

Taxing Capital Gains in Australia: Assessment and Recommendations

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1 Introduction

One of the most vexing and contentious issues in taxation is the proper treatment of capital gains—the increase in value of an asset such as shares of company stock or a business. In principle, under an income tax, capital gains should be included in the tax base as they accrue. In practice, if they are taxed at all, capital gains are almost always taxed only when an asset is sold (or "realized") and generally at lower rates than other income.

Australia follows the international norm. One-half of capital gains realized by individuals on assets held for at least one year is excluded from income, making the effective tax rate on long-term capital gains half the rate on other forms of income. Since the top tax rate on ordinary income is 46.5 percent, this makes the top capital gains tax rate 23.25 percent. (A third of gains on assets in superannuation funds is also excluded from income, producing a top rate of 10 percent—two-thirds of the 15 percent flat tax rate on superannuation earnings.) Nonetheless, Australia's rate is very high compared with New Zealand, which does not tax most capital gains, ¹ and higher than in most other industrialized countries.²

The argument for concessional taxation is that capital gains are different from other forms of income. Since capital gains typically accrue on risky assets, taxing them deters risk-taking, to the detriment of the economy. Another argument posited in favor of lower tax is that capital gains are eroded by inflation. Gains on corporate shares and unit trusts also represent income that has already been subject to company-level tax, making individual level taxation an inefficient double tax (although Australia's imputation credit system eliminates much of this distortion). And, finally, taxing capital gains discourages saving.

Taxing gains upon realization creates special issues. It creates a strong incentive to hold onto appreciated assets to avoid the tax—the so-called "lock-in effect"—an inefficient distortion in financial markets. Moreover, capital losses are generally only deductible against capital gains. Allowing full deductibility of losses would create almost unlimited ability to shelter other income from tax since an investor could purchase offsetting short and long positions in assets and then realize the position with the loss to shelter other income while taking on no risk (or, indeed, making a meaningful investment). Even when such strategies are limited by statute, diversified investors could achieve similar results by selectively realizing assets with losses and holding those with gains. However, with loss limits, full taxation of gains may penalize capital gains compared with other less risky investments.

² Ernst & Young, "U.S. Individual Capital Gains Tax Rates High", American Council for Capital Formation *ACCF Special Report* (2008), available at http://www.accf.org/media/dynamic/2/media_275.pdf.

¹ L Burman and D White, "Taxing Capital Gains in New Zealand" (2003) 9 New Zealand Journal of Taxation Law and Policy 355.

Critics counter that lower taxes on capital gains are unfair. They favor the taxpayer who earns her income in the form of capital gain over one who earns income in the form of interest, rents, or royalties. They favor wealthy taxpayers over those less fortunate (because high-income people are much more likely to have capital gains than those with modest means).

Furthermore, critics complain that concessional taxation of gains encourages tax avoidance, which is unfair, because aggressive (generally high-income) taxpayers pay less tax than others, and inefficient, because the financial wizards, lawyers, and accountants who design tax avoidance schemes could otherwise be doing productive work and because such schemes often involve investments or business strategies that would make no sense absent the tax savings.

This paper considers the current taxation of capital gains and losses in Australia, discusses conceptual issues surrounding the taxation of gains, and makes recommendations about how the tax system might be improved.

2 Current taxation of capital gains and losses in Australia

In general, a capital gain is the increase in value of a capital asset net of any brokerage or other transaction costs. An asset that declines in value is said to have a capital loss. In Australia, as in most countries that tax capital gains, capital gains and losses are only realized for tax purposes when an asset is sold. Gains or losses on assets held by individuals for at least 12 months are considered long-term and subject to a 50 percent exclusion. Since the top income tax rate is 46.5 percent (including a 1.5 percent Medicare levy), the top effective tax rate on long-term capital gains is 23.25 percent. Earnings in superannuation (pension) funds are subject to a flat 15 percent rate, but long-term gains and losses are subject to a one-third exclusion, yielding a top effective tax rate of 10 percent. Companies are subject to tax on net capital gains at a 30 percent tax rate with no exclusion. The corporation income tax is integrated with the individual income tax so the company tax paid is imputed to shareholders to the extent that profits are paid out as dividends and the credit may be claimed against individual income tax.

Losses are deductible against capital gains, but net capital losses (losses in excess of capital gain) are not deductible against other income. Instead, they may be carried over indefinitely and deducted against future capital gains.

Certain capital gains are exempt from tax, including gains on a principal residence and gains on assets acquired before 20 September 1985, when the capital gains tax was first introduced in Australia.³ Rollovers are allowed for certain gains, including on assets transferred at death, as a result of a court-ordered divorce decree, and when a company is acquired in exchange for shares in the acquiring company. Gifts of capital assets trigger a realization of gain for tax purposes to the donor.

³ Originally, the basis of capital assets was indexed for inflation, but that provision was replaced with the partial exclusion on September 20, 1999. Taxpayers holding capital assets at that date could choose between the exclusion and indexing the basis for inflation up to that date.

3 How should capital gains be taxed?

A first issue to consider is the appropriate baseline for taxation—income versus consumption tax. Under an ideal income tax, capital gains are taxed as accrued, whereas under a consumption tax, gains would be untaxed. Nonetheless, some have argued that capital gains should be granted concessional status under an income tax—in part based on the desirability of a consumption tax base. In this section, I show the fallacy of that argument and then discuss how capital gains should be taxed under an income tax.

3.1 Taxation in a pure income or consumption tax

Under a pure Haig-Simons income tax, capital gains would be taxed as ordinary income as they accrue, like interest payments, not as realized, because the increase in asset value represents an accretion to wealth. Accrued capital losses would be immediately deductible. For logical consistency, income and expense should be indexed for inflation. Thus, only the real gain or loss on the asset should be included in income. Interest expense would also be indexed, so only the excess of interest above inflation would be deductible. This is important because, otherwise, the taxpayer could gain pure arbitrage profits by deducting nominal interest while only recognizing real gains.⁴

Alternatively, suppose the tax base were an R-based consumption tax.⁵ In this case, capital gains and other forms of capital income (rents, royalties, interest, and dividends) would be exempt from tax and interest expense would not be deductible. As in the pure income tax, because capital income and expense would be taxed symmetrically, taxes would not distort investment decisions.

There are advantages and disadvantages of each tax system. On the one hand, a consumption tax does not penalize future consumption relative to current spending and thus is not biased against saving and hence more efficient. Diamond and Mirrlees show that under some fairly restrictive assumptions, it is never optimal to tax factor inputs such as capital. From this research, some public finance economists have concluded that taxing saving is always undesirable.

⁶ For a discussion of the advantages and disadvantages of a consumption tax versus an income tax, see H Aaron, L Burman, and E Steuerle, *Taxing Capital Income* (Urban Institute Press, 2007) or J Diamond and G Zodrow (eds), *Fundamental Tax Reform: Issues, Choices, and Implications* (2008).

⁴ To take a very simplified example, suppose the taxpayer could borrow at a 5 percent nominal rate to invest in an asset that is expected to pay a 5 percent annual capital gain. Suppose the real rate of return is 2 percent (inflation is approximately 3 percent per year). This investment would just break even before tax (and would not be undertaken if there were any transaction costs or risk associated with the capital gains asset). If gains and interest are treated the same way (either indexed or not), the investment would also just break even after tax. However, if nominal interest is deductible (5 percent per annum) while only real capital gain is taxable (2 percent), the investment would now be profitable after tax. The profit would equal tax on the 3 percent inflationary return. Thus the asymmetric taxation of gain and expense makes an unprofitable investment profitable, distorting investment choices.

⁵ Meade Committee, *The Structure and Reform of Direct Taxation* (1978).

⁷ P Diamond and J Mirrlees, "Optimal Taxation and Public Production I: Production Efficiency" and "II: Tax Rules" (1971) 61 *American Economic Review* 8 and 261.

On the other hand, a consumption tax is less progressive than an income tax, because consumption declines as a share of income. In the United States, high-income households spend less than 40 percent of their incomes while those with very low incomes spend all of their meager earnings and more. Thus, a consumption tax could hit lower-income households especially hard.

Moreover, even though an income tax entails a cost in terms of efficiency, it might be a less costly tool to achieve distributional objectives than other more populist measures such as trade restrictions or regulation of wages and employment. ¹⁰ In fact, the pre-tax distribution of income in Australia is quite skewed in favor of high-income individuals. The top 10 percent of returns reported 30 percent of income in 2005–06. (See figure 1.)

The combination of a progressive income tax and social assistance substantially mitigates this economic inequality. The share of income accruing to the bottom quintile almost doubled in 2003–04 when taxes and transfers are considered, while the share going to the top quintile fell by 7.7 percentage points.¹¹

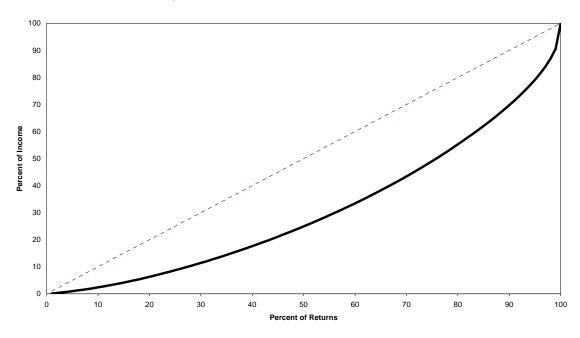


Figure 1. Distribution of Income in Australia, 2005-06

Source: Australia Taxation Office, *Taxation Statistics*, 2005-06, Personal tax table 9. http://www.ato.gov.au/docs/00117625_2006PER9.xls.

⁸ L Burman and T Kravitz, "Lower-Income Households Spend Largest Share of Income" (2004) 105 *Tax Notes* 875.

⁹ Variations on a consumption tax such as the flat tax or David Bradford's X-tax could protect low-income taxpayers from the burden of a consumption tax, but that simply means that more of the burden is placed on middle-income households, assuming revenues are to be maintained.

¹⁰ L Burman, R Shiller, G Leiserson and J Rohaly, "The Rising Tide Tax System: Indexing the Tax System for Changes in Inequality," Tax Policy Center, the Urban Institute (draft manuscript, 2007).

¹¹ Australian Business Statistics as reported by Duncan Baxter.

Capital gains are especially concentrated among those with high incomes. While the richest 2 percent of taxpayers (income over \$150,000) in 2005-06 had 14 percent of pre-tax income, they had 48 percent of net capital gains. ¹² (See figure 2.) The top 9 percent (income over \$80,000) reported less than one-third of all income but realized more than two-thirds of capital gains. That group paid more than three-quarters of all capital gains tax in 2005–06. ¹³ It is clear that taxing capital gains plays an important role in the overall progressivity of the income tax in Australia.

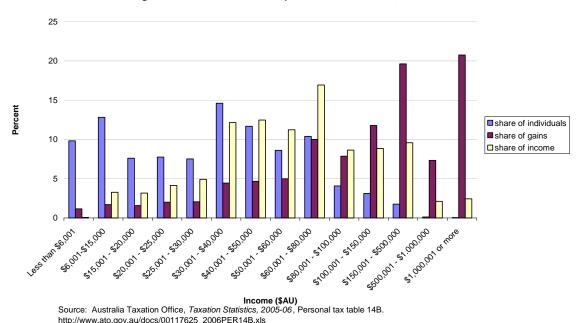


Figure 2. Distribution of Net Capital Gains and Income, 2005-05

3.2 Problems with realization-based tax and concessional rates

The actual tax regime for capital gains in Australia follows neither the pure income nor consumption tax model. Capital gains are taxed when realized, not as accrued. Losses are not deductible. And long-term gains held by individuals are taxed at half the rate of other income—more than they would be under a consumption tax but generally less than they would be under a pure income tax.

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¹² It might be objected that these statistics are distorted by the fact that capital gains are a component of income. A taxpayer who reports an unusually large gain in a year, for example from the sale of a business, will appear to be well off while on a lifetime basis, he or she has relatively modest income. Statistics based on lifetime income in Australia are not available to my knowledge. However, in the United States, which has a similarly skewed distribution of income and capital gains, it can be shown that similar trends exist when 10-year average capital gains are compared with 10-year average income: L Burman, *The Labyrinth of Capital Gains Tax Policy* (The Brookings Institution, 1999). Further, only a small fraction of capital gains in the US are attributable to taxpayers with a single asset sale.

Author calculations based on Australian Taxation Office, *Taxation Statistics* 2005–06, Capital Gains Tax, Table 2 (not shown in figure 2). Source: http://www.ato.gov.au/docs/00117625 2006CGT2.xls.

The rationale for the current system is that a realization-based tax is the only practical option since some assets are hard to value and, even for those whose values are easy to assess annually, it would be unreasonable to require taxpayers to pay tax before they have disposed of the asset and realized the cash from sale. (I revisit these arguments in the next section.)

Conceding for a moment the necessity of taxing upon realization, what is the argument for preferential taxation under an income tax? The ability to postpone paying tax for years or even decades is a valuable tax break by itself. (This is why corporate executives prefer to earn a large share of their compensation in deferred form, and why tax authorities generally try to limit deferral.) Why is a partial exclusion (as in Australia) or alternate lower tax rate schedule (as in the United States) thought to be appropriate?

A number of arguments are made in favor of concessional taxation of capital gains:

- 1. The capital gains tax (CGT) discourages risk-taking and entrepreneurship
- 2. The CGT double-taxes savings
- 3. Capital gains are eroded by inflation
- 4. The CGT creates a "lock-in effect"
- 5. To the extent that it applies to shares of corporate stock, the CGT applies to income that has already been taxed at the company level.

I address each of these issues in turn in the context of a realization-based tax. In the next section, I suggest a better alternative taxation strategy that eliminates or reduces virtually all of these concerns while also reducing the opportunity for inefficient tax sheltering that is an inevitable by-product of the current taxation regime.

3.2.1 CGT and risk-taking

According to the Organisation for Economic Co-operation and Development, "one reason behind Australia's decision to preferentially treat capital gains (half inclusion rate) was recognition of the generally riskier nature of capital investment." This argument seems to be at a minimum over-stated if not in fact wrong.

If capital gains were taxed upon accrual and losses were fully deductible against other income, taxing capital gains in full would be neutral with respect to risk. To see why, consider that the return on an asset in a competitive market (that is, one that is not expected to pay super-normal returns or pure economic profits) is comprised of three parts, the risk-free return, r, a risky part, e, and a return to risk-taking or risk premium, p. The after-tax return for the risk-free asset (say, short-term government bonds) is $r(1-\tau)$, where τ is the marginal income tax rate. The after-tax return on the risky (capital gains) asset is $(r+p+e)(1-\tau)$. The tax reduces both the risk (e) and the risk premium (p) proportionately. Since the marginal investor is indifferent between the risky and risk-free asset, the risk premium exactly offsets the additional risk, and the reduction in the risk

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¹⁴ Organisation for Economic Co-operation and Development, *Taxation of Capital Gains of Individuals: Policy Considerations and Approaches* (2006), p 91.

premium caused by taxation is exactly offset by a reduction in risk. In other words, tax on the risk premium is effectively an actuarially fair insurance premium for the share of the risk that the government is taking on. ¹⁵ A taxpayer that was willing to hold both risky and riskless assets before imposition of the tax would also be willing to hold the same portfolio after imposing the tax.

Of course, if capital gains assets paid an above-market return—say, $(r+p+e+\pi)$, where π is pure profit—the tax would reduce the return by $\tau\pi$ and make holders of such assets worse off. However, in that case the tax is still economically efficient and non-distortionary. Even after taxing away part of the pure economic profit and accounting for risk, the after-tax return would be higher than the risk-free asset by $\pi(1-\tau)$.

As long as losses are fully deductible, taxation of capital gains assets on a realization basis lowers the effective tax rate on such investments as compared with a bond that pays a certain return r that is taxed currently on an accrual basis because the risky asset benefits from tax deferral. That is, even without a rate preference, risky capital gains assets are favored over riskless assets. Moreover, more risky assets are favored over less risky ones since they pay a higher average rate of return (have a higher risk premium) and the benefits of deferral are larger at higher pre-tax rates of return.

Of course, losses are only deductible against other gains. Auerbach, Burman, and Siegel found that, in the US, where losses in excess of \$3,000 must be carried over, most taxpayers were able to use their losses within one or two years. ¹⁶ I am not aware of any direct evidence for Australia. It is, however, surely true that the loss limit is binding on some taxpayers who own only a single asset, such as a business. It is also likely that the current market meltdown will leave many investors with excess losses for many years.

It is not clear whether deferral alone is enough to compensate investors for the risk of taking a loss that they cannot deduct, or whether an additional preference is appropriate. The best option would be to change the taxation of capital gains so that losses could be deducted immediately against other income without risk of tax sheltering (by selectively realizing losses and deferring gains).

3.2.2 Double taxation of saving

As noted, under an income tax, saving is taxed twice. This entails a cost in terms of economic efficiency. Taxing capital gains is one form of taxing saving. However, because of deferral, capital gains assets face a *lower* effective tax rate on savings than assets that pay returns in currently taxable forms such as interest, rents, and royalties.

If double taxation is a concern, the solution is to move to a consumption tax, in which all forms of capital income would be exempt from tax and interest expense would

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¹⁵ This analysis is developed in more detail in L Burman and D White, "Taxing Capital Gains in New Zealand", above n 1.

¹⁶ 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* (2000), 355.

not be deductible. Moving one step towards a consumption tax, however, by exempting or lightly taxing capital gains is a recipe for inefficient arbitrage (tax shelters), as discussed below.

3.2.3 Inflation

In an unindexed tax system, inflation reduces the real after-tax return of all taxable assets. For example, suppose a bond pays 8 percent interest of which 4 percent represents a real return and 4 percent represents inflation. ¹⁷ At a 25 percent tax rate, the after-tax nominal return is reduced to 6 percent, or a 2 percent real after-tax return. The 25 percent statutory tax rate becomes a 50 percent effective tax rate.

However, because the capital gains asset benefits from deferral, the real after-tax return increases over time. ¹⁸ In contrast, the real after-tax return on the interest-paying asset does not vary with holding period. Thus, again, the capital gains asset is less affected by inflation than other kinds of capital assets. The argument for indexation (to remove inflation from the calculation of capital income) applies with *less* force to the capital gains asset than to other kinds of assets.

Moreover, if capital gains are indexed for inflation or otherwise eligible for concessionary tax treatment, while interest expense is fully deductible, there will be opportunities for arbitrage. To take the simplest case, assume the same facts as in the example above and that an individual could borrow \$100 at an 8 percent nominal interest rate to purchase a capital gains asset expected to pay a 7 percent nominal return. Suppose for simplicity that the capital gains asset is held for only one year, just long enough to qualify for the 50 percent exclusion. The investment (loan and capital gains asset) generates a pre-tax loss, but an after-tax profit. The loan creates a deduction of \$8, but there is only \$3.50 in income (50 percent of \$7) attributed to the gain. At a 25 percent tax rate, the \$4.50 net loss generates \$1.125 in tax savings, more than offsetting the \$1 pre-tax loss. At a higher tax rate, the after-tax profit would be greater. Alternatively, if the gain had been indexed (with no exclusion) while the interest expense was deductible, the pre-tax loss would have been even greater (\$5 instead of \$4.50).

The law in Australia, as in all countries with a capital gains tax, attempts to prevent such blatant efforts at tax arbitrage, but that simply stimulates the invention of more creative ways to generate current fully deductible losses offset by deferred and only partially taxed gains. Indexing the whole tax system for inflation would prevent this kind of inefficient tax arbitrage. Indexing one component, however, makes it worse.

3.2.4 The lock-in effect

Perhaps the most enduring argument in favor of lower tax rates on capital gains is that taxation upon realization creates an inefficient lock-in effect — that is, the incentive to hold onto under-performing assets to avoid paying capital gains tax. It is a real concern.

¹⁷ For simplicity, the example assumes that the real and inflation portion of the return are additive.

¹⁸ L Burman, *The Labyrinth of Capital Gains Tax Policy*, above n 12.

For most taxpayers, the capital gains tax is voluntary. It can almost always be postponed. Thus, one would expect taxpayers' realization behavior to be very sensitive to capital gains tax rates. This is especially true in the US, where assets held until death escape CGT altogether. (In Australia, assets transferred at death carry over the cost basis of the decedent, so gain may continue to be deferred, but it is not forgiven altogether.)

In the United States, early research based on cross-sections of tax returns suggested that realizations were very sensitive to tax rates. Indeed, the elasticity of response was so high that the findings suggested that government revenues in the US would increase if the tax rate on capital gains were cut. 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.

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. ¹⁹ Under a progressive tax system, as in the US, 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 US varied a great deal from year to year. Individuals exploited this variation by delaying realizations when their rates were unusually high and accelerating realizations where their rates were below average.

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 realizations responded to variation in tax rates across states in the US, under the assumption that taxpayers could not easily exploit this source of variation. We 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, we found that the very high elasticities measured in previous cross-section studies actually underestimated the timing response.

US 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 tax rates. The *Tax Reform Act* of 1986 raised the top tax rate on capital gains from 20 percent in 1986 to 28 percent starting in 1987. Sales of shares in company stock reported on income tax returns were 7 times higher in December of 1986 than in December of 1985. That timing response was consistent with the findings in Burman and Randolph.

The realizations elasticity is a fairly gross measure of the effect of a realizationbased tax on behavior. Poterba looked at the ability of taxpayers to shelter capital gains

²⁰ L Burman, K Clausing and J O'Hare, "Tax Reform and Realizations of Capital Gains in 1986" (1994) 47 *National Tax Journal* 1.

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¹⁹ L Burman and W Randolph, "Measuring Permanent Responses to Capital-Gains Tax Changes in Panel Data" (1994) 84 *American Economic Review* 794.

with losses and found some evidence, but much less than would be expected.²¹ 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.²² 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 realizing sizable net taxable gains within a year or two.

On balance, the empirical evidence from the US suggests that lock-in is much less of a problem in practice than economists and tax practitioners would imagine. And, as noted, it is likely to be even less acute in Australia since capital gains carry over at death.

3.2.5 Double taxation of corporate profits

In the classic income tax (as in the US), corporate profits are taxed once at the company level and again to the shareholder. This creates the possibility of double taxation of corporate profits because of the taxation of dividends and capital gains at the shareholder level. The potential for double tax has been used as the rationale for lower tax rates on both capital gains and dividends, as were enacted in 2003 in the US.

However, double taxation is not a significant problem in Australia because of the imputation of tax credits to shareholders against tax paid at the company level to the extent that company profits are paid out as dividends. Even to the extent that the company retains earnings, rather than distributing them, the credits partially offset the tax owed on capital gains. The earnings translate into higher asset prices, and thus more capital gains tax, but to the extent that profits are retained, the corporation also retains a valuable asset—the unused "franking credits" which will shelter future distributions from tax. The credits should thus be capitalized into the value of the company, increasing the capital gain and partially offsetting the double tax.²³

3.3 Options to reform taxation of capital gains

The problems with the current system of taxing capital gains are largely due to taxing gains upon realization. An ideal solution would be to tax assets whose value is easily determined on an accrual basis.²⁴ Fortunately, most capital gains are in that category. Shares comprise 38 percent of directly held individual capital gains in 2005-06 (\$11.8 billion). (See figure 3.) Unit trusts were significantly larger at \$34.3 billion. The proposal would be to tax shares and unit trusts on an accrual basis with full loss deductibility by

²¹ J Poterba, "How Burdensome Are Capital Gains Taxes?" (1987) 33 Journal of Public Economics 157.

²² A Auerbach, L Burman and J Siegel, above n 16.

²³ The offset is incomplete because the credits are retained without earning interest. Just as a deferred tax is less burdensome than a current tax, a deferred credit is less valuable than an immediate one.

²⁴ This proposal is very similar to one laid out by Halperin in his Woodworth lecture: D Halperin, "Saving the Income Tax: An Agenda for Research" (1998) 24 *Ohio Northern University Law Review* 493. Halperin was somewhat more guarded in his proposal, subtitling it "An Agenda for Research," although he also says that "I do believe, however, that mark-to-market for traded securities is essential and promises enormous benefits" (at 502).

individuals and companies. Other assets would be taxed on a realization basis with the limitation that

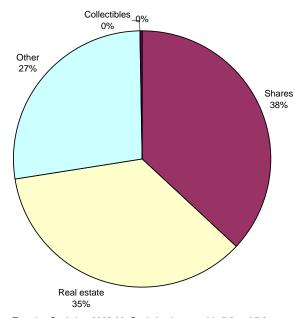


Figure 3. Individual Capital Gains by Type of Asset

Source: Australia Taxation Office, Taxation Statistics, 2005-06, Capital gains tax table 7.6 and 7.8. http://www.ato.gov.au/content/downloads/00117625_2006CH7CGT.pdf

losses may only be deducted against gains on other assets taxed on realization. The 50 percent exclusion would be eliminated.

3.3.1 Accrual taxation (mark to market) for publicly traded shares and unit trusts

Accrual taxation solves virtually all of the problems with the current tax system. If gains and losses are taxed as accrued, there need be no limits on deductibility against other income. All publicly traded shares and unit trusts would be subject to the accrual regime. For a shareholder who holds shares for an entire tax year, the accrued income would equal the difference in price (adjusted for any stock splits) multiplied by the number of shares held plus any dividends distributed. For shareholders who buy or sell shares during the year, the gain or loss would be determined based on the actual time the shares were held during the year. Accrued income on unit trust shares would be calculated the same way.

For shares, imputation credits would be fully passed through to shareholders based only on their share of equity in the company and the portion of the year they held the shares. They would no longer be limited by (or even affected by) the share of profits that are distributed. Individual shareholders would simply claim the tax credits against their overall taxable income.

Since losses are fully deductible, this proposal eliminates any bias in the tax system against risk taking. There would be no lock-in effect since gain does not depend on whether the asset is held or sold. It would result in full integration of individual and corporate tax (since credit imputation would not depend on distribution of profits). It would eliminate any realistic possibility of using corporate stock shares as a tax shelter.

Accrual taxation would substantially increase average tax revenues and improve the overall progressivity of the income tax. It would also significantly increase the volatility of tax revenues. ²⁵ This is the corollary of the government's sharing fully in the risk of investments in capital assets. This is a gain for society because the government is much better able to pool risks—both across individuals and across generations—than any individual or business.

Moreover, this aspect of the proposal would produce a built-in stabilizer for macroeconomic policy. When the stock market collapses (as it has recently) taxpayers would accrue an enormous amount of capital losses which would slash their tax liability. When the economy and the market are booming, taxes would also increase, providing something of a brake on the economy.

The major drawback of accrual taxation is that it may create liquidity problems for shareholders who accrue substantial gains without realizing cash from dividends or the sale of an asset.²⁶ One way to deal with this would be to allow shareholders to carryover their tax attributable to gains accrual with interest until the asset is sold (or sooner, at the shareholder's option). This approach is similar to a proposal made by Vickery²⁷ and Auerbach.²⁸

Another alternative would be to collect the tax at the corporate level as Halperin suggests. ²⁹ Instead of a corporation income tax, companies would pay tax on annual changes in market value at the highest individual income tax rate. Losses would generate refundable tax credits. This option would eliminate individuals' cash flow problems since all tax would be paid at the company level. It could also provide companies with badly needed cash flow during periods of economic downturn.

²⁵ L Burman and D White, "Taxing Capital Gains in New Zealand", above n 1.

²⁶ Halperin also expresses concern about "...problems caused by the existence of two separate regimes, in particular a mark-to-market system for publicly traded stock and a realization standard for closely held business": D Halperin, above n 24 at 503. Unless legislation is carefully crafted, taxpayers might be able to switch between to the two regimes to avoid tax.

²⁷ W Vickrey, "Averaging of Income for Income-Tax Purposes" (1939) 47 *Journal of Political Economy* 379.

²⁸ A Auerbach, "Retrospective Capital Gains Taxation" (1991) 81 American Economic Review 167.

²⁹ D Halperin, "Saving the Income Tax: An Agenda for Research" above n 24.

3.3.2 Realization-based tax at full rates for illiquid assets

The ideal tax regime for assets such as real estate and closely-held businesses might be to would be to impute income by applying the risk-free rate of return to the original purchase price of the asset. As noted above (section 3.2.1), assuming no pure profits, taxing the risk-free return, r, is economically equivalent from the asset holder's point of view to taxing the accrued return, although unlike in the accrual case the taxpayer bears all of the investment risk rather than sharing some with the government. ³⁰

The imputation system, however, has an inherent political: it is hard to imagine telling asset holders whose real estate had fallen by 30 percent that they were being imputed income at a 3 percent rate based on the elevated purchase price. ³¹ Even though the taxation is fair and efficient, *ex ante*, it would be difficult to sustain it *ex post* (although somehow the Dutch manage to do it).

The second-best alternative would be to tax illiquid assets at full rates on a realization basis. Losses would only be allowed against gains on other realization-based assets. Gains or losses should be assessed and taxed at time of death to prevent unlimited deferral of gains.

Taxation of all gains at the same rate as other income would significantly reduce the opportunities for arbitrage since all income would be taxed at the same rate. The only tax advantage of capital assets would be the deferral of tax, which could be significant should high rates of inflation return. If inflation remains modest, the advantage of deferral would be at least partially offset by the limitation on deductibility of losses.

3.3.3 Discussion

A key virtue of this proposal is that it would sharply curtail the incentive for individuals to invest in tax shelters. Most individual income tax shelters are driven by the differential between the tax rates on capital gains and ordinary income. With a 46.5 percent top income tax rate and a 23.25 percent capital gains rate, a tax shelter that could transform \$1 million of ordinary income into capital gain is worth up to \$232,500 to create. That is why geniuses who might otherwise do productive work have been drawn to financial engineering or into fields that can earn income in the form of capital gains rather than income. With such huge tax incentives, the investments that produce capital gains do not even have to be particularly productive. Thus, many resources invested in such underperforming assets may be wasted.

Eliminating that waste would be good for productivity. It would also bolster support for the income tax. A tax system riddled with loopholes, where billionaires can

³⁰ A variant on this imputation scheme is employed in the Netherlands. They apply a fixed interest rate—4 percent—to calculate tax income in lieu of capital gains. See S Cnossen and L Bovenberg, "Fundamental Tax Reform in The Netherlands," *CESifo Working Paper Series 342* (2000).

³¹ L Burman and D White, "Taxing Capital Gains in New Zealand", above n 1.

pay lower average tax rates than their secretaries, invites disrespect and undermines voluntary compliance.³²

A major concern about taxing capital gains at rates up to 46.5 percent is that it may discourage saving and investment. Although the concern is likely overstated, if policymakers are worried about that the right solution is not selective preferences for capital gains assets, but lowering tax rates overall. The best option would be a tax reform that broadened the base, eliminated loopholes and preferences, and cut top rates across the board. A second-best option might be a Scandinavian style dual income tax, in which wages are taxed at a higher rate than all capital income. A simpler option might be to pay for income tax rate cuts with higher GST or payroll tax rates and offset the burden on lower-income families by increasing the low-income family allowance.

³² American billionaire, Warren Buffett, chairman of Berkshire Hathaway and one of the richest men in the world, has complained that he should not be taxed at a lower rate than his secretary: T M Tse, "Buffett Slams Tax System Disparities," *Washington Post*, June 27, 2007, at D3. Available at http://www.washingtonpost.com/wp-dyn/content/article/2007/06/27/AR2007062700097.html. His income comes almost entirely from lightly-taxed capital gains while hers arises from wages, which are subject to both income and payroll taxes.

³³ P Sorensen, "Dual Income Taxation: Why and How?" CESifo Working Paper Series 1551 (2005).