Wellington Regional Strategy

In association with Positively Wellington Business

Wellington Regional Strategy

Economic Futures

Working paper 6

Date: 26 November 2004

Prepared by: Infometrics Limited

The Wellington Regional Strategy (WRS) is a project of Greater Wellington Regional Council, Upper Hutt City Council, Kapiti Coast District Council, Porirua City Council, Hutt City Council, Wellington City Council and Positively Wellington Business, working together with the goal of building an internationally competitive Wellington by developing and implementing a vision and an integrated framework to achieve sustainable growth of the Wellington Region.

The project will have a long-term outlook – to the year 2050 with a more detailed focus of action and priority for the next ten to twenty years.

The WRS is a growth strategy – to achieve sustainable and desirable growth for the long-term benefit of the Region's citizens, businesses and institutions. The Strategy provides the opportunity for the Region to work together to develop agreed directions for the Region, and then make that common and agreed future happen. It will recognise and reflect the uniqueness of the Wellington Region, which should be protected and enhanced as the Region grows.

Document reference register for WRS project

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Organisation	Infometrics Limited
Working paper number	6
Date and version	26 November 2004, Version 2
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Document location	WRS Project: Workstream Outputs

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Introduction

The primary objective of the economic futures workstream is:

- To identify key issues (both national and global) that are likely to define, drive or influence the economic future of the Region over the next 20 to 50 years, and in doing so highlight the Region's economic strengths, weaknesses and opportunities with a view to determining possible public sector interventions to accelerate economic growth.

To achieve this objective, this report cover three areas:

1. A trend analysis that identifies a number of economic, social and political trends that have, and will continue to, influence economic development in the Wellington Region.
2. A SWOT analysis (strengths, weaknesses, opportunities and threats) of domestic and global influences on the Region's growth potential over the next 20 to 50 years.
3. The identification of key constraints, taking into account that the Wellington Regional Strategy is a 20-year strategy with a 50-year outlook, followed by analysis of how these constraints can be addressed and the subsequent implications.

This is followed by an appendix detailing the major changes the regional and national economies have experienced in recent decades, the changing drivers of economic growth for the Region and the nation, and the impact Wellington's geography has had on economic development. The appendix ends with a timeline of important historical events that have influenced the economies of New Zealand and the Wellington Region.

1 Trends relevant to Wellington Region's economic future

Potential trends that may impact on the Wellington Region which should be taken into account when developing future direction include:

- The **ageing** of the baby-boom generation means that a large segment of the population will approach retirement age in the next two decades. Medical, diet and lifestyle advances mean that improvements in health status and life expectancy will continue to evolve.

- Expected declines in the working age population of Europe over the next two decades will encourage further **globalisation of the labour market** and technological developments that will further automate production processes.

- Concerns about the natural **environment** are likely to intensify further in coming decades, in part due to the expansion in activity in newly industrialised countries like India and China. The global nature of the issue will raise the potential for international tensions and reduce the scope for regulatory solutions. Instead more success is likely to come from technological advances, but investment in such solutions may require some form of government sponsorship.

- Technological changes are likely to foster further **global integration** but this will be counter-balanced by growing North-South tensions. These tensions will arise due to differences in perspective on factors such as free trade, intellectual property rights, labour standards, concern about non-renewable resources and the environment. The risk is that "beggar-thy-neighbour" responses to these tensions over-ride and displace the mutual benefits from co-operation and trade.

- Other areas of **technological focus** are likely to include information and communication; biotechnology (including genetic engineering); energy/engine related developments as economical alternatives to fossil-fuel based technologies are sought.

- **Increasing demand for road transport** as tourism numbers continue to grow and as further processing requires more transport trips between plants, rather than just directly to the port.

- A continuation of the **Maori renaissance** means that it is quite plausible for New Zealand to become a truly bi-lingual society over the next two decades

- Younger generations are more likely to have **multiple ethnicities** than their baby-boom counterparts.

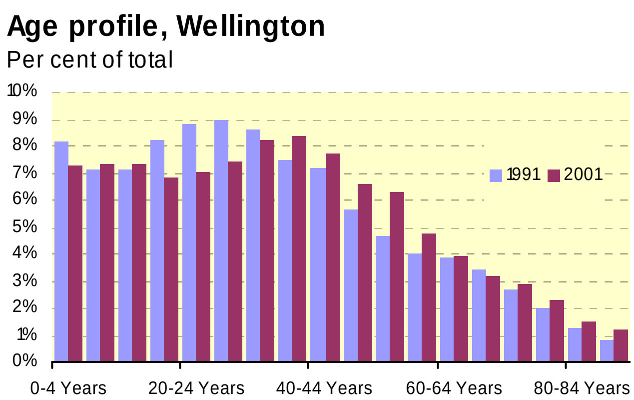
1.1 Ageing of baby-boom generation

New Zealand, like many post-industrial nations, is entering a period of low fertility, low mortality and population ageing[1]. While improved health outcomes are increasing life expectancy, the population ageing is primarily a weight of numbers phenomenon resulting from the approach of the post-World War II baby-boom generation reaching retirement age.

The baby-boom has been a strong force in determining economic events[2]. Whenever boomers reach a new stage of life, demand for relevant products and services soars. Similarly, demand slumps when they move on. The first boom was in baby products. Later the key issue was the pressure placed on schools. Now as this generation approaches retirement age, ageing issues dominate. Based on this demographic trend, Sterling and Waite predict that the growth industries in coming decades will be financial services, health and care services, travel, leisure and entertainment, and also for technology developments associated with these industries.

Implications for Wellington

The ageing of the Wellington population is illustrated in Graph 1. In the ten years from 1991 to 2001 the median age of the Wellington population increased by 3 years from 31 to 34. This is a national (indeed global) phenomenon. However, the age profile for Wellington differs subtly from the national profile (see Graph 2). Wellington has typically had a lower proportion of children, a higher proportion of prime aged adults (20 to 44), and generally a lower proportion of those aged over 45.[3]

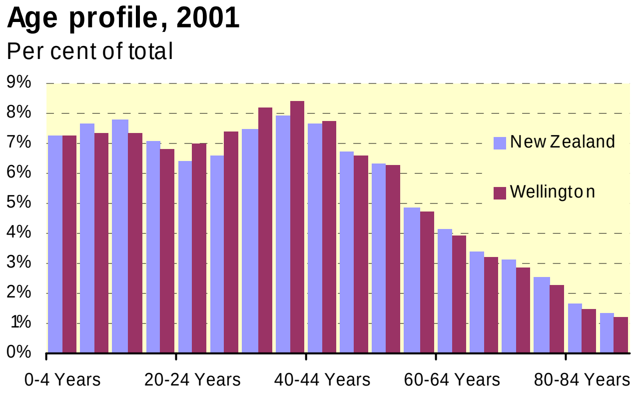


Graph 1

[1] New Zealand Government (2003) *Population and Sustainable Development,* p 13

[2] Sterling W and Waite S (1998) *Boomernomics*

[3] Although not illustrated here, this characterisation did not materially change during the 1990s.



Graph 2

These statistics support the anecdotal characterisation that Wellington has a large transient population: people move to Wellington for work, but are also more likely to leave Wellington at older ages. Retaining its older population is a potential challenge for the Region in coming decades – although, while climate and housing access are likely to count against the Region (particularly Wellington City), offsetting this is greater access to facilities such as theatre, restaurants, and event centres.

Increased life expectancy and an associated improvement in health status are likely to have a positive impact on people working at older ages. This will become more significant for professional workers, as these jobs are likely to be less physically demanding and will probably offer more flexibility in terms of hours and work arrangements. With a high proportion of professional workers and a relative abundance of suitable jobs, this trend would have a more positive impact on Wellington than most other New Zealand areas.

The average age of Wellington Region's population is likely to continue rising over the next two decades as more people choose to work (at least on a part-time basis) at older ages. With a continuation of net prime-age migration to Wellington, population growth for the Region might well be above the national average.[4] The Region's ability to provide infrastructure and services that make life easier for older citizens could be a critical influence on whether they are persuaded to remain in Wellington or not.

1.2 Globalisation of labour market

More and more occupations are effectively operating in a global labour market. This trend will continue and perhaps intensify. A key reason for this perspective is that over the next 20 years the working age population in Europe could decline by 65 million.[5] An implication of this is that the rich countries of the world will want, and be prepared to pay handsomely for, New Zealand's most skilled and able staff.

[4] This compares with the experience between 1991 and 2001 when the Wellington Region's population increased by 5.9%, compared with national population growth of 10.8%. Statistics New Zealand population projections predict national population growth of between 9 and 16% for the 20 years from 2006 to 2026, depending on migration and natural increase assumptions used.
[5] McFarlane L (1999) "Conference on Ageing, Housing and Urban Development: Background Paper", Room Document No.1 for 21-23 May 2000 OECD Conference in Oslo.

A recent United Nations study[6] found that:

- During the first half of the 21st century, the populations of most developed countries are projected to become smaller and older as a result of below-replacement fertility and increased longevity.

- In the absence of migration, the declines in population size will be even greater than those projected, and population ageing will be more rapid.

- Although fertility may rebound in the coming decades, few believe that fertility in most developed countries will recover sufficiently to reach replacement level in the foreseeable future, thus making population decline inevitable in the absence of replacement migration.

- The projected population decline and population ageing will have profound and far-reaching consequences, forcing governments to reassess many established economic, social and political policies and programmes, including those relating to international migration.

- The numbers of migrants needed to offset declines in the working-age population are significantly larger than those needed to offset total population decline. Whether those larger numbers of migrants are within the realm of options open to governments depends to a great extent on the social, economic and political circumstances of the particular country or region.

- If retirement ages remain essentially where they are today, the only option in the short to medium term to reduce declines in the potential support ratio is to increase the size of the working-age population through international migration.

- The levels of migration needed to offset population ageing (ie. maintain potential support ratios) are extremely large, and in all cases entail vastly more immigration than occurred in the past.

Implications for Wellington

The decline in available labour in Europe and other rich nations is likely to encourage further mechanisation and reliance on technology in production processes. This suggests the pace of technology advance will continue and that it will tend to be labour saving in nature. These are likely to be positive trends for low population density centres such as Wellington.

The expansion of production in cheap labour countries will continue, though design and service customisation is where the real value will be captured. Again this is a positive trend for Wellington given its rich endowment of creative talent.

The going rate for more and more occupations will be set by world supply and demand conditions, not the ones being faced directly by Wellington based firms. Employment management skills will be an increasingly important source of competitive advantage. Firms will need to be more creative in finding less labour intensive means of production, retaining highly valued employees, being prepared to employ older workers, and being better able to accommodate a workforce with more diverse work aims and incentives.

[6] United Nations Population Division (2000) *Replacement Migration: Is it a Solution to Declining and Ageing Populations?*

1.3 Environmental issues

Higher income increases the demand for a cleaner environment. This not only means that consumers are more likely to select, and even pay a premium for, products that are perceived to be environmentally friendly, but also that voters demonstrate an increasing willingness to pay for the environment by supporting policies and political parties that embrace improvements to environmental quality, even if it inhibits economic growth.

In many cases, problems trigger inventive activity, which solves the problems. In terms of the environment, as countries get richer consumer demand will favour products and services that utilise more environmentally friendly technologies, which will encourage the private development and adoption of environmental technologies. This could mean that even though there is no direct benefit to the firm (e.g. a reduction in production costs) from adopting a certain environmental technology, indeed the product price might even increase; consumers will be willing to pay a premium for the product as they value the environmental dividend.

However, this need not be an automatic relationship. While empirical evidence suggests that there is an inverted U-shape relationship between national incomes and environmental damage, government activities have been important in triggering these improvements.[7]

Many writers tend to caution against assuming that there will be an automatic link between economic growth and environmental improvements in the future. Generally local problems like water quality and sanitary conditions are among the first to be solved. It is less clear, however, that global-type problems will respond in the same way. e.g. CO_2 emissions have increased steadily with income; there are cross-national co-ordination and commitment problems - only a share of the benefits of reducing one's own emissions falls to the controlling country.

There is potential for different perspectives about the relative importance of environmental issues to raise tensions between rich and poor countries in coming decades. For much of the world's population, improvements in economic wellbeing will be valued more highly than environmental considerations. Even with robust scientific evidence[8], rich countries are unlikely to hold much moral sway on this issue given the legacy of environmental damage they have caused during their development phase.

The implication is that command and control approaches to environmental protection are unlikely to be very successful. Indeed Bruvoll and Medin found that technological advances were far more important in explaining improvements in environmental outcomes than the contribution of structural changes to the economy[9]. This implies that technology that has changed *how* things are produced has had a more profound impact on the environment than have changes in *what* is produced. Structural changes do coincide with environmental improvements, but these tend to follow technological progress, particularly ones that improve the efficiency of energy utilisation. Sectors that adopt technologies that result in energy efficiency gains will

[7] Bruvoll, Annegrete and Medin, Hege (2000) *Factoring the Environmental Kuznets Curve: Evidence from Norway*, Statistics Norway, Discussion Paper No 275
[8] And the robustness of the scientific evidence about the world's environmental prognosis is open to genuine debate, see for example Lomborg, Bjorn (2001) *The Skeptical Environmentalist: Measuring the Real State of the World*, Cambridge University Press
[9] Op cit

have relative declines in emissions and are also likely to grow faster due to reduced costs of production.

Governments do have an important role to play, but it is in devising market-based instruments that encourage the invention, innovation, and diffusion of desirable, environmentally friendly technologies. According to Paul Portney the future of environmental regulation will involve.[10]

1. Incentive approaches that will increasingly replace command and control rules.

2. Requirements for firms to report their emissions.

3. A partial loss of authority by national governments in both directions - to regions, and up to international agencies.

He goes further to predict that in future ambient environmental conditions in western democracies will continue to improve. The ratio of pollution per unit of GDP has fallen enough in the developed world to offset the increase in both GDP per capita as well as the growing number of people.

This trend will continue because:

- As incomes increase people will demand an increasingly cleaner environment.

- Natural gas is replacing coal as the feedstock for electricity generation

- The end of the internal combustion engine.

But prospects are less bright in the developing world:

- Most people will be born and live in the developing world.

- Migration to mega-cities will continue

- There will be increased demand for them to use their coal reserves.

- Pressure on water and sewage will also continue to mount.

Portney concludes that the greatest immediate concern is irreversible environmental damage - loss of species and ecosystems. Improvements in agricultural technology is a key, as this will reduce the amount of land required for feeding population growth, and thus also the pressure to convert forests into subsistence agriculture.

Implications for Wellington

Concern for the environment is likely to intensify in industrial nations in coming decades. Increasingly the focus will be on finding technological solutions to environmental problems. However, given the externalities involved with environmental issues, governments and international agencies are likely to play a leading role in encouraging both the level and direction of environmentally focussed research and development. Depending on the extent that New Zealand governments

[10] Portney, Paul R (2000) "Environmental Problems and Policy: 2000-2050", Journal of Economic Perspectives, Vol 14, No 1, pp199-206

become actively involved in promoting the development of environmental technologies, there are likely to be advantages for technology development firms located in Wellington.

1.4 Global tensions

The previous section touched on one area – the valuation of the environment – where there is scope for increased international tensions over the coming decades. Tensions are likely to arise in other areas as well:

- Free trade, in particular relating to the power of interest groups in first world countries (e.g. agriculture, steel making) circumventing market access from poorer countries.

- Intellectual property rights, as the globalisation of production continues but returns remain highest in first world dominated design and ancillary services. Increasingly, design opportunities will spread to be near production operations. This will lead to first world employment and intellectual property right concerns.

- Labour standards – a combination of paternalism and first world employment concerns is drawing attention to employment conditions in third world countries. While there are some legitimate issues here, there is also potential for these issues to drift into, or at least be perceived as, non-trade barriers.

- The process of economic catch-up by countries like India and China will alter the international balance of power. This is likely to add to international tensions as the world adapts to the change.

- How governments manage the threat to their national sovereignty imposed by the growth of informal organisations with cross-national agendas and unorthodox methods of furthering their causes (ranging from protest, through vandalism to terror).

Simultaneously there are a number of countervailing trends that are encouraging greater global integration. These include:

- The proliferation of multilateral and cross-national government agencies

- The expansion in world trade

- The expansion in global capital flows

- The demographic pressures encouraging further globalisation of the labour market

- Information and communication technology developments that reduce the tyranny of distance

- Increased levels of travel, exposure and understanding of different cultures.

Implications for Wellington

The global environment will be of critical importance to the development prospects of the Wellington Region. However, there is considerable uncertainty how the different pressures and tensions will play out, and which factors will dominate over the coming decades. The ramifications of this highly critical but equally uncertain issue for Wellington will be addressed in more detail with use of scenario techniques later in the project.

1.5 Technological changes

Technological change will be interrelated with the industries that are likely to experience strong growth, the job and wage prospects of different occupations and even with the nature of work itself.

1.5.1 Technology and industrial growth

Advances in technology are likely to be associated with fast growing industries. It is difficult to be categorical about either which industries are likely to grow faster in coming decades or where research and development effort will be concentrated, but here is a list of contenders:

Environmental technologies – as noted above concern about the environment is likely to escalate, and government and multilateral agencies are likely to sponsor increased research and development on environmental issues.

Alternatives to fossil-fuel based technologies – this is related to the above point, but will involve a greater proportion of private sector interest than environmental technologies in general.

Health care – an implication of the ageing of the baby boom generation will be a growing interest in the development of and advances in health care.

Financial services – there is likely to be intense competition between funds managers to find innovative ways to attract and retain the business of baby boomers.

Information and communication services – there is probably still considerable scope for technological advances and the development of new services.

Biotechnology – research activity in this area is likely to be intense as it will be seen as a means to address both environmental concerns (by increasing the efficiency of global farm production) and the demand for advances in health services.

Travel, leisure and entertainment – there will be more healthy, wealthy older people with time on their hands and money in their pockets to spend on hobbies, interests, travel and entertainment. This is likely to encourage higher levels of innovation in associated activities.

1.5.2 Technology and occupational job prospects

As noted above (2.2), declines in the working age population in Europe and other rich countries in coming decades are likely to encourage the development of labour saving technologies. A similar, but separate issue is whether future technological developments will continue to expand the premium received by skilled and educated workers? For any given technological advance there tends to be an initially very high premium attached to skilled users, but this premium erodes over time as more and more of the knowledge is embodied within the equipment rather than the user. For example, owning a car demanded greater knowledge of how they worked at the beginning of the 20th Century than it does today – even though the technology in the earlier version was much simpler. Cars today are more reliable and do not require an understanding of their operations by the driver.

Yet advances in technology over the last sixty years have typically been associated with an increase in demand for skilled and educated workers. Technology advances are regarded as being one of the key determinants of growing income inequality in western nations in recent decades. This is probably associated with two factors: the pace of technology change and the type of technology change.

The pace of change provides both ongoing jobs for developers of new technology and a comparative advantage to those with the skills to readily pick up and use new forms of technology, ie. it increases the returns for those who have an aptitude for learning. As noted by Galor and Weil, there is a feedback from this into the pace of technological advance – technological change increases the returns to education, thus increasing the supply of educated workers, which in turn increases or continues the pace of technological advance[11].

But very few workers are directly involved in the development of new technology. The growth in income inequality has been more widespread and has coincided more specifically with the introduction of computer based technologies. Autor, Levy and Murnane argue that computers have had a profound impact on the returns from different jobs because they can be used to reduce the demand for workers undertaking routine rule based tasks (e.g. record completing, calculation, picking or sorting, and repetitive assembly) but actually increase the productivity and earning power of workers performing “non-routine” problem solving and complex communication activities such as design, research, medical diagnosis and managing others.[12]

Implications for Wellington

Will the trend towards less routine job tasks continue? The price of computer equipment continues to fall quickly - especially when we take account of the rapidly growing processing power of new computers. Combined with the growing sophistication of software packages, this suggests that more job tasks will be computerised. Almost all jobs involve a combination of routine and non-routine tasks, so the introduction of computers leads to a considerable restructuring of employment. For instance, companies will need to reorganise as routine tasks are computerised and non-routine tasks are consolidated in new positions.[13]

A high proportion of economic activity in Wellington relates to creative activities including policy development within central government. Technology can expand the scope and quality of this type of work, but it is unlikely to threaten employment as discussed above.

The Wellington Region also has a number of research organisations (Crown Research Institutes and the university based research). These both employ research

[11] Galor O and Weil D N. (2000) "Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond." *American Economic Review,* Vol 90, No 4, pp 806-828.
[12] Autor D H, Levy F, and Murnane R J (2003) "The Skill Content of recent Technological Change: An Empirical Exploration", *Quarterly Journal of Economics*, Vol CXVIII, Issue 4, November, pp 1279-1333
[13] See http://www.dol.govt.nz/futureofwork/economy-computers.asp

and development professionals directly and provide opportunities for local businesses to exploit the commercial opportunities from technology developments such as the high temperature superconductor (HTS110) project being developed by Industrial Research Limited at Gracefield.

1.5.3 Technology and the nature of work

Advances in information and communication technologies have made it much cheaper to share information over a distance. This is working towards weakening one of the key reasons for the business model that became the organisational norm during the 20th Century – namely that people have to be in close proximity to communicate their knowledge with others. This need for central location of business activity is "in retreat, not only as a central location where people have to physically go to, but also as a time-organising institution in which work begins and ends at given times and the lines between leisure and labour are firmly drawn"[14].

The costs of sending and receiving information have fallen sharply relative to the costs of moving people in the past 25 years. The full costs of commuting (including time) have not declined. On the other hand, the ability to store, manipulate and transmit information keeps expanding at a dazzling rate, while the cost plummets. As a consequence work is becoming dispersed over space and time allowing workers greater scope to make trade-offs over the timing and location of work. The welfare implications include:

- less commuting
- more flexibility in the leisure-work trade-off, and
- a renewed ability to combine work with household-services production (e.g. childcare).

Implications for Wellington

Do not expect a sudden end to factories, offices and commuting. The pace of change will be determined by both technology (some jobs lend themselves to telecommuting and others do not) and social norms (people will have a difficult time changing their lifestyles from what they have grown up with and are accustomed to). Wellington already has a relatively extensive and advanced telecommunications system that will encourage the predicted changes in work patterns. A greater spread of work by location and time will have implications for public transport and also for the use of social infrastructure such as cafes, sports facilities, and shops.

1.6 Road transport

The steady increase in value added exports will raise demand for road transport services. The transportation of high volume, minimally processed commodities is about getting the products to a port and onto ships. Basic commodities (wood, wool, fruit) tend to generate the majority of transport infrastructure issues, but the nature of demand is quite simple – the more product there is the more transport capacity is required from site to port. While trains may be the logical method of transporting such basic products to ports, road transport comes to the fore when there are substantial seasonal peaks or the requirements become more varied.

[14] Mokyr J (2001) "The Rise and Fall of the Factory System: Technology, Firms and Households since the Industrial Revolution", Carnegie-Rochester Conference on Macroeconomics, Pitsburgh, 17-19 November 2000, p30.

If New Zealand continues to increase the value of its exports through increased domestic processing, then demand for road transport services is likely to outpace the increase in export production. More of the transport will be to and from industrial areas in general, not just along the arterial routes through to ports.

The trend toward value-added exports drives down the significance of international transport costs but increases the importance of the internal transport system to the production process. It also changes the nature of the transport services required from a high volume, time insensitive system to highly flexible, reliable and just-in-time transport services.

Implications for Wellington
The growing importance of road transport as a conduit for the export of high value products is likely to magnify the importance of Wellington's road network and road links with the rest of the lower North Island. Road network shortcomings will increasingly act as a constraint to the Region's industrial development potential and the Region's role as an exporter and export port.

1.7 Maori renaissance

As well as addressing moral, social and legal issues, the settlement of Treaty of Waitangi claims will have ongoing economic consequences for iwi, Maori and New Zealand. Treaty settlements have provided iwi with access to income streams from assets (such as fishing quotas) that will increase the self determination of Maori groups and thus allow these groups to devote resources to address the issues they consider to be important.

A continuation of the Maori renaissance means that it is quite plausible for New Zealand to become a truly bi-lingual society over the next two decades. Ultimately this will reinforce New Zealanders' sense of identity and point of difference with the rest of the world.

Implications for Wellington
The impact on Wellington of the Maori renaissance is likely to be greater than would be suggested simply by considering the number of Maori that live in the Region. As the host of government, Wellington will be exposed to, and be a focal point for, most national and regional Maori issues. Central government has also been an important employer for more highly trained Maori (at least at the initial stages of their careers) and this trend will probably continue and even expand given the upward trend in Maori education attainment.

As the seat of government, moves to officially broaden the use of Te reo will begin in Wellington. This will give Wellington first mover advantages that could have a positive spin-off for the Region's tourism potential.

1.8 A richer ethnic mix

One in five Wellington Region residents was born overseas.[15] Migrants coming to New Zealand are coming from an increasingly diverse range of countries and cultures. Younger people are more likely to claim Maori ancestry, and they are also more likely to identify with more than one ethnicity. This is compounded by the higher birth rates of the Maori and Pacific population.

A richer ethnic mix means that Wellington is exposed to a wider range of views, new goods and services, a greater variety of cultural products, linkages to other countries, and a broader understanding of how the world works.[16]

Implications for Wellington

A more complex make-up of society will increase the demand for a customisation of products, services and work arrangements that cater to individual preferences. A more diverse workforce will increase firms' abilities to respond appropriately to changing patterns of demand.

[15] Statistics New Zealand, 2001 Census. The 20.4% of overseas born Wellington Region residents compares with a national average of 18.7%.

[16] New Zealand Government (2003) *Population and Sustainable Development,* p 37

2 Strengths, weaknesses, opportunities and threats

Below we present the results of a SWOT analysis (strengths, weaknesses, opportunities and threats) for the Wellington Region. We also present in Appendix 2 our perspective of opportunities and threats for the nation as a whole.

Wellington's combination of intimacy, size, accessibility, liveability, vibrancy and natural beauty is special and unique and makes people enjoy living here. What keeps them here, or made them come here, is primarily job-oriented.

The Region's advantages can be summed up as:

- A skilled, intelligent, and creative population
- The seat of government and therefore an important location for national associations
- The natural setting of the main cities – their proximity to oceans and green spaces
- A range of important national institutions and attractions – the High Court and the Supreme Court, the National War Memorial, Te Papa, and Parliament
- Centrality – it is a logical meeting venue for national organisations

Its key weaknesses are:

- Most cities in the Region are relatively constrained in terms of suitable land for residential and commercial development
- Reliance on just two road routes in and out of the Region
- The Region's relatively slow population growth undermines its attractiveness for major national and international businesses
- A lack of critical mass

From that, the outlook for Wellington is predominantly positive; its fundamental strengths lie in areas with high growth potential and economic opportunities wait to be developed. While the identified weaknesses and threats are real, they are generally either of lower consequence or low probability compared with the identified strengths and opportunities.

2.1 Strengths:

2.1.1 Capital city – centre of government and nationhood

- Strong public sector base and relationships with private sector
- Steady employment growth and demand for office space

- Large high income employment base – Wellington is the location of a range of businesses, organisations, and public sector entities capable of attracting a wide cross section of skilled people, and paying them above average salaries

- Tends to make it slightly counter-cyclical in terms of economic cycles

- Important source of demand for ICT businesses

- Government sector employees tend to be driven more by quality of life than the quantity of money they can earn. The emphasis on quality of life supports vibrant and varied cultural activities

2.1.2 Central geographic location

- Particularly important for transport, distribution and logistics industry; ability to distribute to almost all regions throughout New Zealand overnight

- A potentially important national transport hub for air, sea and land traffic

- Compact city centre and central business district – Wellington is a pocket edition of a big city

- A commercially attractive location for meetings and conferences; strong rationale for many businesses to remain in Wellington or at least retain a presence in the capital

2.1.3 Arts, crafts, cultural and creative capital of New Zealand

- Many regions can claim a strong arts sector, but Wellington is reaching a critical mass that makes it an attractive place to locate cultural activities

- Iconic attractions such as Te Papa, House of Representatives, Embassy Theatre, WestpacTrust stadium, St. James Theatre, Somes Island, Dowse Art Museum, Pataka Porirua Museum of Arts and Culture

- Home of the New Zealand Symphony Orchestra, the New Zealand String Quartet, the Royal New Zealand Ballet, New Zealand Opera, and the New Zealand Youth Choir

- Festivals and events (such as the NZ International Arts Festival, major film festivals and from 2005 the annual World of Wearable Arts Festival)

- Worldwide recognition of the regional film sector, after 'The Lord of the Rings'

- Two design schools plus applied design at WELTEC

2.1.4 Transport infrastructure

- Wellington has an excellent natural deepwater port serviced by international shipping lines, a modern international airport terminal, and one of the most comprehensive public transport systems in the country

2.1.5 Size, scope and increasing strength of the education/research sector

- Wide range of regional tertiary institutions: Victoria University, Massey University, Weltec, Whitireia Polytechnic, Open Polytechnic of New Zealand, Campus Group Holdings, Te Wananga-o-Raukawa, Te Wananga-o-Aotearoa, Wellington School of Medicine (Otago), Wellington College of Education
- The Region hosts offices for four Crown Research Institutes: Industrial Research Limited (Gracefield), Institute of Environmental Science and Research Limited (Kenepuru), Institute of Geological & Nuclear Sciences Limited (Gracefield), National Institute of Water & Atmospheric Research Limited (Evans Bay).

2.1.6 Highly skilled workforce

- Wellington Region has the most highly qualified population in New Zealand and household incomes in the Region are amongst the highest in the country
- Wellington's population has a greater proportion in their prime working ages (20-44) than is typical for New Zealand as a whole

2.1.7 Lifestyle features

- Vibrant café societies
- Harbour/waterfronts, beaches, seas, rivers
- Walkways, parks, mountain biking trails and other recreational features spread throughout the Region
- Generally low levels of air pollution
- A highly rated place to live and work

2.2 Weaknesses:

2.2.1 Air transport constraints

- Wellington Airport's short runway prevents direct international passenger flights to destinations further than Australia and the Pacific Islands
- Constrained cargo carrying capacity due to the limited size of planes that fly out of the airport

2.2.2 Roading infrastructure constraints

- Congestion and bottlenecks during peak traffic flows. There is evidence that congestion problems are worsening with peak traffic flow times expanding.[17]
- Limits capacity of Wellington Region to act as a national distribution hub; the Region's constrained transport corridors create cost pressures (e.g. on land and buildings) and congestion discouraging activities to locate in the Region

[17] Wellington Regional Strategy, (2004) *Regional Stocktake*, Forthcoming

2.2.3 Central government

- Higher proportion of employees (rather than employers or self-employed) in the population

- Major changes in government administration can create shocks to the Region's economy

- Production and employment remain skewed (relative to the New Zealand average) towards government or quasi-government service activities, and business services

- Large percentage of the Wellington CBD is taken by the government sector, restricting the ability of other sectors to be introduced and grow

2.2.4 Lack of critical mass

- Continued erosion of corporate head offices and manufacturing base to larger markets (especially Auckland and Australia)

- Longstanding trends of economic and demographic emigration

- Lack of effective volume to sustain or upgrade current infrastructure – urban public transport, port, airport

2.2.5 Other

- A reputation for a windy climate

- A significant transient population reflecting the importance of the government sector, foreign embassies and head offices.

2.3 Opportunities:

2.3.1 'Super-creative core'

- The Wellington Region stands out internationally as a place that specialises in creativity. This represents a genuine competitive advantage that Wellington may be able to utilise more fully

- One in every five workers in Greater Wellington forms part of the 'super-creative core' that is driving the New Zealand economy both nationally and globally

- The 'creative class' makes up 38% of the working population – that compares favourably with other New Zealand cities; Auckland 31%, Dunedin 30%, Hamilton 28%, Palmerston North 28%, Christchurch 27%, Tauranga 23%, Napier-Hastings 22%

- Wellington's 'creative class' displays comparative strength in the important 'arts' and 'science/IT' sectors

- Wellington is the only New Zealand city that is in the same league as the top centres of creativity in the United States, comparing very favourably to the top three US cities (with populations between 250-500k) – Bloomington (40%), Washington D.C (38.5%) and Raleigh-Durham (38.5%)

- Part of this creative talent is developing scientific and technology advances in the research institutions around the Wellington Region. The challenge is to ensure that the commercial benefits from these advances can be captured locally.

- Another key opportunity and challenge is to expand the regions income from design activities.

2.3.2 "Resort" attractions

- Many places hold attraction as a tourist or visitor destination because they are somewhere you can "get away from it all" or "chill out". Wellington currently delivers essentially an urban/cultural experience, but there is scope to further develop and market outdoor pursuits as a region – mountain biking, tramping, sailing, fishing
- If Wellington can demonstrate success with the arrival of the Wearable Arts Show, there will be impetus for the Region to attract more events to build on its already impressive list.

2.3.3 High growth industries

- The trend analysis above (section 1) identifies strong international growth prospects for activities such as travel, entertainment, financial services, health care, technology development – the types of activities that require a creative workforce; the type of activities that play to the Region's strengths.

- Although small by international standards, the cities that make up the Region offer a high standard and range of business and government services, diversity of service sector employment, and a growing range of cultural activities and entertainment facilities

2.3.4 Elderly job prospects

- The preponderance of service activities including professional and policy advice may provide older workers with more employment opportunities than are available in other regions

2.3.5 Wind

- The Region's reputation as a windy place could be turned to advantage by encouraging the development of wind farms to provide a major source of renewable energy.

2.4 Threats:

2.4.1 Regional earthquake risk – resultant loss of industry

- A significant earthquake would convince more businesses to relocate and could also encourage the Government to decentralise its activities

2.4.2 Continued business and population emigration

- A static population will encourage some business to relocate to faster growing regions
- The steady decline in some industries will undermine the infrastructure (pool of skilled labour, service facilities and logistics) important to sustain remaining businesses
- Wellington's highly skilled population base will become increasingly mobile in a rapidly globalising labour market
- Demand for office space by government departments in the CBD risks crowding out private sector activity, either by adding to their cost structure and restricting their pace of growth or by encouraging firms to locate in other regions.
- A reliance on central government and the economic security it brings may lead to complacency about the need to develop new opportunities
- Risk that central government may erode out other business space

2.4.3 Loss of Capital status / government sector

- Risk of devolution of the government sector to the regions
- Some core activities in Wellington are vulnerable to government downsizing or decentralisation. This might create an outflow of the types of skilled people who have traditionally underpinned creative activities

2.4.4 Loss of key events and organisations

- Wellington as a Super-12 venue, rugby sevens tournament, international concerts, International Festival of the Arts
- Linked to Wellington's ability to host such events are the national cultural groups that are based in Wellington. The loss from the region of groups such as the New Zealand Symphony Orchestra, the New Zealand String Quartet, the Royal New Zealand Ballet, New Zealand Opera, and the New Zealand Youth Choir would make it more difficult for the region to maintain its venues and host events.

2.4.5 Volatility of new growth sectors

- Risk that the new high growth industries fail to achieve the scale to replace the traditional business services and finance industries

- Alternatively that there are suitable opportunities for people whose jobs are displaced in a more dynamic, but volatile, business sector

2.4.6 Excessive domestic focus

- Reliance on domestically focussed services and the government sector mean that the Region economy will be largely dependent on the fortunes of the New Zealand economy rather than a range of international markets

2.4.7 The quality of service sector infrastructure

- The performance and reputation of the Region's health and education services have an important influence on people's decisions to settle in the Region. Universities need to continue to aim high to improve their commercial focus and links with business, and ensure adequate support for and integration of international students into the regional community

2.4.8 Loss of population as age profile increases

- Topography is not conducive to easy housing access – could potentially impact on the retention of elderly and less mobile people

3 Constraints to economic growth

This section examines key constraints to economic growth for the Wellington Region over the next 20 years. By looking at a 20-year horizon it does not include potential short term constraints to growth. One obvious and topical current constraint is skill shortages. We do not include this as a potential constraint here as this should not be an ongoing constraint to growth. Although scarcity of labour may constrain activity over the short term, persistent shortages should lead to changes in the way businesses approach production problems. For example, they could introduce more capital intensive production methods, increase training activities or import/buy in more skilled labour. These are largely factors that are within the control of individual firms, and we note in the trends section (1.2 and 1.5) that firms will need to adapt to the changing labour market conditions. Ultimately if the demand for the product of Wellington firms is increasing to the extent that they demand more workers (and are willing to pay more for these extra workers), then this should lead to an expansion of both the population and the wealth of the Wellington Region.

3.1 Transport systems

3.1.1 Roading and rail

The geography of the Wellington Region means that it is reliant on strategic arterial links between communities. This in turn means that these routes are vulnerable to congestion problems if infrastructure spending is not adequate and to chaos if critical links are broken. This constraint impacts on both intra and inter-region transportation. It reduces transport efficiency for households and businesses in the Region and it can deter potential visitors and /or business opportunities from outside the Region. These transportation problems are effectively reducing the Region's ability to take advantage of agglomeration opportunities. That is, in many cases the Region is forced to act as a number of small centres rather than as a larger, more efficient unified urban area.

Improvements to intra-region transport effectively reduces the gaps between the Region's urban centres. Joining the gaps between urban centres, such as Hutt City, Upper Hutt City and Porirua, is made difficult because there is a single point of motorway and rail entry into Wellington City (the Ngauranga Interchange), bounded by Ngauranga Gorge in the West and the sea in the East, and this area is not suitable for large-scale development. The gap between urbanised Wellington and the rest of the Region could be closed in a metaphorical sense if transport through it was low-cost and fast, and the single point of entry means the transport corridors is easier to define than in, say, Auckland. But at present transport infrastructure is under pressure. The rail network has become run down (whether under Tranzrail or previous government ownership is immaterial to the problem at hand) and this is putting pressure on roads which are already congested at peak hours.

So, what can we do to ease the constraints to agglomeration? Some work – further North than Ngauranga Gorge – is in progress to improve the link to the Kapiti Coast, and a Hutt Link Road is planned, but these developments will take time. Talk of a Transmission Gully road funded by tolls is so far just that – talk – and in any case will not reduce the potential bottleneck at the Ngauranga interchange. There is also the issue of addressing constraints on the link between Seaview and the Hutt Road at Petone, and along the Hutt Road to the Ngauranga interchange.

In the short term, a high priority is to upgrade the rail system, which is the main public transport link between Wellington City and other parts of the Region. An efficient and effective public transport system will take some pressure off the roads.

Over the medium term upgrades to the roading network are required, for as we noted in the trends section above (1.6) success at creating higher value from export activities will require more intensive use of road transport, not just between regions but within the region. Resolving this issue will likely require consultation, negotiation and joint action by local government, central government and the private sector.

Another indirect approach is to address congestion problems by reducing the demand on the road system. In this respect local governments could also consider how any barriers to new, relatively low-cost housing might be removed, without increasing costs for businesses (apartments in urban areas do raise costs for businesses by reducing the supply of office buildings). However, such an approach should be regarded as a complement, not an alternative, to road development. Although inner-city inhabitants have less need to use a car during the week, they will still want to move around the Region at weekends. Congestion during the weekend will also deter people from living in the Region.

3.1.2 Air and sea

The length of the runway at the Wellington Airport and limits to coastal shipping services, particularly across the Cook Strait also place a constraint on the Region's growth potential. The length of the runway limits the size of aircraft that can land at Wellington Airport – effectively restricting direct international links to Australia. While there might be some impact on visitor numbers to Wellington from this, it is the impact on freight that is likely to be more profound in terms of the Region's growth potential. Small aircraft have considerably less cargo space available for freight. This makes it less likely for a company that has airfreight export opportunities to locate or remain based in the Wellington Region. The logistics of airfreighting out of Wellington are more difficult than either Auckland or Christchurch.

The costs, both direct and indirect, may be regarded as too high to justify the expense of extending the runway. For example will the potential for increased traffic be sufficient to repay the investment cost? There are also other important considerations such as the noise impact from a busier airport serviced by larger jets. However, the short runway does effectively curtail the Region's opportunities to expand output in particular areas such as the export of perishable goods or niche customised manufacturing.

An alternative approach is to develop the airport at Paraparumu or Palmerston North. However, this will present considerable challenges as well, not the least being a prerequisite that regional land transport links are upgraded.

The Wellington Region has the valuable natural asset of a deep sea port that is strategically located for moving cargo and people between the North and South Islands. The Region is unable to make very extensive use of this asset. This in part reflects a lack of critical mass, both in terms of Wellington and New Zealand's relatively small population, and in terms of the Region's production base. The net impact is that, by comparison with busier ports around the world, there is a relatively high cost of moving goods across the port and goods and people across the Strait. While this cost imposes a barrier to business activity in the Region, it is not clear to what extent the port management contributes to this as distinct to it reflecting

Wellington's small population and production base, and the issues relating to land transport discussed.

3.2 Population issues

Success breeds success. It is easier to attract new investment into a region that is already growing. An expanding population can make it is easier to find suitable labour and/or mean that it is easier to enter the market. Wellington's population has grown modestly compared with other regions in recent years (5.9% between 1991 and 2001 compared with 10.8% for New Zealand as a whole). This means that there are greater risks attached to starting new enterprises in Wellington than in faster growing regions. Success relies more on taking market share from other operations.

Part of the reason for Wellington's relatively slow population growth has been its inability to retain older people in the Region. As discussed in the Trends Section (1.1), Wellington has a higher share of prime aged adults (20 to 44) but a lower share of people aged over 45. People come here to begin their careers but finish their careers and retire in other places.

If this trend continues, the Region's population could actually contract in coming decades. However, as discussed in section 1.1, we do not think that this will happen as economic growth is likely to favour the creative industries that use workers with which Wellington is well endowed.[18] The strong demand for their skills, in combination with improved health at older ages, will encourage many of Wellington's creative workers to work later in life and remain in the Region.

However, potentially it is this very group that have been leaving in the past and hence skewing the Region's age structure. So one can not simply rely on market forces to retain people in Wellington. Retention will depend on the overall package people get out of living in the Wellington Region rather than elsewhere. Poor public facilities, road congestion, lack of public transport and other frustrations are the types of things that will drive people away to enjoy a more pleasant existence with better weather elsewhere.

3.3 Reputation of Education and Health services

Much of the literature promoting Wellington notes the presence of education and health facilities. However, the focus tends to be on their quantity rather than their quality.

Education and health services are not only part of the package that helps to entice people to settle in Wellington, they are also potential centres of excellence that could be drivers of economic activity in the Region in coming decades.

For a region that prides itself on the amount of creative talent its citizens have, one might have expected that the Region had a higher reputation for its education and health services than is readily apparent. Wellington's relatively small size means that it is likely to yield greater growth dividends from strategies that emphasise the quality of what it does rather than the volume.

[18] Indeed the Wellington Region actually had a net inflow of migrants from other New Zealand regions between 1996 and 2001 (Statistics New Zealand, 2001 Census of Population, Table 25)

Perhaps the protection offered to the Wellington economy by being the seat of government might be constraining the Region's growth potential by promoting a sense of complacency. Our service sectors do not have to fight hard to attain and retain business – the swings between the good times and bad times are less marked than in other regions. The net result of this safer environment may also be that our pace of growth is slower.

3.4 Inertia in the business sector

A number of factors can potentially conspire to create inertia in the business sector, a concurrence of which could yield a constraint to the Region's growth potential. Wellington based businesses are potentially susceptible to the following sources of inertia:

- A sense of security and comfort based on the steadiness of economic conditions that result from a large government presence in the Region.

- A large service sector which tends to encourage a reactive response to customers rather than a proactive product development focus.

- Linked to this is that an economy dominated and driven by the service sector will tend to have an internal (non-export) focus, which again shields these businesses from more intense global competition pressures.

- Social norms of people in the Wellington Region who value leisure, family and community interests as much as material wealth, thus discouraging business growth beyond self chosen limits.

- A lack of effective networks with government agencies, local government, education providers and research organisations that would either make them aware of opportunities or enable efficient negotiation and development of productive alliances.

Many of these factors are not unique to Wellington, and they do not necessarily apply to the current business sector. However, the Wellington Regional Strategy Forum will need to recognise the constraints that might be imposed on achieving the aims of the strategy if it conflicts with business aspirations (inertia). Success of the strategy may require some means of establishing a consensus between the Wellington Regional Strategy Forum and business representatives on what the aims of the strategy should be.

4 Appendix 1 - Historical background and context

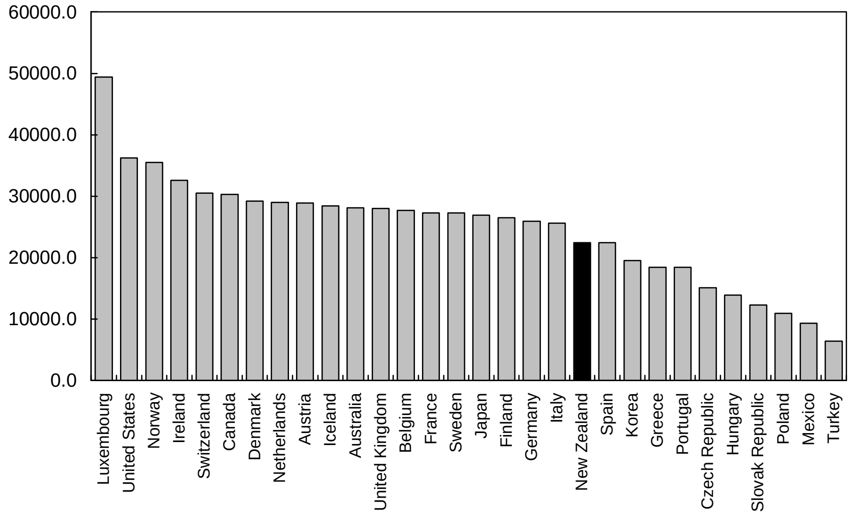
This appendix presents details of the major changes the regional and national economy has experienced in recent decades, the changing drivers of economic growth for the region and the nation, and the impact Wellington's geography has had on the regions economic development. The appendix ends with a timeline of important events for New Zealand and the Wellington Region.

4.1 Major Changes

4.1.1 The New Zealand Economy

In 1970 New Zealand's per capita GDP placed it ninth within the OECD. By 2002 New Zealand had slipped to 20th as shown in Figure 1. Most of the slide in relative economic performance occurred during the second half of the 1970s and the second half of the 1980s. New Zealand's relative growth performance began to improve from the early 1990s and, if anything, has accelerated but our GDP per capita remains around 85% of the OECD average[19].

OECD per capita GDP rankings
$US at purchasing power parity, 2002



Source: OECD

Graph 3

The gains since 1993 are attributable to a number of factors including:

- Changes in the structure of the economy as competition and choice have driven out low value industries and encouraged the development of higher value, internationally competitive businesses

[19] New Zealand's Performance: Context and Challenges, Nathan McLellan, New Zealand Treasury

- An increase in multifactor productivity supported by structural reforms since the 1980s and continued confidence in the macroeconomic environment promoted by transparent monetary and fiscal policy frameworks[20].

- A steady rise in the terms of trade as importing has become more contestable and exporters have been compelled by a high currency to identify evermore valuable products.

- Low inflation ensuring price signals play an effective role in allocating labour and capital.

- A more flexible and dynamic labour market enhanced by more open and business-oriented immigration policies.

4.1.2 Political and Economic Reforms

Prior to the 1970s New Zealand enjoyed unlimited access to the UK market for its primary exports. It was the most important destination for butter, cheese and lamb exports. When the UK entered the EEC (European Economic Community) in 1972 quotas were introduced[21]. To compound New Zealand's economic problems oil prices rose dramatically producing the worst terms of trade in 30 years.

New Zealand's response was initially to raise a considerable amount of foreign debt to help sustain domestic demand; impose severe import controls; embark on a series of major investments to make the country less dependent on imported oil; develop a range of export incentives and subsidies to encourage new export industries and boost existing ones; and negotiate a comprehensive free trade deal with Australia.

The fourth Labour Government dramatically changed policy direction, opening up the economy to competition both locally and internationally, restricting government involvement in the economy to core social and fiscal activities. Many former state owned businesses were privatised between 1985 and 1995.

The economic reforms led to the Wellington Region losing large tracts of its manufacturing base – over 11,000 full-time equivalents jobs were lost in the Region between 1977 to 1990 (Britton S, et al, 1992 pg 242).

4.1.3 Climatic Conditions

Changes in climatic conditions can have a marked impact on the business cycle in New Zealand. Climate influences energy supply and the production of meat and dairy products, thereby directly affecting exports. Climatic effects were felt during the dry summers of 1997 and 1998, and the subsequent falls in agricultural production and electricity generation reduced GDP growth[22].

4.1.4 Northward Drift

Many corporate head offices and business organisations in Wellington have relocated to Auckland and Australia. In 1985, 62 of the top 200 companies in New

[20] NZIER – New Zealand's Regional economic performance
[21] http:www.mfat.govt.nz/foreign/eco/uruguayround/ruruguaykeyoutcomes.html
[22] New Zealand's Economic Growth: A Near and A Far View, John Whitehead, Secretary to the Treasury, June 2004

Zealand were located in Wellington, and by 2002 this number had dropped to 34. By contrast Auckland saw a rise from 78 to 114 over the same time period.

4.2 Changing Drivers of Economic Growth

4.2.1 Labour Utilisation

New Zealand's economic growth over the past decade has been driven to a large degree by rising employment (contributing over 75% of real output growth), with a smaller contribution coming from labour productivity growth. New Zealand now has one of the lowest rates of unemployment in the developed world implying the scope for further economic growth via adding more labour is limited. Ongoing economic growth is increasingly dependent on labour productivity growth[23].

4.2.2 Labour Productivity

New Zealand's rate of labour productivity growth has been relatively low – significantly lower than in Australia. However, low rates of capital investment here explain much of the difference between New Zealand and Australia. More recently New Zealand has lifted its rate of capital investment suggesting a lift in the rate of labour productivity growth. Furthermore, there is some evidence from the terms of trade adjusted GDP that New Zealand is securing productivity growth through better allocation of labour and capital gaining.

4.2.3 Changes in International Trade

The structure of New Zealand's trade has changed significantly over the past three decades. The UK accounts for less than 10% of our trade today compared to over 36% in 1970. Pacific-rim countries dominate our trade today.

There has been a marked increase in the degree of primary product processing and steady increase in the range and sophistication of products exported. The food processing sector is the pre-eminent export sector. Service exports have grown steadily and account for around 25% of all goods and services exports (mainly tourism and education).

4.2.4 Changing Industry Focus

In the Wellington Region there has been a steady shift in the balance of economic activity away from traditional key industries including finance, insurance, manufacturing and utilities to higher growth activities such as digital media, film and television, software and information technology, education, and tourism. These activities have yet to achieve the size and the economic impact of the traditional lead industries.

4.3 The National Economy's Influence on the Regional Economy

4.3.1 Movement of Goods

The movement of goods in and around New Zealand directly affects the Wellington port. Currently the major exports through CentrePort include manufactured goods,

[23] Growth and Innovation: Benchmark Indicators Report 2003, Ministry of Economic Development

dairy products, fish, logs, timber products, wool and scrap steel. The major imports include bananas, cars, cement, manufactured goods, paper, petroleum products, soda ash and steel. Much of the export cargo passing through CentrePort comes from the Wellington Region, but cargo is also received from the surrounding Regions[24].

4.3.2 Northward Drift

As indicated earlier, the northward drift of major companies has persuaded many ancillary businesses to also relocate out of the Region. Examples have been declines in higher education, television service and advertising jobs since 1994 in the Wellington Region while at the same time Auckland experienced strong job growth in these industries.[25]

4.3.3 Size of Business

A pattern of economic development in New Zealand, which is mirrored in the Wellington Region is the importance of small businesses in driving economic growth.[26] Small businesses face many challenges especially if they have specialised products or services that require the development of export markets to allow them to grow. Access to finance and appropriate skilled labour are common problems amongst small firms[27].

4.4 The Regional Economy's Influence on the National Economy

4.4.1 The nation's capital

A significant proportion of the Region's workforce is employed either by central government, political parties, industry associations, public relations firms and policy consultants. Many of these people play a major role in determining or influencing government policy. Furthermore, the head offices of a large range of businesses, organisations and public sector entities are located in Wellington. The combination of business and government means that many of the decisions made in Wellington have an important influence on employment and economic activity in other parts of the country.[28]

4.4.2 Link with the South Island and major port of the lower North Island

As a Region with an excellent natural deepwater port serviced by international shipping lines, a modern international airport, sound land transport links, and thus the ability to distribute to almost all regions throughout New Zealand overnight, Wellington is an important national transport hub.

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[24] http://www.centreport.co.nz/centreport/

[25] BERL, *Wellington Regional Sector Report for 2003*, Report to: Positively Wellington Business, February 2004

[26] According to Statistics New Zealand 84.4 % of Wellington Region businesses employed fewer than 6 people in 2003; 98.6% employed fewer than 50. This type of pattern is widespread throughout New Zealand, with national figures very similar to those quoted for the Wellington Region.

[27] NZTE Statement of Intent 2004/2005

[28] Another implication is that inhabitants of Wellington *City* are more likely to work in a large organisation than anywhere else in the country. According to Statistics New Zealand 36.6% of Wellington City employees worked in organisations with over 100 employees. In Kapiti just 2% worked in such a large organisation. In the rest of the Region this ratio is similar to the national average of 23.3%.

4.4.3 International image

As the host of such events as the New Zealand Festival of the Arts, the International Sevens Tournament and the annual Film Festival, Wellington has offered contributions to both the tourism industry and to New Zealand's image abroad. Also as the home of such attractions as Te Papa, the Embassy theatre, WestpacTrust Stadium, the Dowse Art Museum, Pataka Porirua Museum of Arts and Culture and the Lord of the Rings, it has a notable entertainment and hospitality sector which is acknowledged widely and attracts people from far afield – both nationally and internationally.

4.5 Wellington Geography and Economic Development

4.5.1 Constraints to Urban Expansion

Wellington has limited physical ability for urban expansion. Options for greenfields and industrial and commercial developments are limited, as many parts of the Wellington Region are already well utilised. Constraints are greatest in Wellington City, as there are still a number of undeveloped industrial sites in Upper Hutt, Porirua, Kapiti and Seaview.

4.5.2 Transportation

The Wellington port is located in an important commercial and trading region. Lambton Harbour has the natural asset of an excellent deep-water port. There is increasing local and export demand for services, and the services sector is the largest contributor to the Wellington Region's economy.

4.6 Visual timeline[29]

1970	Natural gas from Kapuni supplied to Auckland.
1971	New Zealand secures continued access of butter and cheese to the United Kingdom. Nga Tamatoa protest at Waitangi celebrations. Tiwai Point aluminium smelter begins operating. Warkworth satellite station begins operation.
1972	Labour Government led by Norman Kirk elected. Equal Pay Act passed.
1973	Great Britain becomes a member of the EEC. Naval frigate despatched in protest against French nuclear testing in the Pacific. New Zealand's population reaches three million. Rugby tour of South Africa cancelled. Oil price hike means worst terms of trade in 30 years. Colour TV introduced. **The Wellington Regional Water Board** was formed, in response to an act of parliament requiring water resources to be managed on a Regional basis. The Hutt River Board and the Hutt Valley Underground Water Authority became part of the WRWB. For the first time, the bulk water supply resources of the Wellington Region were consolidated under a single controlling authority.
1974	Prime Minister Norman Kirk dies. Commonwealth Games held in Christchurch.
1975	Robert Muldoon becomes Prime Minister after National election victory. Maori land march protests against land loss. The Waitangi Tribunal is established. Second TV channel starts broadcasting.
1976	Matrimonial Property Act passed. Pacific Islands "overstayers" deported. EEC import quotas for New Zealand butter set until 1980. Introduction of metric system of weights and measures. Subscriber toll dialling introduced.
1977	National Superannuation scheme begins. New Zealand signs the Gleneagles Agreement. The 200-mile exclusive economic zone is established. Bastion Point occupied by protesters.
1978	Registered unemployed reaches 25,000. National Government re-elected.
1979	Air New Zealand plane crashes on Mount Erebus, Antarctica, 257 people die. Carless days introduced to reduce petrol consumption.
1980	Social Credit wins East Coast Bays by-election. Saturday trading partially legalised. Eighty-day strike at Kinleith Mill. **The Wellington Regional Council** was formed, incorporating the Regional Water Board and the Regional Planning Authority. The WRC assumed responsibility for collection and treatment of water for greater Wellington.
1981	South African rugby team's tour brings widespread disruption. **Waterloo Treatment Plant** was built to supply artesian water to Lower Hutt and Eastbourne, replacing the Hutt Park Pumping Station, and to Wellington.
1982	CER agreement signed with Australia. First kōhanga reo established. Year-long wage, price and rent freeze imposed—lasts until 1984.
1983	Visit by nuclear-powered United States Navy frigate "Texas" sparks protests. Official Information Act replaces Official Secrecy Act. New Zealand Party founded.
1984	Labour Party wins snap general election. Finance Minister Roger Douglas begins deregulating the economy. New Zealand ratifies the United Nations Convention on the Elimination of All Forms of Discrimination Against Women. Te Hikoi ki Waitangi march and disruption of Waitangi Day celebrations. Auckland's population exceeds that of the South Island.

[29] Statistics New Zealand, http://www.wrc.govt.nz/ws/history.htm

	Government devalues New Zealand dollar by 20 percent.
1985	Anti-nuclear policy leads to refusal of a visit by the American warship, the USS "Buchanan". Greenpeace vessel Rainbow Warrior bombed and sunk by French agents in Auckland harbour. New Zealand dollar floated. Keri Hulme wins Booker Prize for "The Bone People". First case of locally contracted AIDS is reported. Waitangi Tribunal given power to hear grievances arising since 1840.
1986	Homosexual Law Reform Bill passed. Royal Commission reports in favour of MMP electoral system. Jim Bolger becomes National Party leader. Soviet cruise ship, the "Mikhail Lermontov", sinks in Marlborough Sounds. Goods and Services Tax introduced. First visit to New Zealand by the Pope.
1987	Share prices plummet by 59 percent in four months. Labour wins general election. Mäori Language Act making Mäori an official language passed. Anti-nuclear legislation enacted. First lotto draw. New Zealand's first heart transplant is performed. New Zealand wins Rugby World Cup. Significant earthquake in the Bay of Plenty. A treatment plant, pumping station and storage lakes were completed at **Te Marua**. The plant introduced new processes representing a major advance in water treatment, while the storage lakes improved security against shortages or source water quality problems by providing a back-up source of water for treatment.
1988	Number of unemployed exceeds 100,000. Bastion Point land returned to Mäori ownership. Combined Council of Trade Unions formed. Royal Commission on Social Policy issues April Report. Gibbs Report on hospital services and Picot Report on education published. State Sector Act passed. Cyclone Bola strikes northern North Island. Electrification of North Island's main trunk line completed. New Zealand Post closes 432 post offices. Fisheries quota package announced for Mäori iwi.
1989	Prime Minister David Lange suggests formal withdrawal from ANZUS. Jim Anderton founds NewLabour Party. Lange resigns and Geoffrey Palmer becomes Prime Minister. First annual balance of payments surplus since 1973. Reserve Bank Act sets bank's role as one of maintaining price stability. First school board elections under Tomorrow's Schools reforms. First elections under revised local government structure. Sunday trading begins. Third TV channel begins. Mäori Fisheries Act passed. The Morton Dam was decommissioned due to concerns about its ability to withstand a major earthquake. Weirs and water intakes were built on the Wainuiomata River and George Creek as a direct replacement for the dam.
1990	New Zealand celebrates its sesquicentennial. Mäori leaders inaugurate National Congress of Tribes. Dame Catherine Tizard becomes first woman Governor-General. Geoffrey Palmer resigns as Prime Minister and is replaced by Mike Moore. National Party has landslide victory. Jim Bolger becomes Prime Minister. One and two cent coins are no longer legal tender. Commonwealth Games are held in Auckland. Telecom sold for $4.25 billion. Welfare payments cut. Big earthquake in Hawke's Bay.
1991	First budget of new Finance Minister, Ruth Richardson. Welfare payments further reduced. The Alliance Party is formed. Employment Contracts Act passed. Consumers Price Index has lowest quarterly increase for 25 years. Number of unemployed exceeds 200,000 for the first time. New Zealand troops join multi-national force in the Gulf War. An avalanche on Mt Cook reduces its height by 10.5 metres.
1992	Government and Mäori interests negotiate Sealords fisheries deal. Public health system reforms. State housing commercialised. Watties Foods is bought by American company, Heinz. New Zealand gets seat on United

	Nations Security Council. The **upper dam at Karori** was decommissioned, also following earthquake safety concerns. **Ngauranga Pumping Station** was built to further improve water supply security to the four cities of the region. It linked the two main supply pipelines, Te Marua-Wellington and Wainuiomata-Wellington, and allowed for water to be pumped from one to the other so that each city has more than one source of water supply.
1993	Centennial of women's suffrage celebrated. New Zealand First Party launched by Winston Peters. National wins election without majority—Opposition MP Peter Tapsell becomes Speaker of the House, thus giving the government a majority. Referendum favours MMP electoral system. New Zealand film "The Piano" has international success. **Wainuiomata Treatment Plant** was built to fully treat water from the Wainuiomata and Orongorongo collection areas, thereby raising the quality of water supplied to the standard of Te Marua.
1994	Government commits 250 soldiers to front-line duty in Bosnia. Government proposes $1 billion cap in plan for final settlement of Treaty of Waitangi claims. Sharemarket reaches highest level since 1987 crash. New Zealand's first casino opens in Christchurch. First fast-ferry passenger service begins operation across Cook Strait.
1995	Team New Zealand wins America's Cup. Occupation of Moutua Gardens, Wanganui. Waikato Raupatu Claims Settlement Act passed. New political parties form: the Conservative, Christian Heritage and United New Zealand. Renewal of French nuclear tests results in New Zealand protest flotilla and navy ship "Tui" sailing for Moruroa Atoll. Commonwealth Heads of Government Meeting in Auckland, Nelson Mandela visits. New Zealand contingent returns from Bosnia.
1996	Imported pests—Mediterranean fruit flies and white-spotted tussock moths—cause disruption to export trade and to Aucklanders. Thirteenth National Park, Kahurangi, opened in north-west Nelson. Waitangi Tribunal recommends generous settlement of Taranaki land claims. First legal sports betting at TAB. $170 million Ngai Tahu settlement proposed, $40 million Whakatohea settlement announced. First MMP election brings National/New Zealand First coalition government.
1997	America's Cup damaged in attack by a Mäori activist. TV4 begins daily broadcasts. Customs Service cracks down on imported Japanese used cars following claims of odometer fraud. Auckland's Skytower is opened. Beatrice Faumuina wins gold for discus at the World Track and Field championships in Athens. Auckland band OMC's album "How Bizarre" goes gold in the United States. Compulsory superannuation is rejected by a margin of more than 9 to 1 in New Zealand's first postal referendum. Jim Bolger resigns as Prime Minister after a National Party coup; he is replaced by New Zealand's first woman Prime Minister, Jenny Shipley. Wellington Regional Council has concentrated on improving the efficiency of production from its Te Marua, Wainuiomata and Waterloo treatment plants, thus reducing the cost and environmental impact of supplying water. The **Karori Reservoir** ceased to be used for water supply following the construction of a new closed reservoir at Ngauranga. Open storage was no longer considered sufficiently secure from the threat of waterborne disease.
1998	Auckland city businesses hit by a power cut lasting several weeks. The crisis continues for over a month and results in an inquiry into Mercury Energy. The women's rugby team, the Black Ferns, become the world champions. Mortgage rates and the New Zealand dollar both take a slide leaving NZ$1 below the US50c mark for the first time in 12 years. The Coalition Government is dissolved leaving the Jenny Shipley-led National party as a

	minority government. Several cases of tuberculosis discovered in South Auckland in the worst outbreak for a decade. The Hikoi of Hope marches to Parliament calling for more support for the poor. The government announces plans to lease 28 new fighter aircraft but says no to a new naval frigate.
1999	**Buick Street Pumping Station** was closed in 1999, with Petone now receiving its water supply from the Waterloo treatment plant.

Source: Statistics New Zealand, http://www.wrc.govt.nz/ws/history.htm

5 Appendix 2 – National opportunities and threats

5.1 National Opportunities

- High value niche markets in a wide range of activities current and historical examples include education, wine, aquaculture, biotech, IT, boat building, tourism, design, creative services, etc

- Exploiting links with international companies, particularly in the development and sale of new technologies

- Exploiting New Zealand's competent but internationally cheap human capital in science, research, design, and services

- Exploiting comparative policy advantages, e.g. where New Zealand based firms do not face restrictions present in other countries (e.g stem cell research), business friendly rules (e.g. low set up costs).

- Free trade agreement with China could be used to attract foreign direct investment if New Zealand can sell itself as an easy place to do business that has direct access into the Chinese market.

- Exploiting New Zealand's relative safety (safe food, distance from areas of unrest)

- Exploiting opportunities that could arise from climate change

- Exploiting New Zealand's time zone (e.g. 7am.com)

5.2 National Threats

- Breakdown in global co-operation leading to trade barriers and declines in international protection for property rights.

- Increases in global instability (terrorism, wars) etc leading to breakdown in rule of law.

- Breach of New Zealand's bio-security, e.g. breakout of foot and mouth disease

- Dry-up in immigrant arrivals in New Zealand, independent or combined with increased international demand for skilled labour enticing increased outflows of New Zealanders. This would probably be a reflection of relatively poor economic performance

- A significant decline in the number of international students in New Zealand and the impact this will have on resourcing of New Zealand education institutions.

- Government laws or processes perceived as increasing the cost/effort of basing operations in New Zealand – at the extreme that could be a perceived reduction in the robustness of our property rights legislation.

- Increases in fuel costs making New Zealand's exporters (including tourism and foreign education) less price competitive

- Social unrest and threats to personal security, eg Maori sovereignty aspirations leading to protests and outbreaks of violence.

- Natural disasters