Australian Government Productivity Commission

# Rules of Origin under the Australia–New Zealand Closer Economic Relations Trade Agreement

Supplement to Productivity Commission Research Report

Industry Assistance in Australia and New Zealand under the CER Agreement



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### Contents

Ab	brevia	ations	VI
Ke	Xey points		VIII
1	Intro	oduction	1
	1.1	Background	1
	1.2	Structure of the paper	3
2	Fran	nework for assistance measurement	5
	2.1	Standard framework	5
	2.2	Main assumptions	6
	2.3	Choice of benchmark price	8
3	Esti	mation of the assistance effects of CER	15
	3.1	Estimating the impact of CER on assistance to outputs	16
	3.2	Estimating the impact of CER on assistance to inputs	18
	3.3	Estimating the impact of CER on effective assistance to industry	21
4	Assi	stance estimates	25
	4.1	Standard estimates of assistance to manufacturing	25
	4.2	Impact of CER on tariff assistance to industry	27
	4.3	Sensitivity analysis of tariff assistance to outputs of New	
		Zealand industry	35
	4.4	Summing up	37

A	Trans-Tasman transport costs	39
B	Data sources	47
С	Australian assistance by manufacturing industry group	51
D	New Zealand assistance by manufacturing industry group	55
E	Impact of CER on industry assistance	59
F	Scheduled ad valorem tariff rates for New Zealand	71
Ref	ferences	77

#### BOXES

2.1	Definitions of assistance measures	7
3.1	Estimating the impact of CER on assistance to outputs	17
3.2	Estimating the impact of CER on assistance to inputs	20
3.3	Estimating the impact of CER on effective assistance to industry	23
<b>B</b> .1	New Zealand tariff schedules	49

#### FIGURES

4.1	Trends in average effective rates of assistance to manufacturing, 1989-90 to 2001-02	26
4.2	Decomposition analysis of the effect of CER on the nominal rate of output assistance, 2001-02	29
4.3	Decomposition analysis of the effect of CER on the nominal rate of assistance to inputs, 2001-02	31
4.4	Decomposition analysis of the effect of CER on the effective rate of assistance, 2001-02	34

#### TABLES

2.1	Australian Government budgetary assistance by industry group, 2002-03	12
2.2	Impact of Australian Government assistance on the effective rate of assistance to manufacturing, 2001-02	13

4.1	Sensitivity analysis of nominal rate of output assistance for	
	New Zealand	36
A.1	Trans-Tasman transport costs by industry, 2000-01	39
C.1	Australian assistance by manufacturing industry group, 1989-90 to 2001-02	52
D.1	New Zealand tariff assistance by manufacturing industry group, 1989-90 to 2001-02	56
E.1	Impact of CER on assistance received by Australian manufacturing industry group, 1989-90 to 2001-02	60
E.2	Impact of CER on tariff assistance received by New Zealand manufacturing industry group, 1989-90 to 2001-02	62
E.3	Decomposition of the nominal rate of output tariff assistance — Australia, 2001-02	64
E.4	Decomposition of the nominal rate of output tariff assistance — New Zealand, 2001-02	65
E.5	Decomposition of the nominal rate of input tariff assistance — Australia, 2001-02	66
E.6	Decomposition of the nominal rate of input tariff assistance — New Zealand, 2001-02	67
E.7	Decomposition of the effective rate of tariff assistance — Australia, 2001-02	68
E.8	Decomposition of the effective rate of tariff assistance — New Zealand, 2001-02	69
F.1	Summary of scheduled ad valorem tariff rates in New Zealand	72

## Abbreviations

ABS	Australian Bureau of Statistics
ACS	Australian Customs Service
ANZSIC	Australian and New Zealand Standard Industrial Classification
BERL	Business and Economic Research Limited
CER	Australia–New Zealand Closer Economic Relations Trade Agreement
cif	cost, insurance and freight
CTCOs	commercial tariff concession orders
ERA	effective rate of assistance
fob	free on board
GSE	gross subsidy equivalent
GST	goods and services tax
HS	Harmonized System
IC	Industry Commission
IOPC	input-output product classification
ldf	landed duty free
ldp	landed duty paid
MFN	most favoured nation
NRM	nominal rate of input (material) assistance
nec	not elsewhere classified
nes	not elsewhere specified
na	not available
NRO	nominal rate of output assistance
NSE	net subsidy equivalent
NZ	New Zealand

NZCC	New Zealand Commodity Classification
NZIER	New Zealand Institute of Economic Research
PC	Productivity Commission
PMV	passenger motor vehicles
РТА	preferential trade agreement
RoO	rules of origin
TAR	Trade & Assistance Review
TCF	textiles, clothing and footwear
TEM	tax equivalent on materials
vfd	value for duty
WTO	World Trade Organization

### Key points

- The Closer Economic Relations (CER) trade agreement between Australia and New Zealand seeks to develop trans-Tasman trade by affording preferential access to goods produced within the CER area. Preferential access is provided in the form of duty free entry for goods which satisfy rules of origin.
- The duty free access available to Australian producers in the New Zealand market can extend New Zealand tariff protection to Australian producers. Similarly, duty free access to New Zealand producers in the Australian market can extend Australian tariff protection to them. In this way, CER expands the protected market available to domestic producers of both countries. It can raise industry assistance in both countries if higher assistance is provided in the other country and is not eroded by intra-CER production or trade.
- The analysis indicates that the CER agreement raised manufacturing industry assistance slightly:
  - average assistance to output of Australian and New Zealand manufacturers was estimated to have been raised by 0.04 and 0.4 percentage points, respectively, in 2001-02.
- The potential impact of CER concessions on the cost of input materials (assistance to inputs) appears to be minimal, because,
  - most trans-Tasman trade in these inputs is in items with a general tariff of zero in Australia and New Zealand or trade is duty free, limiting the scope for the CER to affect material costs; and
  - freight costs appear to have a more important influence on trans-Tasman trade in input materials.
- Overall, the CER is likely to have increased fractionally the *effective* assistance to manufacturing industry on both sides of the Tasman:
  - with tariff reductions in Australia and New Zealand, the extent of preferential tariff assistance available has also declined overtime; and
  - by 2001-02, the average level of effective assistance to Australian and New Zealand manufacturing activities was 0.08 and 0.7 percentage points respectively, above that available without CER preferences. The greatest advantage was afforded to textiles, clothing and footwear (TCF) activities in New Zealand, with additional effective assistance of more than 2 percentage points.
- The analysis also indicates that:
  - tariffs on inputs from third countries are greater in Australia than New Zealand. Australian exporters to New Zealand particularly of TCF products
    thus have most to gain from duty drawback and related schemes that lower the cost of exporting; and
  - budgetary assistance to manufacturing industry is significant in Australia but negligible in New Zealand.

### 1 Introduction

The terms of reference for the study into rules of origin (RoO) under the Australia– New Zealand Closer Economic Relations Trade Agreement (CER) asked the Commission, among other things, to identify economic problems with the operation and design of the RoO and to assess the costs and benefits of any proposed changes. To assist in addressing these issues, the Commission has examined assistance afforded to CER producers by the CER agreement. This provides some indication of the importance of CER preferences and how they have changed over time.

This chapter provides some background on possible ways in which the CER agreement assists trans-Tasman exporters and outlines the structure of the paper.

#### 1.1 Background

Among other things, the CER agreement seeks to increase trans-Tasman trade by providing preferential access to goods of CER origin. The provision of preferential access also extends assistance afforded by tariffs otherwise reserved for producers in one country to producers in the other.

For example, manufacturers of jumpers are protected by most favoured nation (MFN) tariff rates of 25 per cent in Australia and 19 per cent in New Zealand. Under the CER, Australian producers are protected in their home market by a 25 per cent tariff on third country imports but face competition from duty free New Zealand imports. In the New Zealand market, they compete against local manufacturers and are protected by the New Zealand tariff of 19 per cent. On the other hand, New Zealand producers are afforded higher protection against third country imports in the Australian market than in the New Zealand market (ie 25 per cent as against 19 per cent).

Even when tariffs are low, these effects are present. For example, Australian manufacturers of biscuits are protected from third country producers by an MFN tariff rate of 5 per cent in Australia and 7 per cent in New Zealand. This opens up the possibility that Australian biscuits can be priced up to 7 per cent above international prices in New Zealand, rather than the 5 per cent margin possible in the Australian market.

Overall, tariff differences and the provision of concessions between the CER partners affect effective assistance to industry in both countries. This paper uses a standard framework for measuring industry assistance to estimate the effective assistance afforded by CER preferences to manufacturing industry in Australia and New Zealand.

Applications using the standard model consider competition from only one source — firms in the rest of the world. In the standard framework, no distinction is made between exports to Australia and New Zealand from the CER partner or the possibility, mentioned above, that CER concessions and tariffs in the CER partner may influence the price received for CER exports. Similarly, no distinction is made between imports from CER and non-CER sources and the impact that this may have on local costs. These restrictive features of the model, in its standard form, do not lend it to an analysis of the assistance impact of CER. Accordingly, the standard model has been adapted for this study to apply to a situation where domestically produced goods are subject to competition from two import sources — the rest of the world and the other CER economy.

In the modified framework, the tariff protection provided in the CER partner country is recognised and treated as possible additional assistance to the output of an industry. The assistance to output exported to the partner country may be higher or lower than that available on sales to the home market, depending on the alignment of tariffs between the partner countries.

Potentially, tariff differences between the CER partners also provide an opportunity for firms to find cheaper sources of supply within CER. Where the Australian tariff is higher, competition between New Zealand suppliers for Australian market share could drive the price of materials imported from New Zealand to a level consistent with the New Zealand tariff. Similarly, competition between Australian suppliers for the New Zealand market share could drive the price of materials exported to New Zealand to that consistent with the Australian tariff. Depending on tariffs on third-country imports and market conditions in Australia and New Zealand, this factor could raise or lower the cost of inputs. In the modified framework, tariff differences between Australia and New Zealand are treated as potentially influencing assistance to inputs. They may be either potentially cost-raising or costlowering influences, depending on the direction of the tariff difference.

#### 1.2 Structure of the paper

This paper is set out as follows:

- chapter 2 outlines the standard framework adopted for the measurement of tariff assistance by the Productivity Commission;
- chapter 3 outlines some key issues encountered in extending the standard framework to the estimation of the assistance effects of a PTA such as CER; and
- chapter 4 discusses key results of the study, followed by sensitivity tests for New Zealand tariff assistance using alternative measures of rates of assistance
   — one based on duty paid on non-CER imports and a second on New Zealand scheduled MFN tariff rates.

# 2 Framework for assistance measurement

Since early 1970s, import tariff assistance and other assistance to Australian industry has been measured by the Productivity Commission and its predecessors. Estimates of assistance to industry have been compiled each year and reported in the Commission's annual *Trade & Assistance Review* (eg see IC 1995, PC 2003). Estimates of assistance have also been widely used to support the evaluation of assistance to individual industries or sectors and development of policy options. Estimates of assistance to New Zealand industry also have been prepared by Syntec (1988), BERL (1990) and Lattimore (2003).

The purpose of quantifying industry assistance is to enable governments to make more informed policy decisions that would lead to improvements in the allocation of the community's scarce resources and thereby to improve welfare. Information on assistance has highlighted the relative dependence of some activities on government support and the potential costs of assistance to industry (especially exporters) and the community as a whole. Assistance measurement therefore focuses on government measures that discriminate between industries or activities.

#### 2.1 Standard framework

The framework adopted for estimating assistance in Australia is based on the concept of effective assistance. This concept enables the impact of tariffs and other government interventions on the price received for outputs, the cost of inputs and the net effect on returns to value-adding factors to be evaluated within a consistent framework using a series of standard assistance measures. For example, where a producer supplies goods to the domestic market in competition with imported goods, a tariff on those imports assists the local producer by allowing it to increase prices to a level consistent with the tariff. At the same time, the tariff penalises producers that use tariff-assisted goods and consumers. By taking into account both of those effects, effective assistance measures reflect the net assistance to industry value added provided by tariff protection.

The key measures relating to assistance to output, material inputs and value-adding factors are outlined in box 2.1. Because assistance changes the returns to industry, the basic measures of assistance listed are expressed as subsidy equivalents. The basic measures are expressed in currency units (ie Australian or New Zealand dollars, as appropriate). To avoid problems of comparing measures in different currency units that pertain to different industrial structures in Australia and New Zealand and to aid comparisons of assistance to industry over time, the basic measures are re-expressed as the subsidy equivalent per unit of output, expressed as a percentage — that is, as nominal and effective rates of assistance. The current analysis emphasises nominal and effective rate of assistance measures.

The practical application of the concept of effective assistance involves a number of simplifying assumptions. In particular, the assistance measures are derived using static, partial-equilibrium assumptions. These focus attention on the initial impact of interventions on prices, costs and returns. Thus, while the assistance measures indicate transfers associated with interventions, they do not indicate changes in supply and demand or more general equilibrium effects.

#### 2.2 Main assumptions

The major simplifying assumptions underlying the Commission's assistance model are:

- perfect substitution between domestic and foreign goods of the same description;
- the small country assumption, whereby Australia and New Zealand do not influence the world price of either their imports or exports (ie the terms of trade are assumed to be exogenous);
- no substitution between nominally different goods;
- infinite elasticities of export demand and import supply;
- the prices of goods, services, and resources represent their opportunity cost to the community in the absence of assistance;
- the direction of trade in the absence of assistance can be assessed, with importparity prices forming the benchmark for goods assessed to be import-competing and export-parity prices for export goods;
- production relationships between inputs are unaltered by the assistance structure; and
- constant returns to scale.

#### Box 2.1 Definitions of assistance measures

The **gross subsidy equivalent** (GSE) is an estimate of the change in producers' gross returns from assistance. It is the notional amount of money, or subsidy, necessary to provide an activity with a level of assistance equivalent to the nominal rate of assistance on its output.

The **tax equivalent on materials** *(TEM)* is an estimate of the net change to user industries' input costs due to government assistance altering the prices paid for intermediate inputs. It is the notional amount of money that user industries pay for intermediate inputs to provide the producers of those inputs with a level of assistance equivalent to the nominal rate of assistance on materials.

The **net subsidy equivalent** (*NSE*) is an estimate of the change in returns to an activity's value added due to assistance. It is the notional amount of money, or subsidy, necessary to provide a level of assistance equivalent to the effective rate of assistance. It is equal to the gross subsidy equivalent plus any assistance to inputs or value-adding factors, less the tax equivalent on materials used in the production process.

The **nominal rate of assistance on outputs** (*NRO*) is the percentage change in gross returns per unit of output relative to the (hypothetical) situation of no assistance. The nominal rate measures the extent to which consumers pay higher prices and taxpayers pay subsidies to support local output.

The **nominal rate of assistance on materials** (ie intermediate inputs) (*NRM*) is the percentage change in the prices paid for materials used in the production process, as a result of government intervention.

The **effective rate of assistance** (*ERA*) is the percentage change in returns per unit of output to an activity's value-adding factors due to the assistance structure. The effective rate measures net assistance, by taking into account the costs and benefits of government intervention on inputs, direct assistance to value-adding factors and output assistance.

For example, for any given nominal tariff rate, the effective rate is greater the smaller the value added of a process. Similarly, for a given size of the value added, the effective rate is an increasing function of the nominal tariff rate.

While these assumptions underlie assistance measures for an individual country, they essentially assume that the actions of a single country cannot influence 'world prices' or assistance faced by producers in another country. They do not take into account the potential for a preferential trading agreement between two countries, such as the CER, to influence prices and assistance levels in the partner economy. However, as trading agreements such as CER extend border assistance in one partner country to firms in the other partner country, analysis of the impact of the

CER on assistance to Australian and New Zealand producers can be undertaken. In order to do so, the following simplifying assumptions need to be made:

- the preferential supplier takes full advantage of tariff assistance available in the CER partner economy;
- there is only one distortion in the form of simple ad valorem tariffs. The impact of duty drawback schemes and other types of assistance (including budgetary assistance to industry) were not included in the analysis and are discussed separately below; and
- all imports from the CER partner enter duty free instead of at MFN rates and the CER preferences are the only means of obtaining duty free entry for those imports. In practice, a small numbers of firms in recent years have forgone tariff preferences by supplying at MFN rates in CER and some trade across the Tasman enters duty free under duty drawback and related arrangements. There are also imports that enter duty free under other concessional arrangements (eg the Australian *Tradex* scheme).

The first assumption follows from the assumptions underpinning the standard application of the model — particularly the small country assumption. The remaining two assumptions are used because it is impractical to obtain precise data on these variables or relationships for all industries and because available information suggests that the overall impact of these factors is likely to be small. Broad indications of the preference provided to a sector by the CER are unlikely to be sensitive to plausible real world divergences from the assumptions.

While violations of the general or more specific assumptions need not invalidate the relevance of the assistance estimates presented in this study for policy analysis, they do emphasise the approximate nature of the estimates and that, for policy purposes, no great significance should be attached to small differences in estimates.

#### 2.3 Choice of benchmark price

Measurement of assistance or protection requires a reference price at which products are likely to sell on the domestic market in the absence of the tariff preference arrangements.

For internationally traded goods, the Commission uses either import parity (the landed duty free price of the imported equivalent) or export parity (the export value of the exported equivalent) as a benchmark price. The choice between these two depends on whether, if the assistance arrangements were removed, the domestic price would be determined by competing imports or the price achieved for exports.

In standard applications of its assistance methodology, the Commission uses import parity pricing for the estimation of assistance to manufacturing and export parity pricing for the estimation of assistance to selected agricultural commodities.

In standard estimates of nominal rates of assistance to Australian industry, the Commission does not distinguish between imports from New Zealand and imports from the rest of the world. This aligns with the treatment of other preferences. An important implication of this convention is the assumption that New Zealand exporters price up to the applied tariff levels prevailing in Australia. Application of the standard treatment to the estimation of assistance to New Zealand firms similarly involves the assumption that the Australian exporters to New Zealand price up to the applied tariff levels prevailing in New Zealand.

If the CER preferences alter only the source of imports rather than their total level, they will not alter the assistance to producers in the preference-granting country that is implied by the applied tariff rates (usually MFN rates) for that country. In this case, the applied rate would be the appropriate indicator of assistance and the world price — that is the landed duty free price of imports — would be the most appropriate indicator of the benchmark price. Furthermore, the lowering of applied rates would not affect the benchmark price of imports, although, in the presence of tariff preferences, it could affect sourcing between preferential and non-preferential sources (ie it could affect the extent of trade diversion).

The use of import parity as a benchmark price essentially emphasises the opportunity cost of protecting certain domestic production. As such, it does not require the assumption of perfect competition in the world market, simply that the actions of a single country cannot influence world prices.

#### Evaluating the border price of imports

Tariffs in Australia and New Zealand are levied on the free on board (fob) price of imports — that is, before insurance, freight and other importing costs are added. This measure is commonly referred to as the value for duty (vfd). Because the measure does not include insurance and freight costs, use of the tariff rate as a measure of assistance would overstate the price impact of the tariff on local costs and hence the measured output assistance afforded producers by tariff protection.

To obtain a better indication of the impact of tariffs on assistance, the MFN tariff rates are deflated to a landed duty free (ldf) basis by multiplying each tariff rate by the ratio of imports evaluated on a vfd basis and imports on a cost, insurance and freight (cif) basis (ie the vfd/cif ratio). The vfd of imports is usually equivalent to the fob value whilst the cif value is taken to be equivalent to the ldf value. The nominal rate of assistance (that is, adjusted for the impact of insurance and freight costs) for product groups has been calculated by deriving a weighted average of nominal rates at the tariff item level, using the value of imports recorded on a cif basis as weights.<sup>1</sup>

For any one tariff item, or grouping of items, the nominal rate of assistance to output also represents the additional cost to industries of using the product, whether it is imported or produced locally.

#### Treatment of duty drawback

Duty drawback schemes operate in both Australia and New Zealand. These schemes provide exporters, including firms exporting to the CER partner, with a rebate of the duty paid on imported inputs used in making goods which are subsequently exported. Such rebates selectively lower the cost of inputs used to produce goods for export.

In addition, a related scheme, called *Tradex*, operates in Australia. Unlike duty drawbacks, it provides up-front exemptions from customs duty and the goods and services tax (GST) on imported goods that are intended for direct export, or imported goods that are used, lost or wasted in the manufacture of other goods that are later exported.

The duty drawback scheme and related schemes effectively lower the unit cost of exporting. Potentially, such schemes could raise domestic prices were producers to withdraw from selling to the domestic market in favour of exporting. This would occur if producers could not obtain domestically a premium above the export price equal to the rebate which they would have to forgo if they produced for the domestic market rather than for export.

In principle, it would be appropriate to include the effects of duty drawback and related concessions in the assistance estimates. In such calculations, the appropriate benchmark price for outputs of 'export goods' — whether sold internationally or on the domestic market — would be export parity, while the appropriate benchmark price for material inputs subject to drawback would be import parity.

In practice, on the output side, there are significant problems in separately identifying export goods sold locally and other, mainly import competing, goods. Recognising this problem, the Commission treats manufacturing output sold

<sup>&</sup>lt;sup>1</sup> In principle, the production weights should be used but detailed production data are not available to permit such a weighting.

domestically as import-competing and designates the border price of imports as the appropriate benchmark.

Furthermore, on the input side, available data indicate that duty drawback and associated concessions are small in aggregate. For example, duty forgone due to the duty drawback concessions amounted to A\$120 million or only 0.08 per cent of the value of Australia's total imports in 2001-02. Moreover, duty forgone under the Australian *Tradex* scheme was estimated at A\$155 million in 2001-02.<sup>2</sup> Available data suggest that *Tradex* concessions are afforded to material input items mainly concentrated in Motor vehicles and parts and TCF sectors (PC 2003). Because of very limited data about concessions to exporters and the relatively small value of the concessions granted, the impact of the concessions on assistance to inputs of exporters is not included in the estimates of this study.

Notwithstanding the availability of CER tariff concessions which afford duty free entry to qualifying goods produced in New Zealand, imports from New Zealand entering Australia duty free under the Australian *Tradex* scheme amounted to A\$6.2 million in 2001-02. These imports were mainly concentrated in the product categories of Electrical machinery and equipment and sound recorders (chapter 85 of the HS); Raw hides, skins and leather (chapter 41); and Boilers, machinery and mechanical appliances (chapter 84).

#### **Budgetary assistance**

Budgetary assistance to industry comprises government spending and tax concessions that benefit industries or firms. While some assistance to industry has always been provided through the budget, this form of assistance increased in relative importance, particularly in Australia, as assistance from tariff and tariff quotas declined (PC 2001).

In the case of Australia, budgetary assistance comprises a range of outlays and tax concessions (or 'tax expenditures'), including support to research and development and industry-specific support. Aggregate estimates by the Commission indicate that Australian Government budgetary assistance was around A\$4 billion in 2002-03 (table 2.1). Assistance varied markedly between sectors with the largest proportion directed to the manufacturing sector which received A\$1.7 billion in assistance.

<sup>&</sup>lt;sup>2</sup> ACS (2003a) *Customs Figures*, September.

	Budget outlays	Tax concessions	Total assistance
Primary production	510.8	376.7	887.6
Mining	114.3	108.8	223.1
Food, beverages and tobacco	58.9	21.5	80.4
Textiles, clothing, footwear and leather	148.0	59.6	207.6
Wood and paper products	30.5	5.3	35.8
Printing, publishing and recorded media	13.9	1.5	15.4
Petroleum, coal, chemical and associated products	167.8	21.4	189.2
Non-metallic mineral products	2.8	5.3	8.1
Metal product manufacturing	49.3	59.5	108.8
Motor vehicles and parts	8.0	667.9	675.9
Other transport equipment	28.7	49.2	77.9
Other machinery and equipment	106.5	33.1	139.5
Other manufacturing	25.7	24.3	50.0
Unallocated manufacturing <sup>a</sup>	40.6	121.0	161.4
Total manufacturing	680.6	1069.7	1750.2
Services	467.6	289.5	757.1
Unallocated other <sup>b</sup>	261.9	134.0	395.9
Total	2035.2	1978.7	4013.9

## Table 2.1Australian Government budgetary assistance by industry<br/>group, 2002-03

A\$ million

 $^{\mathbf{a}}$  Unallocated manufacturing includes general programs where details of claimants or beneficiaries are unknown.  $^{\mathbf{b}}$  Unallocated other includes programs or amounts of funding where the industry is not stated or recipients are unknown.

Source: PC (2003).

Within the manufacturing sector, the Motor vehicles and parts sector received by far the most budgetary assistance in value terms. Most of this support is provided under the Automotive Competitiveness Investment Scheme. The post-2005 assistance package to the Australian TCF sector will provide transitional budget support of \$747 million in various tranches over the period 2005 to 2015 (PC 2003). The relative significance of budgetary assistance was greatest for the Motor vehicles and parts and TCF sectors where it added 11 and 8 percentage points respectively, to the effective rate of assistance, compared with the sector average of around 2 percentage points (table 2.2.).

Budgetary assistance to manufacturing industry in New Zealand is negligible.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Advice from New Zealand Ministry of Economic Development.

Because the focus of the current study is on the implications of the CER for tariff assistance to industry, an analysis of the impact of budgetary assistance on effective rates of assistance to industry has not been included in the current study.<sup>4</sup>

# Table 2.2Impact of Australian Government assistance on the effective<br/>rate of assistance to manufacturing, 2001-02Per cent

	Effective rate of assistance <sup>a</sup>			
ANZSIC industry	Budgetary assistance	Tariff assistance <sup>b</sup>	Overlap between budgetary and tariff assistance <sup>c</sup>	All forms of assistance <sup>d</sup>
	[A]	[B]	[C]	[A]+[B]-[C]
Food, beverages and tobacco	0.3	3.3	0.0	3.6
Textiles, clothing, footwear and leather	7.8	19.2	0.8	26.2
Wood and paper products	0.5	4.4	0.0	4.9
Printing, publishing and recorded media	0.2	1.3	0.0	1.5
Petroleum, coal, chemical and associated				
products	1.0	3.4	0.0	4.3
Non-metallic mineral products	0.3	2.2	0.0	2.5
Metal product manufacturing	0.8	3.4	0.0	4.2
Motor vehicles and parts	11.1	10.3	10.3	11.2
Other transport equipment	4.2	-1.5	0.0	2.6
Other machinery and equipment	1.4	1.6	0.1	3.0
Other manufacturing	1.1	3.5	0.4	4.2
Total manufacturing	1.7	3.7	0.6	4.7

<sup>a</sup> The components of effective rate of assistance has been benchmarked to the common denominator of unassisted value added, which allows direct addition and substraction to obtain all form of effective assistance. <sup>b</sup> These estimates are taken from the *Trade & Assistance Review 2001-02*. <sup>c</sup> The overlap between budgetary and tariff assistance reflects duty concessions on imported inputs. The overlap is highest for the motor vehicles and parts sector. This is due to the allowance of concessional input imports under the Automotive Competitiveness and Investment Scheme. <sup>d</sup> The values may not exactly add to total, due to rounding.

Source: Based on PC (2003).

<sup>&</sup>lt;sup>4</sup> Measures of effective rates of assistance to Australian industry inclusive of the impact of budgetary assistance are presented in PC (2003).

# 3 Estimation of the assistance effects of CER

As outlined in chapter 2, standard calculations of assistance to Australian manufacturing industries compiled by the Commission largely assume that the outputs are sold in the Australian market and therefore that Australian industries are typically import-competing and not export-oriented. Furthermore, it is normally assumed that Australian producers price up to the value of competing imports plus the effect of duty or other border restrictions on trade.

In the case of CER, the tariff assistance afforded to industry in New Zealand can be regarded as another form of assistance available to Australian producers. Concessional access available to Australian producers in the New Zealand market under CER is an additional benefit available to them. Similarly, concessional access available to New Zealand producers in the Australian market under CER is an additional benefit available to New Zealand producers.

In extending the effective assistance framework to include the assistance effects of the CER, new measures are provided of the value of this assistance to Australian producers who export to New Zealand or use material inputs produced in New Zealand. Similarly, new measures are provided of the value of this assistance to New Zealand producers that export to Australia and/or use material inputs produced in Australia.

In calculating total assistance to industry in Australia and New Zealand, inclusive of the impact of CER, standard assistance calculations are first applied to that part of output sold in the local market. Assistance to that part of production which enters the trans-Tasman trade is then added to the traditional assistance measures of assistance to outputs, inputs and value-adding factors. This chapter is concerned with these incremental effects of CER on assistance to industry.

# 3.1 Estimating the impact of CER on assistance to outputs

CER is assumed to have no impact on assistance to output sold on the domestic market. That is, according to the price benchmarking conventions outlined above, output prices are benchmarked either to import or export parity. In conventional assistance calculations, exports to the CER partner economy and other economies would be assumed to occur at international parity prices and hence not be influenced by tariff regimes.

However, CER concessions remove the duty on most items entering the trans-Tasman trade and afford the prospect that producers in Australia or New Zealand are 'protected' by the import duties of the counterpart country. That is, a wedge is driven between the CER export price and the export price of non-CER trading partners. In this study, therefore, it has been assumed that:

- firms entering the trans-Tasman trade are import-competing firms in the home economy;
- the relevant benchmark price for output exported in the CER region is the import-parity price within the home market; and
- the landed price actually available to the CER exporter in the partner economy is equal to the import parity price plus the margin of preference implied by the MFN tariff rates in the partner economy.

The impact of CER assistance on total assistance to an industry would also depend on the importance of CER sales in total sales of that sector (evaluated at unassisted prices).

In this framework, the total effect of assistance on output exported to the partner economy would be equal to:

- a home-country effect namely, the assistance available on CER exports in the home country; and
- a price effect namely, the difference between tariff assistance available locally and the tariff available in the partner economy. In other words, the increase or reduction in assistance relative to the case of supplying in the home market (box 3.1).

#### Box 3.1 Estimating the impact of CER on assistance to outputs

The gross subsidy equivalent accruing to the home economy per unit of output exported to the CER partner (GSE) is defined as the fob price received in the partner economy per unit of output  $(P_p)^1$  less the world reference price  $(P_w)$ , that is:

 $GSE_{CERX} = P_P - P_W$ 

where the subscript *CERX* represents a CER exporter — in Australia or New Zealand, as the case may be. When the CER exporter is Australian, the partner economy represented by  $P_P$  is New Zealand, and vice versa. For each dollar of output, evaluated at unassisted prices, the GSE measures the 'nominal rate of assistance on output' (NRO).

To take account of differences in the assistance regimes between CER partners, the basic equation can be decomposed by adding and subtracting the ldp benchmark price per unit of output in the *domestic economy*  $(P_D)$ :

 $GSE_{CERX} = (P_D - P_W) + (P_P - P_D).$ 

The first bracketed expression refers to the assistance producers could expect if they sold locally, while the second indicates price effects arising from differences in the assistance structures of the respective partner economies.

Finally, to take into account differences between the MFN and applied rates in the exporting country (ie the country of production), the expression for the subsidy equivalent of protection can be further decomposed by adding and subtracting the applied price impact of the domestic economy ( $P_{D,MEN}$ ), so that:

$$GSE_{CERX} = (P_D - P_W) + (P_P - P_{D,MFN}) + (P_{D,MFN} - P_D)$$

The second bracketed expression indicates the difference between the applied rate in the partner country and the MFN rate in the home economy, while the third indicates the difference between the MFN and applied rates in the country of origin (ie the assistance regime normally applicable to production by import-competing firms). Note that the protection effect ( $P_P$ ) in the partner economy is the MFN rate. In this framework, when Australia is the CER country, the third expression is assumed to be zero because the applied and MFN rates are treated as equal for Australia, the originating country. When New Zealand is the CER country of origin, the third expression is non-zero due to the difference between the MFN and applied rates in New Zealand (see text).

<sup>&</sup>lt;sup>1</sup> It is assumed that the CER exporter takes full advantage of the tariff in the partner country. Under this assumption, the fob export price is equivalent to the dutiable value — ie the vfd price from the point of view of the CER importer. The subsidy equivalent of assistance is treated as being appropriated by the manufacturer (or other goods producer) in line with the practice followed in standard assistance calculations. The impact of trans-Tasman transport costs is considered under input assistance.

The home-country effect would always be zero or positive while the price effect could be positive or negative, depending on the relation between tariff rates in the partner economies. The total effect of assistance on output exported to the partner economy is equal to the sum of the home-country and price effects. As the reference price in the partner country is always equal to or greater than the world reference price, the total effect would always be positive.

Typically, the protection effect for import-competing commodities is indicated by the scheduled MFN tariff rate. However, when general tariff concessions reduce the effective tariff (eg in New Zealand, the granting of a tariff preference under its commercial tariff concession order system permanently reduces the applied tariff rate to zero for the product in question), the applied MFN rate can differ from the scheduled rate. For data reasons and because of the widespread application of concessions in the New Zealand tariff, the price used in assistance calculations is the rate implied by duty collected on non-CER trade. Because the applied tariff in Australia is not subject to permanent reductions arising from the granting of commercial tariff or other concessions, the applied tariff and the MFN rate are assumed to coincide.

Taking into account the possibility that the MFN and applied tariff can differ, the price effect of the assistance structure can be further decomposed to reflect the:

- difference in the assistance structure between the partner and home countries; and
- modification of MFN rates due to permanent changes in the tariff on account of factors including permanent tariff concessions in multilateral trade (box 3.1).

# 3.2 Estimating the impact of CER on assistance to inputs

In conventional assistance calculations, inputs are valued at cost and assistance to materials from local or offshore sources is generally evaluated on the basis of the tariff rates for the relevant materials. Thus, material imports from the CER partner would be treated as if the exporter priced up to the landed duty paid price of competing imports from outside the CER. This treatment is the other side or 'dual' of the treatment of assistance to output. Under this treatment, CER concessions would not affect input costs (and it would be assumed that any tariff revenue forgone would be appropriated by the CER exporter or absorbed into additional transport and distribution costs).

The tariff concession available on CER imports, however, raises the possibility that cost-minimising producers can 'shop around' and purchase material inputs at prices determined by assistance and cost conditions in the exporting economy, plus transport costs.<sup>2</sup> For example, producers in Australia may purchase material inputs from New Zealand suppliers at the import parity (ie the landed duty paid) price in New Zealand. In this case, the seller does *not* take advantage of the protection afforded by the Australian tariff when selling into the Australian market.

In the calculation of assistance for that part of material inputs imported from the CER partner, the standard calculation of assistance on inputs can be modified to show the potential price effects of the assistance structure in the originating economy compared with the using economy. As with assistance to output, this modification can be decomposed to show:

- the difference between the assistance structure in the partner and home countries;
- the impact of trans-Tasman transport costs on assistance; and
- the modification of MFN rates due to permanent changes in the tariff in the originating country, on account of factors including permanent tariff concessions in multilateral trade (box 3.2).

In this framework, the potential impact of CER assistance and concessions on total assistance to materials would also depend on the importance of CER imports as a source of materials (evaluated at unassisted prices) used by CER producers. It should be emphasised, however, that the decomposition analysis illustrates *only* the *potential* impact of CER on assistance to materials. Because the modifications and additional analysis do not alter the underlying assumption that goods are sold at import parity prices plus the effect of any duty in the market where the good is used, the summary aggregates are not affected.

By contrast, the application of this assumption in the calculation of assistance to output suggests that CER concessions afford additional assistance to firms exporting to the CER partner.

<sup>&</sup>lt;sup>2</sup> Estimated as the ratio of transport costs to the value of imports measured on a vfd basis. That is  $\left(\frac{cif - vfd}{vfd}100\right)$ . Across all manufacturing industries, trans-Tasman transport costs average around 5

per cent of the vfd (ie fob) of imports, although there is considerable variability around that figure for particular products and industries (see appendix A for the year 2000-01). The ratios for 2000-01 are broadly representative of the average for the period under consideration.

#### Box 3.2 Estimating the impact of CER on assistance to inputs

The tax equivalent of assistance on materials entering the trans-Tasman trade (*TEM*) incurred by the importing partner is defined as:

 $TEM_{CERM} = PM_D - PM_W$ 

where the subscript *CERM* represents the CER importer.  $PM_D$  is the assisted domestic price of materials per unit of input implied by the general tariff level and  $PM_W$  is the border price of those inputs. For each dollar of inputs, evaluated at unassisted prices, the *TEM* measures the 'nominal rate of assistance on inputs' (*NRM*). To illustrate the potential impact of CER on material input costs, a decomposition analysis akin to that applied for assistance to outputs (box 3.1) can be undertaken.

By adding and subtracting the material price implied by the partner's assistance regime (adjusted for product-specific trans-Tasman transport costs, indicated by the hat sign) (ie  $\hat{P}M_{P}$ ) and rearranging, the standard equation cited above can be expanded in the following way:

 $TEM_{CERM} = \left(\hat{P}M_P - PM_W\right) + \left(PM_D - \hat{P}M_P\right).$ 

The first bracketed expression indicates the tax on imported materials implied by the CER partner's assistance structure, while the second expression indicates the CER price effect arising from different assistance structures applied in the respective partner countries. For example, the price of Australian imports of produce originating in New Zealand would be influenced first by protection afforded to the production of the produce in New Zealand and, additionally, by the difference between the Australian and New Zealand protection regimes.

Finally, the impact of differences in the MFN and applied rates in the originating country can be illustrated by decomposing the *TEM* equation further by adding and subtracting the price implied by MFN rates in the country of origin ( $\hat{P}M_{PMEN}$ ):

$$TEM_{CERM} = \left(\hat{P}M_{P} - PM_{W}\right) + \left(PM_{D} - \hat{P}M_{P,MFN}\right) + \left(\hat{P}M_{P,MFN} - \hat{P}M_{P}\right).$$

The second bracketed expression now indicates the difference in the tariff structures between the two countries, while the third bracketed expression illustrates the implied price-lowering impact of permanent tariff concessions in the country of origin (ie the assistance regime normally applicable to production in the originating country). Where Australia is the CER economy being examined, both bracketed expressions are non-zero (ie New Zealand permanent applied and MFN rates are allowed to differ). However, where New Zealand is the CER economy being examined, the first of the two bracketed expressions, but not the third, is assumed to be non-zero. That is, the MFN rate of Australia, the partner country to New Zealand, is assumed to be equal to the applied rate for all products.

(continued next page)

#### Box 3.2 (continued)

In addition, the prices for the partner country are adjusted for the cost of trans-Tasman freight. The impact of these costs on the difference in tariff structures (second bracketed expression, above) can be illustrated by adding and subtracting the assistance equivalent of transport costs ( $TM_P$ ):

$$TEM_{CERM} = (\hat{P}M_P - PM_W) + (PM_D - \hat{P}M_{P,MFN} - TM_P) + TM_P + (\hat{P}M_{P,MFN} - \hat{P}M_P)$$

given,

$$PM_{P,MFN} = \hat{P}M_{P,MFN} - TM_{P}$$

that is,

$$TEM_{CERM} = (\hat{P}M_{P} - PM_{W}) + (PM_{D} - PM_{P,MFN}) + TM_{P} + (\hat{P}M_{P,MFN} - \hat{P}M_{P})$$

This expanded version of the model shows the potential impact of CER due to differences in the tariff schedules of the CER partners in the second bracketed expression and the impact of trans-Tasman transport costs on the cost of materials imported from the CER partner.

# 3.3 Estimating the impact of CER on effective assistance to industry

To the extent that the CER influences assistance afforded to industry output and the cost of inputs, it will also influence the incentives to commit resources to productive activities. The impact of the overall assistance structure on those incentives is summarised by measures of effective assistance to industry. This section draws on the decomposition analysis presented above to outline the potential impacts of CER concessions on effective assistance.

The effective assistance, or the net subsidy equivalent (NSE) of assistance, is derived by deducting assistance to inputs (TEM) from assistance to outputs (the GSE). For each dollar of value added output, evaluated at unassisted prices, the NSE measures the 'effective rate of assistance' (ERA) defined in chapter 2.

In summary, the above analysis indicates that the CER influences outputs and inputs in a number of ways depending on:

- the underlying assistance to outputs and inputs in the CER countries where the goods are produced;
- the difference in the assistance structure of the partner countries; and
- modifications to the assistance structure due to permanent changes in the applied tariff arising from tariff concessions in multilateral trade (box 3.3).

As with assistance to outputs and inputs, the impact of CER concessions on effective assistance levels in Australia and New Zealand depends on the level of tariffs in the respective countries and the relative importance of trans-Tasman trade as a source of demand for output and material inputs. In addition, effective assistance is influenced by differences in tariffs levels on outputs and inputs traded across the Tasman.

### Box 3.3 Estimating the impact of CER on effective assistance to industry

The impact of CER concessions on effective assistance to manufacturing industry can be defined as:

$$NSE_{CER} = GSE_{CERX} - TEM_{CERM}$$

From boxes 3.1 and 3.2, the NSE can be decomposed in the following way:

$$NSE_{CER} = (P_{D} - P_{W}) - (\hat{P}M_{P} - \hat{P}M_{W}) + (P_{P} - P_{D,MFN}) - (PM_{D} - \hat{P}M_{P,MFN}) + (P_{D,MFN} - P_{D}) - (\hat{P}M_{P,MFN} - \hat{P}M_{P})$$

The first line represents the underlying assistance to output of final goods and material inputs evaluated in the country where the good is produced. From Australia's point of view, the left hand expression of the first line refers to assistance to goods produced in Australia for export to New Zealand. The right hand expression refers to assistance to materials produced in New Zealand and used by Australian firms (now evaluated according to the assistance structure prevailing in New Zealand). That is,

$$(P_A - P_W) - (\hat{P}M_{NZ} - \hat{P}M_W)$$

where the subscripts A and NZ represent Australia and New Zealand, respectively.

The second line is concerned with the difference between the assistance structures of the partner countries. Noting that this effect compares the applied rates in the economy of production with the scheduled MFN rates in the CER partner, the contribution of differences in the assistance structures from Australia's point of view would be:

$$(P_{NZ} - P_{A,MFN}) - (PM_A - \hat{P}M_{NZ,MFN})$$

The third line represents modifications to the assistance structure due to permanent changes in the applied tariff arising from tariff concessions in multilateral trade in the country where the production of the good takes place. From Australia's point of view:

$$(P_{A,MFN} - P_A) - (\hat{P}M_{NZ,MFN} - \hat{P}M_{NZ})$$

As mentioned, because the MFN rate in Australia is treated as the measure of the applied rate, the left hand term is equal to zero by definition.

Similarly, the impact of CER tariff concessions on effective assistance for New Zealand would be:

$$NSE_{NZ} = (P_{NZ} - P_{W}) - (\hat{P}M_{A} - \hat{P}M_{W}) + (P_{A} - P_{NZ,MFN}) - (PM_{NZ} - \hat{P}M_{A,MFN}) + (P_{NZ,MFN} - P_{NZ}) - (\hat{P}M_{A,MFN} - \hat{P}M_{A})$$

### 4 Assistance estimates

This chapter first presents estimates of assistance afforded to Australian and New Zealand manufacturing industry, using standard methods for the years 1989-90 to 2001-02. New estimates of the impact of CER concessions on tariff assistance to manufacturing are then presented for the same period. A decomposition analysis applying the methods outlined in chapter 3 is then used to examine differences in the tariff structure in Australia and New Zealand and the significance of transport costs in trans-Tasman trade. As assistance to manufacturing in New Zealand has not been measured previously using the methods applied in this study, the final section analyses the sensitivity of estimates of New Zealand tariff assistance to alternative tariff rate measures and compares these estimates to those provided in a separate study of assistance in New Zealand in the early 2000s.

To estimate assistance to manufacturing industry according to the standard framework and to measure the impact of tariff preferences on industry assistance, relevant data from Australian and New Zealand sources were collected. The main data sources used are outlined in appendix B.

#### 4.1 Standard estimates of assistance to manufacturing

Estimates of assistance afforded to Australian manufacturing industry are provided in appendix C for the years 1989-90 to 2001-02. New estimates of tariff assistance to New Zealand producers, also for the years 1989-90 to 2001-02, are reported in appendix D. These estimates are compiled according to standard methods for assistance measurement in which assistance is measured for individual countries and the measures abstract from the assistance effects of preferential trading agreements. While some data source and benchmarking differences occur, the estimates provide a suitable basis for a comparative analysis of the assistance structures in Australia and New Zealand and for assessing the impact of CER on assistance levels.

The standard estimates of effective rate of assistance in Australia and New Zealand are provided in figure 4.1. They indicate that in general, assistance to Australian manufacturing industry is higher than protection to New Zealand industry. The estimates also indicate that protection to Australian industry declined significantly during the 1990s and is now only just above the New Zealand level at the sectoral level. With tariff reductions in both countries, tariff protection is a declining influence on the allocation of productive resources — in favour of protected activities in Australia and New Zealand at the expense of more internationally competitive activities — compared with the situation at the inception of CER in 1983.



# Figure 4.1 Trends in average effective rates of assistance to manufacturing, 1989-90 to 2001-02

**a** Estimates of the average effective rate of assistance for Australian manufacturing industry were based on the *Trade & Assistance Review*.

← Australia — New Zealand

Sources: PC (2000) PC (2003), appendices C and D.

The manufacturing group averages, however, hide significant variation in effective assistance between industries in each CER country (see appendices C and D).

- For example, in Australia, the TCF and Motor vehicles and parts sectors are the largest recipients of government assistance, as they were ten years ago. The effective rate of assistance to TCF was nearly 86 per cent in 1989-90 and declined to 26 per cent in 2001-02. The effective rate to Motor vehicles and parts sector declined from 55 per cent in 1989-90 to 11 per cent in 2001-02 (table C.1).
- In New Zealand, the effective rate of tariff assistance was highest for the Motor vehicles and parts and TCF sectors in 1989-90. The effective assistance for

Motor vehicles and parts sectors had declined by 1998 and this sector currently receives little tariff assistance. However, the TCF sector is the main recipient of tariff assistance and the effective rate for this sector is estimated at around 7 per cent in 2001-02 (table D.1).

#### 4.2 Impact of CER on tariff assistance to industry

#### Impact on assistance to output

Estimates of the impact of CER concessions on output assistance — ie assistance above (below) that provided by the MFN rates in the local market (appendix E, tables E.1 and E.2) — indicate that:

- overall, average output assistance provided by the Australian tariff to New Zealand exporters is higher than output assistance provided by the New Zealand tariff to Australian exporters. This reflects generally higher tariffs on outputs in Australia; and
- by 2001-02, the *average* level of output assistance to Australian industry was raised by 0.04 percentage points above that available from sales to the Australian market (table E.1). Average output assistance to New Zealand exporters was raised by 0.4 percentage points above that available in the New Zealand market. The greatest advantage was afforded to clothing and footwear producers in New Zealand, with additional assistance of around 2 percentage points (table E.2).

#### Decomposition analyses of impact of CER on output assistance

A decomposition of CER nominal rates of output assistance for 2001-02 is provided in figure 4.2. For Australia, the decomposition results (table E.3) indicate that:

- had Australian companies received the same assistance to output from New Zealand tariffs as they did from Australian tariffs, assistance conferred by CER concessions would be higher than otherwise for all sectors (ie the positive home country effect). The largest beneficiaries would be the TCF and Motor vehicles and parts sectors; for which output assistance would be raised by around 0.35 and 0.28 percentage points, respectively (home country effect column in table E.3);
- because rates of assistance tend to be lower in New Zealand than Australia, Australian firms did not receive the full amount of protection available in their home market. The difference between assistance available in New Zealand and Australia, respectively, is indicated by a 'price effect' which is negative for
Australian firms for each sector. The largest differences in tariff assistance between Australia and New Zealand are in the Motor vehicles and parts sector because there is no tariff in New Zealand on passenger motor vehicles; nevertheless; and

 because tariff differences are smaller than prevailing tariff levels, they do not completely outweigh the benefits of the Australian tariff otherwise available. As a result, CER has raised assistance to Australian industry. The largest increase was for the TCF sector for which the nominal rate of output assistance was raised from 10.4 per cent to 10.7 per cent.

The analysis indicates that, overall, the CER arrangements afforded a net increase in assistance to New Zealand firms from exports to Australia. The significance of the Australian market to New Zealand firms tends to be larger than that of the New Zealand market to Australian firms and tariffs are higher in Australia than New Zealand. For these reasons, the net increase in assistance to output is typically higher for New Zealand firms exporting to Australia than for Australian firms exporting to New Zealand. For the TCF sector, CER arrangements increased output assistance to New Zealand firms by 1.6 percentage points compared with 0.2 percentage points for Australian TCF firms.

The decomposition analysis (table E.4) further indicates that:

- when the New Zealand scheduled tariff structure is compared with the Australian tariff structure on a MFN basis, it is evident that there is a significant incidence where the New Zealand scheduled MFN rate is higher than the comparable rate for Australia. This is particularly evident for the Other vehicles, and Other machinery and equipment sectors; and
- the base implied by New Zealand's scheduled MFN rates is higher than would be otherwise evident from inspection of applied rates (ie those struck once permanent tariff concessions are taken into account). This is indicated by the positive *tariff concession effect* (figure 4.2, New Zealand panel). The impact of permanent concessions is estimated to be highest for the Other machinery and equipment and TCF sectors.

### Figure 4.2 Decomposition analysis of the effect of CER on the nominal rate of output assistance, 2001-02 Percentage points





# New Zealand

Other manufacturing

-0.30

-0.60

□ Price effect
 □ Home country tariff
 □ Tariff consecutions

0.00

0.30

0.60

0.90

Tariff concessions

Sources: Tables E.3 and E.4.

1.20

1.50

1.80

#### Impact on assistance to inputs

Estimates of the impact of CER concessions on input assistance — that is, assistance provided by the MFN rates in the local market — indicate that:

- because of low tariffs on inputs, CER concessions would not affect input costs and thereby the afforded assistance to the input producers in CER economies; and
- any opportunities for CER to lower inputs costs would depend on the cost conditions in the exporting economy plus transport costs.

#### Decomposition analyses of impact of CER on input assistance

Because standard assistance analyses assume that the producers and importers take full advantage of the protective effects of tariffs, and price up to the value of *nonconcession* imports plus duty, that analysis does not consider the possible impact of CER tariff concessions on input prices. However, the tariff concessions under CER provide producers on either side of the Tasman with incentives to shop around for lower-priced materials produced by firms in the CER partner, including materials receiving less tariff protection than those produced at home.

This section uses a decomposition analysis to show some of the implications of relaxing that convention (figure 4.3 and appendix E). The analysis takes account of the importance of the CER partner as a supplier of materials to local producers and the difference in the tariff structures of Australia and New Zealand. In addition, as inputs are valued on the basis of the border price of the importer in assistance measurement, the analysis also takes into account the cost of trans-Tasman transport of merchandise.

The key finding from the analysis is that the potential impact of the CER on the input costs of Australian firms is modest, as indicated by the 'partner country tariff effect' in the Australia panel in figure 4.3. In the main, this reflects the relatively small share of material inputs used by Australian firms imported from New Zealand. It also reflects low levels of tariff protection to New Zealand producers of materials imported to Australia for use by Australian industry. On the other hand, the potential impact of the CER on the input costs of New Zealand is larger because Australia is a more important source of material supplies to New Zealand industry than New Zealand is for Australia industry.

# Figure 4.3 Decomposition analysis of the effect of CER on the nominal rate of assistance to inputs, 2001-02



Percentage points

New Zealand



Sources: Tables E.5 and E.6.

The analysis for Australia also indicates that:

- the key additional cost arising from trans-Tasman trade is contributed by crossborder insurance and freight costs. This is evidenced in figure 4.3 by the close correlation between the 'partner country tariff' effect (which is inclusive of freight costs) and the separately identified 'transport costs' item. Indeed most of the imports of material inputs from New Zealand pertain to items which have a zero tariff in New Zealand;
- where there is a difference between Australian and New Zealand tariffs, Australian firms tend to import items that are subject to higher scheduled tariffs in New Zealand than Australia (indicated by the negative 'tariff difference' effect). This is most evident in the Wood and wood products, Printing, publishing and media, and Other manufacturing sectors. This suggests that, for these activities, New Zealand firms have a competitive or comparative advantage over other suppliers that outweighs the negative impact of relatively high tariff protection in the home market; and
- for most items of materials imported from New Zealand to Australia, the MFN and the applied tariffs are the same, as indicated by an (almost) unidentifiable 'tariff concession' effect. This is another reflection of the fact that for most material items, trade is characterised by MFN tariff rates of zero.

For New Zealand, the analysis indicates that, overall, the CER arrangements can have a significant impact on material costs of New Zealand firms in most sectors, reflecting the fact that imports from Australia are currently a significant source of supply for New Zealand industry — available data suggest that the impact is largest for the TCF and Motor vehicle and parts sectors. Again, the decomposition analysis indicates that:

- transport costs account for the major part of the additional costs in the trans-Tasman trade; and
- where tariff differences occur, the Australian rate of tariff protection tends to be higher than the New Zealand rate; this is especially evident for TCF products and Motor vehicles and parts.

Overall, the comparison of tariff differences across the Tasman indicates that New Zealand firms selling into Australia, and Australian firms selling into New Zealand, must have a cost or competitive advantage that outweighs the effect of tariff differences and trans-Tasman transport costs. In addition, the balance between tariff protection and transport costs in determining the competitiveness of Australian and New Zealand firms is likely to have changed over time. The importance of tariff differences was likely to have been greater when Australian and New Zealand

tariffs were higher and more disparate than now. In that environment, trans-Tasman transport costs are likely to have been of less importance.

### Impact on effective rates of assistance

Estimates of the impact of CER concessions on effective assistance — that is, effective assistance above (below) that provided by tariffs in the local market indicate that:

- overall, average effective assistance provided by the Australian tariff to New Zealand activities is higher than effective assistance provided by the New Zealand tariff to Australian activities. This reflects generally higher output tariffs in Australia; and
- by 2001-02, the *average* level of effective assistance to Australian manufacturing activities was raised by 0.08 percentage point above that available from sales to the Australia market. Average effective assistance to New Zealand manufacturing activities was raised by 0.7 percentage point above that available in the New Zealand market. The greatest advantage was afforded to TCF activities in New Zealand, with additional effective assistance of over 2 percentage points.

#### Decomposition analyses of the impact of CER on effective rate of assistance

A decomposition of the impact of CER on assistance to value added factors for 2001-02 is provided in figure 4.4 (see tables E.7 and E.8). In assistance calculations, because inputs are valued on the basis of the border price of the importer (as opposed to the border price of the exporter relevant to the evaluation of output assistance), the analysis takes into account the additional benefit CER exporters obtain from the output side only and not the penalties domestic input users face on the input side. Based on that:

 had Australian companies received the same assistance to their activities from New Zealand tariffs as they derived from Australian tariffs (ie the positive 'home country' effect), effective assistance conferred by CER concessions would be higher than otherwise for all sectors. The largest beneficiaries would be the TCF and Motor vehicles and parts sectors for which effective assistance would be raised by around 0.8 and 0.7 percentage points, respectively (see home country effect column in table E.7);

### Figure 4.4 Decomposition analysis of the effect of CER on the effective rate of assistance, 2001-02 Percentage points



New Zealand



Tariff concessions

Sources: Tables E.7 and E.8.

- because rates of assistance tend to be lower in New Zealand than Australia, Australian firms did not receive the full amount of protection available in their home market. The difference between effective assistance available in New Zealand and Australia is indicated by a 'price effect' which is negative for Australian firm for each sector. The largest difference in effective tariff assistance between Australia and New Zealand is in the Motor vehicles and parts sector; and
- because tariff differences do not completely outweigh the benefits of the Australian tariff otherwise available, the CER has raised the effective tariff assistance to Australian industry. The largest increase was for the TCF sector for which the nominal rate of output assistance was raised from 19.2 per cent to 19.7 per cent.

For New Zealand, the analysis indicates that, overall, the CER arrangements afforded a net increase in assistance to activities of New Zealand firms from exports to Australia. The significance of the Australian market to New Zealand firms tends to be larger than the significance of the New Zealand market to Australian firms and tariffs on outputs are higher in Australia than New Zealand. For these reasons, the net increase in effective assistance is typically higher for New Zealand firms exporting to Australia than for Australian firms exporting to New Zealand. For the TCF sector, CER arrangement increased the effective assistance to New Zealand firms by 2.4 percentage points (total CER effect column in table E.8) compared with 0.5 percentage points (total CER effect column table E.7) for Australian firms.

# 4.3 Sensitivity analysis of tariff assistance to outputs of New Zealand industry

A sensitivity analysis was undertaken of measures of output assistance to New Zealand manufacturing industry. The base case for the analysis is the estimates of output assistance for the year 2001-02 compiled on the basis of applied MFN tariff rates. These estimates are the focus of assistance estimates generally reported in this study. In addition, the Commission recompiled these estimates for 2001-02 using scheduled MFN tariff rates and obtained estimates compiled by the New Zealand Institute of Economic Research (NZIER) using scheduled MFN tariff rates for 2000 and 2001 (Lattimore 2003). The comparison of assistance estimates is provided in table 4.1, supported by a comparison of scheduled tariff rates in appendix F. The comparisons indicate that:

• the scheduled rates applied by Lattimore for the year 2000 and by the Commission are similar (appendix F). The scheduled rates, averaged across 2-

digit HS items were 3.1 per cent in the Lattimore study and 2.9 per cent in the Commission's analysis (based on tariff schedules in December 2003);

- the estimates of tariff assistance to output based on scheduled rates using the Commission's methodology align closely with those estimated by Lattimore. Sources of difference include differences in scheduled tariff rates, industry-structure benchmarks and import weights used to aggregate tariff rates from tariff line item to industry totals; and
- the estimates of tariff assistance based on the applied rates are lower than the estimates based on the scheduled rates. This is due to the fact that the applied rates based on the duty collected incorporate the impact of permanent tariff concessions and other non-CER preferences and concessions that lower average tariffs.

- The applied rate could understate actual tariff assistance and the margin of preference Australian firms obtain from the New Zealand concessions to the extent that the imputed tariff understates the impact of the tariff wall on costs and prices in New Zealand.

- The scheduled rate also could overstate actual tariff assistance to the extent that those rates overstate the impact of tariffs on costs and prices.

### Table 4.1 Sensitivity analysis of nominal rate of output assistance for New Zealand Per cent

		Using sche	duled ra	ntes	
	Base case using applied tariff rates	Commission estimates	Lattimore		
ANSZIC 2-digit	2001-02	2001-02	2000	2001	
Food, beverages and tobacco	0.58	2.64	1	1	
Textiles, clothing, footwear and leather	5.07	8.70	9	8	
Wood and paper products	0.92	2.40	4	4	
Printing, publishing and recorded media	0.64	0.40	6	5	
Petroleum, coal, chemical and associated products	0.74	2.57	2	2	
Non-metallic mineral products	1.79	3.33	7	6	
Metal products	0.81	6.09	4	4	
Motor vehicles and parts	0.12	15.43	na	na	
Other vehicles	0.62	3.23	na	na	
Other machinery and equipment	0.45	2.30	na	na	
Other manufacturing	2.43	12.33	5	5	
Manufacturing	0.98	3.73	na	na	

na not available.

Source: Commission analysis and Lattimore (2003).

### 4.4 Summing up

The analysis indicates that assistance afforded to CER exporters raised manufacturing industry assistance slightly in both countries. Estimates of additional assistance afforded by tariff concessions indicate that overall average output assistance provided by the Australian tariff to New Zealand exporters is higher than that provided by the New Zealand tariff to Australian exporters. This reflects generally higher MFN tariffs in Australia. It also reflects the greater importance of the Australian market to New Zealand producers than the New Zealand market to Australian producers. Average assistance to output of Australian and New Zealand manufacturers was estimated to have been raised by 0.04 and 0.4 percentage points, respectively, in 2001-02.

The potential impact of CER concessions on the cost of inputs of materials appears to be minimal. With tariffs at their current low levels, trans-Tasman transport costs and other factors appear to be more important than tariff protection in influencing the competitiveness of Australian and New Zealand firms supplying materials for further processing in the CER partner.

The CER agreement is likely to have slightly increased effective assistance to manufacturing on both sides of the Tasman. The largest increase was for the TCF sector, where CER arrangements were estimated to have increased effective assistance to New Zealand firms by 2.4 percentage points compared with 0.5 percentage points for Australian TCF firms.

## A Trans-Tasman transport costs

### Table A.1Trans-Tasman transport costs by industry, 2000-01

Imports from New Zealand

ANZSIC 4-digit	ANZSIC industries	i Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
21 Foo	od, beverages and tobacco					
211	Meat and meat product manufacturing					
2111	Meat processing	73855	77375	0.95	4.77	8.64
2112	Poultry processing	4372	4574	0.96	4.62	1.47
2113	Bacon, ham and smallgoods	8829	9183	0.96	4.01	3.05
212	Dairy product manufacturing					
2121	Milk and cream processing	52547	54672	0.96	4.04	2.34
2122	Ice cream manufacturing	10897	11983	0.91	9.97	0.00
2129	Dairy product manufacturing nec	265537	276352	0.96	4.07	6.20
213	Fruit and vegetable processing					
2130	Fruit and vegetable processing	249862	266041	0.94	6.48	9.91
214						
214	Oil and fat manufacturing	4122	1101	0.02	0 <i>1</i> E	21.67
2140	Oil and fat manufacturing	4132	4401	0.92	0.40	21.07
215	Flour mill and cereal food					
2151	Flour mill product manufacturing	4529	4895	0.93	8.08	10.60
2152	Cereal food and baking mix	86761	90217	0.96	3.98	6.38
	manulacturing					
216	Bakery product manufacturing					
2161	Bread manufacturing	17846	19691	0.91	10.34	0.00
2162	Cake and pastry manufacturing	23702	25744	0.92	8.62	3.35
2163	Biscuit manufacturing	25880	28339	0.91	9.50	6.01
217	Other food manufacturing					
2171	Sugar manufacturing	1943	2050	0.95	5.51	11.63
2172	Confectionery manufacturing	61434	65790	0.93	7.09	4.93
2173	Seafood processing	145480	154661	0.94	6.31	14.69
2174	Prepared animal and bird Feed	22945	24236	0.95	5.63	11.17
2179	Food manufacturing nec	304752	317134	0.96	4.06	8.71

ANZSIC 4-digit	C ANZSIC industries	Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
210	Powerage and malt manufacturing					
2181	Soft drink, cordial and syrup	228350	238146	0.96	4.29	4.68
2182	Beer and malt manufacturing <b>a</b>					
2183	Wine manufacturing	38443	38964	0 99	1.36	16 67
2184	Spirit manufacturing <sup>a</sup>	00110	00001	0.00	1.00	10.07
219	Tobacco product manufacturing					
2190	Tobacco product manufacturing	53799	54495	0.99	1.29	4.34
22	Textiles, clothing, footwear and leather					
221	Textile fibre, yarn and woven fabric					
2211	Wool scouring	36644	37323	0.98	1.85	2.02
2212	Synthetic fibre textile	49948	51881	0.96	3.87	15.01
2213	Cotton textile manufacturing	54092	56447	0.96	4.35	16.77
2214	Wool textile manufacturing	49769	51485	0.97	3.45	2.75
2215	Textile finishing	884	939	0.94	6.22	3.84
222	Textile product manufacturing					
2221	Made-up textile product	22310	23289	0.96	4.39	22.30
2222	Textile floor covering	67650	69494	0.97	2.73	3.83
2223	Rope, cordage and twine	7538	7808	0.97	3.58	3.88
2229	Textile product manufacturing	59975	62664	0.96	4.48	15.61
223	Knitting mills					
2231	Hosiery manufacturing	3673	3843	0.96	4.63	5.23
2232	Cardigan and pullover	10965	11223	0.98	2.35	6.48
2239	Knitting mill product	11397	11980	0.95	5.12	23.84
224	Clothing manufacturing					
2241	Men's and boys' wear	55678	58164	0.96	4.46	3.60
2242	Women's and girls' wear	44928	46442	0.97	3.37	7.07
2243	Sleepwear, underwear and infant clothing	16932	18065	0.94	6.69	5.85
2249	Clothing manufacturing nec	73810	76629	0.96	3.82	5.47
225	Footwear manufacturing					
2250	Footwear manufacturing	83356	86232	0.97	3.45	3.77
226	Leather and leather product					
2261	Leather tanning and fur dressing	53202	54164	0.98	1.81	4.35
2262	Leather and leather substitute	860	894	0.96	3.95	2.67

ANZSIC 4-digit	C ANZSIC industries	Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
23	Wood and paper products					
231	Log sawmilling and timber dressing					
2311	Log sawmilling	174119	196698	0.89	12.97	11.88
2312	Wood chipping	2	3	0.67	50.00	0.00
2313	Timber re sawing and dressing	374333	421674	0.89	12.65	2.64
232	Other wood product manufacturing					
2321	Plywood and veneer	20173	21424	0.94	6.20	4.95
2322	Fabricated wood manufacturing	49771	56216	0.89	12.95	4.23
2323	Wooden structural component	23385	25223	0.93	7.86	1.48
2329	Wood product manufacturing nec	11728	12208	0.96	4.09	15.50
233	Paper and paper product					
2331	Pulp, paper and paperboard	457793	500525	0.91	9.33	8.73
2332	Solid paperboard container	3511	3858	0.91	9.88	5.51
2333	Corrugated paperboard container	328	344	0.95	4.88	0.00
2334	Paper bag and sack	1654	1780	0.93	7.62	1.27
2339	Paper product manufacturing nec	211257	224263	0.94	6.16	7.35
<b>24</b> 241	Printing, publishing and recorded media Printing and services to printing					
2411	Paper stationery manufacturing	20123	20967	0.96	4.19	8.11
2412	Printing	21980	23085	0.95	5.03	6.85
2413	Services to printing	115	118	0.97	2.61	2.06
242	Publishing					
2421	Newspaper printing or publishing	2126	2222	0.96	4.52	0.00
2422	Other periodical publishing	0	0	0.00	0.00	0.00
2423	Book and other publishing	56985	59528	0.96	4.46	9.43
243	Recorded media and publishing					
2430	Recorded media manufacturing and publishing	5154	5306	0.97	2.95	3.83

(Continued on next page)

41

ANZSIC 4-digit	C ANZSIC industries	Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
25	Petroleum, coal, chemical and associated products					
251	Petroleum refining					
2510	Petroleum refining	44486	47928	0.93	7.74	10.49
252	Petroleum and coal product nec					
2520	petroleum and coal product nec	65	67	0.97	3.08	22.43
253	Basic chemical manufacturing	4750	40.47	0.05	5.00	0.00
2531	Fertiliser manufacturing	1758	1847	0.95	5.06	3.82
2532	Industrial gas manufacturing	25	26	0.96	4.00	25.00
2533	Synthetic resin manufacturing	34180	36241	0.94	0.03	9.08
2004		21627	2005	0.93	0.00	14.20
2535	inorganic industrial chemical nec	2907	3025	0.96	4.06	17.11
254	Other chemical product					
2541	Explosive manufacturing	1404	1448	0.97	3.13	3.20
2542	Paint manufacturing	14002	14741	0.95	5.28	3.33
2543	Medicinal and pharmaceutical product manufacturing	128830	132925	0.97	3.18	3.14
2544	Pesticide manufacturing	94580	95551	0.99	1.03	0.60
2545	Soap and other detergent manufacturing	128704	135935	0.95	5.62	2.56
2546	Cosmetic and toiletry preparation manufacturing	79890	83137	0.96	4.06	2.58
2547	Ink manufacturing	3593	3645	0.99	1.45	2.57
2549	Chemical product manufacturing	127482	134112	0.95	5.20	4.51
255	Rubber product manufacturing					
2551	Rubber tyre manufacturing	37487	39405	0.95	5.12	18.94
2559	Rubber product manufacturing nec	60579	63575	0.95	4.95	12.05
256	Plastic product manufacturing					
2561	Plastic blow moulded product	5657	6118	0.92	8.15	0.00
2562	Plastic extruded product	33051	34821	0.95	5.36	2.76
2563	Plastic bag and film	112742	117610	0.96	4.32	5.45
2564	Plastic product, rigid fibre reinforced	46730	48523	0.96	3.84	3.25
2565	Plastic foam product	33256	35348	0.94	6.29	4.95
2566	Plastic injection moulded product	198495	208898	0.95	5.24	3.84

ANZSIC 4-digit	) ANZSIC industries	Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
<b>26</b> 261 2610	Non metallic mineral products Glass and glass product Glass and glass product	4702	5086	0.92	8.17	7.71
262 2621 2622 2623 2629	Ceramic product manufacturing Clay brick manufacturing Ceramic product manufacturing Ceramic tile and pipe Ceramic product nec	4 240 195 2339	4 273 206 2487	1.00 0.88 0.95 0.94	0.00 13.75 5.64 6.33	0.00 8.79 2.47 9.63
263 2631 2632 2633 2634 2635	Cement, lime, plaster and concrete Cement and lime manufacturing Plaster product manufacturing Concrete slurry manufacturing Concrete pipe and box culvert Concrete product nec	1498 622 0 0 171	1583 798 0 0 195	0.95 0.78 0.00 0.00 0.88	5.67 28.30 0.00 0.00 14.04	0.00 10.87 0.00 0.00 0.00
264 2640	Non-metallic mineral product nec Non-metallic mineral product nec	4296	4768	0.90	10.99	14.85
271 2711 2711 2712 2713	Metal products Iron and steel manufacturing Basic iron and steel manufacturing Iron and steel casting and forging Steel pipe and tube manufacturing	481974 47935 32388	510660 49436 33422	0.94 0.97 0.97	5.95 3.13 3.19	7.76 3.83 17.83
272 2721 2722 2723	Basic non-ferrous metal Alumina production Aluminium smelting Copper, silver, lead and zinc smelting, refining	1 13632 5378	1 14008 5776	1.00 0.97 0.93	0.00 2.76 7.40	0.00 0.00 4.60
2729	Basic non-ferrous metal nec	2864	2897	0.99	1.15	0.63
273 2731 2732 2733	Non-ferrous basic metal product Aluminium rolling, drawing, extruding Non-ferrous metal rolling, drawing, extruding nec Non-ferrous metal casting	83445 10012 0	86216 10868 0	0.97 0.92 0.00	3.32 8.55 0.00	12.33 11.44 0.00
274 2741	Structural metal product Structural steel fabricating	3562	3818	0.93	7.19	2.90

ANZSI( 4-digit	C ANZSIC industries	Value for	Cost, insurance & freight (cif) value	vfd/cif	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport
- ugit			4\$ 000	10110	<u>[[ (0////d/]</u>	%
		Αφ 000	Αψ 000		70	70
2742	Architectural aluminium product	16057	16827	0.95	4.80	2.28
2749	Structural metal product nec	15489	16415	0.94	5.98	2.17
275	Sneet metal product manufacturing	21220	21052	0.07	2 40	2 76
2750	Sheet metal product nec	21230 00257	102242	0.97	3.40	3.70
2155	Sheet metal product hec	33234	102242	0.97	5.01	5.50
276	Fabricated metal product	10011	10175			
2761	Hand tool and general hardware	10011	10175	0.98	1.64	14.42
2762	Spring and wire product	17552	18251	0.96	3.98	8.96
2764	Nut, boil, screw and fivel Metal coating and finishing	17240	1/5/4	0.96	0.00	9.64
2765	Non-ferrous pipe fitting	25258	25850	0.00	2.34	0.00 4 03
2769	Fabricated metal product nec	92132	95061	0.97	3.18	7.11
<b>28</b> 281	Motor vehicles, parts, other vehicles and machinery Motor vehicle and part					
2811	Motor vehicle manufacturing	43231	44891	0.96	3.84	13.15
2812	Motor vehicle body manufacturing	18322	19465	0.94	6.24	3.50
2813	Automotive electrical and instrument	30593	31152	0.98	1.83	10.12
2019	Automotive component nec	04230	50040	0.97	3.33	7.03
282	Other transport equipment	5010	E224	0.04	6 47	2.62
2021	Shipbullding	56050	5334	0.94	0.47	3.03
2022	Bailway equipment manufacturing	2505	2855	0.97	10.02	3.05 40.77
2824	Aircraft manufacturing	27592	27759	0.99	0.61	5.57
2829	Transport equipment nec	4101	4279	0.96	4.34	6.41
202	Photographic and scientific equipment					
2831	Photographic and optical good	52946	55226	0.96	4 31	11.06
2832	Medical and surgical equipment	9802	9953	0.98	1.54	7.98
2839	Professional and scientific equipment	32341	33015	0.98	2.08	11.02
	nec					-
284	Electronic equipment manufacturing					
2841	Computer and business machine	88049	90925	0.97	3.27	2.40
2842	Telecommunication, broadcasting and transceiving equipment	21804	22089	0.99	1.31	3.91
2849	Electronic equipment nec	26237	26684	0.98	1.70	6.64

ANZSIC 4-digit	C ANZSIC industries	Value for duty (vfd)	Cost, insurance & freight (cif) value	vfd/cif ratio	Tariff equivalent of transport costs [1-(cif/vfd)]	Std dev of tariff equiv- alent of transport costs
		A\$ 000	A\$ 000		%	%
285	Electrical equipment and appliance					
2851	Household appliance	265692	277821	0.96	4.57	6.10
2852	Electric cable and wire	39914	41654	0.96	4.36	4.16
2853	Battery manufacturing	24513	25116	0.98	2.46	2.28
2854	Electric light and sign	7577	7817	0.97	3.17	6.02
2859	Electrical and equipment nec	96513	97743	0.99	1.27	10.74
286	Industrial machinery and equipment					
2861	Agricultural machinery	25760	26667	0.97	3.52	17.55
2862	Mining and construction machinery	6298	6752	0.93	7.21	7.53
2863	Food processing machinery	34500	35484	0.97	2.85	4.14
2864	Machine tool and part	32441	32972	0.98	1.64	8.13
2865	Lifting and material handling equipment	29153	30227	0.96	3.68	8.28
2866	Pump and compressor	13213	13595	0.97	2.89	4.84
2867	Commercial space heating and cooling equipment	19077	19399	0.98	1.69	3.02
2869	Industrial machinery and equipment nec	90541	93275	0.97	3.02	9.99
29	Other manufacturing					
291	Prefabricated building manufacturing					
2911	Prefabricated metal building	1576	1650	0.96	4.70	0.00
2919	Prefabricated building nec	1576	1650	0.96	4.70	0.00
292	Furniture manufacturing					
2921	Wooden furniture and upholstered seat	127148	133234	0.95	4.79	2.73
2922	Sheet metal furniture	21406	22299	0.96	4.17	9.50
2923	Mattress manufacturing (except rubber)	30831	32560	0.95	5.61	2.95
2929	Furniture manufacturing nec	42128	44087	0.96	4.65	7.25
294	Other manufacturing					
2941	Jewellery and silverware	29504	29617	1.00	0.38	1.43
2942	Toy and sporting good	19495	20140	0.97	3.31	15.25
2949	Manufacturing nec	66670	69534	0.96	4.30	10.57

nec not elsewhere classified.  ${\ensuremath{^{a}}}$  vfd is more than cif, therefore not reported.

Source: ABS (2002).

45

### B Data sources

To estimate assistance to manufacturing industry according to the standard framework and to measure the impact of tariff preferences on industry assistance, relevant data from Australian and New Zealand sources were collected. The main data sources used are outlined in this appendix.

### B.1 Australian data

#### Standard estimates of assistance

Standard estimates of assistance to Australian manufacturing industry for the period 1989-90 to 2001-02 were taken from the Commission's *Trade & Assistance Review* (PC 2003). These estimates are inclusive of the effects of tariff quotas which ended in the late 1980s early 1990s. Quota assistance was terminated for PMV in 1988 and for TCF in 1993. Estimates for the 1989-90 to 1995-96 period were compiled using an assistance measurement system benchmarked to the 1989-90 manufacturing industry structure. In 1996-97, the estimates were re-benchmarked and a new methodology enabled estimates of border (ie tariff) and budgetary and other assistance to be shown separately. The estimates of assistance provided by the tariff are the focus of the current study.

#### Estimates of the impact of CER

To estimate the price impact of tariff preferences, information on tariff rates and imports is required. The main sources of these data for Australia are:

- ABS merchandise trade data, various years (ABS 2002 International Trade, Australia, Cat. No. 5465.0); and
- the Australian Customs tariff schedules reported by Australian Customs (ACS 2003b), various years.

The Commission has used data from these two sources for the period 1989-90 to 2001-02.

The ABS merchandise trade import data are based on monthly import values (fob, vfd, cif), quantities, nature of entry and the amount of duty paid (including tariff, excise and other duties). Monthly values are converted into annual values based on the financial year — July to June. All source data information is classified by the 10-digit tariff line item. To bring these data into the assistance framework adopted, 10-digit tariff line items were concorded to 8-digit items and then to 6-digit items. The 6-digit items were then concorded to 924 manufacturing items in the Australian Input Output Product Classification (IOPC) and finally to 56 manufacturing items in the 106 ANZSIC industry of origin product groups represented in Australian input-output tables. Assistance was estimated at the 106 commodity and industry levels, although only results for the manufacturing sector are reported. Concordances between trade and product classifications supporting the use of trade and input-output data to estimate industry assistance were obtained from the ABS. Trade values on a vfd basis for each year were used as weights to aggregate detailed information on tariff rates from the 6-digit tariff item level to the 106 sector level.

Specific-rate items were identified in the Australian Customs tariff schedules and converted to ad valorem rates. For items subject to excise duties, the ad valorem equivalent of each excise tax was deducted from relevant scheduled rates to estimate the protective rate of duty for those items.<sup>1</sup>

Estimates of industry inputs and outputs used in the derivation and benchmarking of assistance measures are based on the Australian input-output tables for 1989-90 and 1996-97 (ABS 2001).

### B.2 New Zealand data

Currently, estimates of assistance in New Zealand are not available according to the Commission's standard framework as they have been historically for Australia. Accordingly, the data sources described below have been applied to compile standard estimates of assistance for New Zealand manufacturing plus estimates of the effects of CER.

To estimate the price impact of the New Zealand tariff, data on imports from non-CER countries and from Australia for the years 1989-90 to 2002-03, were provided by New Zealand Statistics (2003a). These data include the value of imports on fob, vfd, cif bases, value of duty collected, quantity and unit value of imports by 10-digit tariff line item. In the absence of an electronic version of the scheduled tariff rates for each year for New Zealand, the Commission calculated the revealed, or 'applied', tariff rates from customs receipts figures and import values supplied by

<sup>&</sup>lt;sup>1</sup> Details of the derivation of protective tariff schedules are provided in Cobau and Wells (2002).

New Zealand Statistics.<sup>2</sup> As most trade between Australia and New Zealand receives the CER concession and enters duty free, imports to New Zealand from Australia were excluded from the tariff rate calculations.

The Commission also obtained a MFN tariff schedule from New Zealand Customs at December 2003. Because there were no major tariff policy changes in the early 2000s, this tariff schedule was used in this study to represent scheduled tariffs in New Zealand for the year 2001-02. The rates were used in a decomposition analysis of the effects of tariff differences between Australia and New Zealand on assistance to outputs and inputs and to provide a basis of comparison with the estimates of assistance to New Zealand industry provided by Lattimore (2003). An outline of the tariff schedule at December 2003 is provided in box B.1.

#### Box B.1 New Zealand tariff schedules

The New Zealand tariff is based on the Harmonized System 2002 nomenclature. It is applied at the 8-digit HS level and has 7432 items. About 7198 (97%) lines of the tariff are subject to ad valorem rates. Of the non ad valorem rates, two are specific rates (to be phased out), 188 are alternative specific rates and 11 are alternative compound rates.<sup>3</sup> In addition, there are 33 other items. These items refer mainly to parts and components for which the tariff rate varies subject to its end use. The majority of specific rates of duty apply to certain items of apparel. Ad valorem equivalents for the specific and compound MFN rates were not estimated for the New Zealand tariff for the sensitivity tests, because of their small number in overall tariff lines.

A summary at the 2-digit level of the tariff classification is provided in appendix F.

Sources: New Zealand Customs Service (2003) and WTO (2003).

Duties paid in New Zealand trade data supplied by New Zealand Statistics include excise taxes. Consistent with the treatment of excisable commodities in assistance calculations for Australia, the estimated excise component of the tariff was

<sup>&</sup>lt;sup>2</sup> A revealed tariff rate represents an import-weighted average rate. It will understate the degree of tariff protection to the extent that duty collected reflects tariff concessions and other preferences to third countries. On the other hand, to the extent that permanent tariff concessions (eg CTCOs) lower the applied rate relative to the MFN rate, the revealed rate may be a more accurate indicator of the protective effect of the tariff than the scheduled MFN rate.

<sup>&</sup>lt;sup>3</sup> New Zealand uses 'alternative specific' tariff rates, with a specific and an ad valorem component for 195 tariff pairs. The tariff pairs refer to two different lines with the same product description — one line carries the ad valorem rate and the second the specific rate, other pairs carry an ad valorem and a compound rate. The use of 'alternative specific' tariffs with importers paying either an ad valorem rate or a specific rate, depending on the value of the imported product, also adds to the complexity of the tariff.

subtracted for chapters 21, 22, 24 and 27 in calculating the average applied tariff rates for New Zealand.<sup>4</sup>

In addition to the import and tariff rate tables, a number of concordances were also necessary in order to translate New Zealand 10-digit tariff item trade flows and 8-digit MFN tariff rate data to other industry and commodity-based classification structures. The Commission first concorded 10-digit and 8-digit items to the 6-digit tariff line item level and then to 924 manufacturing items in the Australian Input-Output Product Classification (IOPC). It then concorded the IOPC items to the 96 manufacturing items in the 210 Sector New Zealand Commodity Classification (NZCC). The NZCC items were further concorded to 41 manufacturing groups in the 126 group classification adopted in the New Zealand input-output tables. Assistance calculations were undertaken at the 126 input-output commodity and industry group level.

For New Zealand tariff assistance, the Commission applied a methodology similar to that employed for Australia. Benchmark data on inputs and outputs were derived from New Zealand input-output data for 1995-96 (New Zealand Statistics 2003b).

<sup>&</sup>lt;sup>4</sup> The list of excisable tariff line items in New Zealand can be found on the New Zealand Customs website at http://www.customs.govt.nz/resources/third+schedule.pdf.

# C Australian assistance by manufacturing industry group

Estimates of assistance to 11 Australian manufacturing industry groups for the years 1989-90 to 2001-02 are provided in this appendix. Estimates for the years 1989-90 to 1995-96 are benchmarked to the industry structure prevailing in 1989-90, while estimates for the years 1996-97 to 2001-02 are benchmarked to the industry structure prevailing in 1996-97. These estimates were taken from PC (2001) and PC (2003).

### Table C.1Australian assistance by manufacturing industry group, 1989-90 to 2001-02a

Per cent

	Nominal rate of output assistance												
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	5.0	5.8	5.1	5.1	4.6	4.0	3.2	2.2	2.1	2.1	2.1	2.2	2.2
Textiles, clothing, footwear and leather	37.6	36.7	31.1	25.5	22.6	20.7	18.8	14.7	13.4	12.5	11.5	10.5	10.5
Textile fibres, yarns and woven fabrics	16.9	15.1	13.0	11.1	9.4	8.4	7.8	na	na	na	na	na	na
Textile products	26.0	25.0	24.0	21.0	19.0	18.0	16.0	na	na	na	na	na	na
Knitting mill products	56.0	55.0	48.0	41.0	37.0	34.0	31.0	na	na	na	na	na	na
Clothing	67.0	66.0	54.0	44.0	39.0	36.0	33.0	na	na	na	na	na	na
Footwear	58.0	61.0	49.0	35.0	31.0	28.0	25.0	na	na	na	na	na	na
Leather and leather products	9.0	9.0	9.0	8.0	7.0	6.0	5.0	na	na	na	na	na	na
Wood and paper products	9.5	8.7	8.5	8.3	6.7	5.9	5.0	3.7	3.7	3.7	3.8	3.7	3.8
Printing, publishing and recorded media	5.8	5.1	4.6	4.6	3.5	3.0	2.4	1.5	1.4	1.4	1.4	1.4	1.4
Petroleum, coal, chemical and associated products	6.4	6.2	5.9	5.9	4.6	4.1	3.3	2.4	2.5	2.5	2.3	2.2	2.2
Non-metallic mineral products	3.0	2.8	2.6	2.4	2.4	2.1	2.0	1.8	1.8	1.8	1.8	1.8	1.8
Metal products	7.8	7.4	6.8	6.2	5.2	4.5	4.0	2.5	2.5	2.5	2.5	2.5	2.5
Motor vehicles and parts	28.0	26.1	24.3	22.3	20.4	18.6	16.9	8.4	7.5	6.9	6.4	6.1	6.1
Other vehicles	10.0	9.0	8.0	7.0	6.0	5.0	4.0	1.3	1.2	1.4	1.2	1.2	1.1
Other machinery and equipment	14.9	13.7	12.0	10.9	9.0	7.5	6.4	2.9	2.8	2.8	2.3	2.2	2.2
Other manufacturing	16.3	14.9	12.8	11.4	9.7	7.8	6.8	3.6	3.6	3.6	3.6	3.6	3.6
Total manufacturing	10.5	10.1	9.2	8.4	7.2	6.4	5.5	3.5	3.3	3.2	3.0	2.8	2.8

	Nominal	rate of a	ssistance	on mate	erials								
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	5.2	6.3	5.6	5.6	4.7	4.2	3.5	1.2	1.2	1.1	1.1	1.1	1.1
Textiles, clothing, footwear and leather	11.9	11.3	10.0	8.9	7.9	7.2	6.3	5.0	4.8	4.5	4.2	3.8	3.8
Textile fibres, yarns and woven fabrics	4.8	4.5	4.1	3.8	3.4	3.0	2.6	na	na	na	na	na	na
Textile products	12.0	11.0	10.0	9.0	8.0	7.0	6.0	na	na	na	na	na	na
Knitting mill products	11.0	11.0	11.0	11.0	9.0	8.0	7.0	na	na	na	na	na	na
Clothing	29.0	27.0	23.0	21.0	19.0	18.0	16.0	na	na	na	na	na	na
Footwear	18.0	19.0	17.0	11.0	9.0	8.0	7.0	na	na	na	na	na	na
Leather and leather products	1.0	1.0	1.0	1.0	1.0	1.0	0.0	na	na	na	na	na	na
Wood and paper products	5.8	4.8	4.8	4.6	4.4	3.4	3.2	2.6	2.6	2.6	2.6	2.5	2.5
Printing, publishing and recorded media	4.6	4.4	4.3	4.3	3.6	3.0	2.2	1.6	1.6	1.6	1.5	1.3	1.3
Petroleum, coal, chemical and associated products	3.8	3.4	3.4	3.4	2.7	2.3	2.2	1.1	1.1	1.1	1.1	1.1	1.1
Non-metallic mineral products	1.8	1.6	1.6	1.6	1.4	1.4	1.4	1.0	1.1	1.1	1.1	1.0	1.0
Metal products	4.1	4.0	3.6	2.9	2.6	2.6	2.2	1.7	1.8	1.7	1.7	1.7	1.7
Motor vehicles and parts	15.2	14.1	13.3	12.1	11.0	10.1	9.2	3.3	3.3	3.2	3.1	3.1	3.1
Other vehicles	10.0	10.0	9.0	8.0	7.0	6.0	5.0	2.9	3.0	3.1	3.0	3.0	3.0
Other machinery and equipment	10.3	9.4	8.9	7.5	6.5	5.8	4.8	2.9	2.9	2.9	2.8	2.6	2.6
Other manufacturing	8.8	8.3	7.9	7.0	6.1	5.5	4.5	3.6	3.6	3.6	3.5	3.5	3.5
Total manufacturing	6.3	6.2	5.8	5.3	4.6	4.2	3.6	1.9	1.9	1.8	1.8	1.7	1.7

	Effective	e rate of a	assistanc	е									
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	4.5	5.0	4.4	4.4	4.4	3.7	2.6	3.6	3.4	3.3	3.3	3.6	3.6
Textiles, clothing, footwear and leather	85.5	84.0	70.4	56.4	49.9	45.9	42.2	28.0	25.8	24.0	22.1	20.6	26.2
Textile fibres, yarns and woven fabrics	60.4	53.2	45.4	37.2	31.1	28.0	26.4	na	na	na	na	na	na
Textile products	45.7	44.7	43.7	37.8	34.4	33.4	30.0	na	na	na	na	na	na
Knitting mill products	142.5	139.6	119.1	98.7	90.8	84.0	77.1	na	na	na	na	na	na
Clothing	105.4	105.4	85.3	67.2	59.2	54.2	50.2	na	na	na	na	na	na
Footwear	110.3	115.9	90.8	66.4	59.8	54.1	48.5	na	na	na	na	na	na
Leather and leather products	39.1	39.1	39.1	34.3	29.5	24.8	23.8	na	na	na	na	na	na
Wood and paper products	13.9	13.2	12.9	12.5	9.4	8.7	7.0	4.7	4.7	4.7	5.0	4.9	4.9
Printing, publishing and recorded media	6.5	5.5	4.8	4.8	3.5	3.1	2.5	1.5	1.4	1.4	1.4	1.5	1.5
Petroleum, coal, chemical and associated products	11.0	11.0	10.4	10.1	7.9	7.3	5.4	5.2	5.0	5.0	5.0	4.5	4.3
Non-metallic mineral products	4.1	3.8	3.6	3.0	3.2	2.7	2.5	2.7	2.5	2.7	2.3	2.5	2.5
Metal products	13.1	12.4	11.6	11.1	9.1	7.3	6.7	4.3	4.0	4.4	4.3	4.2	4.2
Motor vehicles and parts	54.9	51.3	47.6	43.7	40.0	36.6	33.3	16.7	14.0	13.1	11.7	11.2	11.2
Other vehicles	10.0	8.4	7.4	6.4	5.4	4.4	3.4	0.7	-0.2	0.0	2.4	3.0	2.6
Other machinery and equipment	19.8	18.2	15.1	14.4	11.6	9.4	8.1	3.7	3.5	4.0	3.2	3.0	3.0
Other manufacturing	24.7	22.2	18.4	16.4	13.8	10.5	9.5	4.0	4.0	4.1	4.0	4.2	4.2
Total manufacturing	16.3	15.5	13.8	12.6	10.8	9.4	8.1	5.7	5.3	5.2	4.8	4.7	4.7

<sup>a</sup> Estimates of assistance for the period 1989-90 to 2001-02 were obtained from the *Trade & Assistance Review*. **na** is not available.

Source: PC (2001, 2003).

# D New Zealand assistance by manufacturing industry group

Estimates of New Zealand tariff assistance to 11 manufacturing industries for the years 1989-90 to 2001-02 are provided in this appendix. The series is benchmarked to the industry structure presented in the New Zealand input-output tables for the reference year 1995-96. The protective effect of the tariff is based on the applied tariff rates (see chapter 4).

	Nominal	rate of o	utput as:	sistance									
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	1.9	1.9	1.6	1.4	1.5	1.3	1.1	1.1	0.9	0.6	0.6	0.6	0.6
Textiles, clothing, footwear and leather	8.2	8.1	8.8	9.5	9.6	9.5	8.8	8.2	7.3	5.1	5.3	5.0	5.1
Textile manufacturing	6.3	6.0	5.2	5.0	5.2	5.1	4.7	4.4	4.0	2.9	3.0	2.8	2.9
Clothing manufacture	13.5	13.9	16.4	20.2	20.5	20.9	19.4	18.1	16.2	11.0	11.7	10.9	11.0
Footwear manufacture	17.2	16.6	25.2	22.4	20.2	18.5	17.6	15.3	13.3	9.8	8.8	9.6	9.8
Other leather product manufacturing	2.9	2.8	2.3	1.9	2.0	1.9	1.7	1.6	1.3	0.8	0.9	0.9	0.8
Wood and paper products	3.2	2.4	2.6	2.3	2.7	2.2	2.2	2.2	1.8	0.9	1.1	0.8	0.9
Printing, publishing and recorded media	1.5	1.3	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.6	0.6	0.6	0.6
Petroleum, coal, chemical and associated products	2.2	2.0	1.7	1.6	1.5	1.5	1.4	1.2	1.1	0.7	0.8	0.7	0.7
Non-metallic mineral products	6.0	5.6	4.3	3.8	4.9	3.6	3.2	3.2	3.0	1.8	2.0	1.7	1.8
Metal products	3.1	3.2	1.0	1.7	1.8	2.1	1.8	1.6	1.4	0.8	0.9	0.8	0.8
Motor vehicles and parts	14.0	11.8	14.9	13.1	14.3	14.5	13.8	14.6	10.1	0.1	0.1	0.1	0.1
Other vehicles	3.1	2.5	2.3	2.0	1.8	1.3	1.3	1.6	1.1	0.6	0.8	0.9	0.6
Other machinery and equipment	2.3	2.0	1.8	1.4	1.4	1.3	1.2	1.0	0.8	0.5	0.5	0.4	0.5
Other manufacturing	8.9	7.2	6.3	5.4	5.0	5.1	4.8	4.1	3.7	2.4	2.6	2.5	2.4
Total manufacturing	3.2	2.9	2.6	2.5	2.6	2.5	2.3	2.1	1.8	1.0	1.1	1.0	1.0

# Table D.1New Zealand tariff assistance by manufacturing industry group, 1989-90 to 2001-02Percent

ANZSIC industry	Nominal rate of assistance on materials												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	1.3	1.2	1.0	0.9	0.9	0.9	0.8	0.7	0.6	0.4	0.4	0.4	0.4
Textiles, clothing, footwear and leather	3.1	2.8	2.4	2.4	2.5	2.4	2.2	2.2	1.8	1.3	1.3	1.3	1.3
Textile manufacturing	0.9	0.8	0.6	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.4	0.4
Clothing manufacture	11.7	9.5	9.6	10.6	10.6	10.4	9.7	9.8	8.4	6.3	6.1	6.3	6.3
Footwear manufacture	12.5	12.1	9.3	7.4	8.0	7.5	6.9	6.3	5.2	2.9	3.3	3.3	2.9
Other leather product manufacturing	2.4	2.3	1.8	1.4	1.5	1.5	1.3	1.2	1.0	0.6	0.6	0.6	0.6
Wood and paper products	2.4	2.0	2.3	2.1	2.3	1.9	1.9	1.8	1.4	0.8	0.9	0.7	0.8
Printing, publishing and recorded media	4.9	3.9	4.1	3.5	3.6	3.4	3.1	3.1	2.7	1.6	1.9	1.4	1.6
Petroleum, coal, chemical and associated products	3.1	2.9	2.3	2.2	2.1	2.1	2.0	1.7	1.5	0.9	1.0	0.9	0.9
Non-metallic mineral products	3.9	3.8	2.9	2.7	3.1	2.6	2.5	2.5	2.0	1.1	1.4	1.1	1.1
Metal products	3.3	3.1	1.2	1.9	1.9	2.1	1.8	1.6	1.5	0.9	0.9	0.9	0.9
Motor vehicles and parts	24.0	20.7	19.9	19.1	20.4	21.1	19.6	19.9	14.6	2.6	2.8	2.6	2.6
Other vehicles	12.2	10.6	8.5	8.4	7.2	6.4	5.6	5.1	4.7	2.2	2.8	2.7	2.2
Other machinery and equipment	5.7	5.2	3.2	3.6	3.7	3.8	3.4	3.1	2.5	1.2	1.3	1.2	1.2
Other manufacturing	6.0	5.5	4.3	4.4	5.0	3.9	3.8	3.3	2.7	1.7	1.8	1.7	1.7
Total manufacturing	2.8	2.5	2.1	2.0	2.1	2.0	1.8	1.7	1.4	0.8	0.9	0.8	0.8

ANZSIC industry	Effective rate of assistance												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	2.7	2.9	2.4	2.2	2.3	2.0	1.6	1.5	1.3	0.8	0.9	0.8	0.8
Textiles, clothing, footwear and leather	11.1	11.1	12.3	13.4	13.5	13.4	12.5	11.5	10.4	7.2	7.5	7.0	7.2
Textile manufacturing	10.3	9.8	8.6	8.2	8.6	8.3	7.7	7.1	6.6	4.8	4.9	4.6	4.8
Clothing manufacture	13.8	14.7	17.7	22.0	22.4	22.9	21.3	19.7	17.7	11.8	12.8	11.7	11.8
Footwear manufacture	19.8	19.1	33.8	30.6	26.8	24.4	23.4	20.2	17.8	13.6	11.8	13.0	13.6
Other leather product manufacturing	3.3	3.2	2.7	2.2	2.4	2.3	2.1	1.9	1.6	1.0	1.1	1.0	1.0
Wood and paper products	3.9	2.7	2.9	2.5	3.1	2.4	2.5	2.5	2.0	1.0	1.3	0.9	1.0
Printing, publishing and recorded media	-0.1	0.1	-0.1	0.2	0.1	0.3	0.2	0.0	0.1	0.2	0.0	0.2	0.2
Petroleum, coal, chemical and associated products	1.8	1.8	1.6	1.4	1.4	1.3	1.2	1.0	0.9	0.7	0.7	0.7	0.7
Non-metallic mineral products	7.1	6.5	5.0	4.3	5.8	4.1	3.6	3.6	3.5	2.1	2.4	2.0	2.1
Metal products	3.0	3.3	0.9	1.6	1.8	2.1	1.8	1.6	1.4	0.8	0.8	0.8	0.8
Motor vehicles and parts	11.4	9.5	13.5	11.6	12.7	12.8	12.2	13.2	8.9	-0.5	-0.6	-0.5	-0.5
Other vehicles	1.1	0.8	1.0	0.6	0.7	0.2	0.4	0.8	0.4	0.3	0.4	0.5	0.3
Other machinery and equipment	1.0	0.7	1.2	0.6	0.5	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.2
Other manufacturing	10.6	8.1	7.4	6.0	5.1	5.7	5.3	4.6	4.3	2.9	3.1	3.0	2.9
Total manufacturing	3.5	3.2	3.0	2.9	3.0	2.8	2.6	2.5	2.1	1.1	1.2	1.1	1.1

Sources: New Zealand Statistics (2003a, 2003b).

## E Impact of CER on industry assistance

The impact of CER on manufacturing industry assistance to 11 manufacturing industries in Australia and New Zealand between 1989-90 and 2001-02 is provided in this appendix. This is followed by a decomposition analysis of the nominal rate of output assistance, nominal rate of input assistance and effective rate of tariff assistance for the year 2001-02.

	Impact on nominal rate of output assistance of MFN tariff differences in CER partners												
ANZSIC Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04
Textiles, clothing, footwear and leather	0.30	0.29	0.29	0.37	0.35	0.43	0.43	0.53	0.44	0.36	0.28	0.24	0.23
Textile fibres, yarns and woven fabrics	0.05	0.04	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.03	0.04	0.03
Textile products	0.44	0.43	0.32	0.27	0.32	0.36	0.34	0.36	0.32	0.28	0.24	0.23	0.22
Knitting mill products	0.74	0.47	0.48	0.65	0.62	0.62	0.55	0.68	0.49	0.31	0.27	0.24	0.29
Clothing	0.37	0.40	0.45	0.64	0.56	0.76	0.78	1.00	0.87	0.73	0.55	0.43	0.43
Footwear	0.56	0.53	0.72	0.88	0.88	0.94	0.98	1.26	0.85	0.65	0.45	0.43	0.30
Leather and leather products	0.12	0.13	0.09	0.08	0.09	0.10	0.10	0.06	0.06	0.05	0.03	0.02	0.03
Wood and paper products	0.05	0.05	0.07	0.07	0.07	0.07	0.08	0.11	0.10	0.08	0.09	0.05	0.07
Printing, publishing and recorded media	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Petroleum, coal, chemical and associated products	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.03
Non-metallic mineral products	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.02
Metal products	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01
Motor vehicles and parts	0.48	0.26	0.33	0.36	0.46	0.59	0.62	0.58	0.29	0.01	0.01	0.01	0.01
Other vehicles	0.04	0.01	0.01	0.00	0.01	0.01	0.03	0.04	0.60	0.01	0.02	0.02	0.01
Other machinery and equipment	0.06	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.04	0.03	0.03	0.02	0.03
Other manufacturing	0.10	0.06	0.06	0.05	0.06	0.06	0.07	0.07	0.06	0.05	0.05	0.04	0.04
Total manufacturing	0.08	0.06	0.07	0.07	0.08	0.09	0.10	0.10	0.09	0.05	0.04	0.04	0.04

# Table E.1Impact of CER on assistance received by Australian manufacturing industry group, 1989-90 to 2001-02Percentage points

Table E.1	(continued)
	(continued)

	Impact on effective rate of assistance of MFN tariff differences in CER partners												
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	0.09	0.08	0.08	0.08	0.08	0.08	0.09	0.10	0.10	0.09	0.08	0.08	0.09
Textiles, clothing, footwear and leather	0.56	0.53	0.54	0.68	0.65	0.80	0.80	0.98	0.81	0.67	0.52	0.43	0.42
Textile fibres, yarns and woven fabrics	0.10	0.09	0.08	0.08	0.09	0.12	0.11	0.12	0.08	0.06	0.06	0.08	0.07
Textile products	0.70	0.69	0.52	0.44	0.51	0.58	0.55	0.57	0.52	0.46	0.40	0.37	0.36
Knitting mill products	1.20	0.76	0.78	1.04	1.00	1.01	0.88	1.11	0.79	0.50	0.43	0.40	0.47
Clothing	0.63	0.69	0.76	1.08	0.95	1.29	1.33	1.70	1.47	1.25	0.94	0.74	0.72
Footwear	0.94	0.89	1.22	1.48	1.49	1.58	1.66	2.13	1.43	1.10	0.76	0.72	0.50
Leather and leather products	0.26	0.28	0.20	0.17	0.19	0.22	0.22	0.14	0.13	0.11	0.07	0.05	0.07
Wood and paper products	0.09	0.08	0.12	0.12	0.12	0.12	0.13	0.18	0.16	0.14	0.15	0.09	0.11
Printing, publishing and recorded media	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02
Petroleum, coal, chemical and associated products	0.09	0.08	0.08	0.10	0.10	0.11	0.11	0.11	0.09	0.08	0.07	0.08	0.08
Non-metallic mineral products	0.05	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.01	0.02	0.02	0.03
Metal products	0.06	0.04	0.05	0.05	0.03	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03
Motor vehicles and parts	1.00	0.55	0.69	0.76	0.95	1.24	1.30	1.20	0.61	0.02	0.01	0.01	0.01
Other vehicles	0.07	0.02	0.01	0.01	0.02	0.02	0.05	0.08	1.25	0.01	0.03	0.04	0.02
Other machinery and equipment	0.12	0.10	0.10	0.11	0.12	0.11	0.12	0.11	0.08	0.07	0.05	0.05	0.05
Other manufacturing	0.17	0.11	0.10	0.09	0.10	0.11	0.12	0.12	0.11	0.09	0.08	0.07	0.07
Total manufacturing	0.16	0.12	0.13	0.15	0.16	0.19	0.20	0.20	0.17	0.09	0.08	0.07	0.08

Sources: Commission estimates based ABS (2001, 2002), Australian Customs Service (2003b) and New Zealand Statistics (2003a).
# Table E.2Impact of CER on tariff assistance received by New Zealand manufacturing industry group, 1989-90 to<br/>2001-02

Percentage points

	Impact on nominal rate of output assistance of MFN tariff differences in CER partners												
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	0.09	0.14	0.24	0.23	0.09	0.40	0.50	0.21	0.21	0.25	0.30	0.33	0.36
Textiles, clothing, footwear and leather	3.46	3.56	4.17	4.27	3.30	3.15	2.76	2.66	2.49	2.38	2.44	1.94	1.57
Textile manufacturing	3.87	3.25	3.76	3.76	3.17	3.01	2.62	2.34	2.19	2.16	2.22	1.77	1.37
Clothing manufacture	2.83	4.03	5.77	6.51	4.19	4.21	3.74	4.15	4.04	3.72	3.81	3.03	2.56
Footwear manufacture	9.40	10.84	7.29	5.59	5.84	5.00	4.40	4.90	4.05	4.13	4.28	3.00	2.56
Other leather product manufacturing	1.43	1.55	1.90	1.84	1.49	1.33	1.12	0.58	0.47	0.40	0.38	0.39	0.32
Wood and paper products	0.44	0.47	0.51	0.50	0.52	0.47	0.33	0.25	0.28	0.32	0.44	0.38	0.37
Printing, publishing and recorded media	0.17	0.16	0.17	0.18	0.16	0.15	0.13	0.08	0.09	0.10	0.10	0.09	0.10
Petroleum, coal, chemical and associated products	0.44	0.45	0.51	0.55	0.56	0.56	0.47	0.34	0.37	0.43	0.43	0.45	0.46
Non-metallic mineral products	0.15	0.07	0.06	0.07	0.07	0.07	0.05	0.04	0.04	0.04	0.05	0.05	0.05
Metal products	0.44	0.40	0.42	0.40	0.40	0.34	0.23	0.27	0.27	0.27	0.28	0.29	0.29
Motor vehicles and parts	0.29	0.21	0.16	0.18	0.17	0.15	0.11	0.11	0.12	0.19	0.17	0.20	0.18
Other vehicles	0.20	0.12	0.12	0.09	0.09	0.10	0.05	0.06	0.06	0.08	0.08	0.17	0.12
Other machinery and equipment	0.91	0.80	0.66	0.65	0.69	0.72	0.58	0.47	0.49	0.55	0.56	0.57	0.60
Other manufacturing	1.51	1.34	1.40	1.59	1.32	0.87	0.61	0.46	0.39	0.44	0.49	0.55	0.58
Total manufacturing	0.52	0.52	0.59	0.60	0.50	0.58	0.53	0.38	0.38	0.41	0.45	0.43	0.43

Table E.2	(continued)
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	Impact on effective rate of assistance of MFN tariff differences in CER partners												
ANZSIC industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food, beverages and tobacco	0.22	0.32	0.55	0.53	0.21	0.93	1.16	0.49	0.49	0.58	0.69	0.77	0.85
Textiles, clothing, footwear and leather	4.92	5.06	5.93	6.08	4.69	4.48	3.93	3.79	3.54	3.39	3.47	2.76	2.24
Textile manufacturing	6.51	5.46	6.32	6.33	5.34	5.06	4.41	3.94	3.68	3.63	3.73	2.98	2.30
Clothing manufacture	2.85	4.05	5.80	6.54	4.21	4.23	3.76	4.17	4.06	3.74	3.83	3.05	2.57
Footwear manufacture	12.05	13.89	9.35	7.17	7.48	6.41	5.64	6.28	5.19	5.29	5.48	3.85	3.28
Other leather product manufacturing	2.65	2.88	3.53	3.41	2.77	2.46	2.09	1.08	0.87	0.74	0.71	0.73	0.59
Wood and paper products	0.77	0.83	0.90	0.89	0.92	0.83	0.59	0.44	0.49	0.58	0.78	0.67	0.66
Printing, publishing and recorded media	0.24	0.23	0.25	0.27	0.23	0.21	0.18	0.12	0.13	0.14	0.14	0.14	0.15
Petroleum, coal, chemical and associated products	0.57	0.58	0.66	0.71	0.73	0.72	0.61	0.45	0.49	0.57	0.57	0.59	0.59
Non-metallic mineral products	0.21	0.10	0.08	0.10	0.10	0.10	0.07	0.06	0.06	0.06	0.07	0.07	0.08
Metal products	0.67	0.61	0.65	0.62	0.61	0.52	0.35	0.41	0.42	0.41	0.43	0.45	0.44
Motor vehicles and parts	0.31	0.23	0.18	0.19	0.19	0.16	0.12	0.12	0.13	0.21	0.18	0.21	0.20
Other vehicles	0.24	0.15	0.14	0.11	0.11	0.12	0.06	0.07	0.07	0.09	0.10	0.21	0.15
Other machinery and equipment	1.25	1.10	0.90	0.90	0.94	0.99	0.79	0.65	0.68	0.76	0.76	0.78	0.82
Other manufacturing	2.22	1.96	2.06	2.33	1.94	1.28	0.90	0.68	0.57	0.65	0.73	0.81	0.85
Total manufacturing	0.86	0.86	0.98	1.00	0.83	0.95	0.87	0.63	0.63	0.68	0.74	0.72	0.71

Sources: New Zealand Statistics (2003a), (2003b) and Australian Customs Service (2003b).

### Table E.3 Decomposition of the nominal rate of output tariff assistance — Australia, 2001-02

Percentage points

	Total output tariff assistance	Decor	nposition of CER out	put tariff preferenc	ce effect	
	Domestic effect <sup>a</sup>	Home country effect	Price or different tariff structures effect	Tariff concessions effect	Total CER output effect	Total effect benchmarked to MFN rates
ANZSIC industry		$P_D - P_W$	$P_p - P_{D,MFN}$	$P_{D,MFN} - P_D$	$P_p - P_w$	
	[A]	[B]	[C]	[D]	[B]+[C]+[D]	[A]+[B]+[C]+[D]
Food, beverages and tobacco	2.163	0.046	-0.003	0.000	0.043	2.206
Textiles, clothing, footwear and leather	10.423	0.349	-0.121	0.000	0.229	10.652
Wood and paper products	3.585	0.110	-0.042	0.000	0.068	3.653
Printing, publishing and recorded media	1.398	0.014	-0.004	0.000	0.011	1.408
Petroleum, coal, chemical and associated products	2.051	0.081	-0.047	0.000	0.033	2.085
Non-metallic mineral products	1.752	0.052	-0.034	0.000	0.018	1.770
Metal products	2.460	0.052	-0.038	0.000	0.014	2.473
Motor vehicles and parts	6.094	0.275	-0.269	0.000	0.006	6.099
Other vehicles	0.868	0.015	-0.005	0.000	0.011	0.878
Other machinery and equipment	2.097	0.084	-0.058	0.000	0.026	2.123
Other manufacturing	3.465	0.059	-0.021	0.000	0.038	3.503
Total manufacturing	2.729	0.087	-0.050	0.000	0.038	2.767

<sup>a</sup> See table C.1. for total output assistance. Tariff assistance forms part of that assistance to industry.

### Table E.4 Decomposition of the nominal rate of output tariff assistance — New Zealand, 2001-02<sup>a</sup>

Percentage points

	Total output tariff assistance	Decon	nposition of CER out	put tariff preferend	It tariff preference effect						
ANZSIC industry	Domestic effect	Home country effect	Price or different tariff structures effect Pr - P	Tariff concessions effect P – P	Total CER output effect P. – P	Total effect benchmarked to imputed MFN rates					
		$P_D - P_W$	p D,MFN	D,MFN D	$p r_w$						
	[A]	[B]	[C]	[D]	[B]+[C]+[D]	[A]+[B]+[C]+[D]					
Food, beverages and tobacco	0.581	0.093	0.210	0.060	0.363	0.944					
Textiles, clothing, footwear and leather	5.071	1.088	-0.040	0.526	1.574	6.644					
Wood and paper products	0.923	0.178	0.171	0.023	0.371	1.294					
Printing, publishing and recorded media	0.641	0.070	0.075	-0.042	0.103	0.744					
Petroleum, coal, chemical and associated products	0.742	0.250	0.002	0.203	0.455	1.197					
Non-metallic mineral products	1.788	0.020	0.005	0.030	0.055	1.843					
Metal products	0.811	0.105	-0.033	0.218	0.290	1.100					
Motor vehicles and parts	0.120	0.066	-0.088	0.205	0.182	0.302					
Other vehicles	0.621	0.096	-0.128	0.156	0.124	0.744					
Other machinery and equipment	0.451	0.368	-0.272	0.503	0.599	1.050					
Other manufacturing	2.428	0.465	-0.083	0.196	0.578	3.005					
Total manufacturing	0.980	0.209	0.063	0.155	0.427	1.407					

<sup>a</sup> In the absence of a time series of scheduled rates for New Zealand, rates for the year 2003 were used to proxy those prevailing in 2001-02, on the basis that few changes were made in scheduled rates over the period.

### Table E.5 Decomposition of the nominal rate of input tariff assistance — Australia, 2001-02<sup>a</sup>

Percentage points

	Total Australia assist	an input tariff ance		Decomposition of CER input tariff effect <sup>b</sup>						
	Domestic effect <sup>C</sup>	Attributable to non-CER	Partner country effect	Price or different tariff structures effect	Transport cost effect	Tariff concessions effect	Total CER input effect	Total effect		
ANZSIC industry			$\hat{P}M_P - PM_W$	$PM_D - PM_{P,MFN}$	$TM_P$	$\hat{P}M_{P,MFN} - \hat{P}M_P$	$PM_D - PM_W$			
	[A]	[B]	[C]	[D]	[E]	[F]	[G]=[C]+[D]+ [E]+[F]	[B]+[G]		
Food, beverages and tobacco	1.073	0.667	0.504	-0.580	0.422	0.060	0.406	1.073		
Textiles, clothing, footwear and leather	3.848	3.659	0.351	-0.414	0.192	0.060	0.189	3.848		
Wood and paper products	2.547	2.064	1.722	-2.983	1.591	0.152	0.483	2.547		
Printing, publishing and recorded media	1.600	1.420	0.929	-1.475	0.786	-0.060	0.180	1.600		
Petroleum, coal, chemical and associated products	1.099	1.043	0.212	-0.364	0.182	0.026	0.056	1.099		
Non-metallic mineral products	1.044	0.986	0.235	-0.404	0.200	0.028	0.059	1.044		
Metal products	1.685	1.537	0.285	-0.466	0.220	0.109	0.148	1.685		
Motor vehicles and parts	3.114	3.045	0.152	-0.252	0.114	0.054	0.069	3.114		
Other vehicles	3.010	2.858	0.297	-0.464	0.224	0.095	0.152	3.010		
Other machinery and equipment	2.592	2.452	0.281	-0.463	0.210	0.111	0.139	2.592		
Other manufacturing	3.456	3.001	1.224	-2.078	1.073	0.236	0.455	3.456		
Total manufacturing	1.796	1.591	0.431	-0.654	0.358	0.070	0.205	1.796		

<sup>a</sup> In the absence of a time series of scheduled rates for New Zealand, rates for the year 2003 were used to proxy those prevailing in 2001-02, on the basis that few changes were made in scheduled rates over the period. <sup>b</sup> The price effects of CER are benchmarked to import values at the border of the importing country (ie cif values). A analysis of fob and cif values for 2001-02 suggested very high trans-Tasman transport costs that were out of line with cost data for earlier years and information about transport costs received during the study. The values also could not be confirmed by the ABS. Accordingly, cif values used in this analysis were revised on the basis of fob values of trade for the year 2001-02 and transport cost data benchmarked to 2000-01. <sup>C</sup> See table C.1. for total input assistance. Tariff assistance forms part of that assistance to industry.

## Table E.6Decomposition of the nominal rate of input tariff assistance — New Zealand, 2001-02

Percentage points

	Total New Ze tariff ass	ealand input sistance	Decomposition of CER input tariff effect <sup>a</sup>							
	Domestic effect	Attributable to non-CER	Partner country effect	Price or different tariff structures effect	Transport cost effect	Tariff concessions effect	Total CER input effect	Total effect		
ANZSIC Industry			$\hat{P}M_P - PM_W$	$PM_D - PM_{P,MFN}$	$TM_P$	$\hat{P}M_{P,MFN}-\hat{P}M_P$	$PM_D - PM_W$			
	[4]	(5)	101		(5)		[G]=[C]+[D]+			
	[A]	[B]	[C]	[D]	[E]	[F]	[E]+[F]	[B]+[G]		
Food, beverages and tobacco	0.421	0.215	2.090	-3.548	1.664	0.000	0.206	0.421		
Textiles, clothing, footwear and leather	1.258	0.998	4.264	-7.393	3.389	0.000	0.260	1.258		
Wood and paper products	0.784	0.375	3.042	-4.532	1.899	0.000	0.408	0.784		
Printing, publishing and recorded media	1.602	0.637	3.993	-5.336	2.307	0.000	0.965	1.602		
Petroleum, coal, chemical and associated products	0.934	0.577	4.272	-6.818	2.903	0.000	0.357	0.934		
Non-metallic mineral products	1.102	0.870	2.743	-4.562	2.050	0.000	0.232	1.102		
Metal products	0.869	0.446	4.027	-6.387	2.783	0.000	0.423	0.869		
Motor vehicles and parts	2.615	1.693	7.649	-10.978	4.250	0.000	0.922	2.615		
Other vehicles	2.215	1.371	5.194	-7.458	3.107	0.000	0.843	2.215		
Other machinery and equipment	1.245	0.705	3.848	-5.650	2.342	0.000	0.540	1.245		
Other manufacturing	1.656	1.033	3.590	-5.026	2.059	0.000	0.623	1.656		
Total manufacturing	0.779	0.433	2.988	-4.741	2.099	0.000	0.346	0.779		

a See footnote b table E.5.

#### Table E.7 Decomposition of the effective rate of tariff assistance — Australia, 2001-02<sup>a</sup>

Percentage points

	Tr measure tariff a	aditional of effective ssistance	Decomposition of CER effective rate of tariff assistance										
ANZSIC industry	<sub>Total</sub> b	Excluding assistance to CER sourced inputs	Home country effect $P_D - P_W$	Partner country effect P̂M <sub>P</sub> – PM <sub>W</sub>	Price effect on output side $P_p - P_{D,MFN}$	Price effect on input side	Tariff concession effect on output side $P_{D,MFN} - P_D$	Tariff concession effect on input side $\hat{P}M_{P,MFN}-\hat{P}M_P$	CER total effect <b><sup>C</sup></b>	CER net effect	Total effect		
									[I]=[C-D]+	[J]=[C]+[E]			
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[E-F]+ [G-H]	+ [G]	[A]+[J]		
Food, beverages and tobacco	3.341	2.893	0.096	0.556	-0.006	-0.174	0.000	0.066	-0.358	0.090	3.431		
Textiles, clothing, footwear and leather	19.172	18.923	0.809	0.462	-0.279	-0.292	0.000	0.079	0.281	0.529	19.70		
Wood and paper products	4.357	3.980	0.196	1.347	-0.075	-1.088	0.000	0.119	-0.257	0.121	4.478		
Printing, publishing and recorded media	1.291	1.196	0.022	0.495	-0.006	-0.367	0.000	-0.032	-0.080	0.016	1.308		
Petroleum, coal, chemical and associated													
products	3.379	3.302	0.193	0.294	-0.113	-0.253	0.000	0.036	0.003	0.080	3.459		
Non-metallic mineral products	2.194	2.152	0.089	0.170	-0.058	-0.148	0.000	0.020	-0.011	0.032	2.226		
Metal products	3.410	3.223	0.117	0.360	-0.086	-0.310	0.000	0.137	-0.156	0.031	3.441		
Motor vehicles and parts	10.346	10.251	0.656	0.211	-0.643	-0.191	0.000	0.075	-0.082	0.013	10.36		
Other vehicles	-1.542	-1.704	0.032	0.316	-0.010	-0.255	0.000	0.101	-0.140	0.022	-1.521		
Other machinery and equipment	1.602	1.463	0.167	0.281	-0.116	-0.253	0.000	0.111	-0.088	0.052	1.654		
Other manufacturing	3.472	3.104	0.107	0.989	-0.038	-0.812	0.000	0.191	-0.299	0.069	3.540		
Total manufacturing	3.711	3.490	0.182	0.466	-0.103	-0.320	0.000	0.076	-0.142	0.079	3.789		

<sup>a</sup> In the absence of a time series of scheduled rates for New Zealand, rates for the year 2003 were used to proxy those prevailing in 2001-02, on the basis that few changes were made in scheduled rates over the period. <sup>b</sup> See table C.1. for total effective assistance. Tariff assistance forms part of that assistance to industry. <sup>c</sup> The values may not exactly add to total, due to rounding. The identity in decomposition analysis is maintained through [A]-[B]=[J]-[I].

### Table E.8 Decomposition of the effective rate of tariff assistance — New Zealand, 2001-02<sup>a</sup>

Percentage points

	Traditional effecti assis	measure of ve tariff stance	Decomposition of CER effective rate of tariff assistance									
ANZSIC industry	Total	Excluding assistance to CER sourced inputs	Home country effect $P_D - P_W$	Partner country effect P̂M <sub>p</sub> – PM <sub>w</sub>	Price effect on output side $P_p - P_{D,MFN}$	Price effect on input side <sub>PMD</sub> – <sub>PMPMFN</sub>	Tariff concession effect on output side $P_{D,MFN} - P_D$	Tariff concession effect on input side $\hat{P}M_{P,MFN}-\hat{P}M_P$	CER total effect <b>b</b>	CER net effect	Total effect	
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	(H)	[I]=[C-D]+	[J]=[C]+	[A]+[J]	
Food beverages and tobacco	0 799	0 509	0.219	5 066	0 496	-4 776	0 142	0 000	0 567	0.857	1 656	
Textiles clothing footwear and leather	7 191	7 050	1 692	1 228	-0.062	-1 088	0.142	0.000	2 308	2 448	9.639	
Wood and paper products	1.038	0.691	0.324	3.319	0.312	-2.973	0.041	0.000	0.332	0.678	1.716	
Printing, publishing and recorded media Petroleum, coal, chemical and associated	0.202	-0.251	0.103	1.894	0.109	-1.441	-0.061	0.000	-0.303	0.150	0.352	
products	0.681	0.563	0.330	1.289	0.003	-1.171	0.268	0.000	0.482	0.601	1.281	
Non-metallic mineral products	2.131	2.020	0.030	3.399	0.008	-3.288	0.044	0.000	-0.029	0.082	2.213	
Metal products	0.778	0.536	0.164	2.417	-0.051	-2.175	0.340	0.000	0.211	0.453	1.231	
Motor vehicles and parts	-0.533	-0.766	0.083	1.841	-0.112	-1.609	0.259	0.000	-0.002	0.230	-0.303	
Other vehicles	0.280	0.083	0.116	1.051	-0.156	-0.854	0.190	0.000	-0.047	0.150	0.431	
Other machinery and equipment	0.151	-0.051	0.506	1.382	-0.374	-1.180	0.693	0.000	0.623	0.825	0.977	
Other manufacturing	2.858	2.532	0.724	2.048	-0.129	-1.722	0.305	0.000	0.574	0.900	3.758	
Total manufacturing	1.121	0.874	0.356	2.735	0.107	-2.488	0.263	0.000	0.479	0.726	1.847	

<sup>a</sup> In the absence of a time series of scheduled rates for New Zealand, rates for the year 2003 were used to proxy those prevailing in 2001-02, on the basis that few changes were made in scheduled rates over the period. <sup>b</sup> The values may not exactly add to total, due to rounding. The identity in decomposition analysis is maintained through [A]-[B]=[J]-[I].

## F Scheduled ad valorem tariff rates for New Zealand

A summary of scheduled tariff rates for New Zealand for the year 2000 as reported by Lattimore (2003) and at December 2003 as obtained by the Commission, at Harmonized System (HS) chapter (2-digit) level is provided in this appendix.

## Table F.1Summary of scheduled ad valorem tariff rates in New Zealand

2-digit tariff item

		New Zea De	land tariff scl ecember 200	hedule at 03	New Zealan as rep	New Zealand tariff schedule at 2000 as reported by Lattimore			
HS Chapter	Chapter name	Mean	Max <b>a</b>	Standard Deviation	Mean	Max <b>a</b>	Standard Deviation		
1	Animals; live	0.00	0	0.00	0	0	0		
2	Meat and edible meat offal	2.47	6.5	2.86	1.07	6.5	2.22		
3	Fish and crustaceans	0.36	6.5	1.46	0.08	6.5	0.67		
4	Dairy produce; eggs; honey	1.26	6.5	2.34	1.9	9.5	2.7		
5	Other animal products; nes	0.00	0	0.00	0	0	0		
6	Trees, plants, live; cut flowers	1.00	5	2.07	0.33	5	1.26		
7	Vegetables and certain roots and tubers; edible	1.22	7	2.43	0.87	7	2.18		
8	Fruit and nuts, edible; peel of citrus fruit or melons	0.65	6.5	1.83	0.81	6.5	1.95		
9	Coffee, tea, mate and spices	2.28	6.5	2.64	2.11	6.5	2.61		
10	Cereals	0.00	0	0.00	0	0	0		
11	Milling industry products; malt; starches	3.90	7	2.83	3.65	7	2.85		
12	Oil seeds; miscellaneous grains, seeds and fruit,	0.29	7	1.39	0.09	7	0.79		
13	Lac; gums, resins and other vegetable saps and extracts	0.00	0	0.00	0	0	0		
14	Vegetable products nes	0.00	0	0.00	0	0	0		
15	Animal or vegetable fats and oils	1.32	7	2.53	1.52	7	2.74		
16	Meat, fish or crustaceans	2.30	7	3.04	1.51	7	2.63		
17	Sugars and sugar confectionery	2.00	6.5	2.72	1.03	6.5	2.18		
18	Cocoa and cocoa preparations	2.95	6.5	3.39	4.64	6.5	3.01		
19	Preparations of cereals, flour, starch or milk	6.32	7	1.80	6.73	7	1.15		
20	Preparations of vegetables, fruit, nuts	5.13	7	2.28	4.5	7	2.62		
21	Miscellaneous edible preparations	3.49	7	3.39	4.38	7	3.27		
22	Beverages, spirits and vinegar	1.73	7	2.78	2.17	9	3.12		

		New Zeal De	and tariff scl ecember 200	New Zealand tariff schedule at 2000 as reported by Lattimore			
HS Chapter	Chapter name	Mean	Max <sup>a</sup>	Standard Deviation	Mean	Max <sup>a</sup>	Standard Deviation
23	Food industries, residues; prepared animal fodder	1.84	7	3.04	4.01	7	3.31
24	Tobacco and manufactured tobacco substitutes	0.63	5	1.71	0.23	5	1.07
25	Salt; sulphur; earths, stone; plastering materials, lime and cement	0.09	6.5	0.77	0.07	6.5	0.66
26	Ores, slag and ash	0.00	0	0.00	0	0	0
27	Mineral fuels, mineral oils and products; bituminous	0.73	7	2.09	0.81	7	2.18
28	Inorganic chemicals	0.12	6.5	0.79	0.11	6.5	0.75
29	Organic chemicals	0.07	7	0.70	0.16	7	1.02
30	Pharmaceutical products	0.00	0	0.00	0	0	0
31	Fertilizers	0.00	0	0.00	0	0	0
32	Tanning or dyeing extracts	1.30	7	2.35	2.55	13.5	2.82
33	Essential oils and resinoids; perfumery	2.84	7	3.34	3.79	7	3.32
34	Soap; washing, lubricating, polishing, scouring	4.91	7	3.17	4.91	7	3.09
35	Albuminoidal substances; modified starches; glues; enzymes	2.18	6.5	2.65	2.69	6.5	2.59
36	Explosives; pyrotechnic products; matches; pyrophoric alloys	2.00	7	3.02	1.5	7	2.73
37	Photographic or cinematographic goods	1.08	6.5	2.32	0.77	6.5	1.98
38	Chemical products nes	0.94	7	2.25	1.07	7	2.32
39	Plastics and articles thereof	4.37	19	3.80	5.05	19	3.49
40	Rubber and articles thereof	4.35	17.5	4.18	5.17	17.5	6
41	Raw hides and skins (other than fur skins) and leather	1.71	7	3.00	0.98	7	2.42
42	Articles of leather; saddlery and harness; travel goods	6.03	17.5	4.89	6.4	17.5	3.85
43	Fur skins and artificial fur; manufactures thereof	3.67	7	3.06	4.65	7	2.72

		New Zeal De	and tariff scl ecember 200	nedule at 03	New Zealand tariff schedule at 2000 as reported by Lattimore			
HS Chapter	Chapter name	Mean	Max <sup>a</sup>	Standard Deviation	Mean	Max <sup>a</sup>	Standard Deviation	
44	Wood and articles of wood; wood charcoal	3.07	7	3.13	3.43	7	3.27	
45	Cork and articles of cork	1.50	7	2.98	0.96	6.5	2.45	
46	Manufactures of straw, esparto or other plaiting materials	1.86	6.5	3.17	2.36	6.5	3.28	
47	Pulp of wood ; waste and scrap of paper	0.00	0	0.00	0	0	0	
48	Paper and paperboard; articles of pulp, paper or paperboard	0.00	0	0.00	6.26	7	1.73	
49	Printed books, newspapers, pictures	0.00	0	0.00	2.14	7	3.24	
50	Silk	0.00	0	0.00	0	0	0	
51	Wool, animal hair; horsehair yarn and woven fabric	3.84	12.5	5.17	3.89	12.5	5.08	
52	Cotton	0.00	0	0.00	0	0	0	
53	Vegetable textile fibres; paper yarn and fabrics of paper yarn	0.00	0	0.00	0	0	0	
54	Man-made filaments	2.62	12.5	4.89	1.81	12.5	4.24	
55	Man-made staple fibres	1.86	12.5	3.38	0.88	12.5	2.49	
56	Wadding, felt and non-wovens; twine, cordage, ropes and cables	5.05	12.5	4.36	5.91	12.5	4.15	
57	Carpets and other textile floor coverings	15.74	17.5	4.37	16.07	17.5	3.49	
58	Fabrics; special woven fabrics, tufted textile fabrics, lace, tapestries,	3.22	12.5	4.83	3.02	12.5	4.52	
59	Textile fabrics; impregnated, coated, covered or laminated	2.13	7.5	3.23	2.79	7.5	3.4	
60	Fabrics; knitted or crocheted	6.58	12.5	6.02	7.12	12.5	5.97	
61	Apparel and clothing accessories; knitted or crocheted	17.67	19	4.29	17.41	19	4.47	
62	Apparel and clothing accessories; not knitted or crocheted	17.90	19	4.08	17.85	19	4.07	
63	Textiles, made up articles; sets; worn clothing and worn textile articles; rags	6.35	12.5	4.74	5.58	12.5	4.62	
64	Footwear; gaiters and the like; parts of such articles	11.60	19	8.59	13.9	19	7.01	
65	Headgear and parts thereof	10.50	17	8.25	13.2	17	7.02	

	- Chapter name	New Zealand tariff schedule at December 2003			New Zealand tariff schedule at 2000 as reported by Lattimore		
HS Chapter		Mean	Max <b>a</b>	Standard Deviation	Mean	Max <sup>a</sup>	Standard Deviation
66	Umbrellas, sun umbrellas, walking-sticks, seat sticks, whips, riding crops	3.22	7.5	3.83	3.22	7.5	3.83
67	Feathers and down, prepared; and articles of feather or of down	4.38	7	3.62	4.38	7	3.62
68	Stone, plaster, cement, asbestos, mica or similar materials	3.40	7	3.12	3.6	10	3.19
69	Ceramic products	5.21	7.5	2.80	6.1	7.5	2.15
70	Glass and glassware	2.71	17.5	4.17	1.67	17.5	3.5
71	Natural or cultured pearls, precious, semi-precious stones, precious metals,	1.64	7	2.98	1.57	7	2.93
72	Iron and steel	2.39	6.5	2.61	3.28	6.5	2.78
73	Iron or steel articles	4.55	17.5	3.62	5.16	17.5	3.19
74	Copper and articles thereof	3.04	17.5	3.70	2.89	17.5	3.56
75	Nickel and articles thereof	0.00	0	0.00	0	0	0
76	Aluminium and articles thereof	4.73	7	3.19	5.27	7	2.83
78	Lead and articles thereof	2.14	7	3.03	2	7	2.97
79	Zinc and articles thereof	0.70	7	2.21	1	7	2.54
80	Tin; articles thereof	0.63	5	1.77	0.45	5	1.51
81	Metals; n.e.s., cermets and articles thereof	0.00	0	0.00	0	0	0
82	Tools, implements, cutlery, spoons and forks, of base metal	3.57	7	3.38	3.37	7	3.41
83	Metal; miscellaneous products of base metal	4.77	10	3.17	5.31	10	2.89
84	Nuclear reactors, boilers, machinery and mechanical appliances	3.91	10	3.47	4.33	10	3.57
85	Electrical machinery and equipment; sound recorders	3.63	17.5	3.65	3.59	17.5	3.73
86	Railway, tramway locomotives, rolling stock, parts thereof; railway	4.50	7	3.42	4.5	7	3.42
87	Vehicles; other than railway or tramway rolling stock, and parts and	6.20	17.5	6.14	5.79	17.5	6.37
88	Aircraft, spacecraft and parts thereof	0.00	0	0.00	0	0	0

		New Zealand tariff schedule at December 2003			New Zealand tariff schedule at 2000 as reported by Lattimore		
HS Chapter	Chapter name	Mean	Max <sup>a</sup>	Standard Deviation	Mean	Max <b>a</b>	Standard Deviation
89	Ships, boats and floating structures	4.09	7.5	3.23	4.4	7.5	3.14
90	Optical, photographic, cinematographic, measuring, checking, medical etc	1.46	7	2.73	1.32	7	2.6
91	Clocks and watches and parts thereof	0.13	7	0.95	0.08	7	0.76
92	Musical instruments; parts and accessories of such articles	0.00	0	0.00	0	0	0
93	Arms and ammunition; parts and accessories thereof	2.64	7	3.36	2.13	7	3.19
94	Furniture; bedding, mattresses, mattress supports, cushions etc	6.46	17.5	2.84	7.31	17.5	2.88
95	Toys, games and sports requisites; parts and accessories thereof	5.25	7.5	3.06	5.98	7.5	2.48
96	Miscellaneous manufactured articles	4.25	7.5	3.34	4.45	7.5	3.31
97	Works of art; collectors' pieces and antiques	0.00	0	0.00	0	0	0
98	New Zealand miscellaneous provisions	0.00	0	0.00	0	0	0
	Unweighted average	2.87		1.79	3.09		1.67
	Correlation coefficients						
	Mean	0.968					
	Maximum	0.973					
	Standard deviation	0.949					

<sup>a</sup> Some maximum rates differ between the two schedules examined. These instances are shown in bold type.

Sources: New Zealand Customs Service (2003) and Lattimore (2003).

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