Company tax issues facing New Zealand

Background paper for Session 4
of the
Victoria University of Wellington Tax Working Group

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Prepared by the Policy Advice Division of the Inland Revenue Department
and by the New Zealand Treasury

CONTENTS

1. Overview

There are a number of possible concerns with the current company tax system:

- it has been moving away from a coherent strategy;
- the company tax rate is relatively high by OECD standards; and
- the company system and tax rate structure are open to tax sheltering and lack integrity.

This paper examines these issues and considers different possible approaches for increasing coherence of the tax system, including:

- a 30:30:30 approach with full imputation;
- dual income taxes;
- a classical system with a low company rate and higher rates of personal tax backed with integrity measures to prevent sheltering of income; and
- a system which combines an allowance for corporate equity (ACE) with a dual income tax.

As for other sessions, we will be examining pros and cons of different changes under the following criteria:

- *Economic efficiency*. Here company taxation can have quite complex effects on economic efficiency. A key concern and one that has been important in the thinking behind the Henry Review in Australia has been the way in which taxes on capital invested in the economy can be particularly inefficient. Because of the importance and complexity of this issue, it is discussed in some detail in a separate Appendix (Appendix A).
- *Equity/fairness*. An important issue is the ultimate economic incidence of the company tax. As is pointed out in Appendix A, much of the incidence of the company tax may be passed forward to workers through lower wage rates. But there is considerable uncertainty about the final economic incidence of the company tax and this is too complex an issue for us to take into account. For this reason, we do not attempt to analyse the incidence of the company tax across household deciles. Instead we confine our analysis to horizontal equity concerns – that is, the extent to which the tax system results in different tax liabilities for those who earn income directly or through different entities (such as companies, trusts and widely held savings vehicles such as PIEs).
- *Revenue adequacy*. We cost the government's 30:30:30 alignment goal. We also plan to cost a number of other possible company tax changes. Our standard costing methodology errs on the side of caution and is largely static. It takes account of some possible obvious changes, for example, potential changes in dividend behaviour. However, we make no attempt to take account of the way in

which company tax rate reductions can potentially flow into higher productivity, which is likely to boost wage rates and boost personal income tax collections. It could be argued that this is appropriate because the effects of company tax changes on productivity are quite speculative. Nevertheless, we also attempt to try to take account of these dynamic benefits of a cut in the company tax rate. This is discussed in Appendix B.

- *Revenue integrity.* An important issue is whether any company tax system that is put in place will be effective in raising revenue or whether the tax will be easy to avoid.
- *Simplicity of administration and compliance*. It is desirable that the costs to the government of administering the tax system and to taxpayers of complying with the tax system are kept as low as possible.
- *Coherence.* It is important that the company tax system makes sense in the context of the entire tax system.

Content of paper

This paper provides analysis and empirical data to assist the group in its discussion. It is organised as follows:

- **Chapter 1** provides an overview of the issues and highlights questions the group may wish to discuss.
- **Chapter 2** draws out key **concerns** with the current company tax system.
- **Chapter 3** examines issues associated with **aligning New Zealand's tax rates** at 30 percent, while retaining our present company tax system – this approach matches the government's medium-term objective for our tax system.
- **Chapter 4** looks at **alternatives** – including dual income tax and classical tax systems, and combining an allowance for corporate equity system with a dual income tax as has been suggested in Australia.
- **Chapter 5** considers policy steps that could be taken in the **short term** with a view to aligning tax rates in the medium term.

A number of **appendices** expand on this material.

Taxing companies

A large part of New Zealand's economic activity is generated in the corporate sector. Accordingly, the taxation of companies is important, with implications for the scale, composition and location of investment.

In New Zealand, the Budget Forecast for 2009 company taxes was $7.9 billion, some 14.8 percent of total tax revenue. Arguments supporting the continued existence of company taxation include:

- Its role as a withholding tax on New Zealand residents – all taxes are ultimately borne by individuals, and the company tax acts as a "backstop" to ensure that personal income tax is collected. New Zealand's imputation system is important here.
- It ensures that profits made in New Zealand by non-resident investors are taxed as the profits are earned. This is especially valuable when foreign governments give a tax credit for New Zealand tax paid – in effect, the investor's tax liability is unchanged, but New Zealand rather than the investor's home country collects the tax.
- Economic models often assume that capital is perfectly mobile – that is, that we can obtain as much capital from the rest of the world at a fixed cost – but, in practice, this assumption may not hold.
- It provides a way of taxing location specific rents.

While these arguments vary in strength, taken together they present a strong case for continuing to tax companies. The balance of this note presumes that the Working Group will continue to support some form of company taxation.

Questions the group may wish to consider

In considering the merits of corporate tax reform, the group may wish to discuss the following questions:

- Have we provided an accurate summary of the key problems?
- Is an aligned broad-based low-rate tax system combined with full imputation the best strategy?
- What should we do if other countries continue to reduce their company tax rates?
- If we consider it necessary to make sizable cuts to our company tax rate, and these are too big for alignment to be feasible, what should we do instead?
- Does the answer depend on the level of misalignment?

2. Concerns with the current taxation of companies

There are a number of potential concerns with New Zealand's company tax system which need to be addressed as part of considering corporate tax reform options.

Key potential concerns that we have identified are:

- *The system has been moving away from a coherent strategy*. Is a broad-based low-rate tax system combined with full imputation a sensible and coherent strategy or are there preferable directions for company tax reform?
- *New Zealand's company tax rate*. Is this currently too high? Will it be sustainable if other countries continue to reduce their company tax rates?
- *Integrity of the personal tax system.* An important role of company tax is as a backstop to ensure the integrity of the personal tax system. Current rules allow people to use companies, trusts and PIEs and other savings entities to shelter income from higher rates of personal income tax. This has increased the importance of seeking tax advice before entering into commercial arrangements. Boundaries between acceptable behaviour and tax avoidance are extremely unclear. Is this fair or efficient?

An important issue for the group to examine is whether these or other issues are key concerns when thinking about reforms to company taxation. For example, is the fact that New Zealand's imputation system is now relatively uncommon a concern?

It will also be important for the group to decide on the severity of these or other problems. Are these issues which need to be addressed with urgency or not?

Moving away from a coherent strategy

It is important that taxes be based on a coherent strategy. This promotes certainty and simplicity. New Zealand's current tax structure has been developed with the following broad strategy in mind:

- taxing a broad base of income at low rates;
- attempting to make the tax treatment of different assets and entities as neutral as possible; and
- aligning the tax rate of entities with the top personal tax rate.

This "broad-base low-rate" strategy fits into an overall framework of an efficient tax system, as outlined in the McLeod Review 2001.

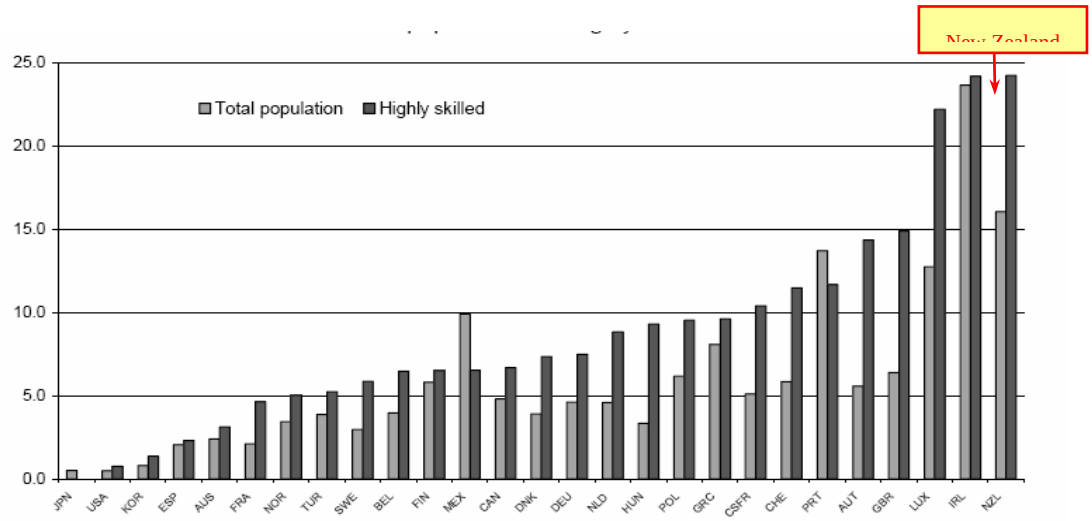
Revenue taxes are aimed at raising revenue to finance government spending as efficiently as possible consistent with a government's equity objectives. Efficient taxes are those that minimise the excess burden (or deadweight loss of tax). These are costs to society of taxes over and above the tax revenue raised. Excess burdens include the administration and compliance costs of running a tax system. They also include costs arising from the way that taxes can bias decisions away from those that would be favoured in the absence of tax.

In principle, the most efficient taxes are not broad-based and low-rate taxes but taxes whose rates are higher the less sensitive are activities to tax (or, in economists' jargon, the less elastic are activities). Our ability to structure taxes in this way is constrained by considerations of fairness and our ability to measure elasticities.

Many economists have worried particularly about high taxes on capital income. In a small open economy like New Zealand's, capital is likely to be very mobile. This means that taxes on capital income can be very inefficient. A problem for New Zealand, however, is that not only capital but also labour appears to be very mobile, which means that taxes on labour are also likely to be distorting. As illustrated in Figure 1, New Zealand has the most mobile skilled labour force in the OECD.

Figure 1

Globalisation - Expatriates as % of all native born, 2000
(OECD countries)



Source: OECD

By contrast with revenue taxes, the goal of corrective taxes is to ensure private decisions take into account social costs and benefits (i.e., take account of externalities). Practical difficulties are that externalities are hard to measure and that the widespread existence of externalities provides platform for any lobbyist's agenda.

In principle, the case for incentives including measures to improve international competitiveness should be measured by reference to tax sensitivities and whether or not activities produce externalities. But difficulties of measuring tax sensitivities and externalities means that a broad-based low-rate tax system is an attractive theoretically second best but practically first best approach.

The current full imputation company tax system helps support the broad-based low-rate approach. It ensures that company income is taxed at the marginal rates of resident taxpaying shareholders when profits are distributed. Unlike some other company tax systems (such as a dividend-deduction system), it also ensures that corporate profits that non-residents make that are sourced in New Zealand are subject to company tax as they are earned. This includes any economic rents (i.e., profits over and above a normal return on capital). This is explained in more detail in Appendix C.

When imputation was introduced, the company tax rate, the trustee tax rate and the top personal marginal tax rate were aligned. This meant that companies and trusts could not be used to shelter income from higher rates of personal tax. This allowed company taxation and trustee taxation to provide very important functions in supporting the integrity of the personal tax system. But as has been noted above, company tax has a dual role. As well as supporting the integrity of the personal tax system, it is a source-basis tax on the income of non-residents.

In 2000, the top personal tax rate was increased from 33 percent to 39 percent in line with the government of the day's equity concerns. At the same time the company tax rate and the trustee tax rate remained unchanged at 33 percent. More recently the company tax rate was reduced to 30 percent because of international competitiveness concerns. These tax changes opened up a substantial gap between the company tax rate (now 30 percent), the trustee tax rate (now 33 percent) and the top personal marginal tax rate. Since then the top personal marginal tax rate has been reduced to 38 percent. However, there remains a significant gap between the top personal marginal tax rate and the company tax rate or the trustee tax rate. The movement away from an aligned tax system has undermined the "broad-base low-rate" strategy. This has made the current company tax system less coherent.

An important question for members of the Tax Working Group is whether they think that a broad-based low-rate tax system combined with full imputation a sensible and coherent strategy or whether there are preferable directions for company tax reform.

A number of other countries have abandoned imputation, with New Zealand and Australia now being only two of three OECD countries with imputation systems.[1] This is not necessarily because of a belief that imputation is an unattractive company tax system. A major reason why European countries have moved away from imputation has been the fact that decisions by the European Court of Justice have required countries to provide imputation credits to non-residents if these are provided to residents. Nevertheless, given New Zealand's relatively high company tax rate and now unusual system of taxing companies, it is worth

[1] The other is Mexico.

examining whether it too should abandon imputation and use any revenue to help lower the company tax rate.

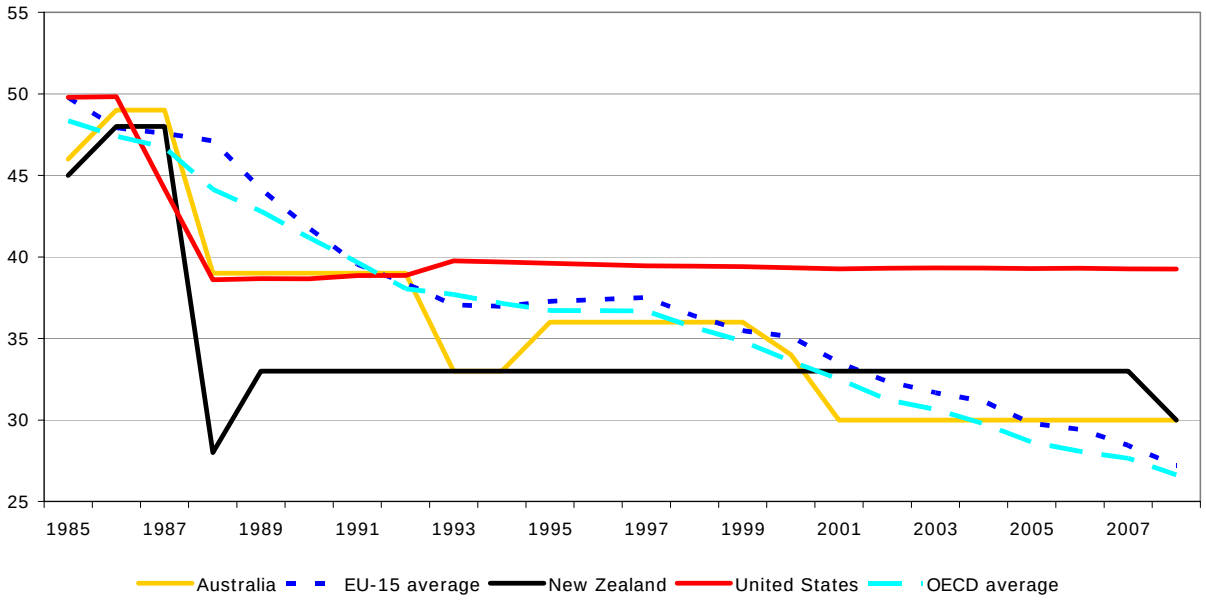
New Zealand's company tax rate

In the years beginning 1 April 1986 and 1987, New Zealand's company tax rate was 48 percent, which was around OECD norms. This is shown in figure 2.[2] In the year beginning 1 April 1988, the company tax rate fell to 28 percent and was raised back to 33 percent a year later, where it remained until the year beginning 1 April 2007, with a reduction to 30 percent from 1 April 2008. The company tax rate was relatively low compared with rates in other OECD countries from the late 1980s until about 2000. However, since the mid-1980s there has been a downward trend in company tax rates around the world.

New Zealand's rate is now above the average for OECD countries. Around the world, company tax rates have been declining over time. In 2006, only 8 of the 30 OECD countries (other than New Zealand at the time) had company tax rates above 30 percent.

Figure 2

Historical trends in statutory company tax rates (in percent)



Source: OECD

[2] The data reported for New Zealand is the tax rate applying at 1 April of a given year. For example, the tax rate in 2006 is the tax rate applying for the year beginning 1 April 2006.

There are concerns with having a company tax rate that is too high:

Impact on inbound investment

A particular concern is that in a globalised economy, company tax can discourage inbound investment. Under some strong assumptions, for a small open economy that can import as much capital as it wishes at a fixed after-tax return, the tax will not be borne by foreign residents. Instead it will reduce capital invested in the economy. With fewer trucks, computers, buildings and so forth, workers and other factors of production (e.g., land) will become less productive. The tax can be passed to workers and other factors of production but less efficiently than if they were taxed directly. This is sometimes referred to as the "Production Efficiency Proposition". This line of thinking has been very important in the deliberations of the Henry Review. Appendix A explains why this can be the case in more detail.

By itself, this would provide an argument against any rate of company taxation greater than zero. But there are a number of opposing considerations. First, the zero tax proposition assumes that capital is perfectly mobile between countries and that a small open economy like New Zealand's can obtain as much capital as it wishes without this affecting the return it must pay. In practice, capital seems to be less than perfectly mobile. Second, if investment flows into the economy from countries with foreign tax credit systems, lower taxes on income in New Zealand may be offset by higher taxes abroad. In this case, New Zealand taxes need not discourage inbound investment. Third, and arguably very importantly for New Zealand, foreign inbound investment may often generate economic rents (i.e., returns that are higher than the minimum that would be required to justify the investment). In this case if the economic rents are location-specific (i.e., associated with operating in New Zealand), the arguments against taxing non-residents on their New Zealand source income break down. This issue is discussed further in Appendix A. The main effect of taxing this income may be to generate tax revenue and allow lower taxes to be imposed on New Zealanders rather than discouraging investment. Finally, company taxation provides a backstop to the personal tax system in limiting the benefits of income being sheltered in companies to avoid personal income taxes.

Biases caused by treatment of taxed and untaxed income

There are, however, some further reasons for worrying whether or not the New Zealand company tax rate is too high. Despite New Zealand's relatively broad company tax base, there will always be considerable difficulties in measuring income accurately. There will also be biases between business income taxed at the company rate and forms of income which are untaxed, such as the imputed income that people earn through owning and living in their own houses. Reducing the company tax rate will tend to minimise these biases.

Profit streaming

There is another important consideration. A relatively high company tax rate can make it attractive for multinational firms to stream profits away from New Zealand and into lower tax countries. This might be achieved by firms:

- "thinly capitalising" the New Zealand operations (by financing as much of their New Zealand activities as possible by using debt rather than equity); or
- using transfer pricing arrangements where New Zealand entities pay as high as possible prices and charge as low as possible prices on transactions with associated companies overseas.

There are measures to prevent transfer pricing and thin capitalisation but these are not completely effective. Incentives to stream profits from New Zealand overseas will tend to arise when the New Zealand company tax rate is higher than in other countries, or when the other country has an imputation system.

A particular area of concern for New Zealand is Australia's imputation scheme and the fact that 54.5 percent of foreign direct investment into New Zealand at 31 March 2008 was from Australia.[3] At present, the Australian and New Zealand company tax rates are aligned at a rate of 30 percent. However, Australian parent companies with Australian shareholders have an incentive to stream profits from any New Zealand subsidiaries back to the parent companies. This is because the shareholders will receive imputation credits (called franking credits in Australia) for Australian but not for New Zealand company taxes. One way to overcome these pressures would be mutual recognition of New Zealand imputation credits and Australian franking credits. This issue is being considered by Australia in the context of the Henry Review.

In practice, determining the best rate of company tax for New Zealand means making judgements on the pros and cons of cutting the company tax rate in the face of very considerable uncertainty. Decisions may well be influenced by what other countries do. For example, if other countries continue to cut their company tax rate or Australia decides to have a significant cut in its rate, the question arises of whether or not it would be sensible for New Zealand to continue with its 30 percent company tax rate, which is already high by OECD standards.

Integrity of personal tax system

International pressure to reduce company tax must also be balanced against domestic taxation. A company tax rate that is less than the higher rates of personal tax creates opportunities for people to use companies to shelter their incomes from higher rates of personal tax.

[3] Source: Statistics New Zealand.

Taxpayers have considerable freedom in the choice of entities through which they conduct their affairs. For example, individuals can hold their investment assets directly, or the assets can be held indirectly by placing them in a company or a trust. A business can be operated as a sole trader or through a company or trust. However, there is considerable variation in the tax rates that apply to these entities:

Top personal marginal rate	38%
Company rate	30%
Top tax rate on PIEs/other widely held savings vehicles	30%
Trust rate	33%

Policy pressures arise from this diversity of tax rates because individuals can shelter personal income from higher effective marginal rates using companies, trusts, PIEs and other savings vehicles. Information derived from tax collection data since the introduction of the higher top rate indicates that there has been considerable rearrangement by taxpayers to minimise tax and avoid the full application of the apparent progressivity of the tax system.[4]

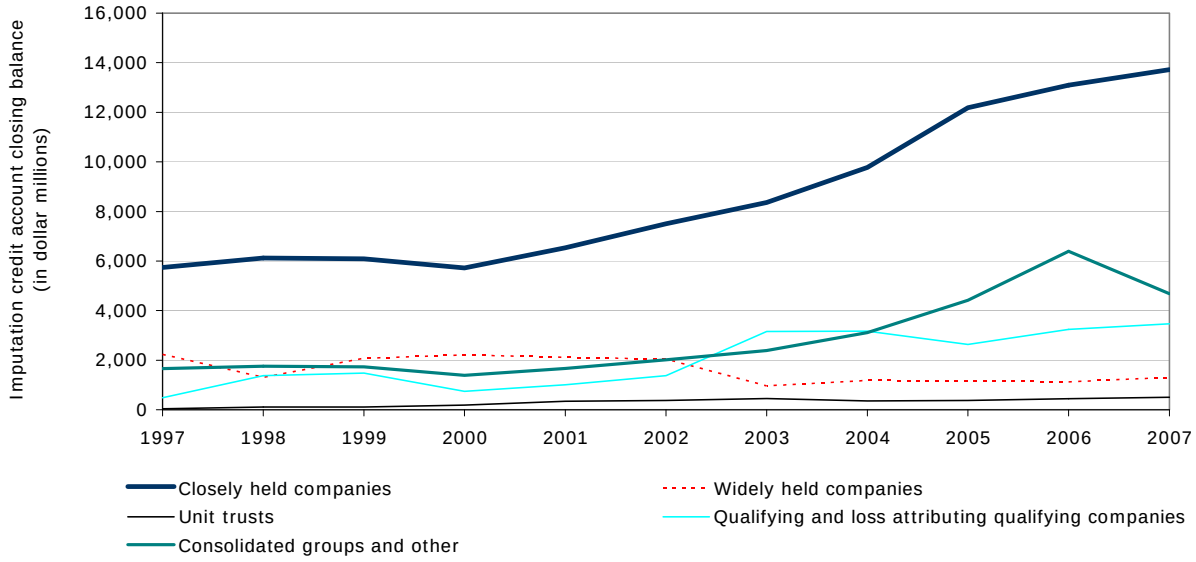
There are a number of ways of escaping higher marginal and effective marginal tax rates by diverting income to lower-taxed companies or trusts.

For example, by earning income through a company, an individual can ensure that income is taxed at a 30 percent rate so long as profits are retained within the company. While income may eventually be taxed at the shareholder's marginal rate when dividends are paid, there can be substantial benefits from tax deferral if income is retained for a number of years in a company before it is distributed as dividends. (There can be further benefit still, if a company is owned by a trust. Not only is there the 30 percent tax rate on profits as long as they are retained, there can be a lower ultimate tax when the company pays dividends). A sharp increase in the amount of imputation credits held by closely held companies (as shown in figure 3) indicates that there is significant deferral of dividend payouts for such companies in order to avoid the higher personal marginal tax rates.

[4] This information is presented in the *Briefing to the Incoming Minister,* Inland Revenue Department, November 2008

Figure 3

Who has excess imputation credits?

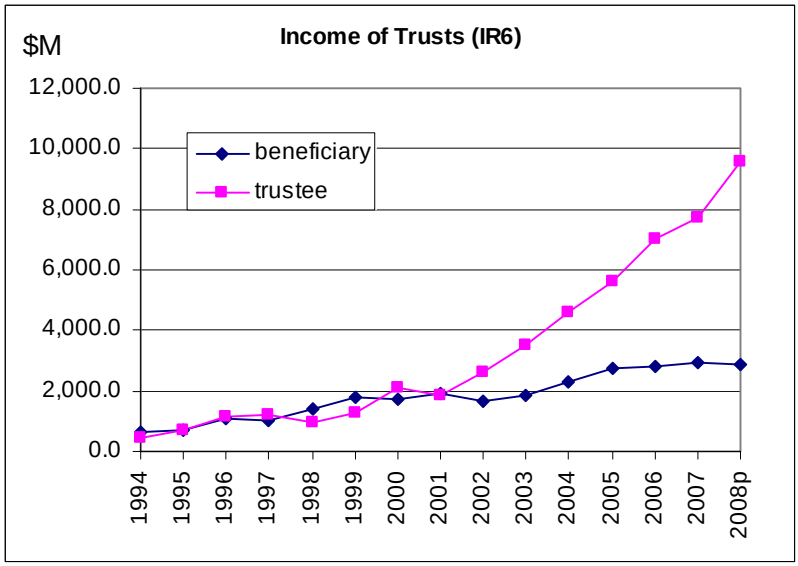


* The data for the year ended March 2007 is at August 2008 and incomplete.
Source: Policy Advice Division, Inland Revenue

Trusts can be used to shelter income by having it taxed as trustee income (at a rate of 33 percent) rather than having it distributed to beneficiaries and taxed as their income. Unlike company tax, where there will eventually be a wash-up tax on distribution, the trustee tax is a final tax. There is continuing evidence of trustee income growing much more quickly than beneficiaries' income, which represents a significant fiscal cost (as shown in figure 4). The ability to shelter income in trusts cost the government roughly $300 million in tax revenue in 2007.[5]

[5] This is based on the assumptions that trustee income would have continued to grow at the same rate as beneficiary income if rates remained aligned, and that the growth in trustee income since 2000 is wholly attributable to taxpayers using trusts to shelter income from the 39 percent tax rate.

Figure 4



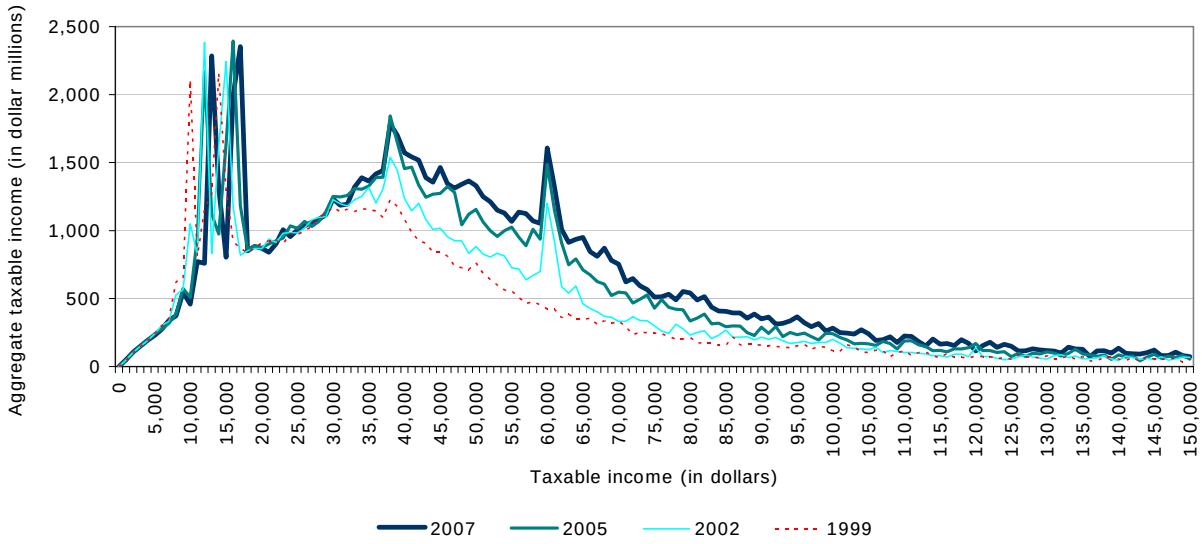
Source: Policy Advice Division, Inland Revenue

The effect of these various strategies is illustrated in figure 5, which shows aggregate income of individuals in different income bands for the years 1999, 2002, 2005 and 2007. In 1999, before the introduction of the 39 percent top marginal rate for incomes above $60,000, there was no spike of taxpayers clustered at the $60,000 threshold. Since then, an obvious spike has developed. For example, in 2007 much more income was attributable to people earning between $59,000 and $60,000 than for other $1,000 bands of income on either side. This suggests that those who would otherwise be facing the top marginal rate may be using companies, trusts and other savings vehicles to shelter income from higher rates of personal tax.[6]

[6] The large spikes at lower income are due to non-tax factors, predominantly transfer payments such as benefits and superannuation.

Figure 5

Aggregate taxable income of individuals by $1,000 bands of taxable income



Source: Policy Advice Division, Inland Revenue

The sheltering raises concerns about whether it is fair for some taxpayers to be able to escape higher personal rates while others, such as salary and wage earners, face the top statutory tax rate. It also raises efficiency concerns. It is not costless for people to set up tax-efficient entities. From the perspective of the nation as a whole, the money spent doing so is a source of economic waste. Savings and investment can also be allocated inefficiently to take advantage of lower tax rates.

High personal marginal tax rates can also discourage people from moving into more productive activities and may ultimately encourage highly-skilled people to leave (see figure 1, earlier).

The current tax provisions also raise questions about the achievement of the objectives underlying the current statutory personal tax rates and thresholds and other measures which also affect effective marginal tax rates (EMTRs) (such as abatement of Working for Families Tax Credits, Student Loans, and Child Support). These all apply if individual income is received and taxed as personal income, but not if earned in other ways such as through companies, trusts or PIEs.

There is considerable variety in the way that income is taxed depending on exactly how the income is earned.

Marginal Tax Rates by Entity[7]

	Accumulated	Distribution/Attribution of income			
Type of Entity	**Entity level**	**58% investor**[8]	**38% investor**	**33% investor**	**21% investor**
Direct Investment	N.A.	58	38	33	21
Trust (a)	33	33	33	33	21
Company/Unit Trust	30	58	38	33	21
Company owned by trust	30	33	33	33	21
PIE	N.A.	30	30	30	21

Concerns about tax integrity and the inefficiency of high marginal tax rates led the government to announce as a medium-term objective an aligned 30:30:30 system whereby the company, trustee and top personal marginal tax rates would be aligned at a rate of 30 percent.

3. An aligned company tax system with imputation

The government has indicated that its medium-term objective is to move to a tax system with the corporate, top personal and trustee tax rates aligned at 30 percent. Effective marginal tax rates higher than this would still exist when there is abatement of social assistance.

An aligned set of tax rates in combination with a full imputation system is one way of ensuring that corporate income accruing to resident shareholders is taxed once at their relevant marginal tax rates. Appendix C discusses the goals behind New Zealand's full imputation system.

This section of the paper discusses the efficiency, equity and robustness of such an aligned tax system against the six criteria for a good tax system discussed in section 1. It assumes that full imputation is retained.

Assessment of an aligned system with imputation

Efficiency

An aligned company tax system would increase the efficiency of the tax system in a number of ways:

[7] Inland Revenue (2008).
[8] This could be an individual on a 38 percent marginal tax rate undergoing 20 percent Working for Families benefit abatement.

- Lower top personal tax rates would reduce the distorting effects higher rates have on decisions to work. They may also encourage highly mobile skilled residents to remain in New Zealand and highly skilled non-residents to relocate to New Zealand.
- Lower top personal rates may reduce the bias towards consumption and increase domestic savings. This may make it more attractive for capital to flow to SMEs ahead of lightly taxed investments, including owner-occupied housing. Reductions in tax rates apply to more heavily taxed investments as well, and there is no reason to expect a substitution away from these more heavily taxed investments into SMEs.
- All profits, normal as well as economic rents, would be taxed at the same rate. An aligned system would mean a higher company tax rate than some other systems would allow. To the extent we are taxing location specific rents, this is efficient. However, it is inefficient to the extent we are discouraging some marginal investment from taking place, and the cost of the tax is being shifted to domestic factors, such as labour.
- This direction of reform would involve retaining an imputation system. An imputation system has some attractive neutrality properties, in particular, equal treatment of investments through entities and of debt versus equity financing.[9] This would also leave open the possibility of the mutual recognition of imputation and franking credits with Australia. Mutual recognition would increase the bilateral efficiency of trans-Tasman investment. It is being considered by Australia in the context of the Henry Review.

Despite these advantages, an aligned system would mean a higher company tax rate than some other possible tax systems would allow. To the extent that there is insufficient foreign investment because of a relatively unattractive company tax rate, labour would be less productive. There would also be other costs of having a relatively high company tax rate that were discussed in section 2.

Equity

Alignment would improve the horizontal equity of the tax system by ensuring that income earned through different entities and different forms of income are taxed at the same rate.

Revenue adequacy

The cost of reducing the 38 percent and 33 percent personal tax rates and the 33 percent trustee tax rate to 30 percent is estimated to be approximately $1.4 billion dollars per annum.

[9] There could still be some bias towards debt in financing by non-residents, see paper on thin capitalisation.

Revenue integrity

An aligned system with imputation would increase integrity of the tax system. Shareholders want fully imputed dividends, and there is minimal incentive to defer or avoid tax through shifting personal activity and assets to closely held companies or trusts. This increases efficiency (reducing deadweight costs) and equity. Sheltering income to avoid high marginal tax rates caused by abatement of social assistance remains a problem.

However, to the extent the company tax rate remains high, perhaps because of the lack of a replacement revenue source to offset reductions in the top personal rates, there would be an incentive to stream profits away from New Zealand. This places pressure on transfer pricing and thin capitalisation rules.

Simplicity of administration and compliance

An aligned system would be administratively simple and would have lower compliance costs relative to the current system and alternative systems discussed below. There would be no need to distinguish between different types of income and no need for complex rules to prevent sheltering of income in companies.

Coherence

While an aligned system would be coherent – an individual is taxed on all forms of income earned through any entity at similar rates – it would also be vulnerable. This is because, if the company rate is reduced for competitiveness or other reasons, the top personal rates must be reduced accordingly. Reducing the top personal rates would be expensive and there is likely to be a limit, in practice, on how much can be raised through other means to offset this. An aligned system would be particularly vulnerable given the worldwide trend towards reducing company tax rates.[10]

This might mean that an aligned system would only be viable as long as the company tax rate could be retained at or not too far away from current levels. If the company rate had to be reduced for international competitiveness or other reasons then it may be necessary to adopt a different framework.

4. Possible alternatives

In designing tax reforms, the aim should be to generate improvements in the performance of individual taxes, and the system as a whole, as measured against a set of principles of "a good tax system". Applying these principles can involve trade-offs.

[10] Refer to figure 2 on page 8.

There are a number of possible alternatives to a full imputation system combined with rate alignment. These include the following, selected as they are internally coherent, and either have been implemented in practice or suggested as an alternative for Australia:[11]

- a dual income tax;
- a classical company tax system with a substantial company rate cut; and
- an allowance for corporate equity (ACE) company tax system combined with a dual income tax (as was proposed to the Henry Review in a paper by Sorensen and Johnson (2009)).

These possible alternatives and their pros and cons are discussed below and summarised in Appendix D.

Dual income tax system

With the 30 percent rate for PIEs and other widely held savings vehicles, the New Zealand tax system has arguable already gone some way towards the sort of dual rate tax system that has been adopted in Nordic countries (sometimes referred to as a Nordic tax system). However, rather than a somewhat ad hoc distinction, the introduction of a pure dual rate tax system would introduce systematic distinctions between capital and labour income.

Summary of the dual income tax

This option involves a move away from the current comprehensive income tax to a dual income tax with different tax rates for labour and capital income.

Under a dual income tax system, capital income is taxed at a flat low rate, whereas labour income is taxed progressively. Countries which have adopted this sort of tax system have done so on the rationale that taxes on investment and saving impact more negatively on economic behaviour than a tax on labour. It may also be seen as targeting tax-sensitive activities. The idea has been to preserve high rates on labour income while responding to international pressures which make sustaining such rates on capital income impossible.

The main challenge with a dual income tax system is separating income into capital and labour components. With a low capital tax rate, there is an incentive to re-characterise labour income as capital. The main problem is considered to be the treatment of closely held companies and self-employed individuals.

[11] Other company tax systems, such as the comprehensive business income tax and cash flow tax, have been suggested in economic literature. However, they have been implemented rarely, if at all, in practice. This means that it is difficult to fully examine these as practical alternatives for New Zealand.

To do this the Norwegians (who have arguably the most consistent and robust of dual income tax systems) measure the amount of capital invested in a business by a self-employed individual. This amount of capital multiplied by an imputed return (say 6 percent) is treated as capital income and taxed at a low flat tax rate (28 percent in Norway). The remainder of income is treated as labour income and taxed at progressive rates.

Where a business is held through a company, the profits are taxed in the company's hands at the corporate rate which is the capital income tax rate (28 percent). Dividends up to the imputed return (6 percent as above) can then be received tax free. This means that distributed profits up to the imputed return are taxed in the same way whether derived through a company or an unincorporated enterprise. Dividends above the imputed return are taxed as capital income (i.e., double taxed). There is an ingenious relationship between the capital income tax rate and the top rate of tax on labour income which means that double-taxing income at the capital income tax rate is broadly equivalent to taxing labour income at the top personal marginal rate. There is therefore, little or no benefit in an individual on the top marginal tax rate sheltering labour income in a company. Norway also has a capital gains tax. If dividend payments are less than the imputed return, the difference can be used to exempt (up to the imputed return) a shareholder from any capital gains tax liability. Gains over and above this imputed return are taxed at the capital income tax rate.

It might be thought that an alternative to using this imputed return on capital approach might be to impute an estimated wage income, with the remainder treated as capital income. However, it is hard to determine an appropriate wage rate and to monitor the work effort of person. An easier option is to impute an estimated return on capital invested, with the residual treated as labour income.

Modelling a dual income tax for New Zealand

We are in the process of costing the dual income tax system, making the following modelling assumptions. Company profits are taxed at the same flat rate as capital income and we assume a normal or imputed return of 6 percent (the average one-year government bond rate from May 1999 to April 2009). While, in principle, the possibility of double-taxing dividends might be restricted to closely held companies, we assume (as is the case in Norway) that double taxation can occur for both widely and closely held companies.

We will assume a realised capital gains tax is applied to Australian and New Zealand shares, with shares in companies resident in other countries taxed under the RFRM approach.

Income from self-employment will be split into labour and capital income based on a normal return of 6 percent and an estimate of the capital employed. Income from salary and wages will be treated as labour income.

For a similar cost to alignment of $1.4 billion, a dual income tax system would allow a capital income tax rate of approximately 27 percent.

Assessment of a dual income tax

Economic efficiency

This tax system would allow a lower company tax rate. This would encourage inbound investment, boost the capital stock and hence add to New Zealand's labour productivity. The extent of the impact would depend on the level of the capital tax rate.

The tax system would reduce taxes on savings for higher income earners who invest in foreign shares and bonds as income from these assets would be taxed at a lower flat rate. However, lower income earners may face a higher flat rate on capital. There is also likely to be lower investment in domestic widely held companies due to lower pre-tax returns and the partial double taxation of dividends or capital appreciation where these exceed the risk-free rate.

At the same time the reduction in the company tax rate would reduce tax on economic rents earned by non-resident investors. This may lead to higher taxes than otherwise being imposed on New Zealanders.

Unless tax rates were adjusted by boosting taxes on labour income at the same time as cutting the tax rate on capital, there would be a bias to choices of business organisation. All individuals would favour earning labour income directly rather than through a company. This is because double-taxation at the capital income tax rate would imply a heavier tax impost. The same would be true of risky capital income where there would appear to be the chance of double taxation if this income is earned through a company but only tax at the labour income rate if earned through an unincorporated enterprise. This may be particularly unattractive for SMEs.

There should be no bias over whether firms retain or distribute profits which constitute normal returns. There may, however, be a bias against paying out above-normal returns. Domestic debt and equity would be taxed relatively neutrally, however, debt sourced from overseas is likely to be taxed only lightly.

The tax system would involve retaining current levels of tax on labour income. It would not have the benefits that alignment would in increasing incentives to work and in encouraging skilled workers to work in New Zealand (although it could make it more attractive for wealthy people to relocate to New Zealand).

Equity/fairness

The tax system would not provide substantial tax cuts to many who are earning higher levels of labour income. If the government decided that it needed to cut the company tax rate without reducing tax rates for those with higher labour incomes, this would provide a way of doing so. This might be considered desirable by those wishing for a progressive tax system. Some would argue that a dual rate income tax increases horizontal equity between taxpayers with different consumption patterns, i.e. those who spend early versus those who save and

then spend. The latter are taxed more because they are taxed on their savings under a comprehensive income.

At the same time the tax system would involve cutting taxes on capital income but not on labour incomes. This could involve tax cuts for those with substantial levels of wealth. Some would argue that this was unfair.

Revenue adequacy

For a total revenue cost on par with alignment at 30 percent, we can afford a capital rate of 27 percent under a dual income tax system.

This costing assumes:

- Income is split into capital and labour income. Capital income is taxed at 27 percent. Labour income is taxed at the current personal tax rates.
- Imputation is removed. However, for shares held in both widely held and closely held companies, income within the normal return to equity is exempt at shareholder level. Income above the normal return is taxed at the capital rate.
- A portion of self-employment income equivalent to the normal return on equity is deemed to be capital income. The remaining income is deemed to be labour income.
- Individuals' interest, rents, overseas income, and trust income are deemed as capital income. Trustees' income is assumed to be taxed as capital income. In practice, some income earned through trusts might be labour income.
- The normal return is the risk-free rate of return multiplied by equity invested. For this costing, we have used the 10-year average one-year government bond rate (of 6 percent) as a proxy for the risk-free rate. Equity will generally be the historical cost of shares purchased.
- New Zealand listed companies have an average dividend yield of 6 percent.[12] For listed companies, we assumed 100 percent of dividends currently received by shareholders are within the normal return (although some dividend yields probably would exceed the risk-free rate). To take account of the higher dividend yield for private and small companies, we have assumed that 75 percent of the current dividends would be exempt under a dual rate system. The remaining 25 percent of dividends would be subject to double taxation at the capital rate. However, it would generally be much more tax-efficient for these to be paid as salaries and wages or interest on loans advanced by owners. We have therefore decreased current distribution levels and re-labelled undistributed dividends as shareholder salaries.

[12] http://www.smartshares.nzx.com/products/fonz/dividend_yield

- A realised capital gains tax is implemented on Australasian shares with gains taxed at the capital rate. We assume for costing purposes that this CGT is limited to these shares and does not apply to property or other assets. Gains on other shares are taxed under the current FIF regime.
- There is a consumption clawback in respect of the exempt dividends received by shareholders.

This costing involves the rate of capital taxation being higher than the lowest rate of tax on labour income. In Nordic countries, these tax rates are typically aligned. As a comparison, if we raised the lowest personal rate to be equal to the capital rate, the capital rate and the lowest personal rate would be 20 percent. But this would increase the tax rate for lower-income earners on their labour income as well as capital income.

Revenue integrity

The reduction in the company rate would reduce incentives for profits to be streamed away from New Zealand. A flat tax on capital income would also reduce opportunities to exploit differences in marginal tax rates. However, with a low capital tax rate, there is an incentive to re-characterise labour income as capital. The double taxation of above-normal profits also provides an incentive to hide such profits, for example, by loss-trading. The main problem is considered to be the treatment of closely held companies and self-employed individuals.

Simplicity of administration and compliance

A flat tax on capital may potentially simplify tax administration, as it would allow taxes on interest and dividends to be collected as final withholding tax. However, incentives to re-characterise labour income as capital are likely to increase both administration and compliance costs.

It would be necessary to define the types of assets that would qualify for an imputed return. For example, it is necessary to distinguish between assets that are used for private purposes and assets used for business purposes. The value of business assets needs to be determined and there may be valuation issues for some assets, such as intangibles.

Coherence

A dual tax system would, in principle, be reasonably coherent. It would attempt to levy tax on the normal return to capital at a low flat rate.

For labour income and capital income above the normal returns, it would be less coherent. It would mean this income is taxed at different rates depending on the entity through which the income is earned. Coherence would only be maintained if double taxation at the capital income tax rate roughly corresponded to single taxation at the labour income tax rate.

If the implementation of a dual income tax in New Zealand only results in relatively minor differences between taxes on capital and labour income then this plus concerns about labour mobility may make other alternatives more attractive. For example, a marginal shift in the direction of taxing labour income more heavily than capital income could be accommodated by a reduction in all marginal rates and increase in GST.

Classical system with substantial company tax cut

A tax system with a substantial company tax cut is designed to attract foreign capital with a low tax rate on company trading profits while continuing to tax domestic workers and savers. The overall framework is that of a traditional classical tax system, with the most well known example of this company tax system being the Irish model.

Summary of the classical system with substantial company tax cut

One way that New Zealand might be able to implement a substantial cut in its company tax rate without creating major integrity problems is to copy features of the Irish tax system. The distinctive elements of Ireland's tax system that New Zealand might wish to consider are:

- A low tax rate on company "trading profits".
- Various measures to prevent other taxpayers from taking advantage of this low company rate, including a switch to a classical company tax system and a capital gains tax on company shares.

Trading profits include most "active income" of companies. In Ireland, the definition of active income excludes certain profits which may either be assumed to be closely substitutable for personal income (such as property investment) or else assumed to earn high economic rents (such as royalties and mining profits). These excluded forms of income are taxed at higher rates. In our modelling we will have a less extensive set of forms of passive income which are taxed at higher rates. Obviously, precise borderlines in this area will determine how big the cut in the company rate could be. The greater the set of activities taxed at high rates, the larger would be the cut in the company rate that could be applied to active income.

Our model, which will assume roughly the same fiscal cost as aligning tax rates at 30 percent, allows an active company tax rate of 20 percent. Personal tax rates will be assumed to remain unchanged. An alternative, closer to the Irish model, would be a deeper cut to the company rate, combined with higher personal tax rates.

Other income ("non-trading profits") of companies will be assumed to be taxed at a higher rate. For the purposes of our model, we will assume that passive company income is taxed at 30 percent and includes:

- Partnership income of domestically controlled companies.

- Overseas income of domestic unit trusts.
- Interest income of domestically controlled companies with a small reduction to account for the fact that a portion of this will be reclassified as trading income.

Company trading profits and related expenses will be separated from other income and expenses using ordinary accrual accounting.

Prima facie, the low company tax rates create pressure for individuals to structure their affairs so that they derive income within a company, eroding the personal tax base. A number of features are used to protect against this behaviour:

- Dividends paid to resident individuals are double-taxed – there is no recognition of tax paid at the company level.
- The after-tax investment income of closely held companies (which exclude companies controlled by widely held companies) will be subject to a surcharge if it is undistributed 18 months after an accounting period.
- Capital gains tax will be levied on realisation at full marginal tax rates. This largely removes the tax advantage of converting retained corporate profits into the untaxed proceeds of a sale of shares.
- The income of discretionary and accumulation trusts will be subject to a special annual charge. For the purposes of modelling this system, we will assume dividends distributed to trusts are taxed at 38 percent.

Assessment of a classical system with substantial company tax cut

Economic efficiency

This tax system would allow a lower company tax rate. This would encourage inbound investment, boost the capital stock and hence add to New Zealand's labour productivity. The extent of the impact would depend on the level of the capital tax rate.

The tax system would tend to increase taxes on savings. This is likely to reduce incentives to save and make it less attractive for capital to flow to SMEs ahead of lightly-taxed investments, including owner-occupied housing. Taxes on investments into widely held New Zealand companies would also rise, so there would be reduced incentives to save in this way.

The company rate cut would reduce tax on economic rents. This may lead to higher taxes than otherwise being imposed on New Zealanders.

There is likely to be a bias to choices of business organisation. Because of the double-taxation of company income, there would be a bias favouring the formation of unincorporated enterprises ahead of companies.

There would be a bias favouring retention over distribution, as anti-deferral measures are unlikely to be fully effective. This might make it more difficult for new and rapidly-expanding companies to access capital. The double-taxation of dividends and capital gains taxation would tend to create a bias favouring debt over new equity.

The tax system would involve retaining current levels of tax on labour income. It would not have the benefits that alignment would in increasing incentives to work and in encouraging skilled workers to work in New Zealand (although it could make it more attractive for wealthy people to relocate to New Zealand). Of note is that Ireland's labour mobility is similar, and for unskilled labour, higher than New Zealand's (see figure 1, earlier).

There are likely to be a number of biases in practice that arise out of trying to tax different forms of income at different rates.

Equity/fairness

The tax system would not provide substantial tax cuts to many who are earning higher levels of labour income. If the government decided that it needed to cut the company tax rate without reducing tax rates for those with higher labour incomes, this would provide a way of doing so. This might be considered desirable by those wishing for a progressive tax system.

However, the tax system could be criticised on grounds of horizontal equity. It would involve different tax liabilities for those who earn income through different entities.

Revenue adequacy

Assuming a similar revenue cost to alignment at 30 percent, New Zealand could implement classical tax system with an "active" company rate of 20 percent.

This costing assumes:

- That company income is split into passive and active income. Passive income (largely the interest earned by domestic companies) is taxed at the current 30 percent company tax rate. Active income is taxed at a new reduced rate of 20 percent.
- That removal of imputation causes double taxation of company profits.
- That due to double taxation, company distributions to shareholders halve to approximately 40 percent of after-tax earnings. As a result of reduced dividend distributions, additional income is distributed to shareholders in a deductible form (interest or shareholder salary) or retained and reinvested in companies (although this has not been factored into the capital gains estimate).
- A realised capital gains tax is implemented on Australasian shares.

- Personal tax rates remain the same, although the trustee rate is increased to 38 percent.
- There is a consumption clawback as a result of the reduction in after-tax income of individuals and trusts.

Revenue integrity

The reduction in the company rate would reduce incentives for profits to be streamed away from New Zealand. A larger reduction, such as that in the Irish system, provides positive incentive for profits to be streamed to Ireland, boosting tax receipts. The additional taxes on passive income could increase integrity by reducing incentives for income to be sheltered in companies.

Tax receipts are likely to be particularly volatile – if profits are not being made overseas, then they cannot be streamed to take advantage of the lower rate. This has been the case in Ireland, which has been forced to declare a series of emergency budget cuts in the face of collapsing tax revenues.

At the same time, it is quite a complex tax system and one might imagine considerable integrity pressures in ensuring that all intended passive income was taxed at higher rates within companies.

Simplicity of administration and compliance

It seems likely that this tax system with its scheduler approach to the recognition of income and expenses, the surcharges on close companies, the capital gains tax, and multiple rates of income tax would be very much more complex to administer and comply with than the current tax system.

Coherence

The classical system with substantial company tax cut model has been carefully designed to attract foreign capital while protecting the integrity of tax on residents. It is, in principle, a coherent tax system. It may be advantageous for a smaller country as it can have the effect of streaming reported income of MNCs towards that country, hence boosting tax revenues.

While this may be successful in attracting increased foreign capital, the independence of the company and personal tax rate structure, double taxation of corporate profits, and measures needed to bolster the personal tax system create a complex system for domestic businesses, investors and workers.

ACE company tax system combined with a dual income tax

A major reform that was proposed to the Henry Review by Sorensen and Johnson (2009) would have included:

- an allowance for corporate equity (ACE) system that would grant a tax deduction for the cost of equity; and
- a dual income tax system that would tax income from capital at a lower rate than labour income.

This proposal has been considered very seriously by the Henry Review. In a recent speech Dr Henry has indicated that the Review will not recommend that Australia abandons its imputation scheme at this stage. But Dr Henry also indicated that reforms such as the Sorensen-Johnson are medium- to longer-term possibilities.

This reform would aim to encourage investment into Australia, so raising capital intensity and labour productivity.

Summary of the ACE / dual income tax system

An ACE system aims to exempt the normal return from capital from tax and to tax only those returns (economic rents) over and above what an investor could achieve elsewhere. This reduces the cost of capital for domestic companies.

For example, assume that the normal worldwide return from capital[13] is 6 percent (based on the one-year government bond rate average from May 1999 to April 2009). Therefore, a company which is set up with $1,000 of equity and earns revenue of $60, is allowed an ACE deduction of $60 (6 percent normal return multiplied by $1,000). The company's taxable income is nil and the full $60 can be distributed to investors. The return received by the investor and cost of capital for the company is equal to the normal world wide return.

The aim of the ACE system is to restrict company tax to economic rents (as explained above). To see this, now suppose that the company is able to earn higher profits than the normal world wide return. These economic rents can be taxed through an ACE company tax. For example, assume the company which is set up with $1,000 of equity earns revenue of $100. It is allowed an ACE deduction of $60 (6 percent normal return multiplied by $1,000). Therefore, the company's taxable income is $40. Company tax of $12 (we have assumed a 30 percent company tax rate) is collected, with the shareholder able to receive a dividend of $88 (which is the after-tax rents of $28 plus the normal return of $60).

[13] This is multiplied by the level of equity invested to calculate the ACE deduction.

One of the key challenges with an ACE system is how to prevent individuals using companies (which benefit from the ACE deduction and capital tax rate that applies to distributions) as tax shelters. Sorensen and Johnson overcome this critical problem for listed companies by proposing an accrual capital gains tax on the shares of the company. If a listed company retains profits, this will tend to add to the market value of shares and these retentions would be taxed in the hands of domestic shareholders by means of this accrual-basis capital gains tax. For unlisted companies, the suggestion is that if a company retained $100, it would be required to pay tax of $20 (at the proposed capital income tax rate on these retentions). In principle, the goal would be to attempt to tax retentions only in respect of shares owned by domestic residents.

Under the Australian proposal, the ACE deduction is combined with the implementation of a dual income tax system. Any dividends are taxable at a capital income tax rate of 20 percent when paid to shareholders. No credit is provided for tax paid at the company level. This means that distributions of profits up to the normal return (a market interest rate) which have not been taxed at the company level are subject to tax once at 20 percent, the capital rate. Distributions of economic rents, which have been taxed to the company, are effectively double taxed.

Assessment of an ACE / dual income tax system

In this case, it is not so much the theoretical properties of the ACE / dual income tax system as questions about practical potential pitfalls that may determine whether or not the proposal proceeds.

First, the proposal would require the introduction of an accrual-basis CGT on shares (which no other OECD country has) or equivalent measures to succeed. In the absence of such a measure, it would allow companies to be used to shelter income from capital income tax. It is therefore reasonably fragile.

Second, there are risks around international income because there is scope for firms to avoid tax by acquiring debt or equity capital and using interest or equity deductions when the funds are used to acquire shares in foreign firms and where the income accruing on those funds are exempt.

Sorenson-Johnson deal with this concern by suggesting that any shares in foreign companies be deducted from the corporate equity base. For example, if a company issues $1,000 of equity which is used to purchase $1,000 of foreign shares, the suggestion is that the net corporate equity base would be zero so the company would receive no deduction for corporate equity.

However, this aspect of the proposal is likely to be vulnerable to schemes aimed at avoiding tax as there are numerous ways in which capital may end up flowing through to generate foreign profits that are exempt from domestic taxes.

Third, the system would provide a deduction which is based on a company's level of equity (which might be equivalent to available subscribed capital or ASC at present). In practice, it may be difficult to prevent ASC from being created in ways that were not intended. A lot of care would need to be taken to ensure that any rules were not open to manipulation.

Of course, if Australia were to introduce such a tax, it would have to work through these issues. It may well be that these potential concerns could be resolved. It would, however, be much easier to assess the merits of a radical change of this nature if another country had implemented and worked through any teething problems.

Economic efficiency

The Sorensen-Johnson system, by eliminating tax on the normal return to capital, is likely to be very efficient in theory. This is because, to the extent that company tax is levied on the "normal return to capital" (that is, a market interest rate), it is likely to discourage inward investment. This can lower capital intensity and labour productivity. In theory, ACE promotes inbound investment for firms where the marginal equity investors are non-residents (widely held foreign owned companies).

In principle, it is a very clever tax system. While the ACE system excludes the normal return, thereby reducing the cost of capital for widely held domestic companies, it still ensures that economic rents are taxed.

The Sorenson-Johnson proposal would combine ACE with a dual income tax. (They suggest a capital income tax rate of 20 percent.) The proposed system would tend to reduce taxes on foreigners investing into Australia. It is also likely to reduce taxes for higher income earners who invest in foreign shares and bonds, as income from these assets would be taxed at a lower flat rate. However, the Sorenson-Johnson proposal would be likely to reduce returns to domestic residents investing in widely held Australian firms. This is because the proposed system would lead to a fall in pre-tax returns and could result in company income being double taxed where a company earns more than the normal return. Lower income earners may also face a higher flat rate on capital.

If economic rents are important for SMEs, the tax system might make it less attractive for SMEs to be set up as companies. Under the dual income tax, returns earned through an unincorporated enterprise that are above the imputed return would be taxed as labour income. Returns earned through a company that are above the normal return would be double taxed. Sorensen and Johnson suggest a set of rates which would make double taxation through a company much the same as the top Australian rate of tax on labour income. This means that there would be little bias for those in the top marginal tax rate over whether they invested into an SME through a company or unincorporated enterprise. For those on lower marginal rates, there would be a bias against investment through companies. (In New Zealand it would seem less likely that we could easily achieve rough equivalence between double taxation of income through a company and single taxation of income through an unincorporated enterprise without a substantial increase in marginal tax rates on labour income relative to the current schedule. This means that the tax system would be likely to discourage investment through companies.)

There could also be a bias against investing in companies even when they do not earn rents for the investor. The ACE deduction is calculated according to the equity in the company, but this could be very different from the value of the shares of the company. A company may earn rents on its internal equity, and so pay tax, but from the perspective of the investor, the value of the shares is such that the return on the shares is only the normal return. Yet the distribution will still be double-taxed. This could bias domestic savings against investments in shares.

There would be a no bias over whether companies distribute or retain profits in most cases. In both cases, in the case of listed companies, there would be full taxation at the shareholder level for domestic shareholders and no taxation for foreign shareholders. The ACE deduction would mean that the tax system would be neutral over whether firms raise debt or equity in many cases.

In the case of unlisted companies with a mixture of foreign and domestic shareholders, there would be a bias in favour of distribution. If the firm does not distribute, it would suffer the excess retention tax, which would cost both its resident and non-resident shareholders. However, if it distributes, only the resident investors will pay tax on the dividends.

There are a number of other efficiency attractions of the tax as well. In particular, depending on how the ACE deduction is calculated, neutrality under an ACE system holds regardless of the rate at which the firm is allowed to write down its assets for tax purposes.[14]

The tax system would involve retaining current levels of tax on labour income. It would not have the benefits that alignment would in increasing incentives to work and in encouraging skilled workers to work in New Zealand (although it could make it more attractive for wealthy people to relocate to New Zealand). Under the Australian proposal, ACE is proposed to be limited to *new* equity only, which reduces its fiscal cost. If this is not done or is not possible, then it would be necessary to raise other taxes to make up the revenue shortfall, such as taxes on labour.

Equity/fairness

Comments made previously on the fairness of a Nordic tax system are relevant. If the government decided that on competitiveness grounds that it wanted to remove tax on the normal returns to corporate investment, this would be a way of it doing so without the need to reduce the company tax rate or personal tax rates on labour income. This might be considered desirable by those wishing for a progressive tax system.

[14] If equity on which the ACE deduction is calculated is based on accounting equity, then any difference between tax and accounting depreciation is likely to create a distortion. This would not be the case if the equity is based on a tax calculation that incorporated tax depreciation.

At the same time this tax system would involve cutting taxes on capital income but not on labour incomes. This could involve tax cuts for those with substantial levels of wealth. Some would argue that this was unfair.

Revenue adequacy

The proposal has yet to be practically implemented anywhere in the world. Australia considered the system as part of the Henry Review. However, it has decided not to pursue the system at this stage. Therefore, due to the lack of practical experience, there are considerable risks with respect to estimating the potential revenue implications of adopting this system.

In particular, the ACE system narrows the tax base by focusing on the taxation of economic rents, leading to a drop in company tax revenue. The impact that this could have on the New Zealand fiscal position is unclear. Taking the extreme cases, if there are no economic rents in New Zealand, the entire company tax base is wiped out. Alternatively, if all returns to companies are in the form of rents, company tax levels are unchanged. In reality, the effect will be somewhere between these extremes.

Revenue integrity

An ACE / dual system would overcome a number of current problems. In particular, its neutrality between debt and equity finance is likely to reduce current integrity pressures in this area. At the same time, it would be likely to create important integrity concerns in ensuring that taxpayers could not enter into structured finance loops which involve acquiring deductible capital to invest abroad and earn tax-free returns. There would also be integrity concerns around the definition of equity.

Simplicity of administration and compliance

The ACE system is likely to add considerable complexity to the tax system, including:

- Requiring a calculation of equity for purposes of calculating the deduction;
- If the system is intended to apply to new equity only, that would add additional compliance costs in attempting to differentiate old and new equity; and
- An accrued capital gains tax would be required for shares in listed companies.

Coherence

Our initial view is that the reform in question is very coherent. At the same time it is fragile. For example, its coherence would fall apart in the absence of an accrual-basis CGT or equivalent tax.

5. If alignment takes some time what do we do in the interim?

If other corporate tax reform options, including alignment, are neither desirable nor achievable, then New Zealand must decide what should be done in the interim to address the growing problems with the current system. Two possible options are outlined below.

Maintain company tax rate less than the top personal rate with imputation

Most OECD countries have a company tax rate which is considerably less than the top personal tax rate. Therefore, New Zealand could manage a non-aligned system. The extent of any non-alignment would clearly depend on what happens to both the company tax rate and to higher personal marginal tax rates. This would maintain the lack of alignment which is driving integrity concerns with the current system.

Maintaining a gap between the company and top personal tax rate, preserves flexibility and independence of the company and personal tax rates. The company tax rate can be set to respond to international and growth concerns, while the personal rate structure would be targeted at the redistributive goals of the government. However, this means accepting a number of negative outcomes which could otherwise be addressed through an aligned system.

For domestically owned companies, a gap between the company and personal tax rates could provide an explicit tax incentive by allowing deferral of taxation for reinvested income. These benefits would, however, be constrained by other measures including any excess retention taxes or surtaxes on passive investment income.

Finally, maintaining a rate gap moves away from the neutrality goals of an imputation system. Maintaining imputation would avoid double taxation of income passed through companies. However, there would be differential tax imposts across companies according to the period until income is distributed.

Other countries have introduced integrity measures to address the incentives created by a non-aligned system. New Zealand could opt for more of these measures to ensure that the current progressive personal tax rates are effective in the medium term. Examples include:

- *Measures to prevent deferral of personal wage and investment income by shifting it to lower taxed closely held companies and trusts*

  An example of this type of measure would be increasing the trustee rate to the top marginal tax rate. This would prevent taxpayers using trusts as a mechanism to effect a permanent deferral of tax liabilities. It could also involve tighter attribution rules to prevent certain personal services being provided through a company to benefit from the low rate.

Alongside this there could be rules taxing certain forms of passive investment earned through companies such as interest, dividends and perhaps rents at higher rates (i.e., normal rates plus a surtax) to prevent companies being used to shelter this income from higher rates of personal taxation. This could be limited to closely held companies (other than subsidiaries of foreign parent companies or widely held New Zealand companies), to target only those cases which are likely to be of most concern.

Another option may be to consider an excess retention tax for closely held companies to prevent these entities from being used to shelter income from higher personal tax rates. But an unattractive feature of excess retention taxes is that they can encourage distribution of profits when this would not otherwise be efficient.

- *Measures to ensure that the personal income earned through collective investment vehicles is taxed at the marginal tax rates of individuals*

  One example is to remove the 30 percent cap on PIE income and increase the tax rates on other widely held savings entities to the top personal marginal tax rate. However, it would be ineffective to remove the tax cap on PIEs without simultaneously levying some tax on redemptions of units in unit trusts.[15] This raises questions, however, about whether similar moves would be necessary for other investment vehicles including investment companies.

  Similarly, changes could be made to the treatment of loss-attributing qualifying companies (LAQCs). These are companies that pass their losses to their shareholders, but whose profits are taxed at the company tax rate of 30 percent.

  There has been a huge increase in the number of LAQC entities.[16] This increase seems to have been driven by asymmetries in the rate structure (income capped while losses flow through to shareholders), rental property losses, and differences in rates (30 percent company rate versus 38 percent top marginal rate). Only the first of these is a specific LAQC issue and could be addressed by adopting a fully transparent treatment. This would allow both profits and losses to flow through to the partners, consistent with the treatment of partnerships or limited partnerships. Applying the limited partnership regime to LAQCs may be an option.

[15] We understand that it is common for managers of unit trusts to buy back units. This allows unit holders to earn tax-free capital gains on their units. Unit trusts are taxed at the 30 percent company tax rate so this makes the company tax rate into a final tax rate.

[16]

	Total number of active LAQCs	Total LAQC losses claimed
2003	63,400	$709.8 million
2004	78,800	$890.2 million
2005	93, 500	$1180.4 million
2006	107, 800	$1563.2 million
2007	118,000	$1822.0 million
2008	129,900	$2258.0 million

These moves would not by themselves, of course, remove the benefits of taxpayers using companies to shelter income from higher effective marginal tax rates arising from the abatement of Working for Families tax credits or other forms of social assistance.

Formalising dual rates for labour and capital income

While New Zealand may not wish to fully implement a dual rate system at this point, another medium-term option is to move some way towards separate tax rates for labour and capital income.

A number of recent policy decisions, in particular the capped tax rate for PIEs, have moved New Zealand's system in the direction of a split rate for capital and labour (at least for taxpayers on higher rates of personal tax).

One medium-term option would be to adopt a simplified alignment of capital tax rates. PIE income is currently subject to a capped tax rate. This income is taxed at the lesser of the company tax rate and the statutory tax rate of the individual. A capped tax rate could be extended to all investment income using a list approach. This would mean that certain forms of income, such as interest, dividends and rents, or income earned through certain entities such as companies, PIEs, widely held savings vehicles, is taxed at a capped rate.

This system would not adopt the dual rate separation of labour and capital income for unincorporated businesses and closely held companies. The capital component of unincorporated business income would face personal marginal tax rates and the labour component of closely held company income would enjoy the company tax rate. As such, there would need to be rules to prevent the sheltering of income that is closely akin to salaries and wages.

Imputation could be maintained, but a capped capital tax rate would apply to dividends. This approach would have much in common with a number of European scheduler tax systems which apply lower rates of tax on certain forms of investment income.

Under this option, investment income would be taxed equally in different entities and so the incentive to artificially hold investments in tax-efficient ways would be removed.

However, this option does have disadvantages. The change would exacerbate fairness issues between labour and capital income arising from current tax minimising strategies. Capital income is concentrated with higher income earners, and so overall progressivity would be reduced.

Biases would also remain because of the different rates of tax on business income, depending on whether this is earned by a company or unincorporated businesses. This would mean that we would continue to suffer from many of the same efficiency issues which arise from maintaining a gap between the company tax rate and top personal rates.

Social assistance

Alignment on its own would not resolve all the integrity concerns with the current tax system, as there is growing evidence that taxpayers that are not part of the target income group for social assistance are receiving benefits by either:

- reducing their "income" as defined for social assistance purposes; and/or
- converting income into forms that are not treated as "income" for social assistance purposes.

As well as resolving what to do with respect to company tax, thought also needs to be given to addressing the growing problems with social assistance. This is likely to involve amending income-tested government social assistance programmes where feasible to include individual income earned in other ways such as fringe benefits or through companies, trusts or PIEs.

Appendix A

Taxes on savings and investment in a small open economy

This Appendix discusses the economics of taxes on savings and investment in a small open economy. It starts by discussing the economic effects of company taxation on incentives to save and invest. It then discusses the "Production Efficiency Proposition" and why many economists have been particularly concerned about taxes on investment and the rate of company taxation. This is central to understanding concerns that have driven thinking in the Henry Review. Under the stringent assumptions required for the Production Efficiency Proposition to hold, a small open economy should levy no tax on capital invested in the economy which would imply a zero company tax rate. Many of these stringent assumptions are unlikely to hold in practice. In particular if international firms earn economic rents from locating in the small open economy, this may provide an important reason for continuing to tax companies. The Appendix finishes with a discussion of economic rents.

Investment and savings: source vs residence issue

When examining efficiency and equity issues for a small open economy like New Zealand, it is critical to distinguish between capital income taxes on capital invested in the economy and capital income taxes on the savings of domestic residents.

Source-based taxes that apply tax in the country where the investment takes place, such as New Zealand's corporate tax, are taxes on investment. This is because source-based taxes increase the pre-tax return required to provide international investors with their required after-tax return. In contrast, residence-based taxes are applied to the worldwide income of residents from saving. Such taxes affect the level of domestic savings and capital imports while having no overall effect on domestic investment.

The distinction between taxes on savings and taxes on investment can perhaps best be illustrated with a simple example. New Zealand is a net capital importer. Firms accessing capital from foreign markets will need to offer returns that satisfy foreign investors. Assume that foreigners demand a 10 percent return on their capital.

Suppose first that New Zealand levies no company income tax and ignore any withholding tax. In this case New Zealand firms would need to generate a marginal rate of return of 10 percent to satisfy foreign shareholders. This might either be paid in dividends or reinvested in the firm or some combination of the two. If instead, New Zealand levies company tax, this will tend to drive up the pre-tax rate of return that firms need to generate to provide adequate after-tax returns to their foreign investors. With a 30 percent company tax rate, the required pre-tax rate of return will be 14.3 percent. If companies generate this pre-tax rate of return, they will generate the 10 percent post-tax rate of return that foreign shareholders are assumed to require because 14.3*(1-0.3)=10.

Impact of company tax systems

It is worth noting that firms would need to generate this pre-tax rate of return for investment to be marginal (or break-even) whether New Zealand had an imputation system or a classical company tax system given that we are ignoring any non-resident withholding tax (NRWT) on dividends. In both cases the company tax would be the only New Zealand tax on the earnings of foreigners invested into domestic companies.

The choice of company tax system would, however, affect the returns to domestic savers. Suppose that domestic savers are also taxed at a 30 percent rate. Under an imputation system, if they invest in the company there would be no dividend taxation so the after-tax return to savers would be 10 percent. If, on the other hand, we have a classical company tax system, dividend taxes would affect after-tax returns to domestic shareholders. Suppose, for simplicity, we assume that firms distribute 100 percent of their after-tax income. In this case domestic shareholders would receive a 7 percent post-tax rate of return. (Companies would be earning 14.3 percent pre-tax and 10 percent net of company tax. This 10 percent return would be paid as a dividend which would be taxed at a rate of 30 percent).

The table below shows the pre-tax rate of return on investment and post-tax rates of return to domestic savers. The company tax rate is the tax on capital invested in the economy. In each case the 30 percent company tax rate drives up the pre-tax rate of return to 14.3 percent. The company tax system affects post-tax returns to savers with an imputation system leaving this at 10 percent but a classical company tax system reducing this to 7 percent.

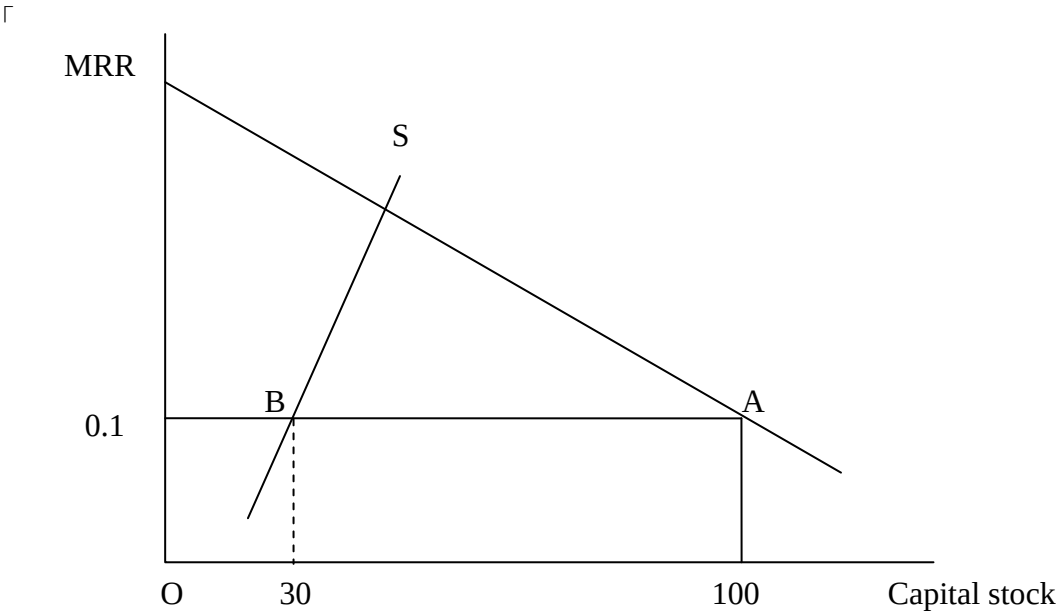
	Imputation company tax system	**Classical company tax system**
Pre-tax rate of return on marginal investment	14.3%	14.3%
Net-of-company-tax rate of return on marginal investment	10.0%	10.0%
Post-tax rate of return to domestic savers	10.0%	7.0%

These results are depicted in Figure A1 below. On the horizontal axis we measure the amount of capital invested in a small open economy. The MRR schedule shows how the marginal rate of return on investments will vary with the amount of capital invested in the economy.[17] As we get additional capital invested in the economy (e.g., additional computers and tractors), the rate of return on additional investments will fall. This is why this curve is downward sloping. It is in effect the economy's demand curve for capital goods.

[17] Or, more formally, the net of depreciation marginal product of capital.

Figure A1

Marginal rate of return and capital stock – 0% company rate



In the absence of tax and given our assumption that foreign capital suppliers demand a 10 percent net-of-company-tax rate of return, the economy would be at point A which (for illustrative purposes only) is assumed to involve $100 billion of capital invested in the economy.

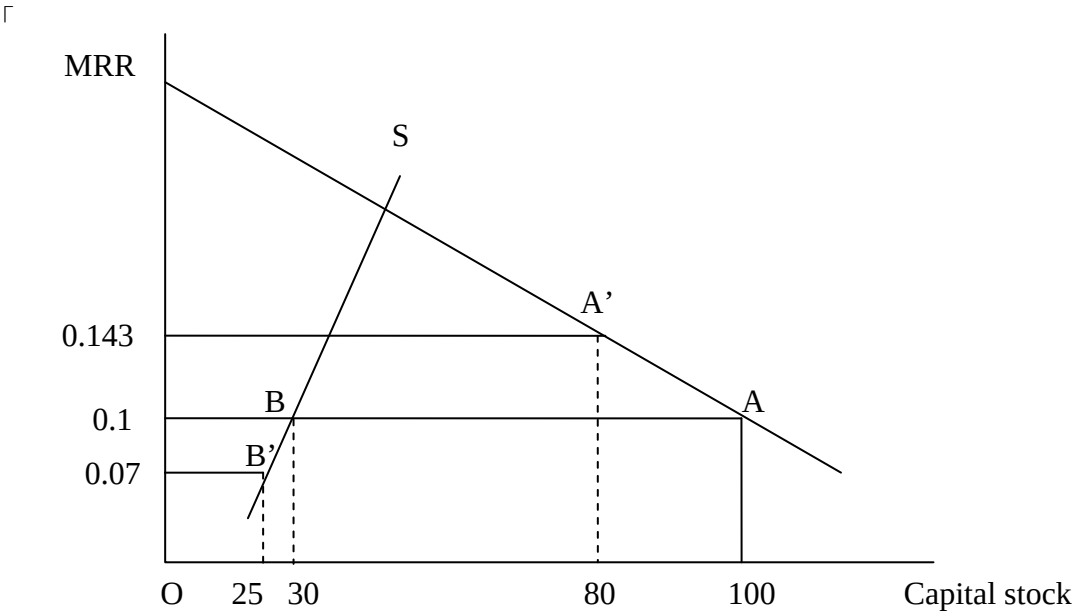
On the graph we also show the supply curve of domestic capital as a function of the rate of return it receives. This is the line denoted by S. If savers earn 10 percent, they are willing to accumulate $30 billion of capital stock. At a lower after-tax return, they would save less. In the absence of any tax, domestic savers would earn a 10 percent return on their capital and $30 billion of capital would be held by domestic residents. Net capital imports would be the distance AB or $70 billion.

Now consider company taxation. With a 30 percent company tax rate, the marginal rate of return increases from 10 percent to 14.3 percent. This is captured in Figure A2 by a move from A to A'.

We assume that the stock of capital invested in the economy falls to $80 billion. It should be noted that an important effect of this tax may be in lowering labour productivity in the small open economy. With fewer capital goods (e.g., fewer tractors, trucks, computers and factories), labour will be less productive. This will tend to reduce wage rates. The tax on capital invested in the economy is not borne by non-residents. They still obtain the 10 percent net-of-company-tax rate of return that they demand. Instead it will be a backdoor tax on domestic factors (predominantly labour). We would be at the same point A' irrespective of whether we have an imputation company tax system or a classical company tax system.

Figure A2

Marginal rate of return and capital stock – 30% company rate



The system of company tax (classical or imputation) will, however, affect returns to domestic savers. With an imputation system, domestic savings will still be at point B with domestic savers earning a 10 percent post-tax rate of return on savings invested in the company and the stock of savings will still be $30 billion in our example. (If shareholders were on tax rates that were below the company rate, their post-tax rate of return would be greater than 10 percent. Effectively they would be subsidised by the tax system.) With a classical company tax system and a 30 percent marginal tax rate on shareholders, however, domestic savers would earn a 7 percent post-tax rate of return on their savings if firms distributed 100 percent of their profits. Domestic savings would be at point B'. A classical company tax system drives down after-tax returns to domestic savers whereas an imputation company tax system does not if the company tax rate and tax rate on shareholders is aligned.

The Production Efficiency Proposition – i.e., why economists are particularly concerned about taxes on capital invested in a small open economy

This simple graphical framework can also be helpful in explaining why modern economists have been particularly concerned about taxes on investment. Here we will not explicitly show domestic savings as our focus is on investment. We will assume (as many simple economic models do) that there are no economic rents. This means that not only marginal investments but also all investments will end up earning the marginal rate of return. In the absence of taxes, not only marginal investments but all investments would earn a 10 percent rate of return. With a 30 percent company tax rate, not only marginal investments but also all investments would earn a 14.3 percent rate of return.

To understand how this could possibly be, the reader is asked to suspend scepticism for the moment and think through the simple possibility where there is a single type of capital good, say, tractors used by companies in the economy. When there is no company tax rate, the marginal rate of return on tractors is 10 percent. If tractors are indistinguishable and there are no economic rents, this would be the return earned on any tractor. With a 30 percent company tax rate, companies stop buying tractors when they generate a marginal return of 14.3 percent. With fewer tractors spread around a fixed stock of labour, tractors are now more productive.

The full story is shown in Figure A3 below. With a 30 percent company tax rate, the economy is at A' with $80 billion of capital stock. The total output in the economy is given by the area *OBA'D*.[18] The before-tax return to all capital owners is *OCA'D*. The after-tax return to all capital owners is *OC'ED* and *CA'EC'* is company tax collections. The triangle *BA'C* shows income of factors of production other than capital. If we think of output being produced with two factors of production, capital and labour, this will be labour income.

Now suppose that company tax is eliminated. By itself, this will increase capital stock by $20 billion in the example. With more capital, labour will become more productive so before-tax labour incomes will increase to *BAC'*. Suppose that at the same time, however, that the government decides to increase taxes on labour incomes to keep the after-tax wages received by workers unchanged. In this case, after-tax labour income would remain unchanged at *BA'C*. This means that *CA'AC'* would be the increase in tax revenue on labour incomes holding after-tax wages constant. This is greater than the company tax revenue that was initially raised by the triangle *A'AE*. Company tax is a backdoor tax on labour via its effects on capital stock and labour productivity. By switching from taxing labour in a backdoor way to taxing labour income directly, the government could get more revenue keeping New Zealanders as well off as they were initially.

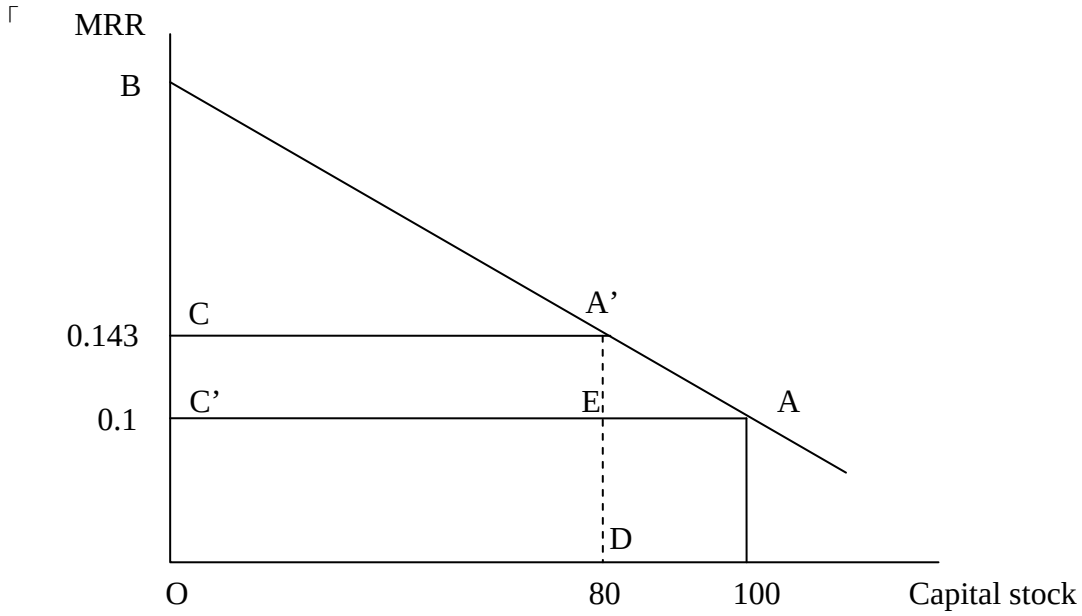
One possible puzzle is as follows. When company tax is dropped from 30 percent to 0, the productivity of all capital falls from 14.3 percent to 10 percent. Why would economists ever think that this is a good thing? The answer is that with a 30 percent tax, an additional unit of capital will earn 14.3 percent but only cost 10 percent. By expanding capital by a unit, the economy benefits from the difference. The economy will continue to benefit from expanding capital until the marginal benefit of the last unit acquired is 10 percent and equal to the cost.

In these models with no economic rents, any taxes which reduce investment in the small open economy (company tax in this example) are especially distorting because they raise less revenue than a direct tax on labour income would do for a given cost to residents of the small open economy. Conversely, one could obtain the same revenue making everyone better off if one switched away from company tax to taxing labour income directly.

[18] This assumes that some capital is required for any production. In this case, aggregate production is what is produced by each of the successive units of capital.

Figure A3

Production Efficiency Proposition



Simple economic models with perfect competition, constant returns to scale and no economic rents will always lead to the conclusion that in the absence of foreign tax credits abroad, a small open economy with perfect capital mobility (which can obtain as much capital as it wishes at a fixed interest rate) should levy no taxes on capital invested in the economy.

What if not all investments are equal?

Economists often use these very simple models with no economic rents. This assumption is helpful in making models relatively simple to solve. But these models rest on a critical and implausible assumption, namely, that all investments generate exactly the same return. If some investments are "inframarginal" (i.e., earn better than the marginal rate of return), then some of the burden of the company tax will be borne by owners of the firms. For example, a 30 percent company rate could lower the return on an inframarginal investment with a 50 percent pre-tax return to 35 percent after tax without this affecting a firm's decision to undertake the investment. In this case this element of the company tax would be borne by the owners of the firm undertaking the investment. But provided we are prepared to assume that there are no economic rents, none of the burden of the company tax can fall on non-residents who would obtain the after-tax rate of return they require (assumed to be 10 percent in our example) whether there is a company tax or not.

If there were no economic rents (as well as perfect capital mobility and ignoring the possibility of foreign tax credits abroad), all of the burden of company taxation would fall on domestic factors of production such as labour. If we are concerned to minimise backdoor taxes on these domestic factors, we have a clear policy prescription. It is taxes on investment rather than taxes on savings we should be minimising.

This analysis is central to understanding much of the analysis in the Henry review. For example, in a speech to the Australian Business Tax Reform in Retrospect and Prospect Colloquium in Sydney on 23 February 2009, Dr Henry said,

> "Where capital is perfectly mobile, the supply of capital from abroad is perfectly elastic. In these circumstances, the burden of taxes on capital (such as company income tax) are shifted onto immobile factors such as workers and land via an outflow of capital which lifts its marginal product to the pre-tax return demanded by offshore investors. The same process drives down the productivity of domestic immobile factors due to a lower capital intensity of production – capital shallowing.
>
> In contrast, and again assuming a perfectly elastic supply of capital from abroad, the taxation of domestic savings in equity (which occurs primarily through the taxation of dividends and capital gains at the personal level) does not affect the aggregate level of capital invested in Australia as any reduction in Australian-owned capital invested domestically is offset by an increase in imported capital."

Dr Henry then goes on to explore the possibility of moving away from imputation because it has no effect on the cost of capital (i.e., the pre-tax rate of return that marginal investments need to make) in this sort of model. The concern is that imputation does not affect incentives to invest (at least for firms for which this analysis is relevant).

At the same time he makes a number of other comments which are just as relevant for New Zealand as they are for Australia. He acknowledges some benefits of imputation including:

- the way that it buttresses the company tax by reducing incentives for Australian multinationals to shift profits offshore;
- for small businesses, the company tax system combined with the imputation system ensures that business owners face much the same tax consequences irrespective of the form in which they receive income from a company; whether it is as dividends, wages or interest.

He also notes exactly those limitations to the framework that are of concern to us, namely:

- in practice, capital may not be perfectly mobile (as has been illustrated in the current global financial crisis);
- there are segments of the economy for which the small open economy framework is not appropriate (e.g., SMEs who do not generally have access to foreign equity capital);
- foreign tax credits abroad;
- the possibility of location-specific economic rents.

More recently, in a speech to the Leadership Forum on 21 August 2009, Dr Henry indicated that the review would not be recommending that imputation be repealed.

Economic rents

One of the key reasons for not making dramatic reductions in the company tax rate is the possibility of location-specific economic rents.

It should be noted that there are two quite different types of economic rents: firm-specific economic rents and location-specific economic rents. A firm with a superior process or product (perhaps IBM) may earn firm-specific economic rents. It may be looking around the world for the best place to locate a plant to produce goods to export into third countries. It will not generally be possible for a small open economy to be able to levy high taxes on these rents. If it attempts to do so, the firm can always choose to locate its plant somewhere else.

Location-specific economic rents on the other hand are rents associated with locating in a specific country. Location-specific rents are likely to be particularly important if a firm must locate in an economy to sell its goods or services to people living in that economy. Location-specific rents can also arise through proximity to natural resources or well-developed infrastructure.

A critical issue for New Zealand in assessing how best it should tax companies is the importance of location-specific economic rents. If firms such as New Zealand subsidiaries of foreign parent companies need to be in New Zealand to serve the New Zealand market, these firms may be quite insensitive to New Zealand's company tax rate. In this case, cutting the company tax rate has the potential to provide a windfall to foreign parent companies without necessarily affecting domestic activity very much. To the extent that replacement taxes need to be levied on New Zealanders, this has the potential to make New Zealand as a whole worse off.

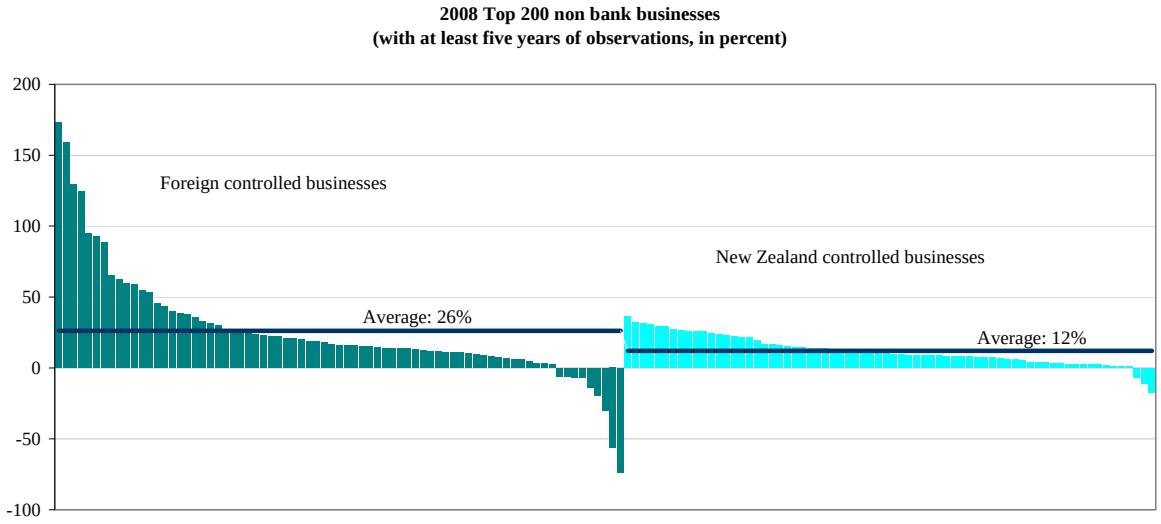
Location-specific rents are likely to be a bigger issue for an island economy like New Zealand than for a land-locked country in Europe. Consider, for example, a firm that is deciding to set up a plant either in Austria or in Germany close to their common border. In either case, it could supply much the same market from that plant. This means that neither Austria nor Germany might have much ability to tax any economic rents without the danger of the plant relocating to the other country. This is likely to be less of an issue for an island economy such as New Zealand if the bulk of foreign investment is in New Zealand to provide goods and services for the New Zealand market.

As far as we are aware, there are no international studies attempting to quantify the likely size of economic rents. Economic rents may be hard to find. For example, rents may be captured by one firm when it sells assets to another. In this case the firm acquiring the assets may generate a normal after-tax return on capital even though there are important economic rents.

Nevertheless, to attempt to look at the question of economic rents, we examined data for New Zealand's top 200 non-bank businesses from the NZ Management database.[19] The results are provided in Figure A4. Figures reported are the average returns over a 10-year period for firms with at least five years of observations. The average after-tax return on total equity for foreign controlled firms is about 26 percent compared to around 12 percent for New Zealand controlled businesses.

Whether or not this is evidence of economic rents is an open question. A high average rate of return on equity may be feasible for highly geared firms and foreign-owned firms may often be more highly geared than domestic firms. Thus, we endeavoured to estimate an after-tax return on total assets. Here we found an average after-tax return on foreign-owned firms of 16 percent and for domestic firms of 10 percent.

Figure A4 After-tax returns on equity



The top 200 businesses are identified as follows. Each year the NZ Management magazine writes to 1000 of New Zealand's top businesses to collect annual reports, which are reviewed in a process overseen by Deloitte.
Return on total equity is calculated by profit after-tax divided by average total equity over the past two years.

Source: NZ Management and Inland Revenue

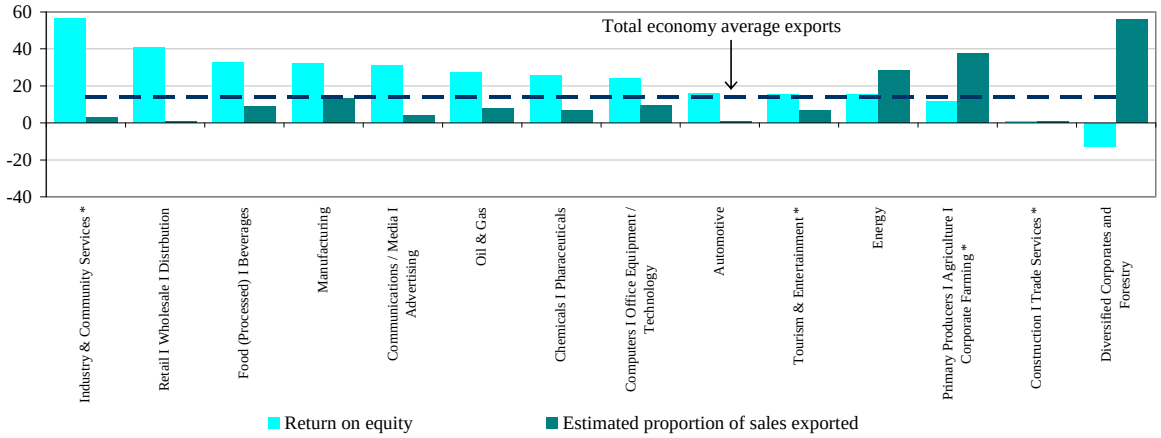
Of course, it is possible that economic rents exist but these are firm-specific rather than location-specific. Rents could exist because firms have established plants in New Zealand from which to sell goods into our region rather than to sell goods to New Zealanders only. It might be expected that if there were important amounts of firm-specific economic rents from New Zealand subsidiaries of foreign parents, these would tend to be associated with high levels of exports.

To test this, we attempted to estimate exports as a percentage of total sales for the foreign-controlled firms included in the top-200 survey. Results are reported in Figure A5.

[19] http://www.management.co.nz/top200/

Figure A5 Foreign-controlled businesses operation in New Zealand

Average return on total equity and estimated proportion of sales exported (by industry, in percent)



Businesses with at least five years of data are included.
The proportion of sales exported is measured by the average zero GST rated sales to total sales for 2007 to 2009.
* The industry average is reported due to data confidentiality. It is measured by exports as a proportion of gross output using 2005/06 input-output data from http://www.motu.org.nz/files/datasets/IO2005-06.xls.

Source: NZ Management, Inland Revenue and Motu Economic and Public Policy Research

An important judgement that the Tax Working Group needs to make when thinking about what the company tax rate should be is "How important are location-specific economic rents likely to be?"

Appendix B

Potential impact of company rate cut on capital stock and labour productivity: a preliminary analysis

An important question is the possible effects of any reduction in the company tax rate on the level of New Zealand's capital stock and labour productivity. Some preliminary analysis of this issue is provided below.

For the purposes of this analysis we focus on firms that are able to access foreign equity capital. For these firms we assume that non-residents are the marginal shareholders. The firms need to generate a sufficient pre-tax rate of return to satisfy their foreign investors. It is for these firms that changes in the company tax rate are likely to have a major effect on investment.

For firms that can only access domestic capital, such as many SMEs, the benefits of a reduction in the company tax rate may in large part be washed away by imputation. Moreover, a tax cut will tend not to only increase after-tax cash flows from an investment, but it will also tend to increase the opportunity cost of investment because the after-tax interest rate rises. Using a standard methodology for estimating the effects of taxes on investment, this is likely on balance to reduce rather than increase incentives to invest. But this depends on assumptions that firms are choosing between acquiring real investment goods or interest-bearing securities. If the alternative investment were owner-occupied housing, a cut in taxes would tend to increase investment for SMEs. Our analysis does not attempt to resolve these issues and leaves the SME sector out of the analysis.

We make use of a model that was provided by Jane Gravelle (2009)[20]. This provides a simple model of the economy assuming constant returns to scale and no economic rents where there is no requirement for intertemporal budget balance. In this case, a reduction in the company tax rate is examined without assuming that any other tax rates change. A reduction in the company tax rate will reduce tax collections although there will be some offsets. The reduction in the company tax rate will flow through into additional capital stock and higher wage rates which will both tend to lead to partially offsetting tax increases.

We benchmark this model against the New Zealand Treasury model which assumes intertemporal budget balance. In the Treasury model, reductions in the company tax rate are balanced by increases in wage taxation to keep the government's budget in intertemporal balance.

[20] Gravelle, J., 2009. "Economic effects of investment subsidies", Paper presented at Victoria University of Wellington conference *New Zealand tax reform – where to next?*, Wellington, 11-13 February 2009, http://www.victoria.ac.nz/sacl/CAGTR/taxpolicy_conference/papers/Gravelle.pdf

In our base case we assume perfect capital mobility so that firms are able to access as much capital as they wish on world capital markets at a fixed rate of return. We estimate the effects of company tax rate changes on the user cost of capital. This is a conventional method for examining how taxes affect investment decisions. The sensitivity of investment to changes in user costs depends on the elasticity of substitution. We choose a rate of 0.6, which means that changes in user costs will have the same effect on New Zealand's capital stock in the Gravelle model that they will in the Treasury model. We assume a debt to capital ratio of 33 percent for firms. We take account of actual depreciation provisions and assume ongoing inflation of 2 percent per annum.

Under these assumptions we find that a cut in the company tax rate decreases user costs by 3.6 percent. (User costs would decrease by 5.7 percent in the fully equity financed case but increase by 1.1 percent in the fully equity financed case). This leads to an increase in capital stock for firms where foreigners are the marginal investors by 2.9 percent and leads to an increase in productivity (assuming a fixed stock of labour) of 1.5 percent.

We assume that this is relevant for 49.4 percent of the economy. This excludes SMEs, CRIs and co-operatives where marginal equity investors are unlikely to be non-residents.

Assuming company tax collections in 2009/10 of $7.85 billion we find that a cut in the company tax rate from 30 percent to 20 percent would lead to a static fiscal costing of $1.93 billion (after taking account of the offsetting increase in shareholder taxation which would follow a decrease in the company tax rate). This would increase the capital stock which would have a direct effect in boosting the tax base by $0.07 billion. Moreover, the boost in labour productivity would increase wages which would lead to a further offsetting increase in tax collections of $0.22 billion. The net effect is that rather than the company rate cut costing $1.93 billion, after behavioural effects are taken into account, the cost falls to $1.63 billion (which is approximately 16 percent less than the static fiscal cost).

This offsetting increase in tax revenue would not presumably be immediate but take place over a period of time as extra capital goods are installed and come into production. Moreover, the modelling here is very preliminary and speculative. However, it does recognise the fact that company rate cuts are likely to be less costly than a static fiscal costing would suggest. This is of course likely to be true of other possible tax cuts including tax cuts to personal marginal rates as well. Likewise any replacement taxes to the extent that they have some distorting effects are likely to be somewhat more costly than a static fiscal costing would suggest.

Appendix C

Imputation and New Zealand's tax framework

New Zealand's previous classical tax system

Imputation was introduced in New Zealand in 1988. Prior to that, New Zealand had a classical or "double-tax" system where company income was taxed once at the company level and a second time at the shareholder level when the net-of-company tax dividend was distributed to shareholders. For a concrete example, suppose that there is a company tax rate of 30 percent and a shareholder tax rate of 20 percent. A company earning $100 of income would pay $30 in company tax leaving $70 of after-tax income. When the $70 was distributed as a dividend, a further $14 in personal tax would have been paid leaving an after-tax dividend of $56. In effect, an individual with a personal tax rate of 20 percent faces a tax rate of 44 percent on income earned through a company if profits are fully distributed.

New Zealand's imputation system

With the introduction of imputation, domestic taxpaying shareholders were provided with imputation credits for company tax. This meant that on distribution there was a single level of tax impost on the company's income at the shareholder's marginal tax rate. Again assume a 30 percent company tax rate and a 20 percent shareholder tax rate and suppose that a company earns $100 of pre-tax income and distributes all after-tax profits as dividends. The company would pay $30 in tax and be able to distribute the remaining $70 as a cash dividend. The shareholder would be taxed on a gross dividend of $100 (viz. the cash dividend of $70 plus an imputation credit of $30 for the tax paid by the company) which would normally have meant a tax liability of $20. But at the same time the shareholder could claim the imputation credit of $30. The net result was that the shareholder is able to reduce tax on other income by $10 and receives an after-tax dividend of $80. This is recorded in Table 1.

Table 1 Effects of imputation system – domestic income

Company level	*Classical system*	*Imputation system*
Company income	100	100
Tax	30	30
Dividend	70	70
Shareholder level		
Dividend	70	70
Imputation credit	0	30
Tax paid	14	-10*
Net dividend	56	80**
Effective tax rate	44	20

* $100 gross dividend * 20% tax = $20 less $30 imputation credit leaves net credit of $10.
** This is a cash dividend of $70 together with a tax saving of $10.

The imputation system was a key part of a set of reforms designed to reduce the extent that the tax system influences business decisions. It was introduced in the context of a clearly expressed intention to broaden the tax base and lower rates to minimise undesirable economic effects of tax. The goal was to ensure that as far as practicable both labour and capital income were taxed at the marginal tax rates of shareholders. The aim was to go as far as possible in the direction of a "fully integrated" tax system whereby a company's income would be split between shareholders and taxed in their hands in the same way as the income of a partnership is split between the partners.

Imputation and alignment of tax rates

An important feature of the full imputation system as it was originally designed was the alignment of the company tax rate with the top personal tax rate. This meant that nobody paid additional tax when imputed dividends were paid to shareholders and some shareholders benefited from tax reductions. This provided incentives for firms to distribute profits and have them taxed in shareholders' hands to the extent that this mattered. This helped in the goal of making the tax system work as much as possible like a fully integrated company tax system. There was a potential concern that full imputation may have led to firms distributing dividends to provide imputation credits to shareholders even when it might be more efficient for them to retain their profits. For this reason "taxable bonus issues" were taxed in exactly the same way as dividends. This allowed a company to retain its profits and declare a taxable bonus issue instead while still allowing imputation credits to be passed out by a company so that shareholders on tax rates below the company rate could get net reductions in their tax liabilities.

Imputation makes most sense with alignment between the company tax rate and the top personal marginal rate. For many years the company tax rate and top personal rate were aligned and this would happen once more under the government's 30:30:30 medium-term goal. In this case there is:

- little distortion in whether to invest through a company or an unincorporated enterprise;
- little distortion in whether to raise debt or equity from residents as in either case any income is taxed once in the hands of the person providing the funds. (There may still be some bias towards debt financing from non-residents although this may be offset by tax differences abroad); and
- little bias to portfolio choice so lower-rate taxpayers including superannuitants are not discouraged from holding shares (although there will be a bias discouraging non-taxpayers from acquiring shares).

While New Zealand's tax rates are no longer aligned, biases to choice of business organisation, debt and equity decisions and portfolio choice are likely to be smaller than they would be under some other possible company tax systems.

Imputation contributes to New Zealand's overall tax framework

It is important to understand how imputation fits into New Zealand's overall tax framework. The basic policy paradigm of the New Zealand tax system is to tax residents on their worldwide income and non-residents on their New Zealand-sourced income.[21] Imputation is one of the fundamental mechanisms to achieve these goals.

Ensuring source taxation

The imputation system helps to secure taxation of New Zealand-sourced income. The imputation system relieves shareholder taxation only to the extent that New Zealand tax has been paid on the underlying income; that is, the dividends are imputed. Unimputed dividends received by shareholders are subject to full taxation. This means that if a company does something which reduces the amount of company tax it pays, the benefits to it of doing so will often be offset by higher taxes on shareholders. This "belt and braces" approach reduces incentives for New Zealand owned firms to stream profits abroad into lower-tax jurisdictions. More generally, it acts as a buttress to company tax by reducing incentives for company tax to be avoided. It may be no coincidence that Australia and New Zealand (two of three OECD countries with imputation systems) collect the second and third highest levels of company tax as a percentage of GDP.

Ensuring residence taxation

Imputation also ensures that the foreign-source income of residents is taxed on distribution. Suppose that a company owned by a shareholder on a 20 percent marginal tax rate can invest abroad in an active business in a country with a 20 percent tax rate and earn $125 of pre-tax income or $100 net of foreign tax. Under New Zealand's active income exemption there will be no New Zealand company tax paid on this income even if the $100 of foreign-source income is paid as a dividend to the New Zealand company. However, if this income were paid as a dividend by the New Zealand company to its shareholder, the dividend would be unimputed and there would be shareholder tax of $20 leaving an after-tax dividend of $80. This is illustrated in Table 2 below.

It is worth noting that if income is fully distributed, the shareholder ends up in the same position in this case as was true when $100 of domestic income was earned in Table 1 earlier. This will mean that New Zealand shareholders will be indifferent between the company earning $100 of domestic income or $125 of foreign-source income in this example. This has led some to express concerns that this may lead to home bias and investment decisions which are not as efficient as possible from a worldwide perspective. Worldwide income would be higher if $125 of foreign income were earned than if $100 of domestic income were earned.

[21] Recent reforms such as the active income exemption applying to controlled foreign companies and the Australian listed company exemption from the fair dividend rules relax this paradigm.

Table 2 Effects of imputation – foreign income

Foreign Company level	
Foreign company income	125
Foreign Tax	25
Dividend	100
New Zealand company level	
Dividend received	100
New Zealand company tax	0
Unimputed dividend	100
Shareholder level	
Unimputed dividend	100
Tax paid	20
Net dividend	80

But it is an open question as to whether or not New Zealand should be very concerned about what is efficient from a worldwide perspective. The only direct benefit that New Zealand obtains from the foreign investment is the income net of any foreign tax (i.e., the $100). This is because foreign tax is just a cost from New Zealand's perspective as it cannot be used to purchase items which are of benefit to either the New Zealand government (i.e., it cannot be used to purchase New Zealand schools or hospitals) or the New Zealand shareholder. From a national perspective, New Zealand is as well served by an investment at home which generates $100 of income or an investment abroad which earns $100 net of foreign tax. Thus, the tax treatment of foreign earnings under our imputation system ends up promoting investment which is efficient from a domestic perspective. Investments which provide the same benefit to New Zealand as a whole provide the same after-tax benefits to shareholders.

There are a number of qualifications that can be made to the simple story outlined above. Often firms will not fully distribute all profits so there will be possible tax-deferral benefits that have not been taken into account.[22] But it is nonetheless likely that the fact that New Zealand taxes unimputed dividends while providing imputation credits for domestic taxes will cause firms to invest in ways which are better from a New Zealand perspective than would be the case if these dividends were not taxed.

[22] Also there is the so-called "seesaw effect". If additional outbound investment creates scope for additional taxed inbound investment, this can provide a benefit from outbound investment. The see-saw relationship is complex and has been disregarded for the sake of simplicity.

Appendix D
Alternative company tax systems

	Current Imputation System	Current with Rate Alignment	Dual Income Tax	Classical	Sorensen-Johnson Proposal
Objectives	Broad-base, low-rate tax intended to be as non-distortionary as possible. No attempt to target elasticities.	Broad-base, low-rate tax intended to be as non-distortionary as possible. No attempt to target elasticities.	Tax capital income at a lower rate than labour income in order to attract capital imports and reduce deadweight losses.	Reduce taxes on non-residents in order to attract capital imports, maintain higher tax rates on residents.	Promote efficiency by reduced source based tax on the normal return to capital while not reducing tax on economic rents. For residents, have a dual income tax system.
General Description	Company tax on broad definition of income at 30%. Interest is deductible to payer / taxable to recipient. Imputation system applies to dividends. Individuals taxed at progressive rates up to 38%.	Same as current but maximum personal tax rate of 30%. (Alignment at lower rates also possible but focus on 30:30:30).	Taxation of capital income at a lower rate than labour income (applies whether capital income is earned directly or through a company). Assumed capital tax rate for NZ is 27%, personal rates on labour income remain the same. Company income is taxed at the capital income rate. Dividends are tax-free to the shareholder to the extent they do not exceed the risk-free return on the shares. To the extent they exceed that, they are subject to tax at the capital rate. Capital gains on the sale of shares also taxed with an exemption to the extent the sum of gain plus dividends does not exceed the risk-free return.	Company tax is a low rate (e.g., 12.5% in Ireland). Active company rate assumed 20% for NZ, 30% for passive company income. Individual income taxed at a high rate. Dividends paid are subject to tax in the hands of the shareholders. Capital gains tax applies to the sale of shares. Some company retention taxes necessary to prevent sheltering through companies.	Companies allowed a deduction for the normal return on their equity (a market interest rate). Income in excess of the normal return is taxable (at the current 30% company tax rate). Resident individuals taxed on dividends received, and also taxed on accrued capital gains on shares in listed companies. Unlisted companies are subject to an excess retention tax to the extent they do not distribute dividends. Individuals subject to dual income tax with tax on labour income at progressive rates, and tax on capital income at a low flat rate (20% proposed for Australia).
Efficiency (1): Incentives for domestic savings.	**Moderate:** income from savings taxed at the individual rate (up to 38%) but savings invested in a PIE (30%) or a trust (33%) subject to a lower tax rate.	**Better:** income from savings taxed at a maximum rate of 30%.	**High** for investment by higher income earners in foreign shares and bonds. Income from these assets taxed at a lower flat rate. But lower income earners may face a higher flat rate on capital. **Lower** for investment in domestic widely held companies due to lower pre-tax returns. Company income may be partially double taxed if dividends or capital appreciation exceeds the risk-free rate.	**Low:** income from domestic savings taxed at high personal rates	**High** for investment by higher income earners in foreign shares and bonds. Income from these assets taxed at a lower flat rate. But lower income earners may face a higher flat rate on capital. **Lower** for investment in domestic widely held companies due to lower pre-tax returns. Company income may be partially double taxed if it earns more than the normal return.
Efficiency (2): Incentives for attracting non-resident investment and boosting labour productivity through capital deepening.	**Moderate:** equity investments of non-residents taxed at 30% on a comprehensive income tax base.	**Moderate:** equity investments of non-residents taxed at 30% on a comprehensive income tax base.	**Higher:** equity investments of non-residents taxed at capital income rate.	**High:** equity investments of non-residents taxed at low company tax rate.	**High** in theory as no taxation of new marginal investments.
Efficiency (3): Economic rents.	**Moderate:** continue to be taxed at 30%.	**Moderate:** continue to be taxed at 30%.	**Lower:** taxed at lower capital income tax rate.	**Low:** taxed at low company tax rate	**Moderate:** continue to tax at 30%.
Efficiency (4): Incentives for encouraging labour supply.	**Moderate:** Personal marginal tax rates up to 38% but low threshold for top marginal rate means many skilled workers pay this rate. Marginal rates a particular issue for individuals subject to benefit phase-out (e.g., 58%) which could deter labour force participation.	**Better:** personal tax rates up to 30%, still an issue for individuals subject to benefit phase-out (e.g., 50%).	**Moderate** if we assume current personal rates continue but **low** if high tax rates on labour income applied in order to reduce capital tax rate further.	**Moderate** if we assume current personal rates, but **low** if high tax rates on labour income applied in order to reduce company tax rate further.	**Moderate** if we assume current personal rates, but **low** if high tax rates on labour income applied in order to make up revenue from reduced company tax revenue
Neutral in incentives to invest in different entities / forms?	**No:** significant differences in tax depending on whether investments are made directly or through companies, trusts, PIEs or limited partnerships.	**Yes**	**Yes**	**No:** complex anti-deferral rules increase tax on performing personal services through a company compared to directly.	**Mixed:** for those on the top marginal tax rate, this proposal was aimed at creating similar taxation of investment through companies or unincorporated enterprises for returns above the normal return. Returns below the normal rate would be taxed as capital income. For those on lower marginal tax rates, bias against investment through companies.
Neutral in incentives to finance by debt or equity?	**No:** investment by equity provides potential deferral of higher personal tax rate.	**Yes** for investment by domestic investors, but foreign investors may prefer finance by debt.	**Yes:** as with dividends, interest paid by a company is taxed once to the extent it does not exceed the risk-free return, taxed twice in the hands of the recipient to the extent it exceeds the risk-free return.	**No:** complex rules leading to potential double-taxation of company income may apply.	**Moderate:** generally the low capital tax rate applies to dividends and interest but in some cases dividends may be double taxed while interest would not.
Simplicity	**Moderate:** sector specific rules, range of entities (sole traders, companies, trusts, PIEs etc), debt/equity and capital/revenue boundaries create complexity. Single concept of income.	**High:** alignment promotes equality between entities although some difficulties remain.	**Moderate** in most aspects fairly simple and coherent, although complexity in separating returns from labour with returns from investments, particularly for owner managed businesses.	**Low:** complex rules regarding characterising types of income earned by companies, different rates on different income sources, and different company surtaxes add complexity.	**Low:** complex rules defining equity, splitting it into new and old components, deducting a normal return, accrued capital gains tax, and measures to prevent tax being sheltered by private companies and restrictions on deductions relating to exempt investments would be necessary.
Coherence: does the system meet its objectives?	**Moderate:** Motivation for system is that deadweight costs and elasticities cannot be well measured, so a BBLR approach should be adopted. But has significant deviations from BBLR.	**High:** reduces deviations from BBLR approach	**High:** consistent way of taxing capital income at lower rate than labour income.	**High**, in obtaining objective of reducing tax on non-resident investment while maintaining high tax rates on residents, but system for taxing residents is complex and arbitrary in Ireland.	**High** in terms of reducing source taxation on normal return, but **moderate** in terms of lowering tax on capital for residents.