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**Working Paper**

## Māori in the trading world: Conventional & emerging opportunities

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# **Māori in the trading world**

## **Conventional & emerging opportunities**

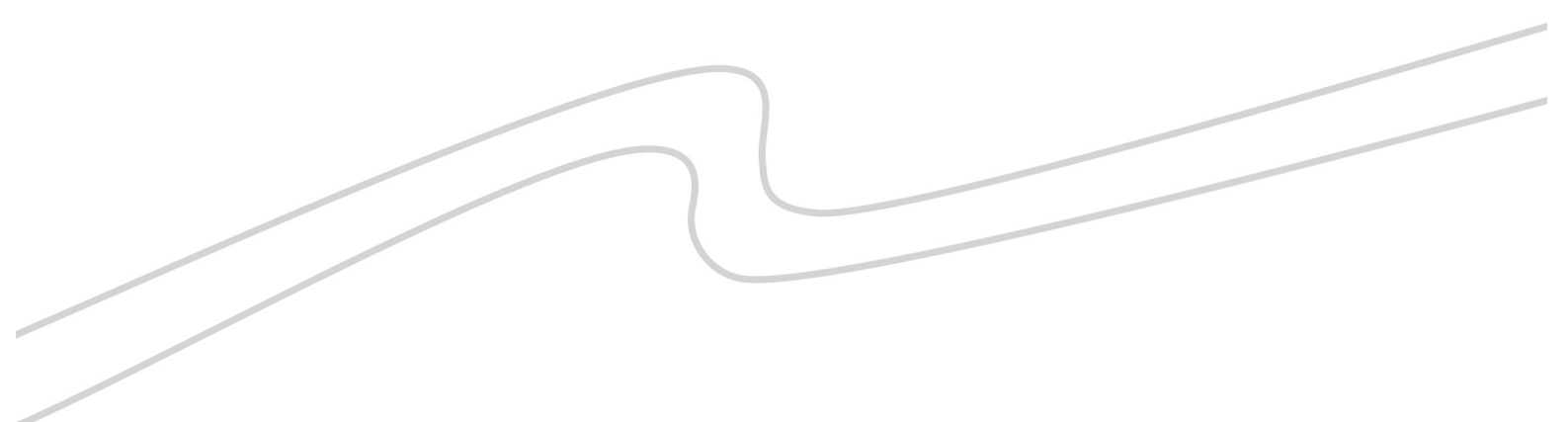
NZ Trade Consortium working paper no 42

December 2005

**The New Zealand Trade Consortium**

**in association with the**

**New Zealand Institute of Economic Research (Inc)**





## **Preface**

NZIER is a specialist consulting firm that uses applied economic research and analysis to provide a wide range of strategic advice to clients in the public and private sectors, throughout New Zealand and Australia, and further afield.

NZIER is also known for its long-established *Quarterly Survey of Business Opinion* and *Quarterly Predictions*.

Our aim is to be the premier centre of applied economic research in New Zealand. We pride ourselves on our reputation for independence and delivering quality analysis in the right form, and at the right time, for our clients. We ensure quality through teamwork on individual projects, critical review at internal seminars, and by peer review at various stages through a project by a senior staff member otherwise not involved in the project.

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## **Authorship**

This report has been prepared at NZIER by Chris Nixon and Rebecca Schrage and reviewed by Jean-Pierre de Raad. The assistance of Sarah Spring is gratefully acknowledged.

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# 1. Introduction

This chapter examines New Zealand's participation in export trade:

- section 2 explores why international trade is important and sets out some key concepts and issues
- section 3 examines trends in world trade, to help understand the context in which New Zealand trade is occurring
- section 4 examines New Zealand's recent export performance
- section 5 examines the prospects for key industries and sectors and the links with Māori business activities.

## 2. Why is international trade important

In this section we explore why international trade is important for a small country, how we can assess our trade performance, and some of the issues faced by a small country that is geographically removed from large markets.

### 2.1 Benefits from trade

#### 2.1.1 Growth opportunities

If we start from the proposition that, over time, our spending must equal our income, then it is clear that, without international trade, the income of New Zealand businesses is limited by domestic spending. International trade removes this limit. Business income is then constrained only by world spending. Hence, exporting allows organisations to 'de-couple' their revenue growth and product possibilities from the domestic market.

Table 1 illustrates this story. It compares recent export growth performance with recent growth of the economy as a whole (Gross Domestic Product). The New Zealand economic performance over the past five years, fuelled by exports, demonstrates how an economy connected to international markets may be unshackled from the domestic market. Of course, exports are also sensitive to downturns in international demand.



**Table 1: New Zealand's recent economic growth**

Average annual percent change

March year	Economic growth <sup>1</sup>	Export growth (volumes)	Export growth (values)
2000	6.4	7.3	10.3
2001	0.4	5.1	22.8
2002	4.9	2.4	5.6
2003	4.2	7.6	-3.7
2004	3.4	1.0	-4.5
2005(e)	4.5	4.1	8.4
Average <sup>2</sup>	3.7	4.5	5.4

Notes: (1) Measure of economic growth in expenditure on GDP.

(2) 10 year average (including 2005 estimate)

Source: Statistics NZ &amp; NZIER forecasts

### 2.1.2 Spreading risk

This comparison of export trade and overall economic growth also suggests that international trade is a way for firms to diversify their revenue risks. However, those engaged in the export market are also exposed to a whole set of others risks and issues, such as exchange rate volatility, distance from markets, and different legal systems and business cultures which can raise the risks of transactions (e.g., by making it more complicated and costly to make and maintain business connections or to pursue debts).

### 2.1.3 Benefiting from doing what we do best

International trade also raises our economic wealth, by allowing New Zealand (and foreign) businesses to do what they do best, and then trading their products.

An important insight, thanks in particular to David Ricardo, is that trade does not depend on a country being cheapest at producing a good or service (that is, have an absolute cost advantage). For international trade to occur, what matters is that a country is relatively better at producing one good than another, compared to the trading partner (that is, have a relative cost advantage). This is what is referred to as comparative advantage.

This concept is best explained by a simple example. Imagine two countries each producing wool and computers. Country One takes one labour day to produce a bale of wool, and one day to assemble a PC. By contrast, Country Two takes 2 days to produce a bale of wool and 3 days to assemble a PC. Country One has an absolute cost advantage in producing any of the goods.

However, both countries can be better off by specialising and trading. Why is this so?

Country Two is relatively good at producing bales of wool: it would cost it 4 PCs to produce 6 bales of wool. For Country One the cost of producing 6 bales of wool would be 6 PCs. For both the opportunity cost of producing 6 PCs is 6 bales of wool. This means that the two countries can benefit from trade, because Country One is willing to pay up to 6 PCs for a 6 bales of wool, whereas it costs Country Two only 4 PCs to produce these 6 bales. Through specialising in what each is relatively good at, and then trading with each other, both countries can be better off: they can both increase their total consumption of goods and services, given their current endowments. This simple scenario can be extended to a world economy-wide story.

As we will see later, New Zealand, for example, has a comparative advantage in producing grass, which is converted into meat, milk, and other animal by-products. The vast majority of that produce is exported to countries that have a comparative advantage in other products, e.g. China has a comparative advantage in labour intensive industries, such as manufacturing, textiles, and labour intensive agriculture. Both New Zealand and China can gain from trade by specialising in their respective areas of comparative advantage. This highly stylised example is the essence of why we want to be involved in trade.

In short, this story explains why economies specialise and why developed economies have directly increased their level of consumption (effectively their real incomes) by about four times in the last eight decades (Hoekman and Kostecki, 1997 p21). In summary, trade is *not* a zero sum game in welfare terms, because:

- it brings about the reallocation of resources within an economy into areas where that economy has a comparative advantage
- the more efficient use of resources generates higher incomes, and increases access to a wider range of goods and services from other countries. As one commentator put it: imports are the prize of trade, not the cost.

In fact, the more exports produced by one country or region, in a free trading environment, the more that country imports.

#### **2.1.4 Assessing trade performance**

To assess trade performance, we look at the three areas identified above:

- we examine New Zealand's areas of comparative advantage, and how those are changing over time. Using world trade data, we can also classify these sectors in terms of whether or not they are fast or slowing growing, as one pointer to future potential

- we will also introduce a measure of export concentration, to assess the extent to which New Zealand exports are diversified (in products or markets). This is complemented by an alternative measure of the competitiveness of New Zealand exports over time
- we use this analysis to take a closer look at the prospects for some of the key export industries.

## **2.2 Issues for New Zealand**

New Zealand is both a small player on international markets, and is geographically far away from its markets. This presents a number of hurdles to overcome:

- The small size of the economy. Small changes in the world economy can have major impacts on the New Zealand economy. Examples include commodity cycles, policy changes in crucial importing countries, and sudden unexpected events. The response to these economic cycles and shocks has been diversification by region and exported products and services.
- Distance from world markets. New Zealand is a long way from world markets, which not only creates logistical problems and other costs of accessing markets (despite major falls in transport and communication costs), but also makes it more difficult to be in touch with the trends in various markets. When we had one exchange rate and one market, and knew the preferences of that market distance was not a major issue. However, now, with many different markets, volatile exchange rates and many different preferences it is a more difficult trading environment.
- The importance of scale in production and marketing in world markets. As the world becomes more interconnected the economic advantages of scale are becoming more apparent. Scale is difficult to achieve for companies in small countries because of the limited size of the domestic market, therefore the hurdles to achieve scale are much greater than for companies in larger countries.

### 3. World trade trends

#### 3.1 International context

To understand the potential for trade by New Zealand based entities we must first understand the world trade environment. This means looking at the world demand and world trade:

- the broad trends in the growth in world income
- the major trades and the nations involved
- the trends in world trade.

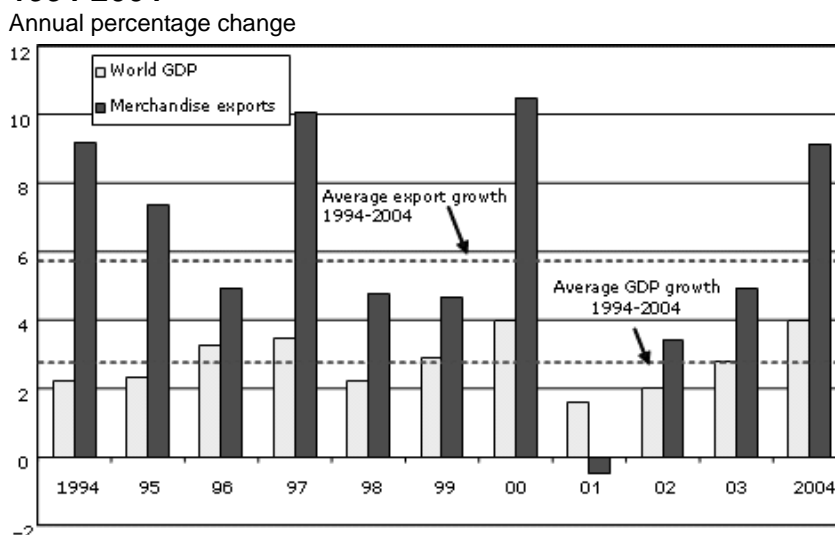
Note that any view of the international context will be partially backward looking. Having said that, understanding past trends can shed light on future developments.

#### 3.2 Growth in world trade

Since the 1950s, real world GDP has grown at an average of 4 percent annually. Over the same period world trade in goods and services has grown at more than double this rate.<sup>1</sup>

Figure 1 compares the growth in world exports with world GDP. Apart from 2001, export growth has consistently out-performed GDP growth.

**Figure 1: World export growth and world GDP growth 1994-2004**



Source: WTO, press release 401, April 14<sup>th</sup> 2005

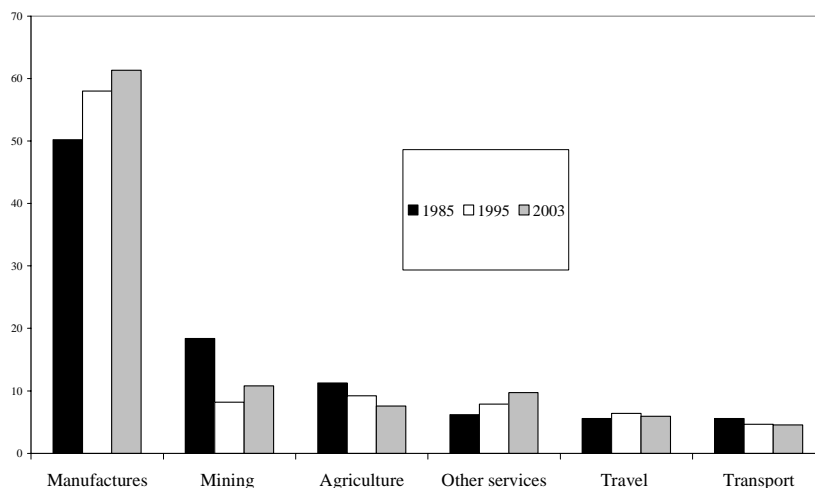
<sup>1</sup> The volume of trade grew from one tenth of world GDP in 1950 to close to one third of world GDP in 2004 (Mussa, 2000 and WTO, 2005 ).

While world trade is growing rapidly relative to world GDP growth, it is important to understand where that growth is coming from. Figure 2 shows that by far the biggest component in world trade is in manufactures. Not only is trade in manufactured goods large – well over 50% – but its share is still growing. Trade in Other Services is also growing while trade in agriculture is declining.

It is interesting to note that world trade in manufactures and services has relatively few trade barriers (average tariff for manufactures is roughly 4%-5%) while agricultural trade faces high tariff barriers (average tariff barriers of 40%- 50%). This has major impact in growth in these sectors and factored into a view of the future. While the trade barriers in agriculture are only coming down very slowly, the integration of China into world markets is having a major impact on agricultural trade. Therefore, the outlook for world agricultural trade as barriers are slowly dismantled and China and (perhaps) India are integrated may be brighter than Figure 2 suggests.

**Figure 2: Shares in world trade 1985, 1995, & 2003**

Percent



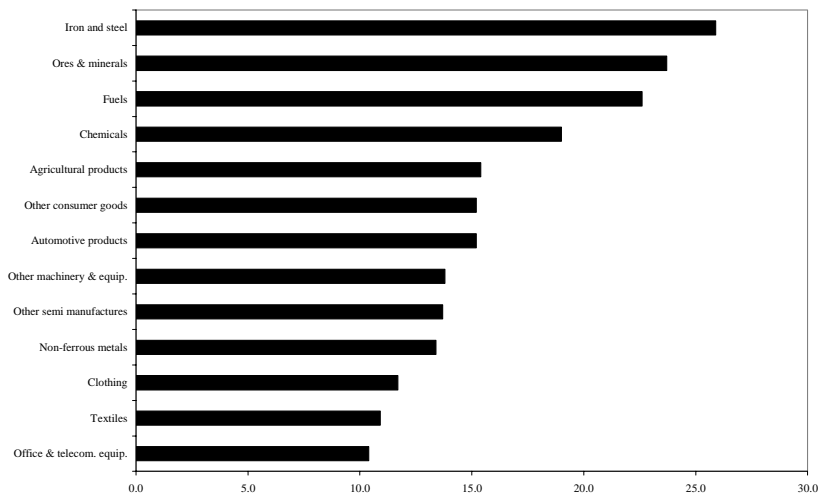
Source: WTO, International Trade Statistics 2004.

### 3.3 Major trades

The major trade flows are between three different regions: Asia, North America, and European Union. These trades are go from east to west and west to east and account for approximately 85% of world trade.

Figure 3 shows the breakdown of major merchandise trades for 2003. The major trades are still dominated by commodities: iron and steel, minerals, fuels and chemicals. These trades have been helped by advances in technology which have precipitated a dramatic decline in the costs of transport and communications.

**Figure 3: Shares of world merchandise trade**  
Year 2003



Source: WTO

### 3.4 World trade prospects

World trade prospects over the next ten years are dominated by the integration of the Chinese economy into world markets and the recovery of the US economy – still the engine of world growth. We also expect some freeing up of world trade with the “successful” conclusion of the Doha Development Round.

In the short term, the world economy is expected to slow somewhat as commodity prices and oil prices continue at very high levels. However, in the medium term the gradual pick up in the world economy is expected as commodity prices fall (as new suppliers enter the market) and US economy grows robustly. We also expect the Chinese economy to continue growing strongly.

#### 3.4.1 Improved outlook for agricultural commodities

For New Zealand the important feature of these forecasts is the introduction of China on to world markets and particularly its impact on world agricultural commodity prices. Despite agriculture being a small part of world trade and having a declining share, New Zealand has a comparative advantage in producing these products.

According to the International Food Policy Research Institute (IFPRI) world food demand will grow substantially over the next fifteen years (2.8% per annum to 2020). This growth will come mainly from Asia, as India and China become more integrated into the world economy. However, prices for agricultural products will not grow in real terms (see Table 2). This is

because developing countries, in particular China, will increase supply and improve domestic productivity of those commodities.

The exception is fish prices, which are expected to rise more dramatically than other commodities (see Table 2). Production, driven by fish farming, is expected to increase by 1.5% per annum which is not enough to offset increasing demand. Demand, particularly from developing countries, will drive prices up further.

While the projections for bulk agricultural products are slightly negative, this is a major change from what has happened over the past twenty years (e.g. real dairy payouts have dropped nearly 30% in the last twenty years). The slight drop in meat and milk prices is expected to be negated by increases in productivity – given past performance, volume increases in those products will easily make up and surpass any price reductions “on average”.

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**Table 2: Forecast commodity prices**

Forecasts to 2020

Commodity	Forecast % change in real prices from 1997- 2020
Maize	+1
Beef	-3
Pork	-3
Poultry	-3
Milk	-8
Fish	+16

Source: Source: IFPRI forecasts in Delgado (2002)

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### 3.4.2 Growth of services trade

Another aspect of world trade that has undergone major changes in the past 20 years has been the world services trade. New Zealand has a major interest in services, particularly the “new services” trades of tourism and education.

World services trade has increased more than 400% in the last twenty years, compared with growth in merchandise trade of less than 300%. Over this time, services have become an increasingly important component of economies throughout the world, and particularly in developed countries as their economies de-industrialise.

Technology has also assisted the services trade. Advances in information and communications technologies (see section 3.3) have facilitated cross-border trade in services which was not previously possible. Furthermore, efficiency gains in transportation have led to greater movement of people

across borders to consume and provide services. Indications are that the strong growth in services trade will continue for many years to come.

Developed countries dominate world services trade, producing more than 75% of world services exports in 2003. The predominance of developed countries in services trade reflects the fact that many services are knowledge based and require high levels of human capital, such as professional services, telecommunications services, and computer and related services – a source of comparative advantage. It also reflects the fact that developing countries have higher barriers to trade than developed countries (generally speaking). As a consequence, developing country service providers are not as internationally competitive as developed country exporters (Nielson and Taglioni, 2004).

Despite the predominance of developed countries in world services trade, developing countries are keeping pace. Developing countries more than doubled the value of their services exports between 1990 and 2003. Even least developed countries enjoyed substantial growth in services exports, increasing their exports of services by 102% between 1990 and 2003, against a 110% increase for developed countries (see Table 3).

**Table 3: World services exports by development status**

Billions of US dollars <sup>(1)</sup>

	1980	1990	1995	2000	2001	2002	2003
Developed countries	310	668	930	1143	1147	1228	1409
Developing countries	74	154	289	358	360	371	407
LDCs	3	4	6	7	7	8	8
World	391	830	1240	1528	1538	1635	1860.4

Notes: (1) Based on IMF balance of payments data

Source: UNCTAD Handbook of Statistics, 2003

### 3.4.3 Other factors

Two other trends in world trade also need to be further understood, since they have helped fuel world trade growth. These are:

- Intra company trade. Some fast-growing areas of world trade have almost completely by-passed New Zealand. The most striking instance is intra-company trade, which has grown significantly since the 1980s, contributing strongly to overall growth in world trade. This form of trade occurs when one firm operates within two or more countries and conducts cross border trade between its subsidiaries. Intra-company trade is estimated to account for one third of total global trade (WTO, 1996),



with the majority occurring between US and Japanese parent companies and their subsidiaries in other countries.

- New products. New products are an important part of international trade. Therefore, how companies generate ideas and see them through to market is a core competence. For New Zealand entities, over the long run, the challenge is to develop the institutional structure within a firm that rewards those that generates new products and/or services. A culture within a firm that rewards the generation of ideas that can be converted into profitability through new products and services is more likely to be “an engine” of sustainable growth over time.

## 4. New Zealand's export performance

This section:

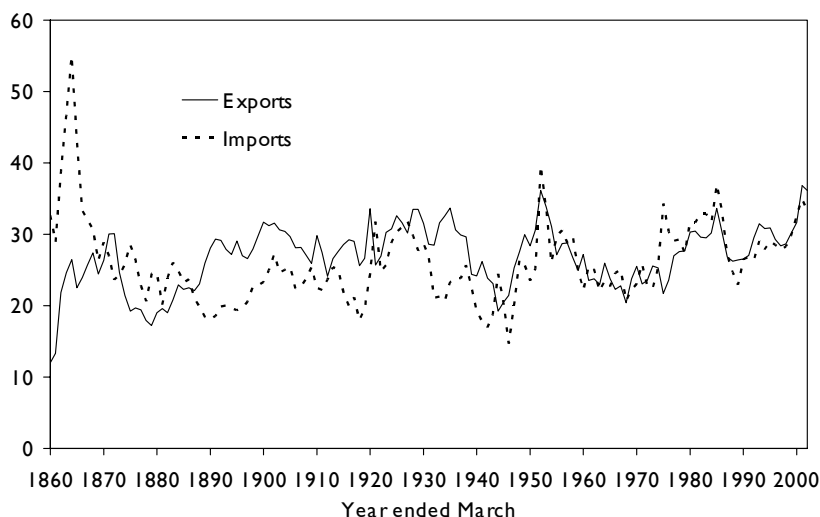
- examines New Zealand recent export performance
- explains New Zealand's export performance, looking at:
  - evidence of comparative advantage, and, based on trade performance
  - evidence of diversification and competitiveness of New Zealand exports over time
- examines services trade
- discusses New Zealand's export prospects.

### 4.1 New Zealand recent export performance

Figure 4 shows New Zealand's historic trade performance. The most recent history indicates that, as a percentage of GDP, exports and imports during the 1980s and 1990s were at lot lower level than they were in 2000. Since 2000, export and import growth has been considerably stronger (see Table 4), on the back of continued demand for commodities and services.

**Figure 4: Exports and imports**

Percent of GDP



Source: Briggs (2004) p60

The growth in the export sector in the last five years has contributed much to New Zealand's recent economic growth rates. (see Table 4). These GDP growth figures are significant because they are much stronger than rates of growth of the 1980s and 1990s.

**Table 4: New Zealand's recent economic growth**

Average annual percent change

March year	Economic growth <sup>1</sup>	Export growth (volumes)	Export growth (values)
2000	6.4	7.3	10.3
2001	0.4	5.1	22.8
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Average <sup>2</sup>	3.7	4.5	5.4

Notes: (1) Measure of economic growth in expenditure on GDP.

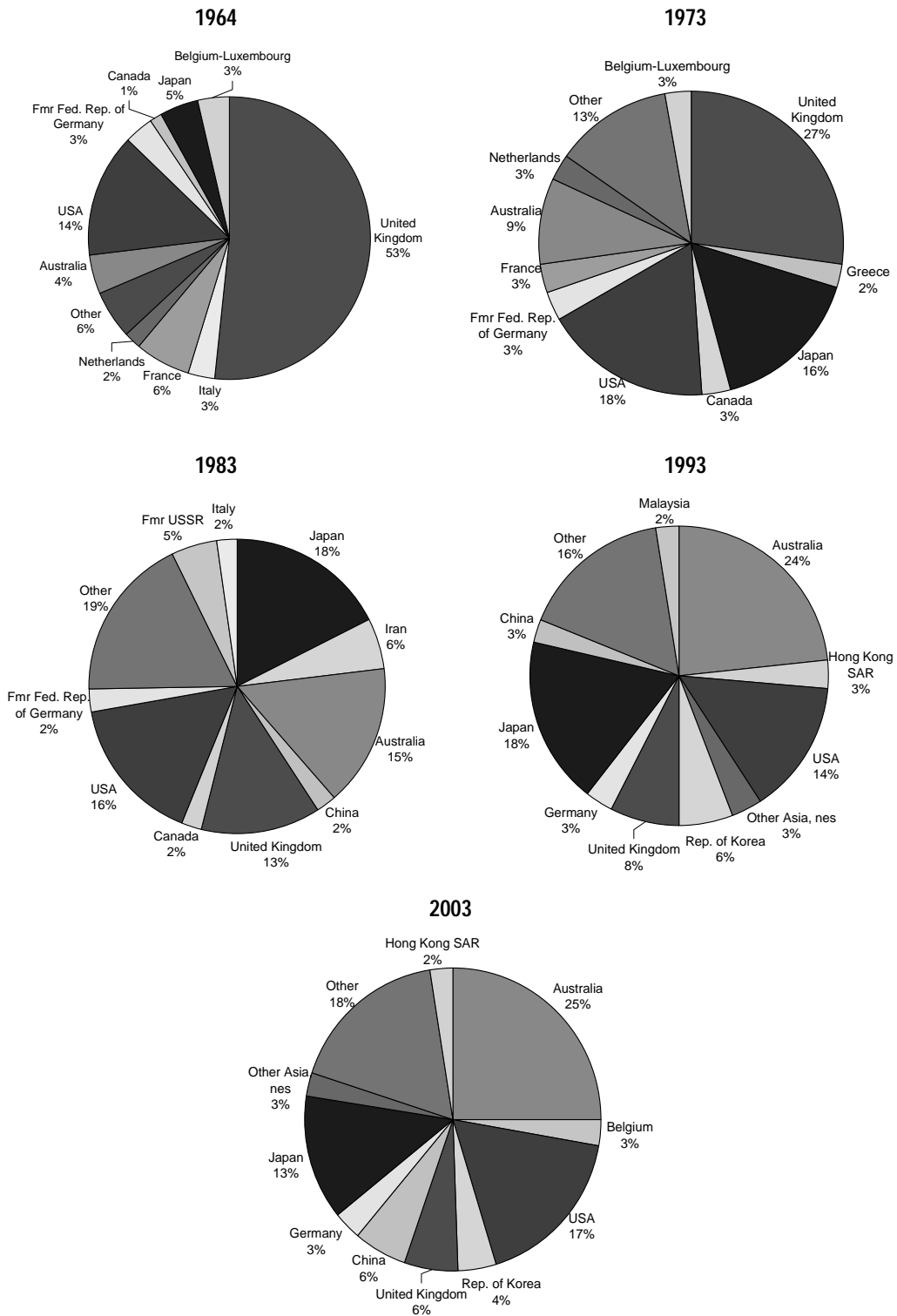
(2) 10 year average (including 2005 estimate)

Source: Statistics NZ &amp; NZIER forecasts

Figure 5 illustrates the large diversification of New Zealand's export markets during the period 1964 to 2003. The United Kingdom accounted for more than 50 percent of New Zealand's exports in 1964. However, this share has fallen every decade since and made up only six percent in 2003. The share of exports sent to the United States remained relatively static over the period surveyed, while there has been marked growth in trade with Australia – increasing from four percent in 1964 to become New Zealand's biggest market in 2003, accounting for 25 percent of exports.

There has also been a shift away from traditional European export markets towards Asian markets. In 1964, exports to Asian markets among New Zealand's top twenty export destinations accounted for 5.7 percent of exports. This included just three Asian nations and was dominated by the Japanese market with a 5 percent share. In 2003, Asian countries in the top twenty made up 31 percent of New Zealand's exports and this share was spread among at least ten Asian countries although Japan still dominated this group, accounting for a 13 percent share. In contrast, European markets in the top twenty excluding Britain took a 20 percent share of New Zealand's exports in 1964, however by 2003 this had fallen to 8 percent.

**Figure 5: New Zealand's top twenty export partners 1964-2003**  
 Percent of total value of commodity exports



Notes: (1) The export shares of the top ten countries are shown while 'other' indicates the export shares of the remainder of the top twenty destinations.

Source: NZIER

New Zealand's top twenty export markets for the year ending 2004 are shown in Table 5. Ten of these destinations are Asian countries, while six are European. Our biggest trading partner by a large margin is Australia. New Zealand thus has a relatively diverse range of export partners (signalling that we are traders with the world). However, our trade connections are dominated by the top three export destinations which account for more than half of New Zealand's exports to the top twenty destinations.

**Table 5: New Zealand's top twenty export destinations**

NZ\$ 000 year to June 2004

Country	Exports (fob)
Australia	5,737,530
United States of America	4,212,937
Japan	3,270,836
China	1,580,293
United Kingdom	1,412,188
Republic of Korea	1,108,319
Germany	694,855
Taiwan	658,372
Belgium	634,389
Hong Kong (SAR)	541,106
Malaysia	526,375
Philippines	476,744
Canada	471,200
Italy	450,310
Mexico	433,150
Indonesia	368,003
France	354,217
Thailand	342,377
Singapore	307,257
Netherlands	295,757

Source: Statistics New Zealand

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### 4.1.1 Export composition

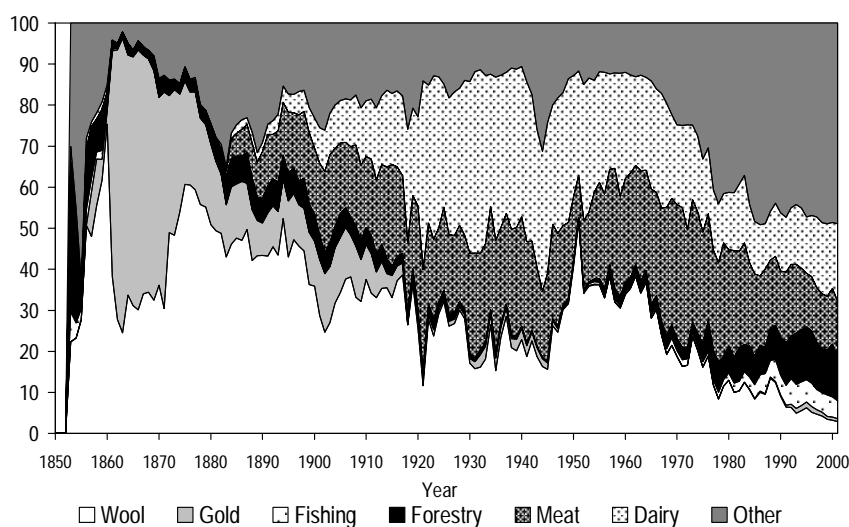
Figure 6 shows a long run view of exports by commodity type. Looking forward, the most important aspects of Figure 6 are:

- the growth in ‘other’ exports (‘other’ includes horticulture and manufactured exports)
- the resurgence of dairy and the growth in fishing and forestry exports.

Despite the growth of manufacturing exports, the primary industries still represent over half of all goods exported.

**Figure 6: Goods exports by type of commodity**

Percent of total



Source: Briggs (2004) p61

## 4.2 Explaining New Zealand's export performance

### 4.2.1 Evidence of comparative advantage

Earlier in the chapter we explained the importance of comparative advantage in setting up the conditions for mutually beneficial trade between countries. A question is thus what New Zealand's areas of comparative advantage are.

Comparative advantage is difficult to measure directly, but we can use a proxy measure called Revealed Comparative Advantage (RCA). To find the sectors that have a comparative advantage we rely on the following building blocks:

- the concept of comparative advantage tells us that a country would allocate its resources (land, labour, energy, capital, etc.) to those sectors in which it produces efficiently, and uses the income to import goods that it produces less efficiently

- the sectors that are exporting are assumed to have a comparative advantage in world trade
- the RCA is defined as occurring if New Zealand's share of world exports in that sector exceeds a certain benchmark. In this case, an appropriate benchmark is New Zealand's total exports as a percentage of total world exports (Porter (1990) and Crocombe et al (1991)).

Using world trade data we can show, for each commodity, the RCA index or score for the period 1990 to 2003. Furthermore, as a quick indication of how well New Zealand has fared in each sector, we calculated the compound annual growth rate for both New Zealand and world exports. If New Zealand's compound growth rate has been higher than the growth in the total market, it is gaining market share (see Ballingall (2004)). Together these indicators will serve to show:

- in which areas New Zealand's share of world trade is high, thereby identifying areas of revealed comparative advantage (RCA) in each selected year.
- how New Zealand's comparative advantage patterns have changed over time.
- the fast growing sub-sectors that may contribute strongly to New Zealand's export – and thus GDP – growth in the future.

#### **a) Data**

The data used in this study comes from a United Nations data base called COMTRADE.<sup>2</sup> We have updated the work in Ballingall 2004 to include 2003 COMTRADE data. This data included:

- New Zealand's exports to the world for 1990 and 2003
- World exports to the world (total market size)

The selection of years was primarily determined by data availability. In the database, calculating total market size (world exports to the world) requires the aggregation of the exports of all reporting countries.<sup>3</sup> For the commodity classification chosen, 1990 was the first year that covered an appropriate number of reporting countries.

New Zealand's exports to the world are measured in nominal \$US. The data is therefore not adjusted for exchange rate fluctuations or price movements.

Note also that the COMTRADE data base does not include trade in services. Therefore, the fast growing tourism and education services export trade are not included. We have addressed this gap by having a separate section on the development of the New Zealand services sector.

---

<sup>2</sup> Standard International Trade Classification Revision 1 (SITC Rev 1) from the United Nations COMTRADE data base.

<sup>3</sup> That is, it is not possible to choose 'world' as the reporter.

## **b) Results**

New Zealand has a revealed comparative advantage in the production of around 125 commodities in each year studied. By looking at the growth rates of New Zealand's exports and world market growth, we can split the 125-odd commodities into 4 broad categories:

- Area 1, star performers. These commodities gained market share in fast growing world markets<sup>4</sup>
- Area 2, potential stars. These are commodities in fast growing world markets, but has not yet gained market share
- Area 3, fading stars. These are slow growing sectors, in which New Zealand is losing market share
- Area 4, cash cows. These are slow growing sectors, in which New Zealand is gaining market share.

This process was followed for the time period 1990-2003. We could have broken the time periods down into smaller time blocks (e.g. 1990-1996 and 1996-2003) however, we have avoided this since most of the products that have an RCA are agricultural products. These sectors are characterised by:

- being long term businesses that are subject to commodity cycles and while switching does occur, farmers do not make decisions based on one or two years returns
- long term investments and the need for specialised labour
- the conservative nature of farmers
- the importance of the land for Māori and their unwillingness for cultural reasons to sell land.

The results were then presented in a scatter plot (Figure 7), comparing world growth and New Zealand export growth for all sectors that New Zealand has a revealed comparative advantage (RCA). Each scatter point in Figure 7 represents a commodity export from New Zealand mapped against New Zealand and world economic growth. Any scatter point to the right of the vertical line representing 'Average world growth' is a fast-growing world market. The diagonal line shows all the points where world market growth is the same as New Zealand export growth. Any point above that line indicates that New Zealand is gaining market share.

## **c) Discussion**

The most important conclusion from Ballingall (2004) and our update is that New Zealand's comparative advantage in merchandise trade is firmly fixed in land based and fishing industries. Specifically these are:

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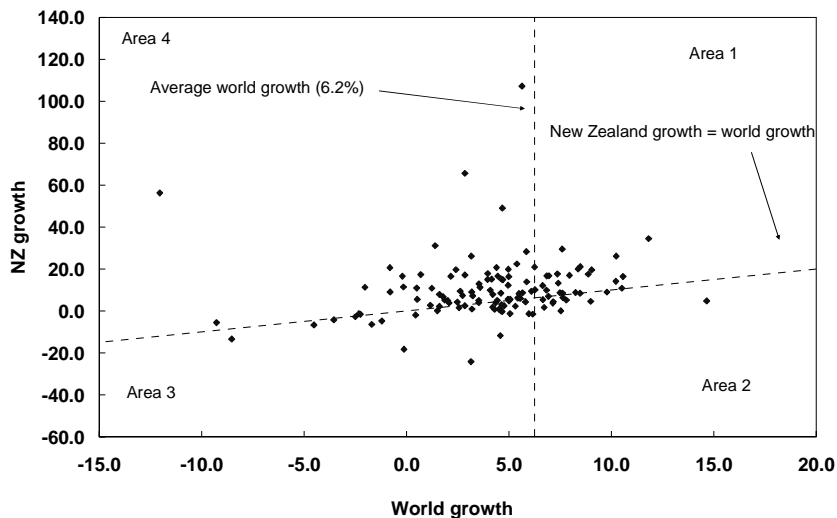
<sup>4</sup> By fast growing world markets we mean sectors that are growing faster than average world growth.



- star performers – animal based products, wood products, specialised fabrics, wine, and other products (represents approximately 10% of those products with an RCA by value)
- potential stars – building products, animal by-products, cereal products, and specialised manufactured products (represents approximately 13% of those products with an RCA by value).
- Fading stars – animal by products, fruit and vegetables, iron and steel products, and other basic manufactures (represents approximately 21% of those products with an RCA by value).
- Cash cows – butter, sheepmeat and beef, logs and lumber, cheese, wool, newsprint, milk and cream in solid form, veneer sheets, boxes and crates, and basic non-transformed metal products (this represents approximately 56% of those products with an RCA by value).

**Figure 7: Overview of the RCA for New Zealand exports 1990-2003**

Compound annual growth



Source: Comtrade, NZIER

Most of the products that New Zealand has a RCA and is gaining market share are the slow growing world markets (cash cows). Most of the staple New Zealand exports are in this category: dairy, wood, and meat. Stars and potential stars are by-products from animals, building products, or specialised niche manufacturing.

#### 4.2.2 Evidence of diversification and competitiveness

In previous sections we have shown how New Zealand export markets and commodities markets have become diversified. In this section we investigate:

- the extent of that diversification in countries and commodities. This reinforces the graphs, statistics, and supporting evidence presented above

- how that diversification of markets and commodities impacts on competitiveness. Theory suggests that there should be an adverse impact on competitiveness, however this does not appear to be the case.

### **a) Approach**

The first indicator is the adapted Herfindahl index (Nees & Nixon (2005)). The Herfindahl index is a framework used by competition authorities when evaluating possible mergers to examine the size of firms in relationship to the rest of an industry and to indicate the amount of competition between them (Maunder, 1991).<sup>5</sup>

The same method can be applied to New Zealand's trade data since 1964 to determine changes in the patterns of export concentration in both commodities and countries in our top twenty markets. The adapted Herfindahl index shows the concentration of commodities among New Zealand's exports by comparing the value of exports in each commodity group to New Zealand's major export partners to the value of New Zealand's total exports. The aim is to examine the rate at which New Zealand has diversified its export markets and the composition of these exports since 1964 and allow us to gain a greater understanding about why New Zealand's export patterns behaved as they have over time. We use the same Comtrade data as used for the RCA.

The second indicator looks at the change in returns from exports, using as a proxy the value of New Zealand's commodity exports for a particular year over the value of New Zealand's GDP for the same year (nominal values). This is relevant because Portfolio Theory would suggest that as diversification took place, the competitiveness of New Zealand's exports would decline (Markowitz 1952): risk averse investors would hold low risk, high quality assets while investors more tolerant of risk would hold lower quality assets with higher expected returns (Chambers & Lacey 1994). This proxy measure of returns can be seen as an index of competitiveness.

### **Results and discussion**

The adapted Herfindahl index in Figure 8 explains the pattern of diversification over the last 40 years (and particularly over the period 1964-1984), New Zealand reduced its concentration of exports among major markets and to a lesser extent in commodity types.

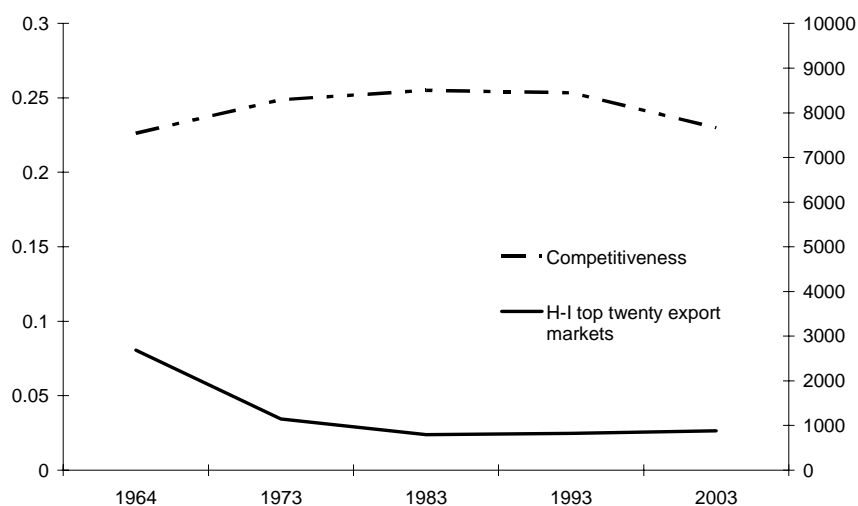
Portfolio theory has been adapted to illustrate the competitiveness of New Zealand's exports between 1964 and 2003. It shows the remarkable

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<sup>5</sup> It is a powerful tool because it provides a way of determining how concentrated a particular market is in terms of the size and market power of each firm. The index is a figure between 0 and 10,000 where zero illustrates that no firm dominates the market (i.e. perfect competition) and 10,000 shows one firm entirely dominates the market (i.e. a monopoly). We can classify market concentration into three broad categories; Herfindahl indices below 1000 show low concentration, indices between 1000 and 1800 are considered to be moderately concentrated while indices above 1800 are said to be concentrated (Wikipedia, 2004).

persistence through out the latter part of the 20<sup>th</sup> Century of commodity production, which still makes up a large proportion of New Zealand's export receipts. This is despite the dramatic changes in the world trading environment since the 1960s.<sup>6</sup> This is firmly reinforced by the results from Ballingall (2004) described above.

**Figure 8: Competitiveness & concentration of exports among New Zealand's top twenty export markets**



Notes: (1) Left hand axis: competitiveness (nominal exports/GDP)  
 (2) Right hand axis: adapted Herfindahl Index (H-I)

Source: NZIER

Whereas New Zealand's exports were once highly concentrated in food exports sent to the British market, New Zealand now spreads its exports more evenly over its top twenty markets. Essentially, this means that the risk associated with New Zealand exports has declined over time because exports are more evenly spread over the top twenty markets. In Figure 8 this is signalled by the solid black declining and then remaining static over time.

As noted above, Portfolio Theory would suggest that, as this diversification took place, the competitiveness of New Zealand's exports would decline. The competitiveness index (based on the value of New Zealand's commodity exports over the value of New Zealand's GDP) as indicated by the dotted line in Figure 8, shows no strong trend as it increases slowly between 1964 and 1983 and then falls back to almost the 1964 level by 2003. It moves within the small range of 0.03. By this measure, the data suggests New Zealand's competitiveness or export returns has not changed significantly over the period surveyed. This is in contrast to what might be

<sup>6</sup> Note that this analysis examines goods trade only, therefore the fast growing sectors of education exports and tourism are left out.

expected under portfolio theory (all else constant) and despite falling world agricultural prices and New Zealand's continuing reliance on commodity exports.

This result is at odds with the perception that we are not making the most of our comparative advantage. Commentators have suggested adding more value to our agricultural products or developing a knowledge economy. This analysis suggests that commodity exports may not be as bad as they have been painted. New Zealand has continued to maintain its supply side comparative advantage in the production of agricultural commodities with its relatively abundant and fertile land resource and a climate suited to crop and pasture growth.

### 4.3 Growth in New Zealand services trade

The data described thus far by and large excludes services. This section completes the export picture by examining services.

Services dominate the New Zealand economy, contributing roughly two-thirds of economic activity to GDP in 2003. Other important points to note about the services sector are:

- the services sector generates substantial foreign exchange receipts – around \$11 billion in 2003 (over a quarter of New Zealand's export earnings)
- around 83% of the female labour force and 58% of the male labour force are employed in the services sector. Service producers were responsible for over 1.3 million jobs in New Zealand
- services industries are growing rapidly. Between 1991 and 2003, services sector GDP averaged growth of 3.3% per annum. This compares favourably to the primary sector (2.9%), the manufacturing sector (1.9%) and the construction and utilities sector (2.0%)
- New Zealand's exports of services are growing strongly. Since 1991, the value of New Zealand's services exports has grown by an average of 8.1% per year. Goods exports have grown at a steady 5.5% on average over the same period.

The stronger growth of services exports, in part, reflects that, relative to New Zealand's exports of traditional primary products, demand for services in the global economy is growing rapidly. A large proportion of New Zealand's traditional exports of agricultural products are sold in relatively slow growing markets (Ballingall and Lattimore (2004), Ballingall and Briggs (2002), Ballingall (2004)). This means that future demand growth is likely to be limited.<sup>7</sup> Any significant growth is likely to stem from either new markets for existing products, the introduction of new products into existing markets, or productivity gains. Services exports falls into all of these categories – established services providers are entering new markets,

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<sup>7</sup> Although growth in the Chinese and Indian market may mean that opportunities for commodities are brighter than this may suggest (see Table 2).

relatively new service providers are attempting to crack existing markets with new or differentiated services, and in both cases all are attempting to provide services more efficiently.

Unlike many other developed countries, New Zealand's services export profile is dominated by tourism (see Table 6). In the 2003 calendar year, international travellers contributed \$6.4 billion to the New Zealand economy (Tourism Research Council, 2004). The contribution of tourism to New Zealand's economy has been growing in recent years and is forecast to continue to grow strongly.

Tourism services exported by New Zealand are consumed in New Zealand and, consequently, the majority of barriers to trade are on shore and in New Zealand's case they are fairly small. However, multilateral liberalisation in services trade which lowered the cost of transportation services (particularly air transport services) would likely result in a one-off level increase in tourism exports, though it is difficult to say what the magnitude of such an increase might be, and we would expect little in the way of long run benefits from productivity gains arising from resource reallocation.

Most of the growth in tourism is coming from Australia (increased capacity and cheaper airfares) and China (as incomes increase). While the tourist growth from Australia has its limits, further increases in Chinese tourists are expected as their economy continues to grow.

Education, New Zealand's second largest export, is like tourism in so far as the bulk of the barriers to trade are onshore. Trade in education is already contributing a significant amount to the New Zealand economy, with non-residents in New Zealand consuming a little over a billion dollars of education services in the year to September 2003. However, there are doubts about the sustainability of education exports as student numbers are starting to decline because of increased competition and improving education quality domestically in Asia.

Major export markets for New Zealand services exports vary by the type of export. In education, Asia is the major market, while in tourism Australia is the largest. For other services, Australia is slightly behind the US and the EU and Asia seems to be a small part of the market.

**Table 6 Shares of services export trade by sector**March year, Percent of total services exports <sup>(1)</sup>

	1995	2004
Transport, travel, and education	85.4	82.4
Finance and Insurance	0.4	1.0
Computer and Information	0.8	1.5
Merchant services	0.7	2.2
Personal, cultural, and recreational	0.7	1.1
<i>Miscellaneous and other business services:</i>		
Communication <sup>(2)</sup>		2.7
Construction <sup>(2)</sup>		0.4
Legal, accounting, management consultancy and PR	1.0	2.2
Advertising, market research	0.4	0.3
Research and Development	0.4	0.5
Architectural, engineering and other technical services	1.2	1.3
Agricultural, mining and on-site processing services	< 0.1	< 0.1
Other miscellaneous services <sup>(2)</sup>	4.3	1.5
Total miscellaneous and other business services	7.0	6.9

Notes: (1) Data available by sector for earlier years is not comparable with recent data.

(2) In 1995 miscellaneous included communications &amp; construction.

Source: Statistics New Zealand, Infometrics

As a country with fairly well developed linkages with other developed countries, New Zealand has important comparative advantages in services exporting. New Zealand firms can offer services at relatively low prices compared with many other providers of services in developed countries. In this respect, our service exporters are like developing country exporters, with the exception that the low cost of our services extends primarily to higher skill services.

#### 4.4 Prospects for export growth

From first principles, forecasting trade should be a relatively straightforward exercise. Trade growth is directly linked to the growth in GDP and incomes in New Zealand's trading partners. Unfortunately, this simple framework of forecasting trade growth does not by itself give general insights into what we see at the "trade coalface". The lessons from the New Zealand

experience suggest that small imperceptible changes in the world trading system have major impacts on New Zealand trade. These changes may or may not be significantly influenced by GDP/income growth in our trading partners markets. In fact, even the direction of the changes may be completely different from what would have normally been expected given GDP and income growth in our trade partners.

What is required to understand the direction of growth is careful sector-by-sector analysis to assess the potential for overall all trade. For example, the growth in tourism numbers has come from mainly Australia and China. Growth in GDP/incomes does explain the surge in Chinese tourist numbers, however it has been the increased competition across the Tasman by airlines (in the form of declining airfares and increased capacity) that has increased tourist numbers from Australia.

As the example suggests, and despite heavy qualifications, trading partner growth in GDP and incomes do provide a useful backdrop to partially understanding the determinants of New Zealand's trade growth.

The first stage in formulating a view on New Zealand's trade growth is to set out our view of trading partner growth and other market specific factors. We have divided the main trading partners (see Table 7) into various blocks over the next ten years.

**Table 7: Trading partner growth prospects**

Economic growth, Percent

	2002	2003	2004	2005-2015 <sup>1</sup>
United States	2.2	3.1	4.4	3.5
Japan	-0.5	2.5	2.9	1.5
Euro-zone	0.9	0.4	1.8	1.8
United Kingdom	1.6	2.2	2.9	2.2
Australia	4.0	3.3	3.2	3.5
China	8.2	9.3	9.4	7.5
South Korea	7.0	3.1	4.6	4.3
Hong Kong	1.9	3.2	7.9	4.4
Taiwan	3.9	3.3	5.9	4.0
Indonesia	4.3	4.5	4.9	5.0
Malaysia	4.1	5.3	7.1	5.6
Singapore	2.2	1.1	8.1	4.2
Thailand	5.3	6.9	6.1	6.0
Philippines	5.5	4.9	5.9	4.1
<b>Overall</b>	<b>2.8</b>	<b>3.0</b>	<b>4.0</b>	<b>3.2</b>

Note: (1) Average growth rates.

Source: NZIER

#### 4.4.1 Australia

The Australian economy has been one of the star performers in the OECD over the past five years and we expect this to continue. Growth rates are expected to continue at over 3% for the next ten years (see Table 7). Growth has been strong because of a vibrant domestic economy and a commodity price boom. This means that Australia will continue to be an important destination for New Zealand products.

New Zealand and Australia currently enjoy one of the most open and liberal trading partnerships in the world as a result of CER. This has resulted in strong growth in exports across all New Zealand export sectors. Other factors that underline Australia's position as New Zealand's number one trade partner are geographical and cultural proximity, the similar heritage, society, and market structures. Therefore, firms are able to produce for both countries largely without having to alter their products to suit different tastes and preferences. This makes Australia a good place to test products,



logistics, and other company systems that support trade before going further a field.

#### **4.4.2 United States**

The US economy will be relatively robust as it emerges from a period of low economic growth. We are expecting average growth rates of roughly 3%-4% per annum (see Table 7). This growth is underpinned by stronger domestic demand and a highly competitive export sector, which currently enjoys a comparatively low US dollar.

With this strong growth in the US economy we expect New Zealand traders to be able to take advantage of export opportunities. Since the end of the Second World War, the US has consistently absorbed a 10-15 percent share of New Zealand's export market. It has also been one of New Zealand's top three export destinations throughout this period. The US market is important because not only is it a major export destination, it also acts as a catalyst for growth in most of New Zealand's other trading partners.

#### **4.4.3 Asia**

We expect growth from China to be one of the major engines in world growth and to drive growth in other Asian nations. The one exception is Japan, where we expect growth to remain flat since it still has not come to grips with its internal economic problems. Furthermore, Table 7 partially reflects the changing trade patterns over time, as Asian economies have developed and incomes have grown. Now, half of New Zealand's top twenty export destinations are in Asia.

New Zealand has a long history of exporting to Asia and with continued strong economic growth expected, the future looks bright for agricultural commodities, services, and niche manufacturing products. At present and the foreseeable future, the trade is dominated by agricultural commodities.

#### **4.4.4 Euro zone**

European economies are performing poorly, and without major changes in policies designed to stimulate growth, they are expected to continue to under perform with growth rates between 1%-3% per annum over the next ten years.

While trade shares with the UK have dramatically declined over the past fifty years, trade shares with the rest of Europe have remain constant as comparatively new products such as kiwifruit, new apple varieties, and venison have stimulated trade. Despite poor economic performance, the EU remains a major market for agricultural commodities.

#### **4.4.5 Overall**

Trading partner growth rates are expected to approximately average a healthy 3.2% over the next ten years (see Table 7). Furthermore, New Zealand is in a good position to capitalise on further growth in Asia, Australia, and the US and reform of the world trading system through the multilateral system.

## 5. The Māori economic base

The next step is to examine the economic prospects of the sectors where Māori have a major stake, with a view to examine the match between likely sector performance and where Māori hold assets.

Unfortunately, we have not been able to divide up the asset base between the various sectors, at present we do not have that level of detail. What we do have are numbers of business units, total sales by Māori businesses, and Māori ownership of assets split between the sectors.

In Table 8 we show the proportion of:

- Māori owned business units per sector relative to total Māori owned business units
- total sales per sector relative to total Māori sales from Māori owned businesses.

In agriculture, forestry, fishing, and manufacturing while the numbers of businesses are less than the services sector the proportion of total sales per business is higher. This suggests that the scale of agricultural, forestry, fishing, and manufacturing Māori businesses is greater than those Māori businesses involved in the service industry.

**Table 8: Share of Māori business/sales per sector as a proportion of total Māori business/sales**

Percent

	Māori business per sector as a proportion of total Māori business units	Total sales by Māori business units as a proportion of total Māori business unit sales.
<b>Agriculture, forestry, &amp; fishing</b>	14.7	32.3
<b>Manufacturing</b>	2.9	6.5
<b>Services</b>		
Finance, insurance, property, & business services	24.6	23.6
Other services	57.8	37.7

Notes: (1) Adjusted for the Māori asset base.  
 (2) Year ending February 2005.  
 (3) Figures do not exactly sum because of rounding errors.

Source: Statistics NZ & NZIER

How does this fit within the New Zealand context? Table 9 shows that as a proportion of total New Zealand businesses per sector, Māori businesses are still quite a small share of the total. However, it does reinforce the points made above that the scale of Māori owned agricultural and fisheries businesses are relatively large.

**Table 9: Share of Māori business/sales per sector as a proportion of total NZ business/sales per sector**

Percent

	Māori business per sector as a proportion of total NZ business per sector.	Total sales by Māori business units as a proportion of total NZ business unit sales per sector.
<b>Agriculture, forestry, &amp; fishing</b>	0.6	4.03
<b>Manufacturing</b>	0.4	0.44
<b>Services</b>		
Finance, insurance, property, & business services	0.6	0.82
Other services	1.1	0.58

Notes: (1) Adjusted for the Māori asset base.  
(2) Year ending February 2005.

Source: Statistics NZ & NZIER

The next section examines the prospects for the various merchandise and services trades that Māori are involved with and summaries the forecasts. Note that we have not attempted to examine the manufacturing sector since Māori are not heavily exposed to it.

## 5.1 Meat

Beef and sheepmeat have enjoyed relatively strong value growth over the past five years – this is despite a strongly appreciating currency. Part of the reason has been due to outbreaks of BSE in the US and foot and mouth disease in the UK. Not only has this improve prices in those countries it has also improved prices in third countries. This is particularly so in Japan because US beef has only just been allowed back on to the Japanese market. Over the next five years, we expect that world prices will come down substantial as the UK and US rebuild stock numbers. However, this will be mitigated in New Zealand by a depreciating exchange (see Table 10).

Further out, the price of beef and sheepmeat are likely to exhibit some volatility but remain at current real price levels (see Table 2) as China and India integrate into world markets.

**Table 10: Forecasts for the meat sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	7.9	8.2	2952
1999	-8.9	-2.7	2872
2000	1.7	13.2	3252
2001	5.4	20.8	3929
2002	-0.1	14.4	4494
2003	4.1	-4.0	4316
2004	8.2	-0.8	4281
2005	-2.9	4.9	4489
2006	-2.0	-1.1	4438
2007	1.3	3.0	4571
2008	1.6	4.0	4752
2009	1.7	3.5	4916

Source: Statistics NZ &amp; NZIER

For the period 1990-2003, New Zealand does have a comparative advantage in producing beef and sheepmeat and is gaining market share, however, the markets which consume these products are slow growing. In the terminology of the Ballingall (2004) these commodities are “cash cows”. Part of the reason for this has been the general “settling down” of commodity markets which constrains, to a certain extent, the EU (as part of their Uruguay Round commitments) from exporting more subsidised beef.

Māori have extensive holdings in sheep and beef farming. Furthermore, the holdings are relatively large scale (see Table 8 and Table 9). With relatively good prospects our recommendation is to hold assets in this business (see Table 16).

## 5.2 Dairy

World prices for dairy products are at the peak of their cycle. This has led to favourable dairy returns despite price volatility and a high exchange rate (see Table 11). Over the next five years we expect strong growth in dairy exports as a decline world prices in prices is offset by strong demand in new markets such as China and a depreciating New Zealand dollar.

**Table 11: Forecasts for the Dairy export sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	10.5	8.5	4294
1999	3.2	13.0	4854
2000	1.7	-4.3	4644
2001	3.2	34.2	6230
2002	6.0	18.6	7386
2003	20.8	-20.5	5875
2004	2.8	-2.7	5717
2005	-1.0	13.7	6503
2006	4.0	2.9	6694
2007	3.7	4.3	6981
2008	3.0	6.8	7457
2009	3.0	6.7	7953

Source: Statistics NZ &amp; NZIER

In the medium to long term, dairy exports will benefit from the introduction of China and India on to world markets (see Table 2). The younger generation in China have acquired a taste for western foods including milk based products while India is a major consumer of milk.<sup>8</sup> Prices are forecast to drop slightly in real terms, however, productivity improvements will more than compensate for price declines.

New Zealand does have a comparative advantage in producing dairy products (between 1990-2001). In products such as cheese, butter, and powder products New Zealand dairy products are gaining market share in a slow growing world market, therefore they are cash cows. New Zealand is gaining market share at the expense of the European Union, who are bound by the Uruguay Round GATT Agreement to restrict export subsidy payments.

Not only does the dairy industry have a strong comparative advantage in bulk dairy commodities, the versatility of milk allows it to leverage into a multitude of products e.g. Ballingall (2004) shows that fresh milk and cream dairy products are “star performers” i.e. areas where world markets are fast growing but New Zealand has not gained market share.

<sup>8</sup> India produces 9% of the world’s milk for internal consumption.

Relative to other land based activities, Māori have less exposure to dairy farming. The reason is mainly historical, Māori were forcible removed from the flat and undulating land that are ideal for dairying. It is only recently with the Waitangi Tribunal ruling in Taranaki on leasehold land and other settlements have Māori had the opportunity to enter dairy farming to a significant extent.

Dairy farming is one industry where Māori could potentially diversify into (see Table 16). The medium to long term forecasts for dairy farming are positive and there are opportunities not only to supply to the major cooperative Fonterra but investigate other alternatives.

### **5.3 Fishing**

The seafood industry, over the past few years, has been put under pressure from the strong New Zealand dollar and lower world fish prices. However, we expect in the next five years that seafood values will improve moderately as the New Zealand dollar depreciates (see Table 12). Furthermore, the price expectations for fish over the longer term are positive (see Table 2).

However, performance in the fishing industry since 1990 has been only modest. According to Ballingall (2004) and our update, for the period 1990 – 2003 fish products fall into two categories: fading stars (fresh, chilled or frozen) and cash cows (fish in airtight containers and oils of fish and marine mammals). This reflects that up until now, world markets are growing only slowly. For the bulk of seafood products, New Zealand fishers are also losing market share (fading stars) in world markets. However, New Zealand is gaining market share in some niche areas (cash cows).

This backward looking analysis needs to be tempered with outlook for seafood products where we expect to see moderate growth in the short term (see Table 12) and long term (see Table 2), particularly for quota driven catches. Furthermore, world fish resources are dwindling, therefore a fishery that is sustainable over the long run has the potential to be profitable.

**Table 12: Forecasts for the seafood sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	0.7	-0.7	1121
1999	0.2	11.0	1244
2000	-9.6	4.0	1294
2001	-5.3	13.0	1462
2002	8.0	3.1	1507
2003	9.5	-6.6	1408
2004	-4.4	-17.6	1160
2005	-0.9	-0.9	1149
2006	-2.3	1.9	1171
2007	0.8	5.2	1232
2008	0.9	4.9	1292
2009	1.0	3.9	1343

Source: Statistics NZ &amp; NZIER

The seafood sector is important since Māori-owned companies control just under 40% of the catch. Māori are also well placed to capitalise on the growth in fisheries and aquaculture industries. Other positive reasons for being involved in the fishing industry include:

- Māori have a long history in the fishing industry and have a good understanding of how the industry operates. Focus on core business fundamentals can be a powerful competitive advantage.
- Māori have been able to achieve scale in the fishing industry which is becoming a major competitive factor in world trade. This has been done by joint ventures (either by combining quota with other parties, or entering into marketing arrangements with other fishing companies) or by Act of Parliament.
- Capability to operate, grow, and develop the fishing ventures e.g. Ngai Tahu Seafood have deliberately set out to build an efficient institution that will compete strongly in world markets.

Despite fishing being a fading star in RCA analysis, we see a positive future for the fishing industry. Dwindling world fish stocks and moderate growth in demand will have a positive impact on price (see Table 2). Therefore, in Table 16 we recommend holding or increasing fishing assets.



## 5.4 Horticulture

The horticultural sector is a major export success story for New Zealand. It has grown from almost nothing in 1980 to a major export industry in 2005. It is one of the major reasons for the growth in other exports in Figure 6.

In Table 13, we have used the food & beverages sector as a proxy for horticulture. While the other food & beverages sector contains more than just horticultural products, horticulture makes up approximately two thirds of the sector (kiwifruit, apples, and wine make-up over a third of the sector while other fresh fruit and vegetables, processed fresh fruit and vegetables, flowers, and seeds make-up another third of the sector). The forecasts for this sector are for continued strong growth in volume and value, despite the emergence of China as a competitive threat.

**Table 13: Forecasts for the other food & beverages sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	7.1	3.3	2163
1999	1.2	12.7	2437
2000	4.6	6.5	2595
2001	13.5	26.9	3292
2002	5.6	5.9	3485
2003	-0.7	-0.7	3462
2004	7.1	6.0	3668
2005	10.8	5.2	3857
2006	5.1	7.5	4145
2007	6.8	11.1	4605
2008	5.2	9.3	5035
2009	5.1	7.8	5429

Source: Statistics NZ & NZIER

However, according to Ballingall (2004) and our update, while we have a comparative advantage over the 1990-2003 period, horticultural products are either fit into the fading stars (fruit, vegetables, and seeds) category or cash cows (wine). World growth in this sector has been slow and some areas we have been losing market share (fruit, vegetables, and seeds) and other gaining (wine).

The Ballingall (2004) analysis and our update looks almost exclusively at the 1990s. This was a depressed time for horticulture as kiwifruit and apples came under increased pressure not only from Southern Hemisphere suppliers but also subsidised fruit production in Europe. Over the past five years, horticultural entities have responded to the challenge of depressed markets by introducing new products, diversifying their product range, and rationalising their industries. This means that there is significant optimism for the future for the horticultural industry.

A number of Māori enterprises have already taken up the challenge to produce value added products based on horticultural industries. For example:

- Tohu wines, formed as a limited liability company in 1998, is one of the fastest growing wine companies in New Zealand.<sup>9</sup> The focus of Tohu wines is on exporting wine to the eastern seaboard of the United States.
- The Wakatu Incorporation has diversified into horticulture. Using a company structure it has developed from a straight forward land owning company into an international marketing company.

Māori have the potential to do well in horticulture since New Zealand produces high quality and a variety of products depending on the region. However, the outlook for the sector is mixed. Our recommendation is either to hold or reduce exposure to horticultural assets.

## 5.5 Forestry

After strong price increases in the 2000/01 March years forestry values have remain weak because of poor international prices. Over the next five years it is expected to improve strongly on the back of improved international prices and a depreciating exchange rate (see Table 14).

The long term outlook for forestry is relatively weak because of the abundance of logs world wide and the tariff structures which limit the ability to add value to forestry products. Furthermore, even when tariffs are removed we expect that processors will want to locate close to the market so that they can transform bulky raw materials into specific products for individual markets. By being closer to the market the processor can also better understand and take advantage of market trends.

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<sup>9</sup> Tohu Wines is owned by three Māori-owned organisations, the Ngāti Rarua Atiawa Iwi Trust (Motueka), Wakatu Incorporation (Nelson-Marlborough), and Wi Pere Trust (Gisborne).

**Table 14: Forecasts for the wood & wood products sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	3.4	1.6	2381
1999	-0.4	-1.0	2356
2000	13.5	25.4	2955
2001	5.1	23.1	3639
2002	7.1	-2.7	3540
2003	8.3	3.3	3656
2004	-5.0	-15.8	3078
2005	-0.8	4.2	3206
2006	10.6	13.3	3631
2007	6.0	8.3	3934
2008	6.6	9.6	4313
2009	6.7	8.7	4690

Source: Statistics NZ &amp; NZIER

Māori involvement in forestry is significant making up nearly 25% of all workers in the forestry sector. With an increase in wood supply, jobs and opportunities to develop niche products in forestry for Māori will continue to expand strongly. Roughly 10% of New Zealand's commercial forestry sector is grown on Māori land. Furthermore, Māori control large amounts of uncommitted land in many North Island areas that is suitable for forestry.

Ballingall (2004) and our update shows that between 1990 and 2003 most of the wood and wood products sector fitted into the cash cow sector i.e. they are gaining market share in a slow growth market. This has occurred because of strong volume growth<sup>10</sup> and price spikes in the early 1990s and 2000s.

Our recommendation is to hold or decrease forestry assets, since the ability to add value or turn wood into other products is limited by tariff configurations and world trends in processing near the market. Furthermore, there is uncertainty about world demand, since world supply is increasing.

<sup>10</sup> Which is expected to continue as more forests come on stream for harvesting.

### 5.5.1 Tourism

The number of tourists has increased dramatically over the past five years. Boosted by cut priced fares and increased capacity on the trans-Tasman route and economic growth in China, tourist numbers have doubled since 1999. This growth is expected to continue as the New Zealand dollar depreciates, the Chinese economy continues to grow, and world economic growth picks up (see Table 15).

**Table 15: Forecasts for the tourism sector**

Percent, Dollar million.

	Volume (%)	Value (%)	Value (\$M)
1998	-9.7	-8.8	3306
1999	12.9	14.9	3797
2000	15.4	19.4	4533
2001	8.4	12.0	5078
2002	12.9	16.8	5929
2003	10.8	12.4	6664
2004	2.4	3.8	6920
2005	11.2	13.4	7847
2006	8.0	10.4	8661
2007	9.6	11.6	9665
2008	9.4	11.5	10774
2009	9.5	11.7	12034

Source: Statistics NZ & NZIER

Longer term, it is expected that the tourism market in New Zealand will grow strongly providing that it remains price competitive with other destinations. For Māori this is significant for three reasons:

- This is one export industry which has the potential to grow between 3%-8% per annum on average for the next twenty years, and
- Since tourists crave the uniqueness of different cultural experiences, Māori have a unique place in the tourism sector that can not be replicated by others.
- Tourism is a way of diversifying iwi investment portfolios into new products. Ngai Tahu's investment in Pipeline Bungy and Shotover jet are examples of this.

Tourism is also closely linked with creative industries. Cultural tourism occurs when domestic and overseas visitors engage in experiences that are

unique to New Zealand. Māori have a prominent role in cultural tourism because they offer authentic and indigenous cultural experiences. Examples include: Māori arts and crafts, architecture and design (e.g. Tamaki Māori village and Treaty House Waitangi), unique insight into New Zealand's flora and fauna (e.g. Whalewatch Kaikoura) and many other experiences that are unique to New Zealand (see creative industries below).

Our recommendation is that Māori entities increase their exposure to tourism assets.

## 5.6 Other areas

### 5.6.1 Intellectual Property

Māori interest in intellectual property issues stems from importance of native flora and fauna in Māori cultural. As with tourism, intellectual property is closely linked with creative industries (see below). In a globalised world the focus of Māori is to ensure that:

- the adverse effects that intellectual property rights can have on traditional knowledge, cultural property, and biological resources.
- Māori have the ability to obtain or use intellectual property rights to enable them to protect or commercially exploit their traditional knowledge, cultural property, and biological resources.

This is the basis of the Wai 262 claim, in which six iwi have taken a case to the Waitangi Tribunal, asserting that the Crown have failed in its responsibilities to Māori and breached Article 2 of the Treaty of Waitangi.

What does economics have to say about the relationship between economic growth and the growth in the use of intellectual property? Unfortunately the message is mixed and wholly reliant on the economic circumstances of the region and nature of the intellectual property. Without careful case-by-case analysis it is difficult to determine whether an economy will benefit or not benefit.

One of the few empirical studies done (Gould and Gruben, 1996) suggests that there are no strong links between economic growth and patent strength and other intellectual property variables. However, there was a positive link between those countries that have relatively open trading arrangements, economic growth, and patent strength.

A further complication is that countries such as New Zealand, although relatively open, are not as exposed to relatively strong competitive forces because of their geographical isolation. This means that determining, *a priori*, whether giving stronger protection to intellectual property will benefit New Zealand is undetermined and requires careful analysis on a case-by-case basis.

Note that Māori may have other social and cultural reasons for wanting to safeguard intellectual property rights, and these reasons for securing those rights may be of overriding importance for Māori.

### 5.6.2 Creative Industries

Cultural identity is what makes Māori a distinct part of New Zealand. In a recent survey of Māori arts participation (Creative NZ, 2000) 45% of Māori take part in one or more Māori arts activities.

Therefore it is not surprising that a lot of Māori economic activity has some component of Māori culture involved in the final product or service. Unfortunately this also makes it difficult to measure since it cuts across all industries e.g. Creative industries are an integral part of entrepreneurship, the tourism businesses, and the development of intellectual property protection (see above).

## 5.7 Summary

Table 16 shows our summary of areas where Māori assets are most likely to show the best return. These are broad areas, and care should be taken on how to interpret the table, since fast growing firms can be located in any sector of the economy.

Table 16 is intended as a guide to understanding some of the demand and supply side factors that confront various industries and assumes no radical changes in information. Our views are particularly sensitive to the last assumption since small changes in the international trading environment have big impacts on New Zealand. Therefore, while we have deliberately taken a number of different sources of information to come to our conclusions, *a conservative approach to realigning assets should be taken.*

The sources, while already quoted in this chapter, are worth repeating to underline their differing assumptions and aims:

- the backward looking RCA (Ballingall and our update – 1990 to 2003). The RCA's particular focus is on New Zealand's past export performance
- the forward looking IFPRI forecasts to 2020. These forecasts are focused on the entry of new big players to world markets and their potential impact
- the forward looking NZIER quarterly predictions to 2009. Its focus is on the short to medium term
- other world supply, demand, and trends that we know about from various markets.

**Table 16: Summary of merchandise and services trade prospects**

	RCA	IFPRI	QP	Other views	NZIER view
<b>Meat</b>	Cash cow	Stable real prices	Moderate growth	Sheep meat has the most potential	Hold assets
<b>Dairy</b>	Cash cow	Slight decrease in real prices	Strong growth	Positive outlook	Increase assets
<b>Fishing</b>	Fading star	Increased real prices	Moderate growth	Dwindling fish stocks will be positive	Hold/ increase assets
<b>Horticulture</b>	Fading star/ stars (wine)	-	Moderate growth	Mixed outlook – new product possibilities	Hold/ decrease assets
<b>Forestry</b>	Cash cow	-	Strong growth	Mixed outlook – world supply increasing	Hold/ decrease exposure
<b>Tourism</b>	-	-	Strong growth	Positive outlook	Increase assets

Source: NZIER

## 6. Conclusions

New Zealand's comparative advantage has not changed over the past fifteen years. The conclusion from Ballingall (2004) and our update for this paper shows that New Zealand's comparative advantage in merchandised trade is firmly fixed in land and sea based industries. In our analysis most of these products are classified as "cash cows", i.e., gaining market share in slow growing world markets.

Importantly, Nees & Nixon (2005) also show that the commodity trade has not been static. At one time, New Zealand's exports were highly concentrated in food sent to the British market, New Zealand now spreads its exports more evenly over its top twenty markets. Furthermore, the diversification that has taken place has not been at the expense of competitiveness - New Zealand's competitiveness has not changed significantly over the period surveyed (1964-2003).

Currently, the reliance on land based industries has been reinforced by the entry of China into the world trading system. A commodities boom has taken place that has pushed up prices for most agricultural products. It is expected over the next fifteen years that the real price of agricultural products will remain roughly static at 1997 levels (IFPRI, 2002). This is a major change, since over the past twenty years, the real price of agricultural products have fallen dramatically. While prices will remain static, returns to farmers should increase in real terms because productivity levels in agriculture are very high.

The world is also in the midst of a services boom. This has benefited New Zealand since the services we trade in (mainly tourism and education exports) are subject to few barriers. We expect tourism to have particularly robust growth going forward.

Māori have heavy investments in land and sea based industries. Further, the scale of these businesses are much larger than other Māori businesses (see Table 8 and Table 9). To shed light on likely commodity performance we have discussed each commodity (of interest to Māori) in turn. The results are summarised in Table 16.



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