalent reservation in the Australia-Singapore Free Trade Agreement; see 4-II(A)-6) or a number of other service areas. **We would welcome further information on the implications of this**, bearing in mind that:
  - the Senate Standing Committee on Foreign Affairs, Defence and Trade has previously commented on uncertainty surrounding the definition of "service supplied in the exercise of governmental authority" (Article I.3 of the GATS; Article 10.1 of the AUSFTA); and
  - unlike under GATS, Australia would be entering into general (rather than sector-specific) obligations.

- Victoria and other States and Territories operate a number of privatised and mixed public/private services for public benefit.
- Investment: a number of provisions of the Investment Chapter are similar to those found in the controversial North American Free Trade Agreement (NAFTA). NAFTA has been used by investors to challenge government decisions on hazardous waste management, banning of carcinogenic fuel additives, maintenance of clean drinking water, control of bulk water exports, timber agreements and the legal authority of local governments to make planning and development decisions.

While the AUSFTA contains additional safeguards not found in NAFTA, Victoria has a number of outstanding concerns, including:

- Requirement to pay compensation: **we are concerned that the interrelationship of Article 11.7, Annex 11-A and Annex 11-B could require Australia to compensate US investors for regulatory actions (even those that are non-discriminatory) affecting their investments, albeit “in rare circumstances” (Annex 11-B 4(b)).**

We note that the term investment is widely defined to include (among other things) a licence, authorisation or permit given under Australian law. Legal advice sought by the Victorian Government suggests that measures of a type that do not attract compensation under our domestic laws may attract compensation via Article 11.7 of the AUSFTA.

- Potential environmental impact: **we are concerned that Article 11.11 of the Agreement, which applies only to measures “consistent with this Chapter”, would offer no effective protection for environmental measures.** We note that other Agreements have provided general exceptions for environmental measures: for example, the Australia-Singapore Free Trade Agreement provided an exception relating to the conservation of exhaustible natural resources (Chapter 8, Article 19). However, general exceptions from the AUSFTA (Article 22.1) do not apply to the Investment Chapter. This issue is of immediate concern in the context of current debate about water allocation.
- Investor-state dispute settlement provisions: while we are pleased that the proposed Agreement does not include investor-state dispute settlement provisions (which have created significant uncertainty under NAFTA), **we are concerned by the provision in Article 11.16 that: “Upon...request, the Parties shall promptly enter into consultations *with a view towards allowing* [a private] arbitration claim and establish [investor-state dispute settlement] procedures.” (emphasis added).**

- Environment: we note that Chapter 19 of the proposed Agreement would apply to State and Territory laws in Australia, but not to State laws in the United States. **Given the substantial body of environmental regulation at State level in the United States, we are concerned by this asymmetry, and its potential implications for Australian business.**
- Rules of origin/administrative burden: while we understand that industry would generally be prepared to adopt the US approach towards rules of origin (ROO), **we believe it important to ensure that different administrative arrangements (eg under the Australia-Singapore Free Trade Agreement, the proposed AUSFTA and the proposed Australia-Thailand Free Trade Agreement) do not place an unacceptable burden on companies (particularly small businesses).**
- Temporary entry of business persons: Australian business persons currently face a number of difficulties (particularly lengthy time periods) in obtaining temporary entry to the US. This issue was not addressed substantively in the AUSFTA negotiations. **We believe that there is an urgent need for the Commonwealth Government to press this issue with the relevant US authorities.**
- Dispute settlement: Chapter 21 of the AUSFTA contains detailed provisions for the settlement of disputes. **We would welcome further details on how the Commonwealth Government would plan to involve the States and Territories in consultations and/or proceedings relevant to our interests. We note our understanding that, under international law, the Commonwealth would be responsible for any compensation payments under the AUSFTA.**

## COMMONWEALTH-STATE CONSULTATION

16. For the most part, we believe that DFAT officials made conscientious efforts to keep key stakeholders informed of developments in the negotiations.
17. DFAT Ministers and officials held a number of meetings and teleconferences with the States and Territories. DFAT provided a range of briefing papers as the talks proceeded. DFAT also involved the Victorian government in consultations with local industry.
18. However, we note that there are currently no clear mechanisms for national follow-up to free trade agreements. **Where agreements are implemented, we believe there is a need for a coordinated national approach to: ensure a common understanding of Commonwealth/State and Territory responsibilities for implementation; ensure that Australian businesses can exploit new opportunities; monitor the effectiveness of transitional assistance; and review the working of agreements at set periods after entry into force.**
19. **Against this background, we propose that a revised set of protocols for Treaty/Agreement consultations be jointly developed by all jurisdictions.**

## **TREATIES AND THE PARLIAMENTARY PROCESS**

20. We note that the Senate Standing Committee on Foreign Affairs, Defence and Trade has previously made a series of recommendations regarding Treaties and the parliamentary process. **We support the proposed changes, which in our view would provide additional transparency to all stakeholders in the Treaty negotiation process.**

**Government of Victoria  
April 2004**

**THE EFFECTS OF A FREE TRADE  
AGREEMENT BETWEEN AUSTRALIA AND  
THE USA WITH SPECIAL REFERENCE TO  
THE VICTORIAN ECONOMY: EXECUTIVE  
SUMMARY AND CONCLUSIONS**

**Study by the Centre of Policy Studies for the  
Victorian Department of Premier and Cabinet**

**November 2003**



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# EXECUTIVE SUMMARY

## 1. Introduction

This report documents analysis of the economic effects of the proposed AUS/USA free trade agreement (FTA) with special emphasis on the Victorian economy. The analysis uses a specially-built version of the GTAP model.

Two scenarios are modelled. The first is a baseline projection. The baseline is a sequence of annual forecasts for the global economy, constructed using external forecasts for macro variables and for rates of import protection and export subsidies. In effect, the baseline shows what might be expected to happen if there was no AUS/USA free trade agreement (FTA). The second scenario involves across-the-board elimination of all forms of import and export taxes on AUS/USA merchandise trade (including trade in primary and secondary agricultural products). The cuts are implemented gradually over a four-year period, 2004 to 2007. Standard modelling assumptions apply, including the assumption that real wage rates adjust to keep employment fixed in the long-run. This means that in both regions the FTA has no long-run effect on national employment. Any long-run changes in the national labour market are revealed as changes in the national real wage rate rather than as changes in national employment. Another standard assumption maintained in our analysis is that the FTA does not affect production technologies. Thus we do not make allowance for improved efficiencies that might accompany increased competitive pressures.

Note that our assumption of a phasing-in of the FTA-cuts in trade taxes is made for modelling convenience. It has little or no impact on the simulated long-run effects of the FTA.

## 2. Economic model

GTAP is a multi-region Computable General Equilibrium model which has been used extensively for analysis of trade-policy issues. It models each region as an economy in its own right, with region-specific prices, region-specific consumers, region-specific industries, and so on. The regions are linked via trade in goods and services and flows of investment. The version of the model used for this report has been modified by:

- the inclusion of dynamic mechanisms that allows us to produce sequences of annual solutions; and
- the inclusion of new variables and equations that allow GTAP results for Australia-wide output and employment by industry to be disaggregated down to results for output and employment by state and by sub-state region.

## 3. Baseline Projection

In generating the baseline projection, we use forecasts for key supply-side macroeconomic variables and assumptions for changes in import protection and export subsidies provided by researchers at the GTAP project. For Australia we supplement these data with information on changes in rates of import protection and export subsidies between 2001 and 2005, which reflect announced plans (including the FTAs between Australia and Thailand and between Australia and Singapore).

#### 4. The effects of the AUS/USA free trade agreement

##### *National Results (Tables A1 to A3 in the main report)*

- Progressive cuts in protection through the four years 2004 to 2007 lead to increased employment, increased capital and higher real wage rates in Australia.
  - In 2007, relative to baseline levels, total employment has increased by 0.08 per cent, capital by 0.21 per cent, and real wage rates by 0.25 per cent.
- After 2007, employment slowly moves back to its baseline level, while capital and real wages progressively rise relative to their baseline values.
  - In the years following the last year of protection cuts (2007) the dynamic mechanisms in the model move the economy towards a position of long-run equilibrium. In the long-run year capital and the real wage rate in Australia have each increased relative to their baseline values by around 0.4 per cent
- The FTA leads to increased real GDP.
  - The deviations in real GDP reflect a weighted average of deviations in factor inputs. Accordingly, real GDP is elevated above its baseline level in each year of the simulation.
  - In the long-run year the GDP-deviation for Australia is 0.17 per cent, while for the USA real GDP is up 0.004 per cent.
  - It can be shown that the long-run real-GDP deviations are proportional to the percentage changes in the real cost of capital in each country directly arising from the protection cuts.
- The FTA leads to increased real private consumption in Australia.
  - Note, though, that the percentage increases in consumption are smaller than the percentage increases in real GDP due, in part, to a decline in the terms of trade.
- The effects of the agreement vary across industries in Australia (see Table A2). The mechanisms, however, are fairly straightforward, depending primarily on the extent to which the protection cuts exposes sectors to additional import competition and on each sector's export orientation.
  - The most favourably affected Australian sector is Sugar. It has an especially high USA-export propensity, and it faces negligible competition from USA imports. Thus, even though the initial rate of protection against Australian sugar in the USA is quite low removing this protection yields considerable benefit to the Australian industry
  - The next most favourably affected sectors are Dairy products and the related Raw milk industry.. This reflects the very high initial rate of protection against Australian dairy imports into the USA. Thus, even though two-way trade in dairy between Australia and the USA is small relative to overall sales for each industry (see Table 5), eliminating protection against Australian imports in the USA imparts considerable benefit to the Australian dairy industries.
  - The fourth most favourably affected industry is other Electronic equipment. The USA-export propensity for this industry is relatively high. Thus, even though the initial rate of protection affecting exports to the USA is quite small, free trade leads to a significant increase in output for the Australian industry based on increased exports to the USA.
  - The fifth most favourably affected industry is Meat products. Its situation pre-FTA is very similar to that of the Sugar industry, with a relatively high USA-export propensity. This, combined with an initial rate of protection in the USA market of 4.0 per cent, means that removing protections results in a relatively strong stimulus for the Australian industry.
- There are seven industries for which the FTA reduces output relative to baseline values in the long-run year (2020).
  - Prominent among these is Motor vehicles and parts. The Australian motor vehicles industry faces quite strong competition in its local market from USA imports: USA-import penetration is 7.3 per cent. Relative to the level of USA-import penetration, though, its USA-

export propensity is quite low (2.6 per cent). The relatively high rate of import penetration, combined with an initially high rate of protection in AUS against USA imports means that when the protection is removed the surge in USA imports causes a relatively significant contraction (relative to base) in the output of the local industry.

- Among the remaining industries for which the FTA causes output to decline are Machinery nec, Non-metallic building products, Vegetable oils and fats, and Chemicals nec. Their presence in the list of least-favourably affected industries is somewhat surprising given the low initial rates of protection on these products in both countries. However, USA-import penetration in Australian markets for these products is relatively high, and so removal of protection generates enough additional imports to reduce production of all four AUS industries
- The FTA has relatively mild, but positive, impacts on the majority of Australian industries.
  - The majority of Australian industries are projected to experience changes in output (relative to baseline values) in the long-run year of between 0 and 0.9 per cent.
  - Industries in this least-affected group typically face little exposure to trade with the USA. The main influences on the least-affected group are the changes in final domestic demand brought by the FTA.
- Included in the “least-affected” group are the two TCF industries, namely Textiles (including wool scouring) and TCFnec (mainly clothing and footwear).
  - In the long-run year, the output of Textiles in Victoria is up 0.82 per cent, with employment rising by just under 200 persons. By contrast, output in the Victorian TCFnec industry is projected to fall by 0.01 per cent, with employment down by roughly 70 persons.
  - These contrasting results reflect, in the main, the initial levels of protection against USA imports for Australian produced Textiles and TCFnec (see Table 3). Initially, protection is somewhat higher on TCFnec than it is on Textiles. It follows, therefore, that removing protection harms the TCFnec industry relative to the Textiles industry. In the long-run year, USA imports into Australia of Textiles is up 46.6 per cent relative to its basecase level, while that of TCFnec is up 225 per cent. Going the other way, Australian imports into the USA of Textiles is up 40 per cent, while that of TCFnec is up 75 per cent.

#### ***State Results (Tables A4 to A6 in the main report)***

- The states that gain most from the FTA are Queensland, Western Australia and Tasmania. The states that gain least are Victoria and South Australia.
  - In 2020 real GSP in Victoria is 0.13 per cent above its basecase level (equivalent to around \$230 million), while employment is down 0.034 per cent relative to its basecase level (representing a loss of around 800 full and part-time jobs).
  - It should be noted that all states gain, and that the difference between the increase in real GSP for the state that gains most (Western Australia) and the state that gains least (Victoria) is only 0.09 percentage points.
  - An implication of our regional methodology is that regions with an over-representation of favourably affected “national” industries gain at the expense of regions with an under-representation of such industries. Victoria gains least because it is over-represented in industries least favourably affected by the FTA. Prominent among these is Motor vehicles and parts.
- The numbers in the body of Table A6 help us to understand the differences between the long-run (2020) deviations in each state’s GSP. They decompose the difference between the percentage deviation in each state’s GSP and the percentage deviation in real GDP into the contribution attributable to each sector.
- For Victoria there is a mix of positive and negative sectoral contributions.
  - The most obvious weakness is Motor vehicles and parts. This sector is projected to experience a 1.12 per cent decline in output at the national level (and in Victoria), compared to a rise of 0.17 per cent in real GDP, and is over-represented in Victoria.

- The negative entries for Victoria towards the bottom of the table are for “local” industries. The percentage deviations in output in Victoria for local industries tend to be smaller than at the national level reflecting negative local multiplier effects.
- Victoria also has strengths (i.e., industries that make a positive contribution to the gap between the increase in Victoria’s real GSP and the increase in national GDP). Of these, the most notable are raw milk and dairy products, in which Victoria is over-represented and which are projected to expand by more than real GDP. Another area of strength is the Textiles industry (which includes wool scouring).

### ***Results for Victorian Sub-state Regions (Tables A4, A5 and A7)***

- In the long-run year, the regions that gain most from the FTA are the Western District (real GRP up 0.47 per cent *c.f.* an increase in Victoria’s real GSP of 0.13 per cent), Wimmera (real GRP up 0.39 per cent), Goulbourn (real GRP up 0.38 per cent) and the Mallee (real GRP up 0.37 per cent).
- All regions are projected to experience increased real GSP as a result of the FTA, but Melbourne and Barwon are expected to expand least.
- In terms of employment, the FTA results in net job loss in Melbourne, Barwon and Central Highlands.
- The numbers in the body of Table A7 help us to understand the relative results for regional GRP in the same way as the numbers in Table A6 allowed us to understand the relative results for state GSP.
  - The main strength of the Western District (D3) is milk and dairy production. Both industries are expected to increase their share of GSP and are over-represented in the region. Another strength of the region is Motor vehicles and parts, which is expected to experience a decline in its GSP share, but which is under-represented in the region. Other strengths are in the services industries that benefit from positive local multiplier effects.
  - Now consider the regions that do least well: Melbourne (D1) and Barwon (D2). The main weakness of Melbourne is an under-representation of milk and dairy and an over-representation of Public services, which experiences a small reduction in output. The major weakness of Barwon is an over-representation of adversely affected Motor vehicles and parts. However, this is partly offset by an over-representation of Textiles (including wool scouring), which is projected to expand its share of GSP.

## CONCLUSIONS

The simulation results suggest the following responses to the hypotheses listed in the Tender document.

1. *The impacts of AUSFTA will be uneven in Victoria; effects will be concentrated in particular regions.*
  - Tables A4 and A5 show that the effects of the AUSFTA are uneven across regions. All regions gain in terms of GSP, but some gain less than others. The regions that gain least are Melbourne, Barwon and Central Highlands. The regions that gain most are Western District, Wimmera, Goulbourn and Mallee.
  - In terms of employment some regions lose jobs (Melbourne, Barwon and Central Highlands), while other regions gain jobs. In terms of job numbers, around 1,600 jobs are lost in Melbourne in the long-run year. In absolute terms, the largest job gain is in the Western District, which picks up around 200 full and part-time jobs in the long-run year.
2. *The impact on TCF will have significant consequences in regional Victoria.*
  - Table A7 shows the long-run output-deviation for the two TCF industries (Textiles and TCFnec) in Victoria: 0.822 per cent (Textiles) and –0.011 per cent (TCFnec).
  - Table A7 also shows the contribution of the TCF industries to the gap between the percentage deviation in each region's real GRP and the percentage deviation in Victoria's real GSP. The percentage deviation in output of the Textile industry in Victoria is 0.82 per cent, well in excess of the increase in Victoria's real GSP of 0.13 per cent. This means that the industry will make a positive contribution in regions where it is over-represented, but a negative contribution in regions where it is under-represented. The over-represented regions are Barwon and Ovens-Murray. The percentage deviation in output of the TCFnec industry in Victoria is –0.01 per cent. Its contribution to the relative GRP results, though, is generally small, reflecting its fairly uniform distribution across the regions.
3. *The impact on the TCF industry is likely to be greater in Victoria than in any other State. Some understanding of this can best be gained by showing the industrial contributions to the change in each region's real value added relative to the change in the state's real value added.*
  - See Table A7 and the comments above.
4. *AUSFTA will have a major economic and employment impact on the Victorian chemical and plastics industry*
  - Table A8 show absolute ('000 persons) deviations in industry employment by region in Victoria in the long-run year. According to these estimates, nearly 100 full and part-time jobs will be lost from the Chemicals industry in Victoria. These job losses will be concentrated in Melbourne (around 80 jobs lost), with the remainder coming mainly from the Barwon region.
5. *The level of employment in the Victorian automotive industry will be affected by the AUSFTA*
  - According to Table A8, over 1,100 full and part-time jobs will be lost from the Motor Vehicles and parts industry in the long-run year. Of this, around 800 will come from Melbourne and almost 200 from the Barwon region.
6. *The overall economic impact of AUSFTA on the automotive industry in Victoria will be significant*
  - Table A7 shows that in the long-run year, output in the Victorian Motor Vehicles and parts industry will fall relative to its baseline value by 1.12 per cent. Table A8 shows a fall in employment in the long-run year of over 1,100 full and part-time jobs.
7. *The Victorian dairy industry will receive a major economic boost as a result of AUSFTA*

- Output in the Victorian dairy products industry is projected to increase by nearly 2 per cent relative to its baseline value in the long-run year (Table A7), while raw milk production is expected to increase by the same percentage amount. Table A8 shows that an additional 500 people will be employed in the raw milk industry in Victoria in 2020, and an additional 120 people will be employed in the dairy products industry. ;
8. *The economic and employment impact of AUSFTA on the dairy industry will be greater for Victoria than for the other States;*
- This hypothesis is based, I think, on the idea that the Victorian dairy industry is more export-oriented than the dairy industries in other states. This fact is not accounted for in our modelling, which assumes that the dairy industry in each state responds in an equi-proportionate way to the FTA. Note, though, that Table A3 shows that exports of dairy products in the long-run year will increase by nearly 270 per cent relative to its basecase level in the long-run year.
9. *Employment in the food processing industry in Victoria will increase as a result of AUSFTA.*
- Table A9 gives the employment consequences of the FTA for Victorian food processing industries, namely, Meat, VegOils, DairyProds, Sugar, Foodnec and Drinks. The aggregate change in employment for this group in the long-run year is 370 persons.
10. *The impact of AUSFTA on the food processing industry will be unevenly spread over the 12 Victorian regions.*
- There is little evidence in support of this hypothesis.

**THE EFFECTS OF A FREE TRADE  
AGREEMENT BETWEEN AUSTRALIA AND  
THE USA WITH SPECIAL REFERENCE TO  
THE VICTORIAN ECONOMY: MAIN REPORT**

**Study by the Centre of Policy Studies for the  
Victorian Department of Premier and Cabinet**

**November 2003**



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## 1. Introduction

This report documents analysis of the economic effects of the proposed AUS/USA free trade agreement using a specially-built dynamic version of the GTAP world general equilibrium model.<sup>1</sup> The work has been undertaken by the Centre of Policy Studies (CoPS) for the Victorian Department of Premier and Cabinet, and draws partly on an earlier report commissioned by the Allen Consulting Group.

Two scenarios are modelled. The first is a baseline projection. The baseline is a sequence of annual forecasts for the global economy, constructed using external forecasts for macro variables and for rates of import protection and export subsidies. In effect, the baseline shows what might be expected to happen if there was no AUS/USA free trade agreement (FTA). The second scenario involves across-the-board elimination of all forms of import and export taxes on AUS/USA merchandise trade (including trade in primary and secondary agricultural products). The cuts are implemented gradually over a four-year period, 2004 to 2007. Standard modelling assumptions apply, including the assumption that real wage rates adjust to keep employment fixed in the long-run. This means that in both regions the FTA has no long-run effect on national employment. Any long-run changes in the national labour market are revealed as changes in the national real wage rate rather than as changes in national employment. Another standard assumption maintained in our analysis is that the FTA does not affect production technologies. Thus we do not make allowance for improved efficiencies that might accompany increased competitive pressures.

The rest of this document is organised as follows. The version of the GTAP model used in this study is explained in Section 2. Details of the baseline are given in Section 3. Having produced the baseline, we next generate a revised forecast, including shocks through time to represent the alternative scenario described above. The effects of these shocks are reported in Section 4 as deviations between the values of variables in the revised forecast and their values in the baseline.

## 2. The GTAP model

This section has three parts. An overview of the static core of the GTAP model is given in Section 2.1. Section 2.2 summarises the model's database.<sup>2</sup> Finally, in Section 2.3 we describe the modifications that transform the static model into a dynamic one and that allow us to report detailed regional results for Australia.

### 2.1 The static core

GTAP is a multi-region CGE model designed for comparative-static analysis of trade policy issues. The version of the model taken as a starting point for this study is as documented in Hertel (1996). Our version distinguishes the 10 regions shown in Table 1, and the 39 single-product sectors shown in Table 2. In addition to the 39 sectors there are three other agents in each region: a capital creator, a household and the government.

GTAP determines regional supplies and demands of goods and services through optimising behaviour of agents in competitive markets. Optimising behaviour also determines sector demands for primary factors, i.e., labour, capital, land and natural resources. In each

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<sup>1</sup> Using a dynamic model allows us to trace the effects of a FTA through real time. It also allows us to phase in the changes in trade taxes that accompany the FTA. Conventional comparative-static analysis does not allow for explicit dating, or for the short and medium effects of a phased program of tax changes.

<sup>2</sup> The database notionally reflects the year 1997. It is updated via model simulation to the year 2004, which is the starting point for our deviations simulations.

region there are two types of labour (skilled and unskilled) and a single, homogenous capital good. In standard long-run comparative static applications of the model, total supplies of labour, land and natural resources are fixed for each region, while capital can cross regional borders to equalise percentage changes in rates of return.

The modelling of each regional economy in GTAP is based on ORANI, a single region model of Australia (Dixon, et al. 1982). However, unlike ORANI, GTAP models inter-regional linkages arising from the flows of tradable goods and services and of capital. In doing so it ensures that each region's total exports equal total imports of these goods by other regions.

The basic theoretical assumptions made in GTAP are as follows.

### *Markets*

Demand equals supply in all markets. Each market is assumed to be competitive, implying equality between the price received by the producer and the producer's marginal cost. Regional governments intervene in their own markets by imposing taxes and subsidies on commodities and primary factors, thus driving wedges between prices paid by purchasers and prices received by producers.

In markets for traded commodities, buyers differentiate between domestically produced products and imported products with the same name.<sup>3</sup> Product differentiation is also allowed between imports by region of origin. This allows for two-way trade across regions in each tradable product.

### *Input demands for production of commodities*

Two broad categories of inputs to production are recognised: intermediate inputs and primary factors. In every region, each sector is assumed to choose the mix of inputs to minimise total cost for a given level of output. Sectors are constrained in their choice of inputs by a three-level nested production technology. At the first level, intermediate-input bundles and primary-factor bundles are used in fixed proportions. At the second level, intermediate input bundles are formed as combinations of imported bundles and domestic goods with the same name, and primary-factor bundles are formed as combinations of labour, capital and land. In both cases the aggregator function has a Constant Elasticity of Substitution (CES) form. At the third level, imported bundles are formed as CES combinations of imported goods with the same name from each region.

### *Household demands*

Each region has a single representative household. Aggregate household expenditure is determined as a constant share of total regional income (household consumption plus government expenditure plus national savings). The household buys bundles of commodities to maximise utility subject to its expenditure constraint.<sup>4</sup> The bundles are CES combinations of domestic goods and import bundles, with the import bundles being CES aggregations of imports from each region.

### *Demands for inputs to capital creation and the determination of investment*

The cost-minimising capital creator in each region combines inputs to assemble units of capital, subject to a nested production technology similar to that facing each sector for current production. The only difference is that the capital creator does not use primary factors. The use

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<sup>3</sup> Allowing for the possibility that imported products may not be perfectly substitutable for the corresponding domestic product is an idea first put forward in Armington (1969).

<sup>4</sup> GTAP represents consumer demands using the Constant Difference Elasticity implicit expenditure function.

of primary factors in capital creation is recognised indirectly through inputs of commodities to capital construction.

Investment in each region is financed from a global pool of savings. Each region contributes a fixed proportion of its income to the savings pool. In standard GTAP, there are two alternative ways that this pool is allocated to investment in each region. The first makes investment in each region a fixed proportion of the overall size of the pool. Thus if the pool increases by 10 per cent, investment in each region increases by 10 per cent. The second relates investment allocation to relative rates of return. Regions that experience increases in their rate of return relative to the global average will receive increased shares of the investment budget, whereas regions experiencing reductions in their rate of return relative to the global average will receive reduced shares

#### *Government demands for commodities*

The share of aggregate government expenditure in each region's income is held fixed. Government expenditure is allocated across commodities by a Cobb-Douglas distribution. The allocation of total expenditure on each good to domestically produced and imported versions is based on the same nesting scheme used to allocate total household expenditure on each good.

## **2.2 Database**

The GTAP data base comprises: input/output data for each region; bilateral trade data derived from United Nations trade statistics; and support and protection data derived from a number of sources. The simulations reported in this study are based on version 5 of the database, as described in McDougall and Dimaranan (2001). The database contains estimates of production costs, final demand values, bilateral trade values and various tax levels for 1997.

The levels of import protection on AUS imports from the USA and on USA imports from AUS are summarised in Table 3. This table shows for both regions, trade-weighted averages of bilateral *ad valorem* import tariffs (and tariff equivalents of bilateral non-tariff barriers) levied on imports.<sup>5</sup> Data for 1997 come directly from the GTAP database. Next to the 1997 data are estimates for 2004 taken from our baseline projection (see Section 3). According to our baseline, in 2004 AUS imposes rates of protection of over five per cent on USA imports of Dairy products, Textiles, clothing and footwear, Non-metallic building products and Metal products. Note that the applied rate of tariff on motor vehicles and parts in 2004 is estimated to be 4.7 per cent. Note too that the negative tariffs shown for wool are irrelevant since there are not imports of USA wool into AUS. In the USA, rates of over five per cent apply to AUS imports of Crops (excluding grains), Dairy products, Textiles, and Clothing and footwear.

The US dollar value of AUS imports in the USA and of USA imports in AUS are summarised in Table 4. In both cases imports are dominated by imports of manufactured products and services.

## **2.3 Modifications to GTAP for this study**

The model used in this study was based on the standard GTAP Version 6.0 model, released April 2001. Onto this basis we add the following.

- A series of new variables representing useful aggregates of primary agricultural and agriculture-related sectoral outputs, exports and imports. These did not alter the basic theory of GTAP in any way and were merely defined for convenience.

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<sup>5</sup> The GTAP data do not include protection data for services.

- New variables and equations that furnish GTAP with simple dynamic behaviour.<sup>6</sup> These allowed us to run linked annual GTAP simulations for each year between 1997 and 2020. For each region, the new equations:
  - linked net investment in each year to the change in the capital stock for that year.
  - allowed employment to respond temporarily to changes in real wage rates.
  - allowed rates of return to capital to respond temporarily to changes in capital demands.
- New variables and equations that allow GTAP results for Australia-wide output and employment by industry to be disaggregated down to results for output and employment by state and by sub-state region.

In the long run, all 3 dynamic equations reduce to simpler forms: investment moves in proportion to capital stock; and employment and rates of return converge to baseline trend levels. Additionally, all three dynamic equations were over-ridden by exogenous information in our baseline scenario. They affect only the adjustment paths to the new long-run equilibrium in our deviation scenarios.

The regional disaggregation for Australia is based on a two-stage tops-down method employed in the Monash model of the Australian economy (Dixon and Rimmer, 2002). This enables Australia-wide results for output and employment (as generated by GTAP) to be disaggregated, first to the state level, then to the finer level of statistical divisions. In each stage, the disaggregated projections are consistent with results at the immediately higher level, i.e., the results for the states aggregate to the Australian results as projected by GTAP, and the regions for regions in each state aggregate to the state results. The method is an adaptation of the regional disaggregation method first applied to sub-state regions in Australia by Adams and Dixon (1995).

Further details of regional disaggregation facility are given below.

### *2.3.1 Regional disaggregation: National (GTAP) to state*

The first step in the disaggregation to states is to allocate each of the GTAP commodities (Table 3) to one of two groups: national and local. Commodities classed as national are traded extensively across state borders. Examples are the agricultural and mining commodities. Local commodities are those for which demand in each state is satisfied mainly from production in the state. Examples include perishable food items, and services like Trade services.

For industries that produce national commodities, the disaggregation usually allocates to each state the same growth rate in output. For local commodities, the facility imposes market clearing in each state. Hence, the output growth rates in each state of local industries (those producing local commodities) are set equal to the rates of growth in demand for their products in each state. In calculating the local demand for the output of local industry *j*, the disaggregation facility takes account of:

1. intermediate and investment demands both by local industries and by national industries located in the state;
2. the state's household demands, which are a function of population and employment changes and of the change in consumption at the national level; and
3. government demand.

Currently 30 of the 39 GTAP commodities are declared to be national. The remaining 9 commodities, accounting for almost 60 per cent of Australia's GDP, are local. By allowing for

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<sup>6</sup> The dynamics added to the GTAP model for this study are similar in style to those detailed in Ianchovichina and McDougall (2000)

local commodities in the stage-1 calculations, we introduce state multiplier effects. If a state has an over-representation of fast-growing national industries, then the effect on its overall growth is multiplied through fast-growth in its local industries.

An attractive feature of the states disaggregations is that its data requirements are modest. They are satisfied by having for the base year (1997) state shares in total production for national commodities and final demands by state for local commodities. Since for national commodities we assume that the regional pattern of production is independent of the pattern of demand, no data are required for these commodities on their sales patterns across states. For local commodities, it is assumed that the economy-wide GTAP input-output coefficients relating to their usage apply at the state level. Thus, we do not need information on state technologies.

### *2.3.2 Regional disaggregation: State to sub-state region*

Stage 2 of the regional facility disaggregates the projections for states obtained in stage 1 to 56 regions, of which eleven are in Victoria: Melbourne, Barwon, Western District, Central Highlands, Wimmera, Mallee, Loddon-Campaspe, Goulbourn, Ovens-Murray, East Gippsland and Gippsland. As in state 1, in stage 2 each of GTAP's 39 commodities is classified to one of two categories: here called national-region and local-region. National-region commodities are those that are readily traded across regional boundaries. The regional outputs of industries producing national-region commodities are assumed to grow in line with the statewide growth rates calculated in stage 1.

Local-region commodities are those for which demand within each region is satisfied mainly from production in that region. The outputs in each region of industries producing local-region commodities are modelled as depending mainly on demand within the region. This gives our stage-2 calculations a similar multiplier property to that in the stage-1 calculation: the effect on a region's growth of a favourable mix of national-region industries is multiplied through induced effects on the growth rates of the region's local-region industries.

The minimal data requirements for the stage-2 allocation of state projections to regions are base-year data for value added by industry in each Statistical division. For this study these data were compiled using detailed labour-force data for employment by industry which were used to allocated across regions the state-wide value added data used in stage 1.

## **3. Baseline Projection**

In generating the baseline projection, we use forecasts for key supply-side macroeconomic variables and assumptions for changes in import protection and export taxes based on data provided by Terrie Walmsley, a researcher associated with the GTAP project. These forecasts are recent revisions of those documented in Walmsley *et al.* (2000). They are mainly based on the World Bank's Global Economic Perspectives Data Base. For Australia we supplement Walmsley's data with information on changes in rates of import protection and export subsidies between 2001 and 2005, which reflect announced plans (including the FTAs between Australia and Thailand and between Australia and Singapore).

### *Volume of bilateral trade between AUS and USA (Table 8)*

Table 8 gives baseline projections for the volume of AUS/USA bilateral trade by commodity. These are expressed as average annual growth rates between 1997 and 2020. The total volume of AUS exports to the USA is projected to grow at an average annual rate of 0.9 per cent. This is well below the projected growth rate for USA exports to AUS. The disparity in growth rates is greatest for primary and related agricultural products, with growth in AUS agricultural exports to the USA projected to be around four percentage points below that of growth in USA agricultural exports to AUS.

## **4. The effects of the AUS/USA free trade agreement**

Aspects of the experiment design for the free trade scenarios are discussed in Section 4.1. Simulation results for each of the four alternative scenarios are examined in Section 4.2.

### **4.1 Experiment design**

The following general assumptions are made for the free-trade scenarios.

#### *Labour markets*

We assume that in each region deviations in the average real wage rate (i.e., in the average nominal wage rate deflated by the CPI) from its baseline level increase in proportion to the deviation in total employment from its baseline level. The coefficient of proportionality is chosen so that the aggregate employment effects of a shock are largely eliminated after five years. In other words, after about five years, the benefits (costs) of a favourable (unfavourable) shock are realised almost entirely as an increase (fall) in the national real wage rate, rather than as an increase (decline) in employment. This labour market assumption reflects the idea that in the long-run national employment is determined by demographic factors, which are largely unaffected by changes in trade policies. It is also consistent with conventional macro-economic modelling in which the long-run rate of unemployment is treated as a constant.

#### *Taxes and government budget balances*

We assume that the shocks associated with the free trade agreement make no difference to the paths of commodity taxes other than trade taxes in AUS and the USA. We also assume no deviation in the paths of government budget balances, through implicit adjustments in direct tax rates or in transfer payments.

#### *Private consumption, government consumption, saving and investment.*

Private and public consumption expenditures and nominal savings in each region are assumed to move with regional income. We assume that in each region, investment will deviate from its baseline value in line with the deviation in capital.

#### *Rates of return on capital*

In deviation simulations our dynamic version of GTAP allows for short-run divergences in rates of return on regional capital stocks from their levels in the baseline. Such divergences cause divergences in capital and hence in investment. The divergences in capital stocks gradually erode the divergences in rates of return, so that in the long-run rates of return in each region return to their baseline levels.

#### *Production technologies*

GTAP contains many types of technical change variables. In the deviation simulation we assume that all technology variables have the same values as in the baseline simulation.

### **4.2. Impacts of the FTA**

The main effects of the AUS/USA free trade agreement are given in a series of tables. These show, for the period 2004 to 2020, deviations of a range of variables from their values in the baseline projection. There are eight tables:

Table A1: Macroeconomic variables (percentage deviations from baseline values);

Table A2: Industry output (percentage deviations from baseline values);

Table A3: Trade volumes by commodity (percentage deviations from baseline values);

- Table A4: Australian regional variables (percentage deviations from baseline values);
- Table A5: Australian regional variables (absolute deviations from baseline values);
- Table A6: Contributions to the differences in GSP deviations (%) in 2020;
- Table A7: Contributions to the differences in Victorian GRP deviations (%) in 2020; and
- Table A8: Industry employment in Victoria and Victorian sub-state regions in 2020 (absolute ('000 persons) deviations).

The first table shows year-to-year percentage deviations in a range of macroeconomic variables, including the real components of demand, real GDP and employment. The second table contains year-to-year deviations in the output of each industry in AUS and the USA. The third table gives year-to-year percentage deviations in bilateral trade volumes, by commodity, between AUS and the USA. Tables A4 and A5 show outcomes for real value added and employment in each state and territory and in each Victorian sub-state region. Information in Tables A6 and A7 help us to understand why some states do better than other states, and why some Victorian regions do better than other Victorian regions. The final table contains Victorian-specific data on deviations in the number of people employed. This information assists in the evaluation of several hypotheses in the conclusion.

#### 4.2.1 National results

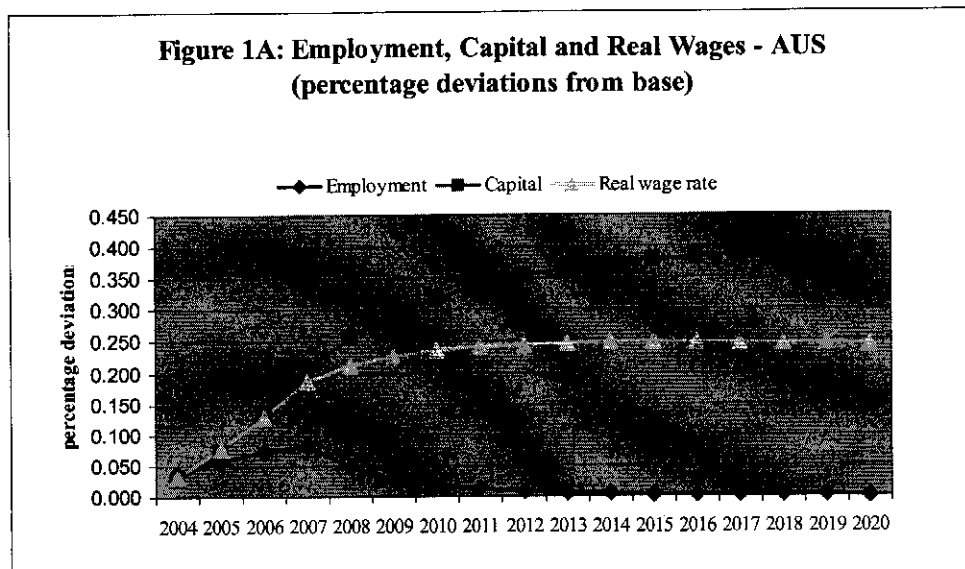
Our explanation is given in a series of numbered points. Italicised headings to the numbered points outline the main structure of the explanation. The explanation focuses mainly on outcomes for Australia, Victoria and Victorian regions.

- I. *The initial (2004) cuts in merchandise trade taxes lead to increased employment.* Table A1 shows that in 2004 the initial cuts in protection cause employment in AUS to increase, relative to its baseline value, by 0.036 per cent. This reflects, in the main, the impacts of the cuts in AUS's own import protection. These put a wedge between the price of expenditure (the price of consumption for example) and the price received by producers (the price of GDP at factor cost<sup>7</sup>). With the real wage rate from the employee's point of view (i.e., the nominal wage rate deflated by the price of consumption) assumed to be sticky in the short run, the nominal wage rate diverges only slowly from the price of consumption. Hence, initially, the cuts in tariffs cause the nominal wage to fall relative to the price of output, leading to a reduction in the real cost of labour and to increased employment.
- II. *In the period 2004 to 2007, successive cuts in protection lead to increases in capital and real wage rates with relatively mild increasing deviations in employment (see Figure 14).* According to the labour-market specification in our dynamic version of GTAP, if employment is above its baseline level, employees will demand an increase in their real wage rate. This strengthens producers' incentive to substitute capital for labour, leading to an increase in the capital/labour ratio. It follows that the progressive cuts in protection between 2004 and 2007, which put upward pressure on employment, lead to successive increases in the real wage rate and capital. Over this period the employment deviations are increase, but only mildly, because the upward pressure on employment arising from the protection cuts is partly outweighed by the real wage adjustment. In 2007, relative to baseline levels, total employment has increased by 0.082 per cent, capital by 0.206 per cent, and real wage rates by 0.22 per cent.

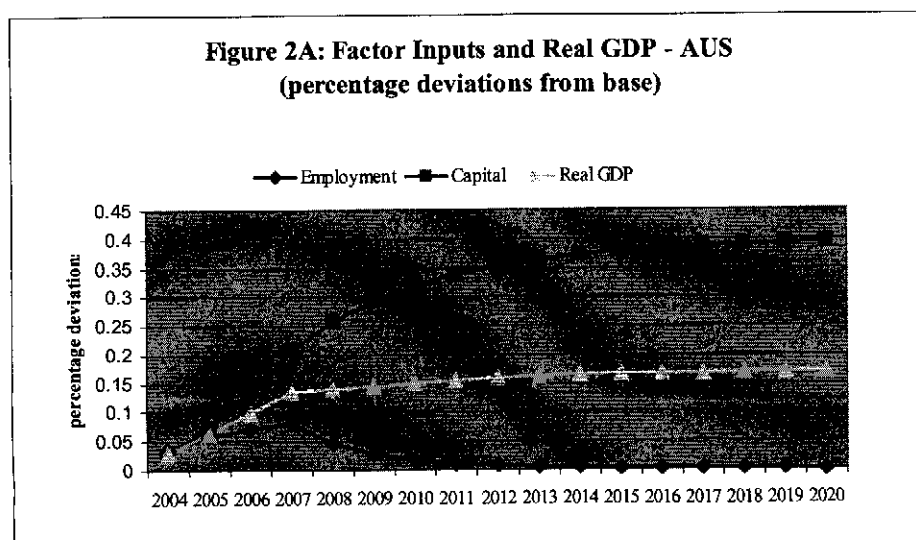
<sup>7</sup> The price of GDP at factor cost is a weighted average of the prices of primary factors (land, unskilled labour, skilled labour, capital and natural resources). The price of GDP at market prices is a weighted average of the prices of primary factors plus the unit cost of indirect taxes net of subsidies. All else unchanged, cuts in protection lower the unit cost of indirect taxes, leading to a fall in the price of GDP at market prices relative to the price of GDP at factor cost.



- III. *After 2007, employment moves back to its baseline level, while capital and real wages progressively increase relative to their base levels (Figure 1A). In the years following the last year of protection cuts the dynamic mechanisms in the model move the economy towards a position of long-run equilibrium. In the long-run, the deviations in employment and in the rate of return on capital (the nominal rental on capital relative to the price of investment) have been eliminated. With the rate of return on capital fixed the real cost of capital becomes the dominant influence on factor inputs. The real cost of capital is the nominal unit-cost of capital deflated by the price of output (the price of GDP at factor cost). With the rate of return constrained, the nominal capital rental is effectively indexed to the price of investment. The cuts in protection cause the price of investment, like the price of consumption, to fall relative to the price of output. The fall in the price of investment relative to the price of output reduces the real cost of capital, causing capital to expand (Figure 1A). In the final year of the simulation (2020), the economy has almost fully adjusted to a new long-run equilibrium, with the employment deviation almost eliminated. At this point, capital and the real wage rate have each increased relative to their baseline values: capital by 0.4 per cent, and the real wage rate by 0.3 per cent.*



- IV. *Cuts in protection lead to increased real GDP (see Figure 2A). The deviations in real GDP reflect a weighted average of deviations in factor inputs. Accordingly, real GDP is elevated above its baseline level in each year of the simulation. In the long-run year the deviation is 0.17 per cent (see Table A1). It can be shown that this deviation is proportional to the percentage change in the real cost of capital directly due to the cut in AUS protection (see Box 1).*



**Box 1: The size of the long-run GDP effect**

The equation below provides a generally good approximation to the true long-run change in real GDP arising from a cut in import protection. By “true long-run change” we mean the conventional long-run comparative static solution, in which, following an exogenous shock, the real wage rate and capital have adjusted to force national employment and the rate of return on capital back to their baseline levels. The approximation is based on the following observations (see Adams, 2003):

1. that in the long-run the percentage change in a weighted average of factor inputs (labour and capital) arising from a cut in protection is inversely proportional to the percentage change in real cost of capital; and
2. that in the long-run the percentage reduction in real cost of capital resulting from a protection cut is approximately the value of the protection removed as a percentage of GDP adjusted for changes in the terms of trade.

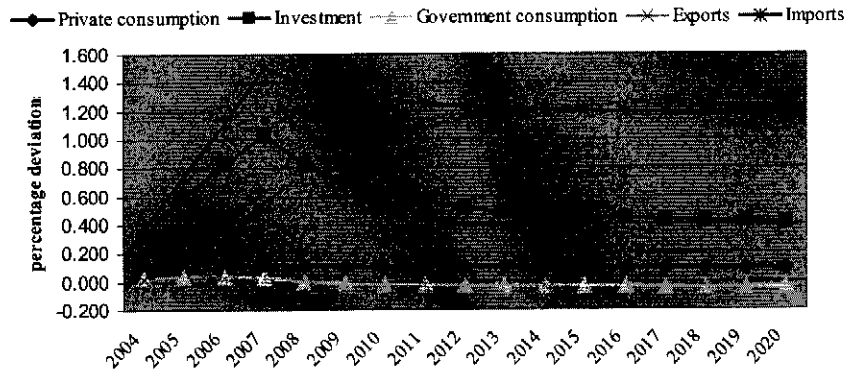
Combining these ideas yields, after some formal mathematical manipulation, the following approximation for the long-run percentage deviation in real GDP,

$$gdp = \left\{ \frac{S_K \times \sigma_{KL}}{1 - S_K} \right\} \times (-t + S_{trade} \times tot) \quad (1),$$

where:  $S_K$  is the share of the cost of capital in GDP,  $\sigma_{KL}$  is the capital to labour substitution elasticity,  $t$  is the value of the tariff change as a percentage of GDP,  $S_{trade}$  is the share of exports in GDP, and  $tot$  is the percentage deviation in the terms of trade. Calibrating using baseline data for 2020 yields values for the coefficient in curly brackets of 0.95 (AUS) and 1.06 (USA). The value of the tariff change as a percentage of GDP in 2023 is -0.15 (AUS) and -0.002 (USA). In both cases the terms of trade effect is negligible. Applying these values in (1) yields approximations to the long-run percentage deviation in real GDP of 0.14 per cent (AUS) and 0.003 per cent (USA). These compare to the “true” projected values of 0.170 per cent and 0.004 per cent.

- V. *Real private consumption rises (Figure 3A), but by less than real GDP.* Figure 3A shows that the free trade agreement increases real private consumption in AUS. However, the percentage increases in consumption are smaller than the percentage increases in real GDP. In GTAP *nominal* private consumption moves with *nominal* Net Gross Product (NGP). Nominal NGP is nominal GDP less depreciation. In a simulation where capital increases the cost of depreciation also rises causing nominal NGP to fall relative to nominal GDP. This is the main reason why real private consumption falls relative to real GDP. Another influence is the terms of trade decline (see point X). A reduction in the terms of trade generally increases the price of consumption (which includes the price of imports but not the price of exports) relative to the prices of NGP and GDP (which include the price of exports but not the price of imports). It therefore reduces real consumption per dollar of real NGP.
- VI. *Real investment increases (Figure 3A) to accommodate the increase in capital.* With capital progressively rising above base (Figure 2A), investment must remain above its baseline levels. In 2023, the investment deviation is 0.42 per cent (Table A1).

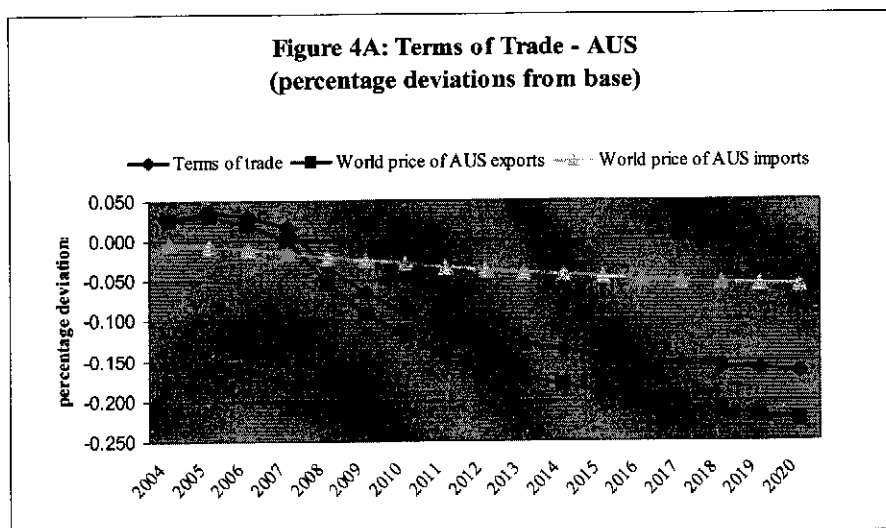
**Figure 3A: Expenditure Components of Real GDP - AUS**  
(percentage deviations from base)



- VII. *Real government consumption initially increases then falls relative to baseline levels (Figure 3A). Like private consumption, nominal government consumption moves with nominal NGP. However, the deviations in real government consumption are weaker than the deviations in real private consumption, and become negative after 2007. This contrast between deviations in real government and real private consumption is due to contrasting impacts on the respective prices. In each year, the agreement causes the price of government consumption to rise relative to the price of private consumption. This is because, relative to private consumption, public consumption is more oriented towards the purchase of services that are labour intensive. It follows that in a simulation where the real wage rate rises relative to its baseline level that the price of public consumption will tend to increase relative to the price of private consumption.*
- VIII. *Through the first half of the simulation period real gross national expenditure (GNE)<sup>8</sup> rises relative to real GDP, causing the balance between export and import volumes to deteriorate (Figure 3A). This is reversed in the second half of the period. Throughout the simulation period real private and public consumption (C and G) fall relative to real GDP (Y), while real investment (I) increases. The increase in investment relative to GDP in the first half of the period, though, is a little stronger than the increase in the second half, causing real GNE (C+I+G) to increase relative to real GDP in the first half, but to decrease in the second half. Movements in the balance between export and import volumes (X-M) mirror the movement in real GNE relative to real GDP. Thus in the first half of the period the volume of net trade deteriorates compared to its baseline level, while in the second half it improves.*
- IX. *The FTA is trade enhancing with imports and exports rising (Figure 3A). The changes in the volume of trade noted above are very mild. Generally, in each year the deviation in export volume more or less matches the deviation in import volume. The cuts in protection lead directly to increases in imports. Matching increases in exports are brought about by a combination of cuts in USA protection against AUS imports and real exchange rate devaluation. Changes in the real exchange rate bring about the necessary changes in X-M that reconcile movements in Y with movements in C+I+G. Devaluation*

<sup>8</sup> The percentage change in real GNE is the weighted average of percentage changes in real private consumption, real public consumption and real investment.

of the real exchange is indicated by a reduction in the domestic cost of production (the GDP deflator at factor cost) relative to the average cost of production elsewhere. Real devaluation means improved competitiveness for local producers, and hence increased exports and reduced imports. Overall, as a result of the bilateral cuts in protection and changes in the real exchange rate in 2020, relative to baseline levels, the volume of AUS imports rises 1.17 per cent and the volume of exports rises 1.29 per cent.



- X. *Falls relative to base in the terms of trade eventually accompany the cuts in protection (Figure 4A).* In the first few years of the simulation AUS's terms of trade improve relative to baseline levels. Thereafter the terms of trade steadily deteriorate. Figure 4A shows that the deviations in the terms of trade closely match the deviations in the world price of AUS exports. The world price of AUS imports changes little from baseline values. In this simulation, the deviations in export price are the net outcome of two offsetting influences. Cuts in USA protection increase the demand for AUS exports and hence put upward pressure on the world price of AUS exports. Offsetting this is real exchange rate devaluation which tends to lower the price of AUS products on world markets. In the early years of the simulation the impacts of USA protection cuts just outweigh the impacts of real devaluation. Gradually, though, the influence of the USA cuts dissipates and the real devaluations become the dominant influence on AUS's terms of trade.

Deterioration in the terms of trade has a generally negative impact on real GDP (see Box 1) and real consumption. All else unchanged, it increases the price of expenditure relative to output (see point V). This reduces the amount of real consumption per dollar of real income. It also increases the real cost of labour when, in the short-run, real wages are fixed and the real cost of capital when, in the long-run, capital's rate of return is fixed. Ultimately both of these effects reduce real GDP, offsetting to some extent the positive impacts of the protection cuts (see points I to IV).

- XI. *For some AUS industries cuts in protection significantly raise output relative to base in the long run.* Table A2 shows projections of the percentage change in industry output in AUS and the USA due to the FTA. The effects of the agreement vary across industries. The mechanisms, however, are fairly straightforward, depending primarily on the extent to which the protections cuts expose sectors to additional import competition and on each sector's export orientation. Data on levels of import competition and export orientation, along with information on sales patterns generally are given in Table 5.

**Figure 5A: Most Favourably Affected Industries- AUS**  
(percentage output deviations from base)

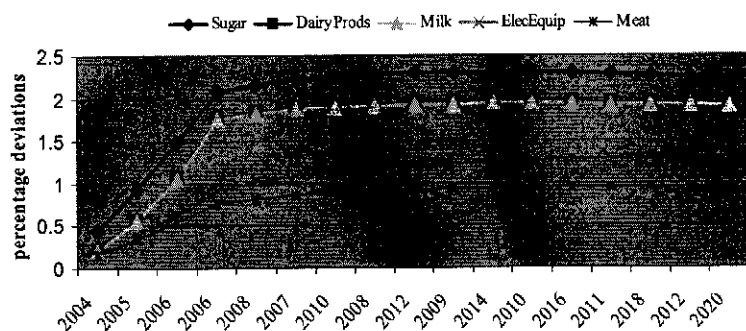


Figure 5A shows deviations in output for the (five) most favourably affected AUS industries.<sup>9</sup> Of these, the most favourably affected AUS sector is Sugar. It has an especially high USA-export propensity of 8.4 per cent (Table 5), and it faces negligible competition from USA imports (Table 5). Thus, even though the initial rate of protection against AUS sugar in the USA is quite low (6.3 per cent, Table 3) removing this protection yields considerable benefit to the AUS industry, with exports to the USA increasing by 28.3 per cent relative to base in the long run year (Table A3).

The next most favourably affected AUS sectors are Dairy products and the related Raw milk industry.. This reflects the very high initial rate of protection against AUS dairy imports into the USA (Table 3). Thus, even though two-way trade in dairy between AUS and the USA is small relative to overall sales for each industry (see Table 5), eliminating protection against AUS imports in the USA imparts considerable benefit to the Australian dairy industries. Table A3 shows that removing protection increases AUS dairy imports into the USA by nearly 270 per cent.

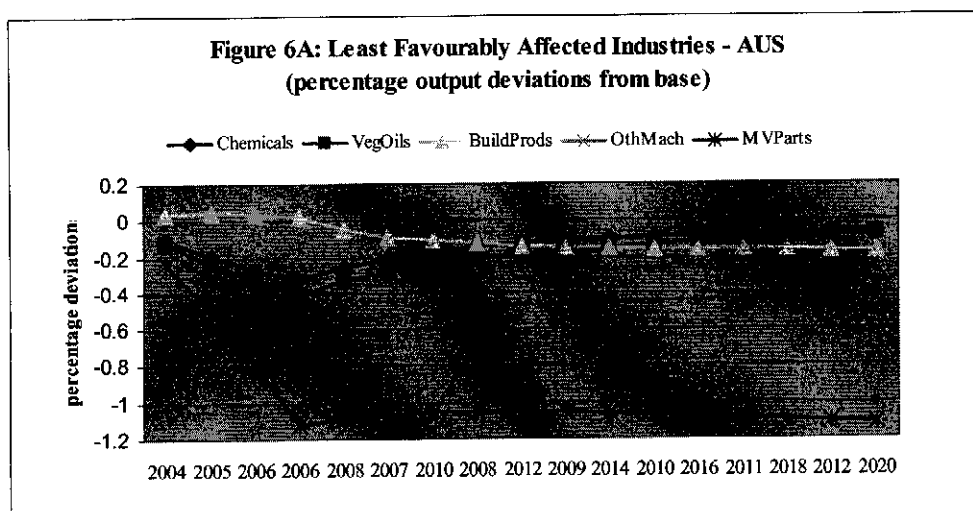
The fourth most favourably affected industry is other Electronic equipment. The USA-export propensity for this industry is relatively high, at 3.1 per cent (Table 5). Thus, even though the initial rate of protection affecting exports to the USA is quite small (Table 3), free trade leads to a significant increase in output for the AUS industry based on increased exports to the USA (Table A3).

The final industry listed in Figure 5A is Meat products. Its situation pre-FTA is very similar to that of the Sugar industry, with a relatively high USA-export propensity of 5.2 per cent (Table 5). This, combined with an initial rate of protection in the USA market of 4.0 per cent (Table 3), means that removing protections results in a relatively strong stimulus for the Australian industry.

- XII. *For some other AUS industries AUS/USA free trade lowers output relative to base in the long run.* There are seven industries for which the FTA reduces output relative to baseline values in the long-run year (Table A2). All but the least affected (Public services and Clothing and footwear) are shown in Figure 6A. Prominent among these is Motor vehicles and parts which is projected to lose 1.12 percent of its baseline output in the long-run year. The AUS motor vehicles industry faces quite strong competition in its local market from USA imports: USA-import penetration is 7.3 per cent (Table 5).

<sup>9</sup> Shown in this table are industries for which output in the long-run rises by more than 0.9 per cent relative to baseline levels.

Relative to the level of USA-import penetration, its USA-export propensity is quite low (2.6 per cent). The relatively high rate of import penetration, combined with an initially high rate of protection in AUS against USA imports (Table 3) means that when the protection is removed the surge in USA imports causes a relatively significant contraction (relative to base) in the output of the local industry.



The remaining industries shown in Figure 6A are Machinery nec, Non-metallic building products, Vegetable oils and fats, and Chemicals nec. Their presence in the list of least-favourably affected industries is somewhat surprising given the low initial rates of protection on these products in both countries. However, USA-import penetration in Australian markets for these products is relatively high (Table 5), and so removal of protection generates enough additional imports (see the second panel of Table A3) to reduce production of all four AUS industries.

- XIII. *The free trade agreement has relatively mild, but positive, impacts on the majority of AUS industries.* Table A2 shows that the majority of industries are projected to experience changes in output (relative to baseline values) in the long-run year of between 0 per cent and 0.9 per cent. Industries in this least-affected group typically face little exposure to trade with the USA. Thus, even though, initially, there may be high bilateral rates of protection on the products produced by these industries (e.g., the rates initially applying to Textiles, clothing and footwear in both AUS and the USA), removing this protection has relatively little direct impact. Another common feature of the least-affected industries is that they have weak input/output connections with industries that are most-affected.

The main influences on the least-affected group are the changes in final domestic demand brought by the free trade agreement. As discussed above, the agreement causes real private consumption and real investment in AUS to expand relative to baseline levels and real government consumption to fall (see Table A1). It follows, therefore, that industries with strong connections to household and investment demand, such as Financial services and Dwelling services (see Table 5), will experience output increases relative to the government-oriented industry, Public services.

- XIV. *Overall, the long run impacts on primary agricultural industries and agricultural related industries in AUS are positive.* Table A2 shows that in the long run the free trade agreement increases total primary agricultural output in AUS by 0.52 per cent relative to baseline levels. Total output in agricultural related industries increases relative to its baseline level by 0.62 per cent.

- XV. *From the AUS's point of view the free trade agreement is trade creating, with little evidence of trade diversion.* An examination of the contributions by region-of-destination to the final deviations in AUS export volumes show that nearly all of the expansions come from increased exports to the USA (export creation), with little or no evidence of export diversion.

#### 4.2.2 Results for States

Table A4 shows percentage deviations in real Gross State Product (GSP). The key inputs to these results (see Section 2.3) are the simulated effects on industry output at the national level (see Table A2) and data on the industrial composition of each State.

The states that gain most from the FTA are Queensland, Western Australia and Tasmania. The states that gain least are Victoria and South Australia. However, it should be noted that all states gain, and that the difference between the increase in real GSP for the state that gains most (Western Australia) and the state that gains least (Victoria) is only 0.09 percentage points. An implication of our regional methodology is that regions with an over-representation of favourably affected “national” industries gain at the expense of regions with an under-representation of such industries. Victoria gains least because it is over-represented in industries least favourably affected by the FTA. Prominent among these is Motor vehicles and parts (see point XII in Section 4.2.1).

The numbers in the body of Table A6 help us to understand the differences between the long-run (2020) deviations in each states' GSP. They decompose the difference between the percentage deviation in each state's GSP and the percentage deviation in real GDP into the contribution attributable to each sector. The contribution of sector  $i$  to the deviation for state  $r$  is calculated using the following formula:

$$Cont(i, r) = [z(i, Aus) - z(\bullet, Aus)] \times [S(i, r) - S(i, Aus)] + [z(i, r) - z(i, Aus)] \times S(i, r)$$

where:  $z(i, Aus)$  is the percentage deviation in output of sector  $i$  in Australia;

$z(\bullet, Aus)$  is the percentage deviation in Australia wide real GDP;

$z(i, r)$  is the percentage deviation in output of sector  $i$  in state  $r$ ;

$S(i, r)$  is the share of industry  $i$  in State  $r$ 's GSP; and

$S(i, Aus)$  is the share of industry  $i$  in Australia's GDP.

As can be seen from this formula, an industry can make a positive contribution to the percentage deviation in a state's GSP relative to that of Australia:

- if it is an industry with a percentage deviation in output exceeding the percentage deviation in real GDP (i.e., if  $[z(i, Aus) - z(\bullet, Aus)] > 0$ ) and is over-represented in the state (i.e.,  $[S(i, r) - S(i, Aus)] > 0$ );
- if it is an industry with a percentage deviation in output less than the percentage deviation in real GDP (i.e., if  $[z(i, Aus) - z(\bullet, Aus)] < 0$ ) and is under-represented in the state  $[S(i, r) - S(i, Aus)] < 0$ ; or
- if its percentage deviation in output in the state exceeds its percentage deviation in output in Australia as a whole (i.e., if  $[z(i, r) - z(i, Aus)] > 0$ ).

Now consider Table A6 for Victoria. The first thing to note is the appearance (as for all states) of positive and negative sectoral contributions. In other words, a combination of strengths and weaknesses explains why Victoria's real GSP rises by less than real GDP in the long-run year. The most obvious weakness is Motor vehicles and parts. This sector is projected to experience a 1.12 per cent decline in output at the national level (and in Victoria), compared to a rise of 0.17 per cent in real GDP, and is over-represented in Victoria. Another weakness for the

Victorian economy is an under-representation of mining, which is expected to expand by more than real GDP. The negative entries for Victoria towards the bottom of the table are for “local” industries. The percentage deviations in output in Victoria for local industries tend to be smaller than at the national level reflecting negative local multiplier effects.

Victoria does have some strengths. Of these, the most notable are raw milk and dairy products, in which Victoria is over-represented and which are projected to expand by more than real GDP. Another area of strength is the Textiles industry (which includes wool scouring).

Table A4 also shows projections for employment by state. The long-run deviations in state employment follow a similar pattern to the long-run deviations in real GSP. For Victoria, employment is projected to fall below its basecase level in 2020 by 0.034 per cent. This is equivalent to a loss of around 800 full and part-time jobs (see Table A5). By contrast, employment in Queensland is elevated by 0.042 per cent, or 800 full and part-time jobs.

#### **Note on employment**

In our model, employment is measured in terms of hours worked, not persons employed. Accordingly, percentage changes in employment, as simulated by the model, represent percentage changes in hours worked. To derive estimates of changes in the number of persons employed, we make a calculation outside of the model in which we assume that the exogenous shocks do not affect the ratio of hours employed to persons employed in each industry. Under this assumption, in each industry the percentage increase in persons employed equals the percentage increase in hours worked. Our simulations suggest that the FTA will reduce aggregate employment (hours) in Victoria in 2020 by around 0.034. In our basecase, Victorian employment in 2020 is around 2.6 million persons. Applying the percentage change to the baseline number yields a fall of about 800 in the number of full and part-time jobs.

We qualify this estimate, however, by noting that the translation from hours to persons probably overestimates the likely change in persons employed. This is because a reduction in employment (persons) is likely to arise from a mix of reduced hours worked per person and reduced employment (persons). This needs to be kept in mind when interpreting our results.

#### **4.2.3 Results for Victorian Sub-state Regions**

Table A4 also shows percentage deviations in aggregate real value added and employment for the eleven Victorian sub-state regions identified in the model. The key inputs to these results are the simulated effects on industry output at the state level (see the first column of numbers in Table A7) and data on the industrial composition of each sub-state region. In the long-run year, the regions that gain most from the FTA are the Western District (real GRP up 0.47 per cent *c.f.* an increase in Victoria’s real GSP of 0.13 per cent), Wimmera (real GRP up 0.39 per cent), Goulbourn (real GRP up 0.38 per cent) and the Mallee (real GRP up 0.37 per cent). All regions are projected to experience increased real GSP as a result of the FTA, but Melbourne and Barwon are expected to expand least. In terms of employment, the FTA results in net job loss in Melbourne, Barwon and Central Highlands.

The numbers in the body of Table A7 help us to understand the relative results for regional GRP in the same way as the numbers in Table A6 allowed us to understand the relative results for state GSP. Let us first consider the region which is projected to increase most, Western District (D3). Its strength is clearly in the area of milk and dairy production. Both industries are expected to increase their share of GSP and are over-represented in the region.



Another strength of the region is motor-vehicles and parts, which is expected to experience a decline in its GSP share, but which is under-represented in the region. Other strengths are in the services industries that benefit from positive local multiplier effects.

Now consider the regions that do least well: Melbourne (D1) and Barwon (D2). The main weakness of Melbourne is an under-representation of milk and dairy and an over-representation of Public services, which experiences a small reduction in output. The major weakness of Barwon is an over-representation of adversely affected Motor vehicles and parts. However, this is partly offset by an over-representation of Textiles (including wool scouring), which is projected to expand its share of GSP.

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**Table 1: Regional Aggregation of GTAP Used for this Report**

Identifier		Countries in Region
1.	AUS	Australia
2.	NZL	New Zealand
3.	CHN	China, mainland and Hong Kong
4.	JPN	Japan
4.	KOR	Korea
5.	TWN	Taiwan
6.	ASEAN6	Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam
7.	USA	USA
8.	CAN/MEX	Canada and Mexico
9.	EU	European Union countries
10.	ROW	<i>Rest of the World</i> (rest of South and Central America, Africa, rest of Asia, rest of Europe, rest of Oceania)

**Table 2: Sectoral Aggregation of GTAP Used for this Report**

Identifier	Sectors in Region
Wheat	Wheat
OthGrain	Other grains
Crops	Crops excluding grains
Animal	Animal products
Milk	Raw milk
Wool	Wool
Forestry	Forestry
Fishing	Fishing
Mining	Mining
Meat	Meat products
VegOils	Vegetable oils and fats
DairyProds	Dairy products
Sugar	Sugar products
Foodnec	Food products nec
Drinks	Beverages and tobacco products
Textiles	Textiles, textile products and wool scouring
TCFnec	Clothing and footwear
Wood	Wood products
Paper	Paper products
Petrol	Petroleum products
Chemicals	Chemicals nec
BuildProds	Non-metallic building products
Metals	Basic metals
MetalProds	Metal products
MVParts	Motor vehicles and parts
OthTrEquip	Transport equipment nec
ElecEquip	Electronic equipment
OthMach	Machinery nec
Utilities	Electricity, water, gas services
Man nec	Manufacturing nec
Construction	Construction services
Trade	Trade services
Transport	Transport services
Comm	Communication services
Financial	Financial services
OtherBus	Business services
OtherPrivSer	Private services nec
OtherPubSer	Public services
Dwellings	Dwelling services

*Table 3: Percentage Bilateral Ad Valorem Rates of Protection against Imports, 1997 and 2004*

Product		AUS to USA		USA to AUS	
		1997	2004	1997	2004
Wheat	Wheat	2.5	2.5	0.0	0.0
OthGrain	Other grains	0.6	0.4	0.8	0.1
Crops	Crops excluding grains	9.5	9.5	2.1	2.1
Animal	Animal products	0.6	0.3	0.7	0.0
Milk	Raw milk	-0.1	-0.1	0.0	0.0
Wool	Wool	0.9	0.9	-18.0	-13.9
Forestry	Forestry	3.3	0.1	0.2	0.0
Fishing	Fishing	1.0	0.1	0.5	0.0
Mining	Mining	0.3	0.3	0.1	0.1
Meat	Meat products	5.2	4.0	3.2	0.5
VegOils	Vegetable oils and fats	4.3	2.0	2.8	2.8
DairyProds	Dairy products	42.5	42.5	7.3	7.0
Sugar	Sugar products	53.4	6.3	13.9	3.8
Foodnec	Food products nec	11.4	2.2	5.6	3.4
Drinks	Beverages and tobacco products	3.0	1.1	9.2	3.7
Textiles	Textiles, textile products and wool scouring	9.5	8.0	12.6	10.3
TCFnec	Clothing and footwear	7.9	6.4	19.2	16.8
Wood	Wood products	1.6	1.0	4.6	3.6
Paper	Paper products	0.4	0.4	2.9	2.9
Petrol	Petroleum products	2.4	0.6	0.0	0.0
Chemicals	Chemicals nec	3.2	1.0	3.4	3.4
BuildProds	Non-metallic building products	3.3	3.3	5.1	5.1
Metals	Basic metals	0.7	0.2	3.1	3.0
MetalProds	Metal products	3.2	1.8	6.4	6.4
MVParts	Motor vehicles and parts	2.2	0.9	8.5	4.9
OthTrEquip	Transport equipment nec	0.6	0.6	0.4	0.4
ElecEquip	Electronic equipment	2.3	1.2	0.9	0.9
OthMach	Machinery nec	2.6	1.2	3.9	3.9
Utilities	Electricity, water, gas services	0.0	0.0	0.0	0.0
Man nec	Manufacturing nec	1.5	0.9	3.7	3.7
Construction	Construction services	0.0	0.0	0.0	0.0
Trade	Trade services	0.0	0.0	0.5	0.0
Transport	Transport services	0.0	0.0	0.0	0.0
Comm	Communication services	0.0	0.0	0.0	0.0
Financial	Financial services	0.0	0.0	0.0	0.0
OtherBus	Business services	0.0	0.0	0.0	0.0
OtherPrivSer	Private services nec	0.0	0.0	0.4	0.0
OtherPubSer	Public services	0.0	0.0	0.0	0.0
Dwellings	Dwelling services	0.0	0.0	0.0	0.0

*Table 4: Value (\$US m) of Bilateral Trade at World Prices, 1997 and 2004*

Product		AUS to USA		USA to AUS	
		1997	2004	1997	2004
Wheat	Wheat	0.0	0.0	0.2	0.2
OthGrain	Other grains	0.1	0.2	0.9	1.2
Crops	Crops excluding grains	57.4	62.3	86.5	112.2
Animal	Animal products	19.4	19.2	18.7	26.8
Milk	Raw milk	0.0	0.0	0.0	0.0
Wool	Wool	83.2	86.2	0.0	0.0
Forestry	Forestry	0.5	0.6	2.2	3.0
Fishing	Fishing	6.7	7.5	0.4	0.5
Mining	Mining	425.8	493.3	15.1	19.5
Meat	Meat products	457.3	457.0	6.5	8.6
VegOils	Vegetable oils and fats	1.1	1.2	47.2	50.5
DairyProds	Dairy products	40.3	39.8	3.6	4.5
Sugar	Sugar products	77.0	147.6	0.4	0.6
Foodnec	Food products nec	98.0	114.4	161.1	194.3
Drinks	Beverages and tobacco products	134.7	132.2	62.6	104.1
Textiles	Textiles, textile products and wool scouring	154.9	156.4	159.2	195.1
TCFnec	Clothing and footwear	70.5	58.9	58.9	82.7
Wood	Wood products	32.8	30.9	86.4	123.2
Paper	Paper products	48.0	49.9	455.7	567.0
Petrol	Petroleum products	9.7	11.4	16.7	20.3
Chemicals	Chemicals nec	285.0	320.2	2111.1	2581.4
BuildProds	Non-metallic building products	35.8	34.5	318.2	406.2
Metals	Basic metals	911.8	986.5	146.1	178.9
MetalProds	Metal products	31.6	32.5	165.6	215.0
MVParts	Motor vehicles and parts	404.9	457.6	849.1	1641.9
OthTrEquip	Transport equipment nec	194.1	175.1	951.0	1304.4
ElecEquip	Electronic equipment	119.9	130.3	1750.8	2150.2
OthMach	Machinery nec	414.4	423.5	3689.6	4813.6
Utilities	Electricity, water, gas services	5.1	5.6	4.2	5.1
Man nec	Manufacturing nec	79.0	73.3	210.5	251.2
Construction	Construction services	3.0	3.2	2.9	3.6
Trade	Trade services	310.6	303.2	176.1	216.1
Transport	Transport services	1772.9	1944.0	1499.4	1833.8
Comm	Communication services	384.8	404.3	244.8	299.6
Financial	Financial services	243.9	262.7	239.7	291.0
OtherBus	Business services	180.8	167.5	286.8	363.3
OtherPrivSer	Private services nec	224.2	217.8	275.6	348.5
OtherPubSer	Public services	501.2	475.1	574.4	755.7
Dwellings	Dwelling services	0.0	0.0	0.0	0.0
Total		7820.7	8286.0	14678.2	19174.1

**Table 5: Commodity Sales Characteristics in 2004**

Percentage shares in total sales of sales to:							Percentage shares in local market of imports from:		
Industries	Household	Investment	Gov.	Export-USA	Export-other	Total	USA	Other regions	All regions
<i>AUS</i>									
Wheat	20.9	0.0	0.0	0.0	79.1	100.0	0.0	0.3	0.4
OthGrain	72.4	7.3	0.0	0.0	20.3	100.0	0.1	0.3	0.4
Crops	53.9	19.0	0.0	0.6	25.4	100.0	1.5	5.4	6.8
Animal	73.3	5.1	0.0	0.3	21.3	100.0	0.4	1.7	2.1
Milk	99.9	0.1	0.0	0.0	0.0	100.0	0.0	0.1	0.1
Wool	25.3	0.0	0.0	2.9	71.8	100.0	0.0	0.8	0.8
Forestry	75.7	1.4	17.4	0.0	3.2	100.0	0.2	1.3	1.5
Fishing	31.8	44.6	3.2	0.3	20.1	100.0	0.0	2.2	2.2
Mining	50.9	0.2	0.3	1.5	47.0	100.0	0.1	15.9	16.0
Meat	21.6	43.0	0.0	5.2	30.2	100.0	0.1	1.1	1.3
VegOils	35.7	48.2	0.0	0.2	15.9	100.0	6.4	26.2	32.6
DairyProds	33.5	38.6	0.0	0.6	27.3	100.0	0.1	3.2	3.3
Sugar	38.5	11.9	0.0	8.4	41.2	100.0	0.1	0.6	0.7
Food products	22.5	63.6	0.0	0.8	13.0	100.0	1.5	9.7	11.2
Beverages and tobacco products	3.9	88.4	0.0	1.0	6.8	100.0	0.8	2.9	3.7
Textiles, tex prods. & wool scouring	49.9	22.5	0.0	2.4	23.8	100.0	2.7	30.3	33.0
Textiles	13.2	73.7	0.0	1.2	11.9	100.0	1.2	35.4	36.6
TCFnc	53.9	22.1	17.6	0.3	6.1	100.0	1.1	10.9	11.9
Wood	78.8	16.3	0.4	0.3	3.9	100.0	2.8	8.9	11.7
Paper products	48.1	46.5	0.0	0.1	5.3	100.0	0.1	4.9	5.0
Petroleum products	68.5	17.5	0.0	1.4	12.6	100.0	8.8	22.8	31.6
Chemicals nec	92.6	1.5	0.0	0.4	5.5	100.0	3.9	10.6	14.5
Non-metallic building products	56.2	0.2	0.0	3.8	39.7	100.0	1.0	13.9	15.0
Basic metals	84.2	3.2	8.0	0.2	4.4	100.0	1.4	9.2	10.5
Metal products	26.4	11.8	50.8	2.6	8.4	100.0	7.3	24.1	31.4
Motor vehicles and parts	43.1	2.9	31.5	3.2	19.3	100.0	20.6	13.3	33.9
Transport equipment nec	36.8	8.9	16.5	3.1	34.7	100.0	18.1	59.6	77.7
Electronic equipment	37.4	10.7	27.6	2.5	21.7	100.0	16.5	40.3	56.7
Machinery nec	79.5	19.3	0.0	0.0	0.3	100.0	0.0	0.1	0.1
Electricity, water, gas services	33.3	28.5	0.0	3.3	34.4	100.0	8.1	47.5	55.6
Manufacturing nec	5.4	0.0	2.8	0.0	0.1	100.0	0.0	0.1	0.1
Construction services	30.2	60.2	7.6	0.3	1.8	100.0	0.2	1.5	1.7
Trade services	47.6	22.4	2.0	4.9	13.8	100.0	4.7	13.2	17.9
Transport services	64.5	29.3	0.0	2.2	3.8	100.0	1.7	4.1	5.8
Communication services	67.4	28.4	0.0	0.6	3.2	100.0	0.7	2.7	3.3
Financial services	84.8	4.9	5.3	0.2	4.4	100.0	0.5	3.7	4.2
Business services	23.7	49.9	0.1	0.7	4.6	100.0	1.1	3.5	4.6
Private services nec	9.0	27.6	61.3	0.4	1.5	100.0	0.7	0.7	1.4
Public services	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
Dwellings									

**Table 5 (continued): Commodity Sales Characteristics in 2004**

Percentage shares in total sales of sales to:										Percentage shares in local market of imports from:		
Industries										AUS		
Household										Other regions		
Investment										All regions		
Gov.										Total		
Export-AUS										Export-other		
USA										100.0		
Wheat	52.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	47.7	0.0	6.2
OthGrain	80.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3	0.0	1.5
Crops	48.9	24.0	0.0	1.0	0.1	0.0	0.0	0.0	0.0	25.9	0.1	14.5
Animal	89.3	5.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	5.3	0.0	2.8
Milk	99.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Wool	97.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	18.9	8.7
Forestry	66.1	17.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	16.0	0.0	2.6
Fishing	50.5	8.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	40.9	0.3	56.7
Mining	93.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.2	37.0
Meat	37.4	52.5	0.0	1.9	0.0	0.0	0.0	0.0	0.0	8.2	0.4	2.2
VegOils	70.2	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	27.1	0.0	14.1
DairyProds	43.5	49.4	0.0	5.6	0.0	0.0	0.0	0.0	0.0	1.5	0.1	1.7
Sugar	71.5	24.7	0.0	1.8	0.0	0.0	0.0	0.0	0.0	2.0	1.7	23.6
Foodnec	34.4	56.0	0.0	1.8	0.1	0.0	0.0	0.0	0.0	7.8	0.0	6.9
Drinks	22.9	65.9	0.0	0.2	0.1	0.0	0.0	0.0	0.0	10.9	0.1	5.1
Textiles	64.9	20.2	2.7	0.9	0.2	0.0	0.0	0.0	0.0	11.1	0.1	17.3
TCFnec	15.4	73.1	0.0	1.2	0.1	0.0	0.0	0.0	0.0	10.2	0.0	39.4
Wood	59.2	16.9	16.2	1.6	0.1	0.0	0.0	0.0	0.0	6.1	0.0	12.1
Paper	70.9	17.9	0.0	4.1	0.2	0.0	0.0	0.0	0.0	7.0	0.0	5.7
Petrol	67.6	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	4.8
Chemicals	62.2	18.7	0.5	2.8	0.4	0.0	0.0	0.0	0.0	15.5	0.1	11.8
BuildProds	79.5	5.1	0.0	0.8	0.4	0.0	0.0	0.0	0.0	14.2	0.0	13.4
Metals	88.4	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	11.2	0.4	16.5
MetalProds	84.6	3.6	3.5	1.3	0.1	0.0	0.0	0.0	0.0	6.9	0.0	7.2
MVP	23.2	27.6	27.9	2.0	0.4	0.0	0.0	0.0	0.0	18.9	0.1	25.2
OthTrEquip	20.9	13.5	12.3	20.3	0.7	0.0	0.0	0.0	0.0	32.3	0.1	12.7
ElecEquip	29.9	7.4	18.6	2.6	0.6	0.0	0.0	0.0	0.0	40.8	0.0	45.3
OthMach	33.0	9.6	20.7	7.4	0.7	0.0	0.0	0.0	0.0	28.6	0.1	23.7
Utilities	72.2	26.7	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.7
Manneq	18.0	44.6	7.7	2.6	0.5	0.0	0.0	0.0	0.0	26.6	0.1	50.7
Construction	23.4	0.0	58.0	18.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.1
Trade	33.4	59.1	5.5	1.4	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.8
Transport	57.5	22.1	2.0	3.9	0.3	0.0	0.0	0.0	0.0	14.1	0.3	11.2
Comm	45.7	45.4	2.6	4.2	0.1	0.0	0.0	0.0	0.0	2.1	0.1	2.8
Financial	50.9	43.5	2.1	2.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.0
OtherBus	72.2	16.4	3.2	5.1	0.0	0.0	0.0	0.0	0.0	3.2	0.0	2.1
OtherPrivSer	21.9	73.6	0.0	1.7	0.1	0.0	0.0	0.0	0.0	2.7	0.0	1.3
OtherPubSer	10.4	53.5	0.0	33.7	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.9
Dwellings	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Table A1: Macroeconomic Variables – AUS and USA (percentage deviations from baseline values)*

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<b>AUS</b>													
Real private consumption	0.038	0.069	0.096	0.119	0.106	0.101	0.098	0.097	0.096	0.095	0.094	0.093	0.087
Real investment	0.331	0.596	0.823	1.030	0.826	0.697	0.614	0.556	0.516	0.487	0.466	0.450	0.413
Real government consumption	0.024	0.033	0.033	0.026	-0.001	-0.015	-0.023	-0.028	-0.031	-0.034	-0.036	-0.038	-0.045
Export volume	0.020	0.132	0.313	0.553	0.769	0.914	1.014	1.086	1.140	1.180	1.210	1.233	1.286
Import volume	0.380	0.746	1.117	1.504	1.393	1.324	1.280	1.250	1.229	1.214	1.203	1.194	1.168
Real GDP	0.031	0.063	0.098	0.135	0.138	0.144	0.149	0.154	0.158	0.161	0.164	0.166	0.170
Employment	0.036	0.058	0.072	0.082	0.047	0.028	0.017	0.011	0.008	0.005	0.004	0.003	0.001
Capital	0.027	0.073	0.134	0.206	0.257	0.293	0.319	0.338	0.352	0.363	0.372	0.378	0.394
Terms of trade	0.027	0.035	0.031	0.016	-0.033	-0.066	-0.089	-0.106	-0.119	-0.129	-0.137	-0.143	-0.165
<b>USA</b>													
Real private consumption	0.003	0.005	0.008	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.011	0.011	0.011
Real investment	0.015	0.025	0.034	0.042	0.030	0.023	0.020	0.018	0.016	0.015	0.014	0.014	0.013
Real government consumption	0.003	0.005	0.007	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Export volume	0.011	0.027	0.044	0.064	0.070	0.072	0.072	0.072	0.071	0.071	0.070	0.069	0.064
Import volume	0.035	0.069	0.104	0.142	0.136	0.133	0.131	0.131	0.130	0.130	0.130	0.130	0.130
Real GDP	0.002	0.003	0.004	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Employment	0.002	0.003	0.004	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
Capital	0.001	0.003	0.005	0.007	0.009	0.010	0.010	0.011	0.011	0.011	0.012	0.012	0.012
Terms of trade	0.012	0.025	0.037	0.050	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047



Table A2: Industry Output – AUS and USA (percentage deviations from baseline values)

Variable		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<i>AUS</i>														
Wheat	Wheat	-0.136	-0.232	-0.299	-0.345	-0.219	-0.130	-0.063	-0.012	0.029	0.062	0.091	0.115	0.201
OthGrain	Other grains	-0.021	-0.020	-0.004	0.024	0.083	0.123	0.151	0.171	0.186	0.197	0.205	0.211	0.225
Crops	Crops excluding grains	0.035	0.105	0.204	0.328	0.404	0.456	0.493	0.520	0.539	0.554	0.565	0.573	0.590
Animal	Animal products	0.045	0.119	0.212	0.318	0.400	0.455	0.494	0.521	0.540	0.553	0.563	0.570	0.578
Milk	Raw milk	0.211	0.552	1.051	1.750	1.821	1.867	1.896	1.915	1.927	1.934	1.937	1.937	1.913
Wool	Wool	0.105	0.233	0.375	0.524	0.584	0.621	0.643	0.656	0.662	0.664	0.663	0.659	0.622
Forestry	Forestry	0.042	0.079	0.116	0.153	0.140	0.136	0.135	0.136	0.138	0.140	0.142	0.144	0.151
Fishing	Fishing	-0.009	-0.004	0.011	0.034	0.073	0.102	0.124	0.141	0.154	0.165	0.175	0.183	0.212
Mining	Mining	-0.092	-0.135	-0.142	-0.122	0.016	0.111	0.180	0.231	0.271	0.302	0.328	0.349	0.417
Meat	Meat products	0.156	0.338	0.539	0.756	0.817	0.858	0.886	0.906	0.919	0.928	0.934	0.938	0.937
VegOils	Vegetable oils and fats	-0.129	-0.236	-0.327	-0.407	-0.335	-0.283	-0.244	-0.213	-0.189	-0.168	-0.150	-0.135	-0.077
DairyProds	Dairy products	0.213	0.556	1.060	1.765	1.838	1.884	1.914	1.934	1.946	1.953	1.956	1.956	1.933
Sugar	Sugar products	0.439	0.936	1.483	2.073	2.167	2.227	2.264	2.287	2.300	2.305	2.304	2.299	2.235
Foodnec	Food products nec	-0.033	-0.047	-0.047	-0.034	0.019	0.055	0.082	0.102	0.118	0.131	0.141	0.149	0.177
Drinks	Beverages and tobacco products	0.061	0.137	0.223	0.316	0.355	0.379	0.394	0.402	0.406	0.406	0.404	0.400	0.365
Textiles	Textiles, tex prods. & wool scouring	0.100	0.237	0.400	0.577	0.670	0.730	0.770	0.797	0.815	0.826	0.832	0.835	0.821
TCFnec	Clothing and footwear	0.008	0.011	-0.013	-0.090	-0.021	0.021	0.045	0.057	0.061	0.060	0.055	0.047	-0.011
Wood	Wood products	0.101	0.182	0.254	0.321	0.263	0.229	0.209	0.197	0.189	0.184	0.180	0.178	0.175
Paper	Paper products	-0.007	-0.011	-0.013	-0.012	0.002	0.015	0.025	0.033	0.040	0.044	0.048	0.051	0.056
Petrol	Petroleum products	0.045	0.111	0.202	0.324	0.347	0.365	0.378	0.389	0.396	0.402	0.406	0.409	0.413
Chemicals	Chemicals nec	-0.109	-0.197	-0.268	-0.327	-0.259	-0.210	-0.174	-0.148	-0.127	-0.112	-0.100	-0.090	-0.063
BuildProds	Non-metallic building products	0.036	0.045	0.038	0.021	-0.047	-0.088	-0.113	-0.130	-0.141	-0.149	-0.154	-0.158	-0.166
Metals	Basic metals	-0.175	-0.286	-0.352	-0.385	-0.192	-0.058	0.040	0.115	0.173	0.219	0.257	0.289	0.396
MetalProds	Metal products	0.022	0.033	0.040	0.045	0.024	0.014	0.011	0.010	0.010	0.011	0.013	0.014	0.022
MVParts	Motor vehicles and parts	-0.240	-0.504	-0.796	-1.119	-1.087	-1.067	-1.056	-1.051	-1.051	-1.054	-1.060	-1.067	-1.116
OthTrEquip	Transport equipment nec	-0.003	0.034	0.104	0.204	0.304	0.381	0.440	0.488	0.526	0.559	0.586	0.609	0.691
ElecEquip	Electronic equipment	0.167	0.379	0.629	0.911	1.014	1.087	1.140	1.179	1.210	1.233	1.252	1.267	1.308
OthMach	Machinery nec	-0.164	-0.319	-0.467	-0.610	-0.563	-0.529	-0.503	-0.485	-0.471	-0.461	-0.453	-0.448	-0.436
Utilities	Electricity, water, gas services	-0.010	-0.009	0.002	0.021	0.060	0.089	0.111	0.128	0.142	0.152	0.160	0.167	0.186
Mannece	Manufacturing nec	0.065	0.183	0.340	0.529	0.651	0.730	0.782	0.816	0.837	0.850	0.857	0.859	0.835
Construction	Construction services	0.305	0.549	0.760	0.953	0.767	0.651	0.575	0.523	0.486	0.460	0.441	0.427	0.395
Trade	Trade services	0.055	0.104	0.149	0.192	0.175	0.167	0.163	0.161	0.160	0.159	0.158	0.157	0.152
Transport	Transport services	-0.016	-0.015	-0.001	0.025	0.075	0.111	0.139	0.161	0.178	0.191	0.202	0.211	0.238
Comm	Communication services	0.009	0.024	0.045	0.070	0.091	0.109	0.123	0.135	0.144	0.151	0.156	0.161	0.172
Financial	Financial services	0.000	0.006	0.015	0.028	0.047	0.063	0.076	0.086	0.095	0.101	0.106	0.110	0.122
OtherBus	Business services	0.046	0.090	0.134	0.179	0.172	0.171	0.173	0.176	0.178	0.181	0.183	0.185	0.192
OtherPrivSer	Private services nec	0.080	0.159	0.238	0.319	0.309	0.304	0.301	0.297	0.294	0.290	0.285	0.281	0.255
OtherPubSer	Public services	0.018	0.023	0.020	0.011	-0.012	-0.023	-0.029	-0.033	-0.035	-0.036	-0.037	-0.038	-0.043
Dwellings	Dwelling services	0.020	0.043	0.068	0.095	0.111	0.123	0.133	0.140	0.145	0.148	0.150	0.152	0.150
<i>USA</i>														
Primary agriculture	Primary agriculture	0.022	0.076	0.154	0.251	0.331	0.386	0.424	0.452	0.472	0.487	0.498	0.506	0.522
Agricultural-related	Agricultural-related	0.059	0.155	0.288	0.462	0.516	0.552	0.577	0.594	0.606	0.614	0.619	0.622	0.620
All and related agriculture	All and related agriculture	0.038	0.109	0.209	0.337	0.406	0.454	0.487	0.510	0.527	0.540	0.549	0.555	0.566
All other industries	All other industries	0.031	0.061	0.091	0.123	0.123	0.127	0.131	0.135	0.138	0.141	0.143	0.145	0.150
All industries	All industries	0.031	0.063	0.098	0.135	0.138	0.144	0.149	0.154	0.158	0.161	0.164	0.166	0.170

Table A2 (continued): Industry Output – AUS and USA (percentage deviations from baseline values)

Variable		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<i>USA</i>														
Wheat	Wheat	-0.006	-0.013	-0.023	-0.035	-0.040	-0.044	-0.047	-0.050	-0.052	-0.055	-0.056	-0.058	-0.065
OthGrain	Other grains	-0.013	-0.027	-0.042	-0.059	-0.059	-0.059	-0.059	-0.059	-0.059	-0.059	-0.059	-0.059	-0.061
Crops	Crops excluding grains	-0.012	-0.024	-0.036	-0.049	-0.047	-0.047	-0.047	-0.047	-0.047	-0.047	-0.047	-0.048	-0.050
Animal	Animal products	-0.012	-0.024	-0.037	-0.050	-0.050	-0.051	-0.051	-0.052	-0.052	-0.053	-0.053	-0.054	-0.057
Milk	Raw milk	-0.019	-0.043	-0.074	-0.112	-0.112	-0.112	-0.112	-0.112	-0.111	-0.111	-0.111	-0.110	-0.109
Wool	Wool	-0.889	-1.796	-2.720	-3.659	-3.655	-3.644	-3.630	-3.613	-3.595	-3.575	-3.554	-3.532	-3.416
Forestry	Forestry	-0.005	-0.010	-0.016	-0.021	-0.021	-0.021	-0.021	-0.021	-0.021	-0.022	-0.022	-0.022	-0.024
Fishing	Fishing	-0.017	-0.034	-0.051	-0.069	-0.067	-0.066	-0.066	-0.066	-0.066	-0.066	-0.067	-0.067	-0.069
Mining	Mining	-0.008	-0.016	-0.025	-0.035	-0.034	-0.034	-0.035	-0.035	-0.036	-0.036	-0.036	-0.037	-0.039
Meat	Meat products	-0.011	-0.023	-0.035	-0.047	-0.048	-0.048	-0.048	-0.048	-0.048	-0.049	-0.049	-0.049	-0.049
VegOils	Vegetable oils and fats	-0.007	-0.013	-0.020	-0.027	-0.025	-0.024	-0.024	-0.024	-0.024	-0.025	-0.025	-0.025	-0.028
DairyProds	Dairy products	-0.020	-0.046	-0.078	-0.119	-0.119	-0.119	-0.119	-0.118	-0.118	-0.118	-0.117	-0.117	-0.115
Sugar	Sugar products	-0.073	-0.151	-0.233	-0.319	-0.321	-0.323	-0.324	-0.325	-0.326	-0.327	-0.328	-0.329	-0.332
Foodnec	Food products nec	-0.003	-0.006	-0.009	-0.013	-0.012	-0.012	-0.012	-0.012	-0.012	-0.012	-0.012	-0.012	-0.013
Drinks	Beverages and tobacco products	-0.006	-0.011	-0.015	-0.020	-0.018	-0.017	-0.016	-0.016	-0.015	-0.015	-0.015	-0.015	-0.014
Textiles	Textiles, tex prods. & wool scouring	0.012	0.028	0.050	0.078	0.081	0.083	0.085	0.086	0.088	0.089	0.091	0.092	0.098
TCFnec	Clothing and footwear	0.007	0.025	0.057	0.108	0.114	0.118	0.122	0.124	0.127	0.130	0.132	0.134	0.144
Wood	Wood products	0.003	0.005	0.007	0.008	0.007	0.008	0.008	0.008	0.009	0.009	0.009	0.009	0.009
Paper	Paper products	0.002	0.004	0.005	0.007	0.007	0.008	0.008	0.008	0.009	0.009	0.009	0.009	0.009
Petrol	Petroleum products	0.000	-0.001	-0.002	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.005
Chemicals	Chemicals nec	0.007	0.014	0.022	0.031	0.032	0.033	0.034	0.034	0.035	0.035	0.035	0.035	0.036
BuildProds	Non-metallic building products	0.017	0.034	0.053	0.074	0.074	0.075	0.076	0.077	0.078	0.079	0.080	0.081	0.087
Metals	Basic metals	0.001	0.003	0.005	0.006	0.006	0.006	0.005	0.005	0.005	0.004	0.004	0.004	0.003
MetalProds	Metal products	0.009	0.019	0.030	0.042	0.042	0.042	0.042	0.043	0.043	0.044	0.045	0.045	0.049
MVP	Motor vehicles and parts	0.030	0.064	0.104	0.150	0.153	0.156	0.160	0.163	0.167	0.171	0.175	0.179	0.198
OthTrEquip	Transport equipment nec	-0.025	-0.052	-0.081	-0.113	-0.113	-0.114	-0.116	-0.118	-0.120	-0.122	-0.124	-0.126	-0.136
ElecEquip	Electronic equipment	-0.019	-0.038	-0.058	-0.079	-0.077	-0.076	-0.076	-0.077	-0.078	-0.079	-0.080	-0.081	-0.087
OthMach	Machinery nec	0.014	0.028	0.043	0.059	0.060	0.060	0.061	0.061	0.062	0.062	0.063	0.063	0.065
Utilities	Electricity, water, gas services	0.000	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Manrec	Manufacturing nec	-0.003	-0.005	-0.006	-0.007	-0.004	-0.002	-0.001	0.000	0.000	0.000	0.000	0.000	-0.002
Construction	Construction services	0.009	0.015	0.020	0.025	0.017	0.014	0.012	0.010	0.010	0.009	0.009	0.008	0.007
Trade	Trade services	0.003	0.005	0.007	0.009	0.008	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.008
Transport	Transport services	-0.005	-0.011	-0.017	-0.024	-0.024	-0.025	-0.025	-0.025	-0.026	-0.026	-0.026	-0.027	-0.029
Comm	Communication services	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Financial	Financial services	0.001	0.002	0.003	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
OtherBus	Business services	0.000	0.000	-0.001	-0.001	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	0.000
OtherPrivSer	Private services nec	0.000	0.000	0.000	0.000	-0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
OtherPubSer	Public services	0.000	0.000	0.000	-0.001	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
Dwellings	Dwelling services	0.001	0.003	0.005	0.007	0.008	0.009	0.009	0.010	0.010	0.010	0.010	0.011	0.011
<i>AUS</i>														
Primary agriculture	Primary agriculture	-0.012	-0.024	-0.037	-0.051	-0.050	-0.050	-0.050	-0.051	-0.051	-0.051	-0.052	-0.052	-0.054
Agricultural-related	Agricultural-related	-0.006	-0.012	-0.019	-0.027	-0.026	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025
All other industries	All other industries	-0.008	-0.017	-0.026	-0.036	-0.035	-0.035	-0.035	-0.035	-0.035	-0.035	-0.035	-0.035	-0.037
All other industries	All other industries	0.002	0.003	0.005	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
All industries	All industries	0.002	0.003	0.004	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004

Table A3: Trade Volumes – AUS and USA (percentage deviations from baseline values)

Variable		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<i>AUS to USA</i>														
Wheat	Wheat	5.0	10.3	15.9	21.9	22.1	22.3	22.4	22.5	22.5	22.6	22.6	22.7	22.8
Other Grain	Other Grains	2.6	5.3	8.1	11.0	11.2	11.3	11.5	11.6	11.6	11.7	11.7	11.8	12.0
Crops	Crops excluding grains	10.0	21.1	33.3	46.8	47.0	47.2	47.3	47.4	47.5	47.6	47.7	47.7	47.9
Animal	Animal products	0.7	1.5	2.4	3.3	3.5	3.7	3.8	3.9	4.0	4.1	4.1	4.2	4.4
Milk	Raw milk	-0.3	-0.6	-0.9	-1.2	-1.0	-0.8	-0.7	-0.6	-0.6	-0.5	-0.4	-0.4	-0.3
Wool	Wool	5.6	11.5	17.5	23.8	23.9	24.0	24.1	24.2	24.3	24.4	24.4	24.5	24.8
Forestry	Forestry	-0.1	-0.2	-0.2	-0.2	0.0	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.8
Fishing	Fishing	0.5	1.1	1.7	2.4	2.6	2.8	2.9	2.9	3.0	3.0	3.1	3.1	3.2
Mining	Mining	0.3	0.7	1.1	1.6	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.4	2.5
Meat	Meat products	4.2	8.7	13.4	18.3	18.5	18.7	18.8	18.9	19.0	19.0	19.1	19.1	19.3
VegOils	Vegetable oils and fats	2.1	4.3	6.6	9.0	9.3	9.4	9.5	9.6	9.7	9.8	9.8	9.9	10.0
DairyProds	Dairy products	38.4	91.2	163.8	262.8	263.7	264.3	264.7	265.1	265.3	265.5	265.7	265.9	266.5
Sugar	Sugar products	6.2	12.8	19.8	27.3	27.6	27.8	27.9	28.0	28.1	28.1	28.2	28.2	28.3
Foodnec	Food products nec	2.6	5.3	8.1	11.1	11.4	11.6	11.7	11.8	11.9	12.0	12.0	12.1	12.2
Drinks	Beverages and tobacco products	5.8	12.1	18.9	26.1	26.6	26.9	27.1	27.3	27.4	27.5	27.6	27.7	28.0
Textiles	Textiles, tex prods. & wool scouring	8.4	17.6	27.7	38.7	39.0	39.2	39.3	39.5	39.6	39.6	39.7	39.8	40.0
TCFnec	Clothing and footwear	14.3	30.7	49.8	71.8	72.5	73.0	73.3	73.6	73.8	74.0	74.2	74.3	74.8
Wood	Wood products	1.2	2.5	3.9	5.3	5.6	5.8	6.0	6.1	6.2	6.3	6.3	6.4	6.6
Paper	Paper products	1.8	3.8	5.8	8.0	8.2	8.3	8.4	8.5	8.6	8.6	8.7	8.7	8.9
Petrol	Petroleum products	36.2	85.5	152.6	243.7	244.1	244.4	244.5	244.7	244.8	244.9	245.0	245.1	245.3
Chemicals	Chemicals nec	1.2	2.4	3.8	5.2	5.4	5.5	5.6	5.7	5.8	5.8	5.9	5.9	6.0
BuildProds	Non-metallic building products	4.8	10.0	15.5	21.3	21.7	22.0	22.2	22.3	22.4	22.5	22.6	22.7	22.9
Metals	Basic metals	0.0	0.1	0.3	0.6	0.9	1.1	1.3	1.4	1.5	1.6	1.7	1.7	1.9
MetalProds	Metal products	2.3	4.8	7.5	10.2	10.6	10.8	10.9	11.1	11.2	11.3	11.3	11.4	11.6
MVParts	Motor vehicles and parts	2.4	5.0	8.0	11.2	11.8	12.3	12.6	12.9	13.1	13.3	13.4	13.6	14.0
OthTrEquip	Transport equipment nec	0.0	0.3	0.6	1.1	1.5	1.9	2.1	2.3	2.5	2.6	2.7	2.8	3.1
ElecEquip	Electronic equipment	5.3	11.0	17.1	23.5	23.9	24.1	24.3	24.4	24.5	24.6	24.7	24.7	24.9
OthMach	Machinery nec	2.7	5.6	8.7	12.0	12.3	12.5	12.7	12.8	12.9	13.0	13.1	13.1	13.3
Utilities	Electricity, water, gas services	-0.4	-0.6	-0.6	-0.6	-0.2	0.1	0.3	0.5	0.6	0.7	0.8	0.9	1.1
Mannecc	Manufacturing nec	6.8	14.2	22.2	30.8	31.2	31.5	31.7	31.8	32.0	32.1	32.2	32.2	32.5
Construction	Construction services	-0.2	-0.3	-0.3	-0.3	0.0	0.1	0.3	0.4	0.4	0.5	0.5	0.6	0.7
Trade	Trade services	3.3	6.7	10.4	14.2	14.4	14.6	14.8	14.9	15.0	15.0	15.1	15.2	15.3
Transport	Transport services	-0.2	-0.3	-0.4	-0.4	-0.2	0.0	0.1	0.2	0.3	0.3	0.4	0.4	0.6
Comm	Communication services	-0.2	-0.3	-0.4	-0.4	-0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.7
Financial	Financial services	-1.1	-2.1	-3.1	-3.9	-3.7	-3.5	-3.3	-3.2	-3.1	-3.1	-3.0	-3.0	-2.8
OtherBus	Business services	-0.2	-0.4	-0.5	-0.5	-0.3	-0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.5
OtherPrivSer	Private services nec	9.8	20.6	32.5	45.7	46.0	46.2	46.4	46.5	46.6	46.7	46.8	46.9	47.2
OtherPubSer	Public services	-0.2	-0.4	-0.5	-0.6	-0.4	-0.3	-0.2	-0.1	-0.1	0.0	0.0	0.1	0.2
Dwellings	Dwelling services	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Primary agriculture	Primary agriculture	6.7	13.9	21.8	30.3	30.5	30.8	30.9	31.1	31.2	31.4	31.5	31.6	32.2
Agricultural-related	Agricultural-related	6.1	13.2	21.7	32.0	32.3	32.6	32.8	33.0	33.2	33.3	33.5	33.6	34.1
All and related agriculture	All and related agriculture	6.2	13.4	21.7	31.6	32.0	32.2	32.5	32.6	32.8	32.9	33.0	33.2	33.7
All other industries	All other industries	1.4	2.9	4.6	6.4	6.7	6.8	6.9	7.0	7.0	7.1	7.1	7.1	7.0
All industries	All industries	1.9	4.0	6.4	9.1	9.4	9.5	9.6	9.7	9.7	9.7	9.7	9.7	9.6

Table A3 (continued): Trade Volumes – AUS and USA (percentage deviations from baseline values)

Variable		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<i>USA to AUS</i>														
Wheat		0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
OthGrain		0.2	0.5	0.7	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6
Crops		2.1	4.2	6.3	8.4	8.3	8.3	8.2	8.2	8.1	8.1	8.0	8.0	7.8
Animal		0.2	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1
Milk		0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0
Wool		0.4	0.7	1.1	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.2
Forestry		0.1	0.1	0.2	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3
Fishing		0.1	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3
Mining		0.1	0.3	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Meat		0.6	1.2	1.7	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8
VegOils		2.5	5.0	7.6	10.3	10.2	10.2	10.2	10.2	10.2	10.1	10.1	10.1	10.0
DairyProds		-9.3	-17.8	-25.5	-32.6	-32.6	-32.6	-32.7	-32.7	-32.7	-32.7	-32.7	-32.7	-32.7
Sugar		3.9	7.9	12.1	16.5	16.4	16.4	16.4	16.4	16.4	16.3	16.3	16.3	16.2
Foodneec		3.4	7.0	10.5	14.2	14.1	14.0	13.9	13.8	13.7	13.7	13.6	13.6	13.4
Drinks		5.0	10.1	15.4	20.8	20.5	20.3	20.2	20.0	19.9	19.8	19.7	19.6	19.3
Textiles		10.2	21.4	33.7	47.1	47.0	47.0	46.9	46.9	46.9	46.8	46.8	46.8	46.6
TCFnec		35.0	81.7	143.9	226.2	225.8	225.5	225.3	225.1	224.9	224.8	224.8	224.7	224.5
Wood		4.8	9.8	15.0	20.3	20.1	19.9	19.8	19.7	19.6	19.5	19.5	19.5	19.3
Paper		2.2	4.5	6.7	9.0	8.9	8.8	8.8	8.7	8.7	8.7	8.7	8.6	8.5
Petrol		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals		2.5	5.0	7.6	10.2	10.1	10.1	10.1	10.1	10.0	10.0	10.0	10.0	9.9
BuildProds		5.8	11.9	18.1	24.6	24.4	24.2	24.1	24.0	23.9	23.8	23.8	23.8	23.6
Metals		3.9	8.0	12.1	16.4	16.2	16.2	16.1	16.1	16.0	16.0	16.0	15.9	15.9
MetalProds		8.0	16.6	25.7	35.5	35.3	35.1	35.0	34.9	34.9	34.8	34.8	34.7	34.6
MVParts		10.5	21.6	33.5	46.0	45.5	45.0	44.6	44.3	44.1	43.8	43.6	43.4	42.7
OthTrEquip		0.7	1.4	1.9	2.5	2.2	2.0	1.9	1.8	1.8	1.7	1.7	1.6	1.6
ElecEquip		1.2	2.3	3.4	4.6	4.5	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.2
OthMach		4.2	8.5	12.9	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5	16.4
Utilities		0.1	0.2	0.2	0.2	0.0	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6
Manneec		4.5	9.1	13.9	18.9	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
Construction		0.2	0.3	0.4	0.5	0.3	0.2	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.2
Trade		0.1	0.2	0.2	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
Transport		0.1	0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2
Comm		0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3
Financial		0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2
OtherBus		0.1	0.2	0.2	0.3	0.2	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2
OtherPrivSer		0.1	0.2	0.2	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
OtherPubSer		0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Dwellings		0.3	0.5	0.5	0.5	0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.9
Primary agriculture		1.7	3.4	5.1	6.8	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.1
Agricultural-related		3.5	7.2	10.9	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.4	14.4	14.3
All and related agriculture		3.0	6.1	9.3	12.5	12.4	12.3	12.2	12.2	12.1	12.1	12.0	12.0	11.8
All other industries		3.2	6.6	10.2	14.1	13.9	13.8	13.8	13.7	13.7	13.7	13.6	13.6	13.6
All industries		3.2	6.6	10.2	14.0	13.9	13.8	13.7	13.7	13.6	13.6	13.6	13.6	13.6

**Table A4: Australian Regional Variables (percentage deviations from baseline values)**

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<b>Real Value Added</b>													
NSW	0.027	0.056	0.088	0.122	0.129	0.137	0.144	0.151	0.156	0.160	0.164	0.166	0.174
Vic	0.028	0.056	0.086	0.119	0.119	0.123	0.126	0.129	0.131	0.133	0.133	0.134	0.130
QLD	0.050	0.099	0.149	0.202	0.195	0.194	0.196	0.198	0.200	0.202	0.203	0.205	0.208
SA	0.020	0.041	0.064	0.088	0.097	0.106	0.113	0.119	0.123	0.126	0.129	0.130	0.131
WA	0.021	0.049	0.082	0.121	0.138	0.153	0.166	0.176	0.185	0.192	0.198	0.203	0.218
Tas	0.044	0.090	0.139	0.194	0.193	0.195	0.199	0.202	0.205	0.207	0.209	0.210	0.213
Melbourne (D1)	0.024	0.045	0.064	0.082	0.078	0.079	0.081	0.082	0.084	0.085	0.085	0.085	0.082
Barwon (D2)	0.016	0.031	0.049	0.069	0.073	0.079	0.083	0.086	0.088	0.088	0.089	0.088	0.079
Western District (D3)	0.053	0.132	0.240	0.382	0.411	0.431	0.446	0.456	0.462	0.467	0.469	0.470	0.465
Central Highlands (D4)	0.018	0.035	0.052	0.070	0.077	0.083	0.089	0.093	0.096	0.098	0.099	0.100	0.096
Wimmera (D5)	0.045	0.106	0.179	0.261	0.304	0.333	0.354	0.369	0.379	0.386	0.391	0.393	0.393
Mallee (D6)	0.050	0.114	0.192	0.285	0.312	0.331	0.345	0.355	0.361	0.366	0.370	0.370	0.366
Loddon-Campaspe (D7)	0.033	0.070	0.112	0.160	0.168	0.176	0.183	0.188	0.192	0.195	0.196	0.197	0.195
Goulbourn (D8)	0.058	0.134	0.232	0.357	0.369	0.378	0.385	0.390	0.393	0.394	0.394	0.394	0.383
Ovens-Murray (D9)	0.053	0.112	0.177	0.250	0.258	0.266	0.272	0.277	0.280	0.282	0.283	0.284	0.279
East Gippsland (D10)	0.038	0.089	0.157	0.243	0.264	0.281	0.294	0.304	0.311	0.317	0.321	0.325	0.332
Gippsland (D11)	0.048	0.106	0.177	0.265	0.271	0.277	0.283	0.287	0.291	0.293	0.294	0.295	0.292
<b>Employment</b>													
NSW	0.032	0.050	0.061	0.067	0.035	0.018	0.010	0.005	0.002	0.001	0.000	0.000	0.002
Vic	0.031	0.047	0.056	0.060	0.025	0.006	-0.005	-0.013	-0.017	-0.021	-0.024	-0.026	-0.034
QLD	0.056	0.095	0.125	0.151	0.106	0.081	0.066	0.057	0.052	0.048	0.046	0.044	0.042
SA	0.024	0.035	0.038	0.037	0.010	-0.004	-0.012	-0.016	-0.019	-0.021	-0.022	-0.023	-0.026
WA	0.033	0.054	0.069	0.081	0.053	0.039	0.033	0.030	0.029	0.029	0.030	0.031	0.038
Tas	0.049	0.085	0.115	0.144	0.106	0.086	0.074	0.067	0.063	0.060	0.058	0.057	0.055
Melbourne (D1)	0.027	0.035	0.032	0.021	-0.019	-0.041	-0.054	-0.063	-0.068	-0.072	-0.076	-0.078	-0.086
Barwon (D2)	0.020	0.025	0.022	0.015	-0.016	-0.033	-0.044	-0.050	-0.055	-0.059	-0.062	-0.065	-0.077
Western District (D3)	0.056	0.124	0.213	0.330	0.325	0.325	0.327	0.328	0.329	0.329	0.329	0.329	0.322
Central Highlands (D4)	0.021	0.027	0.026	0.018	-0.010	-0.025	-0.033	-0.038	-0.042	-0.044	-0.046	-0.048	-0.055
Wimmera (D5)	0.052	0.110	0.172	0.240	0.255	0.267	0.276	0.284	0.289	0.293	0.296	0.297	0.297
Mallee (D6)	0.055	0.112	0.175	0.249	0.245	0.245	0.247	0.249	0.251	0.252	0.253	0.253	0.250
Loddon-Campaspe (D7)	0.037	0.064	0.086	0.109	0.083	0.070	0.063	0.059	0.057	0.055	0.053	0.052	0.047
Goulbourn (D8)	0.061	0.126	0.203	0.301	0.278	0.266	0.260	0.255	0.252	0.249	0.247	0.244	0.232
Ovens-Murray (D9)	0.055	0.101	0.145	0.191	0.165	0.151	0.144	0.139	0.135	0.133	0.131	0.129	0.121
East Gippsland (D10)	0.053	0.104	0.161	0.229	0.206	0.194	0.189	0.186	0.185	0.184	0.184	0.183	0.183
Gippsland (D11)	0.059	0.112	0.169	0.236	0.199	0.179	0.166	0.159	0.154	0.150	0.147	0.145	0.137

**Table A5: Australian Regional Variables (absolute deviations from baseline values)**

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
<b>Real Value Added (US \$m, 2003 prices)</b>													
NSW	39.9	87.6	144.5	210.7	235.6	260.5	283.2	303.4	321.1	336.6	350.3	362.5	408.9
Vic	29.7	63.1	101.9	146.7	157.7	169.8	180.9	190.5	198.5	205.0	210.2	214.3	223.3
QLD	37.8	78.1	122.9	173.1	177.4	184.8	193.1	201.4	209.3	216.6	223.5	229.8	257.0
SA	6.8	15.2	25.3	36.9	43.2	48.9	53.9	58.2	61.7	64.6	67.0	69.0	74.7
WA	10.1	24.6	43.4	66.6	80.1	92.1	102.7	112.0	120.3	127.7	134.4	140.6	166.9
Tas	4.6	9.8	15.9	23.0	24.2	25.6	27.0	28.3	29.5	30.7	31.7	32.6	36.5
Melbourne (VIC)	18.7	37.2	56.7	77.0	80.3	85.6	91.0	95.6	99.4	102.2	104.2	105.5	103.7
Barwon (VIC)	0.9	1.9	3.1	4.6	5.3	6.0	6.5	6.9	7.3	7.5	7.6	7.7	7.2
Western District (VIC)	1.2	3.0	5.7	9.3	10.4	11.3	12.1	12.7	13.3	13.8	14.2	14.6	16.4
Central Highlands (VIC)	0.5	1.1	1.8	2.6	3.0	3.4	3.8	4.1	4.3	4.5	4.6	4.7	4.8
Wimmera (VIC)	0.7	1.7	2.9	4.4	5.3	6.0	6.6	7.1	7.6	7.9	8.3	8.6	9.9
Mallee (VIC)	1.0	2.4	4.3	6.5	7.4	8.2	8.8	9.4	9.8	10.2	10.6	11.0	12.4
Loddon-Campaspe (VIC)	1.1	2.5	4.1	6.1	6.7	7.3	7.9	8.3	8.7	9.0	9.3	9.6	10.5
Goulbourn (VIC)	2.3	5.5	9.7	15.3	16.5	17.5	18.4	19.2	19.9	20.5	21.0	21.5	23.6
Ovens-Murray (VIC)	1.1	2.3	3.8	5.6	6.0	6.5	6.8	7.1	7.4	7.7	7.9	8.1	8.8
East Gippsland (VIC)	0.7	1.6	3.0	4.8	5.5	6.0	6.5	7.0	7.3	7.7	8.0	8.3	9.7
Gippsland (VIC)	1.7	3.9	6.8	10.4	11.2	11.9	12.5	13.1	13.6	14.0	14.4	14.8	16.3
<b>Employment (thousand persons)</b>													
NSW	0.9	1.4	1.8	2.0	1.1	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.1
Vic	0.7	1.0	1.2	1.3	0.6	0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.6	-0.8
QLD	0.9	1.5	2.0	2.4	1.7	1.3	1.1	1.0	0.9	0.8	0.8	0.8	0.8
SA	0.2	0.2	0.3	0.3	0.1	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
WA	0.3	0.5	0.6	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Tas	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Melbourne (VIC)	0.4	0.5	0.5	0.3	-0.3	-0.7	-0.9	-1.1	-1.2	-1.2	-1.3	-1.4	-1.6
Barwon (VIC)	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Western District (VIC)	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Central Highlands (VIC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wimmera (VIC)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mallee (VIC)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Loddon-Campaspe (VIC)	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goulbourn (VIC)	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Ovens-Murray (VIC)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
East Gippsland (VIC)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gippsland (VIC)	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A6: Contributions to the Differences in GSP Deviations (%) in 2020

Industry		Australia % deviation	NSW	VIC	QLD	SA	WA	TAS
Wheat	Wheat	0.201	0.000	0.000	0.000	0.000	0.000	0.000
OthGrain	Other grains	0.225	0.000	0.000	0.000	0.000	0.000	0.000
Crops	Crops excluding grains	0.590	-0.002	-0.001	0.004	0.000	0.000	0.004
Animal	Animal products	0.579	-0.001	-0.001	0.001	0.002	0.000	0.000
Milk	Raw milk	1.913	-0.002	0.004	0.000	-0.001	-0.002	0.007
Wool	Wool	0.622	0.000	0.000	-0.001	0.001	0.000	0.001
Forestry	Forestry	0.151	0.000	0.000	0.000	0.000	0.000	0.000
Fishing	Fishing	0.212	0.000	0.000	0.000	0.000	0.000	0.000
Mining	Mining	0.417	-0.001	-0.009	0.001	-0.004	0.026	-0.003
Meat	Meat products	0.937	0.000	0.000	0.001	0.000	-0.001	0.000
VegOils	Vegetable oils and fats	-0.077	0.000	0.000	0.000	0.000	0.000	0.000
DairyProds	Dairy products	1.933	-0.001	0.004	-0.001	-0.001	-0.003	0.002
Sugar	Sugar products	2.235	0.000	0.000	0.001	-0.001	-0.001	0.000
Foodnec	Food products nec	0.177	0.000	0.000	0.000	0.000	0.000	0.000
Drinks	Beverages and tobacco products	0.365	0.000	0.000	0.000	0.001	0.000	0.000
Textiles	Textiles, tex prods. & wool scouring	0.822	0.000	0.003	-0.002	0.000	-0.001	0.000
TCFnec	Clothing and footwear	-0.011	0.000	0.000	0.000	0.000	0.000	0.000
Wood	Wood products	0.175	0.000	0.000	0.000	0.000	0.000	0.000
Paper	Paper products	0.056	0.000	-0.001	0.001	0.000	0.001	-0.001
Petrol	Petroleum products	0.413	0.000	0.000	0.000	0.000	0.000	0.000
Chemicals	Chemicals nec	-0.063	-0.001	-0.001	0.002	0.002	0.001	0.003
BuildProds	Non-metallic building products	-0.166	0.000	0.000	-0.001	0.000	0.000	0.001
Metals	Basic metals	0.396	0.001	-0.001	-0.001	0.001	0.000	0.001
MetalProds	Metal products	0.022	0.000	0.000	0.000	0.000	0.000	0.001
MVParts	Motor vehicles and parts	-1.116	0.009	-0.017	0.010	-0.025	0.008	0.006
OthTrEquip	Transport equipment nec	0.691	0.000	0.000	0.000	0.000	0.000	-0.001
ElecEquip	Electronic equipment	1.308	0.001	0.001	-0.003	0.001	-0.002	-0.001
OthMach	Machinery nec	-0.436	-0.001	-0.002	0.002	0.000	0.001	0.004
Utilities	Electricity, water, gas services	0.186	0.000	0.000	0.000	0.000	0.000	0.000
Mannecc	Manufacturing nec	0.835	0.000	0.001	0.000	0.001	-0.001	-0.001
Construction	Construction services	0.395	-0.001	-0.004	0.008	-0.005	0.003	0.005
Trade	Trade services	0.152	0.000	-0.001	0.004	-0.002	0.003	0.005
Transport	Transport services	0.238	0.000	-0.001	0.001	-0.001	0.000	0.000
Comm	Communication services	0.172	0.000	0.000	0.000	0.000	0.000	0.000
Financial	Financial services	0.122	0.000	-0.001	0.001	0.000	0.001	0.001
OtherBus	Business services	0.192	0.000	0.000	0.000	0.000	0.000	0.000
OtherPrivSer	Private services nec	0.255	0.000	-0.001	0.001	0.000	0.001	0.001
OtherPubSer	Public services	-0.043	0.003	-0.005	0.006	-0.008	0.010	0.003
Dwellings	Dwelling services	0.150	0.000	-0.002	0.003	-0.002	0.002	0.003
Gap in percentage deviations (GSP deviation – GDP deviation)			0.003	-0.039	0.038	-0.037	0.049	0.043

Table A7: Contributions to the Differences in Victorian GRP (%) Deviations in 2020

Industry	Victoria % deviation	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
Wheat	0.201	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
OthGrain	0.225	0.000	0.000	0.001	0.001	0.004	0.002	0.001	0.001	0.000	0.000	0.000
Crops	0.590	-0.003	0.000	0.006	0.006	0.031	0.046	0.001	0.008	0.005	0.003	0.001
Animal	0.579	-0.003	-0.001	0.012	0.007	0.055	0.025	0.008	0.007	0.003	0.003	-0.001
Milk	1.913	-0.008	0.004	0.076	-0.006	-0.004	0.017	0.005	0.052	0.011	0.037	0.040
Wool	0.622	-0.002	0.000	0.009	0.005	0.042	0.020	0.002	0.002	0.001	0.003	0.000
Forestry	0.151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Fishing	0.212	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Mining	0.417	-0.002	-0.002	-0.003	0.001	0.005	-0.001	0.001	-0.002	-0.003	0.048	0.014
Meat	0.937	-0.001	0.002	-0.001	0.000	0.003	-0.001	0.009	0.001	0.002	-0.002	0.000
VegOils	-0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DairyProds	1.933	-0.004	0.003	0.048	-0.008	-0.009	0.003	-0.003	0.048	-0.002	0.002	0.014
Sugar	2.235	0.000	-0.001	0.003	-0.001	0.000	0.000	-0.001	-0.002	0.000	-0.001	-0.002
Foodnec	0.177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Drinks	0.365	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Textiles	0.822	-0.001	0.010	-0.004	0.001	0.000	-0.005	0.000	-0.001	0.016	-0.005	0.001
TCFnec	-0.011	0.000	-0.001	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.001
Clothing and footwear	0.175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Wood	0.056	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.000
Paper	0.413	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Petrol	-0.063	-0.001	0.000	0.002	0.002	0.004	0.003	0.003	0.003	0.003	0.004	0.003
Chemicals	-0.166	0.000	-0.002	0.001	-0.001	0.001	0.002	0.000	0.001	0.001	0.001	0.001
BuildProds	0.396	0.000	0.006	0.016	0.000	-0.002	-0.002	-0.001	-0.001	-0.002	-0.002	-0.002
Metals	0.022	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.000
MetalProds	-1.116	-0.003	-0.048	0.029	-0.013	0.029	0.027	0.017	0.024	0.023	0.029	0.024
MVParts	0.691	0.000	0.001	-0.002	-0.001	-0.002	-0.002	0.000	-0.001	-0.002	0.000	-0.001
OthTrEquip	1.308	0.001	-0.005	-0.005	-0.004	-0.004	-0.005	-0.004	-0.004	0.018	-0.004	-0.005
ElecEquip	-0.436	-0.001	0.005	0.006	-0.006	0.008	0.003	0.000	0.003	0.001	0.008	0.006
OthMach	0.186	-0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.007
Utilities	0.835	0.000	-0.001	-0.001	-0.001	-0.001	-0.001	0.000	-0.001	-0.001	-0.001	-0.001
Mannecc	0.359	-0.003	-0.001	0.016	-0.002	0.005	0.008	0.005	0.016	0.008	0.011	0.012
Construction	0.129	-0.005	-0.004	0.033	-0.002	0.023	0.028	0.007	0.026	0.015	0.018	0.014
Trade	0.226	-0.001	-0.001	0.004	0.000	0.004	0.004	0.002	0.005	0.002	0.001	0.000
Transport	0.163	0.000	0.000	0.002	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001
Comm	0.113	-0.001	0.000	0.004	0.001	0.004	0.003	0.002	0.004	0.002	0.003	0.003
Financial	0.187	-0.001	-0.001	-0.001	-0.002	-0.003	-0.001	-0.001	-0.001	-0.001	-0.001	0.000
OtherBus	0.234	-0.001	-0.001	0.007	0.000	0.003	0.003	0.003	0.005	0.003	0.004	0.003
OtherPrivSer	-0.071	-0.007	-0.009	0.052	-0.010	0.046	0.040	0.008	0.038	0.019	0.030	0.025
OtherPubSer	0.117	-0.004	-0.003	0.025	-0.002	0.023	0.020	0.005	0.019	0.010	0.013	0.010
Dwellings												
Gap in percentage deviations (GRP deviation – GSP (Vic) deviation)		-0.049	-0.048	0.338	-0.033	0.269	0.241	0.066	0.254	0.147	0.205	0.167



**Table A8: Industry Employment in Victoria and Victorian Sub-State Regions in 2020 (absolute deviations ('000 persons) from baseline values)**

Industry		D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
Victoria		0.005	0.000	0.000	0.001	0.000	0.000	0.001	0.002	0.000	0.000	0.000
Wheat	Wheat	0.005	0.000	0.000	0.001	0.000	0.000	0.001	0.002	0.000	0.000	0.000
OthGrain	Other grains	0.046	0.002	0.003	0.016	0.009	0.005	0.002	0.004	0.001	0.001	0.001
Crops	Crops excluding grains	0.293	0.101	0.023	0.065	0.022	0.037	0.004	0.017	0.006	0.004	0.006
Animal	Animal products	0.130	0.005	0.009	0.045	0.025	0.015	0.005	0.010	0.003	0.003	0.002
Milk	Raw milk	0.525	0.044	0.092	0.026	0.004	0.026	0.014	0.111	0.018	0.035	0.067
Wool	Wool	0.105	0.005	0.008	0.037	0.022	0.013	0.003	0.005	0.002	0.002	0.001
Forestry	Forestry	0.007	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Fishing	Fishing	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Mining	Mining	0.035	0.021	0.000	0.004	0.001	0.000	0.001	0.000	0.000	0.004	0.002
Meat	Meat products	0.138	0.086	0.018	0.015	0.003	0.001	0.007	0.004	0.003	0.000	0.002
VegOils	Vegetable oils and fats	-0.011	-0.005	0.000	-0.004	0.000	0.000	0.000	-0.001	0.000	0.000	0.000
DairyProds	Dairy products	0.120	0.066	0.014	0.002	0.000	0.002	0.001	0.017	0.001	0.001	0.005
Sugar	Sugar products	0.118	0.099	0.003	0.005	0.001	0.001	0.001	0.000	0.005	0.000	0.000
Foodnec	Food products nec	-0.004	-0.003	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Drinks	Beverages and tobacco products	0.009	0.005	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Textiles	Textiles, tex prods. & wool scouring	0.180	0.116	0.034	0.016	0.001	0.000	0.002	0.002	0.005	0.000	0.002
TCFnec	Clothing and footwear	-0.071	-0.063	-0.004	-0.003	0.000	0.000	0.000	-0.001	0.000	0.000	0.000
Wood	Wood products	0.026	0.020	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Paper	Paper products	-0.105	-0.092	-0.004	-0.004	0.000	0.000	-0.001	-0.001	-0.001	0.000	-0.001
Petrol	Petroleum products	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Chemicals	Chemicals nec	-0.093	-0.082	-0.006	-0.003	0.000	0.000	0.000	-0.001	0.000	0.000	0.000
BuildProds	Non-metallic building products	-0.101	-0.070	-0.013	-0.013	0.000	0.000	-0.001	-0.001	-0.001	0.000	-0.001
Metals	Basic metals	0.041	0.025	0.009	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
MetalProds	Metal products	-0.085	-0.068	-0.006	-0.005	0.000	0.000	-0.001	-0.002	-0.001	0.000	-0.001
MVParts	Motor vehicles and parts	-1.138	-0.824	-0.181	-0.117	-0.001	-0.001	-0.004	-0.004	-0.002	0.000	-0.003
OthTrEquip	Transport equipment nec	0.063	0.051	0.007	0.003	0.000	0.000	0.001	0.000	0.000	0.000	0.000
ElecEquip	Electronic equipment	0.120	0.112	0.001	0.002	0.000	0.000	0.000	0.001	0.005	0.000	0.000
OthMach	Machinery nec	-0.228	-0.180	-0.008	-0.028	-0.001	-0.002	-0.003	-0.003	-0.002	0.000	-0.001
Utilities	Electricity, water, gas services	-0.042	-0.024	-0.004	-0.005	0.000	-0.001	-0.001	-0.002	-0.001	-0.001	-0.004
Manuac	Manufacturing nec	0.485	0.446	0.014	0.011	0.001	0.001	0.004	0.003	0.001	0.001	0.002
Construction	Construction services	0.362	0.229	0.026	0.029	0.006	0.009	0.006	0.019	0.007	0.006	0.007
Trade	Trade services	-0.658	-0.638	-0.055	-0.049	0.010	0.014	0.000	0.023	0.004	0.001	0.001
Transport	Transport services	-0.028	-0.032	-0.002	-0.002	0.001	0.001	0.000	0.002	0.000	0.000	0.000
Comm	Communication services	-0.055	-0.048	-0.003	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Financial	Financial services	-0.189	-0.171	-0.007	-0.008	0.000	0.000	-0.001	0.000	0.000	0.000	-0.001
OtherBus	Business services	0.093	0.074	0.005	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.002
OtherPrivSer	Private services nec	0.249	0.169	0.015	0.023	0.004	0.004	0.004	0.010	0.004	0.004	0.006
OtherPubSer	Public services	-1.125	-0.975	-0.095	-0.109	0.010	0.009	-0.004	0.015	0.001	0.004	0.002
Dwellings	Dwelling services	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total		-0.778	-1.596	-0.099	-0.039	0.119	0.136	0.039	0.234	0.060	0.074	0.108

## ATTACHMENT B

### IMPACT OF THE PROPOSED AGREEMENT ON VICTORIAN AGRICULTURAL AND MANUFACTURING SECTORS: PRELIMINARY ANALYSIS

#### AGRICULTURE

**Dairy:** we would expect the AUSFTA to provide new market opportunities for Victorian dairy processors and producers in the US market. While these opportunities are welcome, we note that the predicted value of export gains to Australia (\$55m in Year 1) are small relative to overall dairy exports (some \$2 billion per annum). We also note that any increase in exports to the US would likely be filled by shifting exports from lower priced markets until production is increased.

**Beef:** the US is the biggest export destination for Victorian beef products, and particularly as a market for manufacturing beef sourced from the dairy industry. We would expect the AUSFTA to give continuity and a minor boost to this important market.

**Lamb:** in the medium term, we would expect the AUSFTA to deliver a further important boost to Victorian lamb exports. However, short-term growth may be constrained by the need to rebuild flocks that have been affected by drought.

**Horticulture:** elimination of tariffs at entry into force should bring minor benefits to the fresh orange trade. However, long phase-out periods and safeguard provisions mean that the AUSFTA is not expected to generate any new market opportunities for the canned fruit industry in the short to medium term.

**Wool:** the economic significance of tariff reductions is not clear at this point, but the impact will be gradual.

#### MANUFACTURED GOODS

Industry Sector	Export Opportunities	US Import Competition	Likely Net Impact
Automotive	Medium – niche automotive vehicles and parts.	Medium – automotive vehicles and parts.	Negative long-term impact
Textiles, Clothing, Footwear	Low – given adoption of US 'yarn forward' rule and exclusion of defence procurement from AUSFTA.	Low	No real change
Plastics & Chemicals	Very low – some niche products.	Medium	Negative
Metals & Minerals	Low	Low	Low negative
Electronic Equipment	Low	Low	Positive
Shipbuilding & Repairs	Low – given minimal alteration to 'Jones Act.' Some opportunities in ship repairs given elimination of 50% tariff.	Low	No real change