

**G**rowth in the New Zealand economy during the past year has been driven largely by domestic demand, on the back of strong growth in house prices. In contrast, the export sector has slipped from the extremely high growth experienced in 2001/02, reflecting in large part the appreciation of the New Zealand dollar that has occurred since then.

Over the coming year, the export softness of the past 12 months will make itself felt in other sectors, and economic growth will ease. Further ahead, a recovering global economy and continued strong domestic demand will see economic growth rebound to around 3 percent.

### Macroeconomic Situation and Outlook

The New Zealand economy performed well over the past year despite weak world growth, energy price spikes, an appreciating New Zealand dollar, war and terrorism overseas, and the SARS virus. Its performance was partly due to the lag in the reaction time of the New Zealand economy to international stimuli and partly because of some offsetting positive effects from recent events, notably an increase in net inward migration.

Economic growth is forecast to slow to around 2.0 percent over the next 2 years, as the combined impact of lower export revenues and softer migration affects the economy. Although forecast growth is below average and down from a rapid 4.3 percent growth in the year to March 2003, the economic expansion that began in 1998 will continue at a passable pace. The short-term outlook is for strong domestic demand partly offset by weakness in the export sector.

The risk profile surrounding New Zealand's economic prospects changed markedly over the course of 2003. Economic uncertainty in the first half of the year was characterized at home by an electricity shortage caused by low hydro lake levels, and offshore by the SARS virus and the economic gloom surrounding New Zealand's trading partners. By the third quarter of 2003, however, much of the potential downside pressure arising from these risks had abated, following increased rainfall in the hydro lakes' catchment areas and the suppression of the SARS virus.

On a trade-weighted basis, the value of the New Zealand dollar appreciated over 20 percent between mid-2001 and mid-2003. Gains have been especially strong against the United States dollar and the Japanese yen. For many of New Zealand's primary producers, particularly dairy farmers and foresters, this relatively rapid appreciation has occurred with a concurrent decline in international commodity prices.

In the short term, export prices are forecast to decline further as the remainder of recent appreciation in the New Zealand dollar takes effect. Volume growth will also soften as primary production growth eases further and as tourism feels the impact from SARS and slow world growth. This will result in total export revenue falling by US\$1 billion, or around 10 percent, during calendar 2003.

The impact of the softening of the export sector over the past year

or so was ameliorated to a degree by a series of offsetting factors. Perhaps most significant of these were record levels of net migration, driven both by an increase in inwards migration and a decline in the number of departing New Zealanders. This clearly helped maintain domestic demand.

Like many other developed economies, New Zealand is currently experiencing a housing boom, in part driven by demand from new migrants. While house price increases have not yet matched those seen, for example, in Australian cities, the wealth effect from the rises that have occurred influenced consumer spending significantly.

Recent wealth increases from house price appreciation were coupled with rising employment and wage rates, buoyed by robust domestic demand. At the same time, low interest rates and import prices all helped to increase consumers' purchasing power. Real household consumption is forecast to increase 3.9 percent in the year to March 2004.

The recent strength in New Zealand's domestic economy has not been matched by inflationary pressure. The consumer price index lifted 0.5 percent during the September 2003 quarter, which brought annual inflation for the year to September 2003 to 1.5 percent, which is below the mid-point of the Reserve Bank of New Zealand's target range of between 1 and 3 percent.

### Food prices and consumption

Food prices in New Zealand were 0.6 percent higher at the end of 2002 than a year earlier. Driving this change were increases in the prices of fruit and vegetables (4.6 percent) and restaurant and ready-to-eat foods (3.3 percent). Prices of grocery food items changed little during the year, while meat, fish, and poultry prices fell by 3.5 percent.

Consistent with the generally benign inflation environment that characterized New Zealand throughout 2003, food prices as of September 2003 were at the same level as a year earlier. The most significant development during the year to date was a 5.6-percent fall in the price of fruit and vegetables. Continued low food price inflation is expected to prevail for the next 12 months.

However, specific food items can be subject to significant short-term fluctuations in price, largely due to climatic influences. During the previous 12 months, New Zealand growers in varying parts of the country experienced weather extremes that affected food supplies. Drought in central regions led to the early slaughter of sheep, and heavy, unseasonal frosts limited kiwifruit and stone-fruit production.

In real terms, expenditure on food has remained a comparatively constant share of the total household budget during the last 5 years at around 16.5 percent. The single biggest food-related expenditure in New Zealand is on meals away from the home and ready-to-eat foods, which comprised 23 percent of the total bill (from 2001 data). Next most significant were cereals and related products, and other foodstuffs (each comprising around 15 percent), closely followed by meat, sweet

products and beverages, and other farm products (each comprising around 13.5 percent). Fruit, vegetables, poultry, and fish each comprised less than 10 percent of the food budget of the average New Zealand family.

As noted above, New Zealand's net inward migration reached record levels during 2003. This has lifted aggregate consumption, including that of food. Perhaps most significantly, much of the recent migration had its origins in Asia, particularly China and Southeast Asia. This has tended to broaden the variety of food available, both in terms of the range of products available at supermarkets and the increase in specialty stores catering to particular ethnicities. While expenditure on food relative to income is not expected to change greatly, the variety of food products purchased is expected to increase as overseas influences are assimilated into traditional New Zealand diets.

As noted above, producer prices were influenced by a combination of a strengthening currency and weak international markets over the previous 18 months. Dairy farmers were particularly badly affected by sliding prices in international markets, and in New Zealand dollar terms, dairy prices fell nearly 30 percent in the year to March 2003. This was a complete reversal of the situation 2 years earlier, when New Zealand's currency was relatively low and international demand for dairy products was strong.

While overseas demand for other agricultural produce has typically been stronger than that for dairy produce, the higher New Zealand dollar ensured that most farmers faced lower prices during 2003. Sheep and cattle prices are expected to fall by over 10 percent by the end of 2003. Similarly, horticultural producers will face lower prices, albeit not to the same extent.

### Food processing and marketing

Supermarkets are by far the most common source of food purchases in New Zealand. According to the 2001 Household Expenditure Survey, nearly 70 percent of all food items are purchased from major-chain supermarkets. Next most popular are restaurant and cafeterias, with a share of around 14 percent. All other food outlets, including delicatessens, butchers, greengrocers, fruiterers, bakeries, and small-scale supermarkets, make up the remainder.

Having been established at the end of 2001, the giant dairy cooperative, Fonterra, continued to define its role both in New Zealand and offshore. Fonterra is now responsible for the manufacture and distribution of over 95 percent of New Zealand's dairy exports, equating to around 20 percent of total merchandise export returns. New Zealand's dairy exports make up over 30 percent of the world trade in dairy products.

Consistent with an earlier statement that it saw Australia as part of its domestic market, in September 2003 Fonterra secured a 50-percent stake in the struggling Australian butter and cheese manufacturer, Bonlac Foods Ltd. This shareholding complemented an already existing holding of 18 percent in the Australian milk and yoghurt producer, National Foods Ltd.

But not all were satisfied with Fonterra's performance during the year. Fonterra's Shareholders' Council reported in August that parts of the cooperative's business were mediocre, and criticised it for failing to adopt economic-value-added principles. And against a backdrop of falling returns, Fonterra's first chief executive, Craig Norgate, was replaced by former Canadian sugar boss, Andrew Ferrier.

At the end of September 2003, the New Zealand government announced its intentions to restructure the meat industry by privatising many of the functions of the existing industry body, which was created by an Act of Parliament passed in 1997. The dissolution of the meat producer board is the last in a succession of industry body reforms, which included restructuring of the apple and pear, kiwifruit, dairy, and wool industries. Enactment of the meat industry restructuring is planned by 1 July 2004.

Also currently underway is a debate regarding the usefulness and feasibility of a single industry body representing both fruit and vegetable growers. Although approved in principle at the respective annual general meetings of the two existing representative federations this year, concerns have been raised by some producers that the proposed body will not look at all aspects of the supply chain closely enough, and will instead be too narrowly focused on growers.

### Agricultural production and trade

Agricultural production and exports are a critical component of the New Zealand economy. Agricultural output contributes around 7 percent to GDP and represents nearly 40 percent of merchandise export revenue. As alluded to above, the biggest component of this is dairy production; however, sheepmeat, beef, wool, and horticultural products also make significant contributions.

New Zealand's rural environment has been characterised for much of the last decade by an increased conversion to dairy farming from a variety of other land uses, particularly sheep and beef farming. Consequently, growth in dairy output was maintained at consistently high rates during this period. In 2002, the volume of dairy production increased by nearly 7 percent, following an increase of around 6 percent in 2001. However, indications are that the rate of conversion to dairy farming has started to ease, and dairy volumes are expected to increase around 3 percent over the next couple of seasons.

Despite a steady decline in sheep numbers over the last 10 years, sheepmeat production levels have been maintained due to a combination of higher lambing percentages and greater lamb weights. However, sheep farming is always subject to the vagaries of weather. During the previous two seasons, unseasonably heavy snows and drought conditions have affected production in parts of the country. As a consequence, sheepmeat production fell slightly in the 2001/02 season, but rebounded in the 2002/03 season, growing 2.7 percent.

In the period from mid-2000 to mid-2002, New Zealand's primary producers benefited from a combination of circumstances that saw export returns increase sharply. The dominating influence during the period was arguably the relatively low value of the New Zealand

dollar; coincidentally, however, New Zealand growing conditions were generally good, and world prices for New Zealand's commodity outputs were strong, particularly in the case of dairy products. At the export boom's peak of mid-2001, the value of agricultural output had lifted 7.5 percent above the previous year; within this, dairy returns lifted a massive 32.8 percent.

In contrast, much of the previous 18 months have been characterised by an appreciating dollar. Since the beginning of 2002, the New Zealand dollar climbed from around US\$0.42, to hover consistently around the US\$0.60 mark in the latter half of 2003. This has placed significant downward pressure on export returns for all agricultural exporters, especially dairy farmers, who as noted, also experienced declines in world prices.

The outlook for 2004 is for the value of the New Zealand dollar to stabilise at current levels. Expected stronger global demand will provide a basis for increases in the prices of New Zealand's commodity exports. Productivity gains in dairy, meat, and horticultural production, and the residual effects of conversion to dairy farming, will underpin output growth on the order of 3 percent. The value of exported dairy produce is forecast to increase over 6 percent in 2004, while meat exports will lift by around 1 percent.

### Food and agricultural policy

Reaching free trade agreements with her trading partners continues to be one of New Zealand's leading agricultural policy objectives. Thus the collapse of the Cancun WTO meeting was a major disappointment to many. However, New Zealand's trade delegation at the negotiations found room for some optimism since agricultural issues were not the reason for the breakdown in talks. New Zealand trade delegates also saw the emergence of the so-called developing countries as a positive sign, since these countries are likely to be allied with New Zealand in its push for reductions in import barriers and export subsidies on agricultural produce.

Bilateral agreements are an equally important part of the New Zealand government's agricultural trade policy objectives. Preliminary discussions have begun between the United States and New Zealand governments. However, an agreement is almost certainly a long way off, and will only follow in the wake of a similar agreement between the US and Australia, which itself has a long way to go.

Perhaps more significantly, gaps in key non-trade policy issues are seen as potential stumbling blocks on the road to a U.S.-NZ trade agreement. In particular, the New Zealand government's stance with regard to nuclear-powered warships and its lack of support for U.S. forces in the Iraqi war, is seen as slowing or stalling any negotiations.

China holds a huge amount of potential for New Zealand exporters, given its relative proximity and its massive, fast-growing economy. Although no official word has been made about the prospects of a trade agreement between China and New Zealand, the visit to New Zealand of the Chinese president, Hu Jintao, in October 2003 is regarded as a promising indication for the potential of such an

agreement. In New Zealand, the producers of wool, meat, and dairy products would stand to gain the most.

The potential release of genetically modified organisms into the environment has arguably greater consequences for New Zealand's agricultural producers than free trade. After a 5-year moratorium, the New Zealand government plans to clear the way for the commercial release of GMOs at the end of October 2003.

Unsurprisingly, the issue has been the source of great debate in New Zealand. Supporters of GMOs cite the potential benefits from scientific advance, whilst detractors argue that wider environmental impacts are severely negative, or at the very least, unknown. A study commissioned by the New Zealand Treasury found no conclusive evidence either way, but did determine that any damage to New Zealand's image as a clean, green producer arising from the release of GMOs would likely have a detrimental impact on export demand.

### Demographics and the New Zealand food system

New Zealand's population is constantly changing, influenced by factors that are many and varied. Many of the demographic changes underway in New Zealand are similar to those witnessed in other Pacific Rim nations, particularly those with more highly developed economies. The age structure of the population, ethnic composition, rural to urban distribution, household income distribution, and family composition are changing in New Zealand as elsewhere. These changes are in turn driving changes in New Zealand's food system.

New Zealand's food retailing sector is highly competitive. Supermarkets, corner dairies (convenience stores), service stations, takeaway outlets, cafes, restaurants, and stockists of specialty products are all part of the food distribution network in New Zealand. The proliferation in the number and type of food suppliers during the last 20 years in part reflects demographic changes and illustrates the extent to which retailers must be prepared to adapt to future changes.

#### THE CHANGING STRUCTURE OF NEW ZEALAND'S POPULATION

##### *Age distribution*

Like much of the Western World, New Zealand has an aging population. The percentage of the population aged 14 or younger fell from nearly 32 percent in 1971, to around 23 percent in 2001, and is projected to fall to under 18 percent by 2021.<sup>1</sup> Similarly, the proportion aged 65 years or older increased between 1971 and 2001, from 8.5 percent to 11.8 percent, and is projected to rise further to nearly 18 percent by 2021.

Population aging is one of the factors driving a decrease in the average household size in New Zealand. Other factors largely relate to lifestyle decisions: couples are choosing to have children later; women are more likely to participate in the workforce, and people are choosing to marry later, if at all. As a consequence, the average household size in New Zealand fell from around 3.5 persons in 1971, to around 2.7 persons in 2001. This declining trend is expected to continue, and by 2021, the average household size is projected to be around 2.5 persons.

The implication for New Zealand's food system, in particular its retailers, is that the size of the typical purchase of groceries will decline as households make smaller, more frequent visits to suppliers. Large shopping trips will be made less often. Fewer dependents per household will also mean that eating out will become more economical. Under such a scenario, smaller convenience stores and cafes will potentially benefit at the expense of supermarkets.

#### *Ethnic composition*

Perhaps the most marked change in the New Zealand population over the last 20 years has been the increase in its degree of multiculturalism. In 1991, those with European ethnicity comprised around 77 percent of the New Zealand population. In 2001, this share stood at 72 percent, and by 2021, it is projected to fall to around 65 percent.

The three major non-European ethnic groups in New Zealand are people of Maori, Pacific Island, or Asian ethnicity. Of these, the Asian group is growing most quickly, increasing from 5.3 percent of the total population in 1991 to 6.6 percent in 2001. The number of permanent and long-term migrants continued to grow rapidly during the last 2 years; in the year to March 2003, the number of permanent and long-term migrants was 48.4 percent higher than during the year to March 2001. A significant portion of this growth came from Asia, especially China. Chinese permanent and long-term migrants increased from 7,159 in the year to March 2001, to 17,147 in the year to March 2003. Under a medium net migration scenario, the Asian ethnic group is projected to comprise over 10 percent of the total population by 2021.

Increased multiculturalism has led to the emergence of specialty ethnic or regional supermarkets. In New Zealand's main centres, it is now not uncommon to find supermarkets dedicated to Mediterranean, Korean, Thai, and Chinese cooking. In response, traditional, generic supermarkets have been forced to broaden their range of products, and now provide grocery items that were difficult, if not impossible, to obtain 5 years ago.

Exposure to a broader range of foods has also seen the traditional Kiwi diet change. Traditional cooking methods, such as roasting meat and boiling vegetables, continue to make way for alternative methods and meals, such as curries, stir-fry, and pasta. Local food manufacturers have responded to these changes in taste by altering their product lines; one example is the huge increase in the variety of ready-made pasta, curry, and stir-fry sauces that are now available, many of which are produced in New Zealand or Australia. Similarly, the selection of ethnic restaurants and takeaway outlets has grown significantly, serving the targeted ethnic groups and European New Zealanders alike.

As New Zealand's ethnic mix continues to widen, and as so-called traditional New Zealanders continue to be exposed to a greater range of foods and cooking methods, the trends outlined above will almost certainly be maintained. Primary producers are likely to face a declining market for traditional fare, particularly in terms of meat cuts, and will need to be prepared to adapt to changing tastes.

#### *Women in the workforce*

In 1970, the female labour force participation rate in New Zealand was around 34 percent.<sup>2</sup> By 2002, it had climbed to over 59 percent, representing one of the biggest increases in female labour force participation in the developed world.

The lifestyle shifts associated with higher female labour force participation are similar to those seen elsewhere. New Zealand couples are having fewer children, and are having them later in life. In 1971, the average age of new mothers was around 23 years. By 2001, this had increased to over 29, and it is projected to reach 31 by 2021.

Despite increased female participation in the labour force, New Zealand women are still far more likely to take responsibility for raising children and for general family management (including family food purchases). Consequently, demands on women's time are increasing, reflected partly in the considerably higher proportion of women than men that are engaged in part-time employment.

The increasing demands on time, particularly for women, have some clear implications for New Zealand's food system. Women have less time available to occupy so-called traditional roles, and thus have greater demands for foods and cooking methods that reduce food preparation time. Ready-made foods, ranging from cooking sauces through to complete meals, are increasing in availability and variety. The display of preparation times on the labeling of these foods is often used as a selling point, with many such products claiming that a complete meal can be produced in 20-30 minutes.

As the number of households containing working women increases, such households will increasingly be willing to trade time for money and to pay a premium for food products that require less – or in fact zero – preparation time. This has been reflected in the growth in the proportion of food purchased from cafes, restaurants, and takeaway outlets, which rose from around 15 percent in 1990 to over 23 percent in 2000.

## Conclusion

New Zealand has undergone considerable demographic change during the past 20 years, the most significant of which are the aging of the population, increased multiculturalism, and the greater prevalence of working women. These changes have been reflected in changes in New Zealand's food system, particularly in the retail sector. Increased ethnic food outlets, greater reliance on ready-made and takeaway foods, and the rise in the number of smaller convenience stores are examples of changes that reflect New Zealand's changing demographic structure.

Much of the demographic change that has occurred during the past 2 decades is projected to continue at similar rates through to around 2021. As such, it seems likely that the current trends in New Zealand's food system, as outlined above, will also continue.

<sup>1</sup> Projections assume medium fertility, medium mortality, and 5,000 long-term net migrants per annum.

<sup>2</sup> Female labour force participation is calculated as the ratio of working

age (i.e., 15-64) female labour force participants, to the total working age female population.

#### References

- New Zealand Institute of Economic Research (2003), *Quarterly Predictions*, September 2003 Issue No. 155, Wellington.
- Statistics New Zealand (various), *Hot Off the Press Statistical Releases*, Wellington.  
<http://www.stats.govt.nz>
- United Nations (2003), *World Population Prospects: The 2002 Revision Population Database*, <http://esa.un.org/unpp/>.

## NEW ZEALAND

	Units	1997	1998	1999	2000	2001	2002	2003	2004
<b>FOOD CONSUMPTION PATTERNS <sup>a</sup></b>									
Per capita caloric intake	Cal/day	3,146	3,130	3,187	3,210	3,235	3,250	3,250	3,260
From animal products	Cal/day	1,014	1,000	1,048	1,078	1,076	1,090	1,090	1,100
From vegetable products	Cal/day	2,132	2,129	2,139	2,133	2,159	2,160	2,160	2,160
Protein (% of calories)	%	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
Fat (% of calories)	%	33.9	33.3	33.3	32.8	32.6	32.8	32.8	32.8
Carbohydrates (% of calories)	%	53.5	54.1	54.2	54.6	54.8	54.6	54.6	54.6
<b>INCOME AND FOOD PRICES</b>									
Per capita income <sup>b</sup>	US\$/capita	17,449	14,161	14,532	13,259	12,921	14,640	18,646	20,076
% of disposable income spent on food <sup>c</sup>	%	16.4	16.6	16.6	16.6	16.7	16.7	16.7	16.7
% spent eating out <sup>c</sup>	%	3.6	3.7	3.8	3.8	3.9	3.9	3.9	3.9
Food price index <sup>d</sup>	1990=100	101.8	103.6	99.5	104.8	105.8	100.6	101.2	102
General price index (CPI) <sup>d</sup>	1990=100	113.4	113.9	114.4	119.0	121.2	124.5	125.7	127.7
<b>POPULATION</b>									
Total population <sup>e</sup>	Million	3.8	3.8	3.8	3.8	3.9	3.9	4.0	4.0
Urban	Million	2.9	2.9	2.9	3.0	3.0	3.0	3.1	3.1
Nonurban	Million	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9
<b>SHARE OF POPULATION IN THE FOLLOWING AGE GROUPS <sup>e</sup></b>									
0-4 years	%	7.8	7.7	7.5	7.4	7.2	7.1	6.9	6.8
5-14 years	%	15.3	15.4	15.4	15.4	15.4	15.3	15.1	14.9
15-19 years	%	7.2	7.1	7.1	7.1	7.2	7.3	7.4	7.5
20-44 years	%	38.0	37.6	37.1	36.6	36.3	36.1	35.9	35.6
45-64 years	%	20.3	20.7	21.1	21.6	22.1	22.4	22.7	23.1
65-79 years	%	8.9	8.9	9.0	9.0	9.0	8.9	8.9	8.9
80 years and over	%	2.6	2.7	2.7	2.8	2.9	3.0	3.0	3.1
Median age of population <sup>e</sup>	Years	33.2	33.6	33.9	34.3	34.7	34.9	35.0	35.3
Female labour force participation <sup>f</sup>	%	57.3	57.6	57.8	58.4	59.4	59.4	59.0	59.2
<b>LIFE EXPECTANCY</b>									
Males <sup>g</sup>	Years	74.3	74.3	75.7	75.7	75.7	76.3	76.6	76.9
Females <sup>g</sup>	Years	79.6	79.6	80.8	80.8	80.8	81.2	81.4	81.7
<b>FOOD INFRASTRUCTURE</b>									
Trade capacity									
Grain exports <sup>b</sup>	1,000 tons	31	27	3	22	3	1	5	5
Grain imports <sup>b</sup>	1,000 tons	205	191	340	242	388	433	450	450
Total food and agricultural exports <sup>i</sup>	Million US\$	6,733	6,058	6,083	6,429	7,062	7,207	8,166	8,678
Fishery exports <sup>j</sup>	Million US\$	736	642	696	645	616	689	690	725
Total food and agricultural imports <sup>k</sup>	Million US\$	1,001	929	993	967	1,005	1,148	1,391	1,535
Road access <sup>l</sup>	1,000 kms	92	92	92	92	92	92	92	92
Rail access <sup>m</sup>	1,000 kms	4	4	4	4	4	4	4	4
Telecommunications <sup>n</sup>	1,000 lines	na	na	1,763	1,759	1,749	na	na	na
Power generation <sup>o</sup>	Million Kwh	34,754	34,281	33,994	34,700	35,252	36,560	37,291	38,000
Percent of population with refrigerators	%	100	100	100	100	100	100	100	100
<b>ROLE OF AGRICULTURE AND TRADE IN THE ECONOMY</b>									
Agriculture as a share of GDP <sup>p</sup>	%	5.4	5.2	5.4	5.8	7.1	5.9	5.7	5.8
Self-sufficiency in grains <sup>q</sup>	%	83.0	90.0	81.0	83.0	90.0	90.0	90.0	90.0
<b>POLICY TRANSFERS</b>									
Consumer subsidy equivalents <sup>r</sup>	%	-5.0	-2.0	-5.0	-4.0	-2.0	-2.0	-2.0	-2.0
Total transfers (subsidy/tax) <sup>s</sup>	Million US\$	-81	-49	-57	-49	-31	-30	-30	-30
Total transfers per capita <sup>s</sup>	US\$/capita	-22	-13	-15	-13	-8	-8	-8	-8
<b>MACROECONOMIC INDICATORS</b>									
GDP growth <sup>t</sup>	%	2.0	-0.2	4.0	3.9	2.6	4.4	2.7	1.9
Interest rate <sup>u</sup>	%	7.9	4.6	5.4	6.7	5.0	5.9	3.2	4.2
Exchange rate <sup>v</sup>	NZ\$/US\$	0.66	0.54	0.53	0.46	0.42	0.46	0.57	0.60

na = not available

Sources:

a. FAOSTAT; author's estimates/forecasts for 2002-2004.

b. Nominal expenditure GDP, December years at current average exchange rates for the year; Statistics New Zealand, NZIER.

c. Percentage of Total Net Expenditure (including net capital outlay).

Household Expenditure Survey, Statistics New Zealand, 1999, 2000,

2002, 2003, 2004 are author's estimates/forecasts.

d. Food Price Index, Consumers' Price Index, Statistics New Zealand,

2003, 2004 are author's estimate/forecast.

e. June years, Statistics New Zealand.

f. Average for December quarter, Household Labour Force Survey, Statistics

New Zealand, 2003, 2004 are author's estimate/forecast.

g. December years, Statistics New Zealand, NZIER.

b. HS category 10. Cereals, December years, Statistics New Zealand, 2003,

2004 are author's estimate/forecast.

i. SNA exports of meat, dairy products, seafood, other food and beverages;

December years, Statistics New Zealand, NZIER.

j. SNA exports of seafood; December years, Statistics New Zealand,

NZIER.

k. SNA imports of food and beverages; December years, Statistics New

Zealand, NZIER.

l. 'Roading Statistics 2000/01', Transfund New Zealand.

m. Trans Rail website: <http://www.transrail.co.nz/overview/factsfigures.html>.

n. As at June 30; Telecom New Zealand, Annual Report 2000 and 2001.

o. December years; Energy Production Statistics, Statistics New Zealand,

2003, 2004 are author's estimate/forecast.

p. Nominal agriculture value added as a percentage of nominal production

GDP; Statistics New Zealand, NZIER.

q. Ministry of Agriculture and Forestry, NZIER.

r. 'Agricultural Policies in OECD Countries: Monitoring and Evaluation,

2002', OECD.

s. Consumer support estimates, 'Agricultural Policies in OECD Countries:

Monitoring and Evaluation, 2002', OECD.

t. December years, Statistics New Zealand, NZIER.

u. 90-day bank bill, average for December quarter; Reserve Bank of New

Zealand, NZIER.

v. Annual average exchange rate, December years; Reserve Bank of New

Zealand, NZIER.