

ECONOMIC POLICY MEASURES

22 JUNE 1982

The following is the text of a statement made by the Prime Minister, the Right Hon. R. D. Muldoon, on 22 June 1982.

A press release issued by the Prime Minister immediately after the statement is also reproduced below. This press release concerns:

- *the tightening of the controls on interest rates by introduction of the Financial Services Regulations 1982*
- *introduction of the Interest on Deposits Order 1982*
- *reintroduction of controls on company dividends and directors' fees.*

The schedules of maximum interest rates permitted under the Interest on Deposits Order are also reproduced.

ADDRESS ON ECONOMIC POLICY

Most New Zealanders today believe that inflation is our number one enemy, and they are right.

On my recent visit to Europe, I learned that among the OECD countries—the countries of our type—New Zealand's rate of growth last year, and this year, is above average. New Zealand's rate of unemployment is about one-third of the average, but New Zealand's rate of inflation is well above the average.

Rates of inflation in most of these countries are declining at the present time, and are expected to continue to decline during the remainder of this year, and on into next year. These countries are major suppliers of products to New Zealand. The rate of price increases in the goods that we import is also steadily declining. The price of oil is expected to decline in real terms throughout the remainder of this year and through 1983.

All of these things give us a unique opportunity to reduce New Zealand's rate of inflation at the same time, and even if it costs us some short-term inconvenience, it is worth doing.

Accordingly, the Government has passed regulations to institute a wage and price freeze to apply from midnight tonight for a period of twelve months.

The freeze will apply to all wages, salaries, and other forms of remuneration in both the public and private sectors. Limited exemptions are provided to allow negotiations to proceed for the renewal of agreements where an increase has not already taken place within the 1981/82 wage round, and for agreements related to major projects for which negotiations have not yet been concluded. Dividend rates, directors' fees and professional charges are included in the freeze.

The freeze on incomes will be matched by a freeze on prices. The prices of goods and services will not be allowed to rise above their normal levels applying at midnight tonight. Exceptions will be for goods such as second-hand goods and goods sold at auctions. Price increases for most other goods will be allowed only if they are due to rises in import costs, changes in direct taxes or certain Government charges. Relief will be granted only in cases of severe hardship.

Rents of all lands and buildings will also be frozen at their levels applying at midnight tonight. It will be an offence for landlords to attempt to evade the

regulations by giving existing tenants notice to quit, and then raising the rents on the property before accepting new tenants. Appeal provisions will apply in relation to artificially low rents.

The freeze will also apply to interest rates. The present financial services regulations are being tightened and their coverage extended. These restrictions on lending will be supplemented by new regulations covering deposit rates. The effect of these Interest on Deposit Regulations will be to set maximum deposit rates which banks, savings banks, building societies and finance companies, can pay.

Further details of the freeze will be announced by the Ministers in charge of the departments administering the regulations.

To offset these measures, the Budget will provide for substantial reductions in income tax which will apply from the first of October next. I had hoped to be able to introduce at the time of this year's Budget a wage/tax trade-off in agreement with the Employers Federation and the Unions. The decision of the Federation of Labour and the Combined State Unions not to agree to this proposal made that impossible, and as I indicated at the time, the Government has no option but to take the appropriate decisions itself.

In all these measures, the incomes of Social Welfare beneficiaries and national superannuitants will be protected.

Supplementary Minimum Prices for farmers will remain at the same level as last season for meat and wool, except that the prices for meat will be based on average killing charges rather than the highest killing charges, adjusted to the same relative revenue cost. The supplementary Minimum Price for dairy products will be increased somewhat, but will still be lower than anticipated market prices. All these prices will be the minimum for the following season as well.

The proposals have been brought together in a manner that should ensure that living standards are preserved at least at their present level, while a great deal of our very high rate of inflation is squeezed out of the economy.

As I said earlier, there will be some inconvenience for our people in implementing these proposals, but the present situation in the world economy makes this a particularly appropriate time to take these steps.

I propose that Parliament be called together again on Tuesday, 20 July, with the Budget following shortly

thereafter. During the Budget debate, there will be ample opportunity to discuss all aspects of these proposals. I seek the support of all New Zealanders in making this major attack on inflation a successful one.

PRESS RELEASE

The Prime Minister today amplified his statement that the Financial Services Regulations were being tightened, new controls on deposit interest rates were being introduced and new regulations covering dividends and directors' fees would apply from 23 June.

Charges for Financial Services and Interest Rate Controls

He said that the three main changes were—

1. Schedules have been issued specifying the maximum rates of interest that banks, savings banks, building societies and finance companies are permitted to pay on deposits. Previously deposit rates were not subject to any direct controls. Details of the maximum rates specified in the schedules are set out below. Trading banks will be subject to a separate direction from the Reserve Bank with a schedule of rates similar to that for the savings banks.
2. Whereas previously the controls of lending interest rates applied to suppliers of credit employing more than \$2 million in their business, in future the controls would apply to anybody who had more than \$100,000 in outstanding loans.
3. Increases in charges for financial services other than those associated with lending were previously required to be notified to the Reserve Bank only after implementation. In future they will require to be notified in advance and the Reserve Bank will have the power to object.

Other changes which have been made in the Financial Services Regulations include expanded definitions of 'price' and 'financial services'. The latter will bring hire purchase lending and leasing clearly within the regulations. The definition of 'lending' has also been amended to cover trade credit which was previously exempted. A new provision makes clear that acceptance of an offer of a higher price is no different to the supplier setting a higher price. On the administrative side the Reserve Bank now has 28 days in which to

object to increases notified, up from 14 days under the previous regulations. The Minister explained this last change as being necessary given the wider coverage of the new regulations. He said that the Bank would still attempt to reply within 14 days where possible.

The Minister said that the interest on deposits schedules of maximum rates had been drawn up to broadly reflect the differences in rates presently paid by different types of institutions for deposits of various sizes. A directive has been issued to each Trading Bank limiting the maximum rates that they may offer to those shown in the schedule for Savings Banks. The maximum rates would apply to all new deposits from midnight tonight. For existing deposits at call the maximum rates would also be effective immediately and for term deposits they would apply from the dates of maturity if deposits were renewed or allowed to run on.

Turning to the commercial bill market, the Minister said that the Reserve Bank will issue a new determination which will enable bill dealers to purchase all bills to yield 16.85 percent plus normal margins. Most of the buyers to whom dealers onsell bills will now be subject to the regulations and will thus be restricted to the prices they paid on 22 June 1982.

In terms of the Financial Services Regulations the Reserve Bank is required to have regard to the economic policies of Government and the Minister emphasised that he would be informing the Reserve Bank that Government policy was that charges for financial services including lending rates should be held at existing levels.

Company Dividends and Directors' Fees

The regulations to be applied to cover company dividends and directors' fees will be similar to those that were in force in the mid 1970s. Their effect will be to limit a company's dividends to either what was paid last year, the average over the last three years or 10 per cent, whichever is the highest. Company directors' fees will be frozen at last year's level or a level of \$1,000 per annum, whichever is the higher, with new companies being permitted to pay \$1,000 to each director. If it appears necessary an Appeals Committee may be appointed to hear cases involving special circumstances as was the case last time.

These regulations will be administered by the Reserve Bank.

SCHEDULE
Maximum Interest Rates Payable by Financial Institutions

<i>Period of Deposit</i>	<i>Trading and Savings Banks</i>	<i>Building Societies</i>	<i>Finance Companies and Others</i>
	<i>Maximum rate of interest percent per annum</i>	<i>Maximum rate of interest percent per annum</i>	<i>Maximum rate of interest percent per annum</i>
1. Rates for deposits not exceeding \$20,000:			
Repayable at call ... ..	...	9.0	11.0
Not less than 7 days but less than 30 days ... ..	...	10.0	11.0
Not less than 30 days but less than 60 days	10.0	10.5	11.5
Not less than 60 days but less than 90 days	11.0	11.5	12.5
Not less than 90 days but less than 180 days	11.5	12.0	13.0
Not less than 180 days but less than 1 year	12.5	13.0	14.0
Not less than 1 year but less than 2 years	13.5	14.0	15.0
Not less than 2 years but less than 3 years	14.0	14.5	15.5
Not less than 3 years	14.5	15.0	16.0
2. Rates for deposits exceeding \$20,000 but not exceeding \$100,000:			
Repayable at call ... ..	...	10.0	12.0
Not less than 7 days but less than 30 days ... ..	...	11.0	12.0
Not less than 30 days but less than 60 days	11.0	11.5	12.5
Not less than 60 days but less than 90 days	12.0	12.5	13.5
Not less than 90 days but less than 180 days	12.5	13.0	14.0
Not less than 180 days but less than 1 year	13.5	14.0	15.0
Not less than 1 year but less than 2 years	14.5	15.0	16.0
Not less than 2 years but less than 3 years	15.0	15.5	16.5
Not less than 3 years	15.5	16.0	17.0
3. Rates for deposits exceeding \$100,000:			
Repayable at call ... ..	...	11.0	13.0
Not less than 7 days but less than 30 days ... ..	...	12.0	13.5
Not less than 30 days but less than 60 days	12.5	13.0	14.0
Not less than 60 days but less than 90 days	14.0	14.5	15.0
Not less than 90 days in the case of a savings bank or trading bank	16.5 percent per annum		
Not less than 90 days in the case of a building society	17.0 percent per annum		
Not less than 90 days in the case of a finance company or other person	17.5 percent per annum		

NOTE: The rates specified in this Schedule are maximum rates but, within any such maximum rate, the interest payable in respect of any deposit may be paid in any manner agreed by the depositor with the financial institution.

ADJUSTING THE TAXATION AND FINANCIAL SYSTEMS FOR THE EFFECTS OF INFLATION

INTRODUCTION

In recent years the Bank has published in the *Bulletin* a series of articles, originating from an address given by the former Governor of the Reserve Bank, Mr R.W.R. White, on the effects that inflation has on financial contracts, business accounts and progressive income tax schedules which do not appropriately allow for the changing value of the monetary unit of account.¹ The general thrust of the articles has been to suggest that the dollar has not over time had sufficient constancy of value to serve as a satisfactory unit of account, and that consideration should be given to the adoption of some alternative standard which would have a constant value, or at least that we should change the way in which we use the monetary unit of account such as to recognise the way in which its value changes over time. The background to the subject is, of course, the persistent inflation which has been experienced during the last decade or so.

This is the first of a concluding pair of articles on the above subject. It aims to bring together the specific measures which the previous articles have suggested as a means of neutralising the effects of inflation in the aforementioned areas. In this context, it might be noted that the proposals all involve changes to income tax legislation, and that in broad terms they correspond with the recommendations of the recent Task Force on Tax Reform in relation to adjusting the tax system for inflation. It is hoped that through this article wider exposure might be given to those recommendations. The second article, to appear in an ensuing edition of the *Bulletin*, will address the potential broader economic implications of the proposals.

THE PROPOSALS

For the purposes of this article, it is convenient to group the proposals under three broad headings; inflation accounting, financial indexation and tax indexation.

Inflation Accounting

It is clear that there is by now a quite widespread understanding of the way in which inflation generates illusory increases in the monetary values of economic variables, in the sense that variables take on inflated values which mask the underlying 'real' values. What probably is not so widely understood, however, is the way in which inflation requires one to rethink the meaning, or at least the way in which we measure, one of the concepts fundamental to our economic system, namely the concept of income.

At the most basic level, income can be defined as that amount which can be consumed without eroding capital. In other words the costs incurred or resources

used up in generating revenue need to be covered from that revenue before it can be said that any surplus or income has been generated. This may seem to be a simple enough matter measurement wise, but where outlays are made and revenues are earned at different points in time, and the unit of account does not have constancy of value over time, income measurement is made quite difficult. Specifically, careful attention needs to be paid to ensuring that all costs and revenues are brought into the income calculation in terms of a unit of account which carries the same value for all items, regardless of when the revenue/expenditure may have been received/incurred.

So-called historic cost accounting conventions, which have served as the basis of the generally accepted method of business income measurement over the years, ignore this potential difficulty, and consequently, in an inflationary environment, measured income generally does not represent a surplus remaining after capital has been maintained intact. For instance, if an enterprise fails to charge against current revenue the current (replacement) cost of the assets used up in the course of carrying on business, then any income or profit reported will be overstated to the extent that the current replacement cost of the capital assets used up in the period exceeds the monetary outlay made on those assets in some previous period. This creates the real possibility of firms making distributions in excess of what they can withstand without eroding their real capital base, and hence future viability; a possibility which must be greatly increased if taxes are assessed on the basis of the overstated measure of income, as in fact occurs under existing income tax legislation.

It is against this background that advocates of inflation accounting maintain that the income of a business should be measured in real or current cost terms, for the purposes of both income tax assessment and reporting to shareholders. To achieve this, a number of adjustments to the way in which income is currently generally measured are required. First, depreciation charges need to be calculated on the basis of the current replacement cost of assets, and similarly trading stocks should be charged out at current replacement or production costs rather than at whatever their historical money cost might have been.

One issue of considerable practical, as well as some conceptual significance here is that of how current replacement costs should be measured. In broad terms, the alternatives are to attempt to estimate the current replacement cost of the *specific* asset in question, either by way of a market based valuation or a price index which relates closely to the individual asset or to attempt to estimate the current replacement cost of a *general* parcel of resources equivalent to the resources embodied in the asset, in which case an index of the general price level would need to be used.

The view that one takes on this issue depends, *inter alia*, on the purpose for which income is being measured; the definition of income most appropriate for income tax assessment purposes in some respects can be quite different from that most appropriate for

1. See the October, November and December 1979, May and October 1980 and January-February 1981 *Bulletins* for the relevant articles.

assessing the operational efficiency of an enterprise. Focussing first on the income tax assessment purpose, it seems appropriate that as an ideal, income should be defined comprehensively to include anything which adds to the total wealth of the tax unit. Relating this to the specific versus general index question, it can be shown that it may not matter much which approach is adopted, so long as it is applied consistently. Consider, by way of example, the implications of an increase in the price of a physical asset relative to the general price level. Clearly this gives rise to a real gain to the owner of the asset (in terms of his overall command over resources) but equally, if the asset is subsequently used up in the production of goods or services, he then incurs greater costs than if the relative price change had not occurred. To be consistent, therefore, it is necessary that if the additional real cost is allowed as a tax deductible expense, as it would be if depreciation and cost of goods sold charges were based on specific asset index adjustments, then the real gain should similarly be recognised as a source of income.

The alternative line of approach is to exclude the real gain arising from a relative price change from assessable income, and not allow the additional costs arising from the using up of the now more valuable asset in the production of output as a tax deductible cost. This would be the case if only general price level adjustments were to be made. Clearly the outcome is much the same whichever approach is adopted. However, potentially there would be significant differences as between the two methods in relation to the pattern and timing of tax payments. Under the specific index approach, tax payments on real 'capital' gains would arise at the time of the relative price change occurring, and would only be offset as the asset was subsequently used up. With the general index approach, there would be no initial tax charge and no subsequent reversal. It should also be noted, however, that a real capital gain under the general index approach, if not 'ploughed back' into the business through the asset in question not being retained for future production, i.e. if it was distributed to the owners of the business, would escape any tax liability. So would any real 'capital' gains on non-depreciating assets, e.g. land.

Whether real 'capital' gains/losses should be included in tax assessable income is of course a debatable issue, on which there seems to be no clear consensus. Equity considerations might suggest that they should be (bearing in mind that income is the surplus which remains after capital has been maintained *intact*; not the surplus which remains after capital has been supplemented by any so called 'capital' gains/losses). However, economic efficiency (resource allocation) considerations might suggest that it is preferable 'to leave with the owners of a business the gain or loss generated by their own decision to undertake a particular line of business', this being the view adopted by the Task Force on Tax Reform.

Turning to the financial and management reporting function of business accounts, a wider range of considerations need to be taken into account. The owners and management of a business are interested both in how efficiently the business uses the resources at its disposal, and in questions of a more strategic nature such as whether the enterprise has suffered or benefitted in relative terms from having selected one line of business activity over another. With a view to enabling the owners of a business to evaluate the performance of the enterprise in both these regards, the 1976 Committee of Inquiry into Inflation Accounting (the Richardson

Committee) recommended that the profit of a business should be calculated in two stages; the first representing the operating profit of the business and the second representing the profit attributable to the owners. To arrive at a measure of profit which is of relevance in terms of assessing the *operational* efficiency of the business, it is clearly necessary that the costs and prices most relevant to the business should be used in the accounting statements. Hence, the Richardson Committee recommended that specific asset replacement cost indices should be adopted as the basis for asset valuations, and for making depreciation and cost of goods sold charges.

Under the Richardson Committee approach the measure of income to serve as tax assessable income is the profit attributable to the owners of the business. This differs from the operating profit of the business by the amount of net interest receipts and the amount of the adjustment made to the capital maintenance reserve (arising from the revaluation of assets to current costs) which can be considered as having been financed by borrowing. The latter adjustment represents one way of recognising the inflation gain on borrowing (an alternative way is outlined beneath). It might be noted that this results in a measure of income which would not always exactly correspond with a measure of comprehensive income as defined in this article, since real 'capital' gains and losses not financed by borrowing would not be taxed (although the Committee did recommend that if a *company* were to pay a dividend from the capital maintenance reserve, it should be taxed as income in the hands of the shareholders). The profit attributable to the owners under the Richardson Committee method might be thought of as the profit which leaves the *operating capacity of the owners' investment* intact, where operating capacity is rather narrowly defined in terms of the kind of activity in which the business is currently engaged.

The overriding issue in relation to the question of general versus specific indices so far as tax policy is concerned is, however, perhaps that of which represents the more objective and administratively more convenient approach, especially given that the difference in the amounts of revenue involved are likely to be small. In this regard, the general index approach clearly has a major advantage over the specific index approach.

Another factor which has caused income as conventionally measured to depart from the underlying economic concept is the absence of any recognition of inflation gains and losses on financial liabilities and assets as an offset to the higher nominal interest payments and receipts which result from the inclusion of an inflation premium in interest rates. In effect, the erosion of the real *capital* value of a monetary asset/liability caused by inflation has come to be allowed for in financial contracts by way of an adjustment to the income element of the contract rather than to the principal or capital sum, which as indicated, is really what is in need of adjustment. Thus, the holders of net financial assets have their income, and under current income tax legislation, their income tax liability as well, overstated and conversely for net borrowers.

In response to this income measurement problem most inflation accounting methods recognise the change in the purchasing power of monetary assets and liabilities as a gain or loss as the case may be. While the precise method of recognition is not the same as among all forms of inflation accounting, the broad principle in each case is the same. The specific line of approach which has been suggested in the earlier *Bulletin* articles

simply involves the calculation of the relevant gain or loss by applying the percentage movement in a general price index to the balance of net monetary liabilities/assets, and the inclusion of this amount in the income statement. It may be thought of as a kind of depreciation allowance in the case of the inflation loss on net monetary assets, while a gain on borrowing may be thought of as a kind of real 'capital' gain.

It is recognised, however, that it would probably not be practicable for personal, i.e. non-business taxpayers² to be required to calculate inflation gains and losses on borrowing and lending. However, their interests, so far as losses on lending are concerned, could still be catered for through the availability of indexed financial instruments (see next section). Furthermore, so far as non-business borrowings are concerned, interest outgoings are not a tax deductible expense, and therefore, the question of whether it is the nominal or real rate of interest which should be tax deductible does not arise, i.e. there is no question of including borrowing gains on non-business borrowing in tax assessable income.

Financial Indexation

As mentioned in the above discussion on inflation accounting, the effect that inflation has of eroding the real value of monetary assets and liabilities has come to be accommodated in financial markets through a rise in nominal interest rates, rather than by the establishment of mechanisms which would result in appropriate adjustments being made to the principal or capital sum of debt contracts. It is perhaps only natural that things have developed in this way, given that the interest rate has always served as the variable element in a financial contract and therefore has readily absorbed the

2. Readers should be aware that the tax system does not in fact draw a distinction between 'personal' and 'business' taxpayers. Nevertheless, for expositional purposes, it is convenient to draw such a distinction, and for the purposes of this article, a business taxpayer should be thought of as any taxpayer (whether an individual or a company) who claims depreciation, interest outgoings or the cost of goods sold as deductible expenditures.

additional role of reflecting changes in the value of the monetary unit of account within the existing institutional and legal frameworks. However, it has become increasingly evident that adjusting financial contracts for inflation in this manner is not entirely appropriate. The distortion to income measurement which occurs has already been described, although, conceptually, this problem can perhaps be handled adequately through the application of the inflation accounting concept outlined and therefore does not necessarily suggest that a change in the form of financial contracts is required.

The distortion to the pattern of cash flows associated with the servicing of business and personal borrowing is, however, a problem which seems to require a more fundamental response; namely the removal of the inflation adjustment from interest rates and the introduction of new forms of financial contract which provide for the necessary adjustment to be made to the principal. This could be achieved by linking the principal or capital sum to a price level index, which would leave the interest rate in the contract to serve the role it is designed to serve, namely to reflect risk and time preference. As a consequence, nominal interest rates could be much lower than those which presently prevail. Inflation adjusted savings bonds, which are linked to the Consumers' Price Index, and carry an interest rate of 2 per cent, are an example of a financial instrument based on financial indexation principles.

The nature of the distortion to debt servicing cash flows which results from the conventional form of financial contract, and the way in which financial indexation removes the problem, can perhaps be best illustrated by way of an example. Table 1 summarises an example set out in a previous (November 1979) *Bulletin* article on the subject.

The essential point to be noted from the table is how a rise in the inflation rate, in conjunction with a corresponding rise in the nominal interest rate to maintain the real rate of interest, shifts the effective debt servicing burden very much into the early years of the borrowing in the case of the conventional mortgage contract. This is a reflection of the fact that the

TABLE 1
DEBT SERVICING OUTLAYS (INTEREST PLUS PRINCIPAL)
UNDER CONVENTIONAL AND INDEXED MORTGAGE CONTRACTS

		Conventional Mortgage		Indexed Mortgage	
		(1)	(2)	(3)	(4)
		No Inflation 3% Interest	10% Inflation 13% Interest	No Inflation 3% Interest	10% Inflation 13% Interest ^(a)
<i>Annual Outlays as Percentage Gross Income</i>					
Year	1	20.9	44.2	20.9	20.9
	5	20.9	30.2	20.9	20.9
	10	20.9	18.7	20.9	20.9
	15	20.9	11.6	20.9	20.9
	20	20.9	7.2	20.9	20.9

(a) 'Interest' here comprises a 10 per cent inflation index adjustment to the principal and a 3 per cent interest charge on the usual basis.

Assumptions

- (i) Loan of \$25,000 for 20 years.
- (ii) Repayment on table mortgage basis.
- (iii) Salary of borrower when loan made, \$8,000.
- (iv) Salary varies over period of loan by the rate of inflation.
- (v) Interest rate in non-inflationary conditions is 3 per cent per annum.
- (vi) Interest rate in conditions of inflation at 10 per cent per annum is 13 per cent per annum, i.e. the rate of interest after compensation for inflation is approximately the same as in the non-inflationary case.

borrower, by compensating the lender for the erosion of the purchasing power of the mortgage principal through a higher nominal interest rate, effectively repays capital earlier than the contract intended. It is also the explanation for the way in which the debt servicing costs of home ownership, for instance, seem to diminish over the years in an inflationary environment. It is not that inflation takes care of the mortgage (except in so far as the nominal interest rate may sometimes be less than the inflation rate), but that repayments in the first few years of the borrowing term are considerably greater than table mortgage contracts were designed to provide for (the objective of the table mortgage instrument being to spread debt servicing costs evenly over the borrowing term), and therefore correspondingly smaller towards the end of the borrowing term.

Indeed, it can be shown that the pattern of debt servicing cash flows arising from a conventional table mortgage in inflationary circumstances involves the borrower in a welfare loss. This point can be illustrated by again making reference to the example set out in the November 1979 *Bulletin* article. In that article the annual servicing costs in *real* terms were calculated for a mortgage (based on the same assumptions as those outlined in table 1) on the basis of both a conventional and indexed contract. The relevant figures are reproduced as columns (1) and (2) of table 2.

This table shows that on the basis of a simple summation of the annual real outgoings, a conventional mortgage has a marginal advantage over an indexed mortgage so far as the borrower is concerned. However, if account is taken of the different time profiles to the real debt servicing costs as between the two types of financial contract, by expressing each period's servicing costs in present value terms, the indexed mortgage provides a substantial net overall benefit to the borrower. The rationale behind this result, which may not be intuitively obvious, is that the borrower, through

having to repay earlier under conventional contracts, is deprived of the opportunity of applying the funds in question to other uses (which in the example are assumed to be capable of yielding a 3 per cent real rate of return; hence the 3 per cent discount rate).

Turning briefly to the specific proposals which have earlier been forwarded as a means of addressing this problem, which relates to both businesses and non-businesses, the first point to be made is that the proposals hinge mainly on changes to the income tax legislation. Under current legislation, the principle of financial indexation is not recognised, except in the case of inflation adjusted savings bonds. Recognition of this principle would involve adding to the income tax legislation an explicit provision to ensure that any adjustment to the capital or principal sum of a financial contract resulting from the linking of the contract to an inflation index would not be included in the calculation of assessable income. As the law is applied at present, there is nothing to prevent a lender from offering indexed instruments, but it is not advantageous for him to do so given that any index adjustment would be treated as if it were interest, and not only would be taxed as income, but would be taxed at the time of the adjustment being made rather than at the time of the cash being received. Under these conditions, it is perhaps not surprising that lenders are currently unenthusiastic about making indexed instruments available.

It should be stressed that such a provision as that suggested above would need to be applied to both sides of a lending/borrowing contract — it would be inconsistent to exclude the inflation index related adjustment from the assessable income of the lender but not to exclude the same adjustment from the borrower's deductible expenditures. After all, the effect of the adjustment would simply be to maintain, in the face of inflation, the relative real capital positions of the borrower and lender, and just as it is recognised that the

TABLE 2
ASSESSMENT OF BENEFITS OF INDEXED MORTGAGE

		<i>Conventional(a)</i> Mortgage	<i>Indexed(a)</i> Mortgage	<i>Benefit From Indexed Mortgage</i> (1) — (2)	<i>Net Present(b)</i> Value of Benefit From Indexed Mortgage
		<i>Real Debt Servicing Outlays</i>			
		(1)	(2)	(3)	(4)
Year	1	3,534	1,671	1,863	1,863
	2	3,213	1,671	1,542	1,497
	3	2,921	1,671	1,250	1,178
	4	2,655	1,671	984	900
	5	2,482	1,671	811	720
	6	2,195	1,671	524	452
	7	1,995	1,671	324	271
	8	1,814	1,671	143	116
	9	1,649	1,671	— 22	— 17
	10	1,499	1,671	— 172	— 132
	11	1,363	1,671	— 308	— 229
	12	1,239	1,671	— 432	— 312
	13	1,127	1,671	— 544	— 382
	14	1,024	1,671	— 647	— 441
	15	931	1,671	— 740	— 489
	16	846	1,671	— 825	— 530
	17	769	1,671	— 902	— 562
	18	699	1,671	— 972	— 588
	19	636	1,671	— 1,035	— 608
	20	578	1,671	— 1,093	— 623
Totals:		33,169	33,420	— 251	2,084

(a) Based on same assumptions as those attached to table 1.

(b) Benefits discounted at 3 per cent.

lender would earn no real income from the inflation adjustment, there would be no real expenditure involved for the borrower.

It follows, of course, that effective after tax rates of return on lending and borrowing costs under indexed contracts would generally, but not in all instances, be higher than under conventional borrowing/lending arrangements. The implications of this will be discussed in the ensuing article, but it might be noted here that in terms of cash flow, the debt servicing costs would in fact probably be reduced.

It will also be evident that in terms of after tax rates of return and borrowing costs, the adoption of inflation accounting (in particular the monetary items adjustment) for income tax assessment purposes would have essentially the same implications as would the introduction of financial indexation procedures, at least for businesses. Is it necessary, therefore, for the income tax legislation to be amended to make allowance for financial indexation procedures in addition to requiring that business income be measured on the basis of inflation accounting methods?

Two considerations point to the need for both measures to be incorporated into tax legislation. First, the introduction of inflation accounting by itself would exacerbate the cash flow distortions arising from conventional debt contracts for businesses which are net borrowers, in the sense that through interest payments currently being allowed as a fully tax deductible expense (with no offset on account of borrowing gains), the borrower is provided with some relief from cash flow pressures, albeit at some expense to the exchequer, or perhaps more correctly, at the expense of those who hold financial assets and are taxed on inflation boosted interest receipts. The facilitating of financial indexation by way of appropriate extensions to the tax legislation would clearly represent a more equitable and effective response to the liquidity problems which the adoption of inflation accounting for tax purposes could cause, where the alternative is to refrain from proceeding with inflation accounting.

In this regard, it is worth noting that by not allowing inflation losses on financial assets held by personal taxpayers to be netted off nominal interest receipts, there would be a strong incentive for personal investors to prefer indexed savings instruments. In a competitive financial environment, it would be likely that financial institutions would respond by offering indexed savings instruments to depositors. This, in turn, would give financial institutions the capacity and the incentive (given the need for them to match the asset and liability sides for their balance sheets) to make indexed loans available. It is therefore envisaged that a supply of indexed loans would become readily available to meet the demand for such loans which would undoubtedly develop in the business sector, and probably also in the personal sector.

Second, the adoption of the financial indexation related tax measures without the introduction of inflation accounting, at least if financial indexation were not to be made compulsory, (which is not proposed) could result in considerable scope for tax avoidance. Distortions in the structure of the financial system could also result. For example, it would provide businesses with the opportunity of borrowing by way of non-indexed contracts with a full write-off against assessable income for interest paid, and investing the proceeds in indexed instruments on which the effective nominal yield would be largely if not entirely exempt

from tax. This perhaps would be a lesser problem if the tax legislation applied uniformly to all borrowers and lenders, since while certain borrowers might prefer to borrow by way of non-indexed contracts in order to be able to claim the interest tax deduction, lenders would equally prefer to lend via indexed contracts in order to benefit from the exemption from tax of the inflation adjustment portion of the overall nominal return. The problem arises where this counter-balancing does not apply, such as would be the case if building societies, superannuation funds and life offices were to continue to be exempt from income tax.³

To conclude therefore, inflation accounting and financial indexation are complementary rather than alternative ways of addressing the problems in question. To implement one without the other would result in anomalies and distortions which may well be as serious as those currently being experienced under the existing income tax regime.

Tax Indexation

Inflation affects the incidence of taxes in different ways, depending on the type of tax involved. In the case of progressive taxes, where exemptions, rebates and tax brackets are fixed in nominal dollar terms, inflation causes a progressively larger proportion of the tax base, whatever it may be, to be paid in tax, i.e. average tax rates steadily rise. While the level at which tax rates should be set and the way in which they should be adjusted is clearly a matter for the government of the day, it can be argued that the government should be accountable for the real tax rates that it sets and any changes to those rates. The automatic linking of the schedule of income levels at which each marginal rate of tax applies, and of the exemptions and rebates available to taxpayers, to an inflation index would assist in this objective, since an explicit and clearly identifiable decision would then be required before effective tax rates could be changed.

In addition, to the extent that the inflation generated upward drift in average tax rates (i.e. 'fiscal drag') is not adjusted for by way of discretionary tax rate changes and taxpayers shift into higher tax brackets, the progressivity of the tax structure is effectively reduced, i.e. average tax rates rise proportionately more for low income earners than for high income earners. Just as it is desirable that any change in the overall tax take should be made explicit, so perhaps should any change in the distribution of the tax burden. With an indexed tax system a change in the distribution of taxes could only be achieved by legislation.

While the proposal outlined under this heading is concerned with tax rates rather than with the measurement of income itself and may therefore seem to be unrelated to the preceding two proposals, it is nevertheless useful to see it as part of the overall package, given that conceptually all three reforms stem from the same underlying problem, i.e. a unit of account of unstable value. Also all three proposals have implications for personal and businesses incomes, and for government revenue. Clearly, the extent to which reform can be achieved on any one front depends, therefore, on what reforms may be made elsewhere,

3. Under the existing income tax legislation, building societies and superannuation funds are, with some qualifications, exempt from income tax, while life offices, again with some qualifications, are taxed on the basis of the present value of reversionary bonuses credited to policyholders.

whether in the context of the three areas outlined in this article, or within a broader tax reform exercise.

It is to be noted that the indexation of tax rates was not explicitly recommended by the Task Force on Tax Reform. The Task Force did nevertheless recognise the problem, and its recommendation that tax scales should be made less progressive can be seen as an alternative approach to it. This, however, remains only a partial response so long as a degree of progressivity and nominally specified rebates and exemptions continue to be features of the income tax system.

CONCLUSION

The above proposals are not new in any fundamental sense. Current cost accounting is now quite widely understood, and the indexation of both financial contracts and tax schedules have been widely discussed for a number of years. The feature which perhaps makes the proposals set out here a little distinct from others is the way in which the indexation of financial contracts is integrated with inflation accounting and the fact that all three proposals (the indexation of financial contracts, inflation accounting and indexation of the schedule of tax rates, exemptions and rebates) are based on the concept of a constant value unit of account.

By way of conclusion, it should be mentioned that the fact that these proposals involve the retention of income as the tax base does not necessarily mean that the Bank favours an income tax base over alternative tax bases, e.g. expenditure. The initial point of concern was the current inappropriateness of the form of conventional financial contracts, and more generally, the inability of money to serve its unit of account and store of wealth functions when the price level is unstable. It is a remedy for these problems which the proposals address, and it so happens that the remedies developed require amendments to the tax system.

The adoption of a final consumption expenditure base for tax purposes would, however, represent another approach to the problems outlined in this article. The essence of the expenditure base solution lies in the removal of the necessity to distinguish between income and capital, which is both the foundation of the income tax system and the crux of the problem. With an expenditure tax, the line would be drawn between final consumption and investment. Both are measured in the same period, and therefore the monetary unit of account could be retained as a satisfactory unit of measurement. However, so long as income constitutes part of the tax base and/or tax rates remain progressive, the proposals outlined in this article will remain relevant.

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Unemployment: Causes and Policy Options

On Page 199, June 1982 *Bulletin*, the article 'Unemployment: Causes and Policy Options' contained an error in the definition of EG in table 1. The correct definition of EG should be: "full-time public sector employment (including non-private sector employees on special work schemes)".