
Taxing Capital Gains in New Zealand

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This article analyses the economic impact of taxing capital gains and four options for taxing capital gains in New Zealand. Drawing on their United States and New Zealand tax policy making experience and the latest international research, the two authors argue that the Tax Review 2001 dismissed too readily taxing gains on a realisation basis. While acknowledging its glaring deficiencies, they contend that some problems, such as lock-in and loss limitations, appear to be fairly modest based on available empirical evidence. The key point is that there is no perfect way to tax capital gains in a real-world income tax. And, on balance, taxing gains on a realisation basis has a number of advantages over accrual taxation, the risk-free return method proposed by the Tax Review 2001, and taxing capital gains in an ad hoc and inconsistent fashion as New Zealand currently does.

1.0 INTRODUCTION

“[The New Zealand Government] ... agrees with the [Tax Review] that [New Zealand] would not be better off with a general capital gains tax, death duties or similar tax measures used in other countries.”²

The proper taxation of capital gains in New Zealand was one of the key issues addressed by the McLeod Committee in the Tax Review 2001’s *Final Report* and its preceding *Issues Paper*.³ New

¹ Burman’s work on this project was conducted while he was the PriceWaterhouseCoopers Visiting Research Fellow in Taxation at Victoria University. We are grateful to the many experts in New Zealand and elsewhere who were exceptionally generous with their time and advice, including Colin Blair, Phil Briggs, Bob Brown, Stephen Burnell and members of Victoria University’s School of Economics and Finance, Paul Brown, Kim Clausing, David Feslier, Peter Goss, Martin Lally, members of the Wellington Branch of the International Fiscal Association, Ewen McCann, Rob McLeod, Robin Oliver, John Prebble, Diane Ramsey, Bill Randolph, Peter Roche, Grant Scobie, Doug Steel, Bob Stephens, Paul Stocks, Clive Thorp, Tony van Zijl and the tax policy and policy development groups at the New Zealand Treasury. Additionally, the discussion group organised by the Wellington office of PricewaterhouseCoopers was extremely helpful. Jenny Dunmore, Nahren Eshow and Deborah Kobes provided extraordinary research assistance. Burman wishes to express his special debt of gratitude to John Shewan and PricewaterhouseCoopers for financing his fellowship, and to Keitha Dunstan of Victoria University of Wellington’s Centre for Accounting, Governance and Taxation Research for setting it up. Views expressed in this article are ours alone and should not be attributed to PricewaterhouseCoopers or any of the institutions with which we are affiliated.

² D Cunliffe, Parliamentary Private Secretary for the New Zealand Minister of Finance, “Ministerial Update”, Speech to The Institute of Chartered Accountants of New Zealand 2002 Tax Conference, Christchurch, 11 October 2002.

³ The McLeod Committee was an independent, five-person team appointed by the New Zealand Government to review developments over the last 20 years and to advise government on an appropriate framework within which to make tax policy

Zealand has never had a separate capital gains tax and the New Zealand courts have traditionally excluded appreciation in the value of property from income and thus from income tax. The current law in New Zealand, though, is far more complex. The untaxed nature of capital gains provided investors a very strong incentive to try to convert otherwise taxable income into non-taxed capital gains. New Zealand has tried to stem such tax avoidance by defining at least 25 kinds of assets and transactions as “revenue” – that is, taxable by nature.⁴ As a result, New Zealand now has a hybrid tax system in which some gains are excluded from income, some are taxed as they accrue, and others are taxed only when the underlying asset is sold.

The Tax Review 2001, while rejecting the notion of a general tax on capital gains, identified several areas in which current tax law creates problems.⁵

- The inconsistent treatment of different savings vehicles. Individuals who own company shares are generally not subject to tax on gain or loss, but actively managed savings and investment entities have to pay tax on any gains or losses on sales of shares in their portfolio. Some other assets held by savings and investment entities, like real property, may be taxed the same way. But share gains and losses of passively managed entities, like index tracking funds, are exempt from tax.
- The impact on the treatment of offshore portfolio investment. Returns on investments in most foreign companies, superannuation schemes, and life insurance are taxed using one of four methods, including accrual, and a deemed rate of return method similar to that contemplated by the Tax Review. Gains and losses earned from “grey list” entities – those resident in Australia, Canada, Germany, Japan, Norway, the United Kingdom, and the United States – are exempt from tax. This creates the perverse situation that a foreign entity residing in certain grey list countries that do not tax entities directly can actively manage a portfolio of New Zealand shares (or shares from any other country) exempt from tax in New Zealand, whereas a domestic entity holding the same portfolio might owe substantial tax on the same transactions.
- The possible effects on investment in housing. New Zealand has one of the highest rates of home ownership in the world.⁶ New Zealanders are also much more likely to invest in rental housing than people in other countries. The non-taxation of gain on sale of housing is considered a likely factor behind this diversion of capital away from possibly more productive uses.

in future. The McLeod Committee sought submissions, released its *Issues Paper* in June 2001, sought further submissions, and then completed its *Final Report* in October 2001.

⁴ The term “tax avoidance” is often used in New Zealand to refer to legal arrangements that are void for income tax purposes under general anti-avoidance legislation. We use the term as it is defined in textbooks on public finance to refer to the gamut of legal methods taxpayers use to reduce their tax liability, including avoiding highly taxed activities, altering the timing of transactions to reduce tax, and exploiting nonlinearities in the tax system to profit from tax arbitrage. See discussion in J Slemrod, “Optimal Taxation and Optimal Tax Systems” (1990) 4 *Journal of Economic Perspectives* 157. In contrast, “tax evasion” is typically used to refer to illegal activities undertaken to avoid tax, such as not reporting income or overstating deductions. For a non-exhaustive list of legislative provisions that subject both realised and unrealised capital gains to New Zealand income tax; see K Holmes, *The Concept of Income – A Multi-Disciplinary Analysis*, Amsterdam, International Bureau of Fiscal Documentation, 2001, p 383.

⁵ McLeod Committee, *Tax Review 2001: Issues Paper*, Wellington, June 2001, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>, pp 31-35; McLeod Committee, *Tax Review 2001: Final Report*, Wellington, October 2001, pp 26-27, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

⁶ More than 70 percent of total household savings are in housing in New Zealand. The average of all OECD countries for this statistic is less than 50 percent. McLeod Committee, *Tax Review 2001: Issues Paper*, Wellington, June 2001, p 29, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

- The opportunities that the absence of a capital gains tax may give for taxpayers to transform otherwise taxable income into capital gains.

In short, capital gains are taxed in different ways under different circumstances and often, but not always, not at all. Moreover, the capital-revenue boundary is not clearly defined in law or precedent, so taxpayers face a great deal of uncertainty in trying to determine whether the gains on an investment will be subject to tax and, if so, how.⁷

The current regime violates all of the norms of tax policy. It is inefficient for at least three reasons. First, it taxes different sources of income at different rates, distorting the pattern of investment among assets in New Zealand as well as between New Zealand and the rest of the world. Second, because similar transactions can be taxed very differently, it creates arbitrage opportunities, for example, by arranging to take losses on income account (ie, deduct them from income) and gains on the exempt capital account. Thus, capital can be diverted from its most productive use into investments that only make sense because of the tax consequences. Third, it adds unnecessary uncertainty to investment decisions because the tax treatment of some investments is unclear.

The current regime is unfair relative to the economic benchmarks of tax equity. It is horizontally inequitable because taxpayers in similar positions may end up paying much different amounts of tax depending on how they structure their investments or where they are made. It is vertically inequitable because the general exemption of capital gains most benefits taxpayers with very high incomes. Thus, wealthy taxpayers with many untaxed capital gains may pay less tax as a share of income than their lower-income counterparts whose income arises primarily from wages.

Finally, the existing regime is complicated both for taxpayers to comply with and for the tax authorities to administer in a coherent fashion.

It is easy to make the case that the current regime is far from ideal. The question is what might be done to improve it. The Tax Review concluded that efforts in the rest of the world to tax capital gains more comprehensively suffer from flaws as serious as New Zealand's hybrid system and are thus not worth pursuing. Instead, it recommended consideration of targeted incremental options to mitigate the most serious shortcomings of the current taxation regime without radical overhaul.

The Tax Review 2001's hesitancy about taxing income from capital is consistent with the tone of public submissions on the topic. Among those who commented on capital gains taxation, most favoured reducing it.⁸ The Tax Review 2001's analysis and recommendations, however, contrast

⁷ The current General Manager (Policy) in Inland Revenue has said that, "... in both my private sector and public sector work, manipulating and enforcing the border between taxed income and untaxed gains has been a central part of that work.... From my perspective, the most marked effect of not having a specific capital gains tax has been on the inconsistencies and complexity of our income tax rules that have resulted. Our income tax system is especially open to manipulation as a direct result of not having a general body of rules taxing capital gains. Moreover, in some areas our tax rules defy policy logic, creating problems that defy an obvious policy solution for the same reason." R Oliver, "Capital Gains Tax – The New Zealand Case", a paper prepared for the Fraser Institute 2000 Symposium on Capital Gains Taxation, Vancouver, Canada, p 3. For a discussion of the unsatisfactory state of the current New Zealand rules for determining whether and when gains are taxable, see this paper by Oliver at pp 3-5, 7-11 and K Holmes, *The Concept of Income – A Multi-Disciplinary Analysis*, Amsterdam, International Bureau of Fiscal Documentation, 2001, pp 383-420.

⁸ The Tax Review 2001 received 197 written submissions that were considered in writing its *Issues Paper* and 245 submissions prior to writing its *Final Report* (McLeod Committee, *Tax Review 2001: Final Report*, Wellington, October 2001, pp 1-2, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>). Of these, a minority (36) focused their comments on capital gains taxation. Twenty-two submitters favoured less taxation of capital gains than at present (mostly business lobby groups, companies and professional firms, but also including six individuals and the spokesperson for one political party, the Association of Consumers and Taxpayers (ACT)). Three submitters expressly favoured the Review's

markedly, in substance and tone, with the last comprehensive review of New Zealand's taxation of income from capital. In 1989, the Minister of Finance in the then Labour Government characterised New Zealand's tax rules in this area as a "mess".⁹ The 1989 consultative document proposed to eliminate many capital income exemptions and to index the whole income tax base. With a few relatively minor exceptions, these proposals have not been implemented.

Broadening the New Zealand income tax base by including capital gains in a more comprehensive way as well as introducing a tax on imputed rental income of owner-occupied housing were the two most important (second-order) tax recommendations made by the OECD in its bi-annual report on New Zealand in 2000.¹⁰ 'Extreme, socially unacceptable and economically unnecessary' was the New Zealand Minister of Finance's reported response. "The Government is not interested in a capital gains tax, either in the short or the long term. Basically it is political suicide in New Zealand," the Minister's spokeswoman said.¹¹

This article examines the taxation of capital gains in New Zealand as compared with the approaches taken in the rest of the world, especially the United States. It considers first the question of whether capital gains *should* in principle be taxed. Then the article considers several specific options for explicitly taxing capital gains, including: the theoretically correct (but far from perfect in practice) method of accrual taxation; the creative approach recommended by the Tax Review 2001 of taxing only the risk-free component of asset returns; and a tax based upon realisation, which is the method used in most of the rest of the world.

This article is not a comprehensive assessment of the taxation of capital gains in New Zealand. What we hope to bring to bear is our experience in studying capital gains taxation in the United States, New Zealand and the rest of the world, as well as working in tax policymaking in the United States and New Zealand.¹² We aim to do that in a way that will help move forward the debate about what is best for New Zealand.

2.0 ECONOMIC IMPACT OF TAXING CAPITAL GAINS

For more than a decade, New Zealand has debated whether capital gains should be included in taxable income on a comprehensive basis. So far, the answer has been no, although incremental policy changes aimed at stemming abuse have included more and more components, once classified as capital, in the revenue account. The Tax Review 2001 has reopened the question, suggesting in Solomon-like fashion that some types of assets should be subject to a new capital gains tax regime, others should be excluded, and a third category should be considered for inclusion.

analysis and approach of targeting specific capital income exemption problems (one business organisation and two lobby groups). Eleven submitters favoured more taxation of capital gains than the Review recommended (seven individuals, two social action groups, one investment fund company and one political party – the Green Party).

⁹ D Caygill, *Consultative Document on the Taxation of Income From Capital*, Wellington, Government Printer, 1989, p iv. "The real issue is that the present tax treatment of income from capital is a mess. It is widely acknowledged to be capable of substantial improvement."

¹⁰ OECD, *OECD Economic Surveys: New Zealand 1999/2000*, Paris, OECD, 2000, pp 18-19.

¹¹ "OECD Tells Us to Tax Capital Gains," New Zealand Press Association, 30 November 2000.

¹² Burman was deputy assistant secretary for tax analysis at the United States Department of the Treasury from 1998 to 2000 and a senior staffer in executive and legislative branch tax agencies for more than a decade before that. White was a chief analyst in the tax policy branch of the New Zealand Treasury from 1987 to 2000.

This section provides a selective account of the likely effects of a generic capital gains tax on some key aspects of economic performance.

2.1 Savings, Investment, and Economic Growth

2.1.1 Savings

New Zealand's economy has lagged behind those of its major trading partners for the past decade. Household savings is actually reported to be negative.¹³ A criticism of taxing capital gains is that it is likely to further depress savings, discourage foreign direct investment in New Zealand companies, and further retard economic growth. In fact, taxing capital gains is unlikely to depress saving and investment. By improving the efficiency of capital allocation, it might actually increase economic growth. In any event, there is no evidence anywhere in the world that taxing capital gains retards economic growth.

Savings and investment are not the same thing in an open economy, the difference between them being capital flows with the rest of the world. Since the mid-1980s, the New Zealand financial markets have been largely open to foreign investors. Since New Zealand's income tax system generally operates more on a residence basis and it has double tax treaties with its main sources of foreign capital, a capital gains tax would generally not apply to foreign investors except for immovable property, and through the operations of any permanent establishments in New Zealand that they own. Thus the impact of the tax on savings and investment (including by non-residents) must be considered separately.

2.1.2 Investment

To the extent that foreign portfolio investors are free to adjust their holdings, the impact on aggregate investment is likely to be small. Such investors would generally not be directly affected by the capital gains tax. Moreover, projects that the tax made less attractive to residents would be likely to become more attractive to non-residents because the rate of return would tend to increase. Thus, any decline in residents' savings would be likely to be offset by a capital inflow from abroad that left aggregate investment approximately unchanged.

Foreign direct investment (FDI), however, would be affected by a tax on capital gains (or any other tax on non-resident capital). The effect of that tax would depend on how foreign direct investors have financed their investment (debt, equity or retained earnings) and the extent to which they could offset their New Zealand tax with foreign tax credits. The foreign tax credit picture is complex. Only four of New Zealand's top sources of FDI in 2002 supply credits for New Zealand tax on FDI – Japan, Singapore, the United Kingdom and the United States, which account for about 34 percent of the FDI from the total (see Table 1). Some commentators point out that many multinational companies with subsidiaries in New Zealand are in a position of excess tax credits – that is, they already pay tax in other foreign jurisdictions that exceeds their home country tax rates. Companies with excess credits considering a foreign investment would, all else being equal, prefer to make it in a country where company taxes are low or nonexistent, because they may be able to use their excess foreign tax credits to shelter the income from additional home country tax. A similar incentive applies to companies in

¹³ The household saving rate has been negative since 1994, according to the New Zealand Institutional Sector Accounts data. During the 1970s and 1980s this rate was positive and relatively stable. I Claus and G Scobie, "Saving in New Zealand: Measurement and Trends", *New Zealand Treasury Working Paper Series*, Working Paper 02/02, March 2002, p 7, available at <<http://www.treasury.govt.nz/workingpapers/2003/>>. This paper usefully highlights difficulties in measuring and interpreting the current data on New Zealand saving.

countries that generally exempt New Zealand FDI income from tax, such as six of New Zealand's top sources of FDI in 2002: Australia, Canada, Germany, Hong Kong, the Netherlands and Switzerland. But non-tax factors, such as desire to access New Zealand's market or exploit its unique natural resources, are also important – possibly more important – to international investment decisions. In short, the sensitivity of particular instances of FDI to New Zealand (capital) taxes is likely to vary widely and “there is no reliable New Zealand evidence on the marginal tax sensitivity of FDI.”¹⁴

Table 1: Stock of Foreign Direct Investment in New Zealand, by Home Country Tax Treatment, in NZ\$million as of 31 March 2002¹⁵

Country	FDI
Countries providing foreign tax credits for their FDI in NZ:	
Japan	1,082
Singapore	2,795
United Kingdom	6,641
United States	6,061
Subtotal	16,579
Countries exempting their FDI in NZ from local income tax:	
Australia	17,599
Canada	538
Germany	543
Hong Kong	696
Netherlands	5,963
Switzerland	182
Subtotal	25,521
Other FDI	6,192
Total FDI in NZ	48,292

¹⁴ “Taxation of Inbound Investment”, Report from New Zealand officials to the Minister of Finance and Revenue dated 3 May 2002 (Report T2002/610; PAD2002/93), p 3, available at <<http://www.taxpolicy.ird.govt.nz/>>.

¹⁵ Statistics New Zealand, *Balance of Payments and International Investment Position (Additional Information on International Investment) Year Ended 31 March 2002*, Table 3, Stock of Direct Investment by Country at 31 March 2002, available at <<http://www.stats.govt.nz/>>. Excludes Bermuda, a top source that exempts FDI from tax, because data from Bermuda are confidential.

Another issue that is often raised is the effect of a capital gains tax on entrepreneurship. Entrepreneurs invest their own time and money into a new venture that, if successful, will produce capital gains as a substantial part of the return. Obviously taxing capital gains lowers the return to such investments. However, it is important to note that an income tax includes an intrinsic incentive for entrepreneurial investment. Contributions of human capital are effectively expensed. For example, an entrepreneur who leaves a position at which he is paid \$100,000 per year to start a new enterprise, in which he might pay himself \$20,000 per year, is making an \$80,000 annual investment of human capital. His forgone wages are not included in his income – effectively the same thing as if he had paid himself his full salary and then contributed \$80,000 – except that, by making the contribution in the form of a lower salary, he avoids tax on the \$80,000 investment. Thus, contributions of human capital, which are a large part of entrepreneurial investment, are tax-favoured over other forms of investment. It is not clear that additional subsidies, such as exemption from capital gains tax, would be warranted.

2.1.3 Savings

A residence-based capital gains tax would tend to reduce the after-tax return that New Zealanders could earn on their savings (whether at home or abroad). But there are several reasons to believe that the effect on their savings would be small.

First, the capital gains tax would directly affect only the after-tax return on capital gains assets. The return that residents could earn by investing in interest-yielding assets (at home or abroad) would be unaffected. So it is only to the extent that investors' marginal assets yielded capital gains that there would be any effect on the incentive to save. Thus, some investors who held substantial amounts of gain assets might be unaffected by the tax change. If they were constrained in the amount of such assets they held, and so also held lower yielding interest income assets, for instance, then even though the capital gains tax would affect the return on their intra-marginal assets it would not affect their incentive to save at the margin.

Second, empirical evidence suggests that savings are relatively unresponsive to the net interest rate.¹⁶ Thus, the impact on net returns is likely to produce only a small effect on savings. Suppose, for instance, an elasticity of savings with respect to the net interest rate of 0.2, which is around the midpoint of estimates.¹⁷ Assuming an investment pays a 5 percent real rate of return and that the return is taxed at a 39 percent rate, the gross after-tax return of capital declines from 105 percent to 103 percent because of the tax – a 2 percent overall decline. Applying the elasticity of 0.2, the decline in savings would be about 0.4 percent. If the capital gains tax were applied to the nominal return, without indexing for inflation, the decline in savings would be about 0.6 percent assuming a 3 percent rate of inflation.

Finally, to the extent that the capital gains tax increased tax revenue it would tend to increase the savings of the public sector, so tending to offset any reduction in private saving.

¹⁶ For a recent survey, see BD Bernheim, "Taxation and Saving", ch 18 in AJ Auerbach and M Feldstein (eds), vol 3, *Handbook of Public Economics*, Amsterdam, Elsevier, 2002, pp 1173-1248. Theory alone does not predict whether a reduction in the after-tax interest rate will reduce or increase private savings. This depends on the balance between two effects. The "substitution effect" of a lower interest rate will be to reduce savings, since less future consumption is then gained by reducing present consumption; the "income effect" will tend to increase savings by current savers, who must now save more to achieve any given level of future consumption. Unfortunately, Bernheim notes numerous deficiencies in the empirical evidence, which make firm conclusions about the relationship between saving and its rate of return highly uncertain.

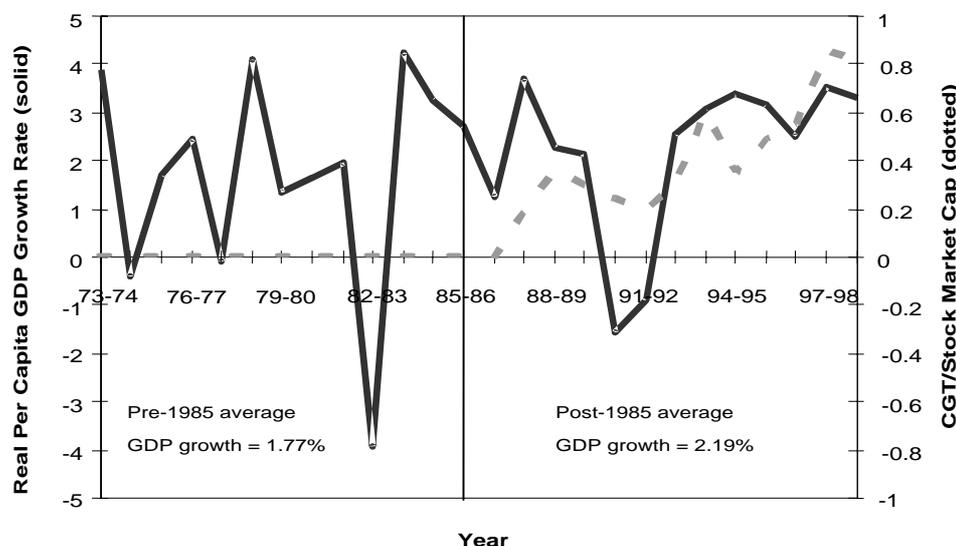
¹⁷ See Bernheim, n 16, p 1208. Bernheim cites a range of 0.0 to 0.4, but also notes: "This range is somewhat misleading since the estimates tend to cluster near zero."

2.1.4 Economic Growth

In the United States and New Zealand journalists and politicians in the supply-side school argue that low capital gains tax rates are essential to robust economic growth.¹⁸ In fact, it is unclear whether capital gains taxes are good or bad for growth on balance. On the one hand, capital gains taxes are taxes on savings and, indirectly, on investment, which would be presumed to be a drag on economic growth. On the other, they contribute to growth by discouraging inefficient tax avoidance and raising revenues that can add to the overall level of national savings. The net overall effect is thus an empirical question – one that remains largely unenlightened by the economics literature.

The most extreme supply side claims should be observable in the data: high capital gains taxes should be correlated with low economic growth and vice versa. In fact, if there is a relationship, it is much more subtle than that. Figure 1 shows the relationship between real GDP growth per capita and capital gains tax revenues as a share of stock market capitalisation in Australia.¹⁹ The chart shows that introducing a capital gains tax in Australia did not have a measurably negative effect on economic growth in that country. Indeed, the growth rate was significantly higher post 1985 – averaging 2.2 percent from 1986 to 1999 compared with 1.8 percent from 1972 to 1985. It is unlikely that capital gains taxation was an important component of the growth in the late 1980s and 1990s, which was matched in much of the rest of the developed world, but it is equally unlikely that introduction of a capital gains tax stifled it.

Figure 1: Per Capita GDP Growth in Australia Versus Capital Gains Tax as Percent of Stock Market Value

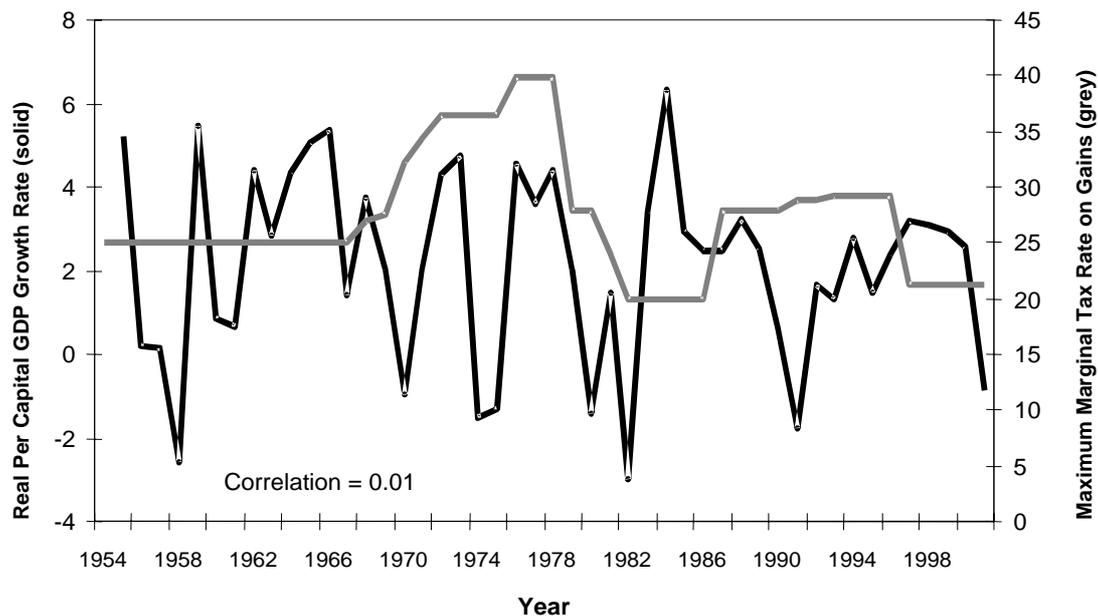


¹⁸ Indeed, some submissions to the Review argued on theoretical and practical grounds that New Zealand should remove all taxes on capital gains; see, for example, submission 66A to the Tax Review 2001 by the Finance Spokesman for the ACT party, March 2001, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

¹⁹ The chart scales capital gains tax revenues by Australian stock market capitalisation to create a crude index of the effective tax rate on capital gains in Australia. Australia introduced a capital gains tax in 1985, but it applied only to newly purchased assets, which meant that its ambit grew very slowly over time. The chart shows GDP per capita to remove the effects of population growth.

Figure 2 shows a similar comparison for the United States over a longer time period. It shows that repeated changes in the top tax rate applying to capital gains in the United States were completely uncorrelated with economic performance. This does not prove that no relationship exists, because many other factors that might be correlated with capital gains tax rates were changing over the same interval, but it does suggest that any relationship must be relatively subtle – a conclusion that would be consistent with the analysis above.

Figure 2: Capital Gains Tax Rates and Real Per Capita GDP Growth in the US 1954-2001



In any event, if reducing the tax burden on capital is a key objective, preferential tax treatment for capital gains is an uneven and inefficient way to accomplish that. It would be better from an efficiency perspective to include returns from all forms of capital income in the base, but tax them all at lower rates or not at all. That would achieve the benefits for saving and investment accomplished by a selectively low tax rate without the wasteful tax avoidance.

2.2 Equity

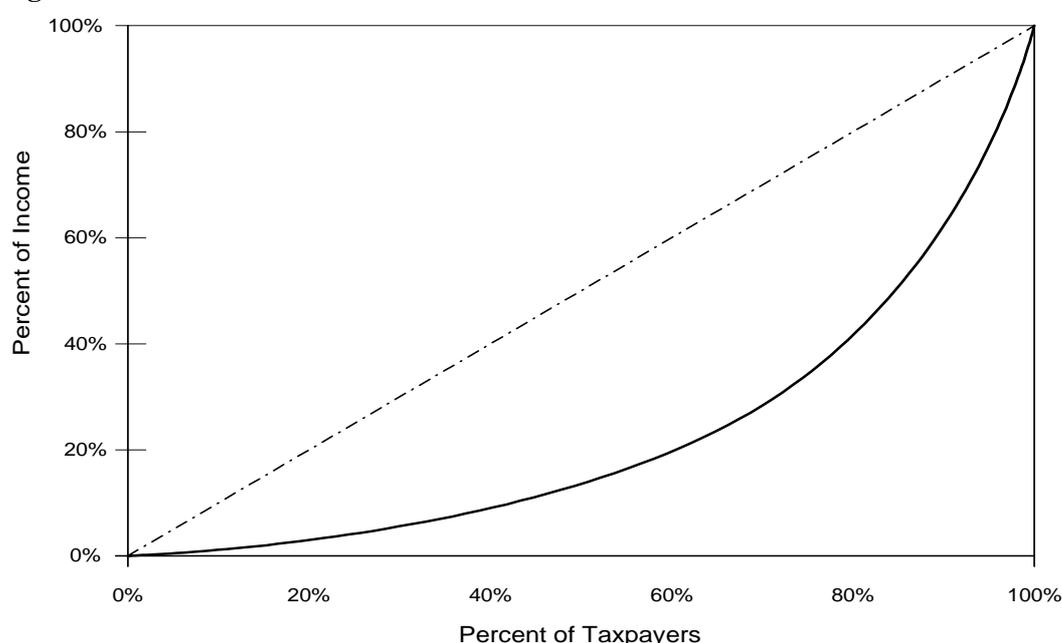
A central attraction of a capital gains tax is that most of its revenue comes from those most able to pay it, thus enhancing the progressivity of the income tax. Progressivity, that is, the extent to which a taxpayer's effective tax rate increases with income, is a subjective goal of taxation and a controversial one in some circles. The arguments in favour a progressive tax system are, first, that higher income people are better able to pay tax than lower income people, and, second, that a progressive tax regime reduces the disparity of after-tax incomes between rich and poor. In that light, concern has been raised that the distribution of income in New Zealand is skewed relative to most other developed nations (although not compared with the United States) and has been growing more unequal over time.²⁰

²⁰ J Hills, *Inquiry into Income and Wealth*, vol 2, York, Joseph Rowntree Foundation, 1995, p 64.

Figure 3 shows the distribution of taxable income in New Zealand in 1997/1998, based on data provided by the Inland Revenue Department. Although the data exclude capital gains that are not subject to tax – an important omission for high-income people – and those with incomes over \$800,000, they still exhibit a high degree of inequality. The Gini coefficient (an index of inequality) for New Zealand is about 0.28 based on these data. Statistics New Zealand reports that the Gini coefficient for household disposable income in 1996 was 0.32. The distribution of wealth was much more skewed, with a Gini coefficient of 0.69.²¹

Hills compares the distribution of after-tax income, including government transfer payments, across countries. In 1985/86, the Gini coefficient in New Zealand was about 0.30. By comparison, the Gini coefficient for the United States in a similar time period was 0.34, the United Kingdom about 0.28, and Sweden about 0.21.²²

Figure 3: Distribution of Taxable Income in New Zealand



Source: Inland Revenue Department taxable income for taxpayers with less than \$800,000 in income in 1997/1998, inflated to 2001 levels.

No data exist upon which to base a firm estimate of the impact of a capital gains tax by income group, but experience elsewhere confirms that the tax is highly progressive. In Canada, 1 percent of

²¹ Statistics New Zealand, *The Net Worth of New Zealanders: A Report on Their Assets and Debts*, Wellington, September 2002, available at <http://sorted.org.nz/survey_index.php>.

²² These figures are based on Figure 36 in J Hills, *Inquiry into Income and Wealth*, vol 2, York, Joseph Rowntree Foundation, 1995. The estimates for the United Kingdom and the United States are for calendar year 1986; Swedish data are from calendar year 1987.

returns accounted for 60 percent of capital gains in 1997.²³ In the United States, the richest 0.4 percent of returns accounted for nearly 60 percent of capital gains in 1998.²⁴ In the United Kingdom, less than 0.1 percent of returns accounted for 60 percent of reported capital gains in 1997-1998, and paid more than 75 percent of all capital gains taxes.²⁵

Capital gains are an important source of income for the wealthy, but much less so for the middle class. Over a ten-year period, capital gains accounted for almost 40 percent of the income of the richest 1 percent of taxpayers in the United States.²⁶ By comparison, they made up only 5 percent of income for all non-elderly taxpayers, and 14 percent of income for all those over age 64. A similar study in Canada found that, in 1987, capital gains averaged nearly 25 percent of income for the top 0.8 percent of taxpayers, compared with only about 1 percent for the bottom 75 percent.²⁷

It is sometimes said the progressivity of the capital gains tax is overstated because the wealthiest are most able to engage in tax avoidance. That argument may itself be overstated. Despite a flourishing tax advice industry, the wealthy pay a great deal of tax on capital gains. Auerbach, Burman, and Siegel looked for evidence of the simplest form of tax avoidance by the rich under a realisation-based system – realising capital losses and deferring capital gain – and found some, but much less than might be expected.²⁸

2.3 Tax Revenue

A major benefit of taxing capital gains is that it contributes tax revenue that could be used to lower tax rates, pay for additional public services, or reduce the public debt. A capital gains tax contributes to tax revenue both directly, through the taxes on capital gains, and indirectly, by improving the effectiveness of the regular income tax.

2.3.1 Experience Elsewhere

As shown in Table 2, revenue from taxing capital gains varies widely across countries, depending on the base and rates of the tax and the robustness of the economy. In the United States, capital gains tax revenues account for over 2 percent of tax revenue; in many others the direct effect on tax revenues is much smaller, indeed barely perceptible.

²³ M Keen, R Krelove and L Burman, "South Africa: Taxing Capital Gains", International Monetary Fund, May 2001, p 61, available at <<http://www.ftomasek.com/IMFDraft.pdf>>.

²⁴ US Internal Revenue Service, *Individual Income Tax Returns, 1998*, Washington, DC, Government Printing Office, 2001, Table 1.4, available at <<http://www.irs.gov/pub/irs-soi/98inalcr.exe>>.

²⁵ M Keen, R Krelove and L Burman, "South Africa: Taxing Capital Gains," International Monetary Fund, May 2001, p 61, available at <<http://www.ftomasek.com/IMFDraft.pdf>>.

²⁶ L Burman and P Ricoy, "Capital Gains and the People Who Realize Them," (1997) 50 *National Tax Journal* 427.

²⁷ R Krever and N Brooks, *A Capital Gains Tax for New Zealand*, Wellington, Victoria University Press, 1990, p 46.

²⁸ A Auerbach, L Burman and J Siegel, "Capital Gains Taxation and Tax Avoidance: New Evidence From Panel Data," in J Slemrod (ed), *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, New York & Cambridge, Mass, Russell Sage Foundation and Harvard University Press, 2000.

Table 2: Tax Revenues from Capital Gains in Selected Countries

	1980-1989 (% of tax revenue)	1990-1999 (% of tax revenue)
Australia	0.07	0.18
Denmark	0.03	0.04
Finland	0.12	0.03
France	0.03	0.00
Ireland	0.19	0.46
Italy	0.38	0.32
Netherlands	0.05	0.06
Spain	0.04	0.00
Sweden	0.26	0.26
Switzerland	0.99	0.81
United Kingdom	0.72	0.48
United States	2.53	2.43
Overall average (Unweighted)	0.45	0.42

Source: M Keen, R Krelove and L Burman, "South Africa: Taxing Capital Gains", International Monetary Fund, May 2001, p 61.

Little evidence exists on the size of the indirect effect on the income tax base. This is extremely hard to measure, because capital gains tax changes are often accompanied by other major changes in tax rates or the tax base, confounding efforts to isolate the effect of the capital gains tax alone. Nonetheless, there is no doubt that the lack of an effective capital gains tax creates an incentive to convert otherwise taxable income into untaxed capital gains.

The importance of capital gains taxes to overall revenues of countries with such taxes has remained remarkably stable over the last two decades. In the 1980s, capital gains averaged 0.45 percent of revenues among the countries shown in Table 2; over the 1990s, the figure was 0.42 percent.²⁹ Thus, if New Zealand had the typical experience of countries with a capital gains tax, it could eventually expect to yield about \$140 million in annual revenue based on tax revenues of about \$33 billion in 2000. Of course, the actual revenue gain would depend on the scope and nature of New Zealand's taxation regime and performance of its economy.³⁰

²⁹ The overall importance of capital gains taxes to tax revenues in the rest of the world has been growing. For example, Korea and South Africa have introduced taxes on capital gains in the past decade, while Japan has revamped its tax from a nominal transaction fee into a substantial tax on capital gains.

³⁰ For example, the Tax Review 2001 estimated that the taxation of owner-occupied housing, which is outside the base of many capital gains tax regimes, could raise \$750 million per year. McLeod Committee, *Tax Review 2001: Issues Paper*, Wellington, June 2001, para 2.62, p 41, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

The argument is made that there are virtually no capital gains that still go untaxed in New Zealand. Companies pay out virtually all of their real income in dividends – the average dividend payout rate is about 6 percent. Thus, an indexed system would produce little or no additional revenue. However, it should be noted that gains on shares in domestic companies are but one component of capital gains.

In the United States, despite the exclusion of most home sales from taxation, company shares held directly or through trusts account for only about one-half of capital gains. The rest came from privately held companies, rental real estate, land, collectibles such as art, and other appreciated assets.³¹ Thus, even excluding domestic shares, a United States-style tax on capital gains could total one percent of GDP.

Australian data are roughly consistent with the United States statistics. In 1999-2000, around 47 percent of gains by individuals were realized directly on shares. Another 27 percent were attributable to trusts, which presumably held a significant amount of company shares. Unit trusts accounted for 4 percent of all gains, and real estate, 16 percent.³²

The New Zealand Household Savings Survey compared New Zealand asset holding to those reported in surveys in Canada, Australia, and the United States.³³ The survey suggests that real assets (especially principal residence and other property) are more than half of the net worth of the typical New Zealander, similar to Canadians, but a larger share than in the United States and Australia. Private retirement plans (which generally are unaffected by capital gains taxation in other countries), are much more important in the comparison countries. Company shares and mutual funds are only about 6 percent of the total – the same as in Canada, but one-third the proportion in the United States. Trusts comprise a similar share in New Zealand, whereas data on trust ownership is not available for the other countries. These data suggest two things: (1) capital gains from company shares are likely to be a less important factor in New Zealand than in the United States or Australia, and (2) capital gains might be a smaller share of income in New Zealand than those two countries, but comparable to the share reported in Canada.

A second response to the argument that there are virtually no untaxed capital gains in New Zealand is that estimating revenues before a general capital gains taxation regime is introduced is notoriously difficult. In September 1985, the Australian Treasurer projected that revenue from the prospective Australian capital gains tax would rise to \$25 million in the fifth year of operation. In fact, capital gains tax revenues leapt to more than 20 times that amount by the third year of its operation.³⁴ Since 1988, revenue from capital gains has fluctuated but, by 1999-2000, it was \$5.33 billion, notwithstanding the effective capital gains tax rate cut in September 1999.³⁵ This Australian experience, coupled with New Zealand's current unsatisfactory capital/revenue boundary, suggests that there may be much larger than expected untaxed New Zealand gains. A New Zealand Treasury tax briefing document for the incoming Government in December 1993 speculated that extending the tax base to include a wider

³¹ L Burman and P Ricoy, "Capital Gains and the People Who Realize Them," (1997) 50 *National Tax Journal* 427.

³² Australian Taxation Office, *Taxation Statistics 1999-2000*, ch 8, available at <<http://www.ato.gov.au/print.asp?doc=/content/19759.htm>>.

³³ Statistics New Zealand, *The Net Worth of New Zealanders: A Report on Their Assets and Debts*, Wellington, September 2002, pp 112-122, available at <http://sorted.org.nz/survey_index.php>.

³⁴ M Bengt, "Capital Gains and Reform of the Tax Base," ch 15 in J Head and R Kreyer (eds), *Taxation Towards 2000*, Sydney, Australian Tax Research Foundation, 1997, pp 354-355.

³⁵ Australian Taxation Office, *Taxation Statistics 1999-2000*, ch 8, available at <<http://www.ato.gov.au/print.asp?doc=/content/19759.htm>>.

range of share gains could produce an upper bound of \$200-250 million extra annual revenue and taxing gains on central business district and commercial investment property might yield another \$200 million per year at existing tax rates.³⁶ The New Zealand Treasury's estimates apparently plummeted in the late 1990s, but it is unclear why.

2.4 Complexity

No doubt, taxing capital gains is one of the most complex areas of tax law. Tax lawyers in the United States claim that half of the Internal Revenue Code is devoted to defining capital gains and rules aimed at deterring avoidance.³⁷ However, it is not at all clear that failing to tax capital gains results in less complexity.

The current system in New Zealand is a good case in point. The boundary between capital (untaxed) and revenue (taxed) is continually being tested by taxpayers and periodically moved by legislation passed by parliament. Taxpayers have a strong incentive to characterise income as capital in nature and expenses as revenue, so that the former escape taxation while the latter qualify for deduction.

Robin Oliver, General Manager (Policy) of Inland Revenue wrote about the lack of an explicit capital gains tax, “[s]implicity has not been the outcome... The most marked effect ... has been on the inconsistencies and complexity of our income tax rules that have resulted.” While claiming to be an agnostic on the desirability of taxing capital gains, he concludes, “[f]or those who oppose this form of taxation, New Zealand is an example of how the grass is not always greener on the other side of the hill.”³⁸

2.5 Overall Assessment

On balance, policy makers will never be able to find a perfect regime for taxing capital gains in the real world. Each option has shortcomings and complexities. But not taxing capital gains, especially when income tax rates are high, creates a huge incentive for tax practitioners to find investments that can earn tax-free income. The result is economic waste – investments that pay much lower returns before tax than alternative activities that are not financed because the tax ledger does not work out as well – and inequity between those who can take advantage of the loophole and those who cannot or do not.

For that reason, a better option under the income tax is to have a broad-based tax, including capital gains, where the revenue raised via the broad base is used to finance lower tax rates. In addition to the direct neutrality benefits of taxing all forms of income in consistent fashion, the low rates reduce the reward for inefficient tax avoidance and thus reduce the cost to society of the remaining loopholes or other deficiencies in the tax system.

Unfortunately, that trade-off may not be politically sustainable. In the United States, the Tax Reform Act of 1986 (TRA86) included capital gains (and other previously exempt items) fully into taxable income for the first time, in exchange for sharply lower tax rates on other income. The higher capital gains tax rate persisted until 1997 while the tax rate on other income increased twice, in 1990 and 1993. Eventually, tax rates on capital gains were cut in 1997 to their pre-TRA86 levels.

³⁶ The Treasury, “Options for Retaining the Capital/Revenue Boundary”, ch 9 in *Current Issues in Tax Policy*, mimeograph, Wellington, December 1993.

³⁷ L Burman, *The Labyrinth of Capital Gains Tax Policy*, Washington, DC, The Brookings Institute, 1999.

³⁸ R Oliver, “Capital Gains Tax – The New Zealand Case”, a paper prepared for the Fraser Institute 2000 Symposium on Capital Gains Taxation, Vancouver, Canada, p 3.

Economic theory suggests that the excess burden of taxation grows with the square of the tax rate. Thus, the inefficiencies of high marginal tax rates can be quite large. For example, a 40 percent tax rate places roughly 4 times the drag on the economy as a 20 percent tax rate. If high tax rates are inevitable, it is no longer clear that the efficiency gains from including more income in the base offset the efficiency losses from subjecting more income to tax at high rates.

3.0 OPTIONS FOR TAXING CAPITAL GAINS IN NEW ZEALAND

3.1 Accrual Taxation

As a benchmark, it is useful to start out with the theoretically “correct” treatment of capital gains, accrual taxation. (For reasons that will become clear, the theoretical ideal is far from perfect in the real world.) Economists would define the income arising from an asset as the increase in its real value over the period (plus any amount consumed, an important element in the case of owner-occupied housing).³⁹ Notice that this measure is independent of whether an asset is sold. The increase or decrease in value of the asset after adjusting for inflation would be included in income. Accrued gains would increase current taxable income. Losses would be deductible against income.

Making the unrealistic assumptions for the moment that there are no transaction costs, measurement is perfect and costless, and that this system is implemented as part of a comprehensive tax on real economic income – that is, all capital income and expense is indexed for inflation and taxed on an accrual basis – accrual taxation is neutral. An asset paying returns in the form of capital gains is treated exactly the same way as an asset paying interest, rents, or royalties. There are no tax shelter opportunities because losses are taxed the same way as gains, deductions the same as income. An investment that just breaks even before tax will also just break even after tax. If investment A is preferred to investment B before tax, it will also be preferred after tax. In other words, the tax does not distort the choice of investments.

The tax also does not distort the timing of investments, because tax liability is independent of when an asset is sold. Thus, there is no lock-in effect. In the theoretical comprehensive accrual tax regime, tax shelters are impossible.

The tax is equitable in the sense that it treats people with the same income the same way, regardless of the type of income or their decision to realise it or not. By guaranteeing that all income is brought into the tax base, it guarantees that the statutory progressivity in rates is reflected in actual progressivity. That is, it is vertically equitable.

Finally, under the assumptions put forth, the tax is simple. This, of course, is the most obvious example of how the assumptions oversimplify reality.

In practice, accrual taxation would raise many issues. In the real world, measuring asset prices is costly and highly imperfect for all but widely traded equities, distinguishing capital from labour expenses is difficult for self-employed people, accrual taxation may only apply to a subset of assets (eg, housing might be excluded), and debt may not be indexed for inflation or always measured on an accrual basis. Under those circumstances, accrual taxation is no longer guaranteed to be efficient, some or perhaps many inequities persist, and the regime can be very complicated. Moreover, taxpayers may face liquidity constraints that make it difficult to pay tax on gains on unrealised assets. Complaints

³⁹ The classic Haig-Simons definition of income makes no reference to inflation, a phenomenon not generally considered important when Simons wrote. However, virtually all modern economists would index both capital income flows and expense (ie, interest on borrowing) in the measure of economic income.

from taxpayers, particularly owners of small businesses and family farms, that their property is costly to value and that the tax bill will force them to sell the asset probably makes accrual taxation politically infeasible for such assets.

Accrual taxation is feasible and perhaps desirable for unit trusts and shares of public companies traded on established stock exchanges. Indeed, gains and losses on debt instruments are currently taxed on an accrual basis (although without indexation) in New Zealand, so it is clearly feasible in that case. Accrual taxation would reduce the margin for tax avoidance by bringing more capital gains into the tax net, but would not eliminate arbitrage positions. To take a simple example, debt financed with fully deductible nominal interest is more highly taxed than real accrual basis capital gains, presenting the possibility that debt-financed investments may face a negative tax rate (ie, be a tax shelter). This arbitrage could be discouraged slightly by accruing income only to the net equity position, but taxpayers with many assets will be able to skirt such a tracing provision, by tying debt to more fully taxed entities.⁴⁰

Commentators have claimed that shares will not have any real accrued capital gains because all income is paid out as dividends. For that reason, it may not be worth the trouble to include such assets in the accrual regime. However, accrual taxation offers some benefits to taxpayers that may make it worthwhile even if the average revenue yield is small. Notably, by taxing the full economic income, it reduces the riskiness of after-tax returns.

On balance, accrual taxation – the ideal in a grossly oversimplified world – is far less than ideal in practice.

3.2 Do Not Tax Capital Gains at All

For reasons discussed in the introduction, the current system is seriously flawed. One option for enhancing neutrality among different kinds of capital assets would be to define more transactions as capital – a step that would reverse direction of recent government actions. Actively managed entities could be taxed the same as passive entities. Gains and losses on assets held by savings and investment entities could be exempted from tax. The grey list for exempting foreign entity income from current tax could be expanded to include all countries not on a black list of tax havens.

This option would reduce the uncertainty among taxpayers about what qualifies as a capital transaction, and would reduce the inequities among different kinds of capital transactions, but it would increase the relative tax disadvantage of taxable forms of capital income such as dividends, interest, rents, and royalties. This would exacerbate the distortions in asset allocation and would make it much easier for careful tax planners to recharacterise income as capital gain since the pool of qualifying transactions would be much larger. The already tenuous capital-revenue boundary would become even more porous.

Excluding capital gains from taxation under an income tax is inefficient, inequitable, and costly to administer. Under a consumption tax base, however, capital gains would not be taxed, nor would other forms of capital income, and interest would not be deductible. A consumption tax, which could take the form of an expanded GST or a Hall-Rabushka flat tax – a cash flow tax on companies and a wage tax

⁴⁰ New Zealand actually seems to have given up on most interest limitations. On 25 October 2001, tax legislation was enacted that clarifies that the interest expense incurred by most companies is deductible, subject only to thin capitalisation and conduit interest allocation rules.

on individuals – would probably be more efficient than an income tax in New Zealand, simpler to administer, and would improve horizontal equity.⁴¹

The primary drawback of the shift to consumption taxation is that it would substantially limit the progressivity of the tax system. New Zealand does a great deal of redistribution through direct transfer programs, and could continue to do it with a cash flow consumption tax base. It would, however, seem inevitable that the tax burden on the middle class would increase, at least in the short run, because much of the income of the wealthy would be out of bounds. In the long run, even the middle class might be better off if the new tax regime spurred a large enough inflow of foreign human and physical capital to boost economic growth substantially.

Whether New Zealand should rely more heavily on consumption taxation is clearly beyond the scope of this article. The important point is that some of the most plausible arguments for exempting capital gains from tax in New Zealand are really arguments for lightening the tax burden on capital generally. The debate about capital gains would be elevated if that translation were made explicit.

3.3 Risk-Free Return Method

The Tax Review 2001 proposed that certain transactions would be taxed under a new regime called the risk-free return method (RFRM). The basic concept behind the new method is simple. A gain would be imputed to an asset equal to its value at the beginning of a tax year multiplied by the risk-free rate of return, defined to be the real interest rate on a one-year Treasury bill (the reported nominal interest rate minus expected inflation). For example, if an asset is worth \$100,000 at the beginning of the year and the risk-free rate equals 4 percent, the risk-free return is \$4,000. That amount would be included in the income of the taxpayer and taxed at the taxpayer's marginal tax rate.

The method is relatively novel, but the Netherlands has adopted a similar imputation scheme starting in 2001.⁴² Academics have also developed schemes to impute gains using set exogenous rates of return as a way to eliminate lock-in and asymmetries between gains and losses that lead to tax arbitrage.⁴³ New Zealand itself allows taxpayers to use a deemed rate of return method to impute asset returns for certain foreign investment funds, although at rates much higher than the risk-free rate of return.

The Tax Review 2001 only recommends applying the RFRM to investments in foreign investment funds (FIFs) as a replacement for the grey list.⁴⁴ This would supersede the current regime where

⁴¹ It is not certain in a closed economy that replacing an income tax with a consumption tax enhances economic efficiency, especially if transition relief is provided to eliminate the large tax on old capital that would otherwise occur. (The tax increase on consumers, which would include many older people who are primarily consuming the returns to past savings, is economically efficient because it is effectively a lump-sum tax, but arguably unfair.) Consumption taxation removes the intertemporal distortion – the double tax on saving – but it increases the intratemporal distortion – the tax subsidy for leisure – because wages are taxed at a higher rate. Randolph and Rogers conclude that the intertemporal distortion is probably larger. W Randolph and D Rogers, "The Implications for Tax Policy of Uncertainty About Labor Supply and Savings Responses" (1995) 48 *National Tax Journal* 429. In a small open economy, such as New Zealand, there would be an additional potential efficiency gain to the extent that the move to consumption taxation attracted foreign physical and human capital.

⁴² S Cnossen and L Bovenberg, "Fundamental Tax Reform in The Netherlands" (2001) 7 *International Tax and Public Finance* 471.

⁴³ See, for example, A Auerbach and D Bradford, "Generalised Cash Flow Taxation", *NBER Working Paper Series*, Working Paper 8122, 2001.

⁴⁴ McLeod Committee, *Tax Review 2001: Final Report*, Wellington, October 2001, para 8.73, p 89, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

investments in grey-list country entities are exempt from current New Zealand income tax, whereas investments in other countries are taxed under one of four different regimes that may be elected by the taxpayer, including the deemed rate of return scheme similar to RFRM.

The Tax Review 2001 also recommends that the method be studied for possible application to domestic savings and investment entities, such as unit trusts.⁴⁵ Although the Tax Review 2001 made compelling arguments for applying the method to homes as well, it stopped short of recommending it because it deemed the change too controversial.⁴⁶

3.3.1 Economics of RFRM

The risk-free return method is similar to real accrual taxation, except that any annual return over and above the risk-free rate of return is exempt from tax. Under certain circumstances, an investor would perceive it as economically equivalent to accrual taxation. Suppose the total annual return to an asset is $r+p+e$, where r is the risk-free rate of return, p is the risk-premium (the extra rate of return an investor requires to take risk), and e is the risky portion of the return (which can be positive or negative). If the asset's value at the beginning of the year is V_0 , then accrual taxation would include $(r+p+e)V_0$ in income whereas RFRM would include rV_0 . For a riskless investment, the risk-free return method is identical to accrual taxation, since there is no risk premium (p) or idiosyncratic component to the return (e).

Like accrual taxation, RFRM would eliminate lock-in. A taxpayer's capital gains tax liability would not depend on when he or she sold an asset. Indeed the tax would be totally independent of actual gain. This means that the tax would not distort the choice of investment among capital assets compared with a situation in which they are untaxed. On the margin, all returns belong to the taxpayer, as they do in the untaxed case.

There is a question, however, as to whether this outcome is most efficient. Compared with accrual taxation, the RFRM is shifting all of the marginal risk of an investment onto the taxpayer. The taxpayer does not care, *ex ante*, because the savings in tax on the risk premium is exactly what he requires to accept the extra risk. Put differently, a taxpayer in the 30-percent tax bracket is willing to shed 30 percent of the risk of an investment in exchange for 30 percent of the risk premium. In that sense, and under the assumption that all of the difference between actual returns and the riskless rate reflects is risk (an assumption that we will return to later), this method is identical from the investor's point of view to accrual taxation.

But the government's risk premium might be lower. First, since the government is taxing many transactions, its tax revenue pools the risk of low returns (low tax) and high returns (high tax). The volatility of returns for the government will thus be significantly less than the volatility of returns for any single undiversified investor. Second, the government can pool risk over time and even across generations by managing the public debt.⁴⁷ If society can absorb risk at lower cost than individuals, taxing the risk premium and the risky return (ie, accrual taxation) improves social welfare: the gain in expected tax revenue exceeds the social cost of additional risk bearing and the individual taxpayer is indifferent.

⁴⁵ McLeod Committee, *Tax Review 2001: Final Report*, Wellington, October 2001, para 7.13, p 72, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

⁴⁶ See n 45, paras 3.18-3.34, pp 29-32.

⁴⁷ S Cnossen and L Bovenberg, "Fundamental Tax Reform in The Netherlands" (2001) 7 *International Tax and Public Finance* 471.

In addition, Cnossen and Bovenberg point out that an additional component of annual asset returns reflects a return on individual's information advantages. That is, investors sometimes discover arbitrage opportunities or obtain information about a company before the rest of the market does and can gain from exploiting that information. There is no reason why that component, which is likely to be concentrated among wealthy investors, should not be brought into tax.

RFRM probably makes the most sense in the context of housing. Accrual taxation is probably infeasible because it would be hard to accurately measure home value from year to year. Moreover, the randomness of returns to housing overstates the risk of a housing investment because a home combines both an investment and consumption aspect. When housing prices decrease, the cost of consuming housing also decreases. Effectively, the housing investment is the perfect hedge against volatility in housing prices. In that sense, it is reasonable to exclude the risky component from tax.

There is an important question about the extent to which the RFRM, as proposed, would deter tax avoidance. The main problem is that only certain assets and liabilities would be subject to the new regime, whereas others would fall outside it. To the extent that taxpayers can finance investments in RFRM assets with deductible debt, they will achieve an arbitrage advantage. The full interest cost, including the components due to risk and inflation would be deductible, whereas only the real risk-free return would be included in income. Tracing rules can attempt to match interest costs with income, but those are inevitably imperfect.⁴⁸ Moreover, if a taxpayer can convert taxable income into gains on a RFRM asset, those gains will on the margin be tax-free. Although those problems also exist under the current regime, it is important to note that selectively applying RFRM would leave substantial asymmetries that tax planners can exploit. Note also that in the latter example (although not the debt case), RFRM is inferior to accrual taxation, which would tax the shifted income.

3.3.2 Practical Considerations

For a risky investment, the risk-free return method (RFRM) would typically include only a fraction of the total return in income. Evidence from the United States and New Zealand stock markets suggest that the historical risk premium has been at least as large as the risk-free rate of return, and possibly much larger. New York University professor, Aswath Damodaran, estimated United States risk premiums for 1990-2000 of 11.42 percent compared with Treasury Bills (and a higher premium relative to long-term Treasury bonds).⁴⁹ Fama and French found a smaller United States risk premium over the past half-century, averaging about only 4 percent.⁵⁰ New Zealand academics, Lally and Marsden⁵¹, estimated New Zealand standard risk premiums for 1931-2002 at 5.5 percent compared to bonds (applying the methodology of Ibbotson and Sinquefeld⁵²). Returns above that arose from structural shifts such as the computer revolution and the end of the Cold War. (It should be noted that the RFRM would not tax returns to surprise innovations or war and peace, whereas accrual taxation would. It is, however, impossible to predict which direction those factors will operate over the coming years.)

⁴⁸ L Burman, "The Economics of Interest Allocation", *NTA-TIA Proceedings of the 83rd Annual Conference*, 1991.

⁴⁹ A Damodaran, "Riskless Rates and Rate Premiums," ch 7 in *Investment Valuation* (2nd edn), New York, John Wiley and Sons, 2002.

⁵⁰ E Fama and K French, "The Equity Premium" (2002) 57 *Journal of Finance* 637.

⁵¹ M Lally and A Marsden, "Tax-adjusted Market Risk Premiums in New Zealand: 1931-2002", Victoria University of Wellington, Working Paper, 2003.

⁵² R Ibbotson and R Sinquefeld, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns (1926-1974)" (1976) 49 *Journal of Business* 11.

Yale Professor Ivo Welch surveyed 510 United States finance and economics professors and found that the consensus forecast for the 1-year equity premium is about 3 to 3.5 percent; the consensus forecast for the 30-year equity premium is about 5 to 5.5 percent.⁵³ New Zealand academics, Lally, Roush and van Zijl surveyed New Zealand accounting, finance and economics academics and investment professionals and found that the consensus estimate relative to long-term risk free bonds is about 5.7 percent for the academics and 6.9 percent for the investment professionals.⁵⁴ Thus, RFRM could effectively exclude half or more of the real return to assets as compared with accrual taxation.

The RFRM is relatively simple for easily valued assets, such as company shares and unit trusts, although those assets would also be easy to tax under an accrual regime. It may be a better option than accrual taxation for assets that are difficult to value, because errors in measuring the level of asset value are much smaller than the errors in measuring a year-to-year change in value. Note that, under the accrual method, such errors would tend to wash out over time, but there is a serious risk of manipulation of asset values on a year-to-year basis to try to manage tax liability under accrual taxation, something that would be less effective under the RFRM.

Individual taxpayers may have a hard time understanding the new system and that may render it unsustainable. The first problem, which is shared with accrual taxation, is that taxpayers can face liquidity problems. Since tax liability is not tied to the sale of the underlying asset, individuals may not have enough cash on hand to pay their tax bill. Allowing taxpayers to pay the tax with interest at a later date can mitigate this problem, but that raises the possibility that the tax bill could far exceed the gain on sale of the asset, or even its sale price in some cases. A related problem, which applies only to the RFRM, is that the taxpayer will owe tax even if the asset declines in value. One can imagine that taxpayers who had purchased shares in a United States stock fund in 1999, for example, would be less than delighted to pay tax on gains of 4 percent per year when their share values were plummeting by 20 percent per year or more.

Finally, we simply second the Tax Review 2001 authors' caution that policymakers need to study carefully the problems of integrating RFRM with the current tax system, especially with the dividend imputation credit. The tax would probably be levied at the level of the fund or other intermediary, but that will make implementation significantly more complicated than it would be if the return were imputed at the shareholder level. The significant advantage of this approach, from the point of view of administration, is that it would allow taxpayers who are currently covered by PAYE and who do not file tax returns to continue under that system.

3.4 Realisation Based Tax

Most countries that tax capital gains do so on a realisation basis.⁵⁵ The main advantage of the approach is pragmatic: taxpayers have an easier time associating income with money they receive in

⁵³ I Welch, "The Equity Premium Consensus Forecast Revisited", Yale University, unpublished manuscript, 8 September 2001, available at <<http://cowles.econ.yale.edu/P/cd/d13a/d1325.pdf>>.

⁵⁴ M Lally, M Roush and T van Zijl, "The MRP Consensus Estimate – New Zealand", Victoria University of Wellington, Working Paper, 2003.

⁵⁵ There are exceptions for particular kinds of transactions. The United States, for example, taxes the gains and losses of traders on an accrual basis as ordinary income.

cash than with paper changes in asset balances. A tax based on realisation, however, almost inevitably means that the tax burden on an investment will depend on the length of time that an asset is held.⁵⁶

This feature of a realisation-based tax violates the tax policy principles. There is an inefficient lock-in effect, the incentive to hold assets to defer payment of tax on capital gains. This means that investor decisions about how long to hold assets and which assets to sell are distorted by the tax. An investor has an incentive to hold assets with gains and sell assets with losses. To mitigate this avoidance behaviour, realisation-based taxes generally limit the amount of capital losses that may be taken against other income. Without such a limit, investors with large diversified portfolios could selectively realise losses while deferring gains so as to shelter all of their other income from tax. However, the limit means that some undiversified investors may find that they cannot get the value of loss deductions for many years.

Deferral creates economically inefficient tax sheltering opportunities. For example, borrowing at a 10 percent interest rate to invest in an asset that grows in value at 9 percent per year could be profitable for a taxpayer in the 39-percent tax bracket if the asset is held for more than 8 years. This occurs because the investment generates current interest deductions while the ultimate tax is deferred – effectively an interest-free loan from the government. Such shelters are even more profitable if gains are taxed at lower rates than other income or indexed for inflation, which is tantamount to a preferential rate. As explained earlier, tax rules may try to match the timing of interest deductions and gain, but they are likely to be ineffective. Moreover, other more complex tax sheltering schemes exist that generate current deductions while deferring gain, and it is difficult for the tax authorities to design bullet-proof rules to thwart them.⁵⁷

A tax system based upon realisation creates inequities. Taxpayers who hold onto assets with gains pay less tax than those who sell similar assets. Some taxpayers are able to use capital losses against other capital gains, whereas other taxpayers may not be able to deduct their losses because they do not have sufficient gains to use them. Taxpayers who plan their transactions carefully can pay less tax than otherwise similar taxpayers who do not.

And a tax system based on realisation creates new complexities. Rules are needed to determine when a realisation event occurs. For long-held assets, especially ones that have been improved over time, there are issues of determining the taxpayer's cost against which to reckon any capital gain. Taxpayers must keep records for many years to substantiate their cost basis, and there are complex issues of which improvements to a property qualify as capital – and thus are deductible against capital gain – versus ordinary maintenance, which is not deductible. Because capital gains qualify for deferral, and are often taxed at a lower rate than other income, taxpayers still would have an incentive to try to recharacterise ordinary income as capital gain. Thus, the rules aimed at limiting such abuse would need to be retained.

⁵⁶ Methods of imputing gain upon realisation that are neutral with respect to the holding period have been developed. That is, the tax rules produce neither advantage nor disadvantage for the taxpayer from holding an asset for another year. See A Auerbach, "Retrospective Capital Gains Taxation" (1991) 81 *American Economic Review* 167 and A Auerbach and D Bradford, "Generalised Cash Flow Taxation", *NBER Working Paper Series*, Working Paper 8122, 2001. The drawback of these ingenious approaches is that a taxpayer may owe a substantial amount of tax on a long-held asset, even though it had substantially declined in value. See L Burman, *The Labyrinth of Capital Gains Tax Policy*, Washington, DC, The Brookings Institution, 1992, p 138.

⁵⁷ For a consideration of tax shelter issues and options currently facing New Zealand, see T Edgar, "At-Risk Rules as a Legislative Response to 'Abusive' Tax Shelters" (2001) Vol 7:4 *New Zealand Journal of Taxation Law and Policy* 291.

3.4.1 Lock-in and Inefficiency of Realisation-Based Tax

Based on these concerns, the Tax Review 2001 rejected the notion of a realisation-based capital gains tax. Our reading of the empirical evidence on lock-in and associated tax avoidance suggests that the Tax Review 2001 may have overstated the case against a realisation-based tax. In the United States, a considerable amount of research has looked at the response of capital gains realisations to the tax rate on capital gains. If lock-in is important, one would expect that realisations would be very sensitive to the tax rate. Early research based on cross-sections of tax returns suggested that realisations were very sensitive to tax rates.⁵⁸ Indeed, the elasticity of response was so high that the findings suggested that government revenues in the United States would increase if the tax rate on capital gains were slashed. Those findings, however, were in stark contrast to the results from time-series studies, which almost universally found that gains were not very sensitive to tax rates.⁵⁹

Burman and Randolph resolved this seeming inconsistency by showing that the time series studies were primarily measuring the long-run effect of changes in capital gains tax rates, whereas the cross-section studies primarily measured the sensitivity of the timing of capital gains to year-to-year variation in individual tax rates. Under a progressive tax system, as in the United States, individual tax rates will vary over time because of changes in income and the use of deductions. Panel data showed that individual tax rates in the United States varied a great deal from year to year. Individuals exploited this variation by delaying realisations when their rates were unusually high and accelerating realisations where their rates were below average.⁶⁰

The relevant measure for policy, however, is how individuals respond to *permanently* higher or lower tax rates. Burman and Randolph measured this effect by examining how realisations responded to variation in tax rates across States in the United States, under the assumption that taxpayers could not easily exploit this source of variation.⁶¹ They found that the permanent response – the parameter of interest for policy – was an order of magnitude smaller than the transitory (timing) response based on a panel of tax returns filed between 1979 and 1983, and the difference was highly statistically significant. What's more, they found that the very high elasticities measured in previous cross-section studies actually underestimated the timing response.⁶²

United States investors' responses to the delayed increase in tax rates on capital gains enacted in 1986 provides the clearest evidence of how sensitive timing is to year-to-year changes in capital gains

⁵⁸ For example, M Feldstein, J Slemrod and S Yitzhaki, "The Effects of Taxation on the Selling of Corporate Stock and the Realization of Capital Gains" (1980) 94 *Quarterly Journal of Economics* 777.

⁵⁹ For example, A Auerbach, "Capital Gains Taxation and Tax Reform" (1989) 42 *National Tax Journal* 391.

⁶⁰ L Burman and W Randolph, "Measuring Permanent Responses to Capital Gains Tax Changes in Panel Data" (1994) 84 *American Economic Review* 794.

⁶¹ If they did – ie, if people with large gains tended to relocate in low-tax states – the measured response would be larger than the true response to permanent tax changes.

⁶² The point elasticity estimate was 0.2 for the permanent elasticity (not significantly different from 0) and 6.4 for the transitory elasticity (highly significant) at a capital gains tax rate of 20 percent. The elasticity is proportional to the tax rate in the semi-log specification estimated. Thus, the permanent elasticity would be about 0.4 at a 40-percent tax rate. The Burman and Randolph findings were replicated with more recent data by Auerbach and Siegel and by Koch. See A Auerbach and J Siegel, "Capital Gains Realizations of the Rich and Sophisticated" (2000) 90 *American Economic Review* 276; C Koch, "The Response of Capital Gains Realizations to the 1986 Tax Reform Act", unpublished draft, PriceWaterhouse, November 1994. Shobe and Slemrod, as well as Bogart and Gentry, provided corroborating evidence using different models and data sets. See W Shobe and J Slemrod, "The Tax Elasticity of Capital Gains Realizations: Evidence for a Panel of Taxpayers" (1990) *NBER Working Paper Series*, Working Paper 3237, January 1990; W Bogart and W Gentry, "Capital Gains Taxes Realizations: Evidence from Interstate Comparisons" (1995) 77 *Review of Economics and Statistics* 267.

tax rates. The TRA86 raised the top tax rate on capital gains from 20 percent in 1986 to 28 percent starting in 1987. Sales of company shares in December of 1986 were 7 times their level in December of 1985. That timing response was consistent with the findings in Burman and Randolph.⁶³

The realisations elasticity is a fairly gross measure of the effect of a realisation-based tax on behaviour. Poterba looked at the ability of taxpayers to shelter capital gains with losses and found some evidence, but much less than would be expected.⁶⁴ The vast majority of taxpayers at every income level who sold capital assets reported a net gain based on data from the early 1980s. Auerbach, Burman, and Siegel looked at post TRA86 data and found similar results. High-income, high-wealth taxpayers were more likely to shelter their gains, but they represented only a tiny minority of those selling assets. Moreover, taxpayers had difficulty maintaining a net loss position. Most were realising sizable net taxable gains within a year or two.⁶⁵

The Auerbach, Berman and Siegel paper also looked at a potential inequity under a realisation based tax, the inability of taxpayers of modest means to use their losses against other income. In fact, they found that low-income taxpayers were much less likely to realise losses than those with higher incomes. When they did have a net capital loss, they were typically able to use it against other income within a year or two.⁶⁶

On balance, the empirical evidence from the United States suggests that lock-in is much less of a problem in practice than economists and tax practitioners would imagine. Indeed, realisation-based tax could easily be designed to be more effective and less distortionary than the one in the United States. The United States system almost seems as if it is designed to maximise lock-in and tax avoidance. In some respects, the tax system was clearly designed to encourage holding of assets. Capital gains on assets held for more than a year (long-term gains) are taxed at a lower rate than short-term gains – a provision designed to encourage investors to be patient. A provision enacted in 1997 provides a still lower tax rate for investors who hold for at least five years, and another special provision provides an especially low tax rate for gains on small business shares held for at least five years.⁶⁷ The ultimate prize goes to capital gains on assets held until death, which escape tax altogether, a provision that has been dubbed “the angel of death loophole.”⁶⁸ Much professional tax advice is designed to take advantage of this loophole.

Would tax avoidance be less of a problem under a realisation-based capital gains tax than under the current system in New Zealand? Almost surely, the answer is yes. The reward from converting taxable income into capital gain is currently 39 cents on the dollar for higher-income New Zealanders who are

⁶³ L Burman, K Clausing and J O'Hare, “Tax Reform and Realizations of Capital Gains in 1986” (1994) 47 *National Tax Journal* 1.

⁶⁴ J Poterba, “How Burdensome Are Capital Gains Taxes?: Evidence from the United States” (1987) 33 *Journal of Public Economics* 157.

⁶⁵ A Auerbach, L Burman and J Siegel, “Capital Gains Taxation and Tax Avoidance: New Evidence Form Panel Data,” in J Slemrod (ed), *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, New York & Cambridge, Mass, Russell Sage Foundation and Harvard University Press, 2000.

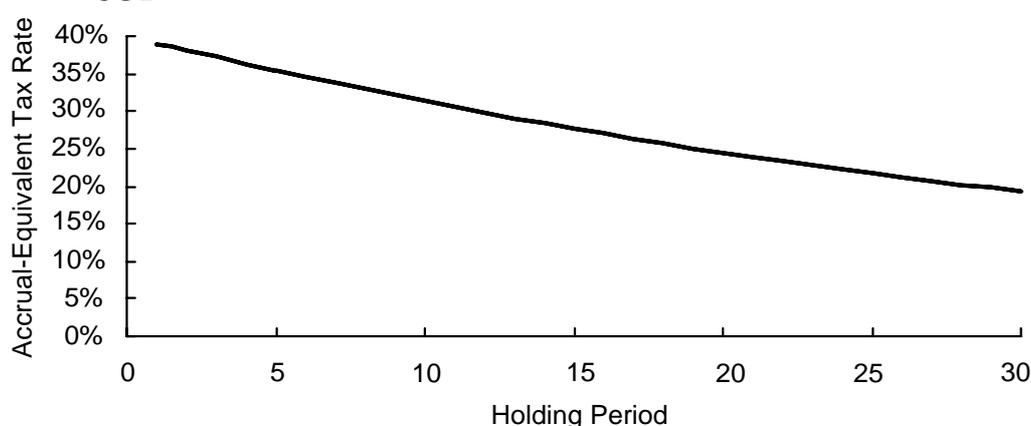
⁶⁶ United States law allows net losses to be taken as deductions against other income up to \$3,000 per year. Losses in excess of \$3,000 may be carried forward.

⁶⁷ Legislation enacted in 2003 eliminated the five-year holding period at the same time that it also cut the tax rate on long-term capital gains (held more than one year) and dividends.

⁶⁸ A nickname coined by Michael Kinsley writing as “TRB”. M Kinsley, “Angel of Death Loophole”, *The New Republic*, 13 July 1997, p 4.

likely to have most of the capital gains assets. Even though deferral means that the effective tax rate on capital gains under a realisation-based system is generally less than the statutory tax rate, the difference would be much less than 39 cents (assuming that capital gains are taxed at death). For example, for an asset appreciating at 8 percent per year held for 5 years, deferral reduces the nominal effective tax rate from 39 percent to 35 percent (see Figure 4.) If held for 10 years, the effective tax rate falls to about 31 percent. Thus the tax savings from converting ordinary income into an asset held for 10 years would be 8 percent, rather than 39 percent under the current regime. Many kinds of tax avoidance would not be profitable with such small a margin.

Figure 4: Accrual-Equivalent Tax Rate By Holding Period Under a Realisation-Based CGT



Assumptions: The asset grows in value at 8 percent per year and pays out no income. The taxpayer is in the 39 percent tax bracket.

Of course, if gains were indexed for inflation or the tax rate applying to capital gains were lower than the rate on other income, the scope for tax avoidance would increase commensurately, but that is also true under the other reform options considered. Similarly, if some kinds of capital gains remained exempt from tax, as in the United States, that would open up more avenues for tax shelter activity. Eventually, one could design a system more inefficient than the status quo, but that is not a necessary feature of a realisation-based system.

3.4.2 Complexity

A realisation-based capital gains tax would probably be more complex than the status quo in New Zealand, but there are mitigating factors. On the one hand, taxpayers would generally have to measure capital gains, something that they can often avoid under the current regime. It would also be hard to implement a realisation-based system without requiring those with capital gains to file tax returns, a serious drawback in a system where most taxpayers are on a pay-as-you-earn basis.⁶⁹

⁶⁹ Exempting small gains from tax might mitigate this problem, but it would create other complexities. In the United States, less than 2 percent of tax returns accounted for 87 percent of capital gains in 1993. L Burman and P Ricoy, "Capital Gains and the People Who Realize Them" (1997) 50 *National Tax Journal* 427. A \$10,000 annual exemption would have

On the other hand, the boundary between capital and revenue can be much clearer under a realisation-based tax system. Most people who do not aggressively avoid tax know what assets generate capital gains. Because the reward for avoidance is lower and the opportunities more limited, the tax authorities have to spend less of their time policing tax avoidance activities.

4.0 OTHER ISSUES

There are numerous issues in designing a capital gains tax regime.⁷⁰ We will focus on just three of them here. First, should a capital gains tax regime be indexed for inflation? Second, how does the choice of capital gains tax regime affect the variability of government revenues? Third, how should the transition to a new capital gains tax regime be managed?

4.1 Inflation Indexation or Preferential Tax Rate

Under an ideal income tax system, only the real increase in value of an asset – after removing the loss in purchasing power of dollars invested due to inflation – would be included in taxable income. Other forms of capital income, such as interest and dividends, would also be indexed for inflation. Importantly, interest deductions would be limited to the portion over and above inflation.

Comprehensive indexation of the tax system for inflation is another idea that appeals to academics, but has failed to capture the fancy of ordinary people who believe that it would be hopelessly complex.⁷¹ Although an earlier New Zealand Government consultative document had recommended comprehensive indexation of the income tax base,⁷² the Tax Review 2001 did not even mention the possibility. But it did propose only to tax the real component of capital gains under the risk-free return method. Given that the rest of the tax system is not indexed, indexing a single form of capital income is not clearly the right decision.

The main problem is that indexing capital gains while leaving other forms of capital income and expense unindexed will create arbitrage possibilities, in exactly the same way that a rate differential between capital gains and other income does. For example, suppose for simplicity that a riskless asset grows at 8 percent while inflation runs at 4 percent. Half of the gain would be excluded from income under an indexed accrual tax regime (and under the RFRM in this example). A taxpayer in the 39

exempted about 87 percent of those who reported capital gains from tax liability, while sacrificing only 13 percent of revenue. However, an annual exemption provides taxpayers a strong incentive to bunch gains in years when they would otherwise not take full advantage of the exemption. Moreover, a gain exemption must be accompanied by a parallel loss exemption, which creates additional complexities and inefficiencies. M Keen, R Krellove and L Burman, "South Africa: Taxing Capital Gains", International Monetary Fund, May 2001, available at <<http://www.ftomasek.com/IMFDraft.pdf>>.

⁷⁰ Many design issues for a capital gains tax are discussed in ch 8 of L Burman, *The Labyrinth of Capital Gains Tax Policy*, Washington, DC, The Brookings Institution, 1999.

⁷¹ Shuldiner, a US tax lawyer, argues that indexation of the US tax system is both feasible and desirable. See R Shuldiner, "Index the Code, Not Capital Gains" (1998) 79 *Tax Notes* 225-42. This view is not universally accepted in the US legal profession. An Australian study concluded that the Australian Government should decide to introduce inflation adjustment of income measurement in principle, while further developing necessary details. R Vann and DA Dixon, *Measuring Income Under Inflation: Australian Tax Research Foundation Research Study No.12*, Sydney, Australian Tax Research Foundation 1997, p 7. Interestingly, the study concluded that the partial indexation that Australia had was "worse than no indexation at all. The study supports the move to comprehensive indexation rather than withdrawal of the existing indexation of capital gains." (Vann and Dixon at p 5.) In fact, the Australian Government did the opposite. It froze indexation of capital gains at 30 September 1999 and introduced significant capital gains tax preferences. C Evans, "Curing Affluenza? A Critique of Recent Changes to the Taxation of Capital Gains in Australia" (2000) 23 *University of New South Wales Law Journal* 299.

⁷² Consultative Committee on the Reform of the Taxation of Income from Capital, *Consultative Document on the Taxation of Income from Capital*, Wellington, New Zealand Government, 1989, pp 111-197, 305-321.

percent tax bracket would be willing to borrow at 10 percent to invest in this asset because his after-tax interest cost would be lower than the after-tax return on the investment.⁷³ This is pure arbitrage and inefficient.

Of course, indexation does provide limited inflation protection for the investor, although that will be highly imperfect if only one component of income is indexed. Moreover, it shifts inflation risk onto the government. That is risk that the government cannot easily diversify over time or hedge.

If gains are taxed on a realisation basis, indexation becomes very complex. Asset improvements must be indexed separately, as must additional purchases of shares in a company, to calculate the indexed tax cost. An influential group of United States lawyers – the tax section of the New York State Bar Association – concluded that complexity made proposals to index capital gains in the United States unworkable.⁷⁴

Finally, there is an issue of fairness. Why should taxpayers who earn income in the form of capital gains get inflation protection for their tax bills when taxpayers who earn returns in the form of interest do not?

4.2 Revenues Issues

4.2.1 *Volatility of Revenue Flows under the Three Options for Taxing Gains*

The Tax Review 2001 expressed concern about the volatility of government revenues under a capital gains tax regime. A volatile revenue stream makes government budgeting difficult and can increase the likelihood of running budget deficits or requiring tax increases or spending cuts to meet budget targets. Experience in the United States suggests that forecasting capital gains tax revenues is extremely difficult. The unpredictability of stock market growth in the United States led forecasters to consistently underestimate revenues, not only on capital gains, but also from the executive compensation paid in the form of stock options, during most of the 1990s. When the United States stock market dramatically reversed course in 2001, official estimates started to overstate revenues, contributing to the re-emergence of budget deficits this year.

If gains were taxed on an accrual basis, revenues would be much more volatile, at least in the United States. Figure 5 shows that real gains accruals on company shares were highly volatile through the past decade in the United States.⁷⁵ The highly unpredictable series of capital gains realisations appears almost sedate by comparison.⁷⁶ RFRM revenues are the least volatile, because they depend on the level

⁷³ The after-tax gain is 8 percent minus tax of 39 percent of the real gain of 4 percent, which equals 6.44 percent. The after-tax interest cost is 10 percent $(1-0.39) = 6.10$ percent. Since the interest cost is less than the gain, the investment is worth making after tax, even though it is a big loser before tax.

⁷⁴ New York State Bar Association, Tax Section Ad Hoc Committee on Indexation of Basis, "Report on Inflation Adjustments to the Basis of Capital Assets" (1990) 48 *Tax Notes* 759.

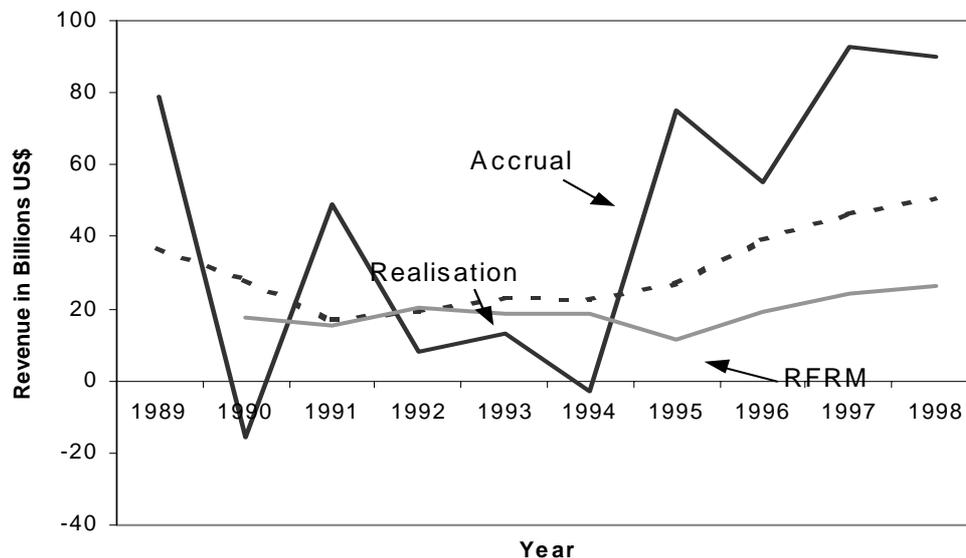
⁷⁵ The figure shows data for the United States because data on capital gains realisations and asset values held by individuals are not available in New Zealand. Accruals and RFRM revenues are imputed based on data on corporate stock ownership by individuals from the Federal Reserve Board's Survey of Consumer Finances, which is published triennially (1989, 1992, 1995, and 1998). Data for intermediate years is interpolated based on the S&P 500 stock market index. Both accrual taxation and realisation based tax are assumed to be in terms of nominal capital gains – ie, not indexed for inflation.

⁷⁶ The figure also shows that taxing on an accrual basis would raise much more revenue than realisation-based tax in the US. Gains on company shares are only about half of reported capital gains in the US, but these calculations suggest that taxing share gains as they accrue would raise about as much revenue on average as taxing all capital gains on a realisation basis. Part of this is obviously due to the explosive growth in capital gains on shares in the 1990s, but part also reflects the

rather than the change in asset values. The coefficient of variation – an index of the volatility of a series – is 0.91 for accrual taxation, 0.38 for realisation-based tax, and 0.23 for RFRM. Numbers for New Zealand data would presumably be smaller, because there are far fewer capital gains on company shares, as discussed earlier, and gains on shares are usually the most volatile component of overall capital gains.

Of course, the stability of RFRM may be viewed as a negative factor from the point of view of individual taxpayers, as discussed earlier. It means that they are left absorbing the most risk. Indeed, the volatility of individual tax payments will be even greater than the volatility of revenues to the government, which means that accrual taxation or a realisation-based tax can do a great deal to reduce the volatility of after-tax returns to individuals and businesses.

**Figure 5: Volatility of Tax Revenue Under Three GST Methods, in Constant \$1990
(Based on Federal Reserve Board's Survey of Consumer Finances, 1998)**



4.2.2 The Transition Path of Capital Gains Tax Revenues after Introduction

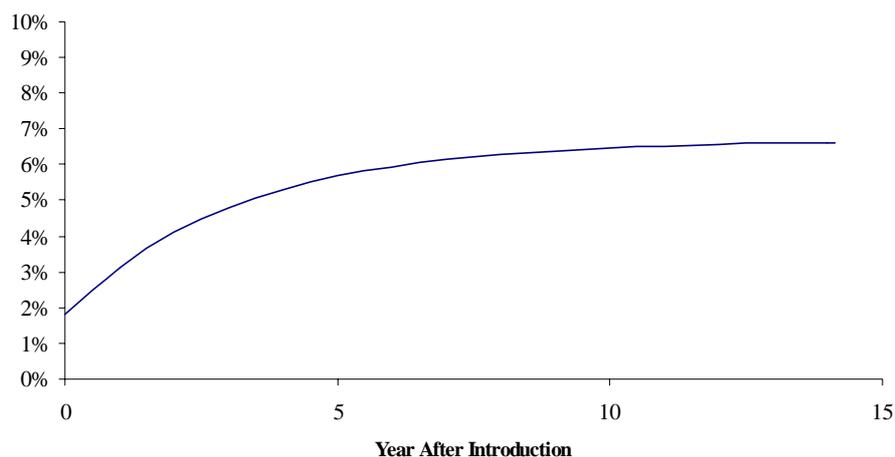
Some argue a new realisation-based capital gains tax that applied prospectively to gains after the date of enactment would produce little revenue for many years. This view is too pessimistic.

Assuming modest growth rates and plausible rates of turnover, the gain accruals and realisations approach their steady state levels quickly. For example, at a 10 percent growth rate for nominal asset values, unrealised capital gains would comprise nearly twenty percent of asset value in three years and one quarter of asset value in eight. The long-run steady state level of accrual is 26.7 percent. Thus, substantial capital gains can arise fairly quickly after introduction. At that growth rate, if 20 percent of taxable assets turn over every year, realised capital gains would equal 6.7 percent of asset value in

significant percentage of gains that escape tax because assets are held until death or donated to charity, both of which are tax-free.

long-run steady state.⁷⁷ Gains would equal 4.1 percent of share value after only two years and 5.9 percent over six, so the steady state is approached quite quickly. This is illustrated in Figure 6. At higher rates of asset appreciation, the steady state is achieved even faster.⁷⁸

Figure 6: Realised Gain per Dollar of Share Value by Number of Years from Introduction



4.3 Transition Issues

If New Zealand decides to include capital gains more broadly in the tax base, it will have to decide how to manage the transition. The issues are especially important when capital gains are taxed upon realisation. Since accrual taxation and RFRM would each depend only on current asset prices, it is comparatively straightforward to include future gains in income under those regimes.

Canada and Australia took different approaches to phasing in capital gains taxation. Canada introduced a realisation-based capital gains tax in 1972. Australia introduced one in 1985. Canada decided to tax future gains on existing assets after a set date, which they called the valuation date, or V-date. Australia decided to exempt from tax assets that had been purchased before the effective date for their legislation.⁷⁹

Australia's approach has some obvious advantages. People did not have to try to establish the cost basis for an asset that had been held for decades and for which records might be scant or nonexistent.

⁷⁷ The steady state revenue from the capital gains tax, relative to the value of the stock of assets, is simply $rg/(r+g)$, where r is the rate at which capital gains accrue and g is the realisation rate. See Appendix 2 of M Keen, R Krelove and L Burman, "South Africa: Taxing Capital Gains", International Monetary Fund, May 2001, available at <<http://www.ftomasek.com/IMFDraft.pdf>> for details.

⁷⁸ See n 77.

⁷⁹ Australia also decided to index gains for inflation, a decision that led to considerable complexity and was ultimately reversed. Broadly, indexation for inflation has been frozen at 30 September 1999 for assets acquired prior to 21 September 1999 and held for more than 12 months.

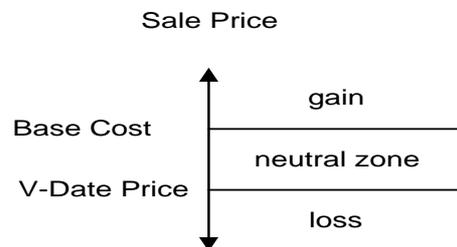
They did not have to assess the value of assets already in portfolio, but only newly purchased one. The Australian approach, however, also had some serious disadvantages. Most notably, it created a horrendous lock-in effect. Assets held in 1985 were to be tax exempt, whereas a newly purchased asset would be taxable on any future gain. Assuming an effective capital gains tax rate of 20 percent (the 49-percent top tax rate on ordinary income reduced by the value of indexing for inflation and deferral), an asset in portfolio would be held even if it were expected to pay a 20 percent lower rate of return than alternative investments. Put another way, the gain on pre-1985 assets, which were exempt from capital gains tax as long as they are held, were worth 25 percent more if held than they would be to a new purchaser in the same tax bracket.

Canada avoided this problem by requiring that tax be paid on gains accruing after the V-date, regardless of when they were purchased.⁸⁰ Strictly applied, this rule would have seemed inequitable to taxpayers holding assets with losses as of the V-date, who might nonetheless have had to pay tax on that part of any gain that was really just a recovery of a previous loss.

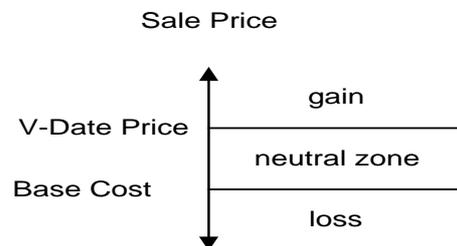
To get around this problem, Canada allowed taxpayers to elect an alternative method for establishing tax cost to be applied to all assets purchased before V-date. Under the alternative method, assets with losses as of the V-date would be exempt from tax on any gain until the price reached its original cost. The area between the base cost (that is, the purchase price plus the cost of any improvements) and the V-date price was referred to as the neutral zone. Price movements inside that zone produced neither gain nor loss. If the asset price continued to fall, a loss could be claimed relative to the V-date price. This is illustrated in Figure 1.

Figure 1: Determination of Gain Under Alternative Valuation Method in Canada

Case 1: V-Date Price < Base Cost



Case 2: V-Date Price > Base Cost



⁸⁰ We are very grateful to Bob Brown for providing a detailed oral history of Canada's transition and the logic behind it.

A symmetric rule had to be applied to assets with gains. Assets that had increased in price as of the V-date would be disallowed losses if the sale price were in the neutral zone (ie, between V-date price and base cost). If the asset price increased from the V-date, gain would be calculated relative to the V-date base cost. Declines in the asset below the purchase price could be claimed as a loss.⁸¹

These rules were designed to be taxpayer-friendly without allowing taxpayers to cherry pick – ie, pick the most favourable rule for each separate transaction. Taxpayers who wished to use the alternative valuation method had to elect it when they first sold a pre-1972 asset after the V-date. The election applied to all future sales of such assets and was irrevocable.

The V-date was December 31, 1971, for assets other than publicly traded securities. Tax authorities, however, were concerned that a pre-announced V-date for securities might cause prices to be distorted, either because of deliberate manipulation or because of an unusual level of market activity arising from tax planning transactions. Thus, Canada picked the V-date for publicly traded securities at random after the end of the 1971. The actual date selected was December 22, 1971. To help establish value for real estate, brokers were commissioned to create a set of guidelines for valuation, which varied by locality, area, and type of use. Tax authorities not only collected valuable data by this means, but also won some support for the new regime from an important interest group. They also published information booklets and worked with tax practitioners to make sure that they understood the new rules. The theory was that people with the largest gains would be enlisting the advice of tax professionals, so this was an efficient way to educate the affected public.

Not too surprisingly, there were many disputes between the government and taxpayers regarding valuation of companies, especially in the years immediately following the introduction of the capital gains tax. Most of the disagreements were over the valuation of private companies and real estate.

Special transition rules and practices applied to old assets. Although taxpayers were required to report a sale in timely fashion, they were often allowed extra time to calculate the gain or loss and pay tax (subject to interest charges on any late payments). In certain cases, auditors applied weaker substantiation requirements for assets purchased before the V-date, requiring only that a good faith effort be made to establish an accurate value.

Although the Canadian tax is far from pure, it contains some key anti-avoidance provisions that the United States model lacks. Notably, capital gains are generally taxed at death. Transfers to a spouse or child are tax-free, but the recipient of the gift acquires the tax basis of the asset. Moreover, if the asset is sold during the lifetime of the transferor, the gain may be attributed back to the transferor and taxed as if it had not changed hands. Other gifts are generally treated as realisation events.

Émigrés are deemed to have disposed of their capital assets when they leave the country. They may defer payment of the tax, but only if they post a bond. The initial provision contained loopholes that have since been closed and the provision remains controversial. Taxpayers complain that the tax can lead to double taxation if gain is ultimately taxed by the foreign jurisdiction, and the deemed realisation can create cash flow problems for assets that are not sold. Canada has attempted to deal with the issues of double taxation by modifying tax treaties and creating a retroactive foreign tax credit in cases where a person can show that the gain was ultimately taxed by another country.

⁸¹ This complex set of rules can be summarised by a simple mnemonic. Rank the base cost, V-date price, and sale price from lowest to highest. For purposes of calculating either gain or loss, the middle number is treated as the base cost.

5.0 CONCLUSION

There is no perfect way to tax capital gains in a real-world income tax. Not taxing them, or taxing them in an *ad hoc* and inconsistent fashion as is done in New Zealand invites unproductive tax avoidance, creates uncertainty for taxpayers, and is inequitable.

The proposed risk-free rate of return method is a novel approach to trying to tax capital gains in an efficient fashion. Under certain assumptions, the RFRM would produce identical incentives for taxpayers as the economists' ideal of accrual taxation, while providing a surer stream of tax revenue to the government. There is, however, a real question about whether shifting risk from taxpayers onto the government is efficient. Moreover, the method exempts from tax systematic sources of gain over and above the risk-free return that should legitimately be included in the tax base.

The argument for taxing only real returns is also tenuous in the context of a tax system where all other sources of income and expense are taxed on a nominal basis. Furthermore, the proposed very limited applicability of RFRM means that substantial other tax law asymmetries will remain. Thus, the new regime will do less to stem tax avoidance than it might.

The most serious deficiency of the RFRM is that it is likely to be perceived by taxpayers as unfair *ex post*, when assets produce poor returns but are still taxed on their *ex ante* gains. We suspect that no amount of economic reasoning will be able to surmount this drawback.

We believe that the Tax Review 2001 dismissed the approach taken by most of the rest of the developed world – taxing gains on a realisation basis – too readily. Although it has glaring deficiencies, it has the advantage of being understandable to ordinary taxpayers and would significantly lessen the opportunities for tax avoidance. The problems associated with lock-in and loss limitations – necessary features of a realisation-based tax – appear to be fairly modest based on available empirical evidence.

As Alan Auerbach noted in his report on the Tax Review 2001's *Issues Paper*,⁸² it proposed application of RFRM specifically in the cases where accrual taxation would be easiest to implement – that is financial instruments traded on well established markets with objective published prices. A better option from a purely economic perspective would be to tax such gains on an accrual basis. RFRM makes sense for owner-occupied housing and possibly for other assets that are hard to value annually. If RFRM is infeasible, such assets could be taxed on a realisation basis.

The top tax rates on ordinary income in New Zealand place punishing burdens on capital income. After accounting for the effects of even modest inflation, a 39 percent statutory tax rate can equate to a real effective tax rate of 70 percent or more. Efficiency could be enhanced if the revenues gained by taxing capital gains were used to finance lower tax rates on capital income generally.

Beyond that, there are some good arguments for low or even zero tax rates on capital gains, but those arguments require similarly low tax rates on other forms of capital income and expense. If a major reduction in the tax burden on capital is deemed desirable (its principal drawback is that it would reduce the progressivity of the tax system), New Zealand should consider increasing its reliance on consumption taxes, for example by converting its income tax into a cash flow type consumption tax. The New Zealand Treasury has already done considerable work on the core rules for a practical cash flow tax. The major outstanding technical issue remains how to move from an income tax to a cash

⁸² A Auerbach, "Comments on Tax Review 2001, *Issues Paper*, June 2001", mimeograph, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>.

flow tax.⁸³ No politician could consider advocating the simplification benefits of switching to a cash flow tax until the testing transitional and international problems have been overcome.

Accepted for publication on 21 August 2003

⁸³ The New Zealand Treasury has intermittently considered a cash flow tax, most recently in 1996-98. D Katz, "Towards a Practical Cash-Flow Tax", *New Zealand Treasury Working Paper 99/1*, March 1999, available at <<http://www.treasury.govt.nz/workingpapers/1999/99-1.asp>>. The Tax Review 2001 re-evaluated the cash flow tax option for New Zealand in 2001. McLeod Committee, *Tax Review 2001: Final Report*, Wellington, October 2001, p 106, available at <<http://www.treasury.govt.nz/taxreview2001/default.htm>>. P Wilson, "An Analysis of a Cash Flow Tax for Small Business", *New Zealand Treasury Working Paper 02/27*, December 2002, available at <<http://www.treasury.govt.nz/workingpapers/2002/02-27.asp>>. The main obstacle to switching to a cash flow tax remains how to design a workable and acceptable transition from an income to a cash flow tax. The New Zealand Treasury 1996-98 project did make considerable progress towards a core set of practical rules for a cash flow tax. These core rules would make limited modifications to the current New Zealand income tax rather than replacing it with a new tax regime. Most importantly, all business expenditure would become deductible when payments were made and dividend and interest payments would generally become non-taxable in the hands of the recipient. D Katz, "Towards a Practical Cash-Flow Tax", *New Zealand Treasury Working Paper 99/1*, March 1999, available at <<http://www.treasury.govt.nz/workingpapers/1999/99-1.asp>>. M Keen and J King conclude that the Croatian experiment with a cash flow tax from 1994 to 2001 worked rather well in the sense that its abolition did not reflect "any irremovable technical flaw in the system." M Keen and J King, "The Croatian Profit Tax: An ACE in Practice" (2002) 23 *Fiscal Studies* 401, p 417.