Tax Expenditures by Taxpayer Affected

This section provides a broad indication of the recipients of assistance through tax expenditures. The purpose of this analysis is to provide an overall picture of the direction of tax expenditures despite the difficulties in determining the final beneficiary of the assistance.

For the purpose of this analysis, the classification of 'taxpayer affected' is by the legal incidence of the tax. Legal incidence should not be confused with the economic incidence of a tax measure. Legal incidence refers to the taxpayer upon which the tax is levied. In contrast, the economic incidence of a tax relates to the taxpayer (or taxpayers) that bear the cost of a tax, or benefit from a tax expenditure. Economic incidence will differ from legal incidence if the group bearing the legal incidence is able to pass on some or all of the cost or benefit of the tax, and thus have it feed through into prices (including factor prices, such as wages and the return on capital).

- For instance, the legal incidence of a tax expenditure may be on the manufacturer of a product. However, the economic incidence may actually fall on consumers of the product via a change in price.

Identifying the economic incidence is thus an important part of understanding the full impact of the tax on economic activity and taxpayer behaviour.

The taxpayer aggregates in Table 5 consist of the expenditures listed below, covering those items for which costings are available (excluding deferral expenditures). Descriptions and costings of each expenditure are provided in Table 3.

Businesses	(CR2-CR3, AFF12, OEA1, OEA8, OEA19, OEA21, MM1, MM4-MM6, MM12, MM14, FE1, H8, SS26)
Defence force personnel, including veterans and their families	(D1-D2, D6, D10, SS8)
Donors to approved organisations	(NAF11)
Employees	(SS24-SS25)
Employers	(SS19-20, HC5, LE3, TC1, TAP1, AFF15, OEA14, OEA22-OEA23, NAF22)

Financial institutions	(OEA3-OEA5)
Government	(NAF9)
Hospitals and State and Territory Authorities	(H6)
Superannuation funds and beneficiaries, termination payment recipients	(SS13, SS27)
Non-profit organisations	(H5, CR6, LE1, NAF6, NAF15, NAF17, SS21)
Personal income taxpayers	(GS1, H1-H3, H10, SS1-SS2, SS4-SS7, SS9, SS14-SS15, SS29; HC1, NAF34)
Retirees and allowees	(SS3, SS28)
Property owners	(MM9)
Primary producers	(AFF1, AFF3-AFF5, AFF8-AFF9, AFF11, AFF14, AFF16, AFF17)
Students	(E1)
Non-residents	(FA8, CR4, NAF13-NAF14, OEA15)
Miscellaneous	(FA5, GR1, H9, H11, CR1, AFF10, MM8, MM11, MM17, MM18, TC3, NDR1, NAF35)

Table 5: Tax Expenditures Classified by Taxpayer Affected

Taxpayer	1994-95 $m	1995-96 $m	1996-97 $m	1997-98 $m	1998-99 $m	1999-00 $m	2000-01 $m	2001-02 $m
Businesses	1682	1460	1719	1329	1704	1785	1974	2039
Defence	361	394	413	435	458	481	400	413
Donors	169	184	196	211	223	234	246	227
Employees	380	370	415	386	355	330	273	222
Employers	943	776	909	1064	1105	1167	1122	1153
Financial institutions	86	49	61	65	46	55	36	36
Government	115	95	95	95	95	100	105	110
Hospitals	115	170	175	190	210	230	135	135
Superannuantion beneficiaries	5770	8315	9160	9110	9440	9900	8745	8855
Non-profit organisations	352	347	411	478	496	523	417	429
Personal income taxpayers	3520	3071	3084	3337	4097	4284	3256	2550
Retirees / allowees	1365	1410	1435	1439	1501	1546	1152	1212
Property owners	0	0	0	0	0	0	0	0
Primary producers	225	289	260	225	251	285	269	259
Students	14	14	14	15	15	16	14	14
Non-residents	833	873	895	921	948	956	967	960
Miscellaneous(a)	13	15	47	181	233	482	559	380
Total(b)	15943	17832	19289	19481	21177	22374	19670	18994

(a) Expenditures included in the ‘Miscellaneous’ category are those for which the ‘Taxpayer Affected’ does not belong to any of the other identified categories.

(b) Totals do not include any contribution from items which were costed as being ‘less than’ in Table 3 (eg <1, <5).

Conceptual Issues

Tax expenditures are those provisions of the Australian taxation law which effectively tax certain classes of taxpayers or particular types of activity differently from a chosen benchmark. A positive tax expenditure arises where an activity or class of taxpayer is taxed preferentially with respect to a chosen benchmark. A negative tax expenditure arises where taxation is at a higher rate than implied by a chosen benchmark structure. Almost all tax expenditures identified in this Statement are positive.

The decision as to an appropriate benchmark for determining tax expenditures is a matter for judgement: benchmarks may vary across countries and within countries over time. The principal criterion of benchmark design is that it should represent the neutral taxation treatment of similarly placed activities or classes of taxpayer (that is, neutral taxation treatment neither favours nor disadvantages similarly placed activities or classes of taxpayer).

This typically implies a taxation system with a comprehensive base. As the tax bases relevant to the vast majority of Australian taxes are based on a definition of income which refers to an accretion in economic wealth (rather than, say, a consumption derivative) the Schanz-Haig-Simons definition of income is used as a starting point for the ideal benchmark. This essentially defines income as the increase in net economic wealth between two points of time plus consumption during that period, where consumption includes all expenditures except those incurred as a cost in the earning or production of income.

In Australia we also adopt the individual as the tax unit for income tax and this feature is adopted as part of the benchmark.

Departures from the ideal benchmark would be a practical necessity under any income tax system that deviated from the conceptual ideal. Such departures involve taxing income derived from particular activities in a manner which departs from the conceptual ideal (such as the taxation of realised as opposed to accrued capital gains) or excluding certain types of income from the income tax base altogether (for example, the non-taxation of imputed rent from consumer durables and the non-deductibility of expenses incurred in earning that income) because it would not be administratively feasible to tax them. In addition, certain provisions relating to the taxation of foreign source income (such as the quarantining of foreign losses) are necessary to prevent the erosion of the domestic tax base and to protect the integrity of the Australian tax system. Accordingly, provisions which are intrinsic to the operation of the tax system, but which nevertheless may depart from the ideal income tax benchmark, have been incorporated into the benchmark for this statement.

In some instances, adherence to the ideal benchmark may be ruled out on pragmatic grounds and a comprehensive and achievable alternative to the existing taxation system may not be available. In such cases, an interim benchmark that accepts the existing system and identifies deviations from it as tax expenditures has been adopted. For example, prior to 1987-88 when the classical system of company taxation operated[1], no tax expenditures were identified in relation to the treatment of distributed and undistributed income even though it departed significantly from the ideal benchmark. With the introduction of the imputation system of company taxation from 1 July 1987, imputation was incorporated into the benchmark from the 1987-88 income year.

Hence, benchmarks may change over time. This approach recognises that the treatment of ideal tax benchmarks needs to be tempered to ensure that the analysis of tax expenditures remains relevant.

Practical difficulties are inevitably attached to the definition of a benchmark tax structure. It is difficult to ascertain whether some tax provisions should be part of the benchmark structure or listed as tax expenditures. This Statement generally lists as tax expenditures items for which such a categorisation is judged to be marginal.

Although the above focuses on the concept of an income tax benchmark, the broad issues of benchmark design identified are equally relevant for the other heads of Commonwealth taxation such as wholesale sales tax, fringe benefits tax and excise duty.

Income Tax Benchmark

The benchmark adopted has the following characteristics:

- The legislated progressive personal income tax rate scale, including the tax-free threshold is part of the benchmark.
- The individual is the tax unit under the income tax system and this feature is adopted as part of the benchmark. Tax expenditures are thus

1 The classical system is described on page 62.

deemed to arise where taxpayers' liabilities are modified according to their dependant-care responsibilities.

- A single tax year is adopted as the accounting period under the benchmark structure. Accordingly, averaging provisions available only to selected classes of taxpayer are regarded as tax expenditures. However, carry-forward loss provisions are considered to fall within the benchmark.

- Consistent with the practice in Australia, a nominal income benchmark is adopted in this Statement with some ad hoc adjustments for inflation. (Adoption of a real income benchmark would require the identification — as (generally negative) tax expenditures — of all aspects of the tax system that do not adjust the measurement of income for inflation.)

- An exception to this is in relation to capital gains tax, where the taxation of real gains on assets held for more than 12 months is an intrinsic feature of the capital gains tax system and is therefore included in the benchmark. The following intrinsic features are also included in the benchmark:

  – CGT exemption for gains on the disposal of motor vehicles, and on each other personal-use asset with disposal value of less than $10,000;

  – CGT exemption for gains on assets acquired prior to 20 September 1985;

  – CGT exemption for gains received by way of compensation or damages for any wrong or injury suffered by a taxpayer;

  – CGT exemption of gains or winnings from gambling;

  – CGT rollover relief on the death of a taxpayer, the involuntary disposal of an asset, or the transfer of assets between spouses upon breakdown of marriage; and

  – CGT averaging of tax liabilities.

- Although assessment of income on an accruals basis is the general benchmark, those provisions where income is assessed on a realisation basis (eg under the capital gains provisions of the income tax) are considered to be essential features of the tax system and hence are incorporated into the benchmark.

- Under the benchmark adopted, expenses incurred in earning assessable income are deductible:

  – the substantiation rules, which apply to employment-related expenses incurred on or after 1 July 1986, generally conform to this benchmark. However, tax expenditures are deemed to arise where taxpayers are allowed to claim deductions on the basis of statutory formulae which yield a larger deduction than the actual cost incurred;

  – deductions for depreciation are identified as tax expenditures if they provide more generous treatment than effective life depreciation; and

  – provisions that defer deductions are identified as negative tax expenditures. The restrictions on the deductibility of interest on borrowings used to finance rental property investments acquired after 17 July 1985 (the restriction being repealed from 1 July 1987) gave rise to a negative tax expenditure.

- For the 1987-88 income year and beyond, the imputation system of company taxation is the benchmark for identifying tax expenditures arising under the provisions of the income tax law relating to company income. It replaces the classical company tax system. The imputation system of company taxation — that has applied since 1 July 1987 — allows resident shareholders credit for company tax paid. This effectively frees company dividends from the double taxation which existed under the classical system, where tax was imposed at both the company and shareholder level, reducing the effective tax rate on distributed profits derived by Australian residents through business entities covered by imputation.

- Under imputation, the value of concessions is offset to some degree since such concessions reduce company tax paid. The subsequent taxation, in the hands of shareholders, of dividends paid out of tax-preferred income (as also occurred under the classical system) is not costed in this Statement because of the practical difficulties in doing so. This needs to be considered in relation to the cost to revenue of company tax expenditures. While this subsequent taxation may reduce the value of the concessions to shareholders, the shareholders can still benefit through the tax-preferred income being retained in the company for long periods before being distributed.

- The taxation rules applying to sole traders, partnerships and trusts, which are not separate taxable entities, are regarded as design features of the tax system and are included in the benchmark. The taxation treatment of co-operative companies departs from the taxation of companies under the imputation system. Tax expenditures arise where the income and distributions of co-operative companies receive concessional treatment.

- The separate income tax rates scale applicable to non-residents (in the case of individual taxpayers) is taken as part of the benchmark structure, as are design features such as dividend withholding tax and interest withholding tax, which apply to non-residents generally. The allocation of taxing rights in Australia's double tax agreements is included in the benchmark.

- As part of a Government policy to encourage multinationals to establish regional-headquarters in Australia, certain foreign source dividends paid on or after 1 July 1994 by a resident company to non-resident shareholders will be exempt from withholding tax. As this particular exemption reflects the view that Australia does not have a strong claim for taxing that income, on either a residence or source basis, it is not considered to be a tax expenditure. For the same reason, the exemption from interest withholding tax for interest paid to non-residents by an offshore banking unit is now considered to be part of the benchmark.

- The benchmark for foreign source income is taken to be assessment on a worldwide basis, with a limit on foreign tax credits, on a source-by-source basis, to the amount of Australian tax payable in respect of the foreign income. Under the benchmark passive income such as interest, royalties and dividends, and highly mobile forms of active income are assessed on an accruals basis while most active foreign source income is assessed on a repatriation basis with a credit for any foreign tax paid (ie the foreign tax credit system (FTCS) is applied).

  – An exemption from the operation of the FTCS is provided for branch income and certain non-portfolio dividends derived in a listed country (sections 23AH and AJ). It was intended that this list of countries should only include those that consistently impose tax on a comparable basis to Australia. To the extent that the total amount of foreign company tax plus dividend withholding tax is less than the amount of Australian tax payable, there is a tax expenditure, but this has not been costed.

  – Most passive income and highly mobile active income derived by controlled foreign companies (CFCs) and transferor trusts in listed countries is exempt from accruals taxation on the presumption that it has been comparably taxed. To the extent that foreign company tax paid on a current basis is less than would have been payable in Australia, there is a tax expenditure, but this has also not been costed.

- – The measures for taxing Australian residents' interests in foreign investment funds (FIFs) are taken to be consistent with the benchmark.

- – Foreign employment income is exempt from Australian tax where it is derived by a taxpayer during a period of continuous service of 91 days or more, other than in certain cases where the income is exempt from tax in the source country. The income may otherwise be exempt if derived from continuous service of 91 days or more on an 'approved overseas project'. Both circumstances constitute a tax expenditure, the magnitude of which is likely to be small.

- The untaxed imputed rent from owner-occupied housing (and the non-deductibility of expenses incurred in earning that income) and the income received from an inheritance would both fall within the Schanz-Haig-Simons definition of income, but the non-taxation of these items is considered part of the benchmark for the purposes of this statement.

- Many types of capital receipts not representing a return to investors of their initial capital have not been taxed in Australia in the past (eg some capital gains realised on the sale of property; payments received by professional sportspersons in consideration for giving up a permanent asset such as their amateur status; and receipts in consideration of a restrictive covenant whereby the recipient undertakes not to use specified assets or to trade only with the other party to the covenant). Policy has moved over recent years, however, to bring many classes of capital receipts into the income tax base, particularly with the introduction in 1985 of the capital gains tax provisions in the income tax law. This Statement identifies, as tax expenditures capital receipts that are specifically exempt under the capital gains tax provisions.

- Certain receipts of organisations such as non-profit associations and societies are exempt from Australian income tax on the basis of the 'mutuality principle', which asserts that a person cannot derive income from dealings with himself or herself and is applied notwithstanding that the club or society with which persons are associated may be incorporated. Such organisations are generally assessed only on their investment income and on income from trading with non-members. The application of the mutuality principle is not considered to involve a tax expenditure. The global income tax exemptions for the income of specified non-profit organisations (eg trade unions, cultural and sporting societies), which extend, for example, to investment income and income from business activities in competition with taxable entities, are treated as tax expenditures.

- The income tax benchmark includes sovereign immunity exemptions and international taxation right exemptions. This practice is justified by the fact that these exemptions reflect standard international practices of long-standing inter-governmental taxation agreements, and thus lack the element of policy discretion usually attributed to tax expenditures.

- The income tax rebate for low income earners has been excluded from the benchmark, and therefore identified as a tax expenditure, on the grounds that it provides assistance to a distinct class of taxpayer and could be replaced by a direct outlay (a criterion used to identify expenditures in other OECD countries).

Retirement and Other Employment Termination Benefits[2]

The benchmark for retirement and other employment termination benefits is the general taxation treatment of remuneration and savings. This benchmark has the following features:

- Remuneration in respect of employment is deductible to taxable employers and fully taxed to the employee.

- Savings are normally financed out of after-tax income.

- Investment income on savings is normally taxed in the income year it is derived.

- Dissaving of amounts (including interest) accumulated and already taxed is not taxed again.

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2 A detailed discussion of departures from this benchmark was provided in the 1989 Statement.

Fringe Benefits Tax (FBT) Benchmark

The benchmark adopted has the following characteristics:

- The role of the FBT in supplementing the personal income tax structure is the starting point in determining the benchmark. Accordingly, under the benchmark FBT would apply to all benefits provided to all employees or associates (except where their wage or salary income is exempt from personal income tax) and hence all employers providing such benefits would be liable for FBT.

- Reflecting the role of the FBT in supplementing the personal income tax structure, it is accepted as part of the benchmark that the FBT is levied at the maximum personal tax rate, including the Medicare levy. Negative tax expenditures arise where employees who receive fringe benefits face marginal personal tax rates below the maximum because the FBT paid by the employer is higher than the tax which employees would pay if the benefit were assessable in their hands. However, as the effective administration of the FBT requires that it be levied at a single rate, this feature is accepted as part of the benchmark.

- The benchmark value of a fringe benefit to an employee is taken to be its market value less any consideration paid by the employee. In some cases statutory formulae are available to calculate the taxable value of the benefit. As for the substantiation rules, tax expenditures are deemed to arise where the formulae provide a concession to taxpayers.

- The arrangements operating prior to 31 March 1994 whereby FBT was non-deductible for income tax purposes and there was no 'gross-up' adjustment, were treated as part of the benchmark up to that point.

- These characteristics were altered from 1 April 1994 when FBT was applied to the tax inclusive value of the fringe benefits and FBT became income tax deductible for employers. A special rebate applies to non-government entities that are exempt from income tax but subject to FBT and this rebate is treated as a tax expenditure.

Excise Duty Benchmark

The benchmark for the excise taxes has the following characteristics:

- The benchmark includes excises for alcohol, tobacco and fuels.

- The benchmark has no exemptions for classes of taxpayers or activities.

- The benchmark rate for fuels is the excise on unleaded petrol (which is also the rate for diesel). To allow for differences in the energy output of different fuels the rate is expressed as an excise per unit of energy. The tax on leaded petrol is a negative tax expenditure.

- The benchmark rate for tobacco is the current excise rate on tobacco. No tax expenditures are identified for tobacco.

- There are three different benchmarks for alcohol. These benchmarks vary according to alcohol type. The Wholesale Sales Tax rates used do not include the 15 percentage point safety net surcharge collected by the Commonwealth on behalf of the States and Territories.

  - The benchmark for beer beverages is the excise rate on beer. Beer is the highest selling alcoholic product in Australia. The excise rate for beer is currently $16.10 per litre. However, for beer there exists a concessional threshold of 1.15 per cent of alcohol that is excise free regardless of total alcoholic strength. Wholesale Sales Tax of 22 per cent applies to beer.

  - The benchmark for brandy is the excise rate on spirits. The excise rate is expressed as an excise per unit of alcohol. The excise rate for spirits is currently $37.47 per litre. Wholesale Sales Tax of 22 per cent applies to spirits and brandy.

  - The benchmark for wine, alcoholic cider and a range of other alcoholic drinks is the treatment of wine. There is currently no excise on wine. However, wine is subject to Wholesale Sales Tax at the rate of 26 per cent.

Retirement and Other Employment Termination Benefits

This Appendix sets out the estimated tax expenditures on retirement and other employment termination benefits for 1994-95 to 1997-98 and forward projections for the following four years. It also briefly examines some conceptual issues relating to the interpretation of these estimates. The estimates are presented in Table B1 according to the forms of departure from the benchmark taxation treatment of these benefits.

A brief discussion of the savings benchmark is included in Appendix A. A discussion of how the actual taxation of retirement and other employment termination benefits depart from this benchmark is provided in Appendix B of the 1994 *Tax Expenditures Statement*. The 1994 Statement also outlines the difference between these estimates and estimates of the longer-term budgetary impact of superannuation concessions provided by Treasury's Retirement Income Modelling Unit (RIM) models.

The method of estimating superannuation and other termination payment concessions is the same as that used for the 1996-97 TES. This method:

- uses RIMGROUP projections of contributions in their entirety and has regard to RIMGROUP projections of earnings (RIMGROUP is the population model used by RIM to project superannuation fund contributions, earnings and payouts as well as related retirement income, social security and taxation aggregates);
- removes the assumed year delay in the collection of tax from superannuation funds, reflecting changes in the collection timetable (this produces a more stable series); and
- incorporates a revised approach to estimating earnings, which leads to a higher estimated earnings figure.

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Interpretation

The cost estimate for the tax expenditure measures the amount by which tax revenue is reduced by the provisions for taxing retirement and other employment termination benefits in a particular year. The estimate of the tax expenditure in the forward projections is not necessarily indicative of the cost of the superannuation concessions in future years:

- the taxes on superannuation pensions and lump sums could be expected to provide a greater offset to the cost of the under-taxation of contributions in future years when there are larger numbers of taxpayers drawing down their superannuation savings relative to the numbers in the accumulation phase; and

- the current superannuation tax concessions will have an (intended) impact on certain direct budgetary outlays in future years. In particular, consideration of the ongoing cost of the superannuation concessions would need to take account of the offsetting effect on future age pension outlays.

Even aside from these factors, the estimates in Table B1 cannot be interpreted as a time series of the ongoing revenue savings that could be obtained if the superannuation concessions were eliminated. This is because the increase in tax arising from the elimination of the tax expenditures with respect to a particular year would cause the superannuation tax base to be smaller for the next year. For example, if contributions and fund earnings in 1997-98 were taxed according to the savings benchmark, superannuation fund assets, and hence fund earnings, would be lower in 1998-99 than if the concessional tax treatment had applied the previous year. The cost of taxing fund earnings concessionally in 1998-99 will, in these circumstances, be lower than if the superannuation concessions had applied in 1997-98.

In addition, the estimated cost of the tax expenditure on retirement and other employment termination benefits assumes no behavioural change; so the level of superannuation savings would not be affected by the removal of the concessions. To the extent that this is an unrealistic assumption the cost of the concessions will be overestimated.

Notwithstanding these caveats, the methodology used to cost tax expenditures in this Statement is considered to provide the best measure of the budgetary impact in *any given year* of removing existing tax concessions *in that year*.

Estimates

The estimated and projected cost of the superannuation/termination tax concessions has been revised slightly upwards for 1996-97 and some succeeding years compared to the estimates and projections in the 1996-97 TES. The earnings of superannuation funds are not readily predictable. The major reason is that it is a matter for the discretion of a fund manager when the accrued capital gains of a fund are to be realised. In addition, the earnings series is intrinsically volatile, reflecting the fluctuation in interest rates and yields that contribute to it.

As with the projections in the 1996-97 TES, fund earnings have been ‘smoothed out’ for the forward projections as this is considered to provide a better indication of the cost of the tax expenditure over time.

The significant predicted drop in tax expenditures from 2000-01 onwards is a direct result of reductions in personal income tax rates under ANTS. There is also a more minor decrease included within the estimates from 1999-2000 onwards associated with the expected increase in superannuation surcharge receipts, deriving from the policy change which will result in fringe benefits affecting the rate at which the surcharge applies.

Cost Measurement Issues

The cost estimates provided in this Statement for positive tax expenditures measure the amount by which tax revenue is reduced in a particular year, by the tax provision in question relative to the benchmark. Estimates are costed on the basis of the year of impact on revenue rather than the income year in which use of the provision was made.

Aggregation of Cost Estimates

For a number of reasons the aggregation of costings for individual tax expenditure items presented in the TES will not provide an accurate estimate of the total level of assistance which is provided through tax expenditures.

These considerations suggest that although the concept of revenue forgone may overstate the revenue that might accrue from removal of individual tax expenditures, in aggregate the costings are likely to understate the total level of preference provided through tax expenditures.

- The listing of tax expenditures is not exhaustive.
- Due to the unavailability of data, estimates are not available for many items that are listed. Further, considerable conceptual and data difficulties surround the costing of many tax expenditures. For retirement and other employment termination benefits this problem is particularly acute.
- Under a progressive income tax the removal of a positive tax expenditure may push the taxable income of some taxpayers into a higher marginal tax rate bracket and thereby increase the estimated revenue forgone by virtue of remaining tax expenditures, with the reverse true for negative tax expenditures.
- The costings assume, often unrealistically, that taxpayers would not alter their behaviour following the removal of a tax expenditure. However, the removal of one tax expenditure may induce greater usage of another. This caveat also applies to direct budgetary expenditures.

Tax Expenditures Involving Deferral

In this publication information on timing (or deferral) expenditures has been placed in a separate table. Such a separation allows readers to decide if they wish to include these estimates when assessing tax expenditures. This will depend on why they are interested in analysing tax expenditures; to determine the revenue impact in a particular year or to consider the level of assistance provided through the tax system.

This section provides more information on these deferral expenditures and provides a practical example of the operation of an accelerated depreciation provision.

The accelerated depreciation provisions of the income tax law permit tax to be deferred by allowing deductions to be brought forward. The taxpayer pays less tax in early years but more tax later. This does not mean that the aggregate revenue losses in the early years will be made up later. Accelerated depreciation provisions usually result in revenue losses over a number of years, but the losses are not offset by revenue gains in future years unless the provisions are removed. The size of the revenue effects can differ markedly from year to year, particularly during the transitional period following the introduction or removal of the concession. Thus the ongoing revenue implications of such provisions cannot be adequately summarised by ‘first’ or ‘full’ year costs to revenue. Nevertheless, reflecting the ‘annual cost to the Budget’ basis of tax expenditure estimates, these tax expenditures are costed in terms of their impact on revenue in individual years.

A positive tax expenditure arises in the years in which capital is being depreciated rapidly, followed by revenue gains in the years in which no deductions, or comparatively smaller deductions, can be claimed because the capital has already been written down relative to an effective life depreciation schedule, which is the benchmark.

Table C1 presents calculations demonstrating how a negative tax expenditure may arise over time as a consequence of a change from an effective life regime to an accelerated depreciation regime.

The calculations are based on the following assumptions:

- A firm purchases $10 billion of depreciable equipment midway through year one. The equipment has an effective life of nine years, and is scrapped in year ten for no residual value.
- Under (non-accelerated) effective life depreciation, the firm would be able to depreciate the equipment at 16.67 per cent per annum using the

diminishing value method (ie 150 per cent divided by the effective life of nine years).

- Under the current accelerated depreciation provisions, the firm can depreciate equipment at 30 per cent per annum using the diminishing value method.

- The current company tax rate of 36 per cent applies to the firm.

- Factors such as past and current year losses are ignored.

Columns (2) to (4) of the table present the calculations for depreciation under effective life and the associated tax saving. Columns (5) to (7) contain the same information for accelerated depreciation. The 'Tax Saving' is the value of the depreciation deduction to the taxpayer.

Column (8) gives the year-by-year cost to revenue of accelerated write-off, assuming a zero discount rate.[3] Positive tax expenditures occur in the earlier years but are offset in later years by negative tax expenditures. With the assumption of a zero discount rate, cumulative tax expenditures are zero. However, in the real world case where the discount rate is positive, cumulative tax expenditures would also be positive, thus conferring an accumulated benefit to investors and an accumulated loss to government.

Table C1: Accelerated Depreciation Tax Expenditures

Effective life				Accelerated depreciation			Tax Expenditure	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Opening Balance $m	Depreciation $m	Tax Saving $m	Opening Balance $m	Depreciation $m	Tax Saving $m	(7)-(4) Cost $m	Cumulative Cost $m
1	10000	833	300	10000	1500	540	240	240
2	9167	1528	550	8500	2550	918	368	608
3	7639	1273	458	5950	1785	643	184	792
4	6366	1061	382	4165	1250	450	68	860
5	5305	884	318	2916	875	315	-3	857
6	4421	737	265	2041	612	220	-45	812
7	3684	614	221	1429	429	154	-67	745
8	3070	512	184	1000	300	108	-76	669
9	2558	426	153	700	210	76	-78	591
10	2132	2132	767	490	490	176	-591	0

3 The Tax Expenditures Statement estimates are intended to be comparable and complementary to other Budget estimates, therefore the assumption of a zero discount rate is appropriate.