

# TVM, THE TAX BASE AND ITS RELATIONSHIP TO COMMERCIAL ACCOUNTING METHODS

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*“The main dangers in this life are the people who want to change everything  
–or nothing”  
(Lady Astor)*

## I. ISSUES IN DEFINING THE TAX BASE

### Introduction

#### ***The relation of ‘incomings’ to economic income***

Most people instinctively favour income as the tax base. In doing so, they often (and quite naturally) equate ‘income’ with what comes in. The question, “What was your income last year?” usually refers to what you earned (whether in your employment or in business) and to any dividends and interest you received on shares, securities or deposits. People do not usually ask how much you spent last year, except in relation to some specific item of expenditure.

In what follows, I refer to this popular conception of income as “incomings”. As an approach to the tax base it is easily explained. Incomings in the form of wages, dividends and interest payments are easily observed and valued. They offer the means of discharging tax liabilities. The question, “What was your income last year?” also reflects that the focus for measuring taxable income is an *ex post* rather than an *ex ante* focus (as providing a more objective and accurate measure) and that measurement is by reference to a particular time period, usually a year. Aggregate incomings offer an answer to this question that is popularly regarded as providing an adequate measure of taxable income.

This popular conception of taxable income is, however, rather inaccurate. If we really want to measure someone’s capacity for taxation, what we should be interested in is not their incomings but their “purchasing power”. What we want to know is what is a person’s capacity to consume rather than where they got the resources to do so. You find this conception of income reflected in economists’ definitions. Hick’s, for example, suggested that income in economic terms is represented by “the maximum amount of money that the individual can spend this week, and still expect to be able to spend the same amount in real terms in each ensuing week.”<sup>2</sup>

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<sup>2</sup> J R Hicks, *Value and Capital: An Inquiry into some Fundamental Principles of Economic Theory*, 2d ed., Oxford University Press, 1946, p 172. Haig suggested that income was represented by, “the increase or accretion in [a person’s] power to satisfy his wants in so far as that power consists of (a) money itself, or (b) anything susceptible of valuation with money.” Simons suggested that income was “the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question.”

This is not an expression that we can adopt as a legal definition of income for tax purposes. Thinking about income in economic terms, however, rather than in terms of incomings, offers two important insights. The first is that incomings do not necessarily represent income or a change in wealth in its economic conception, i.e. in the sense of an increase in purchasing power. A sale of shares, the receipt of insurance proceeds or of a pension and even the payment of dividends are in reality a reallocation of purchasing power that you already hold but in a different form—as the rights under your insurance policy or pension plan or through the share rights that you own in a company.

The point about many incomings is that people have considerable scope to decide when to convert current purchasing power into incomings. The most obvious example is capital gains, which represent economic income as they accrue but which most tax systems only recognise (if at all) as taxable incomings when realised. Any tax system that is based to any significant extent on incomings accordingly offers people—especially those people with the greatest wealth—scope to decide whether and when they will pay tax. At the extreme, people can defer incomings until they need to finance actual consumption. In that case, the tax base is no longer economic income—i.e. consumption plus net increases in the potential to consume; it is consumption alone.

This leads to the second insight: consumption is always part of the tax base. Economic income is defined as the sum of consumption plus the net additions to wealth or the net new opportunities for consumption. It is possible, therefore, to start with a measure of income and reach a measure of consumption for the purposes of taxation by subtracting amounts saved. The difference between a consumption-based tax and an income-based tax is entirely in their treatment of saving. The common element of both bases is consumption.

### ***Connecting the legal definition of the tax base to its economic reality***

The reason why tax systems start with incomings is basically as I have stated: the practical administrative one that incomings are easily observed and valued and offer the scope to settle tax liabilities. Incomings rather than expenditures also provide a satisfactory starting point even if all you want to tax is consumption. This is because in any period individuals are likely to have far fewer sources of income than they have uses to which they put that income. Information about sources of purchasing power is therefore part of the practical way in which to measure the tax base and reflects something that is at least relatively comprehensible to most people.

It is important to appreciate, however, that incomings are just a *starting point* for measuring the tax base. An income tax system based on incomings lacks economic coherence. Over time taxpayers will be required to make a growing number of adjustments to incomings, as governments seek to prevent taxpayers from undermining the tax base by exploiting the opportunities that incomings offer to defer or avoid tax. And as the number of adjustments multiplies, tax systems move away from the relatively simple model of taxable incomings to more complex forms designed to produce a coherent measure of income that is based on economic income and, consequently, has little to do with cash incomings.

It is in this context that I consider the Tax Value Method (“TVM”). The rationale for TVM is to provide a better legal definition of the tax base and TVM might be thought of as providing a closer ‘connection’ between that definition and the economic definition of income. As expressed, the TVM formula replaces a computation based on *assessable income minus deductions* with a formula based on *net annual cash flows and net annual changes in the tax value of assets and liabilities*. The TVM formula might be characterised, however, as replacing a computation based on *adjusted incomings* with a formula based on *consumption plus net additions to wealth* (representing the taxpayer’s new opportunities for consumption). Thus, we might regard the first part of the TVM formula [**receipts minus payments**] as

representing the cash flow element of the tax base that reflects consumption while the second part of the formula [**the change in the net value of assets less the change in the net value of liabilities**] represents net additions to (or depletions in) wealth. Approached in those terms, what issues arise from each element of the formula?

### **The TVM formula as an expression of the tax base**<sup>3</sup>

#### ***Personal savings and consumption***

Consumption is generally recognised in terms of cash flows, i.e. as the difference between receipts and payments. But what receipts and what payments? People usually associate consumption with what they spend when they go shopping and the GST or sales tax included in or added to the prices they pay as the tax on consumption. Receipts only enter the picture in terms of providing the wherewithal to go shopping. In direct tax terms, however, measuring consumption through receipts and payments ignores payments on items ranking as consumption and treats as payments the cost of assets in the form of savings. Conversely, receipts include the amount realised from assets representing savings. Rather than aggregating the multiplicity of shopping bills incurred during the year, you measure consumption by aggregating incomings of every type (including realisations from savings) and deducting the amount saved.

The definition of assets and liabilities continues to be important to this part of the formula for determining what counts as a receipt (i.e. dissavings) or payment (i.e. savings). In other respects, however, the second part of the TVM formula, representing changing asset values and liabilities, is irrelevant to the consumption tax base because that part reflects savings. In essence, the second part of the TVM formula is no more than a box labelled 'savings'. Receipts in the form of amounts taken out of that box are recognised and taxed unless offset by payments put into the box in the form of new savings.<sup>4</sup>

Strictly, asset and liability values in the second part of the formula should enter into the calculation of consumption to some extent. This is because the purchase of any asset with a life and a realisable value in fact involves elements of consumption and saving. The realisable value of the asset and its future utility represent savings—the unconsumed element of the investment. The personal use to which someone currently puts the asset and the enjoyment from doing so, represent consumption or current utility. The continuing reduction in the asset's realisable value over time generally reflects on-going consumption. This analysis necessarily assumes, however, that people acquire assets from their existing resources. Personal borrowing, hire purchase and other forms of consumer credit ensure, however, that consumption often precedes saving rather than being made out of savings. Strictly, therefore, account should also be taken of such liabilities in the calculation. Indeed, if assets depreciate as quickly as the credit is paid off, or more so, the acquisition and use of assets involve no element of savings. The assets are merely rented (representing on-going consumption) in a different way.

Governments, however, do not normally tax the personal use and enjoyment or depreciation of assets. They assume, correctly in most cases, that practical difficulties rule this out as an option for personal taxation. The essential nature of the problem that the tax system faces in

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<sup>3</sup> For a general discussion of the issues of the tax base, see Bradford, *Blueprints for Basic Tax Reform*, 2<sup>nd</sup> Edition (revised), Tax Analysts (1984).

<sup>4</sup> For a definitive explanation of this form of universal expenditure tax, see *The Structure and Reform of Direct Taxation, Report of a Committee chaired by Professor J E Meade*, Institute for Fiscal Studies (1978). See also Kaldor, *An Expenditure Tax*, Allen & Unwin (1955); Lodin, *Progressive Expenditure Tax – an Alternative? A Report of the 1972 Government Commission on Taxation* (Stockholm, 1978).

these cases is one of valuation. Consumption over time is often not expressed in the form of a cash transaction. Valuing the current benefit of the on-going use and enjoyment of assets presents insuperable practical problems. It is impossible to measure the rate at which the investment in personal assets is consumed. The tax system accordingly ignores the depreciation of personal assets and the costs of financing them and of their repair. It abandons any attempt at valuation and adopts the more straight-forward option of treating the initial outlay and the repair, maintenance and financing costs as consumption by ensuring that such amounts are not deducted as payments for savings.<sup>5</sup>

### ***Issues in defining income***

The second part of the TVM formula (identifying the change in net values of assets and liabilities), however, reflects that valuation is central to an income-based system. Changes in value of assets and liabilities recognised in the second part of the formula are irrelevant under a consumption-based system. An income-based system, however, must identify and value all assets and liabilities that enter the second part of the formula<sup>6</sup> to reflect the opportunity for consumption—i.e. the value that could have been transferred from the second part of the formula and recognised in the receipts and payments for the period.

The valuation of assets and liabilities falling the second part of the formula necessarily involves guesses as to future and these guesses are as likely to be wrong or inaccurate as they are likely to be right. Unanticipated windfalls that may eventually be recognised in asset or liability values can by definition only come within the formula when they materialise and the Haig-Simons' definition of income recognises that there are some opportunities or advantages open to people that you cannot value.<sup>7</sup> Some of these, however, may still reflect rights that do represent a current opportunity for future consumption—such as an indexed linked unfunded pension or pension based on final salary. Strictly, an income-based system should value and tax anything that it can recognise as representing an opportunity for future consumption. With a consumption-based tax on the other hand, you can wait and tax the outcome when the opportunity generates receipts that you can bring within the first part of the formula; with an income-based tax you cannot.

### ***Time and the measurement of income***

The opportunity for consumption or 'saving,' as a concept to be compared with consumption, exists only when you divide individual lives into the past, the present and the future. Within a single period, the concepts of present and future consumption and of saving cease to exist: all that concerns you is the period's outcome. In theory, if people could draw up a lifetime balance sheet, lifetime income should equal lifetime consumption.

This feature appears in the TVM formula through the requirement to determine net asset and liabilities by reference to the opening and closing values of a stated period. Fluctuations in value between those times have no impact on the tax base. It reflects that as a practical matter tax systems only function by dividing time into pre-determined periods. They recognise

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<sup>5</sup> Thus, for example, amounts borrowed to fund the purchase of white goods would be excluded from the definition of liabilities and amounts used to repay such borrowings would not count as savings. Similarly, any amount realised by selling such consumer assets would not count as receipts for tax purposes.

<sup>6</sup> I.e. those assets and liabilities that have been recognised as a component of savings rather than consumption. This is the same definition of assets and liabilities as that adopted under a consumption tax.

<sup>7</sup> Haig recognises this by referring in his definition of income to "anything susceptible of valuation in terms of money" and Simons also refers in his definition to "the change in value of the store of property rights." See note 2 above.

savings and consumption decisions within their chosen time frame. The practical measurement of income, wealth, saving and consumption *all* require some approximation to a time period. However, as soon as you break up time into periods of any length, the tax system can never be completely precise because the size of the tax base is affected by the choice of period.

The underlying concept of an income-based tax is a *continuous* time-frame (which is precise)—that is, you should assess consumption and the net new opportunities for consumption on a continuous basis. Real-world measurements are approximations to that continuous time-frame. However, different considerations point to different choices of time frame. The considerations of measurement, administration and compliance suggest that you should choose a period that is as long as possible—reducing for example the occasions on which valuation is needed. However, for an income-based tax, the possibility of manipulation, as well as equity and efficiency considerations, suggest that you should choose a period as short as possible.

### **Choice of period and the tax base**

It is important to appreciate that it is the length of the period of *measurement* that matters, not the length of the fiscal or tax period. Within the TVM formula, therefore, what matters is not the period for which taxpayers bring in opening and closing values but when assets and liabilities are revalued. For example, the system could require taxpayers to calculate values each month and mark-up the resulting figure by the discount rate to the end of the tax year; in that case, it is the monthly period that matters, not the tax year. Conversely, if taxpayers need only revalue assets on realisation, it is the period between acquisition and disposal that matters. That is the period of measurement, even though that period may span several tax years. The time between the measurement and payment of the tax is also important unless the system charges interest on the outstanding tax. Thus, even if you must pay tax on capital gains as they accrue, you will still prefer assets on which income accrues or is paid gross as compared with assets that produce income that bears tax immediately by deduction at source.

### **Valuation and the tax base**

Accordingly, the more frequently you measure income, the earlier you recognise it. Nevertheless, there may be no obvious way of knowing when income emerges. Consider a manufacturing process in continuous time. The business buys raw materials, processes them into a finished product and then markets and sells the product. The individual transactions of purchase, production, marketing and sale only concern you as elements of a profitable outcome. The division of time means that elements of that process may inevitably fall on either side of the chosen divide. You must then estimate the value of individual elements of the process, but without knowing the outcome of them all.

This is true of all savings, whether represented by striking business profit or valuing financial assets. A significant element of any business profit is a best estimate at the time of what those drawing up the accounts expect to emerge from the whole production process. Accountants and other valuers can only rely on their view of the future and their best estimate on available information of what the asset will yield, accepting that there may be more than one view of the possible outcome. The risk that it may not be possible to realise that value is but one aspect of the assessment of current income.

Valuation is in principle easier if you are dealing with assets traded in an established market. The market provides a value and represents a medium of continuous measurement that allows

you to identify more easily changes in value.<sup>8</sup> A variety of factors may influence the price that a market places on assets currently dealt in on that market but, at the heart of the market's valuation, are a variety of assumptions—or guesses—about the future. This view of any outcome depends crucially on information and expectation.<sup>9</sup> A market valuation may just reflect a general ignorance of the true position and a common misapprehension of the future that is shared by a number of people rather than a single valuer. Valuation is therefore just a current view of an expected outcome. Until you withdraw and consume the business profit or realise and consume the value of your savings, you remain at risk that market or other expectations are confounded.

### ***Relief for losses***

A natural corollary of the difficulties presented by valuation and the measurement of income over time is therefore whether and, if so, to what extent the system allows losses in one period to reduce the income of another period. Within a single period, it is the net result that matters. How time is divided may accordingly affect whether the business can net off the outcome of several transactions or whether it must look at them separately. This is true for savings generally.

Current opportunities for consumption do not change with subsequent events. Accordingly, relief for current losses under an income-based approach does not set out to restore taxpayers to the position they would have been in had they not been taxed on those past opportunities. Ultimately, however, we are usually concerned with the outcome not the expectation. Accordingly, an income-based tax looks at the net change in value of assets over time: a net accretion in the value of assets increases income and a net depletion in that value reduces it.

## **II. BUSINESS PROFIT AS AN ELEMENT OF THE TAX BASE**

### **Taxing companies as an adjunct to the personal taxation**

#### ***'Consumption' of business assets***

A direct personal expenditure tax (reflected in the cash flow element of the TVM formula) avoids the difficulties of measuring depreciation and valuing the use of assets over time by treating the entire cost of assets as consumption without regard to future utility. In contrast, business tax systems conventionally seek to measure depreciation and the use of assets over time. They do so because a business consumes its assets to yield a return that will maintain and increase the value of the business, rather than diminish it through personal consumption.

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<sup>8</sup> An objection to this is that the opportunity to realise assets at current valuations is illusory because those valuations could not be arrived at if everyone sought to realise and consume their assets at the same time. Nevertheless, established markets do provide fora within which you can realise an asset if you wish. However, where there is no established open market you can give an asset a hypothetical open market value but there may be no real opportunity to realise that value. Without realisation a person may not be able to pay the tax. Against this, a real increase in value of an asset may enable a person to borrow to pay the tax. Alternatively, the system may defer tax until value is realised with tax on the estimated accrued value carrying interest in the meantime. The (im)practicality of any of these approaches is a major reason why governments generally do not adopt them.

<sup>9</sup> The market may value a company at £1.50 per share based on its knowledge of the company's products. The company's directors may know, however, that the impending loss of a key contract makes a value of £1.25 a more realistic estimate of value. At some point the directors may be obliged to reveal this information to the market.

In terms of ascertaining and taxing consumption, however, we are not so concerned with what has been consumed in the productive process. Rather, we want to know what is left. This represents what the business proprietors can withdraw from the productive pool and consume. We measure depreciation and the use of business assets over time because if we want to tax profits—reflecting the business’ increasing value—we must be able to identify the extent to which the business consumes assets in the profit-making process and what the business must pay to replace them. Only then can we arrive at a true measure of the business’ profit.

In a business tax context, however, the issues of asset and liability values, of depreciation and use over time are more closely associated with the income tax model than with a cash flow consumption tax model.<sup>10</sup> Under the latter model, businesses deduct most payments immediately because virtually every payment is incurred in the profit-making process. Indeed, the simplest way to measure what those who have funded the business have available to consume is to look at what they have withdrawn in the form of dividends, interest or other funding payments including repayments of capital. Anything that they leave in the business (including new capital contributions) is, by definition, savings and outside the consumption tax base. These elements are reflected in existing VAT and GST systems for which changing asset and liability values and different forms of finance are largely irrelevant.

### ***Personal consumption of business assets***

Nevertheless, even a consumption-based system cannot allow businesses to deduct costs that reflect the personal use and enjoyment of business assets or value by proprietors or employees. Their personal use and enjoyment of business assets are equivalent to a sale of the business’ assets or services to themselves. Some adjustment is therefore needed. Either—

- the system should adjust business depreciation or costs to exclude value attributable to personal use and enjoyment of assets by the proprietors or their employees,<sup>11</sup> or
- proprietors and employees should suffer tax on the value of their personal use and enjoyment of the business assets.<sup>12</sup>

In making such adjustments, there is no principle to say which costs are properly related to the business and which reflect the individual’s personal preferences, or how you may separate each element. Two people are likely to have different ideas as to how to conduct their businesses and there will inevitably be an element of personal choice about the expenditure they incur in the process. Revenue yield and administrative practicality, as well as changing social and economic circumstances, rather than any underlying economic principle, are likely to dictate the approach that governments adopt to limit deductions in calculating disposable income or purchasing power.

### ***Taxing business profits under an income tax***

At a personal tax level, a company or business (represented by shares or the individual’s other proprietorial interest in it) is an asset that enters the second part of the TVM formula. As such all that concerns the first part of the formula (representing a consumption tax approach) is what emerges (or should be treated as emerging) as a receipt. Under an income tax approach,

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<sup>10</sup> Nevertheless, a consumption tax approach may still choose to tax corporate profits that take the form of economic rents. This may involve a similar computation of business profits to that adopted under an income tax system but with relief being given for all financing costs including the opportunity cost of equity capital, see Section III below.

<sup>11</sup> To that extent, the assets have not been devoted to the productive processes of the business and it is taxed through the business.

<sup>12</sup> The use of the assets is part of the compensation that the individual receives for working in the business. As such, it forms part of the productive output of the business but consumption by the individual.

the changing value of the company or business is an essential element of the computation under the second part of the TVM formula.

In this respect, any intermediated savings pose a particular problem for a personal income tax. In terms of a business entity falling under the second part of the TVM formula, its changing value—represented by the profits it generates—should be allocated to individuals as it accrues according to the rights they have in the entity. Whatever the theoretical attractions of allocating profits in this way, governments have not regarded it as a practical proposition for general application.

The alternative approach is to tax shareholders on the accruing value of their rights (as represented by shares in the case of a company). However, even if you can readily identify a value, any number of extraneous factors may affect it. As a result, share values may be more volatile than underlying corporate profits. Taxing the accruing value of shares—assuming that to be a practical proposition—may identify personal income. But it is unlikely to reflect accurately the accrual of the company's business profits because share valuations look forward to the future anticipated income yield from the business, rather than back to the actual profits earned in the period in question.

Over time, the taxation of share values as they accrue, as adjusted for dividends paid, may satisfactorily capture the opportunities for consumption that those profits represent. However, you obtain a more accurate measure by taxing the company's profits directly, as they accrue. This involves treating the company or other business entity as a person in its own right, subject to the TVM formula. Consumption in these terms becomes what the company distributes to its proprietors, so that the first part of the TVM formula as applied to a corporate entity reflects the difference between distribution and the introduction of new capital. The second part of the TVM formula then becomes the computation of profit. The main reason why governments tax business profits as they accrue rather than as they are withdrawn is because they are attempting to tax the return on amounts saved within the business. Accordingly, the problems of calculating business profits are essentially problems of calculating income in its economic sense of consumption plus new opportunities for saving.

## **The computation of business profits**

### ***Measuring true economic profits***

#### **An accruals basis**

The guiding principles for measuring profits are to tax all real gains and to allow companies to deduct all real costs. In practice, this means that you must assess, tax or relieve gains and losses as they accrue. A proper measure of economic income differs from conventional historic cost accounting measures in two key respects—

- economic income includes gains on assets as they accrue
- all gains and costs are measured in real terms, i.e. they are adjusted for changes in prices.

Strictly companies should include as it accrues income in the form of capital gains and should deduct accruing losses. The benefit that companies obtain from paying tax only when they realise gains can be seen when they revalue assets. At that point the tax they expect to pay enters their accounts as deferred tax. Companies effectively gain the interest payable on the deferred tax account. In doing so, companies reduce the effective tax rate on their gains by deferring tax. The failure to tax accruing business income biases companies towards projects that give returns in the form of capital gains. It can also create 'lock-in' effects, where tax considerations make it more worthwhile for a company to keep an asset than to realise it and pay tax, even where more profitable investments—tax considerations aside—are available.



This applies both to unrealised tangible assets and to unrealised *intangible* assets. Thus, if companies invest in brands by advertising heavily, they usually write off immediately for tax purposes the cost of the campaign. They do not, however, recognise or pay tax on the accruing value of their intangible, but possibly very valuable, brands or goodwill. This is merely one example of a more widespread problem that sees the value to a business of a number of assets—technology, research, supply and service contracts—go unrecognised in computing business income.

### **The impact of inflation**

In the presence of inflation, the difference between the realisation value of any asset and its tax-written-down value includes both a real gain and a purely nominal gain. The tax base should not include nominal gains because they do not correspond to any value added by—or increase in the spending power of—the company or its owners. In practice, this means that you should index the historic cost of all assets in line with general inflation before considering any specific gains and losses.

The impact of inflation on stocks, work-in-progress and losses are particular illustrations of the issue. Conventional ‘first-in first-out’ (‘FIFO’) accounting procedures for stocks and work-in-progress treat the rise in their nominal value as a profit, with no allowance given for the inflationary element of that rise.<sup>13</sup> A requirement to adopt the FIFO method discourages companies from holding stocks at any positive rate of inflation.<sup>14</sup> This disincentive rises with the inflation rate and companies that hold high stock levels in the nature of their business are penalised.<sup>15</sup> Just as with other assets, business income should include only real rises in the value of stocks.

### **Losses**

Business income should also be calculated after relief for accrued losses (including those attributable to inflation). In the first instance, relief for accrued losses ought to be given against the accruing income to arrive at net business income for the period.<sup>16</sup> If the overall outcome is a net business loss for the period, a company may be allowed to carry back its current loss against the net business income of prior periods and to claim repayment of tax previously paid. Similarly, if the company has to carry forward a net business loss for use against future net business income, it should be able to adjust the loss for inflation.

### **Calculating true economic depreciation**

Depreciation is essentially a capital loss made on an asset. If a company revalues assets every year, its revaluation will reflect the losses it has suffered. In practice, a system can approximate for capital losses as they accrue by giving depreciation allowances. However, it is difficult to assess true economic depreciation across a range of assets or at all. Accordingly, many tax systems adopt ad hoc measures of depreciation.<sup>17</sup> If the system allows a deduction

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<sup>13</sup> Because stocks are often valued whilst held at the lower of cost or market value, even stock is not on a strict accruals basis (save as to losses) but has elements of a realisations basis.

<sup>14</sup> However, a Last In Last Out (‘LIFO’) method has properties similar to a current cost accounting method of inflation adjustment, see Vann and Dixon, *Measuring Income under Inflation*, Australian Tax Research Foundation, Research Study No. 12 (1990), p. 48.

<sup>15</sup> The penalty arises because part of the profit realised on the sale of existing stock must be reinvested in the acquisition of new stock merely for the business to maintain its current value.

<sup>16</sup> The question of whether you can consolidate the net business income of one company with a net business loss of another is essentially a practical issue of defining the taxpaying unit. We deal with this issue in Chapter 10 below.

<sup>17</sup> As does the UK though its system of capital allowances.

that overestimates the true rate of economic depreciation of assets, it lowers the tax burden on companies that invest in those assets. As a result, they may be biased towards using them, rather than other, more productive assets. Conversely, if the system underestimates the true rate of economic depreciation of assets, it penalises companies that invest in those assets, thereby discouraging their use. In these ways, the real level of depreciation allowed by the system affects company decisions.

It becomes yet more difficult to assess true economic depreciation in the presence of inflation. As with all capital gains and losses, the system should assess the cost of depreciation of assets by reference to their current value rather than their historic value. If the value of assets simply rises in line with inflation, companies should apply the relevant depreciation rate to the depreciated book value of assets, indexed for inflation. If assets are going up in value more rapidly than general prices, you should tax the additional gain and apply the depreciation rate to the new higher value.

### ***The practical difficulties of measurement***

Measuring and taxing business income as it accrues, and the administrative complexity of indexation, present the same difficulties of practical implementation for taxing business income as they do for taxing personal income. The valuation of assets is highly subjective and for many assets, especially work-in-progress, there will be no clear market value at all. Furthermore, if companies are making large ‘paper’ gains and have to pay tax as those gains accrue, the tax could create serious liquidity problems. In theory, if some real value has accrued to a company, it should be able to borrow against that value to fund tax on it. However, this merely begs the question of when value truly accrues and can be taxed.

A further issue that people raise is that business income calculated on an accruals basis, and therefore government revenues, can be volatile both in aggregate and for particular companies. As a practical matter, there may be a case for ‘smoothing’ tax payments over years where business conditions are changing rapidly. However, this is a poor argument in principle. If it turns out that companies are simply not making money when their income is correctly measured, then why should they pay tax? The point arises in part because governments are unwilling to concede the type of relief for losses that taxes based on business income imply. Companies find that they have paid tax in earlier years but are unable to get relief for later losses, other than through a limited carry forward of losses, unadjusted for inflation.

### ***Corporation tax as a source tax on shareholders***

#### **The relevance of financing costs to the tax base**

Thus far this discussion has dealt mainly with one side of the balance sheet, to identify the change in real value of the company’s net assets. This provides a measure of the value that the business has added through its activities. It leaves out of account, however, how you should deal with the financing costs that companies incur.

Practical administration drives tax systems to adopt accounting measures of profit as a starting point. However, accounting profit invariably diverges from true economic income and, accepting the function that accounts serve, accounting profit reflects the business income that belongs finally to shareholders. Accordingly, without further adjustment, a tax based on accounting measures of profit draws a line between equity capital<sup>18</sup> and debt, so that the corporate tax falls on the business income attributable to shareholders. The distinction that

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<sup>18</sup> I.e. capital provided other than at a pre-determined rate or period of maturity.

this draws between these different sources of finance may be important to accountants but it one that then becomes of fundamental importance to taxation unless the personal and corporate tax systems overall succeed in taxing the return on debt and equity alike.<sup>19</sup>

The nature of the corporate tax base depends upon how you deal with financing costs. If and to the extent that companies deduct their costs of finance, the return on that finance is not taxed at the corporate level. At one extreme, denying companies a deduction for all costs of finance, taxes at the corporate tax rate income earned on all sources of finance.<sup>20</sup> At the other extreme, allowing companies to deduct *all* costs of finance, including the opportunity cost of equity capital,<sup>21</sup> exempts from tax at the corporate level business income earned by the company on *all* its sources of finance. The corporate tax then becomes a tax on economic rents, that is a tax on the element of profits that companies earn over and above all the costs of earning them.<sup>22</sup>

### **The deduction of real finance costs**

Current measures of business income allow companies to deduct some of the costs they incur in financing their assets and activities. Most countries allow companies to deduct nominal interest on third-party debt as representing the cost of that finance. Part of this payment, however, compensates the lender for the fall in the real value of the debt. It is effectively a prepayment of the principal amount of the debt. Ideally, therefore, the company should only deduct the real interest cost and lenders should only pay tax on their real income as it accrues. A true measure of business income treats as a cost only the real costs of finance, that is, adjusted for inflation over the period in question. Similarly, business income should include the fall in the real value of net financial liabilities.<sup>23</sup>

In theory, this presents little difficulty where the finance in question is ordinary fixed-rate interest bearing debt. However, relieving and taxing real interest as it accrues does not provide a complete measure of the company's costs or of the lender's income. Both may be affected by currency fluctuations and interest rate movements. Accordingly, to arrive at a proper measure of income for a lender, you need to take account of the changing values of financial assets as a result of these factors. Similarly, to reflect the company's true costs of finance, you should take account as they occur of alterations in the value of its liabilities to third-parties as a result of interest rate and currency movements.

### **The measure of shareholders' profit**

With these adjustments, you will have an accurate measure of the business income attributable to shareholders and allowing companies to deduct the real costs of third-party finance, reflects the practical application of corporation tax as a tax on shareholders. On this conception of the tax base, shareholders suffer tax at source at the corporate rate on the return

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<sup>19</sup> In a world of open capital markets this is almost guaranteed not to be so because the corporate entity and its providers of finance (debt or equity) may well be subject to different taxing jurisdictions.

<sup>20</sup> How the burden of that tax is shifted between different providers of finance is a separate issue.

<sup>21</sup> The opportunity cost can be represented by the risk-free rate of return on the capital in question.

<sup>22</sup> The difference between a tax on economic rents and a flow of funds or cash-flow base lies in the time at which each taxes corporate rents.

<sup>23</sup> Another way of looking at this is that the company has made a capital gain on the fall in the real value of its liabilities, on which it should be taxed. The restriction of deductibility to the real costs of finance and the taxation of real gains on the fall in the value of net liabilities are identical. Note, however, that this also applies to net liabilities such as trade credit. In this case the company should either include the fall in the real value of this credit as a profit and pay tax on it, or else include a real receipt in respect of such credit as a profit and pay tax on this.

on their investment represented by the inflation-adjusted, accrued income after deduction of the real costs of third party finance.

Traditionally, corporate income taxes have operated to tax the return on what has been characterised as equity capital, i.e. normally finance that offers no pre-determined return or maturity. This approach corresponds to the operation of the corporate income tax as a first stage tax at source on providers of equity capital. Because companies do not distribute business income as it accrues<sup>24</sup> and a strict accruals basis of taxation for personal income is impractical, corporation tax allows governments to collect some tax at source on the shareholders' income. The practical administrative sense of this is apparent. However, it does not provide a complete explanation of why countries limit their taxes on corporate income to shareholders' income and allow a deduction for third-party financial costs. A further reason lies in the adoption of accounting measures to identify the tax base for business income.

### **III. USING ACCOUNTING PROFITS TO DETERMINE TAXABLE PROFITS**<sup>25</sup>

#### **Introduction**

An obvious starting point for computing taxable business profits is the financial records that the business maintains. Company accounts are the nearest easily accessible approximation to business income that there is. It is unsurprising, therefore, that many countries base their business income taxes on accounting measures or, at least, use accounting measures as their starting point.

Anyone familiar with accounting principles and practice will recognise, however, that traditional measures of accounting profit do not necessarily approximate to the calculation of economic income that I have described in Section II of this paper. The argument for aligning measures of accounting and taxable profits proceeds in the first instance, therefore, on other grounds. Thus, if governments are to tax business income, practical administrative and compliance requirements suggest that they should start with the accounts. The more governments can rely on the accounts, the greater the administrative and compliance cost savings that are likely to be achieved. Nevertheless, to the extent that accounting measures of profit diverge from a true measure of economic income there will remain a variety of non-neutralities within the corporate tax system to distort the choices that companies make between different assets and activities and the means of financing them, in particular through the distinction between equity capital and debt.

Accepting that, however, the greater alignment of accounting and taxable profits raises other issues. The first is to what extent accounting measures of profit are consistent with the requirements of the tax system. A second arises from the fact that accounting principles and practice are evolving. Tax policymakers must therefore consider whether it is satisfactory to tie the tax system to an evolving process, the outcome of which is outside their control, and whether the direction of evolution is consistent with the tax base. Does that evolution represent a trend away from a measure of income that can serve for tax purposes, or is it

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<sup>24</sup> However, this merely raises the question of when profit accrues. Distribution suggests that the company believes that it has made profits that it can release to its shareholders.

<sup>25</sup> I am indebted to my IFS colleagues, Graeme Macdonald and David Hole, for the work that they have undertaken on this subject for the Tax Law Review Committee; this section draws significantly on their material, in particular Macdonald, *The Taxation of Business Income: Aligning Taxable Income with Accounting Income*, TLRC Discussion Paper, IFS (October 2001). The discussion is by reference to UK accounting principles and practice.

simply the refinement of an existing basis for measuring profits that can adequately served the needs of the tax system?

In this respect, however easily any particular aspect of accounting information sits with the needs of the tax system, the direction of accounting evolution is away from a mere calculus, aimed at producing a bottom line measure of profit, and is directed towards producing a more general and rounded package of information that is intended to be understood as a whole. And as regards those responsible for this evolution and for the developing accounting principles and practice, they may be concerned that their pronouncements may involve tax consequences that will make agreement on changes more difficult to achieve whatever the desirability of those changes for the purposes of financial reporting.

### **The relevance of accounting information to the computation of taxable profits**

#### ***The business as a going concern***

The basic assumptions that are generally accepted as underlying accounting profits consist of<sup>26</sup>—

- (a) the going concern concept—the assumption that the business will continue in operational existence so that the implications of liquidation are ignored;
- (b) the accruals concept—the requirement that revenues and costs be recognised in the period in which they are earned or incurred, not as money is received or paid, with costs being matched to revenues recognised in the period;<sup>27</sup>
- (c) the consistency concept—the assumption that there is consistency of accounting treatment as between one period and another;
- (d) the concept of prudence—the requirement that revenue and profit are only recognised when realised or reasonably certain of being realised, and that losses are provided for as soon as foreseen.

These assumptions address the inherent problems of preparing accounts for a single period in the context of a business that is in fact an on-going concern. As such they reflect the timing issue that underlies the computation of income for tax purposes and the application of these concepts as part of the tax system will determine when (that is, in which taxing period) transactions are recognised. They are therefore critical to the recognition of taxable income. As such, they are inevitable a source of friction between the taxation and accounting systems, where the interest of Revenue authorities lies in securing that neither the matching nor the prudence concept allows income to be deferred or expenditure to be accelerated while the interest of accountants (even ignoring their clients) may be to the contrary.

#### ***'True and fair' view***

Leaving aside for the time being the central issue of timing, there seems little in the principles underlying the preparation of general-purpose financial statements that is inconsistent with the use of that information for tax purposes.<sup>28</sup> These require that the financial statements should give a 'true and fair view', an expression that has appeared in UK companies

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<sup>26</sup> First recognised in the UK in SSAP 2, issued in 1971, and subsequently given legal recognition in the Companies Act 1981. FRS 18 Accounting Policies replaces SSAP 2.

<sup>27</sup> As to the current approach to matching, see below under *accounting measures of income*.

<sup>28</sup> See Accounting Standards Board, *Statement of Principles for Financial Reporting*, 1999.

legislation since 1947.<sup>29</sup> Whatever else this concept involves, it requires that the information contained in financial statements should be “sufficient in quantity and quality to satisfy the reasonable expectations of the readers to whom they are addressed”.

The Revenue authorities may be an important readership of financial statements but they are far from being the only, or even the main readership target. Nevertheless, this does not imply that the quantity or quality of the information is inconsistent with their needs, even if it may not provide everything that they need. To be useful, however, information has to have certain qualities. These represent the criteria by which accounting income is to be judged. The issue, therefore, is how consistent these qualities are with relevant criteria identified for taxation.

### ***The qualities of accounting information***

#### **Relevance and reliability**

The ASB Statement of Principles requires that accounting information must be relevant, reliable, comparable and understandable. To be reliable, accounting information must faithfully represent the commercial effect of the transactions and events recorded in the financial statements. It must also be neutral, free from material error, complete and ‘prudent’. Information is relevant if it has the ability to influence the economic decisions of users and is provided in time to influence those decisions. Its characteristics are both predictive (helping users to evaluate or assess past, present or future events) and confirmatory (helping users to correct or confirm previous evaluations and assessments). Accounting accordingly offers an *ex post* measure of income, which is consistent with tax requirements.

Relevance and reliability are significant to the choice of the measurement basis. A decision whether to report transactions by reference to their historic cost or some other monetary equivalent is a question for decision by reference to usefulness, rather than a predetermined output given by the accounting process. This clearly has implications for aligning tax with accounting income because to move from historic cost would involve change to the measurement of taxable income. The question would then be whether the valuation basis chosen as being relevant for reporting on *financial performance* is satisfactory for measuring *taxable capacity*.

#### **Substance and form**

The requirement that to be reliable, accounting information must faithfully represent the commercial effect of the transactions and events recorded in the financial statements (and not merely their legal form) is often thought to be problematic for tax purposes. It is the tension between form and substance that lies behind some of the most complex anti-avoidance provisions and a large number of judicial decisions.

There seems no reason, however, why this aspect of accounting information need be problematic at all. If there is agreement that accounting measures of profit should be adopted for tax purposes that may just extend to taxation the accounting view of what represents the economic outcome of particular transactions or events. Indeed, to the extent that it results in tax falling upon the economic gain realised by the business, rather than some artificial measure of tax profit, it might well be considered a desirable outcome.

On that basis there is no incompatibility between accounting and tax in this respect. The issue may rather be, from the Revenue authorities perspective, what degree of latitude it offers

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<sup>29</sup> The requirement that profits for tax purposes should be computed on an accounting basis which gives a “true and fair” view was introduced by s.42 Finance Act 1998.

(under the pressure of attracting particular tax outcomes) for a subjective view of particular transactions and events that may result in differential taxation and, as between taxpayers, the possibility that two taxpayers may achieve very different outcomes depending upon the view adopted by their accountants.

### **Material error and prudence**

Similar issues arise as regards the level of possible error, given an uncertain world, considered acceptable for information to be free from ‘material error’ and to reflect prudence. Prudence in the exercise of judgements is an appropriate response to uncertainty provided it does not create bias, for example by deliberately understating revenues or overstating expenses. Nevertheless, there is a conflict between a system that allows for judgement (which may prove *ex post* to be erroneous) and one (such as a tax system) that relies on rigid rules on the grounds of certainty and consistent application. Even the tax system, however, recognises the role of judgement (e.g. with regard to provisions) provided there is evidence that the figure adopted is reliable enough.

### ***Materiality***

Accounting information, even if it meets all the relevant qualitative characteristics just mentioned, must also be ‘material’; that is, its omission or misstatement could influence the economic decisions of users. This is considered a threshold quality so that information has to be considered against this criterion before being included in the accounts. If it is not material it cannot, given the stated objective of accounting statements, be useful. Indeed, its inclusion may even detract from the usefulness of the report by inhibiting understanding.

Materiality, however, is a relative concept: it depends on the size of the omission or misstatement relative to its context. As such, it is more normally found in the tax system as an aspect of administrative discretion conferred on a Revenue authority rather than as a basic principle for the computation of taxable profits that may be binding as a matter of legal right between the taxpayer and the state, subject only to review by the courts.

Materiality is not intended to permit the deliberate omission from, or mis-statement of a transaction in, the accounts. This would contradict the other required characteristics of accounting information, especially that of faithful representation. The question is whether particular transactions are significant enough in the context of the entity being reported on to require application of a particular accounting standard or an accounting policy. By contrast, for tax purposes, the usual principle is that every entity should calculate its taxable profits under the same rules. It would therefore be inappropriate if the materiality concept were to permit the taxpayer to be the sole judge of whether a particular treatment of a transaction in the accounts should be adopted in computing the final tax liability. At the least, any such application might have to be identified and adjusted for.

### **Accounting measures of income**

#### ***Profit as reflected in the profit and loss account***

Accounting measures of income have traditionally been based on past transactions recorded at their historic transaction consideration. Fundamental accounting concepts were concerned with measuring periodic profit, reflecting the primacy of the profit and loss account traditional in financial reporting. The balance sheet essentially resulted from what was and was not taken into account in the profit and loss account, and would normally reflect assets and liabilities at their transaction values. Thus fixed assets would appear at cost, meaning that part of historic cost that had not previously been charged against revenues. The monetary value assigned to an asset was therefore determined by how much of its cost had already been attributed to

earning profit. It is this model of income measurement that the UK tax system at least has taken as its starting point.

### ***Statement of total recognised gains and losses***

It is unclear, however, whether this approach will continue to form the basis for measuring accounting profit, even though the process of measurement remains based on past transactions and events. In addition to the profit and loss account, financial reporting also now utilises a statement of total recognised gains and losses to give a more comprehensive measure of income than has traditionally been the case. Gains and losses are changes in ownership interest not arising from contributions from, or distributions to, owners, where the ownership interest is measured as the difference between the assets and liabilities of the business. What is critical is the effect of a transaction or event on assets or liabilities and whether this produces a recognised change. Assets and liabilities are defined respectively as “rights or other access to future economic benefits controlled by an entity” and “obligations of an entity to transfer economic benefits”, both arising as a result of past transactions or events.

### ***Measuring assets and liabilities***

Assets or liabilities will be measured initially according to the consideration given in the past transaction, provided that the event or transaction fell prior to the balance sheet date and that an asset or liability comes into existence.<sup>30</sup> Subsequently, however, the value of the asset or liability may be adjusted to current value (giving rise to a gain or loss) if there is reliable evidence as to its value. Alternatively, the asset or liability may be written out—‘derecognition’—if it ceases to come within the definition of an asset or liability. It is envisaged that a mixed measurement system might be applied using different bases for different categories of asset.

Expenditure that does not result in the recognition of an asset automatically gives rise to a loss in the period in which it is incurred. Where expenditure gives rise to an asset, the future benefits may be consumed over a number of periods. The asset will be derecognised wholly or in part over those periods and, to the extent that it is derecognised, there will be a loss. Assuming that transactions occur at fair value, the initial measurement of assets and liabilities is at their transaction cost (historic cost) and this will be adjusted (but not remeasured) as the asset is consumed (and derecognised). This adjustment is intended to reflect the benefits used up in a period. Where this cannot be measured directly (either by matching on a time basis or by association with specific gains), the expenditure is written off systematically over the life of the asset, i.e. historic cost depreciation in the case of a fixed asset.

Although assets and liabilities will usually be measured initially at historic cost, some or all of them may be remeasured subsequently at current value. The change in value will then be included in the total gains and losses for a period to reflect the change in the ownership interest of that amount. All gains recognised in a period will therefore be reported, regardless of whether they arise from operations or from revaluation, and whether realised or not. The type of asset or liability may dictate, however, where and how the gain or loss is reported in the financial statements.

### ***Recognition rather than realisation***

The realisation test for taking items into account in computing profit originated to protect creditors in the face of accrual as opposed to cash accounting and to provide a criterion for determining distributable profits. Its application developed to ensure that only gains that were reasonably certain and unlikely to reverse were included as profit.

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<sup>30</sup> This is essentially the old historic cost procedure.



The rationale for moving away from this approach and using the recognition of assets and liabilities as the starting point is the belief that an effective accounting framework requires definitions that are robust, precise and comprehensive. It is thought that this can be better achieved by defining assets and liabilities, so imposing a discipline on the recognition of gains and losses in a way that matching does not.<sup>31</sup> As a result, the significance of matching costs with revenues as an approach to computing accounting profits is much reduced. Recognition of gains and losses is about whether there is sufficient evidence reliably to report them. Realisation may provide that evidence but is no longer a requirement. Prudence is taken to mean that the standard of evidence for recognising losses is lower than for gains.

This move away from realisation as a concept takes the view that reasonable certainty and reliability are better criteria to adopt in measuring profit than some extended meaning of realisation. In this respect, the critical event for recognition may well be full performance and realisation may be the critical event. This is, however, no longer a necessary criterion because, in the context of many financial exposures, realisation provides information of limited value; “a realised gain will reflect the same economic event as an unrealised gain: realisation merely represents confirmation of the gain.”<sup>32</sup>

### ***Justification for the balance sheet approach***

This approach to financial reporting is often referred to as the “balance sheet” approach. Its starting point is to identify whether there are assets and liabilities and then establish what their value is. The profit and loss is derived from that process as the change in value of those assets and liabilities. The contrast with the traditional approach is clear: the balance sheet approach reflects measurement by reference to the change in value of a stock between two points in time whereas the traditional approach has been to measure the flows during that period. The difference in the resultant measure of income is essentially that changes in the value of assets and liabilities not evidenced by realisation (a transaction with a third party) are now included as income whereas traditionally they would be excluded until realisation. Gains and losses are therefore recognised earlier than under the traditional approach<sup>33</sup> and gains and losses may be recognised where none would previously have been recognised before.<sup>34</sup>

The justification for this approach is that it gives a better measure of performance by enabling more informed economic decisions. The selection of the measurement basis should reflect the objective of financial statements, the need for relevance and reliability, the nature of the assets or liabilities being measured and the particular circumstances. The basis of valuation is termed 'Deprival' value, the recompense the owner of an asset would receive were he to be deprived of the asset. If the asset is economically viable, this value is the current replacement cost because replacement restores the owner's financial position to what it was prior to deprival. If the asset is not economically viable (because its economic value was less than replacement cost), the value is its recoverable amount—the higher of net realisable value or economic value in use, being the sum needed to restore the owner to his previous financial position. As a basis of valuation this seems appropriate to measuring what has been used up in a period, for use will in fact have deprived the owner of some or all of his asset, and incorporating this in the performance statement reflects the current cost of operations. Income measured on this basis indicates the amount that could be consumed or distributed on the assumption that operations continue.

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<sup>31</sup> Because of the view that unrestricted matching of business expenditure may always be used to delay recognition on the basis that the hoped-for benefits of expenditure lie in the future, so portraying better results in the current period. For tax purposes, however, the incentive will be the reverse.

<sup>32</sup> *Reporting Financial Performance: Proposals for change*, ASB Discussion Paper, para 4.12 (1999).

<sup>33</sup> Although the prudence concept meant that losses could be recognised whether realised or not

<sup>34</sup> Because they would be matched by subsequent increases or decreases in charges to the profit and loss account for the using up of the asset.

## IV. AN ASSESSMENT OF THE TVM CONCEPT

### ***A coherent definition of the tax base?***

As I am unfamiliar with the detailed intricacies of the Australian tax system my assessment of the TVM proposal must necessarily be in general terms. The aim of the proposal is not to produce a different measure of taxable income to that produced by the current system. Instead, the aim is to put the computation of income on a better conceptual basis. In this respect, it seems quite possible that the TVM formula can provide a more coherent statement of the tax base, for the purposes of tax policy analysis at least, than the definition that is currently found in the core rules of the Income Tax Assessment Act. If that then offers the prospect of a more coherent development of tax policy over time, the benefits in policy terms might be considerable.

In the first Section of this paper, I sought to illustrate that the first part of the TVM formula represents a definition of a direct cash flow expenditure tax while the second part covers the formula to what is required for the definition of a comprehensive income tax. In practice, no direct tax system conforms to either of these models; most tax systems are ‘hybrids’. In the Australian case, it should be possible to see this as work on the TVM proposal proceeds in defining the elements of the TVM formula, thereby identifying what enters (or does not enter) the formula in three particular respects—

- (a) in what counts or not as a payment or receipt in the first part of the formula;
- (b) in the failure to recognise particular assets and liabilities for the purposes of the second part of the formula, and
- (c) in the setting of tax values for assets and liabilities that fail to record their changing values in the second part of the formula period by period.

The first and second of these are likely to be related because receipts and payments should reflect savings and dissavings (and therefore consumption by omission), which are reflected in the assets and liabilities recognised within the second part of the formula.<sup>35</sup>

### ***The practical issues of implementation***

If my supposition in this respect is correct, the development of the TVM formula may function at the outset to illustrate whatever variety of distortions and non-neutralities currently exist within the Australian tax system. Nevertheless, whatever benefits this revelation may yield in policy terms, there are potentially serious practical objections to seeking to recast the existing core rules in this way. A principal issue is whether the conceptual model that TVM provides for thinking about the tax base can be easily translated into a legal definition of the tax base.

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<sup>35</sup> I accept that this analysis may not be quite as straightforward as I have chosen to portray it. This is because it is possible to construct a consumption in other forms, notably by allowing savings to be made out of post-tax income and exempting the return on savings. In the first part of the formula this would be equivalent to treating employment earnings, for example, as a receipt without treating the savings as a payment. The asset resulting from the act of saving would not enter the second part of the formula, effectively treating the saving as ‘consumption’. Similarly, if the tax on profits were in reality a tax on economic rents (i.e. a consumption tax model), the company’s assets and liabilities would be recognised under the second part of the formula but with a deduction for the full cost of finance, including equity finance. For a description of these forms of the consumption tax, see *Setting Savings Free: Proposals for the Taxation of Savings and Profits*, IFS Capital Taxes Group, IFS (1994).

If the existing rules of the Income Tax Assessment Act already provided definitions of receipts and payments, assets and liabilities for adoption in the TVM formula, the formula would present little difficulty. This seems unlikely, however, in which case the process of defining the concepts of receipts and payments, assets and liabilities that comprise the TVM formula, as well as rules to establish the values of assets and liabilities, offers considerable scope for unintended error and mistake. That in turn raises the considerable possibility that the outcome produced by the TVM formula will not correspond to the outcome produced by the current core rules. It is unlikely that this outcome would always favour government or taxpayers but, having rendered existing judicial precedent obsolete, it may take some time and cost to establish the position either way. What will be particularly important is that where contractual rights and obligations can be cast in different forms to produce substantively the same outcome, those rights and obligations are identified as close substitutes and are dealt with similarly within the TVM formula; in other words are recognised as assets and liabilities in the same way and valued on the same basis.

Apart from any scope to manipulate the definitions, however, the possibility that the TVM formula might produce a different outcome in certain cases from that produced by the existing core rules is no reason for abandoning the formula. It may be a reason for being circumspect about the claims that are made that TVM will change nothing. Indeed, other considerations apart, to the extent that recasting the core rules reveals particular distortions, there seems little reason to seek to replicate such distortions under the new rules for the sake of meeting any claim that there will be no change.

Leaving aside the risk of unintended error, however, a larger practical objection to the adoption of the TVM formula lies in the likelihood that neither taxpayers nor those responsible for the daily operation of the tax system have historically approached the tax system in TVM terms. If the aim is to change fundamentally the way in which taxpayers and those operators think about the tax system but with no net effect on tax liabilities, the advocates of TVM need to take responsibility for justifying the costs involved in that exercise and demonstrate that the long-term benefits outweigh the considerable compliance and re-education costs involved.

### ***Challenging existing perceptions of taxable income?***

As I noted in Section I, people tend to think of taxable income in terms of incomings. In this respect, the initial part of the TVM formula may present relatively few problems, being based largely on observable cash transactions that raise few valuation issues. The problematic element of the TVM formula lies in its second part and its requirement both to identify assets and liabilities and to calculate opening and closing values period by period. While cash flows are objectively observable, each cash flow involves consideration of whether it creates a matching asset or liability (and whether the tax value of that in all cases corresponds to the cash amount involved in the cash flow).

Quite apart from cash flows and their impact on assets and liabilities, the value of assets and liabilities (or certain of them) recognised within the second part of the formula may change over a period irrespective of any cash transaction. In that case, the issue arises as to how that change is identified and measured and at what point does account have to be taken of the change (i.e. whether the change must be associated with a cash flow to be noted or whether the change is taken into account in any event). These issues are largely an issue of income as a tax base.

### ***The adoption of a balance sheet approach***

In general terms, the ideal of taxing economic income (under a comprehensive income tax) is an unattainable ideal. Tax systems make a large number of compromises in their definition of

income and look for practical measurement expedients. The most obvious expedient is to adopt accounting measures of profit but you would not expect that to be an appropriate expedient for personal taxpayers. Larger businesses, however, offer the prospect for the practical realisation of the TVM formula through the adoption of accounting measures of profit. Indeed, while Section III illustrated that accounting profits are still somewhat removed from the true measure of economic profits described in Section II, the development of balance sheet methods arriving at accounting profits has some affinity to the TVM formula. TVM appears to draw upon accounting concepts in terms of its definitions of ‘assets’ and ‘liabilities’.

This apparent relationship between the formula and balance sheet methods of accounting raise a number of questions. Thus, to the extent that the TVM formula adopts generally accepted accounting definitions and principles, it may offer a relatively straightforward means of implementation, at least for businesses that are required to adopt such definitions and principles. To the extent, however, that those definitions and principles are associated with balance sheet methods of accounting, the question arises as to how far they are compatible with reliance made of accounting principles under the existing system. Then there are the questions as to the extent to which the detail of the TVM rules, leaving aside definitions, do draw upon existing accounting concepts, especially accounting valuation concepts, and how far it is either possible or appropriate to base any calculation of taxable profit on accounting data and results (both from the policy perspective of government and the policy perspective of accounting standard makers).

The development of UK accounting principles, where for example the approach to the key concepts of matching and prudence and realisation have altered, illustrate the potential difficulty of aligning taxable profits with an evolving accounting system. In particular, the move from realisation to recognition of assets and liabilities, if generally adopted for tax purposes, would alter fundamentally the tax treatment of a variety of assets. The case for taxing only realised gains has tended to rest on administrative feasibility—reducing the costs of complying with and monitoring valuations not evidenced by a market transaction. There is a further argument, however, for taxing business only on gains actually realised on resale rather than on changes in value arising on remeasurement by reference to a hypothetical sale. This arises in the context of business assets held for use rather than resale: to exempt them from any requirement to periodically revalue at realisable value is to recognise that the process of periodic income measurement in the context a continuing business (the going concern concept) is a highly abstract activity, that these assets do not represent a store of distribution or consumption potential, and that changes in value (whether loss or gain) are based on hypothetical transactions which are unlikely to take place. To measure income on the basis of valuing all assets at their realisable value indicates the amount that could be consumed or distributed on the assumption that current operations cease, a hypothesis that is generally contrary to reality. Such a measure lacks the certainty and objectivity usually required in assessing taxable capacity.

Revaluing such assets may, however, produce relevant economic information. It indicates how adaptable the business is and provides a benchmark (the opportunity cost of continuing to hold the asset) against which to assess anticipated future returns. Thus, reporting this kind of information for measuring *performance* may be quite appropriate and its relevance might well outweigh its unreliability; but if it were not a requirement, and if there were tax consequences, then we would expect to see a reluctance to recognise such changes in value in the accounts with a consequent loss in information value. Again, periodic measures of *performance* do not necessarily equate to periodic measures of *taxable capacity*, even though both may be approximations to the central concept of income and will over the long term give the same results.

### ***The subjective nature of 'income' measurement***

There are clearly a variety of other issues that would arise if the practical realisation of the TVM formula in a business context involved closer alignment with accounting profits and principles to identify assets and liabilities and to supply their opening and closing values. Even a balance sheet approach clearly involves uncertainty and the process is inextricably linked to the exercise of judgement, which might be wrong. The definition of assets and liabilities might be robust but it is clear that still remains room for discretion. A longer term question, with the reform of the International Accounting Standards Board and the growing importance of international rather than domestically developed accounting standards, is whether the direction of accounting principles set internationally would continue to be consistent with the objectives of the Australian tax system.

While there will always be scope selectively to align elements of the tax and accounting systems, the fundamental problem of tying one to the other remains the fact that 'income' is an abstraction rather than something that is objectively observable. As such, income does not have a singular meaning—

“income is, in the last analysis, a subjective concept whose size depends upon the judgement of the accountants who compile it and the particular purposes for which the measure will be used. ... Income, in short, is a necessary concept but one which cannot be given the precision or objectivity that some of its uses might require.”<sup>36</sup>

And one of the principal uses that is made of the concept of 'income' is, of course, in defining a tax base. A reason for the growth over time in the length and complexity of tax legislation and in the volume of non-legislative tax material has been the continuing attempt by Revenue authorities to give precision to a concept that essentially lacks precision. And there is no reason to believe that this process would alter significantly because 'income' is defined by reference to the TVM formula.

## **V. CONCLUSION**

One should recognise that while TVM may offer the prospect of more coherent core rules, if the real problem with the existing tax system lies not in the way the existing core rules are cast but in the outcome that they seek, it may not be clear that the benefits of redefinition will justify the considerable costs of change. The real difficulty in that case lies in what is aimed at rather than how it is approached. The TVM approach may appear more coherent in initial discussion but the problems of the existing rules will just emerge in a different form, for example in the definition and valuation of assets and liabilities instead of the characterisation of receipts or payments as income or capital.

I do not underestimate the importance to the tax system of a clear and coherent definition of the tax base, especially to guide tax policy at the political level. In those terms, therefore, the TVM formula appears to have considerable attractions, despite the substantial practical issues it raises. The practicalities of taxation mean that even tax design—starting out with a blank sheet of paper—is rife with compromise. Tax reform, however, is always and inescapably more difficult than tax design. Tax reform does not enjoy the luxury of a blank sheet of paper. It takes the existing system as its starting point. It must take into account not only the objectives of taxation and the extent to which alternative systems meet those objectives, but

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<sup>36</sup> John Kay, *Is Complexity in Taxation Inevitable?* Deloitte Haskins & Sells Lecture, University of Wales, 26<sup>th</sup> February 1985.

also the practical constraints imposed by existing fiscal arrangements—politically, in terms of the risk to tax revenues, administratively, economically and internationally.

In the case of TVM the practical constraints seem considerable. In political terms, the proposal may allow vested interests the opportunity in the legislative process to question fundamental concepts in the current tax system to which they are opposed. Legally, it casts aside existing definitional precedent and the risk of error in redefining the tax base raises revenue risks. Administratively, there are the costs of implementation and re-education. It is the burden of these practical issues that presents the advocates of TVM with the heavy task of demonstrating the benefits of TVM in explicit terms.