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This paper contains advice that has been prepared by the Tax Working Group Secretariat for consideration by the Tax Working Group.

The advice represents the preliminary views of the Secretariat and does not necessarily represent the views of the Group or the Government.

Coversheet: **Company tax rate issues – further information**

Discussion Paper for Session 8 of the Tax Working Group

May 2018

Purpose of discussion

This paper expands on the Secretariat's paper provided to support the Group's previous discussion on the company tax rate. The paper briefly outlines the theory of company taxation in a small open economy. It sets out the Australian Treasury's modelling of company tax reductions, which was noted in the previous paper, in some detail. It also provides results of the Secretariat's preliminary modelling of company tax rate reductions for New Zealand, and reports similar results to the Australian Treasury's results. As requested by the Group, the paper recaps the company tax changes and forecasts that were made in Budget 2007 and Budget 2010, and provides some material on the nature of foreign investment in New Zealand. Finally, an appendix provides material on what previous tax reviews said about the company tax rate.

Key points for discussion

- How, if at all, does the additional analysis provided in this paper change the Group's thinking about the company tax rate?

Recommended actions

We recommend that you:

- a **note** that the Secretariat's initial modelling of reductions in the company tax rates suggests only modest potential net benefits, a similar finding to the Australian Treasury's modelling analysis
- b **note** that the Secretariat intends to have the modelling analysis externally reviewed.

Company tax rate issues – further information

*Discussion Paper for Session 8
of the Tax Working Group*

May 2018

Prepared by Inland Revenue and the Treasury

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Executive summary

This paper builds on an earlier paper: *Appendix: Company tax rate issues*. That paper formed part of the Business Tax paper, and this update provides more information as requested by the Group.

This paper describes the theory of company taxation in a small open economy. It notes that for New Zealand there may be important deviations from the most simple theories that need to be considered, such as the effects of a company tax cut when there are location-specific rents, and the fact that international capital may not be perfectly mobile.

Australian modelling that takes into account some level of economic rents shows small gains in welfare in the steady-state after a transition period from a 5 percentage point reduction in the company tax rate.

We describe the preliminary results of Inland Revenue's model of a 5 percentage point cut in New Zealand's company tax. This model assumes less than perfectly mobile capital, but does not attempt to model location-specific economic rents.

The cost of a company tax cut from 28% to 23% reduces tax revenue by \$1.425 billion per annum. Economic indicators in the model change in the following way, both before and after a replacement labour tax to make the reform revenue-neutral:

Measure	Before replacement taxes (capital import elasticity of 5)	After replacement taxes (capital import elasticity of 5)	After replacement taxes (infinite capital import elasticity)
Capital stock	+1.36%	+1.21%	+1.47%
Capital/labour ratio	+1.04%	+1.07%	+1.27%
Wages	+0.78%	+0.34%	+0.49%
Labour supply	+0.31%	+0.14%	+0.2%
GDP	+0.74%	+0.57%	+0.72%
Net national income	+0.25%	+0.11%	+0.22%

When a labour tax replaces the lost revenue, net national income increases by 0.11% in the central case.

Budget 2007

We also set out company tax revenues as forecast and as actually collected after previous company tax changes. In Budget 2007 the company tax rate was cut from 33% to 30%.

Company tax (\$m)	2006/07	2007/08	2008/09	2009/10
Forecast at Budget 2007	9,120	9,166	8,411	8,860
Actual	9,003	8,699	5,906	7,462
Difference (actual – forecast)	-117	-467	-2,505	-1,398

In Budget 2010 the following changes were made to company taxation:

- Rate lowered from 30% to 28%
- Building depreciation was removed
- Depreciation loading was removed
- The thin capitalisation threshold was changed from 75% to 60%

This was forecast to **increase** the tax paid by companies overall. The forecast changes resulted in the following assumptions for corporate tax, with the actual results directly below:

Company tax (\$m)	2010/11	2011/12	2012/13	2013/14
Forecast at Budget 2010	6,943	8,474	9,062	9,416
Actual	7,718	8,580	9,319	10,203
Difference (actual – forecast)	775	106	257	787

We have been unable to find any data on the split in foreign investment between greenfield investments and foreign acquisition, but we present some empirical findings on the performance of acquired firms, and make the point that foreign acquisition can fund further domestic investment by vendors.

Finally, an appendix provides material on what previous tax reviews said about the company tax rate.

1. Introduction

1.1 Purpose

1. This paper sets out issues relating to the company tax rate in an international context, building on an earlier paper: *Appendix: Company tax rate issues*. That paper formed part of the Business Tax paper, and this update provides more information as requested by the Group.

1.2 Content and scope

2. This paper covers the question of the company tax rate, primarily from the perspective of the level of capital invested in New Zealand, taking into account the effect of the company tax rate on foreign investors. Foreign investors are an important source of investment in New Zealand.

3. The paper:

- discusses the theory of company taxation in a small open economy;
- sets out the Australian company tax modelling in more detail;
- provides results of our own modelling and compares them to the Australian modelling;
- recaps the changes and forecasts that were made in Budget 2007 and Budget 2010 as requested by the Group;
- provides some material on foreign investment (particularly foreign acquisition of domestic firms) as requested by the Group; and
- provides an appendix with material on what previous tax reviews said about the company tax rate.

2. The Company Tax Rate

2.1 Company tax in a small open economy

4. Under certain strong assumptions, it will be optimal for a small open economy to levy no taxes on capital invested in the economy. The incidence of taxes on capital invested in the economy will be passed on to labour, but this will create higher deadweight losses than if labour were taxed directly. By itself, this would provide a reason for lowering the company tax rate to zero.
5. There are a number of counter arguments to this proposition. Two important ones are that capital might be less than perfectly mobile, and that there might be location-specific economic rents (i.e., above normal returns associated with firms locating in New Zealand, perhaps due to accessing resources or supplying goods and services to the domestic market). These returns can be taxed without discouraging investment into New Zealand. This is because a portion of the rent would still accrue to the investor, ensuring that the investment would still be viable despite taxation.
6. Economic rents are an efficient source of taxation, but are especially valuable when they are earned by non-residents. Because New Zealand gains (through greater tax revenue) but does not bear any of the costs, tax is collected without New Zealanders bearing the economic cost. When the economic rents of New Zealanders are taxed, tax is collected but this is at a cost to New Zealanders.
7. As outlined in the earlier paper on company tax, a reduction in the New Zealand company tax rate would negatively impact on the integrity of the overall tax system, as people would likely shelter their income in companies to avoid the top personal rates.

Savings and investment

8. 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.
9. 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 5% return on their capital because they are able to earn this return from investing in other countries and will not accept a lower return from investing in New Zealand.
10. 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 5% to satisfy foreign shareholders. If 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 28% company

tax and assuming all investment is financed by equity¹, the pre-tax rate of return will be 6.94%, providing 5% after tax ($5\% = 6.94\% * (1-0.28)$).

11. By dropping the company tax rate, we reduce the pre-tax rate of return required by foreign investors and receive more investment. Importantly, this is the channel by which a lower company tax rate induces more investment. Because foreign investors are assumed to be the marginal investor, and because imputation is assumed to claw back the benefits from a lower corporate rate for domestic investors, this modelling assumes that there is no greater investment from domestic firms.
12. This assumption is unrealistic on two counts. The first is that there are likely to be investment opportunities in some sectors where foreign investors do not play a significant role and where domestic investors are likely to be the marginal investors. The second is that for firms that reinvest earnings rather than pay them out as dividends, there is a deferral benefit from the lower company rate that will act to lower the cost of capital for them. On this second point, one really has to decide whether this is a cost or a benefit. It is a benefit in the sense that it leads to more investment, but it has costs because it is only available if dividends are not paid out, and this narrowing of opportunities will be distorting if there are other investments available outside of the company (e.g. in another company or area of the economy). It is also a cost in terms of social capital, as we are taxing one form of income (active business income) at a lower rate than labour or other income, which may create horizontal and vertical equity concerns.
13. Due to these issues and the difficulty of modelling something for which we have no estimated parameters, our modelling (and the Australian modelling) assumes all additional investment is from foreign investors.

2.2 The Australian Treasury's modelling

14. The Australian Treasury² uses a general equilibrium modelling approach. This allows for interactions between different taxes and models second-round effects of tax changes. The model uses a single representative household, and ignores the dynamic path to the new equilibrium. That means that transitional costs are ignored. The Australian paper suggests that this is mitigated by adopting conservative assumptions which likely overstate the required return to foreign investors.
15. Other modelling exercises that include the transitional adjustment assume that it can take a significant amount of time. The Australian Treasury cites a study suggesting that roughly half of the adjustment is completed in 10 years, with the full adjustment largely completed in 20 years.
16. The rest of this section summarises the Australian model and its results.

¹ This assumption is relaxed in the model.

² Treasury Working Paper 2016-02, "[Analysis of the Long Term Effects of a Company Tax Cut](#)".

2.3 Overview of the Australian model

The results

17. The overall result in the modelling is a measure of household welfare. It is the “equivalent variation”, which is the cash payment that the household would be indifferent to receiving when compared against the tax change. Therefore, a welfare improvement of 0.1% in the results means that if a household’s after-tax earnings were \$50 000 per year, it would be indifferent between receiving after-tax income of \$50 (0.1% of \$50 000) or having the tax change.
18. When the 5 percentage point company tax cut is made revenue-neutral by a personal income tax increase, the results are as follows:
 - Gross domestic product increases by 1%,
 - Gross national income increases by 0.6%,
 - Real wages after tax increase by 0.4%,
 - Welfare increases by 0.1%.
19. Gross domestic product (GDP) is a measure of total production in the economy. The increase in gross national income is lower than GDP, because gross national income does not include profits or income accruing to foreigners. The additional investment is largely financed by additional foreign savings which results in additional payments to foreigners. The welfare increase is lower than gross national income. In part this is because a higher capital stock requires ongoing higher levels of replacement investment. Thus, part of the additional GDP will be this higher stream of replacement investment. Also part of the increase in gross national income is due to workers working more hours, which is a cost.
20. The Australian paper tests the sensitivity of its results by changing assumptions. It generally finds that cutting the company tax rate continues to increase welfare but by very small amounts. The Australian modelling does not take account of the potential impact on social capital of having a greater gap between its company tax rate and higher rates of personal income tax and the additional sheltering opportunities this would create.

Model details

21. The Australian model has four economic decision makers:
 - A representative household,
 - Firms,
 - Government,
 - The foreign sector.

Households

22. The representative household is calibrated to be an “average” household. As a consequence the progressive personal income tax structure is ignored, and an “average” flat rate is applied to the household.
23. The household sells its labour services to firms and owns all domestically-owned capital. The household is subject to taxation on labour and capital income, and consumption. The household is assumed to have a fixed savings rate.

Firms

24. The model has 111 different sectors, which produce different goods or services. The firms maximise profits. Firms can employ 12 different primary factors:
 - Labour,
 - Eight types of produced capital,
 - Three fixed factors: land, firm-specific factors, and location-specific factors.
25. The firm sector is modelled as a single representative firm for each 111 different sectors.
26. Economic rents are captured by having “fixed factors” that do not vary due to the tax cut. This means that tax lost on these factors does not induce any further investment in the factors. The important point to note is that the Australian model does attempt to incorporate economic rents, and foreigners are assumed to own 16% of the fixed factors, which in turn contribute 7% of gross domestic product.

Government

27. Government collects all taxes and uses revenue for its consumption of goods and services. The government is assumed to have no debt and maintain a zero primary budget balance (i.e., it funds expenditure out of current taxation).
28. The modelling looks at three scenarios, with a company tax cut financed by:
 - A lump-sum tax,
 - An increase in the average personal income tax rate,
 - A cut in real government spending on goods and services.
29. Because government spending in the model is assumed to not affect the welfare of households, the scenario where government spending is cut is less useful because it is assumed the government spending that is cut is worthless. As such the economic gains are overstated in that scenario to the extent that government spending is of any value. A lump-sum tax is also unrealistic as it assumes that the reduction in company tax is funded by a completely non-distorting replacement tax. In practice, just about any tax is likely to be distorting to some extent. A possible exception is

where tax changes remove loopholes and in doing so make the tax system more neutral and consistent. In this note we focus on the second scenario where a cut in the corporate rate is made up with an increase in the average personal income tax rate.

Foreign sector

30. Australia is assumed to be a small open economy. This means that Australia can access funds for investment, provided that the after-tax rate of return on capital equals the global rate of return. This is the channel by which a cut in the company rate leads to more investment. Because the “hurdle rate” or required pre-tax rate of return on capital falls, there are more investment opportunities in Australia that are worth undertaking, and firms identify and invest in those areas. Part of this may be additional investment by foreign-owned firms. Another part may be additional investment by domestic owned firms which are partly owned by foreign shareholders. Either way, it is assumed that any gap between investment and domestic savings is met by drawing on the savings of foreigners and to do so firms need to offer the returns that foreign investors demand.
31. The cost of capital takes into account the tax treatment of debt and equity, and assumes debt-to-equity ratios (based on statistical averages) for each of the 111 different sectors.

2.4 Preliminary modelling for New Zealand

32. In contrast with the Australian paper, we have conducted a much simpler modelling exercise, but the results are of the same order of magnitude. The Secretariat’s model does not factor in location-specific economic rents earned by foreigners.
33. Our model is the product of preliminary internal work and has not been reviewed externally due to time constraints. The Australian model applies to a different economy, but has been much more rigorously tested. Both (NZ and Australian) modelling exercises lead to positive but quite small increases in national income. The Australian modelling shows that increases in welfare are likely to be very small and much smaller than the growth in national income.
34. The Secretariat understands these results may be of significant public interest. We therefore propose that the model be externally reviewed.
35. In modelling a company tax, there are a variety of assumptions that need to be made. The major ones we make for our modelling exercise are:
 - the cost of capital for international investors;
 - the debt/equity ratio used by international investors, and consequently, the effective tax rate on foreign investment;
 - how responsive foreign capital is to changes in the cost of capital; and

- the rate of depreciation on capital.

36. The assumptions required for a full judgment also include:

- the level of location-specific economic rents earned by foreigners; and
- the transition – how long it takes for the “static” results modelled to be in full effect.

37. We do not model those assumptions, but discuss them later. We model a drop in the company tax rate from 28% to 23%. We assume an elasticity of capital of 5 in our central case, which means that if the rate of return in New Zealand increased by 1%, (e.g. from 5% to 5.05%) then the foreign capital stock would increase by 5%. We also present findings for perfect capital elasticity as an upper bound.

38. The reduction in company tax from a 5% drop in the company tax rate is approximately \$2.4 billion per annum. If we exclude the effect on Crown-owned companies (because the Crown receives higher post-tax profits as well as lower tax), and assume that profits are paid out and shareholders of New Zealand companies pay higher tax at the shareholder level, the total fiscal cost to the Crown falls to \$1.425 billion per annum.

39. The results are as follows:

Measure	Before replacement taxes (capital elasticity of 5)	After replacement taxes (capital elasticity of 5)	After replacement taxes (infinite capital elasticity)
Capital stock	+1.36%	+1.21%	+1.47%
Capital/labour ratio	+1.04%	+1.07%	+1.27%
Wages	+0.78%	+0.34%	+0.49%
Labour supply	+0.31%	+0.14%	+0.2%
GDP	+0.74%	+0.57%	+0.72%
Net national income	+0.25%	+0.11%	+0.22%

40. The capital stock increases and capital/labour ratio increases as foreign investors invest more capital in the economy given the lower pre-tax rate of return requirement. Wages increase as workers become more productive by using more capital.

41. Because wages increase, workers increase their supply of labour now that the returns to labour have increased.

42. GDP increases given the greater capital and labour being used in the economy.

43. In our simple model, the ultimate measure is net national income. Net national income accounts for the fact that some of the higher GDP pays foreign investors and

depreciation on capital. It is ultimately a measure of the total income of New Zealanders. The Australian welfare measure is superior in that it isolates the pure welfare gain, whereas net national income also factors in greater income from working more, which is a cost.

44. Replacement taxes are modelled as an increase in taxes on labour. Relative to the case where there are no replacement taxes, this reduces the increase in the capital stock and the increase in the labour supply, because the new tax reduces the after-tax wage. The capital stock and labour supply still increase relative to the status quo (i.e. no cut in the company tax rate).
45. Despite the fact that our model is a lot simpler than the Australian model, the results it produces are similar in magnitude: this gives us some comfort that we are not missing a big part of the story. Two factors that are not factored into our modelling are the presence of location-specific economic rents, and the transition path. If location-specific economic rents are material, then New Zealand may be worse off with a company tax cut due to the loss in tax revenue from economic rents where the tax is currently being borne by foreign investors. During the transition path there are likely to be differing profiles through time of costs and benefits, depending on many factors, including how quickly foreign investors increase their investment. If investment is delayed, the delay in higher wages will tend to reduce benefits while the immediate loss of tax revenue will increase costs. If investors bring forward investment in anticipation of a lower company rate cut this effect will be moderated.
46. There could be other, non-modelled benefits from attracting foreign direct investment (FDI), including multi-factor productivity spillovers from greater competition. Without being able to quantify these we have not modelled them, but note that we would expect the greater investment to be the primary channel affecting New Zealanders' living standards.
47. Finally, we emphasise that the replacement taxes are modelled as taxes on labour. If the Group is considering other revenue-raising policies (including the extension of the taxation of capital income), there would be a case to consider offsetting income tax reductions (including on companies) in a coherent manner.

2.5 Previous company tax changes

48. The Group asked for information on what was forecast when the rate was cut previously, and how that compared with actual company tax receipts.

Budget 2007

49. In Budget 2007 the company tax rate was cut from 33% to 30%. This was forecast to reduce company tax revenue in the following manner:

Company tax (\$m)	2006/07	2007/08	2008/09	2009/10
Company tax rate cut of 30%		-60	-675	-695

50. The aggregate forecast of company tax at Budget 2007 and the actual company tax revenue were:

Company tax (\$m)	2006/07	2007/08	2008/09	2009/10
Forecast at Budget 2007	9,120	9,166	8,411	8,860
Actual	9,003	8,699	5,906	7,462
Difference (actual – forecast)	-117	-467	-2,505	-1,398

51. The Cabinet paper seeking agreement to the reduction said:

We recommend reducing the company tax rate from 33% to 30%, with effect from the 2009 income year. (For companies with a 31 March balance date, the new rate will apply from 1 April 2008.) This will allow successful businesses to keep a greater share of their profits.

The New Zealand economy operates in an inter-connected world where profits, investment and businesses are increasingly mobile. When the New Zealand company tax rate was last amended, in 1989, it was low by world standards. Company tax rates worldwide have in the meantime reduced, with the risk that New Zealand will become an unattractive outlier. This is a particular concern in the context of Australia, given the increasing integration of the trans-Tasman capital market.

Reducing the company tax rate would boost the competitiveness of New Zealand-based companies and encourage more inbound investment by firms that have decided to locate in New Zealand. A lower company tax rate would also reduce incentives for firms to stream profits away from New Zealand.

A lower company tax rate would tend to increase New Zealand's stock of plant, equipment and buildings, which would, in turn, boost labour productivity and wage rates.

In addition, since it is not possible to measure and tax economic income perfectly, income taxes will inevitably distort investment decisions and impede corporate capital from flowing to its most productive uses. Reducing the company tax rate would boost capital productivity by reducing these distortions.

52. A background note on some modelling that informed the decision forecast a one-off increase of 0.8% in GDP but also said:

There are reasons why this point estimate could either overstate or understate the eventual effect on GDP. On the one hand, it ignores second round effects. The increase in capital per unit labour has been calculated taking account of the change in the wage rental ratio brought about by the change in the company tax rate but not from any consequential increase in the

wage rate. If the wage rate rises by the growth in private sector labour productivity of 1.2 percent, the wage rental ratio will increase by approximately 6 percent rather than the 4.8 percent assumed with a consequentially somewhat larger increase in capital stock and output.

On the other hand, there are a number of grounds for believing that this overstates the benefits of such a change. First, it is important to note that this is a 0.8 percent increase in GDP. In the absence of any increase in domestic savings to fund this increase in capital stock, the additional capital will be financed from abroad. Much of any increase in GDP is likely to accrue to foreigners as a return on their capital. Increases in GDP and in labour productivity can be misleading as an indicator of increases in New Zealand's welfare because payments to foreigners are being ignored.

53. Because of the timing of the change (just prior to the beginning of the global financial crisis), actual revenue was sharply lower than forecast revenue. Whether GDP increased by 0.8% because of the tax cut is impossible to determine after the fact, because we cannot measure the alternative: New Zealand's GDP during the global financial crisis if the company tax rate was not cut.

Budget 2010 changes

54. In Budget 2010 the following changes were made to company taxation:

- rate lowered from 30% to 28%;
- building depreciation was removed;
- depreciation loading was removed; and
- the thin capitalisation threshold was changed from 75% to 60%.

55. This was forecast to **increase** the tax paid by companies overall, with the following estimates relative to the status quo:

Company tax (\$m)	2010/11	2011/12	2012/13	2013/14
Company tax cut to 28%	-20	-340	-450	-305
Building depreciation (removal)		685	685	690
Depreciation loading (removal)	135	245	310	345
Thin capitalisation (60%)		200	200	200
Static impact (relative to status quo)	115	790	745	930

56. The forecast changes resulted in the following assumptions for corporate tax, with the actual results directly below:

Company tax (\$m)	2010/11	2011/12	2012/13	2013/14
Forecast at Budget 2010	6,943	8,474	9,062	9,416
Actual	7,718	8,580	9,319	10,203
Difference (actual – forecast)	775	106	257	787

57. The important point is that while company tax revenue increased, this was expected because the aggregate result was not a decrease in company taxation, but an increase when the base changes were factored in. No exercise was undertaken to estimate the overall increase in company taxation on economic performance. Forecasts were made about aggregate taxation changes (reduction on taxes on personal income), but no growth assumptions (positive or negative) were made for the increase in company tax.

3. Foreign Investment

3.1 What sort of investment?

58. Some members of the Group enquired about what sort of investment in New Zealand is funded by foreign investment, and whether it was “greenfields” investment or the acquisition of existing New Zealand companies.

59. It is important to note that foreign acquisition of existing New Zealand companies can, in turn, fund greenfield investments by the New Zealand vendor of the business. There are high-profile examples of this in New Zealand³.

60. We have been unable to find any data on the split between greenfields investment and foreign acquisition. Over the last decade, around 15% of investment in fixed assets in New Zealand has been financed from foreign investment⁴.

61. For firms acquired by foreign investors, Fabling and Sanderson (2011)⁵ looked at firm performance prior and subsequent to foreign acquisition:

We find that acquired New Zealand firms tend to be larger, pay higher wages, and have higher capital intensity and labour productivity than other domestic firms. Although recently acquired firms appear to increase both average wages and gross output compared with firms which remain in domestic ownership, there is no evidence to suggest that acquisition improves either labour or multi-factor productivity performance.

62. They also find that foreign investors tend to buy the highest-performing firms:

In keeping with the international literature, foreign-owned firms in New Zealand outperform domestic firms on almost all firm outcomes. They are larger (in terms of both output and employment), more capital intensive, pay higher average wages, and have higher labour productivity. However, [figure] suggests that at least part of this difference is due to positive selection of FDI targets. Dividing the population of domestically-owned firms according to their future ownership status – whether or not they will be acquired by a foreign owner in the following year – suggests that pre-acquisition firm characteristics more closely mirror the patterns for foreign-owned firms shown in [figure] than those of other non-acquired domestic firms. That is, foreign owners seem to “cherry pick” high performing firms.

³ http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10854152 [Rod Drury]

⁴ Gross Fixed Capital Formation has averaged about 22% of GDP over the last decade. This must be financed from national and foreign saving. The current account deficit, which equals the amount of net capital inflows from abroad, has averaged around 3.5% of GDP over the last decade. We can therefore conclude that, on a net basis, foreign investment has financed about 15% of domestic investment ($3.5/22 = 15.9\%$).

⁵ Fabling, Richard and Sanderson, Lynda, (2011), Foreign acquisition and the performance of New Zealand firms, No DP2011/08, *Reserve Bank of New Zealand Discussion Paper Series*, Reserve Bank of New Zealand

4. Conclusion

63. Consistent with the advice previously provided to the Group, the analysis provided in this paper indicates that reductions in New Zealand's company tax rate are unlikely to lead to large welfare gains, particularly when issues such as the coherence and integrity of the tax system (which are not incorporated into the modelling analysis) are considered.
64. This is not an instance where it is clearly in our interests one way or another. It is still important that New Zealand monitor global trends. Finally, there may be other ways of reducing the effective tax rates faced by businesses that are in New Zealand's interests, including ensuring depreciation deductions are appropriately set.

Appendix 1: Previous reviews

The 2001 McLeod Review looked at a lower company tax rate for non-residents of between 15% and 20%. No explicit modelling of the economic effects was undertaken in the review. It concluded:

Our final policy framework

8.22 We regard increased levels of FDI as essential if a real attempt is to be made to significantly increase GDP per capita. Reducing New Zealand's tax burden on non-resident investment would result in additional investment by non-residents, though the magnitude is uncertain.

8.23 Appropriate additional FDI in New Zealand can provide jobs for New Zealanders, raise New Zealanders' work skills, transfer technology to New Zealand, provide access for New Zealand-made products to the non-resident's international marketing network and provide opportunities for New Zealand entrepreneurs. Perhaps the most important benefit to New Zealand of an increase in quality FDI is the raising of the New Zealand population's entrepreneurial, managerial and scientific skills (that is, human capital).

8.24 The key question is whether, in the aggregate, such a policy of reducing taxes on nonresidents would produce a net national benefit. This depends critically on the extent of any proposed reduction, to whom it should apply, and the mechanism by which it should be delivered.

8.25 Important factors in forming policy are the three factors raised in our Issues Paper: economic rents, foreign tax credits, and the economic consequences of a tax differential between residents and non-residents. In Annex E, we have provided a more detailed analysis of these factors, and we summarise our views here.

8.26 It is not possible to restrict tax on non-residents to precisely the level of foreign tax credits allowed, because:

- a general rule to that effect would be problematic under other countries' rules and
- would result in widely disparate rates of New Zealand tax;
- foreign tax credit rules vary considerably across countries and according to the particular position of individual investors; and
- any principle of taxing to the extent of foreign tax credits is muddled further by the tax laws of all key countries from which New Zealand sources foreign investment. These countries generally have rules exempting their residents' New Zealand income or deferring tax until repatriation.

All that can be done is to set an overall tax rate, having some regard to likely availability of credits to some non-resident investors.

8.27 Furthermore, non-resident investors who earn economic rents and are not sensitive to New Zealand tax are not readily identifiable – all we know is that, to some extent, some non-residents are prepared to bear the burden of New Zealand tax:

- as a general rule, portfolio investment is likely to be more sensitive to New Zealand tax than FDI;
- much existing FDI is a 'sunk cost' and thus is, in general, unable to be quickly withdrawn. It is therefore less sensitive to New Zealand taxes. New Zealand raises significant amounts of revenue in respect of FDI;
- FDI directed towards exploiting New Zealand markets or New Zealand's natural resources is expected to be less sensitive to New Zealand taxes;
- New FDI primarily directed towards manufacturing/research and development in relation to export market exploitation is likely to be more sensitive to New Zealand tax; and empirical

evidence is that, over time, FDI has generally become more sensitive to host-country tax burden. We believe that it is likely that the tax sensitivity of FDI will increase further over time.

[...]

8.34 The question is whether we can conclude that Policy Option One [18 percent company tax rate to the extent that a New Zealand company is owned by non-residents] increases net national welfare. This is a question of judgement on which, within our time constraints, we have not reached unanimous agreement or conclusion. It depends on personal judgements on a number of factors, which cannot be quantified with mathematical precision:

- the degree of sensitivity of new non-resident investment to New Zealand income tax and, in addition, the extent to which New Zealand can be regarded as being in competition with other countries whose use of low tax rates/tax incentives and grants are ‘pervasive’. For example, much of Asia offers an even lower tax environment for non-residents than our proposal. New investment resulting from the tax rate reduction could be expected, over time, to generate additional tax revenue at the new tax rates, but we cannot predict with any certainty how much;
- the extent of the risk of existing non-resident investors withdrawing over time and the extent to which this can be reduced by lowering New Zealand tax impost (recognising that in a large number of instances existing investment is a sunk cost that is not tax sensitive); and
- the extent to which the current tax paid by non-resident investors will continue to be paid by investors. The validity of current anecdotal evidence of a greater degree of debt-financing of existing FDI so as to reduce the current New Zealand tax burden should be tested; and
- the nature and quality of new non-resident investment that can be expected to be responsive to the New Zealand tax reduction.

No explicit modelling of the economic effects was undertaken in the 2010 Tax Working Group. That Group said:

In a global economy, company tax can discourage inbound investment. 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 and adversely impact on labour productivity and real wages.

A relatively high company tax rate can encourage firms to relocate business functions outside of New Zealand and also encourage multinational firms to stream profits away from New Zealand and into lower tax countries. This streaming can be achieved by firms:

- “Thinly capitalising” their 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 where those other countries have an imputation system, such as Australia.

The above factors support a reduction in the company tax rate. However, there are also a number of factors that suggest for New Zealand, a deep reduction in the company tax rate may not be the most efficient approach. A higher company tax rate ensures maximum taxation of economic rents (these are profits above the normal return earned on an investment). If foreign inbound investment in New Zealand generates location specific economic rents (i.e. extra profits arising from advantages foreign companies accrue from being located in New Zealand), then the main effect of

taxing this income is to generate tax revenue allowing lower taxes to be imposed on New Zealanders. However, a possible consequence of reducing the company tax rate is that to the extent this benefits non-residents, taxes levied on New Zealand residents would need to be higher.

The availability of foreign tax credits to non-resident shareholders is also an issue to be considered in setting the company tax rate. Where non-resident shareholders are able to receive a tax credit in their home country, there is no additional cost imposed by New Zealand company tax. As such, non-resident shareholders will not demand an additional return which would otherwise increase the cost of capital to New Zealand firms. Where a foreign tax credit is available, reducing New Zealand company tax only leads to a transfer of revenue from New Zealand to the overseas government's revenue. However, taxes paid by foreigners provide scope to reduce the tax burden on domestic residents. Company tax also provides a backstop to the personal tax system in limiting the benefits of income being sheltered in companies to avoid personal income taxes. Income earned by a company is subject to company tax. This is, in effect, a withholding tax for domestic shareholders as the personal and company systems are integrated by the imputation system. As such, corporate income is subject to personal marginal tax rates when distributed to domestic shareholders.

In practice, determining the best rate of company tax for New Zealand means making judgements on the benefits and costs of cutting the company tax rate in the face of considerable uncertainty. What other countries do will also have an influence. For example, if other countries continue to cut their company tax rate, in particular, if 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% company tax rate, which is already high by OECD standards.

The 2010 Tax Working Group concluded:

The TWG considers that New Zealand's company tax rate needs to be competitive with global corporate tax rates, particularly the Australian company tax rate. However, this needs to be balanced against the integrity benefits of a fully aligned system and the fact that reducing the company tax rate will reduce the level of tax on economic rents earned from foreign investments, to the extent these exist. We recommend that officials be requested to undertake further research on this complex interface. There was discussion by the Group about stratifying the company tax base. However, the Group consider that much more work would be required on the implications of this approach before it could be seriously considered.

Critical to the Government's choice between an aligned and non-aligned system will be recommendations of the Australian Taxation Review (especially in respect of the Australian corporate tax rate), the expected future changes in international corporate tax rates, and government preferences for the level of personal tax rates. Personal tax rates influence incentives to work and to develop skills, and the attractiveness of New Zealand to skilled New Zealanders working overseas.

The TWG would prefer to have the company rate aligned with trust and top personal rates. However, if due to international pressures this is not possible, then the aim should be to keep the company and other tax rates as closely aligned as possible. The path to reform should ensure it is feasible to achieve a non-aligned system with integrity in the event alignment proves difficult to sustain.

The TWG also supports the retention of the imputation system. However, this may need to be reviewed if Australia decides to move away from its franking credit system.

Appendix 2: Glossary

Capital/labour ratio: A measure of capital intensity. A higher capital/labour ratio means that for every worker there is more capital available for the worker to use.

Capital importer: A capital importing country is one that, at an aggregate level, funds more investment than would be able to be funded from domestic savings.

Capital stock: Total amount of physical capital in the economy.

Depreciation loading: Accelerated tax deductions for depreciable assets.

Economic rent: An excess payment made for a factor of production over the amount required by the property owner to bring that factor into production.

Equivalent variation: A measure of economic welfare changes associated with changes in prices.

General equilibrium modelling: Modelling the economy-wide consequences of policy changes or external shocks.

Gross domestic product (GDP): monetary value of all the goods and services produced in a country.

Location-specific economic rent: Returns associated with locating in a particular place, perhaps due to accessing resources or supplying goods and services to the domestic market, that are above the amount required to bring the activity to the place.

Mobility of capital: A measure of how responsive capital is to various changes. The price elasticity supply of capital is a measure of the percentage by which the supply of capital changes in response to a 1% increase in the rate of return available in the country. In this instance a 1% increase represents a change from (for example) 5% to 5.05%.

Net national income (NNI): Income of domestic households and businesses, and the government.