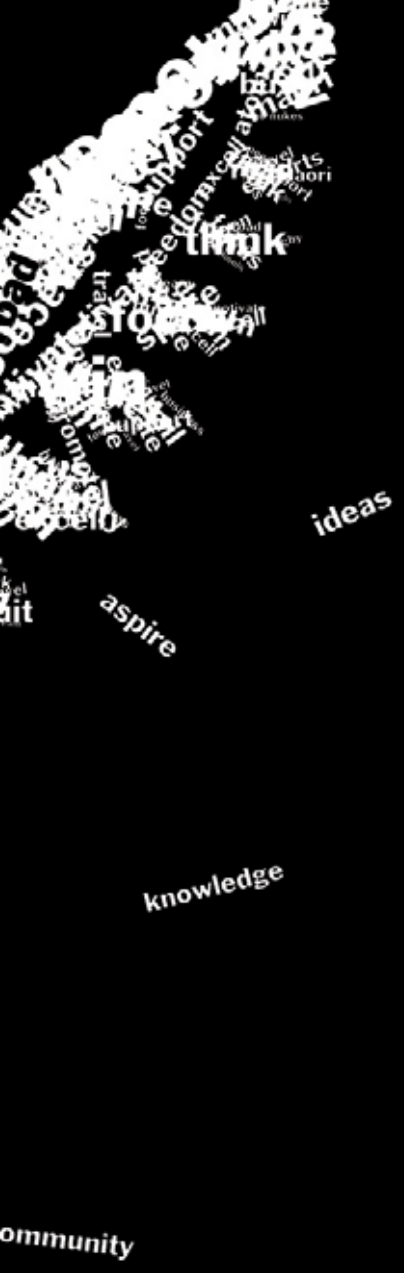


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DISCUSSION PAPER 2005 / 3

# No country is an island:

## Moving the New Zealand economy forward by taking it to the world

DAVID SKILLING | DANIELLE BOVEN

NOVEMBER 2005

**The New Zealand Institute**

The New Zealand Institute is a privately funded think-tank that aims to introduce new and creative thinking into the economic and social policy debate in New Zealand. We are committed to the generation of debate, ideas, and solutions that creatively address New Zealand's economic and social priorities in order to build a better and more prosperous New Zealand for all New Zealanders.

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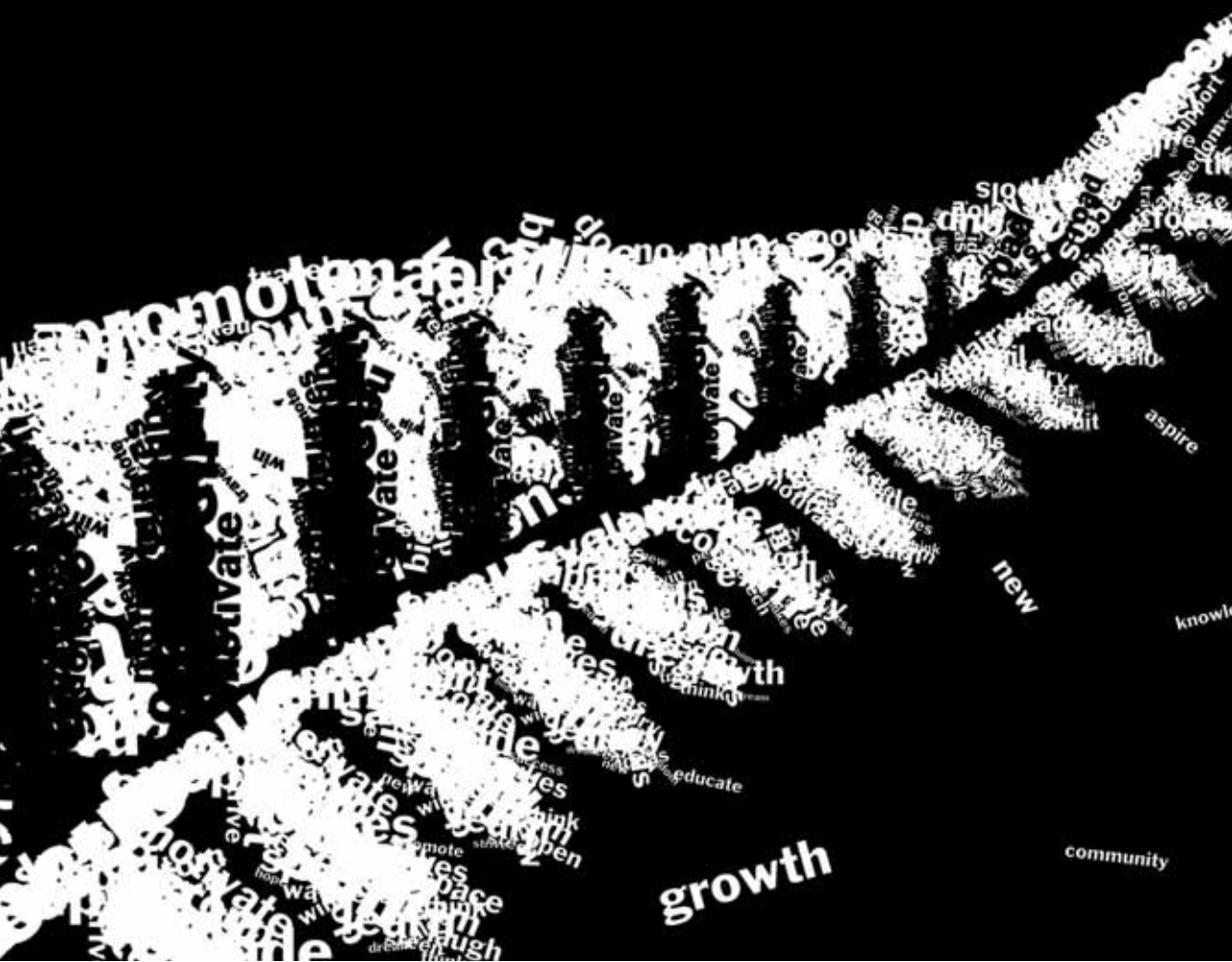
‘No country is an island’ is the first paper in a series that forms part of the New Zealand Institute’s research project on ‘Creating a global New Zealand economy’.



## FOREWORD:
## CREATING A GLOBAL NEW ZEALAND ECONOMY

The New Zealand economy has performed well over the past 15 years, with economic growth rates that exceed those generated in previous decades and that compare well against the US and Australia.

The challenge now is to build on this good performance, so that New Zealand's income levels converge to those of other developed countries. Sustaining high rates of economic growth into the future will necessarily involve a substantial increase in labour productivity growth.

New Zealand is a small economy, and substantially raising New Zealand's labour productivity will require much greater levels of exporting and foreign investment by New Zealand firms. Exporting and investing offshore provides scale, growth opportunities for New Zealand's most productive firms, and great learning opportunities for New Zealand firms. New Zealand cannot achieve and sustain high rates of productivity growth without making much greater use of larger markets through international activity.

However, New Zealand's international performance does not compare well against many other developed countries, and only a small number of New Zealand companies are substantially engaged in international markets in terms of either exporting or investing. New Zealand is not participating in increased international economic activity to the extent that many other countries are.

Of course, New Zealand firms do face particular difficulties in terms of moving into international markets because of the small size and remoteness of the New Zealand market. It is this combination of the importance of international engagement, and the difficulties that some New Zealand firms face in going global, that provides the motivation for this project.

This project is being undertaken to identify the actions and policies that will move New Zealand towards becoming a genuinely global economy, in which much more of New Zealand's national income is generated offshore and where New Zealand firms win systematically abroad.

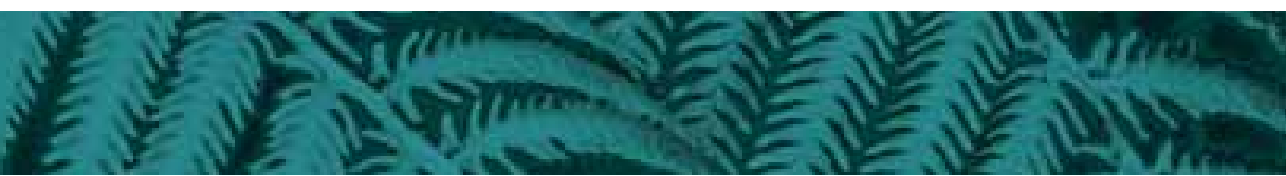
Over the next several months, we will be releasing a series of reports examining different aspects of this issue. Initial reports will describe why taking the New Zealand economy to the world is vitally important, will examine New Zealand's current exporting and international investment outcomes, and will identify some of the key reasons that New Zealand's international outcomes do not compare well against other small, developed countries.

An important part of this project will be conversations with a wide range of business and political leaders about the key issues and the actions that can be taken to increase exporting and international investment by New Zealand firms.

This will provide the basis for reports that focus on a range of solutions. The aim of the project is to identify the actions of government, business, and others, which are required in order to take the New Zealand economy to the world in a material and successful way. Creating a global New Zealand economy is an important but demanding challenge, and will require sustained leadership from both the private and public sectors.

## CONTENTS





## EXECUTIVE SUMMARY

New Zealand has generated strong economic growth in the 15 years since 1990. This growth performance is a significant improvement on the growth experience of previous decades and also compares well with most other OECD countries. The challenge now is to build on this recent performance and to look ahead to the sources of future economic prosperity – to move from good performance to great performance.

Sustaining New Zealand's recent good economic performance, and then improving it further, is an important national priority. Despite strong recent economic growth, New Zealand's per capita income ranks 21st out of 30 OECD countries and remains over a quarter lower than in Australia.

And it is not clear that on current course and speed the next 15 years will deliver economic growth of the type that New Zealand has generated in the 15 years since 1990. This is because key drivers of New Zealand's recent growth are not sustainable at their current levels.

Two thirds of the economic growth generated since 1990 has been due to increases in the number of hours worked, as unemployment rates have reduced and labour force participation rates have risen. Only one third of New Zealand's growth has been due to labour productivity growth – the amount of value produced for each hour worked. New Zealand's annual labour productivity growth rate of 1.0% over the past 15 years is in the bottom quartile of OECD countries. Most other developed countries have placed a much greater reliance on labour productivity growth.

Indeed, New Zealand has only maintained its relative income position against the OECD since 1990 by working more hours to almost exactly offset its declining relative labour productivity. This is not a sustainable way to proceed. Over the next 15 years New Zealand's labour force is projected to grow at about half the rate at which it has grown over the past 15 years.

This means that in order to maintain economic growth rates at their current levels, a substantial improvement in labour productivity will be required. And to move into the top half of the OECD by 2020 will require additional labour productivity growth. This is a demanding goal in the context of New Zealand's historical productivity performance. But the good news is that countries like Ireland, Finland, and Australia have turned in performances at these levels over the past 15 years.

To generate such a substantial improvement in labour productivity growth will require significant improvements in capital intensity – the amount of physical capital that workers have to work with – and in total factor productivity (TFP) – the efficiency with which resources are used to produce value. New Zealand's business investment has been consistently lower than in Australia and other OECD countries and TFP growth in New Zealand has consistently been in the bottom quartile of the OECD, despite improving over the past couple of decades.

So what are the priorities for action to generate this improvement in labour productivity growth? Although there is no single thing that needs to be done – growth is about getting lots of things

right – this report looks to identify the constraint on growth that, if addressed, would lead to substantially improved economic performance. The puzzling factor in this regard is that many of New Zealand's economic policies and institutions compare well to other OECD countries, and are not an obvious source of disadvantage.

However, one area in which New Zealand does differ substantially from other OECD countries is in terms of its combination of a small domestic market and remoteness from other major markets. The evidence suggests strongly that the small effective size of the New Zealand market has a powerful effect on New Zealand's economic performance, and can be linked to lower labour productivity growth because of its negative effect on business investment and TFP growth.

The lack of scale in the New Zealand economy reduces the incentive of firms to invest and means that some types of economic activity that have large up-front costs are not feasible in the New Zealand market. A lack of scale also restricts the ability to generate TFP growth because it reduces the intensity of competition, weakens the agglomeration effect, and means that there is less scope for productive firms to grow.

The implication of this analysis is that expanding the effective size of the New Zealand market through increased international engagement, in terms of New Zealand firms exporting or investing abroad, will be a critical part of raising labour productivity in a substantial and sustained way. New Zealand cannot raise its labour productivity performance by relying largely on a 4 million person domestic economy. It is necessary to derive a greater proportion of New Zealand's national income from international activity in order to sustain and raise productivity growth.

Indeed, it is difficult to find a high growth experience in a small, developed country that has not been heavily oriented around expanding its international economic activity. The evidence linking international engagement to improved productivity at a firm and industry level, as well as at a national level, is compelling. And these benefits can be expected to be even larger in the context of a small economy like New Zealand.

Growth is about getting many things right, and a wide range of policies will be required to lift New Zealand's labour productivity by raising capital intensity and TFP growth; for example, education and innovation policy, savings policy, infrastructure investment, the tax system and labour markets. But policies that increase the efficiency of the domestic economy need to be coupled with a clear focus on international engagement, so that the productivity gains from domestic policy changes can be leveraged over a much larger market. And as we have seen over the past 15 years in New Zealand, policy change without an increase in international activity does not deliver the type of sustained productivity growth that New Zealand needs.

There is a long way to go in this regard. New Zealand's international performance over the past 15 years, in terms of both exporting and outward direct investment, does not compare well against most other developed countries. The level and growth of New Zealand's exports

and outward direct investment over the past 15 years is lower than in most other developed countries. New Zealand's current account deficit of 8% of GDP is among the worst in the developed world and is driven by a worsening trade deficit, due to weak exports and strong domestic demand for imports, and a substantial investment income deficit that is due to the high degree of foreign ownership of the New Zealand economy.

The priority now is for business and government, as well as the broader community, to assume a greater international orientation and to consider how best to substantially increase the extent of New Zealand's international engagement. Efforts are, of course, already underway in this area. But the message of this report is that the importance of this issue, and New Zealand's current low level of international economic activity, means that achieving substantially increased exporting and outward direct investment by New Zealand firms needs to be a first order priority for both business and government.

# 1 INTRODUCTION

New Zealand has generated strong economic growth in the 15 years since 1990. This growth performance is a significant improvement on the growth experience of previous decades, and also compares well with most other OECD countries.

This is a significant achievement, and has halted the consistent decline in New Zealand's real per capita income relative to other developed countries. However, despite this good performance, New Zealand's per capita income ranks 21st out of 30 OECD countries and remains over a quarter lower than incomes in Australia.

The challenge now is to build on this recent strong economic performance and to look ahead to the sources of future economic prosperity – to move from good performance to great performance. So what are the prospects for New Zealand's economic performance over the next 15 years through to 2020? And what are the priorities for action, by both the private sector and the government?

This report begins by describing New Zealand's economic growth performance over the past 15 years since 1990, and identifies the key drivers of New Zealand's recent growth. Evaluating the sustainability of these drivers provides a basis for understanding New Zealand's growth prospects over the next 15 years.

This analysis shows clearly that in order to sustain New Zealand's economic performance, a substantial lift in labour productivity will be required. This is a challenging task. But the good news is


that the recent international experience shows that achieving such growth rates is possible. The remainder of the report discusses the priorities for action to lift productivity growth in a substantial and sustained way.

In particular, the report identifies a substantial increase in the extent of international engagement by New Zealand firms, through greater exporting and outward direct investment, as a vital component in achieving this growth goal. There is a strong link between international engagement and productivity at both a national level and a firm level. These benefits are likely to be particularly strong in the New Zealand context given the limited size of the New Zealand domestic market.

## 2 NEW ZEALAND'S ECONOMIC PERFORMANCE AND PROSPECTS

This section describes New Zealand's economic performance since 1990, in the context of its historical performance and also benchmarked against other developed countries. The prospects of the New Zealand economy are then considered. The key question to answer is whether New Zealand's economic performance over the past 15 years can be sustained – or even improved – over the next 15 years, from 2005 through to 2020. To answer this question, this section evaluates the sustainability of the key drivers of New Zealand's recent growth performance.

This analysis is conducted over two time periods; 1990-2005 and 2005-2020. This approach has the effect of averaging out the short-term fluctuations and introduces a medium-term focus to the analysis. 1990 seems an appropriate start date for this analysis, given that the initial phase of economic reforms had been implemented by 1990. And in any case, changing the start date by a few years does not alter the story in any material way.

### ECONOMIC PERFORMANCE

The New Zealand economy has grown strongly since 1990. This performance is a step up relative to New Zealand's economic performance in the preceding decades. New Zealand's GDP growth rate between 1990 and 2004 was 3.2% per year, compared to an annual growth rate of 2.0% over the 1970-1990 period.

And New Zealand's per capita income growth rate, which adjusts the GDP growth rate for population growth, was 1.9% per year between 1990 and 2004, a substantial improvement on the annual per capita growth rate of 1.1% over the 1970-1990 period.

New Zealand's economic growth performance benchmarks well against most other OECD countries, as shown in Figure 1. New Zealand's economic growth rate of 3.2% per year between 1990 and 2004 ranked 7th among the 30 OECD countries, and was higher than the OECD average of 2.6%. This represents a shift from the bottom quartile of OECD country growth rates over the 1970-1990 period to the top quartile between 1990 and 2004.

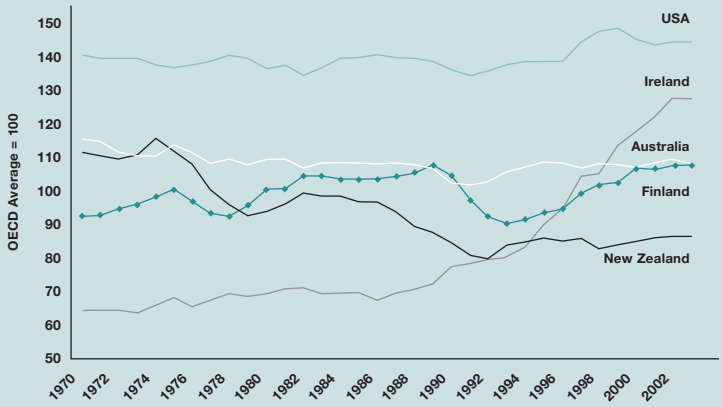
New Zealand's per capita income growth performance of 1.9% annually over the 1990-2004 period ranked 12th in the OECD, behind Australia whose per capita growth over this period was 2.4% annually and slightly less than the OECD average of 2.0%. This represents a shift from the bottom of the OECD to the top half of the OECD in terms of growth rates, which means that New Zealand is moving closer to the top half of the OECD, albeit very slowly (OECD (2005)).

However, New Zealand's growth performance does not come close to matching some of the stand-out performers over the past 15 years, such as Ireland that generated per capita income growth of 5.7% per year between 1990 and 2004 and Finland whose per capita income grew at 3.4% annually after 1994. And the East Asian tiger economies also turned in impressive performances, with annual per capita income growth

FIGURE 1: COMPOUND ANNUAL GROWTH RATE OF GDP AND GDP PER CAPITA, 1990-2004


Note: Singapore 1990-2003
Source: Groningen Growth and Development Centre and the Conference Board, Total Economy Database, August 2005

FIGURE 2: REAL GDP PER CAPITA, 1970-2003




Source: OECD

in Singapore of 3.2% and in South Korea of 4.6% between 1990 and 2003.

This improved economic performance since 1990 has halted the consistent decline in New Zealand's real per capita income relative to many other developed countries. As Figure 2 shows, New Zealand's per capita income declined against the OECD average from 1970 (and indeed, from the 1950s) until the early 1990s.[1]

However, although New Zealand's relative income decline has been halted, New Zealand has not begun to catch up to other OECD countries in a meaningful way. This is because many

[1] *Maddison (2001) estimates that New Zealand was one of the richest countries in the world in 1950.*

FIGURE 3: REAL GDP PER CAPITA, 2003


Source: OECD

other OECD countries have generated strong growth since 1990, as well as New Zealand. Indeed, Australia's per capita growth performance has bettered New Zealand's over the past 15 years, which has widened the trans-Tasman income gap.

New Zealand's per capita income was 87% of the OECD average in 2003. This contrasts with Australia at 109% of the OECD average, which is more than 25% higher than New Zealand's income level. And Ireland's per capita income now stands at 128%, a substantial improvement on its 1990 position when its per capita income was just 78% of the OECD average.

Figure 3 shows that New Zealand now ranks 21st in the OECD per capita income rankings.[2] So despite New Zealand's strong economic performance over the past 15 years, a substantial income gap remains between New Zealand and most other developed countries. A sustained period of strong income growth will be required before New Zealand can catch the next few countries on this ranking – Spain, Italy, and Germany.

This income gap matters because income differentials are a key determinant of location choices by people, companies, and capital, and New Zealand is in intense competition with other countries, and particularly with Australia.

The exit of New Zealanders is one piece of evidence as to the nature of this competitive process. In the year to August 2005, over 70,000 New Zealanders left New Zealand on a permanent or long-term basis, many in search of opportunities and higher incomes. This competitive pressure is likely to become even more acute over the coming decades as the global population ages and as New Zealanders are increasingly targeted by employers in other countries.

*[2] And countries outside the OECD like Singapore and Hong Kong now have substantially higher levels of per capita income than New Zealand.*

## DRIVERS OF GROWTH

So is New Zealand's good economic performance likely to be sustained, or improved upon, over the next 15 years through to 2020? To answer this question, the structural drivers of this recent economic performance need to be considered.

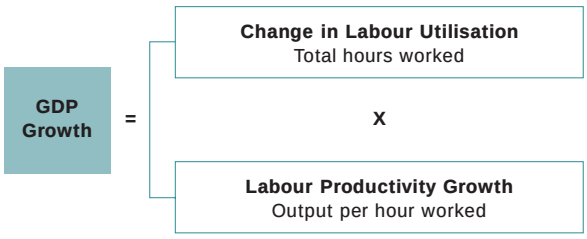
The best way to think about the long-term determinants of economic growth is to examine the productive capacity of the economy. GDP can grow through more people working more hours and through growth in the value of the output produced in each hour of work. The first aspect is termed 'labour utilisation' and the second aspect is called 'labour productivity'. This discussion will examine the relative contributions of these factors to growth and then assess the prospects for future contributions from these factors.

First, consider New Zealand's record on labour utilisation. New Zealand's labour market performance has been impressive over the past 15 years. Overall, the labour force has increased from about 1.7 million people in 1990 to about 2.1 million in 2005, an increase of 26%.

This growth in the size of the labour force has been due to several factors. Labour force participation rates have increased steadily over the past 15 years, and compare well with most OECD countries. Inward flows of migrants have also made a significant contribution to New Zealand's working age population, with net inward migration of about 190,000 people since 1990. And unemployment rates have fallen from over 10% in the early 1990s to 3.6% in 2005, currently the lowest in the OECD. Together, these factors generated a 35% increase in the total number of hours worked in New Zealand between 1990 and 2004.[3]

However, the value of the output produced through the additional hours worked has not grown strongly compared to other developed countries. Using output per hour worked as the measure of labour productivity, New Zealand's labour productivity grew by 1.0% per year between 1990 and 2004. This compares with an OECD average rate of labour productivity growth over the 1990-2004 period of 2.1% annually. Indeed, New Zealand's labour productivity growth rate ranked 26th out of 30 OECD countries over this period.

THE DRIVERS OF GDP GROWTH




*[3] Only three OECD countries – Ireland, Luxembourg, and Mexico – generated higher rates of growth in hours worked over this period.*

There is a big difference between top quartile performance in terms of economic growth and bottom quartile performance with respect to labour productivity growth. The implication is that New Zealand's growth has been heavily dependent on working more hours and far less reliant on generating more value for each hour worked. Indeed, it turns out that only about one third of New Zealand's economic growth since 1990 has been due to labour productivity, the other two thirds being due to the substantial increase in hours worked.

New Zealand's reliance on labour productivity to drive economic growth has been among the lowest in the OECD over the past 15 years. As is evident from Figure 4, it is common for two thirds of a country's growth rate to be generated from productivity growth. For example, labour productivity growth contributed 63% of Australia's economic growth over the 1990-2004 period and on average across the OECD countries, 89% of economic growth was due to labour productivity growth.

New Zealand's low reliance on labour productivity also explains why New Zealand's per capita income is just 87% of the OECD average. The level of GDP per capita is the product of hours worked per capita and the level of output per hour worked. Figure 5 describes the mix of these two factors for a range of OECD countries.

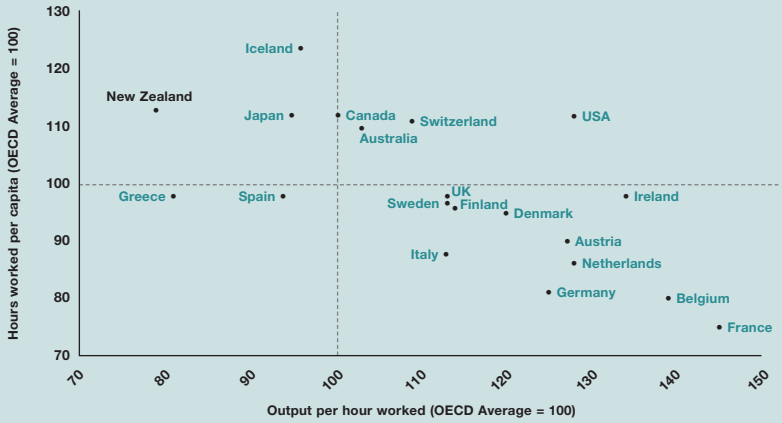
New Zealand is one of the OECD's top performers in terms of hours worked per capita, at 113% of the OECD average. Indeed, New Zealand's hours worked per capita ranks 4th in the OECD, out of 30 countries. However, New Zealand's labour productivity is well below OECD benchmarks, at 79% of the OECD average in 2004. New Zealand ranks 22nd in the OECD in terms of the level of labour productivity.

Australia, by comparison, has rates of labour utilisation that are comparable to

FIGURE 4: CONTRIBUTION TO GDP GROWTH (%), 1990-2004


Note: Finland 1994-2004; Chile, Hong Kong, and Singapore 1990-2003
Source: Groningen Growth and Development Centre and the Conference Board, Total Economy Database, August 2005

FIGURE 5: HOURS WORKED AND LABOUR PRODUCTIVITY, 2004




Source: Groningen Growth and Development Centre and the Conference Board, Total Economy Database, August 2005

New Zealand, at 110% of the OECD average, but has labour productivity rates that are significantly higher than New Zealand's at 103% of the OECD average. The US has high levels of per capita income because it is well above the OECD average in terms of both hours worked per capita and also in terms of labour productivity. Many of the European countries have adopted a different approach. Countries like France and Belgium work considerably fewer hours but are able to maintain per capita income levels that are much higher than in New Zealand because of very high levels of labour productivity.

## Running to stand still

New Zealand has maintained its per capita ranking relative to the OECD average since 1990 by working more hours to almost exactly compensate for declining labour productivity compared to other OECD countries. Since 1990, New Zealand's hours worked per capita have increased from 99% of the OECD average to 113%, while New Zealand's labour productivity has fallen from 91% of the OECD average in 1990 to 79% of the OECD average in 2004.

New Zealand has maintained its per capita income position relative to the OECD average over the past 15 years, rising slightly from 85% of the OECD average in 1990 to 87% in 2003. However, it turns out that New Zealand has maintained its relative per capita income position by increasing hours worked more rapidly than the OECD average so as to almost exactly offset lower than average labour productivity growth. Making a one-for-one swap of hours worked for labour productivity is clearly not a sustainable way of growing the New Zealand economy – eventually there will be no more hours that can be worked. Going forward, the only way that New Zealand can improve its

income position on a long-term basis is to raise labour productivity.

In any case, New Zealand will not be able to secure such increases from the labour force over the next 15 years. Given the very low rates of unemployment, the high rates of labour force participation, and the high average hours worked, there is little scope for increasing hours worked by another 35% over the next 15 years.

Indeed, labour force projections by Statistics New Zealand are for labour force growth of between 9% and 16% between 2005 and 2020, about half of the 26% increase in the labour force generated over the past 15 years. And these projections are dependent on continued inward flows of migration, because fertility rates are at about replacement rates. And New Zealand's ability to attract and retain migrants may be constrained by the increased demand for labour as populations age across the developed world.[4]

There is some limited scope to increase the size of the labour force through increasing labour force participation, particularly female participation. A recent study estimates that an increase in GDP of about 5% can be achieved by moving New Zealand's participation rates to the top 5 in the OECD, although this would require an aggressive policy effort (Bryant et al. (2004)). And there may be some potential to move additional people into the labour force from the welfare rolls. However, such changes would not be sufficient to sustain New Zealand's economic growth rate at its recent levels over the coming 15 years.

The clear priority, then, is to raise labour productivity growth. This is an observation that has been made by most commentators (Bollard (2005), New Zealand Treasury (2004), OECD (2005), IMF (2004)).

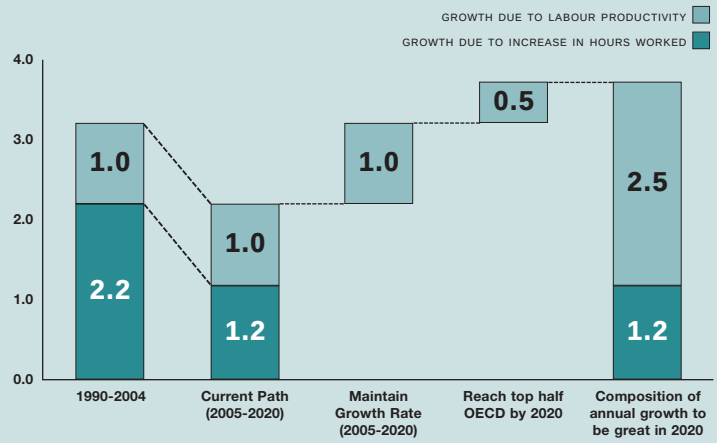
But it is important to recognise the scale of the productivity improvement that is required simply to maintain the economic growth rates generated over the past 15 years. Figure 6 notes that on current course and speed, New Zealand's economic growth rate is likely to decline relative to the growth rates generated over the past 15 years. This is due to much slower labour force growth, which will contribute 1.2% per year over the next 15 years to economic growth compared to 2.2% per year over the past 15 years.

So in order for New Zealand to maintain its growth rate over the next 15 years, labour productivity growth will need to double from its 15 year average of 1.0% to an average of 2.0% over the next 15 years. This doubling will compensate for the slower growth in the work force. Maintaining labour productivity growth at double its historical levels for a 15 year period is a demanding task.

And to reach the top half of the OECD by 2020, additional labour productivity growth of at least 0.5% a year will be required, for a total required annual growth rate of 2.5% for the next 15

*[4] The OECD projects that the working age population in OECD countries will reduce by 65 million people over the next 25 years (New Zealand Government (2003)).*

FIGURE 6: NEW ZEALAND'S PRODUCTIVITY GROWTH CHALLENGE (% OF GDP)




Note: Assumes all OECD countries continue to grow at OECD average per capita rate (1990-2004). Also assumes Medium Labour Force scenario.
Source: The New Zealand Institute calculations

years. This improved performance will then need to be sustained on average for 15 years, rather than simply being achieved for a few years.

But, although demanding, other countries have shown that it is possible to generate productivity growth rates at these levels. The average OECD labour productivity growth rate over the 1990-2004 period was 2.1%, and many countries have generated high rates of productivity growth over the past 15 years: 4.3% in Ireland, 2.5% in Finland, 2.3% in the UK, 2.2% in Australia, and 2.0% in the US. Moreover, New Zealand's low level of labour productivity gives it the potential for substantial 'catch-up' in terms of productivity growth.

So New Zealand needs to move from being a productivity laggard in the OECD to generating at least OECD average productivity growth rates. This is feasible, but represents a step change relative to current performance.

It may be that New Zealand has started to make some progress towards achieving this goal. The OECD (2005) notes that New Zealand's labour productivity increased during the second half of the 1990s, although it remains in the bottom quartile of OECD countries. On a cyclically adjusted basis the OECD estimates that New Zealand's labour productivity growth rate is currently around 1.5% per year, which is just inside the OECD bottom quartile and below the OECD average of about 2%. So even with this pick-up in labour productivity, there is a substantial way to go in order to be able to maintain New Zealand's recent growth rates. The challenge is to raise labour productivity further and then to sustain these growth rates over an extended period.

One argument sometimes made is that New Zealand's labour productivity has been artificially depressed over the

## Labour productivity and wages

New Zealand has done well at getting people into work over the past 15 years, with the lowest unemployment rates in the OECD. The challenge now is to raise labour productivity, which will have a direct effect on wage levels earned in New Zealand.

The link between labour productivity and wages can be seen clearly in some recent analysis published by the Sydney Morning Herald (24 August, 2005). This analysis compared equivalent jobs in the same companies who employed people in Australia and New Zealand. Documented wage differences were commonly between 30-50%. As one example, a forklift driver was paid A$14.69 in New Zealand and A$22.74 in Australia, a 35% difference. These wage gaps are largely due to higher levels of labour productivity in Australia.

past decade because the labour force growth has added many relatively low skill workers to the work force (e.g. OECD (2005)). This may have reduced productivity growth in New Zealand, but countries like Ireland and Australia have managed to grow their labour force significantly and also raise labour productivity growth at the same time.[5] So this does not seem like an adequate reason to be complacent about New Zealand's labour productivity performance.

The way in which New Zealand has generated growth over the past 15 years is clearly not sustainable. The answer to raising growth is not for New Zealanders to work more hours but for this work to generate much more value than it currently does – additional productivity growth is required. Although there is some evidence of recent improvements in labour productivity, New Zealand remains a long way below the OECD average and so this is a substantial challenge. The task now is to identify and secure the sources of productivity growth that will sustain New Zealand's economic performance into the future.

## SUMMARY

New Zealand's economic growth performance over the past 15 years is an improvement relative to preceding decades, and benchmarks well against many other OECD countries. However, despite the improved economic performance, a substantial income gap remains between New Zealand and many other OECD countries. New Zealand currently ranks 21st in the OECD in terms of per capita income, mainly because New Zealand's labour productivity is considerably lower than in most other OECD countries.

Indeed, two thirds of New Zealand's economic growth over the past 15 years has been due to an increase in hours worked, with a relatively small contribution from labour productivity growth. This approach cannot be sustained going forward, because of the much reduced labour force growth that will occur over the next 15 years.

*[5] Two of the three OECD countries who had higher growth in total hours worked over this period – Ireland and Luxembourg – also generated much higher labour productivity growth than New Zealand.*


New Zealand needs to look actively for the next generation of growth that will sustain New Zealand's performance over the next 15 years, and beyond. This will necessarily involve an economy that is driven to a much greater extent by productivity growth. The only way in which New Zealand can sustain high rates of income growth is through significantly higher labour productivity growth. The good news is that other countries have turned in productivity and growth performances of the type that New Zealand will need to deliver. So this is possible, but it will require a step change in productivity performance.

This is not a crisis. Failure to act is unlikely to lead to terrible outcomes in the short term. But inaction will likely lead to an ongoing widening in the wage and income gap between New Zealand and other developed countries. There is no 'burning platform', but New Zealand's economic platform is gradually subsiding.

## 3 THE DRIVERS OF LABOUR PRODUCTIVITY

-The challenge is to raise labour productivity in a substantial and sustained way. This section begins to identify the priorities for action by considering New Zealand's performance on the two drivers of labour productivity – capital intensity and total factor productivity (TFP).[6]

### CAPITAL INTENSITY

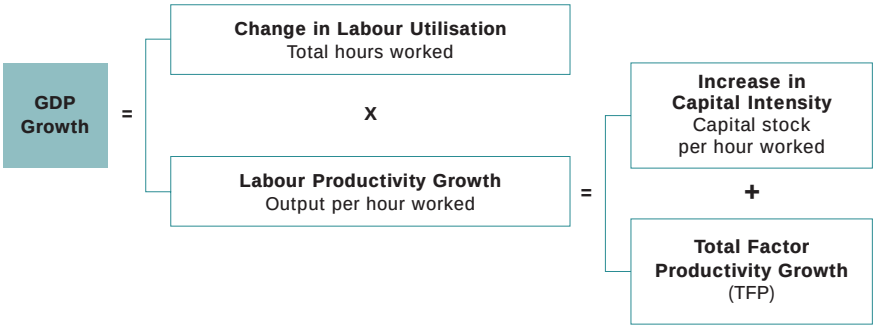
One way to raise labour productivity is through increasing the amount of physical capital per worker. This can take the form of investments in plant and machinery, computers, infrastructure and so on. All of these investments enhance the ability of the workforce to produce value. For example, a worker with a bulldozer can generate more output than the same worker with a shovel – and a worker with access to the latest equipment is likely to be more productive than a worker with outdated equipment.

It is well established that investment in physical capital leads to higher levels of productivity and income. In a major recent study on the determinants of growth, the OECD found that the rate of physical capital accumulation "is one of the main factors determining the level of real output per capita" and estimates that "on average a 1 percentage point increase in the investment share brings about an increase in steady-state GDP per capita of about 1.3%" (OECD (2003a)).

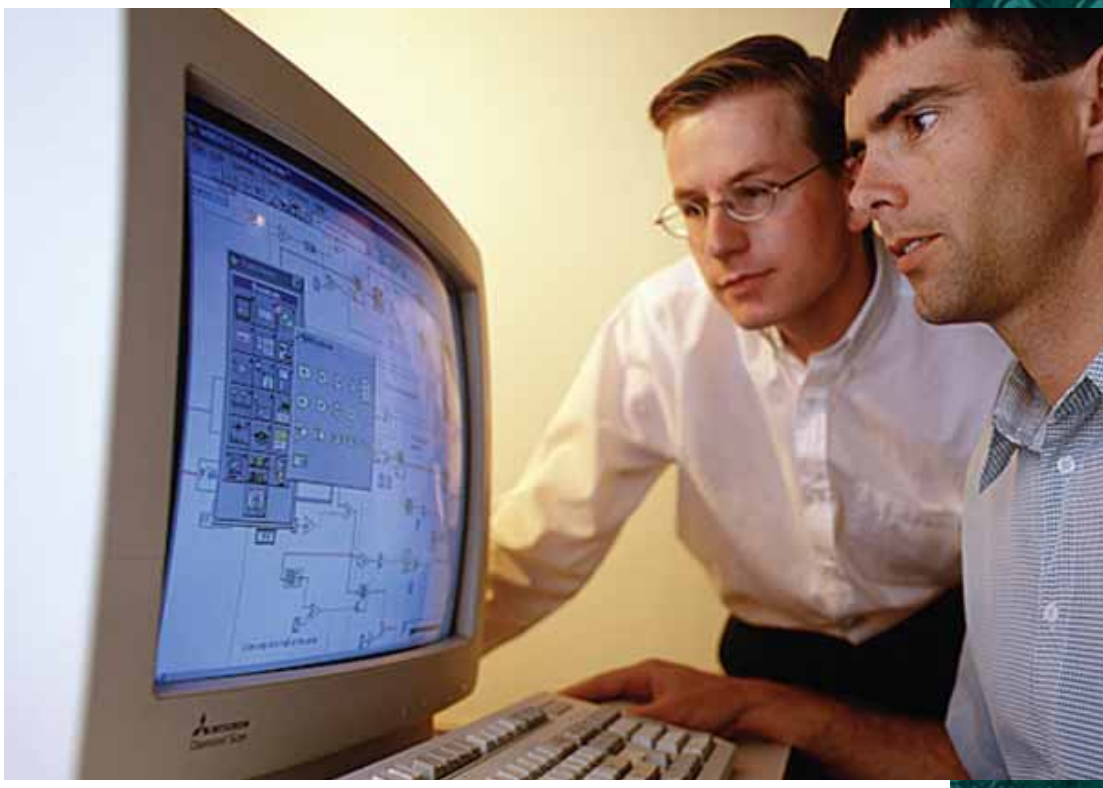
Indeed, a common element of the experience of many small countries that have grown rapidly over the past few decades, such as Singapore, Ireland, Finland, and Australia, has been high, sustained rates of investment in the productive base of the economy. Investment from either domestic sources or through inward foreign direct investment (FDI) has been used to enhance their productivity and to transform their economies.

Investment is also an important way to access new knowledge and technology, which can be embodied in computers, software, and plant and equipment. Investment can therefore be a powerful tool for improving long-term economic growth rates. For example, the heavy investment in information and communications technology (ICT) across many OECD countries in the 1990s contributed significantly to productivity growth (OECD (2003a)).

THE DRIVERS OF LABOUR PRODUCTIVITY GROWTH




[6] *This is sometimes called multi-factor productivity, or MFP.*



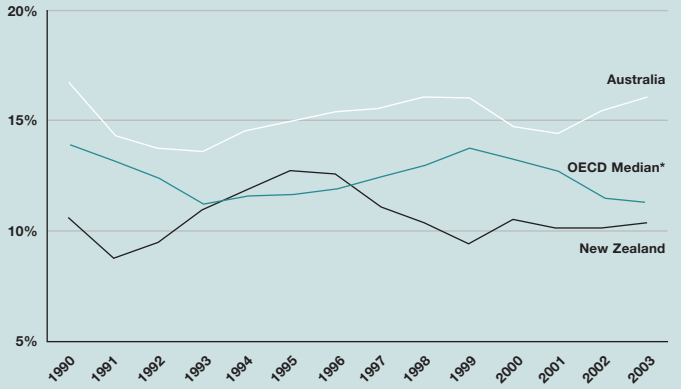
And because a tight labour market is likely to persist in New Zealand for structural reasons such as population aging both in New Zealand and overseas, increased reliance on physical capital will be particularly important for New Zealand in the future.

## New Zealand's performance

Increases in New Zealand's capital intensity have not made a significant contribution to growth since 1990. The ratio of capital to labour in 2002 was about the same as in 1990, having reduced through the first half of the 1990s before increasing (Black et al. (2003)). As a consequence, investment in productive capital has made a smaller contribution to New Zealand's overall growth than have factors like labour force growth (Bollard (2005)). Similarly, Hall & Scobie (2005) note that the growth in New Zealand's capital intensity since 1990 is much lower than in many other OECD countries, and is a major reason for New Zealand's relatively low labour productivity growth over this period.

One reason for the slow growth in New Zealand's capital intensity has been the relatively cheap price of labour over much of this period, so that firms had an incentive to expand operations through hiring rather than through investing in people. The relatively cheap price of labour contributed to much improved labour market outcomes but not to labour productivity. Although business investment has increased over the past several years, as the labour market has tightened, the increased investment has not been substantial by international standards.

FIGURE 7: BUSINESS INVESTMENT AS A % OF GDP




Source: OECD
*Czech Republic, Luxembourg, Poland, Hungary, Portugal, Slovak Republic, and Turkey not included

It is also important to recognise that the relatively low level of business investment in New Zealand has persisted for decades and is not just a recent issue. The OECD (2003b) notes that New Zealand's rates of business investment have consistently been in the bottom quartile of the OECD. The OECD (2003b) also reports that New Zealand has relatively low levels of investment in research and development (R&D) and in information and communications technology (ICT), both of which are strongly linked to economic growth. This has resulted in a substantially smaller capital stock in New Zealand than most other OECD countries. And despite the increase in business investment over the past few years, Figure 7 shows that business investment remains low by OECD standards.

This low level of business investment is generally recognised as a key reason for the difference in the level of labour productivity and income per capita between New Zealand and other developed countries. The OECD (2003b), for example, notes that New Zealand's low level of investment and capital accumulation is likely to have constrained New Zealand's economic growth.

Several recent studies have examined the productivity impact of the differences in capital intensity between New Zealand and Australia. Capital intensity in New Zealand is significantly lower than in Australia (IMF (2002), Black et al. (2003), Hall & Scobie (2005)). The IMF (2002) attributes almost all of the substantial per capita income gap between New Zealand and Australia to New Zealand's lower levels of labour productivity and estimates that 75% of the labour productivity gap is due to lower levels of capital accumulation in New Zealand. Hall & Scobie (2005) reach a similar conclusion.

Increasing business investment is important for raising New Zealand's productivity and income levels closer to those of Australia and other OECD countries. Simply put, for the New Zealand economy to grow at above

average rates, above average rates of investment in the New Zealand economy will be required. Commenting on New Zealand's recent growth experience, US economist Matthew Shapiro noted that "the rate of investment is not high enough to accommodate an acceleration in productivity" and that "additional capital accumulation will be required if New Zealand is to grow faster" (Shapiro (2003)).

Raising investment will involve a shift away from private consumption spending, which has been the major driver of New Zealand's growth over the past 15 years. Private consumption can provide short-term impetus to economic growth but does little in terms of growing the productive base of the New Zealand economy. Countries cannot spend their way to prosperity.


## TFP GROWTH

But generating and sustaining high rates of labour productivity growth is about more than simply accumulating capital. It is, of course, possible to make substantial investments and not experience a proportionate lift in productivity because the investments are low quality. And there are examples of countries that have made substantial investments without much of a payoff in terms of productivity and growth.

Easterly (2001) warns correctly that 'capital fundamentalism', the notion that higher rates of investment will mechanically lead to higher rates of economic growth, is not strongly supported in the data, and observes that sustained growth results from productivity growth rather than simply investing in more machines or hiring more people. This is obviously not to say that investment does not make an important contribution to driving growth, as noted above, but it is certainly not the only factor that matters.

Economists have long recognised that a substantial amount of the variation in income levels across countries is due to things other than the amount of labour and capital in the economy. It also depends on the efficiency with which these factors of production are put to use, which is captured by TFP.

TFP can be thought of as the amount of value that can be extracted from each hour worked and each unit of physical capital. TFP growth can come from things like the adoption of new technologies, improvements in firm organisation and management quality, the education,

skills and experience of the workforce, and so on. It is affected by many factors, such as the intensity of competition, the nature of the business environment, the quality of the education system, macroeconomic stability, accurate price signals, and the ability to access input and output markets.

Countries, regions, and sectors that have many of these factors in place will tend to generate higher rates of TFP growth. There is also substantial variation in performance between firms who use the same capital and operate in the same environment because some firms are able to employ their resources much more effectively than others due to things like superior management practices and the skills of the workforce. Bartelsman & Doms (2000), for example, cite many studies that document significant differences in productivity between firms operating in the same industry, often by a factor of 2:1 or more. Recent New Zealand work also finds significant firm-level variation in labour productivity (Law & McLellan (2005)).

These firm-level differences in productivity provide the raw material for aggregate productivity growth. Aggregate productivity growth is driven by productivity growth within existing firms, the transfer of resources from low productivity firms to high productivity firms, and the birth and death of firms (OECD (2003a)). Resource reallocation to more productive firms through the process of 'creative destruction' is a way of increasing productivity within the economy without having to raise investment levels by achieving better management of existing capital.

## New Zealand's performance

Analysis of New Zealand's economic performance over the past several decades commonly finds that New Zealand's economic growth has been considerably less than would be expected on the basis of growth in the workforce and the capital stock. Dowrick & Nguyen (1989), for example, estimate that New Zealand's economic growth rate was about 0.7% per year lower between 1950 and 1985 than would be expected given the growth in New Zealand's labour and capital stock and New Zealand's income level in 1950. Similarly, Smith & Grimes (1990) find that low TFP growth over the 1950-1985 period was the primary reason for New Zealand's relative income decline over this period.

These relatively low TFP growth rates have persisted to the present. The OECD (2005) estimates that New Zealand's TFP growth rate has consistently been in the bottom quartile of OECD countries over the past few decades, despite steady increases in New Zealand's TFP growth over much of this period. To give a sense of magnitudes, the OECD (2005) estimates New Zealand's current TFP growth rate to be around 0.8% on a cyclically adjusted basis. This compares with an OECD median TFP growth rate of about 1.4%, which is also the TFP growth rate in Australia.

Over time, New Zealand's consistently lower TFP growth rates have led to significantly lower levels of TFP. The IMF (2002) estimates that 25% of the labour productivity gap between Australia and New Zealand is due to lower levels of TFP, the other 75%

being due to lower levels of business investment. And relative to other OECD countries, lower TFP levels in New Zealand are likely to be a much more important explanation for the per capita income gap with New Zealand given that Australia has high levels of business investment by OECD standards.

## PRIORITY FOR ACTION

So should New Zealand's focus be on raising capital intensity or raising TFP growth in order to generate a significant improvement in labour productivity growth? Some have argued that investment in physical capital and human capital is the key determinant of the growth experience across countries (Mankiw et al. (1992)). For example, Young (1995) emphasises the role of factor accumulation rather than TFP growth in explaining the rapid growth rates generated by several East Asian countries over the past few decades.

However, other economists argue strongly that TFP growth is the key driver of economic performance. Easterly & Levine (2001), for example, argue that "factor accumulation does not account for the bulk of cross-country differences in the level or growth rate of per capita income; something else – TFP – accounts for a substantial amount of cross-country differences". And Klenow & Rodriguez-Clare (1997) find that variation in income is "overwhelmingly due" to differences in productivity rather than due to differences in factor accumulation.

Perhaps the best way to think about this is to treat actions to lift investment and TFP growth as complements rather than as substitutes. As Bosworth & Collins (2003) note in a recent summary of the growth evidence, "both capital accumulation and total factor productivity growth have made important contributions to growth of output per worker" and that "the emphasis on determining which is… most important seems misplaced. Policies that aim to promote TFP growth will also tend to promote capital formation, and vice versa".

For example, it is widely believed that investment can promote TFP growth. The OECD (2003b) recently observed that "countries with higher investment rates (relative to GDP) also tend to have higher rates of multifactor productivity growth (albeit with causality flowing in both directions)" and that

this is likely "because technological innovations are often embodied in new equipment".

Likewise higher levels of TFP will provide an incentive for increased investment by generating higher returns. For example, countries that looked like they were relying heavily on investment to drive growth – like Singapore and Hong Kong – turned out to have a heavier contribution from productivity growth because it was TFP growth that created the incentive to invest (Klenow & Rodriguez-Clare (1997)).

Indeed, as a practical matter, raising investment is likely to require TFP improvements. Firm growth is likely to require a combination of investment and management skills. Running a small firm requires a different set of skills and organisational characteristics than running a large firm. This suggests that the process of capital accumulation needs to be undertaken in combination with an upgrading of management capacity.

The value of seeing capital intensity and TFP growth as complements can be seen in the context of New Zealand's exposure to international factor mobility. Investment in physical capital tends to be immobile, and so benefits New Zealand's labour productivity, whereas some investments in things that promote TFP – like tertiary education – are less tied to New Zealand because people can easily move abroad. The risk is that New Zealand may invest in educating the world with a reduced payoff in terms of New Zealand's TFP growth. This suggests that the priority is to align investments in physical capital, so as to raise New Zealand's labour productivity and make New Zealand a more attractive proposition to people, with the investments that are made to lift TFP.

And given that New Zealand has generated sustained under-performance in terms of growth in capital intensity and TFP growth, it seems appropriate to focus on making meaningful progress in terms of raising both investment and TFP growth.

## SUMMARY

New Zealand's relatively poor labour productivity performance compared to other developed countries has been due to a combination of low capital intensity and low TFP growth, probably in roughly equal measure. This suggests that the priority going forward is to improve performance on both of these measures.

Doing so is a big challenge because the gaps between New Zealand and other developed countries in terms of both TFP growth and business investment have been large and persistent. Although some improvements have been made through the 1990s, much more is required. Achieving a meaningful improvement in labour productivity will require substantial changes in business behaviour as well as significant action in terms of public policy.

# 4 THE WAY FORWARD

Attempts to improve New Zealand's productivity performance in a substantial and sustained way should start from an analysis of why New Zealand's productivity growth is low compared to other developed countries. What are the key factors that have constrained New Zealand's capital intensity and TFP growth and that ought to be the focus of action going forward?

In isolating these factors, the focus should be on areas in which there are clear differences between New Zealand and other OECD countries whose performance has bettered that of New Zealand. And given that it is a substantial performance gap that needs to be explained, the focus is on those factors in which New Zealand looks substantially different than other OECD countries.

## THE STARTING POINT

Many of New Zealand's institutions and policy settings consistently rank well relative to other developed countries, with substantial improvements having been made over the past 20 years. To take just a few examples:

- The World Bank (2005) reports that New Zealand has some of the lowest compliance costs in the world and that "New Zealand has the most business-friendly regulations in the world" (including starting a business, and hiring and firing)

> *"The mystery is why a country that seems close to best practice in most of the policies that are regarded as the key drivers of growth is nevertheless just an average performer."*
>
> OECD NEW ZEALAND REVIEW, OECD (2003b)

- New Zealand ranks 3rd in the world on the Fraser Institute's Economic Freedom Index, behind Hong Kong and Singapore and equal with the US (Gwartney et al. (2005))

- New Zealand scores highly on the quality of its policies and institutions in the Global Competitiveness Report (World Economic Forum (2005))

New Zealand also has well-respected fiscal and monetary policy institutions and outcomes, and is widely regarded as a flexible, efficient economy by international standards (OECD (2003b), McMillan (2004)). So in terms of many of the important macroeconomic policy settings and basic institutions, and in terms of much of the regulatory framework and the role of the government in the economy, New Zealand has a framework that is conducive to strong productivity growth rates. These factors are certainly not a source of competitive disadvantage that can explain the large and persistent productivity and income gap between New Zealand and other OECD countries.

There is, of course, always scope for improvement in these policy settings and, particularly given the size of the productivity challenge that is faced, New Zealand should aim to have best practice policy settings across the board. But going forward, it is not clear that further improvements to these policy settings, on which much attention has already been focused, is likely to generate substantially higher labour productivity growth rates.

Indeed, although the economic reforms implemented since 1984 have generated improvements in economic performance over the past 15 years, and have also removed considerable downside potential, New Zealand's labour productivity remains in the bottom quartile of OECD countries.[7]

> *"Although extremely bad policy can probably destroy any chance of growth, it does not follow that good macroeconomic or trade policy can create the conditions for high steady state growth."*
>
> WILLIAM EASTERLY (2003)

This suggests that the priority for New Zealand going forward needs to be more than just further improvements to macroeconomic policy settings and the regulatory environment. Although further improvements can and ought to be made, and will likely generate additional economic benefit, it seems unrealistic to expect that these gains will be sufficient to make a significant dent in the income gap between New Zealand and Australia given that New Zealand already has generally good policy settings.

Indeed, the international evidence shows that the relationship between policy settings and economic performance is not strong, particularly for developed countries (Easterly (2003), Rodrik (2004), Freeman (2000)). High productivity, high income countries like Ireland, Finland, and Australia have labour markets, regulatory environments, and fiscal positions that are not as 'good' as those of New Zealand as measured by many of the surveys described above. This suggests that changes to these policy settings will not be the trigger for rapid, sustained growth in New Zealand.

As The Economist noted, "Finland is the most competitive economy in the world, despite its rigid labour markets, powerful unions and high tax rates, according to the Global Competitiveness Report from the World Economic Forum" (19 October 2001). And Finland remains in top place on this ranking in 2005 on the back of "one of the most innovative business environments in the world" (World Economic Forum (2005)).

So the quality of New Zealand's policies and institutions cannot explain the productivity gap between New Zealand and other developed countries. And making further improvements is unlikely to unleash a substantial increase in labour productivity growth by stimulating business investment and TFP growth.

This directs attention to a broader set of issues that affect productivity and economic performance. There is a substantial body of evidence documenting the critical importance of the microeconomic business environment for firm competitiveness and productivity growth. In particular, firms need access to dense markets for labour and specialist inputs,

*[7] Interestingly, the Australian economic reforms have been linked to substantial productivity increases (Productivity Commission (1999)). And Card & Freeman (2002) suggest that the economic reforms in the UK generated benefits larger than those generated from the New Zealand economic reforms.*

be subject to a competitive market, and have access to a large output market in order to stimulate ongoing productivity improvements. These factors create a supportive environment for innovation and productivity growth, and provide the scale that is necessary for profitable investment.

It is, of course, the performance of New Zealand's companies and their ability to create value that will drive New Zealand's economic growth. Michael Porter argues that "the productivity of a country is ultimately set by the productivity of its companies" (Porter & Ketels (2003)). The World Economic Forum (2005) notes that "whether Nokia is able to maintain its technological edge over its Asian rivals is a far more important determinant of the future evolution of per capita income in Finland, than whether there is a slight rise in inflation".

And from this microeconomic perspective, there are some specific aspects of the policy and regulatory environment in which New Zealand does look different from other OECD countries, such as policies around research and innovation, transport and communications infrastructure, savings policy, and so on. These policy settings will influence the ability of New Zealand companies to develop and sustain competitive advantage.

However, the key distinguishing aspect of the New Zealand business environment relative to other OECD countries is in terms of its scale. The most distinctive aspect of the New Zealand economy is its small effective size compared to other OECD countries, because of New Zealand's unique combination of a small domestic market and remoteness from other major markets. Although there are other small, developed countries, mainly in Europe, there are none that are also remote from large markets. Indeed, New Zealand is commonly measured to be the most remote country in the developed world relative to other major markets.

The evidence suggests strongly that this limited market has an impact on the behaviour and performance of firms in the New Zealand economy. The IMF (2004), for example, notes that the differences between New Zealand and other developed countries on most policy measures tend to be small, and cannot explain the substantial performance gap. But it finds "strong support for the view that geographical isolation has significantly hampered growth in New Zealand" over the past 30 years, perhaps accounting for half of New Zealand's under-performance.

There is a growing body of empirical evidence that documents a strong link between market size and productivity levels and growth.[8] Redding & Venables (2002a,b), for example, present evidence that proximity and scale have a significant impact on wage and income levels across countries. And Overman et al. (2001) estimate that access to foreign markets can explain about 35% of the variation in per

*[8] For example, Davis & Weinstein (2001), Alesina et al. (2000), Ades & Glaeser (1999), and Frankel & Romer (1999).*

capita income, with countries that are close to large markets tending to have higher income levels.

## THE IMPACT OF SCALE ON LABOUR PRODUCTIVITY

The small effective scale of the New Zealand market provides a powerful explanation for why New Zealand's labour productivity growth has been persistently lower than other OECD countries. There is a demonstrated relationship between the extent of the market and the factors that impact on labour productivity growth – increases in capital intensity and TFP growth.

### Capital Intensity

Several reasons have been advanced to explain why business investment in New Zealand has been consistently lower than in other OECD countries: for example, various aspects of the tax regime, policy uncertainty and instability, and low levels of TFP that reduce the returns that can be earned from the investments made. And the negative effect of low domestic savings on the financing of productive investment in the New Zealand economy has been discussed in previous New Zealand Institute reports (Skilling (2005)).

But the limited extent of the New Zealand market is also likely to constrain investment rates in a significant way (IMF (2002)). The small size of the New Zealand market reduces the incentives for firms to invest in New Zealand because of the smaller number of profitable domestic investment opportunities. A small market also reduces the ability of investors to diversify their risks and this may deter some investment. Making investments at world-class scale will often be a relatively risky proposition for New Zealand firms who will commonly be small by international standards.

> *"As 'the last bus stop on the planet' New Zealand is disadvantaged compared with other small economies such as Ireland or Finland. A circle with a radius of 2200km centred on Wellington encompasses only 3.8 million people and a lot of seagulls. A circle of the same size centred on Helsinki would capture over 300 million people. Even if New Zealand had the best economic policies in the world, its isolation would probably still constrain its growth rate."*
>
> THE ECONOMIST, DECEMBER 2, 2000

For these reasons, a smaller economy is not just a scaled-down version of a larger economy. New Zealand is not just a 20% version of Australia, just as Ashburton is not just a small version of Auckland. The economics of investment decision-making in markets of different sizes are quite different because of discontinuities in making investments; some investments may simply not be economic in New Zealand whereas they would be justified in larger markets like Australia or the US.

In particular, the small effective size of the New Zealand market will reduce the incentive of New Zealand firms to make large investments because they are less likely to be able to generate the sales required to justify the investment. This is why activities that operate at large scale, because they are subject to increasing returns to scale, tend to be concentrated in or near large markets (Overman et al. (2001)). For example,

> *"Both the lower capital intensity and the absence of allocative gains since the end of the 1990s are in principle consistent with the existence of structural disadvantages that may limit New Zealand's growth prospects, compared to those for Australia. In particular, the smaller domestic market may have prevented New Zealand from successful diversification away from primary production (where New Zealand has a strong comparative advantage) and towards higher-growth manufacturing and services sectors."*
>
> IMF (2002)

industrialisation in the 19th century took place in the context of larger markets as it was only here that the economics of the investment made sense (Crafts & Venables (2001)). And this relationship between the scale of the activity and the scale of the market remains today.

The effects of scale apply to new economy activities as well as to 'old economy' activities, and there is strong evidence that the size of the market matters in terms of innovative activity. Given the substantial up-front costs that characterise much research and development work, it is likely that more of this will take place in environments in which the subsequent product or idea can be readily sold into a large market. So the small New Zealand market will make it more difficult to establish new industries or activities than is the case in larger markets.

The importance of scale to investment can be clearly seen in terms of the patterns of foreign direct investment (FDI) flows. There is clear evidence that large countries, or countries that are close to large markets, are much more likely to attract FDI (The Boston Consulting Group (2001)). Proximity to major markets is a major reason that countries like Ireland and Singapore were able to attract substantial amounts of inward FDI.

In contrast, New Zealand has received little inward FDI into the productive sector because it is a small market. Although FDI has come into the domestic economy, for the most part this has been the purchase of existing activities rather than greenfields investment (Skilling (2005)). Foreign investors invest less in small, remote markets for the same reasons that domestic investors are often reluctant to make major investments in such markets.

## TFP growth

TFP growth is driven by both the behaviour and performance of individual firms and also by the environment in which these firms operate. This discussion considers the impact of the small New Zealand market on the scale of firms and on the scale of the business environment, and outlines the effect that this will have on labour productivity.

### The scale of firms

The small New Zealand market will offer fewer growth opportunities to New Zealand firms relative to the opportunities available to firms who operate in larger markets. This means that the contribution to aggregate productivity from the growth of high-productivity firms is likely to be significantly constrained.

For example, the benefit obtained from transferring resources from a

poor quality management team to a high quality management team depends on the size and growth prospects of the firms involved. If the high productivity firm is small and has growth prospects that are constrained by the size of the domestic New Zealand market, the total productivity gains from this transfer are unlikely to be as substantial as with a high productivity company that can leverage these benefits over larger markets like Australia or the US.

Because there are fewer growth opportunities for productive firms in the New Zealand market relative to other larger markets, there is less scope for these firms to grow and to absorb resources from less productive firms. This will have a significantly negative effect on the level and growth of New Zealand's TFP.

The small market may also mean that firms do not operate as efficiently because they are not at optimal scale. There is evidence that large New Zealand firms have high levels of capital relative to output compared to firms in other countries, which suggests that New Zealand firms are sub-scale and are operating in an inefficient manner because of the small market size (Arnold et al. (2003)). This study also found that New Zealand firms have significantly higher average costs than firms in other countries, which may reflect the absence of economies of scale and an inability to extract full productive efficiency. This will have a negative effect on New Zealand's TFP relative to other developed countries.

The efficiency with which firms organise themselves and manage their resources also has a substantial effect on firm level TFP. This will be influenced by the quality of the management team, the quality of the firm's systems and processes, practices that promote workplace productivity such as training and development initiatives, and investments in knowledge. But many of these initiatives will require some minimum firm scale before they can be justified. For firms whose growth is constrained because of the small domestic market, it may be difficult to pursue these TFP enhancing actions. In New Zealand, for example, large firms are much more likely to have processes and systems in place than are small firms and are twice as likely to conduct R&D (Knuckey & Johnston (2002)). And given the relative absence of large firms in New Zealand, less of these activities may be undertaken by New Zealand firms than by firms in larger markets.[9]

*[9] The distribution of firms in New Zealand is most distinctive in terms of the relative absence of large firms (Mills & Timmins (2004)).*

*"We have hundreds of small medium-high and high-tech companies, operating in the international economy, making international incomes. But, beyond buying a few services, they do not spread wealth very far. We have an archipelago economy, with lots of little islands poking up from a continental shelf that is gently subsiding."*

COLIN JAMES, KNOWLEDGE WAVE CONFERENCE, AUGUST 2001

Overall, the constrained growth opportunities available to New Zealand firms are likely to depress the level and growth rate of TFP. There is not a linear relationship between firm size and productivity performance – bigger is not always better – but the effect of the small size of the New Zealand market on firm scale will have an impact.

**The scale of the business environment**

The nature of the microeconomic business environment also has a substantial effect on the TFP profile of firms. As Porter & Ketels (2003) note, "competitive advantage resides not only within the firm, but is also shaped by the external context firms operate in". The scale of the firm is obviously not the only relevant factor influencing TFP growth.[10] Michael Porter (1990) identifies several important characteristics of the business environment that matter for firm-level productivity growth, such as the level of competition, the nature of input markets, and the existence of related and supporting industries.

Competitive intensity is a key driver of productivity growth, because it spurs faster innovation and learning processes, generates more efficient resource allocation, and so on. Sector level studies commonly find that sector productivity is strongly linked to the level of competitive intensity (Lewis et al. (1993)). In general, smaller markets tend to have lower levels of competitive intensity than do larger markets (OECD (2005), Campbell & Hopenhayn (2002)). Many large firms in New Zealand do not face direct, intense competition at the level observed in other larger developed markets, and this will have an effect on the level and growth of TFP.

Larger markets also benefit from a greater agglomeration of activity, in which firms are surrounded by a dense network of suppliers and firms in related industries. This leads to greater knowledge spillovers, more efficient labour markets, and makes it easier for firms to become more productive. Firms and workers are more productive and innovative in larger markets because of better access to customers, ideas, people, and the latest technologies (Seely-Brown & Duguid (2001)). And large markets also enhance the extent of specialisation, which, as Adam Smith pointed out 230 years ago, is a powerful spur to productivity.

These agglomeration benefits can have a very powerful effect on productivity.[11] The New Zealand economy, however, is not characterised by agglomeration.

*[10] Small firms are often very successful in the context of clusters of other small firms because they operate in a supportive environment. For example, Porter (1998) observes that the core of the German and Italian economies is clusters of small and medium companies.*

*[11] Studies that document a link between agglomeration and productivity include Ciccone & Hall (1996), Glaeser & Mare (2001), Rauch (1993).*

In addition to being a small market, there are few areas of real depth in the economy outside, perhaps, of parts of the primary sector.

The basic theme of this discussion is that there is unlikely to be a linear relationship between the effective size of an economy and the way in which it behaves. New Zealand is unlikely to simply be a scaled-down version of larger, more proximate developed countries. Rather, the evidence shows that the behaviour and performance of small, distant markets differs systematically from that of larger markets.

In particular, in small economies, there will be less investment and the nature of the business environment will be less conducive to growth because of the relative absence of intense competition and agglomeration benefits. Changes to many of New Zealand's macroeconomic policy or regulatory settings will not have a direct impact on this dynamic.

## SUMMARY

The combination of the international evidence, and the New Zealand experience, shows clearly that the small domestic market in New Zealand has a substantial impact on labour productivity. This goes some way to explaining the puzzle as to why New Zealand has low levels of labour productivity, and has generated relatively sluggish labour productivity growth over the past 15 years, despite policies and institutions that compare favourably to other OECD countries.

The direct implication is that action and policy aimed at expanding the effective size of the market will have a powerful effect on productivity growth through raising capital intensity and TFP growth.

On this basis, a key priority for increasing New Zealand's labour productivity in a material way is aggressive international engagement in terms of increased exporting and investing abroad by New Zealand firms.

Increased levels of international activity will expand the scale at which the New Zealand economy operates. This will provide the scale that justifies additional business investment and allow for greater returns to be earned because of internal scale economies. A larger available market will provide additional growth opportunities for New Zealand's most productive firms. Operating in international markets may also provide a more conducive growth environment for New Zealand firms, by allowing for a greater degree of specialisation in production, learning, and exposure to competition, all of which ought to lead to higher rates of TFP growth.

Achieving and sustaining high rates of labour productivity growth will require sustained, aggressive action across a broad range of areas. Improving growth is about getting lots of things right. But a key constraint on productivity growth is the effective size of the market. A focus on enhancing the international performance of the New Zealand economy, and enhancing the ability of New Zealand firms to access international markets through exporting or investing, is key to sustaining high rates of economic growth.

# 5 THE BENEFITS OF INTERNATIONAL ENGAGEMENT

This section summarises the substantial body of evidence on the benefits generated through international engagement, both for firms and for countries. The section begins by describing the national level benefits. What is the relationship between international engagement and economic growth rates? The firm and sector level evidence is then considered. Do firms and sectors that are intensively engaged in international activity generate superior outcomes? Combining the macro and the micro perspectives will provide a better sense of the causality between international engagement and productivity growth.

## NATIONAL LEVEL

For decades, studies have consistently documented a strong, positive link between exporting and the level and growth of national income. However, there have been difficulties pinning down the nature of the causal relationship. For example, it may be that richer countries just tend to trade more.

However, recent research documents a strongly positive causal relationship between international trade and the level of national income. Frankel & Romer (1999) estimate that "a rise of one percentage point in the ratio of trade to GDP increases income per person by at least one half percent. Trade appears to raise income by spurring the accumulation of physical and human capital and by increasing output for given levels of capital". That is, the productivity benefits from exporting seem to operate through both the capital intensity and TFP channels.

Similarly, the recent OECD Growth Study reported a strong link between international trading activity and economic performance. This study estimated that an increase of ten percentage points in the ratio of trade to GDP is associated with an increase in steady-state per capita income of about four percentage points (OECD (2003a)). The estimated strength of this relationship is consistent with that reported in the Frankel & Romer study.

These findings suggest a strong causal relationship between increasing international activity and increased national income. The implication is that if New Zealand raised its exports to GDP ratio by ten percentage points (and imports increased proportionately), this would improve New Zealand's per capita income by about 10%. Such an increase would be sufficient to move New Zealand's per capita income close to the OECD average. And some of the other estimates by Frankel & Romer suggest an even more substantial contribution from trade to national income.

### Transformation through international engagement

In addition to this cross-country empirical work, it is also valuable to examine the case-study evidence of the link between the expansion of international activity and subsequent economic growth. Does increased international engagement play an important role in triggering rapid, sustained income growth?

The observation is frequently made that international engagement is a critical element of achieving rapid economic growth. A common characteristic of countries that have grown quickly is

that they have engaged with the global economy in a concerted, meaningful way.

The World Bank (2005) recently noted that "in all countries that have sustained growth, the share of trade in gross domestic product (GDP) has increased". Nobel laureate Robert Lucas also observes that "the most spectacular growth successes of the post-war world have been associated with growth in international trade" (2002). Indeed, it is hard to find a major, sustained growth experience that has not been accompanied by a significant increase in international engagement, either in the form of increased exporting or investment offshore.

Lucas (2002) cites the rapid growth experience of South Korea as an example of the growth benefits of exporting. South Korea's per capita income approximately doubled every decade for the three decades from 1960, which he attributes in large measure to absorbing knowledge (partly through learning by doing) and specialising in the production of goods and services that could be exported at a large scale.

This is a standard interpretation of the East Asian growth experience. Radelet et al. (1997) point to the critical importance of exports in explaining the rapid growth in many of the East Asian economies, as have many other commentators like the World Bank. These economies converted significant investment rates into sustained productivity and output growth by systematically moving into the export of increasingly capital intensive industries (Ventura (1997), Romalis (2004)). This economic growth, and the transformation of their economies, was only possible because of the substantial increases in international activity that took place. This is a classic example of 'export-led growth'.

A clear focus on expanding international activity has also been a common factor in many of the recent high growth experiences of small, developed countries. High growth countries like Ireland, Finland, Singapore, and Australia each adopted different sets of policies to promote growth, and each faced different risks and opportunities, but they all expanded their international activities significantly over the past decade or so. Ireland and Singapore continued to

> *"Ever since David Ricardo, economists have focused on comparative advantage as the most important reason that trade should be free. But it may well be that we are moving into a future in which these benefits are less important than those of increasing returns to scale and the extent of the market. If so, this means that openness to the international economy will become an increasingly critical requirement for economic growth in the future, especially for relatively small economies."*
>
> J. BRADFORD DELONG & LARRY SUMMERS (2001)

expand their very high levels of exporting, and firms in all of these countries substantially increased their levels of outward direct investment.

Although many factors combined to contribute to the economic success of countries like Ireland and Finland, it does seem that the one vital aspect was international engagement. All of these countries used substantially increased international economic activity as a way in which to expand their economies. Without the success of firms in these countries in accessing international markets, the growth experience in these countries would not have been as strong.

Recent empirical analysis of rapid, sustained growth accelerations also emphasises the contribution of increased trade in this process. These 'growth takeoffs' were generally accompanied by substantial increases in the level of exporting to GDP. Policy and institutional design varied considerably across countries, but the important common element was an outward orientation. For example, Hausmann et al. (2004) find that "growth accelerations tend to be correlated with increases in investment and trade" and Jones & Olken (2005) note that "growth takeoffs are primarily associated with large and steady expansions in international trade".

## Implications for New Zealand

Global engagement is particularly important for small countries like New Zealand, who have a far smaller domestic economy in which to generate productivity growth. Indeed, it is difficult to conceive of significantly improved economic performance in New Zealand without also thinking of a situation in which many more New Zealand firms have a substantial global presence.

For New Zealand to achieve a sustained increase in productivity growth, a substantial increase in international engagement will be required. Achieving and sustaining much higher rates of productivity growth cannot happen in the context of a 4 million person economy, particularly an economy that is already efficiently using its resources. Larger markets are needed for New Zealand firms to expand into.

The evidence shows clearly that there is a very strong relationship between international engagement and productivity growth. And international engagement is consistently linked with rapid growth accelerations, which is what New Zealand is looking to achieve. So a clear focus on improved international engagement is critically important to sustaining and raising New Zealand's productivity growth rate.

And the importance of international engagement is likely to increase for countries like New Zealand. DeLong &

Summers (2001) argue that access to large output markets is becoming increasingly important, because economic activity is increasingly characterised by high start-up costs and then low marginal costs. For New Zealand to continue to generate strong economic performance, it needs to be a highly active participant in the international economy.

The recent international growth experience provides a positive message for New Zealand. Small countries like Ireland, Finland, and Singapore have been able to grow rapidly through aggressive international engagement and transform themselves as a consequence. New Zealand has world-leading policies and institutions in many respects. Now that the domestic economy has been sorted out, the priority is to take the New Zealand economy to the world.

## FIRM LEVEL

There is a large and compelling body of international evidence that shows that firms who are engaged internationally through exporting or investing abroad have significantly higher levels of productivity than firms that are domestically focused. Internationally active firms also generate much better outcomes on a range of other measures like firm growth and survival, capital intensity, technological investment and innovation, and employment growth and higher wages. This finding holds consistently across a range of countries and has been confirmed in a large number of studies.[12]

> *"Using firm-level data, empirical researchers have documented that... firms engaged in exporting have positive performance characteristics (including higher productivity, larger size, greater capital intensity, etc), that multinational firms pay higher wages than domestic counterparts, and that globally engaged firms undertake more innovation."*
>
> ANDREW BERNARD, BRADFORD JENSEN, AND PETER SCHOTT (2005)

Bernard & Jensen (1999) estimate a labour productivity differential between exporters and non-exporters of 16-19% within the same industries, and a TFP difference of 13-16%. These findings are commonly replicated in international studies, often with larger productivity differentials being estimated. And this productivity differential between exporting and domestic firms seems to have increased substantially over the past few decades, suggesting that international firms are increasingly productive (Baldwin & Gu (2003)). Across all available measures, exporting firms tend to be superior to firms that are domestically focused.

And it appears that the multinational firms, who also invest abroad, have even higher levels of productivity (Criscuolo et al. (2005)). Doms & Jensen (1998) note that multinational firms in the US, whether US or foreign-owned, are "the most productive, most capital intensive, and pay the highest wages". This is partly because these firms tend to be much larger and more technologically intensive.

*[12] In the US, a series of studies have been conducted by Bradford Jensen, Andrew Bernard and co-authors. Other countries that have been examined include Canada (Baldwin & Gu (2003)), Spain (Delgado et al. (2002)), Germany (Bernard & Wagner (1998)), Taiwan (Aw & Hwang (1995)), and Columbia, Mexico and Morocco (Clerides et al. (1998)).*

## International engagement and wages

Firms who are engaged in international activity systematically pay higher wages, provide more rapid wage growth, and offer more employment opportunities. In Australia, Harcourt (2000) notes that in 1998, full time employees in exporting firms earned an average of $46,000 compared with $28,600 in a non-exporter firm, and that "34% of exporters paid their workers above average weekly earnings compared to only 12% of non-exporters".

Michael Porter (2003) finds that across US regions between 1990 and 2000, the average wage in traded industries was $45,000 compared with $27,000 in locally-focused industries, and that wage growth was 5.0% in the traded industries compared with 3.6% in local industries. And there are higher average wages in regions where there are higher proportions of internationally engaged industries.

Globally engaged firms also generated significantly higher shareholder returns than domestically oriented firms in the US over the 1994 to 2001 period, which is consistent with internationally-focused firms generating higher levels of productivity (Lewis & Richardson (2001)).

This firm level relationship between international activity and productivity aggregates up to a sector and industry level. Michael Porter, for example, has recently documented substantial differences between traded industries and locally-focused industries in the US. Porter (2003) estimates labour productivity levels that are 75% higher in traded industries than in locally-focused industries. He also notes significant differences on measures of innovative capacity – traded industries generate 21.1 patents per 10,000 employees compared with 1.3 patents per 10,000 employees in the local industries. Because of these substantial differences, regions with a heavier concentration of traded industries tend to have higher incomes than those that do not.

Similarly, Kondo et al. (2000) find evidence of a 'dual economy' in Japan, in which labour productivity in the export driven manufacturing sector is about twice that of labour productivity in domestic manufacturing and domestic services. "The world beating portion – autos, steel, machine tools, and consumer electronics – is thriving, bettering any and all competitors' productivity by 20 percent. Yet these Toyotas and Sonys, accounting for only 10 percent of all economic activity in Japan, are the exception and not the rule. The remaining 90 percent of economic activity takes place in companies that do not export products, instead providing domestic manufacturing and services. Save for national origins, these companies share nothing with Toyota. They are sub-scale, poorly managed, antiquated, insulated from competition, and woefully unproductive."

Although this is perhaps an extreme example, it is a general pattern across countries. The parts of national economies that are more exposed

to international competition tend to perform better. Germany, for example, is the world's largest exporter and it is the world-class companies in Germany's export sector that support their economy given the less robust domestic sectors. And in New Zealand, productivity growth in the primary sector, which is one of the few sectors that benefits from world-class scale and specialisation and significant international exposure, tends to be relatively high compared to other sectors of the economy.

## The nature of the relationship

This relationship between firm level productivity and international engagement exists for two reasons, both of which suggest a causal link between international engagement by firms and national productivity growth.

The first cause of the relationship between international engagement and productivity growth is that international activity provides additional growth opportunities for a country's most productive firms. It is the more productive firms that are more likely to export or invest abroad because international activity involves additional costs than operating in a domestic market and firms need some productivity advantage before it makes sense for them to bear this cost.

Indeed, the international evidence shows clearly that firms are already highly productive, relative to domestically-focused firms, when they move into international markets. This self selection process makes a contribution to overall productivity growth because once these productive firms move into international markets they tend to generate much more rapid sales and employment growth than firms who remain entirely within the domestic market.

Bernard & Jensen (2004) find that exporters "grow faster in terms of both domestic and foreign shipments than do non-exporters" and that "exporting is associated with the reallocation of inputs, both labour and capital, from less efficient to more efficient plants". Bernard & Jensen (1999) find that firm growth is strongly associated with exporting activity, with employment and output growth around 1% per year higher than in non-exporting firms. And Bernard et al. (2005) find that globally engaged US firms made a major contribution to overall job creation in the US.

This rapid growth means that resources are increasingly drawn into higher productivity uses, thereby raising aggregate productivity. Indeed, this process is a major driver of overall productivity growth (Bernard & Jensen (2004)). The contribution of the export sector to labour productivity growth is much greater than its share of employment or output. This shows that international engagement is valuable because it provides much greater scope for a country's most productive firms to expand their operations beyond that allowed by the domestic market.

The second channel through which international engagement can contribute to productivity growth is in terms of the productivity gains that firms obtain from the process of participating in international markets. These productivity gains are generated because firms have

better access to technology, knowledge, and ideas; can take better advantage of scale economies; and benefit from ongoing learning and the effect of more intense competitive pressure. Firms that compete overseas will be up against the best in the world, and will therefore be driven to upgrade continuously, to become more innovative and closer to best practice.

The firm-level evidence on this channel is less clear. Although the case-study evidence routinely documents a 'learning by exporting' effect, much of the empirical work tends to suggest that, although exporters are substantially more productive than non-exporters, "the act of exporting confers little or no benefit in the form of faster productivity growth at the firm level" (Bernard & Jensen (2004)). In these studies, exporting simply allows more productive firms to grow more rapidly, and also increases their probability of survival relative to otherwise similar firms who are not exporting, but does not directly impact on firm-level productivity growth.

However, several recent studies do find a link between international activity and higher rates of productivity growth by firms. In a Canadian study, for example, Baldwin & Gu (2003) find that export market participation generates ongoing productivity gains, which they attribute to a learning process in which international trade allows firms to access new ideas and knowledge. A similar claim is made by Criscuolo et al. (2005) who find that "globally engaged firms generate more of the innovations that feed into high productivity, in large part because these firms learn more from a wider range of sources".

And some studies suggest that the productivity benefits from international engagement are concentrated in firms that are intensively involved in international markets, rather than all international firms. For example, Castellani (2001) and Kraay (1999) both find a relationship between exporting intensity and productivity gains in the context of Italian and Chinese firms respectively. In the Italian case, the productivity gains occur in firms where exports comprise over 75% of the firm's sales and where the exports are to developed countries. This is consistent with an explanation in which active international engagement generates significant learning advantages.

So there are two channels through which international engagement by firms can lead to productivity growth: the provision of expanded opportunities for the highly productive firms in the economy as well as the productivity advantages that firms obtain from engaging in international markets.

## Implications for New Zealand firms

Both of these channels are likely to be significant for New Zealand firms, and perhaps even more so than for the firms examined in many of the studies described above. This is for two reasons.

First, the domestic market in New Zealand is smaller than in many other countries and offers relatively limited growth opportunities, even for New Zealand's most productive firms. This suggests that there is considerable benefit from international expansion in terms of allowing for New Zealand's more productive firms to grow.

To the extent that New Zealand business sees the international market as the relevant market, the incentives to invest, to specialise, and to innovate will strengthen considerably. International trade and investment provides a way for New Zealand's most productive firms to grow and to leverage their competitive advantage across a range of markets.

Second, there is likely to be substantially more opportunity for ongoing productivity growth for New Zealand firms when they move into international markets. Relative to, say, the firms in the US studies, most New Zealand firms are likely to be smaller, less productive, and less capital intensive when they exhaust domestic opportunities and begin to consider international markets. As a result, there is more productivity upside for New Zealand firms from exporting or investing abroad.

And there will be many more learning opportunities, such as exposure to intense competition, international best practice, and new ideas and knowledge. A US or Canadian firm is more likely to access these benefits in the domestic market before they move abroad, and so the additional productivity growth generated by going global may be smaller. But in a New Zealand context, the learning opportunities provided by going global are likely to be much more significant because many firms will still be in the early stages of the learning curve when they move abroad.

## SUMMARY

There is consistent and compelling evidence as to the link between international engagement and productivity growth, both at the firm level and the national level. The benefits for New Zealand are likely to be particularly strong given the small effective size of the New Zealand market.

# 6 IMPLICATIONS FOR NEW ZEALAND

The discussion in the previous sections has shown that the absence of scale in the New Zealand market is an important constraint on productivity growth in New Zealand, exerting a negative effect on both capital intensity and TFP growth. This goes a long way to explaining New Zealand's consistently poor labour productivity record relative to other OECD countries despite generally high quality policies and institutions.

The implication is that expanding the effective size of the New Zealand market through increased international economic activity is critical to achieving much more rapid labour productivity growth. The evidence described above shows that increased exporting and investing abroad has a substantial effect on productivity growth at a firm level and also for the national economy. And these productivity benefits are likely to be even more substantial in a New Zealand context given the small scale of the domestic economy in which New Zealand firms operate.

This section begins by considering the implications for policy and business action. New Zealand's record in terms of exporting and investing abroad is then described.

## AN OUTWARD ORIENTATION

A focus on improving New Zealand's international performance, by increasing the number of New Zealand firms that are successfully exporting or investing abroad, is a vital part of achieving the goal of raising New Zealand's labour productivity in a substantial and sustained way. It will do so in terms of providing an increased incentive for firms to raise capital intensity. And also in terms of much improved TFP growth as firms benefit from operating in larger, more competitive markets and as additional growth opportunities are provided to productive New Zealand firms.

A credible growth strategy for New Zealand will necessarily involve a much greater level of exporting and offshore investment by New Zealand firms. This is conventional analysis in the sense that small economies are commonly thought to derive substantial economic gain from international economic activity. The stronger message from this analysis, however, is that an aggressive focus on accessing international markets is fundamental to New Zealand's ongoing economic prosperity.

Increased international activity will allow for the New Zealand economy to step up a gear, such that the hours currently worked can be converted into significantly greater value. There is a limited amount of growth that can be extracted from a domestic economy of 4 million people. Without much greater international economic activity New Zealand will not be large enough to achieve the required productivity growth.

So the priority is to determine how best to generate increased international activity by New Zealand firms. Obviously not every New Zealand firm will have an international presence; only a small proportion of the firms in any economy will have international activities. But those firms that do operate in international markets make a disproportionate contribution to productivity growth.


Achieving improved exporting and foreign investing by New Zealand firms will require a wide range of policies and actions by both government and business. New Zealand policy settings and corporate behaviour need to have a deliberate outward orientation. The aim of economic policy should be to strengthen the ability of New Zealand firms to compete successfully in international markets. Similarly more New Zealand firms ought to have a clear focus on expanding successfully into international markets.

There are a range of policies that are directly outwardly oriented, such as free trade agreements, export promotion, and the nature of New Zealand's offshore representation. These policies assist international activity by making it easier for New Zealand firms to move from the New Zealand market into international markets.

In addition, it is also important to pursue a range of policies that will have a positive influence on productivity and economic performance generally. Growth is about getting many things right. It is hard to be internationally competitive if the lights are going out, or if the education system is not delivering the right set of skills, or if household savings are persistently negative and there is a limited pool of

capital available to finance the international expansion of New Zealand firms. It is important to ensure that a wide range of policy areas are contributing to achieving New Zealand's growth potential.

However, a policy focus on making the domestic economy more productive will have only limited upside if the benefits are limited to the domestic New Zealand market. Addressing infrastructure, education, and other issues without also paying attention to the capacity and aspiration of New Zealand firms to expand internationally in a successful and substantial way means that these policies will have a less powerful effect than is possible. Indeed, progress has been made on many domestic policy issues over the last two decades without the type of growth dividend observed in other countries. A deliberate focus on expanding the international activities of New Zealand firms is also needed to obtain the full productivity benefits.

To the extent that the productivity benefits can be leveraged by New Zealand firms across much larger international markets, the overall productivity gains will be much greater. A focus on international engagement is, then, an important complement to policies that are focused primarily on the domestic market. The upside of these pro-growth policies will be enhanced significantly if they are combined with a focus on aggressive international integration.

It is likely, for example, that the small, remote nature of the New Zealand market makes international expansion difficult to achieve for many New Zealand firms, and this may require specific consideration by both business and government. Government policy has an important role to play in setting the domestic policy context and in influencing the ability of firms to expand internationally (e.g. through free trade agreements and export promotion activities).

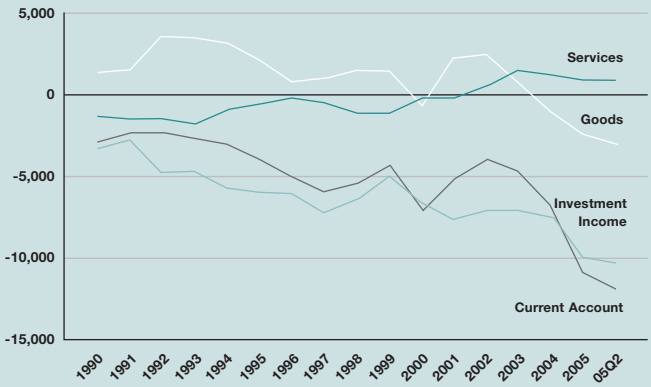
But it is business that makes the investment and employment decisions, and much rests on the capacity and aspiration within New Zealand business to go global. If New Zealand firms do not have the capacity or aspiration to expand internationally, the benefits of outwardly-oriented policy settings, such as free trade agreements, will not be fully realised. And without international expansion by New Zealand firms, the economic growth prospects of the New Zealand economy will be constrained.

## NEW ZEALAND'S CURRENT INTERNATIONAL ENGAGEMENT

The importance of adopting an outward orientation becomes even clearer in the context of New Zealand's existing pattern of international engagement.[13] Much of New Zealand's economic growth over the past 15 years has been generated from the domestic economy, with a particularly strong contribution from private consumption growth. This strong domestic demand, and a relatively weak contribution from the external

*[13] New Zealand's international performance will be discussed in detail in the New Zealand Institute's next report.*

FIGURE 8: BALANCE OF PAYMENTS FOR NEW ZEALAND ($M)




Note: March year end except last observation
Source: Statistics NZ

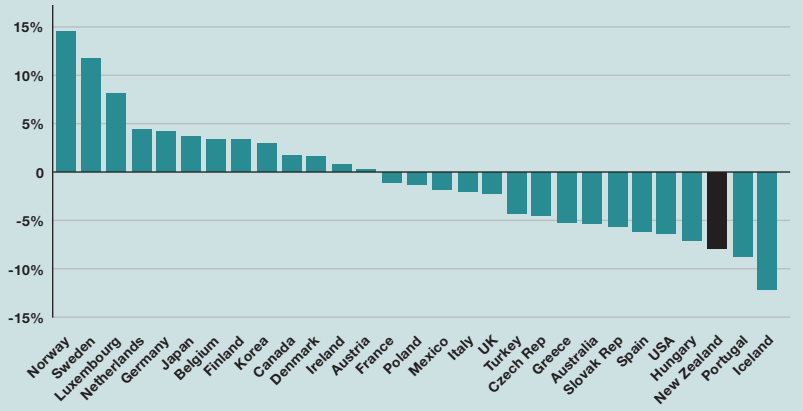
sector, has been a particular feature of the past few years in New Zealand but has also been characteristic of the past 15 years.

Figure 8 describes the various components of New Zealand's balance of payments. It is clear that the merchandise trade balance has deteriorated steadily over the past 15 years. This is a consequence of slow export growth and strong import growth, on the back of buoyant consumer demand. Although the balance on services trade is positive, driven largely by tourism, this is not sufficient to offset the merchandise trade deficit. The merchandise trade numbers for August 2005 reported a monthly deficit of $1.1 billion, for an annual deficit of $5.8 billion.

The level and growth of New Zealand's exports does not compare well against other developed countries. In terms of New Zealand's export performance, exports are currently 29% of GDP, which is well below the levels observed in other small, developed countries. And export growth has not made a significant contribution to New Zealand's economic growth; exports as a share of GDP have increased only slightly over the past 15 years from 27% of GDP in 1990. Although there are some short-term factors involved, such as the strong New Zealand dollar, which have hurt New Zealand's exporting outcomes recently, the relatively weak exporting performance is a long-term issue.

New Zealand has also generated a persistent, substantial investment income deficit, which is currently around 5% of GDP. This investment income deficit means that a portion of New Zealand's strong GDP growth over the past 15 years has benefited foreign investors rather than New Zealanders. This deficit reflects the high degree of foreign ownership of the New Zealand economy, and the relatively limited offshore investments by New Zealand firms.

FIGURE 9: CURRENT ACCOUNT AS A % OF GDP, 2005




Source: OECD Economic Outlook (forecasts); Statistics NZ (actual)

Indeed, New Zealand's stock of foreign direct investment (FDI) abroad has reduced over the past 15 years as a share of GDP and is substantially below the levels observed in Australia and across many other developed countries. New Zealand's stock of outward FDI is currently 9% of GDP, down from 15% of GDP in 1990. This compares with the developed country average of 27% of GDP, three times that of New Zealand.

New Zealand's growing trade deficit and a very substantial investment income deficit combine to generate a current account deficit of 8% of GDP. As can be seen from Figure 9, New Zealand's current account deficit is among the largest in the OECD. Only two OECD countries – Iceland and Portugal – have larger current account deficits. And the current account deficit is projected to worsen further over the next 12 months, perhaps to 9% of GDP.

## SUMMARY

Discussions around raising New Zealand's labour productivity need to take place in an international context. A clear focus on expanding international activity will leverage the effectiveness of domestic policy settings aimed at raising productivity growth. This will involve both government action to raise New Zealand's international competitiveness and make it easier for New Zealand firms to enter international markets, as well as the capacity and aspiration of New Zealand firms to compete successfully in international markets.

Creating a global New Zealand economy will require a significant change in course and speed relative to the drivers of New Zealand's growth over the past 15 years. There has been a strong domestic component to the economic growth story with the external sector contributing little to overall economic growth. Going forward, New Zealand needs a much greater contribution from increased export and FDI income if it is to substantially raise labour productivity growth rates.

# 7 CONCLUDING REMARKS

New Zealand has generated strong economic performance over the past 15 years, both compared to New Zealand's historical performance and also compared to many other OECD countries. The challenge now is to sustain this economic growth performance over the next 15 years, and then to raise it in order to close the income gap between New Zealand and other developed countries.

Sustaining and raising economic growth rates is a demanding task because the main driver of New Zealand's growth over the past 15 years has been growth in hours worked with a relatively small contribution from labour productivity growth. This is not a sustainable growth strategy as hours worked will grow at a much less rapid rate over the next 15 years. The priority then must be to generate substantially increased rates of labour productivity growth. New Zealand needs to move from labour productivity growth that is in the bottom quartile of the OECD to above average labour productivity performance.

So there is certainly no cause for complacency with respect to the prospects for New Zealand's economic performance over the next 15 years. But neither is there cause for fatalism, where the belief is that the challenge is too demanding. The international experience over the past 15 years shows clearly that small countries can grow rapidly, like Ireland and Finland. There is no reason that New Zealand cannot likewise achieve much improved labour productivity growth.

But this will not happen in a spontaneous way. The recent examples of high growth countries show that aggressive, determined, sustained action is required to achieve higher rates of economic growth. The focus needs to be on identifying the policies and actions that have the ability to move New Zealand forward in a meaningful way.

New Zealand is a small country and is also remote from other large markets. These factors have a significant effect on economic performance, constraining New Zealand's productivity growth relative to other OECD countries despite quality policy settings and institutions.

The response to this needs to be aggressive international engagement such that New Zealand's exporting and international investing activity increases in a material way. The international evidence documents a clear and substantial link between such international engagement and productivity growth at both a firm level and a national level. This is because international activity allows firms to acquire the scale that justifies greater investment and specialisation, as well as providing growth opportunities for productive firms and providing learning that is not available in the domestic market. These benefits are likely to be particularly strong for New Zealand given the small effective size of the New Zealand market.

Indeed, it is hard to conceive of a situation in which New Zealand sustains high rates of productivity growth without substantially increased international activity. New Zealand is too small to rely on a domestically-oriented growth strategy. Sustained higher rates of productivity growth

can only come from New Zealand firms expanding into international markets in far greater measure than they have been doing.

This is a clear lesson from the international growth experience over the past decades. The common factor in episodes of rapid growth, from Ireland and Finland to Singapore, is an outward orientation and a rapid expansion of international activity. Of course, a range of other policies were also important in this growth process, from tax and infrastructure to R&D spending and education. Growth is about getting many things right. But the factor that unlocked the full potential of these policies was the ability of firms in these countries to leverage these advantages across global markets.

Similarly in New Zealand it will be necessary to make progress on a range of policy fronts in order to achieve New Zealand's growth aspirations. But these domestic policies need to be deliberately oriented towards the international success of the New Zealand economy. Policies, such as education, infrastructure, labour markets, and so on, need to be focused on enhancing New Zealand's international competitiveness.

In addition, policies will be required that are specifically focused on assisting New Zealand firms to expand internationally. And changes in business behaviour will also be required in order to lift New Zealand's overall exporting and foreign investment outcomes.

To consistently be one of the top performing OECD economies, New Zealand will need to be a successful international economy with many world-class New Zealand firms that are competing successfully in international markets. Of course not all firms will operate internationally, but New Zealand's overall economic success will depend on those firms who do take it to the world.

This will require a step change in the behaviour of both government and business. The level and growth of New Zealand's exporting and outward FDI do not compare well with most developed countries. And many of New Zealand's external outcomes such as the high current account deficit and the expanding trade deficit are moving in the wrong direction. This is because much of the New Zealand growth experience over the past 15 years has been based on the domestic economy, with strong private consumption growth and a much smaller contribution from the export sector. This balance will need to change for labour productivity to increase substantially.

Overall, the task of 'creating a global New Zealand economy' is a challenging one. But it is also a task that is fundamental to sustaining, and lifting, New Zealand's economic prosperity. Over the next several months, we will be developing a better understanding of New Zealand's current international performance, with a view to identifying the concrete policies and actions through which New Zealand can secure much improved international performance.

This will require public policy action, as the government has an important role to play in shaping the context in which New Zealand firms go global. And given that creating a global New Zealand economy can only be achieved through the sum of individual successes by New Zealand firms, the private sector has a critical role to play in New Zealand achieving and sustaining higher rates of productivity growth.

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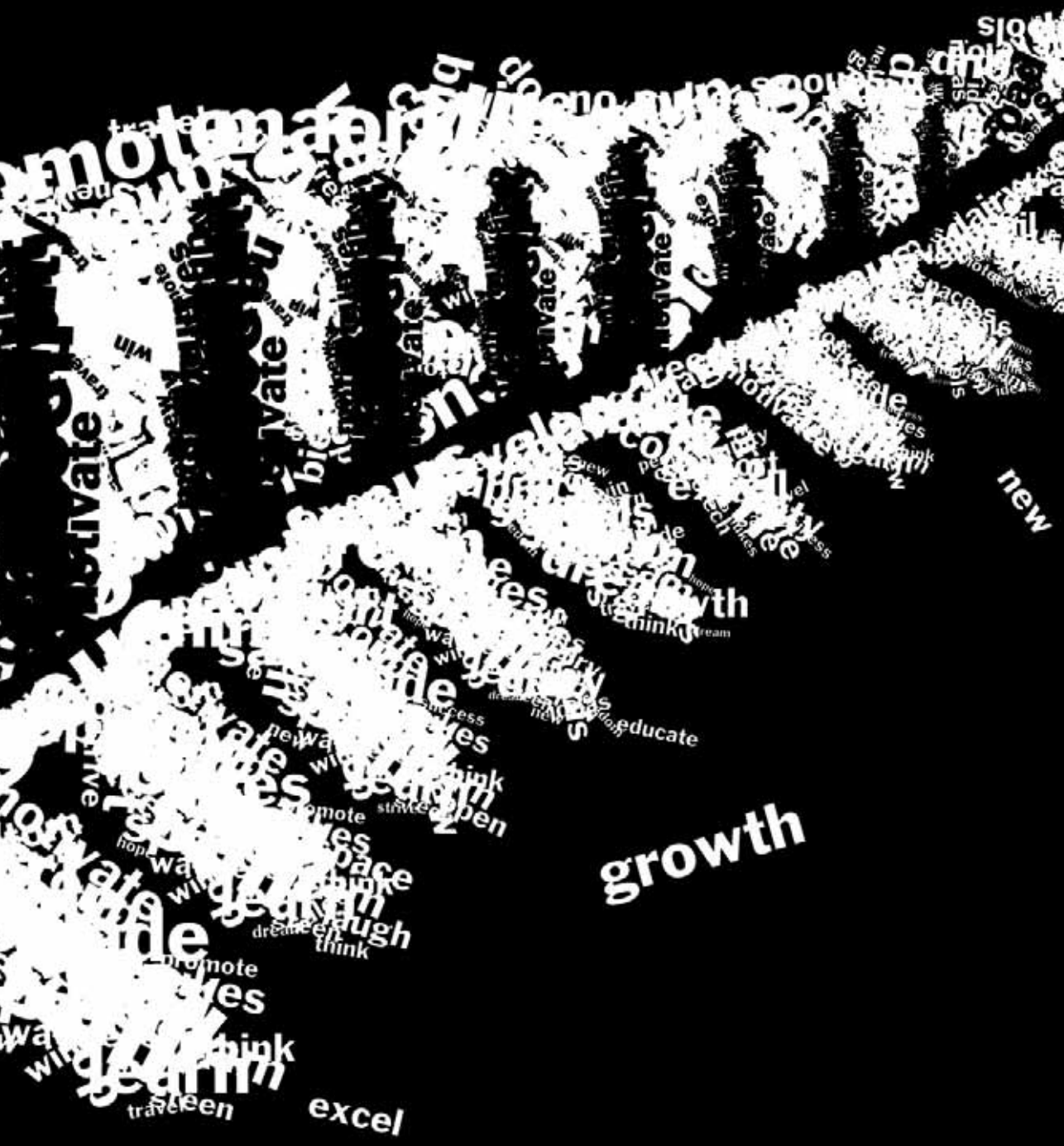
## NOTES

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