Financial capital and taxation policy: the way forward

This paper[*] was presented by Mr. Richard Wood (Budget Group) to a Seminar for Staff and Senior Students at the University of Newcastle on 8 June 2001.

The establishment of the joint ATO/Treasury Taxation of Financial Arrangements (TOFA) project was announced in the 1992-93 Budget following representations by industry concerning the uncertainty, complexity and incoherency of relevant tax legislation.

Extensive consultations with industry have been based on:

- *'Taxation of Financial Arrangements: A Consultative Document', 1993;*
- *'Taxation of Financial Arrangements: An Issues Paper', 1996;*
- *'A Platform for Consultation', February 1999, Chapters 5, 6 and 7; and*
- *'A Tax System Redesigned', July 1999, Recommendations 6.8, 9.1 to 9.12, and 12.11.*

The debt/equity tax borderline reform (developed as part of the TOFA project) has been introduced into Parliament with effect from 1 July 2001. Consultations on the remainder of the TOFA project will continue before any recommendations are prepared for Government consideration.

Introduction

Price instability, banking and financial crises, large current account imbalances, speculative capital movements, the tendency for exchange rate overshooting and variable rates of unemployment have all contributed to uncertainty and to market volatility over recent decades. At the same time, financial innovation — designed to better manage price volatility and risk, and to exploit tax arbitrage opportunities — has contributed to an explosion in the

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* This paper incorporates the views of the author only. These views are not necessarily shared by the Treasury (his employing organisation) or the Australian Government.

use of derivatives, hedging techniques and other financial instruments. In Australia, overall financial market turnover exceeded $38,000 billion in 1999-2000.

Sufficient depth and the efficient functioning of financing and investment markets are preconditions for balanced and sustained economic expansion. The functions, inter-dependencies, contingencies and applications of financial instruments have all become more complex in the wake of financial engineering and globalisation. Financial markets increasingly provide a platform — particularly within an innovative and more integrated global financial environment — for the more efficient allocation of risk. Financial instruments are now constructed to strip-out, repackage and reallocate different risks and cash flows; alter contingencies and risk profiles through time; mix debt and equity together; embed one instrument (an option, say) within another instrument (debt); replicate debt from a portfolio of both equity and derivatives, and so on.

Conventional tax distinctions and classifications — developed for the industrial revolution — were not designed for such diversity. The 'old' tax policy paradigms (based on the fixed/contingent dichotomy and legal form) are proving increasingly inadequate in the face of financial innovation and the increased complexity in instrument design. Tax-driven discontinuities, mismatches, distortions, uncertainties, asymmetries, mis-pricing and prohibitions are encroaching on the effectiveness of financial equivalences and the efficient allocation of capital. The traditional taxation architecture in Australia has not been able to cope with newer debt/equity hybrid instruments, does not adequately address synthetic arrangements, results in post-tax mismatches of pre-tax matches, has created taxpayer uncertainty in a number of other areas including in respect of foreign currency gains and losses, does not facilitate efficient hedging, risk management, fund raising, market-making and price formation, and strains to prevent tax arbitrage and erosion of the business tax base. In Australia, some of the markets for hybrid instruments remain relatively illiquid, particularly in respect of longer dated issues.

Reflecting the inherent complexity of the subject matter, and despite more than a decade of serious intellectual endeavour (particularly in the United States), there is no 'consensus' framework for taxing financial arrangements. Only a few countries have attempted to confront the underlying tax policy challenges in a systematic manner. A broad-based accruals taxation system for financial arrangements was introduced in New Zealand in March 1987. In the United Kingdom, after more than eight years of consultations, the taxation of financial

instruments was reformed in three stages: foreign exchange in 1993, derivatives in 1994, and gilts and bonds in 1996. The U.K. Inland Revenue announced a further review of the operation of these three pieces of legislation and of the likely benefits from their possible consolidation in November 2000.

Some other countries, including Australia, have added defensive, ad hoc, anti-avoidance provisions to existing law (creating new layers of complexity) rather than implementing broadly-based reform of the underlying taxation structure. A number of countries have few, if any, or only partial, tax laws specifically relating to derivatives and the more complex financial instruments.

To be best able to cope with product innovation and future financial engineering it is desirable, then, that certain traditional form/instrument-based distinctions, anomalies and distortions be replaced, or minimised. Such adjustments could make room for new, restructured tax architecture centred around economic substance and the functional applications of financial arrangements. Ideally such a framework would minimise the influence of the existing capital/revenue distinction and be capable of separating 'tax-timing' from 'deductibility/frankability' tax treatments. This separation would provide some of the extra degrees of freedom needed to better cope with financial innovation and the larger number of contingent/non-contingent permutations built into the principal/periodic return structures of modern instruments. It is arguable that such an approach would provide greater coherency, consistency, robustness and durability to the tax policy design.

Alternative frameworks

In respect of financial capital it is generally undesirable to rely on common law and court decisions to determine tax treatments. The uncertainties, distortions and costs associated with that approach, and the tax planning opportunities created, are simply too great. A firm analytical basis for a legislative policy regime is required and a number of alternative policy frameworks are conceivable. Each has to be considered in light of policy objectives, constraints and likely economic and behavioural consequences. A list of conceivable framework components, together with their principal weaknesses, is reported in Box 1. Tax-timing and debt/equity treatments represent the central mechanisms that need to be restructured.

Box 1: Alternative framework modules

General

1. **A legal-form/transaction-by-transaction-based approach**: cannot deal adequately with financial engineering, innovation and complex portfolios in a tax system differentiated by debt/equity, capital/revenue and tax-timing distinctions; fails to establish consistency as economic substance is not the basis for tax; results in uncertainty and provides excessive opportunities for tax arbitrage and avoidance.

2. **'Bifurcation' (splitting into basic components) or its opposite, 'integration'**: while these methodologies can be applied to specific arrangements — for example, to hybrids and synthetics, respectively — they cannot provide all encompassing, general solutions.

3. **An institutional-based two-code approach, one code for banks and a different code for non-banks**: would create non-neutralities and the integrity of the tax policy design would not survive amid on-going institutional restructuring.

4. **Tax financial instruments according to their commercial accounting treatments**: in a substantial number of countries (including Australia) accounting measurement standards are inadequately developed and commercial accounting treatments are in a state of flux, and would often prove to be too uncertain and imprecise as the base for taxation.

5. **A formal general hedging regime**: arguably excessively complex and involves high administration costs for governments and high compliance burdens particularly for smaller companies.

Tax-Timing

6. **A comprehensive, mandatory mark-to-market system**: would tax gains that may never be realised; may require full loss offsets or loss carry-back; may be destabilising to after-tax profits and tax revenue during economic cycles and periods of market disturbance and encounters potential 'valuation' problems.

Continued…

Box 1: Alternative framework modules (continued)

7. **A mandatory mark-to-market system restricted to 'trading/market-making' activity**: difficult to apply because of practical problems encountered due to on-going institutional change and from attempts to separate 'investment' from 'trading' activities.

8. **Taxing instruments with 'fixed' returns on an accruals/debt basis and instruments with 'contingent' returns on a realisation/equity basis**: too rigid, cannot cope with modern financial engineering (financial equivalences/replication) and other situations where instruments include a mixture of both fixed and variable returns.

Debt/Equity

9. **Imputing a standard return or a debt component (prospectively or retrospectively) to all financial arrangements involving expected returns**: has certain theoretical attractions but has high compliance costs and could be distorting and inequitable, involving greater complexity and tax on imputed returns that may not be realised. There has been little experience with retrospective methods.

10. **Taxing debt as equity, taxing equity as debt or combining debt and equity servicing costs and applying a percentage deduction to the combined servicing costs**: the first method could be potentially destabilising to cross-border capital flows particularly for a small, open, capital importing country should it attempt to adopt such an approach unilaterally. The second method could potentially diminish the size of the corporate tax base. The third method is untested and, depending on its form, may discriminate against riskier activities and introduce other biases, particularly for smaller capital import dependent countries.

11. **A bifurcation approach, splitting out debt and equity components of hybrid instruments**: addresses embedded arrangements; provides a relatively high degree of linearity to hybrids so that tax treatments change relatively smoothly as the instrument moves along the debt/equity spectrum. However the approach is arguably complex as it may involve what are perceived as relatively novel technical financial measures (such as 'delta') and potential valuation difficulties.

Practicable tax-timing treatments

At the highest level of abstraction, the desirable paradigm for determining the tax-timing treatment of modern financial instruments could be centred around two basic organising concepts, *the time value of money* and *the relative certainty of expected returns*. These concepts — which are inherent in the pricing of all financial instruments — could provide the analytical hub[1] for determining a consistent structure of taxation arrangements.

Complete neutrality is impossible to establish for complex innovative financial instruments in a differentiated business income tax system. However, if an appropriately balanced set of interfacing tax-timing treatments could be struck one could have greater confidence that most market-making, price-setting, and hedging activities could proceed with minimal taxation-induced distortions. Purchase and disposal decisions bearing on financial instruments would be less likely to be influenced by taxation, 'lock-in' distortions would be reduced and financial flows would be spread more efficiently through time. Generally, decisions about the structure of financing vehicles and the future allocation of investment and other resources would be improved. In light of the potential for tax deferral driven by the time value of money, the scope for tax arbitrage, income deferral and loss crystallisation would be reduced.

The tax-timing rules could be based on three simple principles:

(i) taxpayers could elect to have returns taxed on a 'mark-to-market' basis where that basis is used for financial accounting purposes. Otherwise;

(ii) tax returns that are relatively certain on an 'accruals' basis; and

(iii) tax returns that are relatively uncertain on a 'realisations' basis.

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1 The technical literature identifies two tax principles — 'linearity' and 'continuity' — which bear on whether or not a tax system imparts neutrality across the range of different financial instruments and portfolios. A tax system is *linear* when the tax on any transaction equals the sum of the taxes on any collection of subtransactions that comprise the transaction. *Continuity* exists when portfolios that are nearly identical have nearly identical tax outcomes. See Jeff Strnad, 'Taxation of New Financial Products: A Conceptual Framework', Stanford Law Review, February 1994.

The mark-to-market regime

The first principle provides the basis for the optional mark-to-market regime. Within this regime tax would be levied on the change in the market value from one tax period to the next. As such all tax-timing distortions are automatically removed. This regime could be expected to be selected by taxpayers whose portfolios are generally fully hedged and where, as a consequence, pre-tax returns may be assumed to be known with certainty. The sophisticated market-makers (mainly banks and other 'traders') that would opt into the mark-to-market regime would not wish to see tax-timing distortions impact adversely on the efficacy of their pre-tax hedges.

The distinction between 'accruals' and 'realisation' regimes

In relation to the second and third aforementioned principles, the use of the 'relatively certain/relatively uncertain' dichotomy (to draw the distinction between the accruals and realisation regimes) is designed to ensure that the accruals taxation method is applied only in appropriate circumstances. These circumstances occur:

(i) where payments need to be spread across time (because they are either deferred or advanced in time) and,

(ii) where the difference between the overall *ex ante* expected and *ex post* actual returns attaching to the instrument is likely to be non-existent or very small.

The second condition reflects a judgement that the accruals method should not be applied or imposed where the difference between *ex ante* expected returns and *ex post* actual returns becomes excessive[2] thereby reducing the likelihood

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2 Differences between *ex ante* expected returns and *ex post* actual returns are mainly the result of unexpected price volatility: all basic financial instruments are subject to price volatility. Share prices (and dividends) are particularly volatile, but bond and bill prices (and interest rates) may be equally highly volatile. However, if a bond or a bill is held to maturity the *ex ante* (expected) return will equal the *ex post* (actual) return, notwithstanding volatility in market prices and interest rates. This follows because the distinguishing feature of debt is the commitment to the return of principal.

The volatility of commodity prices and exchange rates, while still substantial, is generally lower than for share prices. The Consumer Price Index is less volatile than general indexes of commodity prices. The future behaviour of the Consumer Price Index can generally be foreseen with greater certainty (ie the unexpected volatility of the Consumer Price Index is generally relatively low compared to commodity price indexes and financial market prices where non-accommodating macroeconomic policies are pursued).

that gains will be taxed that may never be realised. These guiding principles go far in the direction of meeting both efficiency and equity objectives.

Given the pervasive influence of 'the time value of money' and 'risk' on taxpayers' decision-making, it is impossible to avoid drawing a line between the 'accruals' and 'realisation' tax regimes. Precisely where the line is drawn in practice, and whether it should be a clear bright line or a grey flexible border zone, are matters that can only be resolved on the basis of logic, judgement and experience. Ideally the line would be located where there is a relatively sparse clustering of substitutable instruments. Such a location would tend to 'minimise' the distorting impacts of the discontinuity on capital markets and reduce the scope for gaming across the line.

To operationalise the 'accruals/realisation' distinction, high level policy guidance would be required to determine those returns that would be classified as 'relatively certain' and those which would be classified as 'relatively uncertain'[3]. As well, when relevant in order to apply an accruals method to spread returns, it is assumed that the relevant financial instrument is to be held to maturity and that the credit-worthiness of the issuer does not change during the term of the instrument.

Where all the cash flows from a financial arrangement are known the *ex ante* expected overall return on the financial arrangement will equal the *ex post* actual return. In such circumstances the accruals method would provide an appropriate mechanism to spread the returns over the time periods to which they relate. For instance, interest payments on fixed interest securities are known with certainty (on the above assumptions). The interest payment attaching to a deferred interest security (eg, a zero coupon bond where interest is paid as a lump sum at the time the principal is returned to the taxpayer) is also known. The application of the accruals tax method in these cases would ensure appropriate spreading of returns on such securities including any payments which straddle the end of a tax year or any discount or premium.

Where all the cash flows are not known but periodic returns are determined and set in advance of the period to which they relate and paid in arrears (as is generally the case with interest on a variable rate debt instrument) it is judged

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3 The genesis of the 'relatively certain/relatively uncertain' dichotomy derives from '*expected value taxation*' (see Reed Shuldiner 'A General Approach to the Taxation of Financial Instruments', Texas Law Review, December 1992). Under the 'relatively certain/relatively uncertain' dichotomy the return on a preference share could be accrued even though it is a return to equity (although under an imputation system the benefits of accruing such returns may be marginal, at least where the returns are paid annually).

appropriate to accrue that part of the periodic payment which represents a return on the investment over the period to which it relates.

In the case of typical vanilla interest rate swaps, the relevant fixed and floating rates are determined at the Reset Dates which occur at the beginning of each of the Calculation Periods while payment is not usually required until the end of the relevant period. The amount of the periodic payments is certain from the beginning of the Calculation Period (see Box 2). Consequently, an accruals method is judged an appropriate method for taxing the periodic returns from such swaps.

Where future cash flows are not known with complete certainty but are made by reference to a price or price index with relatively low volatility (eg, the consumer price index) it is considered that any difference between *ex ante* and *ex post* returns would be relatively small. It would, therefore, be practicable to project the future payments and accrue (spread) the gains. Any residual difference between *ex ante* and *ex post* returns would then be taxed on a realisations basis by way of what is termed a 'base price adjustment'.

Classical synthetic debt arrangements involve a perfect hedge, and result in completely certain returns, and could, on the basis of assumptions underlying the *Black-Merton-Scholes* option pricing methodology[4], be taxed on an 'accruals' basis[5] on the presumption that the *integrated arrangement* earns a risk-free rate of interest.

Where all the cash flows from a financial arrangement are not known and where some significant future returns will be determined at the discretion of the issuer (for example dividends on a share), or relate to, or are linked to, a relatively volatile price (for example to exchange rates[6], shares or to commodity prices or to indexes thereof), it is unlikely that the *ex ante* expected overall return on the financial arrangement would closely approximate the *ex post* actual return. In these circumstances, an accruals method would arguably be judged to be inappropriate from an efficiency, complexity and

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4 When risk and uncertainty are completely removed the value of any portfolio depends principally on the risk-free rate of interest. See Fischer Black and Myron Scholes, 'The Pricing of Options and Corporate Liabilities', Journal of Political Economy, Vol 81, Number 3, May/June 1973.

5 Alternatively, reflecting strong linearity within the proposed tax framework, the exact same taxation result could be achieved (in this limiting case) by first bifurcating the composite arrangement and then 'marking-to-market' the *component instruments*.

6 See Appendix.

compliance cost perspective and unnecessary from a tax avoidance viewpoint assuming appropriate anti-avoidance rules are in place. In such cases tax would be applied on a realisations basis.

The overall return on certain derivative instruments, for example, an option or a forward or futures contract are similarly uncertain, and should, on the basis of the same logic, also be taxed on a realisations basis. In the case of a Forward Rate Agreement, for instance, the amount to be paid by either party is not known until the settlement date and prior to this date the gain or loss is uncertain (see Box 2).

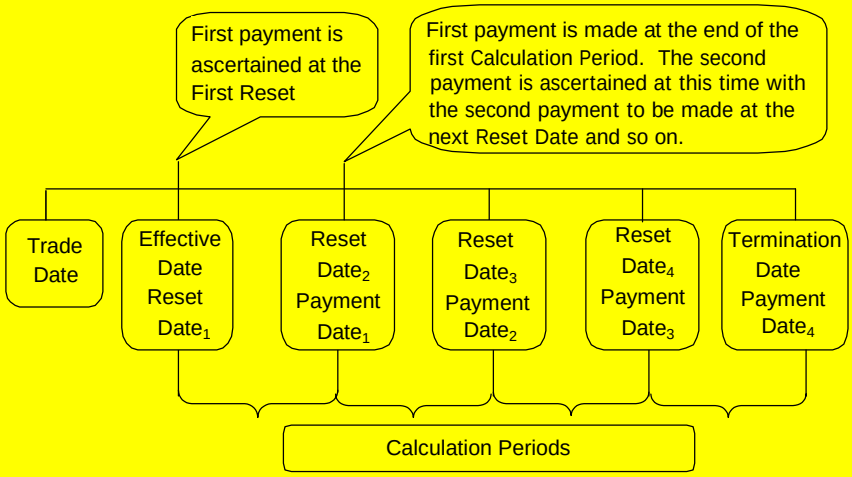
As mentioned above, the application of the accruals method is based on the 'holding to maturity' and 'no change in creditworthiness' assumptions. Where these assumptions do not hold true, it is unlikely that the *ex ante* expected return and the *ex post* actual return would be equal. This is so because the unanticipated early disposal may be associated with changed market interest rates (and prices) and/or changes in creditworthiness. In such cases, the related gains or losses would be uncertain and largely unanticipated and for that reason are not suited to an accruals tax method. For example, the capital gain or loss on a fixed rate debt instrument cannot be determined in advance where such instruments are disposed of prior to maturity. For this reason the gain or loss on the disposal of a fixed rate debt instrument prior to maturity should be taxed on a realisations basis (as well as any unwinding of a swap transaction involving a capital payment).

Ideally, the tax distinction between 'accruals' and 'realisation' should be capable of application to all known instruments and to all instruments and structures that might be invented. Such general application would appear possible and practicable under the proposed approach. This follows because the 'relatively certain/relatively uncertain' dichotomy could, if deemed appropriate (taking into account distortions, compliance and administrative costs), be applied to determine the tax-timing treatment of any hybrid instruments incorporating both relatively certain and relatively uncertain returns. An example of such an instrument would be one that combined a fixed interest component set in advance and a variable return contingent on the movement in a share price index. The 'relatively certain/relatively uncertain' dichotomy could be applied to this instrument by splitting (bifurcating) the overall returns into those which are relatively certain and those which are relatively uncertain.

For purposes of illustration, then, lists of 'relatively certain' and 'relatively uncertain' returns might include those set out in Box 3.

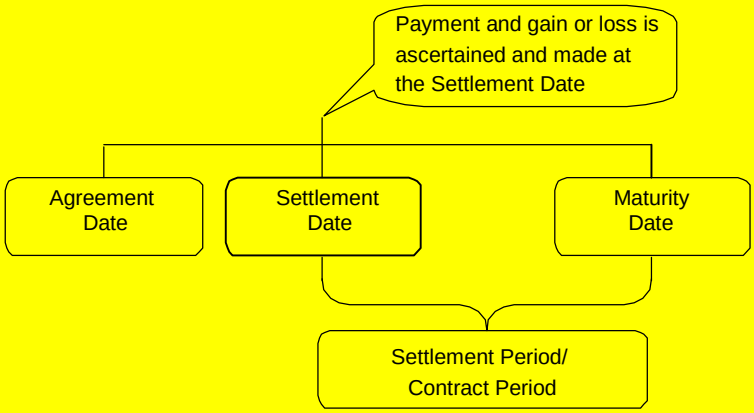
Box 2: Examples of 'relatively certain' and 'relatively uncertain' payments

(a) Interest rate swap: Periodic payments are set in advance and the gain or loss is therefore 'relatively certain'.



Note: Under a vanilla interest rate swap, the future payments — consisting of either the gross payments or, where netting occurs, the net payments — are known from the previous Reset Date. The fixed rate is determined at the outset of the arrangement while the variable rates are known at the relevant Reset Dates, which occur at the beginning of each Calculation Period. The Calculation Period runs from the Reset Date to the relevant Payment Date.

(b) Forward rate agreement: As the value of the payment is not known until Settlement Date, the gain or loss is 'relatively uncertain'.



Note: Under a forward rate agreement the amount to be paid is based on the difference between the contract rate and the interest settlement rate. The contract rate is the forward rate of interest determined at the Agreement Date (the date of entering into the contract). The interest settlement rate is determined on the Settlement Date. The payment amount is the difference between the interest settlement rate and the contract rate applied to a notional principal amount and the number of days in the Settlement Period. The amount to be paid is not known until the Settlement Date.

Box 3: 'Relatively certain' and 'relatively uncertain' instruments/returns

Examples of financial assets with 'relatively certain' returns; taxed on an accruals basis:

Zero coupon bonds
Bills of exchange
Promissory notes
Fixed interest bonds and loans
Variable interest bonds and loans
Bonds the returns on which are based on prospective changes in the consumer price index.
Interest rate swaps
Preference shares with fixed dividends
The return on synthetic debt

Examples of financial assets with 'relatively uncertain' returns: taxed on a realisations basis:

Ordinary shares
Preference shares
Forwards and futures
Foreign currency gains and losses
Options (except where the return on the option is certain)
Warrants
Instalment receipts over shares
Financial assets and liabilities where all future payments are calculated by reference to prospective changes in exchange rates, commodity prices and share prices (including indexes thereof).
The gain or loss incurred at the point of disposal of a fixed return debt instrument.

Tax treatments of debt, equity and debt/equity hybrid instruments

The logic underpinning the differences in the tax treatment of debt and equity is increasingly questionable in a world of financial engineering and contract innovation. However, the reality is that the forces of globalisation and tax competition make it more difficult for small, capital-importing countries

seeking to retain a corporate tax base to take action, unilaterally, to remove the distinction.

As things currently stand, there is no universally accepted view as to how best to distinguish 'debt' from 'equity' for tax purposes or how to tax hybrid (part debt and part equity) instruments. Some countries legislate the debt/equity distinction on 'legal form' and others base it more on the 'economic substance' of the arrangements. Some rely on court decisions based on traditional risk-based ownership interpretations.

There is often great complexity/uncertainty surrounding the mechanics/interpretation of debt/equity tax rules and the multitude of individual 'facts and circumstances' that may be taken into account. Most approaches do not cope efficiently or effectively with hybrid instruments and other modern financial inventions, resulting in tax distortions and socially unproductive tax structuring. In Australia, for instance, there are a number of different definitions of 'debt' in the current tax law and an unacceptable level of uncertainty at the debt/equity borderline.

The location of the borderline may also influence measured corporate indebtedness and the size of the corporate tax base. Where different countries locate the debt/equity tax borderlines at different points along the debt/equity spectrum an uneven international playing field is established, thereby impacting on patterns of financial competitiveness, cross-jurisdictional cherry picking and international capital movements.

Approaches which could be used for distinguishing debt from equity include an '*unweighted multi-dimensional facts and circumstances*' approach, *bifurcation* or *unitary (blanket) taxation*, and *legal form*. It is questionable whether the approaches adopted in some countries are technically adequate or sufficiently stable in the face of sophisticated financial engineering. Reforms in this area can take considerable time to develop and implement.[7]

In the TOFA framework, to achieve one of the principal objectives — removing the excessive uncertainty (inherent in current arrangements) identified as a major problem by taxpayers — a single organising concept is deployed as the

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7 It is reported that the United States Treasury 'labored on Section 385 regulations for more than a decade before they were issued in 1980.' Those tax regulations, which distinguished between debt and equity, were subsequently withdrawn. See Katherine Pratt, 'The Debt-Equity Distinction in a Second-Best World', Vanderbilt Law Review, Vol 53, No 4, May 2000.

central mechanism at the debt equity borderline. On this basis something is 'debt' if the return of principal (whether through periodic or non-periodic returns) is not contingent on the profitability of an enterprise so that there is a legal/commercial obligation to return at least the value of the initial investment amount.

Thus, making allowance in policy design to achieve minimal compliance costs and simplicity, to determine whether an interest in an entity is 'debt' it would be necessary to identify the non-contingent returns and ask if they equal or exceed the value of the principal:

- measured in 'nominal' terms for instruments of not more than 10 years duration; and

- measured in 'present value' terms for other instruments.

If the answer is 'yes' the whole instrument is treated as debt (and the servicing cost is generally deductible), otherwise the whole instrument is treated as equity (and frankable). Based on this single central organising concept[8], Box 4 sets out the tax treatments of an illustrative list of hybrid instruments.

It is inevitable that a discontinuity will arise whenever debt and equity are subject to different tax treatments. In such circumstances, careful policy design is required to strike an appropriate balance between competing taxpayer tensions represented by the desire by some for more deductible equity and the desire by others for more frankable debt. In the approach outlined above there is, for instance, a discontinuity at the 10-year point, which separates the nominal value test from the present value test. There is, therefore, the potential for some capital market imperfections to develop around that dividing point. It is arguable, however, that when account is taken of investor preferences, transaction costs and behavioural responses in the market place, the magnitude of any such effects — and their possible adverse impact on taxation revenue — is likely to be constrained and relatively small. The advantage of the 10-year distinction is that taxpayer compliance costs (the need to compute present values) are minimised.

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8 In addition to the central organising concept, additional rules are required for operationalisation of the concept. For example, a rule would be required to ensure an artificial, contrived or manifestly remote contingency was not used to convert a debt instrument into an equity instrument.

Box 4: Debt/equity tax treatment of illustrative hybrid instruments

Debt (and generally deductible)	Equity (and generally frankable)
Redeemable preference share (compulsory redemption in 10 years* for issue price)	Redeemable preference share (compulsory redemption in over 10 years for issue price)
Perpetual subordinated cumulative ** Income Security (interest exceeds relevant discount rate)	Perpetual subordinated non-cumulative Income Security (interest contingent on profits)
Convertible note (option to receive issue price in 5 years or convert into ordinary shares at a small discount)	Converting preference share before conversion (unless equity component is negligible)
Perpetual cumulative** preference share (dividends exceed relevant discount rate)	Perpetual non-cumulative preference share
Resettable preference shares with (negligible value) option to convert at year 5: where buy back is inevitable	Resettable preference shares with a real option to convert at year 5: issuer has power to buy back at face value and re-sale facility eg PERLs
Perpetual cumulative** convertible notes (interest exceeds relevant discount rate)	Mandatory converting notes

* 'Present value' test of return of initial investment is applied to instruments with terms greater than 10 years.

** Cumulative means that unpaid returns accumulate and become an obligation owing at a specified time (with interest).

The capital/revenue distinction

Under the capital/revenue distinction some instruments are assessed on capital account (and losses are offset against capital gains) while others are treated as ordinary income on revenue account (and losses are deductible). Whatever its original justification (in terms of capital accumulation, say), this distinction sits awkwardly with the operation of financial markets and adds very considerable complexity.

At the highest tax policy design level, therefore, one should aim to minimise the influence of this anachronistic distinction on the operation and costs of the financial system. Arguably, all financial instruments should be taxed on a consistent basis, on revenue account. This approach is essentially that which has been adopted by the architects of the financial arrangements taxation

reforms adopted over recent decades in New Zealand and generally in the United Kingdom (except for deferral relief on exchange gains and losses).

In some existing tax systems (for example in Australia's case) equity and some other assets are currently taxed on either the revenue or the capital account, depending on attendant circumstances. In that situation, and under the general framework discussed in this paper, to the extent then that some derivatives are hedging relevant equity instruments (or some other asset which is on capital account) 'matching' principles may be required so that the relevant derivative would also be taxed on a capital basis.

The central components of a workable framework

Based on the core organising principles (tax-timing and debt/equity) discussed thus far — and adding disposal rules and limited hedging and synthetic rules to facilitate efficient risk management within the differentiated tax system — the central framework components of a financial arrangements tax system might be summarised as in Box 5. One might expect that this relatively simple set of interrelated principles, embroidered with all necessary safeguards and relevant safe harbours, could deliver the required degree of consistency, certainty, coherency, and simplicity in tax design with relatively moderate compliance costs.

Box 5: Seven components of a framework for taxing gains/losses from financial capital

- Separation of 'tax-timing' from 'interest/dividend' determination.
- An elective mark-to-market regime to facilitate efficient trading and price setting.
- An accruals regime for taxing 'relatively certain' returns.
- A realisation regime for taxing 'relatively uncertain' returns.
- For hybrid instruments: 'deductibility' or 'frankability' treatment is based on a single organising concept that debt (interest) treatment requires the return of the investment amount.
- Limited tax hedging rules to maintain, post-tax, the effectiveness of risk management assessed in pre-tax terms.
- Rules for synthetic arrangements, disposals and extinguishments.

Implications for the functioning of financial markets and the economy

It is not feasible to quantify the extent of all financing, investment, risk management and market-deepening impacts of the tax reforms outlined above. These impacts would naturally vary across different instruments, different functional applications and different sectors of the economy, some being relatively smaller and some relatively larger.

However, some qualitative comment is possible.

- At the broadest level, it is clear that the direct benefits of the proposed approach (compared to various possible alternative approaches, or simple neglect) would flow well beyond the banks, the stock market, derivatives exchanges, superannuation, insurance, other investment fund managers and the other financial institutions that are most active in financial and derivative markets. Direct benefits would also flow to the financing, investment, hedging and other risk management activities of grains, cotton, wool, oil, gold and other commodity producers, electricity and gas suppliers and general manufacturers; to exporters, importers and investors exposed to exchange rate and commodity price risk; and generally to all businesses with national or international operations employing derivatives and other financial instruments. Direct and indirect functional improvements — deriving from improved specialisation in risk bearing and exchange rate management, enhanced market liquidity, lower risk premiums and higher investment returns for given price volatilities, smoother income and capital flows, increased foreign trade, reduced uncertainty and, potentially, a lower cost of capital — would, in a competitive environment, ultimately spread into other sectors of the economy and to producers, investors, and savers more generally.

- The framework principles summarised in Table 3 would work to reduce the incongruity between the tax treatment and the commercial accounting treatment of certain classes of financial instruments, reducing compliance costs for financial and non-financial enterprises alike.

- The adoption of an elective mark-to-market tax system would result in 'trading efficiencies', better risk management, lower costs and improved price discovery/market-making capacity in the markets for financial instruments.

- Traders of financial instruments often hedge long duration positions with relatively short duration hedging instruments. Under a differentiated 'realisation/accruals' regime (without a mark-to-market facility) these hedges would be subjected to tax-timing mis-matches which would mean that it would generally not be possible to efficiently achieve post-tax matching of hedges that are matched on a pre-tax basis. Such tax mismatches would disturb the process of market pricing and risk management and would work to raise the cost of capital. The joint operation of an elective mark-to-market regime and an accruals/realisation systems system would ensure that such mis-matches can be largely avoided and that market-making and price-setting could be made more efficient in that they are not disturbed and distorted by such taxation mismatches.

- Because the proposed mark-to-market regime is elective, and not mandatory, it would be entered voluntarily, and therefore taxpayers would not be forced to pay taxes on gains (due to market movements) that may never be realised. The likely efficiencies resulting from an election into the mark-to-market system are potentially significant for certain taxpayers. It is also likely that those financial institutions that elected to have relevant transactions taxed on a mark-to-market basis would have much greater stability in their year-to-year trading profits trajectory than those which did not. Such stability would lower risk and add to credit worthiness and shareholder value.

- Where the reach of an accruals tax system is appropriately struck — that is, extending to all investment, financing and speculative activities where returns may be anticipated with a relatively high level of certainty — relevant gains and losses can be appropriately spread through time for taxation purposes and tax avoidance opportunities minimised. Under the proposals discussed in this paper, therefore, greater consistency in tax-timing treatments could be achieved across all financial arrangements, facilitating risk management, the efficient allocation of investment through time and lower funding costs.

- Under the tax-timing framework discussed above, hedging activity could be facilitated without resort to comprehensive and complex formal hedging rules. Within the elective mark-to-market system substantial tax-timing matching for hedges is automatically achieved. Within the accruals/realisation regimes (outlined earlier) a substantial degree of pre- and post-tax matching of the hedged and hedging instrument would be feasible given the range of hedging instruments now available. For instance,

an option (taxed on realisation) may hedge a share (also taxed on realisation) and a swap (taxed on accruals) may be used to hedge a debt instrument (also taxed on an accruals basis). Efficient hedging can potentially reduce the impacts of price instability — including, for example, in relation to raw materials and commodities, energy, exchange rates and interest rates — on profits, production, financing and investment.

- Assume there did exist three different tax-timing treatments (elective mark-to-market, accruals and realisation). In this system the financial institution would account for the 'loans' book on an accruals basis while 'trading' transactions would be accounted for on a mark-to-market basis. This system would result in a post-tax mismatch as the proportion of the activity undertaken by the trading desk to hedge the loans desk exposure would be taxed on a mark-to-market basis, while the underlying exposure (loans) would be taxed on an accruals basis. An 'internal hedging rule' could be used to remove this tax-timing mismatch.

- 'Internal hedging' rules (where the tax authority recognises an internal swap transaction between the loans and trading desks) would enable the risk in the accruals (loan) books of financial institutions and the risk in their mark-to-market (trading) book to be combined and hedged externally. This would reduce the number and value of external hedging transactions, lower related risk management costs (due to lowered risk and volatility in franking credits and dividend policy), reduce costs imposed by capital adequacy regulations and minimise the bid-offer spread paid to non-residents. The cost savings and potential enhancements to national economic welfare are likely to be significant.

- Bringing greater coherency and clarity to the tax treatments of hybrid and synthetic arrangements would deliver greater certainty to market-makers, hedgers, financiers, investors and to issuers and holders, and would facilitate desirable financial innovation. Tax arbitrage opportunities would be reduced and current punitive provisions (46D and 82SA) could be removed.

- Finally, simplification and modernisation of taxation policy as it relates to financial capital would contribute toward strengthening Australia's role as a regional financial centre. This could be achieved as a result of reducing uncertainty and removing other taxation impediments to the retention and attraction of global financing and investment activity and by facilitating greater financial innovation, market completion, and deeper and more dynamic domestic markets. The location in Australia of treasury operations and additional innovative activity in product creation would be

encouraged, and the provision of locally supplied financial, hedging and risk management services should also be enhanced.

Concluding comment

The TOFA reforms aim to restructure and simplify relevant tax treatments. The expected net impact on the Commonwealth's fiscal position is broadly neutral, involving a relatively small one-off revenue gain mainly due to the advance of income in the first year following the broadening of the accrual base. Some advance of revenue may also be likely following the introduction of rules to tax synthetic arrangements although its magnitude is uncertain, and unquantifiable. The introduction of the elective mark-to-market system is unlikely to result in any systematic revenue impact overall.

The inter-locking systems for taxing gains and losses from financial capital discussed in this paper could contribute toward greater overall coherency, clarity, and greater simplicity and reduced uncertainty. While the magnitudes of all quantitative impacts on market efficiency would be difficult to estimate, their likely directions are clearer as the reforms represent the antithesis of 'throwing sand in the wheels'. Market efficiency and competitiveness should generally be enhanced, hedging and financing costs reduced, future product innovation facilitated and the revenue base protected.

Appendix

The taxation of foreign currency gains and losses

Foreign currency gains and losses — which arise due to fluctuations in exchange rates — could be taxed in a variety of ways:

> 'Accruals': This approach would assume that a foreign currency denominated instrument is equivalent to a variable rate debt instrument with the exchange rate at each balance date (either the 'spot' or the 'forward rate') being used to estimate the Australian dollar value of future cash flows.
>
> 'Retranslation': This method would bring to account changes in the value of foreign currency denominated assets and liabilities at balance date in terms of local currency values. This method does not account for changes in the value of the debt that results from interest rate movements or changes in credit risks.
>
> 'Realisation': This method brings to account at payment date or termination all changes in value attributable to changes in the exchange rate.
>
> 'Hedging Treatment': Under this method where a foreign currency arrangement hedges an underlying position/asset/liability the tax treatment of the foreign currency arrangement is made consistent with that of the underlying position/asset/liability.

The choice between the 'accruals', 'realisation' and 'retranslation' methods for taxing foreign currency gains and losses essentially reflects a judgement about the desirable location of the borderline separating 'relatively certain' from 'relatively uncertain' returns. Commercial accounting treatments, compliance cost implications and measurement considerations may also have a bearing.

It is technically possible to use the forward exchange rate curve to project expected income from foreign currency movements and utilise this projected income stream as the basis for the accruals method. However this approach relies on the uncovered and covered interest rate parity interpretations of exchange rate determination in contrast with competing explanations, for instance, purchasing power parity, commodity price, current account (domestic savings/investment) imbalances or random walk based explanations. The use of the forward curve also draws on rational expectations

and the efficient markets hypothesis and a related assumption that the methodology allows one to calculate a sufficiently certain estimate of expected income.

The general view taken in this paper is that currency movements are relatively volatile, that unexpected foreign currency gains and losses are probably large relative to anticipatable gains and losses and that, therefore, overall foreign currency gains and losses are inherently too uncertain to be taxed by the accruals method. It is recognised, however, that special tax rules may be able to be justified to cope with synthetic domestic currency borrowings arising from fully hedged foreign currency borrowings. As well, under Australian commercial accounting treatments foreign currency gains and losses are treated on a retranslation basis and, mainly for that reason, an option to use that method for tax purposes could be supported if it can be shown to reduce overall compliance costs for some taxpayers.