



Report to:
Business New Zealand

IS THERE A CASE FOR A PAYROLL TAX?

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1 Introduction	2
1.1 Summary of Conclusions	2
2 Setting the scene	4
2.1 Introduction	4
2.2 Government policy references, 17 October 2005 to 16 March 2006	4
2.3 New Zealand Treasury papers	6
2.4 Summary of main points	7
3 Areas of discussion around payroll tax	9
3.1 Productivity and the encouragement of capital intensity/more efficient use of labour	9
3.2 Equity	10
3.3 Put New Zealand on a level playing field with Australia	12
3.4 Administratively easy to apply	13
3.5 Company behavioural response	14
4 Scenarios	16
4.1 From the company perspective	16
4.2 From the employee's perspective	19
4.3 Summary of findings	21
5 Conclusions	22

1 Introduction

This discussion paper looks at the option of introducing a payroll tax which would be revenue neutral to the government as it would be offset by a cut in company tax. New Zealand does not have payroll tax at the time of writing, so this would be a new tax. Section 2 of this paper summarises the political background to the government's recent consideration of a payroll tax in New Zealand, setting out government objectives and results of recent government research.

Payroll tax is a tax levied on employers' wage bills. It is thus a tax on inputs rather than outputs. The employer has the legal liability to pay it but the incidence may ultimately fall on the employer, the employee or the consumer. It is widely used in other OECD countries, such as the United States and Australia.

When a tax is introduced there are general principles which should be observed so that it has as neutral an effect as possible on sectors of the economy. In addition, a new tax should not have unintended knock-on effects. These principles are discussed in section 3 and are essentially as follows. Firstly, there should be a specified objective. With payroll taxes, one of the stated objectives according to the government is with respect to productivity and the relative factor intensity (i.e. the labour to capital ratio) of companies in New Zealand. Secondly, it should be equitable in its impacts. Thirdly, the level of compliance and administrative costs should be minimised. Fourthly, it is important to remember that in New Zealand, we compete in the global economy and therefore should not put our economy out of line with competitors, particularly Australia. Finally, we consider the significance of the likely behavioural response of companies to the tax changes.

In section 4, we present a range of scenarios according to assumptions about the type of company and the likely behavioural response of the company, and assess how the tax regime affects both employer and employee.

Section 5 presents an overview of the conclusions from this analysis. We summarise the range of likely responses and outcomes from the proposed tax changes and highlight the issues that should be considered for such changes to be made.

1.1 Summary of Conclusions

We conclude that introducing a payroll tax in New Zealand, with a simultaneous cut in company tax, has some potential benefits in terms of encouraging labour productivity. There would however be more effective ways of targeting this objective, since the introduction of a

new tax brings with it deadweight losses, distortions to the economy and equity concerns. There would not necessarily be an effective levelling of the playing field compared to Australia, because the policy is intended to be revenue neutral and the complexity of the tax system would be increased, thereby undermining one of the current advantages for businesses operating in New Zealand. Some businesses may benefit, but the overall picture is less clear. The more profitable companies will benefit the most because of the reduced company tax rate, and those companies with a larger wage bill will be relatively harder hit by the tax than less labour intensive companies. It may also hinder New Zealand firms versus foreign competitors by hurting companies at the margin. It is also possible that it would discourage start-ups in New Zealand.

2 Setting the scene

2.1 Introduction

In this section we present the background to the discussion of the introduction of a payroll tax and the possible reduction of the company tax rate in New Zealand. We draw on stated government policy, quotes from Ministers, and relevant research papers by the Treasury.

2.2 Government policy references, 17 October 2005 to 16 March 2006

Coalition agreements with United Future and New Zealand First, 17 October 2005

The United Future Policy Statement, in its Confidence and Supply Agreement, sets out its principles, policies and priorities which were agreed with the Labour-led government following the 2005 election. This includes:

“they will conduct a review of the current business taxation regimes with the view of ensuring the system works to give better incentives for productivity gains and improved competitiveness with Australia.”

Similarly, the New Zealand First Confidence and Supply Agreement with the Labour-led government states as part of its policy programme to:

“Conduct a review of the current business taxation regimes with the view of ensuring the system works to give better incentives for productivity improvements and improved competitiveness with Australia.”

Speech from the Throne, 8 November 2005

In the Speech from the Throne, 8 November 2005, Prime Minister Helen Clark said, “significant fiscal loosening – either by way of large expenditure increases above those already signalled or by way of significant tax cuts – cannot be considered. The government will continue to maintain over the short to medium term a firm fiscal stance with substantial operating surpluses. In these circumstances, the most effective contribution my government believes it can make to improving economic performance is to place even greater emphasis on the importance of savings, productivity, education and skills, science and innovation, and export growth.”

“Work will continue on relevant taxation regimes to ensure that they are conducive to the promotion of savings, while also paying appropriate attention to the maintenance of the tax base.”

“The security of the New Zealand economy in the 21st century will come from the ability of our firms to be part of a high skill, high productivity, and high wage economy.”

“Particular attention will be paid to the promotion of productivity growth... The emphasis must now switch to producing more per worker, or, in other words, lifting productivity growth rates. This will require a wide range of policy initiatives. The review of the structure of corporate taxation, as referred to in the agreements with New Zealand First and United Future, and supported by the Progressives, will also be designed to take a wide-ranging look at our current system of corporate taxation with an emphasis on practical signals to lift productivity.”

Dr Cullen and Peter Dunne, 20 December 2005

On 20 December 2005, Finance Minister Michael Cullen and Revenue Minister Peter Dunne said that the Government will announce its Business Tax Review proposals for consultation by mid-June 2006. The review is part of the post-election Confidence and Supply Agreements with New Zealand First and United Future. It aims to provide “better incentives for productivity gains and improved competitiveness with Australia”.

Dr Cullen said, “Lifting labour and capital productivity is critical to raising New Zealand’s sustainable growth rate and to restoring New Zealand to the top half of the OECD in terms of per capita income. The review will be integral to this process.”

Dr Cullen, 16 March 2006

Finance Minister Dr Michael Cullen had his officials at the Treasury prepare two papers looking at payroll tax at the end of 2005. A paper released under the Official Information Act showed that in 2004 Treasury considered the option of lowering the company tax rate to about 20% while introducing a payroll tax of up to 7%.

Dr Cullen is quoted as saying, “Clearly a payroll tax, all else being equal, would increase the cost of labour. If it was accompanied by a reduction in the cost of capital, then of course that might lead to expansion of productivity.” (Stuff.co.nz. “Public ‘being warmed up’ for payroll tax”, 16 March 2006, by Vernon Small.)

2.3 New Zealand Treasury papers

Tax Review 2001 (Treasury)

In the Tax Review 2001 (Treasury): “establishing the nominal company tax rate... we consider the key guiding principles to be that:

- The top personal marginal tax rate and the company/entity tax rate should be as close as possible. This minimises the incentives to either distribute or retain income within companies.
- The corporate tax rate has the highest commercial visibility amongst tax rates, and therefore has an important impact on investor perception. In response to this principle, some countries have deliberately reduced their company tax rate significantly below the top personal marginal tax rate with a view to attracting and retaining capital.

We note that since the Government moved to increase the top personal marginal tax rate from 1 April 2000, the Australian government has moved its corporate rate from 36% to 34% for the year ending 30 June 2001, and to 30% thereafter. These developments will be an ongoing source of pressure towards a re-examination of our rate structure in terms of the above principles. In particular, it is likely that these and future developments overseas will continue the pressure towards reducing the company tax rate over time.”

Capital Shallowness: A Problem for New Zealand? (Treasury 2005)

In the Treasury paper, “Capital Shallowness: A Problem for New Zealand?”, by Julia Hall and Grant Scobie for the New Zealand Treasury (Working Paper 05/05, June 2005), the issue of New Zealand’s slower economic growth rate relative to Australia’s is addressed. They attribute this trend in part to lower levels and slower growth in New Zealand’s labour productivity and then examine the reasons why this has been the case.

They find that the capital intensity (defined as the amount of capital per hour worked) in New Zealand was not increasing as fast as in Australia for more than 20 years (up to 2002).

“In 1978, New Zealand and Australian workers had about the same amount of capital per hour worked. By 2002, capital intensity in Australia was over 50% greater than in New Zealand.”

“As a result it is not surprising that we find that between 1995 and 2002 some 70% of the difference in the growth of labour productivity is explained by a lower rate of growth in capital intensity in New Zealand.”

“If the capital intensity is observed to be low (as in New Zealand), it could be associated with a lower relative price of labour to capital. In New Zealand, the price of labour relative to Australia was very comparable in the late 1980s. By 2002 it had fallen to about 60% of the level in Australia. With labour relatively cheaper in relation to capital than in Australia, it appears that New Zealand firms have opted for a lower level of capital intensity.”

As labour becomes more expensive relative to capital do firms tend to substitute more capital for labour, as economic theory would suggest? “The results confirm that in both Australia and New Zealand, this type of substitution does in fact occur.”

They then ask why the gap in capital intensity has widened. “At one level, the immediate answer appears to be that the relative price gap has continued to widen. But this of course then merely raises the next question: why have relative prices moved in this way?” They suggest differences in the regulatory environment, labour and capital markets, and taxation regimes as contributors, to be explored in subsequent research.

2.4 Summary of main points

The main points and implications to be taken from the references in this section are as follows:

- The government is reviewing corporate taxes in New Zealand, as in stated both of its Confidence and Supply Agreements with New Zealand First and United Future, and in the Speech from the Throne. In 2005, Dr Cullen has had Treasury officials look at costing a payroll tax of up to 7% and a reduced company tax of 20%. Business Tax Review proposals will be released in mid-June 2006 for consultation.
- A key concern for the government is productivity, as stated in the Confidence and Supply Agreements. The Speech from the Throne refers to a “high skill, high productivity, and high wage economy”, and “practical signals to lift productivity”. Dr Cullen was quoted as linking a payroll tax with improved productivity. A linked issue is the relative labour/capital intensity of businesses. This is discussed in the 2005 Treasury paper and compares developments in Australia and New Zealand in terms of capital intensity and relative factor prices. In this context, the fact that the New Zealand economy is moving towards more service-oriented activities is also relevant. Service-oriented activities tend to be relatively labour-intensive. This

further highlights the need for productivity, skill and wage improvements in the future New Zealand economy.

- The objective of fiscal neutrality of these suggested tax changes is stated in the Speech from the Throne, “work will continue on relevant taxation regimes while paying attention to the tax base”. Also, reference is made to the government’s “firm fiscal stance” and “maintenance of the tax base”. This supports the view that the government aims to keep any tax changes revenue neutral.
- The comparison of Australia’s tax regimes with those in New Zealand is included in the recent statements by Dr Cullen. The visibility of the company tax rate is referenced in the Treasury Tax Review 2001 and the pressure for New Zealand to reduce the company tax rate over time, in light of Australia cutting its rate to 30%. It also figures in the Treasury (2005) paper, which then links in with the productivity discussion, and the relative labour and capital intensity in New Zealand compared with Australia.
- The Treasury Tax Review 2001 states that one of the guiding principles in setting the company tax rate is that it should be as close as possible to the top personal marginal tax rate.

3 Areas of discussion around payroll tax

There are five main areas of discussion around the consideration of a payroll tax in New Zealand. These are as follows:

1. Productivity and the encouragement of capital intensity/more efficient use of labour
2. Equity
3. Put New Zealand on a level playing field with Australia
4. Administratively easy to apply
5. Company behavioural response

3.1 Productivity and the encouragement of capital intensity/more efficient use of labour

As presented in section 2, one of the government's stated objectives is to improve productivity in New Zealand. This may be achieved by improving capital intensity, which involves improving the efficiency of the use of labour. This may be partially achieved by altering the relative cost of labour and capital.

New Zealand is compared with Australia in the Treasury (2005) paper, comparing economic growth rates and seeing if the slower economic growth rates in New Zealand have been due to relative capital intensity and if this in turn is due to differing relative factor prices in each country. They conclude that capital intensity was increasing at a notably slower pace in New Zealand over the last two decades, and that part of the reason is the relatively low cost of labour in New Zealand compared to the cost of capital, while in Australia, labour is relatively more costly compared to capital.

If the objective of a new payroll tax in New Zealand is to encourage both greater capital intensity and the more efficient use of labour, it may be rational to use it for this purpose, since such a tax would make labour more costly relative to capital (and other inputs), thereby encouraging the substitution of other inputs for labour.

Section 4 presents a range of business types and scenarios to illustrate the impacts on businesses with differing labour intensity, profitability, size, and pay rates per worker. For example, within the aggregate, the more labour-intensive companies would be affected to a greater extent than more capital-intensive companies due to the labour substitution effect from a relative increase in the cost of labour. Therefore, the production mix of the country may well alter.

The payroll tax is a broad-based tax which does not target any particular objective. It would have adverse effects on some companies and possibly relieve the tax burden of other companies, but not in line with any stated government objective. For example, in section 4 we see that profitable companies and capital intensive may benefit from the change in the tax regime away from company taxes towards a payroll tax, while less profitable companies and more labour intensive companies, and those paying higher wages, would be relatively harder hit by the tax changes. It is therefore a blunt tax, and a tool more targeted to a stated objective may be considered to be more appropriate. If the objective is to increase labour productivity, there are more targeted policy tools which could be considered. However, it is beyond the scope of this report to present these options as it would warrant further in-depth research.

The impact on businesses will also depend on their response to the change in the tax regime. Examples are given in section 4 of possible behavioural responses, from one extreme of the companies covering the entire cost of the tax changes, to the other extreme of passing the whole cost of the payroll tax onto the employees through lower wages, while benefiting from a reduced company tax rate.

This new tax would distort the economy by making one factor relatively more expensive, i.e. labour, and with this distortion comes deadweight losses to the economy. The size of this deadweight loss may be considerable since this tax would be across the entire New Zealand labour market. Thus, although the government may aim for it to be revenue neutral, they should consider the indirect deadweight losses within this decision. The deadweight losses come from reduced efficiency of markets, artificially high labour costs, which will lead to capital being substituted for labour, higher administrative costs, and knocking marginal companies out of business.

In the current economic climate in New Zealand, with the lowest unemployment rate in the OECD, putting an extra tax on labour may be considered a reasonable proposition, thereby encouraging capital-intensity and reducing the pressure on the labour market. However, New Zealand is considered to be at a turning point in its business cycle, and as a result unemployment is predicted to increase over the next few years.

3.2 Equity

Equity may refer to equality of treatment across individuals or between industries, or types of companies. Essentially it is the consideration of whether some sections of society will lose out while others gain from a policy change, and what is acceptable. As discussed in section 3.5 and section 4, the impact of the reduction of the company tax rate and the introduction of

a payroll tax will depend largely upon the behavioural response of the company. This response will determine where the burden of the tax changes ultimately fall, and therefore will impact upon the equity of the policy changes.

Payroll tax may be considered to be an equitable tax because it is proportional to the wage bill. However, it may be argued that it is more equitable to tax a company according to its level of success, i.e. profits, which determines its ability to pay the tax. It may be considered inequitable to charge a company operating at the margin, with no supernormal profits, the same as a company with the same wage bill but operating at a considerable profit. In this case it may be argued that payroll tax is a regressive tax, i.e. it takes more proportionately more tax from lower-income individuals and corporations than from higher-income individuals and corporations.

There is also the issue of who ultimately bears the burden of the new tax. The payroll tax has been likened to an additional personal income tax since employers tend to pass it on as lower wages to their employees. Therefore, there is likely to be a shift in the burden of tax in the economy away from the company to the individual. Again, the ability to pay is a central consideration to this shift.

The economic playing field may be tipped against some companies or in favour of other companies if they end up paying more or less under the new regime than under the existing one. This would affect the competitiveness of New Zealand companies on the international market; competitiveness according to business size; and competitiveness according to industry.

It may be argued that a payroll tax would introduce a disadvantage to exporting and to import-competing companies by raising labour costs for domestic producers. If the policy is assumed to be revenue neutral, it may be argued in return that the aggregate position of companies is unchanged, although of course there will be winners and losers.

Competitiveness of companies will necessarily alter because the tax regime has been altered. On the other hand, imposition of this tax does not carry any obvious advantage.

Small and medium enterprises (SMEs) may well be the main losers from such a move, since these are the companies which tend to make the smallest profits per employee. The company tax rate is charged as a percentage of company profits. If a company does not make a profit it does not pay company tax. However, with the payroll tax, a company must pay a flat percentage rate of its wage bill regardless of its economic performance. Companies which are on the margin may be forced out of business and this will include many new and smaller firms.

In New Zealand in 2004, the sectors with more than half of their employees working in companies of less than 20 employees were construction, retail trade, wholesale trade, and personal and other services. In addition the agriculture, forestry and fishing sector and the accommodation, cafés and restaurants sector had just under half of their employees in firms of this size. We suggest that these industries may be hit hardest by a payroll tax because they are relatively labour intensive and have a high proportion of small businesses. In order to understand further the likely effect on industries, a fuller investigation would be required.

It may also be argued that a payroll tax will act as a disincentive to new businesses as it makes it more costly to set up. This would depend on where the threshold is set (i.e. the earnings level of the company at which the tax kicks in, as discussed further in section 3.4). This would ultimately affect not only small businesses, because many large companies will start out as small businesses and grow in size as they become established.

3.3 Put New Zealand on a level playing field with Australia

As discussed in section 2, the New Zealand government is concerned about the relative tax rates with Australia. In the 2001 Treasury Tax Review, it is noted that the Australian government cut its company tax rate to 30% in 2001, and that this puts pressure on the New Zealand government to re-examine its own rate structure, particularly the company tax rate. As discussed in section 3.2, New Zealand is also compared with Australia in terms of capital intensity, and this may be impacted by changing the tax structure, so these two areas of comparison may be closely linked.

To be put on a level playing field with Australia, it may be argued that Australia has payroll taxes so this move would bring New Zealand policies more in line with those of Australia. Cutting the company tax rate in New Zealand would go some way to levelling this playing field in aggregate terms for the economy. However, by replacing it with another tax which has, by definition of being revenue neutral, the same ultimate burden on New Zealand businesses, undoes this levelling.

Another perspective is to view impacts on the simplicity of the tax system. Arguably, New Zealand's existing tax system is less complex than that of Australia. As such, the introduction of an additional tax in New Zealand reduces the simplicity of the New Zealand system, relative to the Australian system. This argument suggests that introduction of a payroll tax, rather than *levelling the playing field*, could indeed worsen New Zealand's relative position with the Australian arrangements.

In other words, even if *levelling the playing field* is an objective, then New Zealand should not introduce new taxes simply because they exist in Australia. Rather, the introduction of any new tax should be supported by some clearly stated rationale for its implementation. The rationale here appears to be revenue neutrality. Ensuring fiscal neutrality does not provide a clear rationale for introducing a new tax. In particular, the move from company tax to payroll tax essentially implies a shift from corporate to personal tax. If this is the rationale or objective of introducing a payroll tax then this should be explicitly stated.

Australia has had payroll tax since 1941. It was transferred from the Commonwealth to the states in 1971 and is an important source of state revenue. There is an argument for payroll tax in Australia that does not apply in New Zealand – the issue of vertical fiscal imbalance. This essentially refers to states raising revenue from their own tax base to spend in that state. Also, with constraints on taxes that states can charge, payroll tax is the broadest tax base that Australian states can apply.

3.4 Administratively easy to apply

In countries where it may be administratively infeasible to collect taxes based on more detailed data, there may be a case for applying a simple tax such as the payroll tax. Keeping administrative costs down, both for the companies and government, is one reason it may be regarded as an option as opposed to more complex taxes.

In New Zealand, administrative costs would be increased because this is a new tax, and no other tax is being removed, just altered.

In order to minimise compliance and administrative costs, it may be possible to ‘piggyback’ its operation with personal income taxes.¹ There is also the option of following the operation of Australian state payroll taxes, in setting thresholds and a flat rate. Below the ‘threshold’ income level, companies do not pay the payroll tax.² The tax rates and threshold levels which applied in 1999 are shown in Table 1 by way of illustration. There are a number of arguments for and against a tax-free threshold, which we do not cover here. Although such

¹ Companies may pass on a payroll tax to employees in the form of lower wages or to customers in the form of higher prices, or may absorb the cost itself in the form of reduced profits and/or reduced returns to shareholders. However, in “The Case for Payroll Tax”, Office of Financial Management: Research and Information Paper, New South Wales Treasury, September 1999, it says that the long-term impact of payroll tax on employment is similar to that of personal income tax. This is because, although the legal liability of paying the tax lies with the employer, the incidence will fall on employees and consumers.

² When payroll tax was levied by the Commonwealth it included a threshold equivalent to less than A\$150,000 in today’s dollars. Since payroll tax was handed to the states the threshold has increased significantly (NSW Treasury, 1999).

a provision may reduce the administrative costs of collection of such a tax by cutting out the smallest companies, there is still an administrative cost to every company to submit its company information to the government, whether the company is exempt or not.

Table 1: Australian State and Territory payroll tax regimes (at 1 July 1999)

State	Threshold	Rate	System (1)
New South Wales	\$600,000	6.40%	Exemption
Victoria	\$515,000	5.75%	Exemption
Queensland	\$850,000	5.00%	Deduction
South Australia	\$456,000	6.00%	Exemption
Western Australia	\$675,000	4.9-9.4%	Deduction
Tasmania	\$600,000	6.60%	Exemption
Northern Territory	\$600,000	6.75%	Exemption
ACT	\$800,000	6.85%	Exemption

Source: NSW Treasury (1999)

Another consideration may be to set different payroll tax rates by industry, and this is what happens in Australian states as illustrated in Table 2. This would impact upon administrative costs and upon equity across industries, depending on how the rates were set.

Table 2: Payroll tax rates by industry, Australian states, 1990/1991 (%)

Industry	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Agriculture	1.0	1.2	0.9	0.8	0.8	0.6	0.5	0.4
Mining	5.5	6.4	5.1	4.4	4.6	3.1	2.7	2.5
Manufacturing	3.8	4.4	3.5	3.0	3.2	2.1	1.8	1.7
Public Utilities	5.8	6.9	5.4	4.7	5.0	3.4	2.9	2.7
Construction	1.9	2.3	1.8	1.5	1.6	1.1	0.9	0.9
Domestic	3.9	4.6	3.6	3.1	3.3	2.2	1.9	1.8
Transport and Communication	2.8	3.3	2.6	2.2	2.4	1.6	1.4	1.3
Finance	6.5	7.6	6.1	5.2	5.6	3.8	3.2	3.0
Public Service	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Services	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.4
Personal Services	2.8	3.3	2.6	2.2	2.3	1.6	1.3	1.2
Average	3.1	3.5	2.6	2.1	2.4	1.5	1.1	0.7

Source: NSW Treasury (1999)

3.5 Company behavioural response

The ultimate incidence of any tax regime depends on the response of those affected by the taxes. If the company tax rate is reduced and a payroll tax introduced, its effects will depend upon how companies respond. See section 4 for a range of scenarios which illustrate various behavioural responses by companies.

It may be that the payroll tax acts in a similar way as an additional personal income tax (see footnote 1), if the company chooses to pass on the cost of the payroll tax to its employees by reducing wages, and this scenario is illustrated in section 4. There is likely to be a change in response over time, possibly that companies do not reduce wages as a direct response to

the introduction of the payroll tax, but over time, they either delay increasing wages, or choose to employ fewer staff overall, or some combination of the two. Essentially, the aim is the same – to limit the total wage bill and therefore to limit the incidence of the payroll tax.

It is also possible that the company will try to pass on the incidence of the payroll tax to the customer by raising product prices. The ability of a company to do this will depend on the elasticity of demand for the product or service it supplies. Some industries will be able to pass on a significant percentage of the tax, while others may not have this choice if they are in the marketplace where price competition is more intense.

Whether the incidence of the payroll tax is more similar to that of an additional personal income tax or a consumer tax will depend on the behavioural response of the company. In the literature, it has been likened to both.

In reality, it is likely that most companies would adapt their operations over time to offset some of the burden by limiting the wage bill, thereby aiming to make their businesses more capital intensive. The impact on productivity and profitability will vary between business types and according to assumed behavioural responses.

4 Scenarios

In order to assess the impact of a cut in company tax and the introduction of a payroll tax, we have composed a range of scenarios. Assumptions about the tax rates before and after changes are made across the scenarios are presented in Table 3. The payroll and company taxes are based on the figures quoted in the above references.

Table 3: Assumptions regarding tax rates

	Before changes	After changes
Payroll tax rate	0.0%	7.0%
Company tax	33.0%	20.0%

A range of scenarios are considered, as listed below, and assumptions are varied accordingly. The base case is company 1A. This company is assumed to have 50 employees, make a profit of \$500,000 per annum, and pay an average salary of \$40,000. Companies 1B to 1E each represent a different size, profit, wage bill and labour force composition, as set out in Table 4. Where each company differs from the 1A, this is shown in bold. To summarise:

- Company 1B is smaller in terms of the number of employees (10) and in its total annual profit (\$100,000).
- Company 1C is twice as profitable, with annual profits of \$1 million.
- Company 1D pays its employees a higher salary, averaging \$60,000 per annum.
- Company 1E has more employees (100), so is more labour intensive.

Table 4: Company structures

	Base Case 1A	Smaller Company 1B	More Profitable Company 1C	Higher Salary to Employees 1D	More Labour Intensive 1E
Employees	50	10	50	50	100
Profit	500,000	100,000	1,000,000	500,000	500,000
Average salary	40,000	40,000	40,000	60,000	40,000
Total wage bill	2,000,000	400,000	2,000,000	3,000,000	4,000,000

4.1 From the company perspective

Each of the five company types are then modelled before and after the assumed tax changes are applied, as presented in Table 3. The results are presented in Table 5 from the

company perspective, in which it is assumed that the company pays 100% of the payroll tax out of its profits.

Table 5: Companies 1A to 1E – the company pays the payroll tax

	1A the base case	
	before	after
Profit	500,000	500,000
Payroll tax	-	140,000
Company tax	165,000	100,000
Total tax bill	165,000	240,000
Post tax profit	335,000	260,000
Tax change	75,000	45.5%

	1B smaller company		1C more profitable company	
	before	after	before	after
Profit	100,000	100,000	1,000,000	1,000,000
Payroll tax	-	28,000	-	140,000
Company tax	33,000	20,000	330,000	200,000
Total tax bill	33,000	48,000	330,000	340,000
Post tax profit	67,000	52,000	670,000	660,000
Tax change	15,000	45.5%	10,000	3.0%

	1D higher avge salary		1E more labour intensive	
	before	after	before	after
Profit	500,000	500,000	500,000	500,000
Payroll tax	-	210,000	-	280,000
Company tax	165,000	100,000	165,000	100,000
Total tax bill	165,000	310,000	165,000	380,000
Post tax profit	335,000	190,000	335,000	120,000
Tax change	145,000	87.9%	215,000	130.3%

It is clear from Table 5 that the impact of the tax regime change varies widely according to assumptions about a company's structure and profitability. Companies with more employees (as represented by 1E) are the most affected by the tax change, with their total tax bill increasing by 130.3% or \$215,000. Payroll tax adds \$280,000 to the total tax bill, while the company tax is reduced by only \$65,000. From the company's point of view, it sees its post tax profit fall from \$335,000 to \$120,000, which is a cut of 64.2% or nearly two thirds.

The company paying higher salaries (represented by 1D) also sees its company tax bill reduced by \$65,000, while the payroll tax cost an additional \$210,000. The net effect is a 87.9% larger tax bill. Consequently, post tax profits fall by \$145,000 or 43.3%.

The companies least affected are those earning the greatest profit (represented by 1C). They see their company tax bill cut by a substantial \$130,000, while payroll tax adds a cost of \$140,000. Overall there is just a \$10,000 or 3.0% change in their total tax bill. Post tax profits are marginally reduced from \$670,000 to \$660,000, or just 1.5%.

In the base case company 1A, the change in the tax bill is between the extremes, at 45.5%, as the payroll tax take exceeds the reduction in company tax by \$75,000. Post tax profits therefore fall by this amount, from \$335,000 to \$260,000, or 22.4%. The smaller company 1B, with the same relative structure, sees the same relative change in its tax bill.

The simple conclusions which can be drawn from these examples, given the assumption that a company chooses to pay the payroll tax itself and not pass it directly to its employees, are:

1. Labour intensive companies pay relatively more than capital intensive companies. There is therefore an incentive to limit the number of staff in order to keep the payroll tax bill down.
2. There is an incentive to limit the pay rates of employees in order to keep the payroll tax bill down.
3. The more profitable companies are the least affected by the change in the tax regime, and may even benefit from a net reduction in their total tax bill. Thus, the least profitable companies are relatively more significantly affected by an increased total tax bill.

In order to model the effect on each company's total tax bill, with the assumption that it passes the full effect of the tax onto its employees, its tax bill will be as shown in the second columns in Table 5, less the payroll tax figure. Of course, if this were the response of the companies, they would all see their total tax bills fall by the amount of the reduction in the company tax. It is most likely that companies will adopt a policy somewhere between the two extremes.

From the examples in Table 5, it can be seen that the companies for which the tax change is most likely to be close to revenue neutral are the most profitable companies (as represented by 1C). Undoubtedly, there will be some companies who gain from the tax change, particularly those which are highly profitable, with a relatively low wage bill.

4.2 From the employee's perspective

In the following examples, the introduction of the payroll tax is assessed from the employee's perspective. We present the situation for employees on five different salary levels, between \$25,000 and \$60,000 per annum. Table 6 shows the amount of personal income tax paid by an employee on each of these salaries before a payroll tax is introduced. This may also be interpreted as the scenario where the company covers the entire cost of the payroll tax and does not pass it on as reduced wages.

Table 6: Personal income tax incidence for a range of salaries

Taxable income (\$)	25,000	30,000	40,000	50,000	60,000
Income tax	4,680	5,730	8,070	11,370	14,670
Take home pay	20,320	24,270	31,930	38,630	45,330
% income tax	18.7%	19.1%	20.2%	22.7%	24.5%

Table 7: Scenario 2A – Company does not pass on payroll tax to employees

Taxable income (\$)	25,000	30,000	40,000	50,000	60,000
Income tax	4,680	5,730	8,070	11,370	14,670
Payroll tax	1,750	2,100	2,800	3,500	4,200
Take home pay	20,320	24,270	31,930	38,630	45,330
Change in take home pay	0	0	0	0	0
% change in take home pay	0.0%	0.0%	0.0%	0.0%	0.0%
Total tax paid	6,430	7,830	10,870	14,870	18,870

Table 8: Scenario 2B – Payroll tax passed on to employee

Taxable income (\$)	25,000	30,000	40,000	50,000	60,000
Payroll tax	1,750	2,100	2,800	3,500	4,200
Income subject to personal income tax	23,250	27,900	37,200	46,500	55,800
Income tax	4,313	5,289	7,242	10,215	13,284
Take home pay	18,938	22,611	29,958	36,285	42,516
Change in take home pay	-1,383	-1,659	-1,972	-2,345	-2,814
% change in take home pay	-6.8%	-6.8%	-6.2%	-6.1%	-6.2%
Total tax paid	6,063	7,389	10,042	13,715	17,484

Table 7 shows scenario 2A, in which it is assumed that the company covers the entire cost of the payroll tax, set at 7.0%, from its profit and does not pass it on to the employee in the form of lower gross pay. Table 8 shows scenario 2B, in the company is assumed to pass on the entire incidence of the payroll tax to the employee, as represented by the reduction in income subject to personal income tax (gross pay). These two scenarios are presented to represent the extremes of the potential responses of the company to the introduction of the payroll tax, in terms of the extent to which the payroll tax is passed on the employee.

As illustrated in Table 6, personal income tax is progressive, i.e. the percentage of income paid in income tax increases as the level of income increases. Thus, for example, a person

earning \$25,000 pays 18.7% as personal income tax, while a person earning \$60,000 pays 24.5%.

Payroll tax is assumed to be charged at a fixed percentage of incomes. The income tax plus the payroll tax at each of the selected income levels is shown in Table 7. Since the company pays the payroll tax, the take home pay of the employee is not changed from the scenario in Table 6.

In Table 8, the company pays the employee their base salary *less* the payroll tax at 7.0%. Consequently, the gross pay for employees at all income levels falls by 7.0%. They then pay personal income tax on this reduced amount, so income tax payments fall per employee, as shown in Table 8. The net effect on the take home pay of the employees is negative at each income level.

The employee with a base level salary of \$25,000 takes home \$18,938 under scenario 2B, compared to \$20,320 under scenario 2A. This is a fall of \$1,383, or 6.8%. At the other end of the scale, the employee with a base level salary of \$60,000 takes home \$42,516 under scenario 2B, compared to \$45,330 under scenario 2A. This is a fall of \$2,814, or 6.2%.

Although those employees on higher incomes always pay more tax in absolute terms than those on lower incomes, it can be seen from this example, that the payroll tax reduces the take home pay of lower income workers proportionately more than it reduces the take home pay of the higher income earners. In other words, if the company passes the cost of the payroll tax onto its employees, then it will have a regressive effect on employees' take home pay. (Note: the transition between the salary levels of the percentage change in take home pay is not smooth because of the stepped nature of personal income tax.)

With wages being reduced across the board, it is important to bear in mind one of the objectives stated in the Speech from the Throne – that of a high wage economy. A payroll tax increases as wages increase and so will discourage companies from raising salary levels.

Another interesting conclusion from these examples is regarding the total tax paid under each scenario. If companies choose to pay the payroll tax themselves, and not pass it on to the employees, then the tax revenue to the government is higher than if the payroll tax is passed on to the employee in the form of lower salaries. For example, at the \$50,000 level, the tax revenue under scenario 2A is \$14,870 compared to \$13,715 under scenario 2B. This is clearly due to the impact on income tax revenues, which in turn is due to the extent to which income levels are affected by the payroll tax.

It can be seen from these examples that the government would need to consider more than just the direct effects of a reduced company tax and a new payroll tax, if it wanted the net effect to be revenue neutral. There will be knock-on effects on income taxes and also on other taxes such as GST, which will all impact upon the ultimate revenue neutrality of a change in the tax regime.

4.3 Summary of findings

The above examples help to shed light on arguments set out in section 3 regarding equity between industries, companies and employees; productivity and factor intensity; and behavioural responses.

The ultimate impact on businesses and employees of a cut in the company tax rate and the introduction of a payroll tax in New Zealand will depend on a range of factors including the type of business, the income level and occupation of the employee, the profitability of the company, and the capital intensity of the company. There is a wide variation in the impact of these tax changes across industries and within industries, and between companies and employees.

In addition, the behavioural response of companies is central to the outcome. Companies may choose to pass on all or most of the payroll tax in the form of lower wages or increased product prices. The impact on wages is likely to be relatively greater for those on lower wages, i.e. the tax change is likely to be regressive. They may respond by cutting or limiting the size of their labour force and increasing the capital intensity of their operations.

These are all factors which should be considered by the government when assessing this combination of tax changes.

5 Conclusions

This paper considers the option of reducing company tax in New Zealand and introducing a payroll tax, such that the two policies would be revenue neutral. The background to this discussion is presented in section 2, in terms of the stated government objectives and statements by Ministers and government officials.

There are five main areas of consideration, as set out in section 3. These are concerning factor substitution and productivity; equity; comparisons with the Australian regimes; administrative issues; and the impact of the behavioural response of companies.

As presented in section 2, one of the government's stated objectives is to improve productivity in New Zealand. If labour is made relatively more costly, then companies will have the incentive to improve labour productivity by increasing the capital intensity of their operations. A payroll tax would increase the cost of labour relative to other inputs and therefore may impact upon capital intensity and, potentially, improve labour productivity.

With any tax change, there will be impacts on equity, according to where the change in incidence falls. Equity may refer to equality of treatment across individuals or between industries, or types of companies. There will be inequities in the impacts from a payroll tax between types of company and industry, as illustrated by the example scenarios presented in section 4. Industries with relatively large workforces, or paying relatively high wages, will be more affected than capital intensive industries. Meanwhile, those companies with higher profits will benefit more from the corresponding cut in company tax, and may see a net reduction in their tax bill, and therefore be net beneficiaries from the tax changes.

With a payroll tax, the groups of society most affected will depend on the behavioural response of companies. This will determine if the payroll tax has the effect of an additional personal income tax or consumption tax, or acts as another tax on company profits. This will depend on the ability of the company to pass the tax on to consumers in the form of higher product prices, or onto its workforce, or to substitute other factors for labour. Clearly, this ability will vary according to the type of industry, company size, profitability, and so on.

The impact would not be similar across all companies in New Zealand, but would differ widely. Some may gain, particularly those companies making higher profits and with a relatively low wage bill. The more labour intensive companies, or those paying relatively high wages to their staff are likely to end up paying a higher total wage bill, as will those with lower profit levels. It may also discourage start-ups as labour costs are increased.

If the company covers the cost of the tax from its profits, employees will be less directly affected than if the company chooses to pass the incidence of the tax entirely onto the employee through reduced wages. Alternatively, the company may choose to employ fewer people over time. The likelihood is for a combination of a cut in wages, or just not raise wages as much as otherwise would have been the case, and limiting the number of staff taken on, with the ultimate aim to limit the total wage bill. This may be seen as not supporting the objective of a high wage economy as stated in the Speech from the Throne, since higher wages would attract a higher payroll tax.

In addition, if the cost of the payroll tax is passed onto the employees, this will be regressive in terms of the employees' incomes, as illustrated in section 4. Those earning lower wages will be relatively more affected by a cut in take home pay than those on relatively higher incomes.

The New Zealand government has stated its concern about the comparison of the main tax rates with those in Australia. The 2001 Treasury Tax Review makes explicit references to the Australian company tax rate, and suggests that the cut in 2001 to 30% put pressure on New Zealand to cut its own company tax rate. New Zealand is also compared with Australia in terms of capital intensity and how this has been changing in recent years.

One of the concerns is whether companies face a level playing field in New Zealand versus Australia. However, it is not a sufficient rationale to introduce a new tax just to match the tax structure in Australia. One of the advantages of the New Zealand tax system is its simplicity, so introducing the payroll tax would undermine this advantage.

If the intention of implementing both tax changes simultaneously is to make the overall effect revenue neutral, then the government must take the wider tax system into consideration. For example, there are other significant taxes in New Zealand, particularly personal income tax and GST, and the changes in the company tax and a new payroll tax will affect the revenue from these taxes. It is shown in section 4 that there could be an impact on the personal income tax revenue resulting from the proposed tax regime.

We conclude that introducing a payroll tax in New Zealand, with a simultaneous cut in company tax, has some potential benefits in terms of encouraging labour productivity. There would however be more effective ways of targeting this objective, since the introduction of a new tax brings with it deadweight losses, distortions to the economy and equity concerns. There would not necessarily be an effective levelling of the playing field compared to Australia, because the policy is intended to be revenue neutral and the complexity of the tax system would be increased, thereby undermining one of the current advantages for

businesses operating in New Zealand. Some businesses may benefit, but the overall picture is less clear. It may in fact hinder New Zealand firms versus foreign competitors by hurting companies at the margin. It is also possible that it would discourage start-ups in New Zealand.

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