Tax Working Group
Te Awheawhe Tāke

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Coversheet: **Risk-free return method of taxation**

Position Paper for Session 20 of the Tax Working Group
12 October 2018

Purpose of discussion

This paper:

- Sets out the theory about the equivalence of a comprehensive income tax and the risk-free return method (RFRM) of taxation if returns are made up of a risk-free return and a risky return.
- Provides examples of the outcomes under current income tax, RFRM, and a capital gains tax under four rental property scenarios.
- Provides updated revenue estimates for the RFRM applying to residential rental property (including baches) instead of the current income tax treatment.

Key points for discussion [if required]

- The appropriateness of the outcomes in the examples.

Recommended actions

We recommend that you:

a **Indicate** whether you require any further work on the RFRM for residential rental property.

Risk-free return method of taxation

Discussion Paper for Session 20
of the Tax Working Group

October 2018

Prepared by the Inland Revenue Department and the Treasury

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1. Introduction

1. In the Tax Working Group's interim report the Group raised the RFRM as another approach to extending the taxation of capital income (paragraph 77 of Chapter 6).

2. This report sets out the logic behind the RFRM to illustrate the equivalence of the RFRM and comprehensive income taxation under particular assumptions. It also provides some examples of outcomes for the taxation of residential property under:

   - current income tax treatment,
   - the risk-free return method, and
   - taxing capital gains on a realisation basis.

3. The examples aim to explore the costs and benefits of the RFRM in the context of a specific asset (rental property) to allow the Group to either come to a judgment about the RFRM now, or in a later meeting when further details of the other proposal to extend the taxation of capital income (taxing capital gains on a realised basis) have been worked through.

4. Fuller details of the examples with year-by-year results are provided in an appendix with additional assumptions required.

2. Revisiting the logic behind the risk-free return method of taxation

5. The risk-free return method of taxation involves a simple calculation:

Equity value at the beginning of year
x
Risk-free rate of return
x
Investor's tax rate

6. If Sam has a 33% marginal tax rate, the risk-free rate of return is 3.5%, and Sam owns a rental property worth $700 000 at the beginning of the year, funded with $300 000 of debt, Sam would owe tax of $4620 ($400 000 * 3.5% * 33%).

7. The appeal of the risk-free rate is that it is relatively simple and as has been pointed out elsewhere (e.g., in the McLeod Review) under certain assumptions it will be theoretically equivalent to a comprehensive income tax (CIT).

8. Under a CIT, tax will be high when a risky investment performs well and low when a risky investment performs badly. In contrast, if we tax on an RFRM basis, tax revenue would not depend on the performance of an investment. Despite this, the two treatments can result in the same economic effect because a risky investment can be decomposed into two parts: a part that earns the risk-free rate, and a risky gamble that has a zero market value. If tax is under a CIT, the government shares in the gamble, whereas if tax is on an RFRM basis, the government does not. But because the gamble is of zero market value, there should arguably be no differences in incentives to invest under the two taxes. Moreover, if the government swaps between the two bases, taxpayers may at least in some circumstances be able to take actions which leave them with exactly the same after-tax returns under either of the two tax bases.

9. To understand the basic idea, consider a simple example based on Annex A in the McLeod Review's final report. An investor has $200 which is split equally between risk-free and risky investments. The risk-free investment generates $104 a year later, which is returned to the investor (i.e. the risk-free return is 4%). The investor invests the rest in a risky investment which returns $130 half of the time, but only $90 the remaining half of the time. The risky investment generates a 10% expected return. This provides a 6% risk premium over and above the risk free return which compensates investors for taking on risk.

10. The following table sets out the potential outcomes for someone with a 33% tax rate assuming, initially, that we have a CIT with full deductions for any capital losses.

Table 1: Initial position with CIT

	Risk-free investment	Risky investment	Total before tax	Tax	Net return
Risky investment does well	$4.00	$30.00	$34.00	$11.22	$22.78
Risky investment does not do well	$4.00	-$10.00	-$6.00	-$1.98	-$4.02
Expected return (50% * each scenario above)	$4.00	$10.00	$14.00	$4.62	$9.38

11. The person in the table above has an expected (or average) return after tax of $9.38.

12. If the government introduces the RFRM, the opening value of the portfolio is taxed at the risk-free rate of 4%. If the person does not adjust the portfolio, the change in tax treatment will result in the following outcomes:

Table 2: RFRM with no portfolio adjustment

	Risk-free investment	Risky investment	Total before tax	Tax ($200 * 4% * 33%)	Net return
Risky investment does well	$4.00	$30.00	$34.00	$2.64	$31.36
Risky investment does not do well	$4.00	-$10.00	-$6.00	$2.64	-$8.64
Expected return (50% * each scenario above)	$4.00	$10.00	$14.00	$2.64	$11.36

13. The person's expected return has increased from $9.38 to $11.36. At the same time the risk of the person's portfolio has increased. The good outcome now provides $31.36 (instead of $22.78), and the bad outcome now provides a loss of $8.64 (instead of a loss of $4.02). Government tax revenue has shrunk from an expected $4.62 (with some market risk), to a definite $2.64 (without market risk).

14. If the investor wants to go back to the old risk exposure, she could sell $33 of her risky investment and put it into the risk-free investment so that she has $133 of risk-free investment and $67 of risky investment. If she did that, the result would be:

Table 3: RFRM with portfolio adjustment

	Risk-free investment	Risky investment	Total before tax	Tax ($200 * 4% * 33%)	Net return
Risky investment does well	$5.32	$20.10	$25.42	$2.64	$22.78
Risky investment does not do well	$5.32	-$6.70	-$1.38	$2.64	-$4.02
Expected return (50% * each scenario above)	$5.32	$6.70	$12.02	$2.64	$9.38

15. You can see that the final column of table 3 is identical to the final column of table 1. Through portfolio adjustments, the investor has identical post-tax returns under the RFRM as she did under the CIT. Government revenue is lower, but it is risk-free.

16. It might be thought that a major advantage of taxing income as comprehensively as possible rather than having an RFRM is that doing so is likely to generate more tax revenue. However, there is an important flipside. While there would be a higher expected revenue stream under a CIT, this revenue stream would be risky and there are costs in being exposed to risk. As Weisbach (2004) has pointed out, if the government wants to earn additional revenue but expose itself to risk, it can do this by choosing a CIT regime, or separately investing into risky markets, including the sharemarket.

17. Thus, this is the basic logic behind the RFRM as a possible alternative to a CIT (or a tax which gets as close to a CIT as is practicable). Potential advantages of an RFRM that have been suggested include that there would be no lock in (although this depends critically on there being accurate valuations as is discussed further in section 3). A realisation-basis tax on capital gains can lock taxpayers into existing assets even when it would be more efficient for them to swap to new assets.

18. Aside from the equivalence between a CIT and RFRM from a theoretical perspective, there are practical realities which mean that sometimes RFRM will be better or worse than a CIT. The RFRM is best-suited for passive investments in assets like equities, where the expected return is the risk-free return coupled with a risk premium. We will be reporting further on this in the context of extending the taxation on capital income in a later report on managed funds.

19. RFRM is unlikely to be appropriate in cases where labour income can be bundled into the return, where there are economic rents that are not capitalised into asset prices, or where an asset is difficult to value. As suggested in the RFRM and Land Taxes discussion paper for session 11 of the Tax Working Group (June 2018), the asset class (aside from publically listed equities) most likely to be suited to the RFRM is residential rental property, which is what the rest of this paper looks at. Even applying the RFRM to this asset class might be difficult, however, given:

    - Valuations might not reflect market value,
    - Some of the return may be a reward for labour by the landlord,
    - Tax may be due even when there is no underlying cash flow from the asset, and
    - The broad equivalence between the RFRM and CIT is difficult to explain and there may not be a large degree of public acceptance of the tax – many may see large realised gains and take the view that these should have been taxed rather than taxpayers only being required to pay tax on risk-free imputed returns. If the market falls and people are making losses on their rental properties, it may be hard for them to accept that they should be paying tax.

20. An additional practical concern is the level of the risk-free rate. Current 2-year government bond rates yield approximately 1.7%.[1] This might be the appropriate risk-free rate. But households can invest in term deposits at banks, which have very little risk and earn approximately 3.5%.[2]

21. Taxing equity in residential rental property on a return of 1.7% might be seen as difficult to reconcile when term deposits are taxed on their actual return of (approximately) 3.5%. But the theory relies on us choosing the right risk-free rate. If we choose 3.5% and the true risk-free rate is 1.7%, the effective tax rate on residential rental property will theoretically be almost double the rate that the logic above requires. If we choose 1.7% and the true rate is 3.5% it will be slightly over half the rate that the logic above requires.

22. The rest of this paper looks at how the RFRM might apply to rental property, and uses a rate of 3.5% in the examples. Revenue estimates are provided using both 3.5% and 1.7%

[1] https://www.rbnz.govt.nz/statistics/b2, accessed on 25 September 2018.

[2] https://www.interest.co.nz/saving/term-deposits-1-to-5-years, accessed on 25 September 2018.

3. Examples

23. In the examples that follow we set out the treatment of events under three regimes:

- Current income tax
- RFRM
- Current income tax combined with taxing realised gains

24. For all examples below, the starting position is:

- An investor with a 33% marginal tax rate.
- A rental property purchased at the start of the period, funded with a 30% interest-only mortgage at a 5% interest rate. The rental property is purchased for $700 000. Net equity is $490 000.
- Annual interest expense is $10 500.
- Gross rents received are $31 200 ($600 per week) in the first year.
- Other expenses are $5 000 per year.
- The risk-free rate is assumed to be 3.5%.

Example 1: Price increases by 50% over 6 years. Property is sold in 6th year

25. In this example the market value of a rental property is rising, and the property is sold in the 6th year for 50% more than it was purchased for.

Current income tax

- Net profit in the first year is $15 700 ($31 200 (rent) - $10 500 (interest) - $5 000 (other costs)).
- Tax in the first year of $5 181, increasing each year if rent increases.
- Gain of $350 000 on sale. No tax on sale.

RFRM

- Tax of $5696 in year 1 ($490 000 * 3.5% * 33%).
- Updated valuation estimate required for years 2 through 6 to find tax due in those years.
- Gain of $350 000 on sale. No tax on sale.

CGT

- Net profit in the first year is $15 700 ($31 200 (rent) - $10 500 (interest) - $5 000 (other costs).
- Tax in the first year of $5 181, increasing each year if rent increases.
- Gain of $350 000 on sale, tax of $115 500 due on sale.

26. Because the property is sold after 6 years, the sale falls outside of the bright-line period, and under the current income tax treatment there is no tax on the sale.

27. Under the RFRM, there is tax of $5696 due in the first year. In the next year, an updated valuation of the property is required to determine the tax due in that year. The same is true for all following years.

28. If the market value is not updated, owners face the incentive to be "locked in" to assets that have appreciated as they are paying a deemed return on a lower rate. If they replace the property with one that is of equal value, they will face higher tax on the new (accurate) opening value of the new property.

29. Council rateable valuations could be used to provide updated values if properties are not sold, but it is important that they are accurate: if the market value of a property is $100 000 more than the council valuation, in effect $100 000 of equity in a property is not taxed.

30. When the property is sold there is no tax due on the gain under the RFRM. To the extent that the gain represents a risky return, then under the logic outlined in section 2 arguably there is little fairness difference between the RFRM and the CGT outcomes (given levels of risk), except that capital gains would be taxed on realisation and the RFRM is equivalent to a tax on accruing gain. It is likely, however, that public opinion on fairness may be that there is a very material difference given the actual result.

31. If capital gains are taxed, there is a gain of $350 000 on sale, with tax of $115 500 due on the gain. The post-tax capital gain for the investor is $234 500.

Example 2: Price decreases by 30% over 6 years. Property is sold in 6th year

Current income tax

- Net profit in the first year is $15 700 ($31 200 (rent) - $10 500 (interest) - $5 000 (other costs)).
- Tax in the first year of $5 181, increasing/decreasing each year if rent increases/decreases.
- Loss of $210 000 on sale. No deduction on sale.

RFRM

- Tax of $5696 in year 1 ($490 000 * 3.5% * 33%).
- Updated valuation estimate required for years 2 through 6 to find tax due in those years.
- Loss of $210 000 on sale. No deduction on sale.

CGT

- Net profit in the first year is $15 700 ($31 200 (rent) - $10 500 (interest) - $5 000 (other costs)
- Tax in the first year of $5 181, increasing/decreasing each year if rent increases/decreases.
- Loss of $210 000 on sale. Deduction may be claimed against other capital gains or capital income (if there is capital loss ringfencing), or agains salary income if no ringfencing. If deduction is fully utilised, it has a value of $69 300 to the taxpayer.

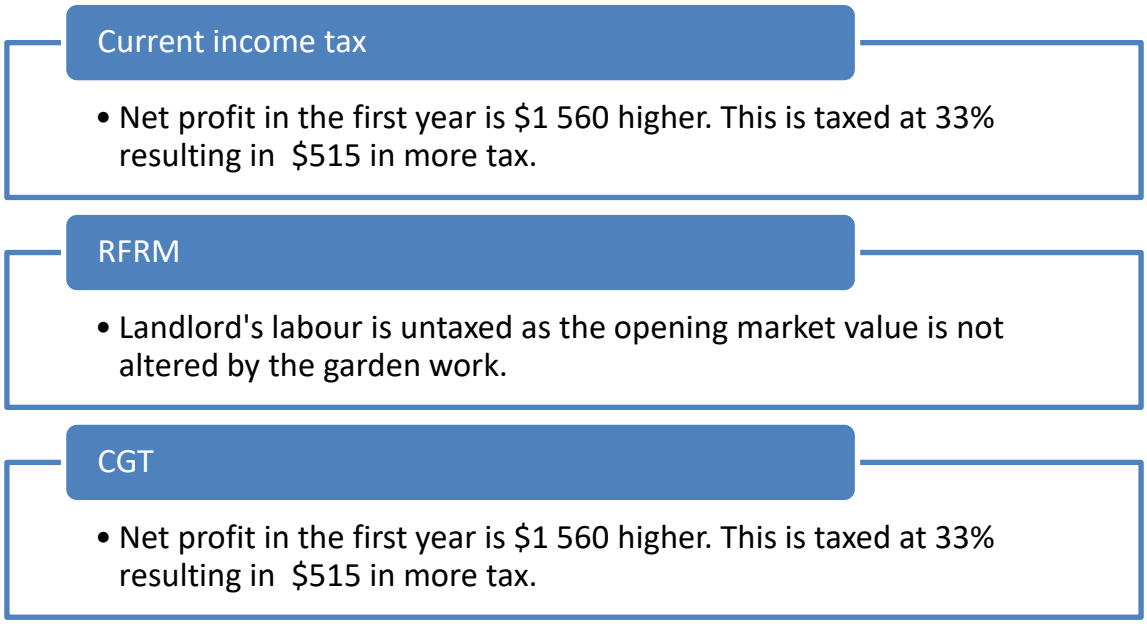
32. In this case the price has decreased by 30% over 6 years. Under current law, there is no deduction for the loss available on sale.

33. Under the RFRM updated valuation estimates would be required each year. If updated valuations were not used each year, investors would be incentivised to sell the asset to buy a replacement asset with a lower tax value. Under the RFRM there would be no deduction on sale. Note that the landlord will have paid positive tax despite making an economic loss. This may be difficult for the landlord to understand.[3]

34. Under a CGT there would be a $210 000 loss on sale. This would either be deductible against other capital gains or capital income (if there is capital loss ringfencing), or against any other income if there is no capital loss ringfencing. Any unutilised loss would be carried forward to be used in future years.

Example 3: Landlord's labour increases rent by 5%

35. In this example, it is assumed that the landlord works on the property and maintains the garden every fortnight for 2 hours. In turn, this raises the rent able to be charged by 5% ($30 per week).



36. As can be seen the RFRM does not tax the returns from landlord's labour. This reveals that while the RFRM may provide accurate and economically equivalent

[3] Arguably this is why for individual investors, the current regime that is closest to the RFRM - the Fair Dividend Rate - charges no tax if the investor's portfolio value has declined over the income year. This seems fairer to the public but is inconsistent with the logic set out in section 2 (which is the part of the genesis of the Fair Dividend Rate),

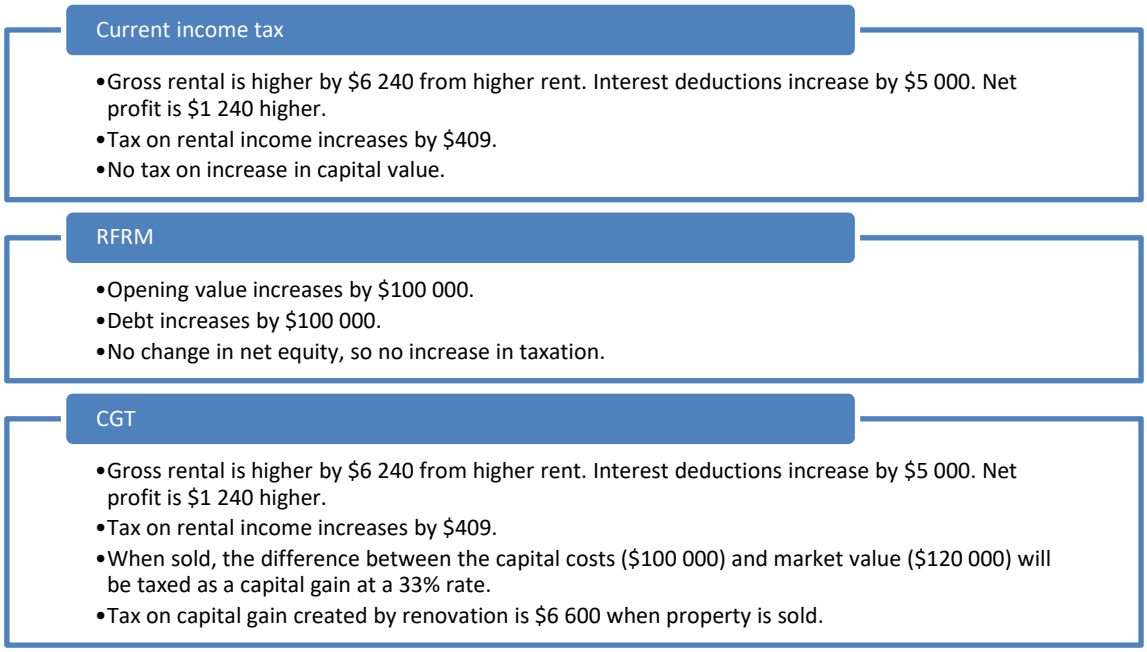
results where the only source of return is the risk-free return and a risk premium, it breaks down when an asset owner is able to use labour to increase the return.

37. The landlord is able to earn $30 per hour untaxed on his or her labour. This is likely to be regarded as unfair when all other workers are taxed on their income. It is also inefficient because the landlord is incentivised to divert his or her labour to the untaxed garden maintenance over taxed efforts that might earn (say) $40 pre-tax. The difference between the $30 untaxed and $40 pre-tax income is a loss of income to the country caused by the undertaxation of the labour by the RFRM.

Example 4: Renovation by third-party builder increases value of the house

38. In this example, it is assumed that the landlord hires a third-party builder to renovate the house, borrowing $100 000 to spend on capital costs. These capital costs are non-deductible under the current income tax, but interest deductions (at an assumed 5%) are deductible. The renovation increases the rent by $120 per week, and the market value of the house by $120 000.

39. We assume that in the absence of market valuation requirements each year, the landlord would add the capital cost base to the RFRM opening market value amount.



40. In this example the RFRM undertaxes the reward to the landlord's good idea. There is no tax on the additional income generated by the landlord's decision to improve the property and the economic profits that this has created. Just as in example 3, there is no tax on what the landlord is contributing. Despite increasing the rental income and the capital value of the property, the net equity in the property has not

increased and so there is no additional taxation even though there is additional income.

41. Appendix 1 sets out in more detail why the RFRM undertakes the landlord's return, even though the RFRM uses the updated market value.

Revenue estimates

42. We have estimated the fiscal effect of switching to the RFRM if applied to residential rental property, including baches.

43. The fiscal model uses data published by the Reserve Bank of New Zealand on the aggregate value of rental property (which includes baches) and subtracts our estimate of the total debt that is currently deductible for tax purposes, to arrive at a net equity figure.

44. The level of total debt currently deductible is estimated by taking the total value of rental property[4] (RBNZ data) and applying an estimated average rental yield (from data reported by interest.co.nz[5]). In aggregate, informed by this data and noting that total rental value in New Zealand is skewed toward Auckland given its size and housing values, we assume that the gross rental yield is approximately 4.5% across New Zealand.

45. From this gross rental yield we subtract 1.5 percentage points, representing non-interest deductible costs including rates, insurance, and maintenance. That provides a net rental yield across New Zealand before interest deductions.

46. We compare that net rental yield (before interest deductions) with net reported taxable income from Inland Revenue data. The difference between the two figures can be attributed to interest deductions. With an estimate of interest deductions we can estimate total debt for any interest rate. At a 5% interest rate, implied borrowing is $130bn. In that case net equity will be $140bn, representing a gearing ratio of 48%.

47. We apply two different risk-free rates given the discussion at paragraphs 21 and 22 about the question of the appropriate risk-free rate. We use 3.5%, and 1.7%.

48. We will provide estimates of the revenue from the RFRM as compared with a tax on realised capital gains when that model (that estimates revenue from taxing realised gains) has been through a full quality assurance process.

[4] This data includes baches and excludes Housing New Zealand property. Any tax changes affecting Housing New Zealand are fiscally neutral from the government's perspective, as higher (or lower) tax will result in lower (or higher) dividends over time.

[5] https://www.interest.co.nz/saving/rental-yield-indicator

48% gearing, 3.5% RF rate

Fiscal year	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
RFRM Revenue ($m)	**1,670**	**1,760**	**1,870**	**1,980**	**2,090**	**2,220**	**2,350**	**2,490**	**2,630**	**2,790**
Less loss ringfencing ($m)	*190*	*240*	*190*	*190*	*190*	*190*	*190*	*190*	*190*	*190*
Less current tax ($m)	*448*	*461*	*475*	*489*	*504*	*519*	*535*	*551*	*568*	*585*
Less brightline revenue ($m)	*35*	*55*	*58*	*61*	*64*	*68*	*72*	*76*	*80*	*85*
Net Revenue RFRM ($m)	**997**	**1,004**	**1,147**	**1,240**	**1,332**	**1,443**	**1,553**	**1,673**	**1,792**	**1,930**

48% gearing, 1.7% RF rate

Fiscal year	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
RFRM Revenue ($m)	**810**	**860**	**910**	**960**	**1,020**	**1,080**	**1,140**	**1,210**	**1,280**	**1,350**
Less loss ringfencing ($m)	*190*	*240*	*190*	*190*	*190*	*190*	*190*	*190*	*190*	*190*
Less current tax ($m)	*448*	*461*	*475*	*489*	*504*	*519*	*535*	*551*	*568*	*585*
Less brightline revenue ($m)	*35*	*55*	*58*	*61*	*65*	*69*	*73*	*77*	*81*	*85*
Net Revenue RFRM ($m)	**137**	**104**	**187**	**220**	**261**	**302**	**342**	**392**	**441**	**490**

Conclusion

49. The RFRM works best and can be argued to be economically equivalent to a comprehensive income tax when a return from an asset comprises a risk-free and a risky return. For it to be completely equivalent it requires updated accurate market values over time even if the asset has not been sold. Without these, if an asset increases in value markedly, there can be similar "lock-in" incentives to a realised capital gains tax.

50. The RFRM may also suffer from the perception that it is not fair. If an asset increases in value markedly, it may seem after-the-fact that little tax has been paid on the total income. If an asset decreases in value, it may also be seen as unfair as tax has been paid on an asset that has not resulted in any income (and in fact has resulted in a loss) for the investor.

51. The RFRM requires a tax payment that can be unrelated to whether there is any cash flow from the asset to pay the tax. This might be regarded as unfair, although with residential property there will, in many cases, be the ability to borrow against the asset.

52. Where an asset owner is able to increase income through working on the property or through a smart idea to improve the property, the RFRM's equivalence with a comprehensive income tax on an accrual basis breaks down, as the increased income is not taken into account by the RFRM calculation. In these circumstances it is likely to be inferior to a comprehensive income tax that taxes capital gains as well as rental income.

53. If the TWG wants to progress the RFRM for the asset class of residential rental property, it will need to make a decision about whether the benefits of the RFRM method in terms of its equivalent taxation of risk-free and risky returns with a comprehensive income tax outweigh the shortcomings identified above. The Secretariat's view is that if tax on realised gains were to be applied elsewhere, it would be more sensible to tax residential rental property on the same basis. If taxing realised gains were not applied generally, it may make sense to revisit the RFRM, but it would still suffer from the problems explained above.

Appendix 1: Further discussion of equivalence between CIT and the RFRM

1. The RFRM will systematically undertax income where there are either economic rents, or labour income, even where the economic rents and labour income eventually become capitalised into the price.

2. Let's look again at example 4 and use a 33% tax rate. To simplify things and make numbers comparable, we can ignore risk by assuming that the rental property yields the risk-free rate, but that there is an inframarginal return available to a specially skilled landlord who sees that she can borrow $100 000 at the risk-free rate to increase the capital value by $120 000, and earn an additional $4 200 in rent (which is 3.5% of the $120 000).

3. Under a CIT, at a tax rate of 33%, the landlord would pay tax on the $20 000 gain, and tax on the additional $4 200 in rent.

4. Under the RFRM, the landlord will have to pay tax on the risk-free rate as applied to the $20 000 gain, but not the gain itself.

5. The table sets out the comparison:

Tax system	**Tax on increase in value ($20 000)**	**Tax on additional net equity ($20 000)**	**Tax on additional rent ($4 200)**	**One-off tax**	**Ongoing tax**
RFRM	-	$231 (ongoing)		-	$231
CIT	$6 600 (one-off)	-	$231 (ongoing)	$6 600	$231

6. The table shows that where there is an inframarginal return that the landlord can identify, the RFRM will undertax the landlord relative to a CIT, despite the fact that the RFRM takes into account the new price that capitalised the inframarginal return.

7. Now let's look assume that there is no inframarginal return but there is a normal return to labour. Assume the landlord does the work herself, and it increases the capital value by $120 000, but materials cost $100 000.

8. In effect, the extra $20 000 of value represents the market wage of a builder. If the landlord had paid a builder it would have cost $120 000 in total, and provided $120 000 in additional value.

9. There is no economic rent or inframarginal return here, but by doing the work herself the landlord is able to avoid labour taxation, even though the labour

contributed to the additional market value that is factored in to the RFRM calculation.

10. The relevant comparison is:

Tax system	**Tax on increase in value ($20 000)**	**Tax on additional net equity ($20 000)**	**Tax on additional rent (after interest costs) ($700)**	**One-off tax**	Ongoing tax
RFRM	-	$231 (ongoing)		-	$231
CIT	$6 600 (one-off)	-	$231 (ongoing)	$6 600	$231

11. Again, the CIT taxes the labour income but the RFRM does not, even though the RFRM is capitalising the imputed labour income into the increase in value of the property.

Appendix 2: Full description of taxation for each example

Example 1: Price increases by 50% over 6 years. Property is sold in 6th year

1. For the purposes of modelling, it is assumed that rent increases by 3% per year. Two scenarios are shown for RFRM. The first is that there is no market value increase per year taken into account by the tax system. The second is that the market value increases by the rent increase per year. This could perhaps be done by looking at local rent in the area and mandating a market value increase in line with the rent increase.

Current income tax treatment

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 181
1	$32 136		$10 500	$5 000	$16 636	$5 490
2	$33 100		$10 500	$5 000	$17 600	$5 808
3	$34 093		$10 500	$5 000	$18 593	$6 136
4	$35 116		$10 500	$5 000	$19 616	$6 473
5	$36 169		$10 500	$5 000	$20 669	$6 821
6	$37 254	$350 000	$10 500	$5 000	$371 754	$7 179
Total	$239 069	$350 000	$73 500	$35 000	$480 569	$43 088

Capital gains tax

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 181
1	$32 136		$10 500	$5 000	$16 636	$5 490
2	$33 100		$10 500	$5 000	$17 600	$5 808
3	$34 093		$10 500	$5 000	$18 593	$6 136
4	$35 116		$10 500	$5 000	$19 616	$6 473
5	$36 169		$10 500	$5 000	$20 669	$6 821
6	$37 254	$350 000	$10 500	$5 000	$371 754	$122 679
Total	$239 069	$350 000	$73 500	$35 000	$480 569	$158 588

RFRM (no MV adjustment)

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 660
1	$32 136		$10 500	$5 000	$16 636	$5 660
2	$33 100		$10 500	$5 000	$17 600	$5 660
3	$34 093		$10 500	$5 000	$18 593	$5 660
4	$35 116		$10 500	$5 000	$19 616	$5 660
5	$36 169		$10 500	$5 000	$20 669	$5 660
6	$37 254	$350 000	$10 500	$5 000	$371 754	$5 660

Total	$239 069	$350 000	$73 500	$35 000	$480 569	$39 617

RFRM (with MV adjustment)

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 660
1	$32 136		$10 500	$5 000	$16 636	$5 902
2	$33 100		$10 500	$5 000	$17 600	$6 152
3	$34 093		$10 500	$5 000	$18 593	$6 409
4	$35 116		$10 500	$5 000	$19 616	$6 674
5	$36 169		$10 500	$5 000	$20 669	$6 947
6	$37 254	$350 000	$10 500	$5 000	$371 754	$7 228
Total	$239 069	$350 000	$73 500	$35 000	$480 569	$44 973

Example 2: decreases by 30% over 6 years. Property is sold in 6th year

2. For the purposes of modelling it is assumed that rent decreases by 3% per year (which may go some way to explaining why prices have fallen 30%). Two scenarios are shown for RFRM. The first is that there is no market value decrease per year taken into account by the tax system. The second is that the market value decreases by the rent decrease per year. This could perhaps be done by looking at local rent in the area and allowing a market value decrease in line with the rent decrease.

Current income tax treatment

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 181
1	$30 264		$10 500	$5 000	$14 764	$4 872
2	$29 356		$10 500	$5 000	$13 856	$4 573
3	$28 475		$10 500	$5 000	$12 975	$4 282
4	$27 621		$10 500	$5 000	$12 121	$4 000
5	$26 793		$10 500	$5 000	$11 293	$3 727
6	$25 989	-$210 000	$10 500	$5 000	$10 489	$3 461
Total	$199 698	-$210 000	$73 500	$35 000	-$199 511	$30 095

Capital gains tax

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 181
1	$30 264		$10 500	$5 000	$14 764	$4 872
2	$29 356		$10 500	$5 000	$13 856	$4 573
3	$28 475		$10 500	$5 000	$12 975	$4 282

4	$27 621		$10 500	$5 000	$12 121	$4 000
5	$26 793		$10 500	$5 000	$11 293	$3 727
6	$25 989	-$210 000	$10 500	$5 000	-$199 511	-$65 839
Total	$199 698	$-210 000	$73 500	$35 000	-$118 802	-$39 205

RFRM (no MV adjustment)

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 660
1	$30 264		$10 500	$5 000	$14 764	$5 660
2	$29 356		$10 500	$5 000	$13 856	$5 660
3	$28 475		$10 500	$5 000	$12 975	$5 660
4	$27 621		$10 500	$5 000	$12 121	$5 660
5	$26 793		$10 500	$5 000	$11 293	$5 660
6	$25 989	-$210 000	$10 500	$5 000	-$199 511	$5 660
Total	$199 698	-$210 000	$73 500	$35 000	-$118 802	$39 617

RFRM (with MV adjustment)

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$31 200		$10 500	$5 000	$15 700	$5 656
1	$30 264		$10 500	$5 000	$14 764	$5 417
2	$29 356		$10 500	$5 000	$13 856	$5 182
3	$28 475		$10 500	$5 000	$12 975	$4 953
4	$27 621		$10 500	$5 000	$12 121	$4 732
5	$26 793		$10 500	$5 000	$11 293	$4 517
6	$25 989	-$210 000	$10 500	$5 000	-$199 511	$4 309
Total	$199 698	-$210 000	$73 500	$35 000	-$118 802	$34 770

Example 3: Landlord's labour increases rent by 5%

3. In this example, it is assumed that the landlord works on the property and maintains the garden every fortnight for 2 hours. In turn, this raises the rent able to be charged by 5% ($30 per week). The property is not assumed to be sold, so there is no difference between current income tax and CGT treatment. Furthermore, for the purposes of this example it is assumed general market rents are flat, so there is no difference between the RFRM. The key point of difference is that current income tax treatment and CGT pick up the increase in rent caused by the landlord's labour, but the RFRM does not.

Current income tax treatment/CGT

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$32 760		$10 500	$5 000	$17 260	$5 696
1	$32 760		$10 500	$5 000	$17 260	$5 696
2	$32 760		$10 500	$5 000	$17 260	$5 696
3	$32 760		$10 500	$5 000	$17 260	$5 696
4	$32 760		$10 500	$5 000	$17 260	$5 696
5	$32 760		$10 500	$5 000	$17 260	$5 696
6	$32 760		$10 500	$5 000	$17 260	$5 696
Total	$229 320		$73 500	$35 000	$120 820	$39 871

RFRM

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$32 760		$10 500	$5 000	$17 260	$5 660
1	$32 760		$10 500	$5 000	$17 260	$5 660
2	$32 760		$10 500	$5 000	$17 260	$5 660
3	$32 760		$10 500	$5 000	$17 260	$5 660
4	$32 760		$10 500	$5 000	$17 260	$5 660
5	$32 760		$10 500	$5 000	$17 260	$5 660
6	$32 760		$10 500	$5 000	$17 260	$5 660
Total	$229 320		$73 500	$35 000	$120 820	$39 617

Example 4: Renovation by third-party builder increases value of the house

4. We assume that in the absence of market valuation requirements each year, the landlord would add the capital cost base to the RFRM opening market value amount. The property is sold in the sixth year. For this example it is assumed that there is no general market increase in rent, but the building work increases rent from $600 per week to $720 per week.

Current income tax treatment

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$37 440		$15 500	$5 000	$16 940	$5 181
1	$37 440		$15 500	$5 000	$16 940	$4 872
2	$37 440		$15 500	$5 000	$16 940	$4 573
3	$37 440		$15 500	$5 000	$16 940	$4 282
4	$37 440		$15 500	$5 000	$16 940	$4 000
5	$37 440		$15 500	$5 000	$16 940	$3 727
6	$37 440	$120 000	$15 500	$5 000	$136 940	$3 461
Total	$262 080	$120 000	$108 500	$35 000	$238 580	$30 095

Capital gains tax

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$37 440		$15 500	$5 000	$15 700	$5 181
1	$37 440		$15 500	$5 000	$14 764	$4 872
2	$37 440		$15 500	$5 000	$13 856	$4 573
3	$37 440		$15 500	$5 000	$12 975	$4 282
4	$37 440		$15 500	$5 000	$12 121	$4 000
5	$37 440		$15 500	$5 000	$11 293	$3 727
6	$37 440	$120 000	$15 500	$5 000	$10 489	-$65 839
Total	$262 080	$120 000	$108 500	$35 000	-$118 802	-$39 205

RFRM

Year	Rent	Capital gain	Interest costs	Other expenses	Profit	Tax
0	$37 440		$15 500	$5 000	$15 700	$5 660
1	$37 440		$15 500	$5 000	$14 764	$5 660
2	$37 440		$15 500	$5 000	$13 856	$5 660
3	$37 440		$15 500	$5 000	$12 975	$5 660
4	$37 440		$15 500	$5 000	$12 121	$5 660
5	$37 440		$15 500	$5 000	$11 293	$5 660
6	$37 440	$120 000	$15 500	$5 000	$10 489	$5 660
Total	$262 080	$120 000	$108 500	$35 000	-$118 802	$39 617

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