

Tax reform in inflationary times

P. M. McCaw*

High rates of inflation cause many problems in our economy and unless properly identified, measured and effectively dealt with, they will inevitably lead to economic consequences and social inequalities never contemplated or intended by those in authority. Our taxation system is just as vulnerable to the ravages of inflation as any other aspect of our business and economic environment and, because its impact is so critical to the material welfare of all citizens, any serious distortions in its application can have a profound effect — not only on this but also in succeeding generations.

The taxation revenues currently derived by government may be broadly classified into three sections:

- (a) Consumption taxes
- (b) Wealth taxes
- (c) Income taxes

As a generalisation inflation does not lead to significant problems in the administration or incidence of indirect consumption taxes, whether a wholesale tax, a retail tax or a value added tax (VAT). Changes in the tax burden caused by price changes would be roughly equivalent to the rate of inflation, and provided incomes generally are adjusted for inflationary effects there would be no significant change. In the case of wealth taxes, any progressivity in the rates applied would lead to an increased tax burden in times of inflation unless remedial action is taken. I do not intend to dwell on this aspect, however, for two main reasons:

- (a) Wealth taxes, levied on the death of the owner, currently account for a very small proportion of total taxation revenue (less than 1%); and
- (b) Adjustments to the scale, including basic exemptions, have in fact been made at regular intervals in the past.

I. INCOME TAX

I want to dwell particularly on three aspects of inflation as they affect income tax. One I think will be relatively well recognised. The three to which I refer are:

* Chartered Accountant, Wellington; Chairman, Task Force on Tax Reform.

- (a) Progressivity in the income tax scale;
- (b) Determination of business income for tax purposes;
- (c) Capital gains taxes.

A. The Personal Income Tax Scale

I intend to deal very briefly with the question of inflation as it affects our present personal income tax rate structure. I am sure all of you already have a very good idea of what is happening. With some minor exceptions, the tax rates applying to individuals since 1978 have been as follows:

Annual Taxable Income	Cents in \$
\$0 - \$5,500	14½
\$5,501 - \$12,600	35
\$12,601 - \$17,600	48
\$17,601 - \$22,000	55
More than \$22,000	60

There has of course been considerable inflation in that time and it is not difficult to appreciate that, as incomes have risen to keep pace with inflation the rates of tax, both marginal and average, have also risen. Some however may be surprised at the rate of increase. Let me illustrate:

- (a) In October 1978 an individual taxpayer could derive just over three times the taxable income of the average fulltime wage and salary earner before his marginal tax rate reached 60c in the dollar. In November 1981 his marginal rate of tax reaches the same level when his taxable income is less than 1.8 times the average income.
- (b) Before reaching a marginal tax rate of 55c in the dollar in October 1978 an individual was earning approximately 2.2 times the taxable income of the average income earner. By November 1981 he reached the same marginal tax rate with a taxable income only 1.4 times the average wage earner's income.
- (c) In October 1978 the taxpayer did not reach a marginal rate of tax of 48c in the dollar until his income was almost 1.4 times the average income earner. By November 1981 the average wage earner had reached the point where his marginal rate of tax was 48c in the dollar.

This rate of increase can be illustrated in another way. Related to average earnings, the marginal rate of tax of 60c in the dollar applying to taxable incomes in excess of \$22,000 a year three years ago should now be \$37,500. Using the same comparison the marginal rate of tax of 55% currently applying from \$17,600, would need to be adjusted to \$24,900, while the marginal tax rate of 48c applying beyond annual taxable incomes of \$12,600 should not apply until an annual income of \$13,600 is reached. (The reason for the smaller proportional increase in this latter case is caused by the fact that there has been an adjustment upwards from \$10,000 to \$12,600 over the past three years in the annual income level to which this applies).

It should be appreciated that we are not talking about small sums of money.

Of total taxation revenues received of approximately \$7 billion in 1981, \$4.7 billion was derived from personal income tax, most of which would have been paid by those in the \$10,000 - \$20,000 a year income group. The causes of the rapid increase in marginal tax rates as they affect the majority of fulltime income earners are two-fold:

- (a) The high rate of progressivity in the tax scale ranging from less than 15c in the dollar on the first \$5,500 of taxable income to 60c in the dollar beyond a taxable income of \$22,000;
- (b) The high rate of inflation currently being experienced.

The combined effect is to move income earners rapidly into substantially higher tax brackets, thereby increasing their real tax burden, notwithstanding the fact that wage increases may do no more than compensate for the effects of inflation. It is also the main reason for the dramatic rise in the proportion of total taxation now being derived through personal income tax, which was less than 50% in 1971 and had risen to over 66% by 1981. The elimination or at least mitigation of these effects commonly referred to as "fiscal drag" could be achieved by either:

- (a) Eliminating or at least reducing the degree of progressivity in the tax scale;
- (b) Indexing the scale, wholly or partly, to changes in the cost of living.

Given the almost universal acceptance of the principle that rates of tax should rise as incomes rise, the complete elimination of progressivity in the scale is almost certainly unacceptable. Nevertheless, a significant flattening out of the rate of progressivity would be of considerable assistance and was strongly advocated by the Task Force. In principle, the indexation of the scale to cost of living changes is the obvious answer. On the other hand it is difficult to find examples of any government which has been willing to accept the discipline of such a move, preferring instead to adjust rates as and when they see fit.

B. Determination of Business Income

The problem and distortions caused by high and persistent inflation upon the determination of business incomes can best be described through the use of simple examples.

Consider the case of a person who is in business as a taxi driver. His only asset is his taxi which he buys from his own resources (i.e. he borrows nothing). Let us further assume that it cost him \$11,000 and after five years it has a resale value of \$1,000. In the absence of inflation he should then charge to his costs \$2,000 per year which, together with the \$1,000 on sale, would provide him with the \$11,000 necessary to purchase a vehicle of similar capacity and quality at the end of every five year period. (Ignore technological change). But if general inflation had occurred over this period, the replacement vehicle will almost certainly cost more than the \$11,000 even if quality and capacity remain constant. If we assume that, by the end of the five year period, there had been 100% inflation, and if we further accept the almost inevitable fact that the replacement cost of the similar vehicle would also be increased by about 100% it is clear that the initial capital invested to operate the taxi business would be quite inadequate. As the replace-

ment taxi would cost \$22,000 the original capital of \$11,000 would be capable of doing only half the job it could do five years ago. Compare this with the good old days when inflation did not exist and the same \$11,000 continued to be adequate indefinitely. The trouble is that the taxi driver's accountant (who continues to ignore inflation by using the historic cost convention) and the taxman tell him that, whether there is inflation or not, an annual charge to costs of \$2,000 is all that should be made in determining whether or not he has made a profit! To ignore inflation in this way as we do, is of course to ignore a very important factor in determining income — for taxation or any other purpose.

Does the situation change, if, instead of providing the original \$11,000 from his own resources, he borrows at least part of it? The answer is "Yes". Using the example above, assume that, instead of using his own capital, he borrowed the total sum. In this case there should be two adjustments to reflect the affects of inflation:

- (a) The increased dollar amounts required to replace his asset (taxi) from time to time;
- (b) The "gain" which arises from the fact that, over the same period, there has been a reduction in the "real" value of dollars borrowed as a result of inflation.

In the illustration, and assuming that the principal sum borrowed is also repayable at the end of the five year period, the dollar amount remains at \$11,000 despite 100% inflation over the same period.

In other words, the unrecognised costs in relation to asset maintenance should be offset against the unrecognised "gain" through the use of borrowed funds. Because in this case the original cost of the asset and the borrowings are the same (\$11,000), they cancel out and the final result is unaffected. If, however, only a portion of the original sum is borrowed, the borrowing "gain" adjustment would only be a portion of the asset cost adjustment.

But, you may say, is it not true that interest rates tend to reflect inflation rates, with the result that the inflationary "gains" derived by borrowers are largely offset by increased interest charges? This is quite true. In an ideal situation the interest charged will reflect both:

- (a) The charge for the use of someone else's resources;
- (b) Compensation for loss of general purchasing power caused by inflation.

It is quite true that interest rates have risen dramatically since the late 1960's, when annual inflation rates were around 3% to 6%, and it might reasonably be argued that an interest rate of 18% reflects:

- (a) "Real" interest 3%;
- (b) Inflation "protection" 15%.

What is not currently recognised is that the real rate of interest is an expense, whereas the inflation protection element is a capital adjustment. It has nothing to do with either income or expenses. When charged, it represents the increased dollar value of the original loan so as to restate it in inflation adjusted dollars

equal to its original "real" value. In practice however, it is treated as an expense of the borrower (and allowed as a tax deduction) and as income of the lender (and taxed as income). In principle this treatment is clearly indefensible.

Not all assets are equally affected by inflation. Some, notably land, do not get used up in the course of production. Its "real" value is therefore not affected in the productive process or by the effluxion of time. If other things remain equal its value in dollar terms will rise by an amount sufficient to offset the effect of inflation. It can therefore be concluded that the effects of inflation in measuring costs in times of inflation will depend upon whether the asset is depreciable or non-depreciable.

The problems of inflation and their measurement for accounts purposes are more complex than those outlined here, but we can summarise those of relevance to this discussion by saying that the effects of inflation and the accounting adjustments necessary in the determination of business income depend upon:

- (a) Whether assets used in production require replacement at regular intervals (at higher dollar unit costs) ; and
- (b) The extent of borrowing in order to finance such assets.

We have seen how the taxi driver is unaffected by inflation if he borrowed his total requirement of \$11,000. The extra dollars required to maintain his asset are offset by the fact that he does not have to pay extra dollars in settling his borrowing.

If on the other hand, he had invested his original borrowing of \$11,000 in land which, because it maintains its real value in inflationary times, would be worth \$22,000 after a period of 100% inflation, he would clearly have benefitted from inflation in real terms. His capital in the business (NIL at the beginning and now \$11,000) has clearly risen significantly, even after allowing for inflation.

We may then conclude that, in the absence of adequate accounting adjustments for inflation:

- (a) A business with little or no borrowings and with investments in assets requiring regular replacement will be adversely affected by inflation and profits will be overstated; and
- (b) Conversely, a business with relatively heavy borrowings invested in assets not requiring replacement will be favourably affected and profits will be understated.

At the present time these inflationary effects are not being measured for taxation purposes and, I suggest, are leading to serious economic distortions. If one ignores the extensive business concessions and incentives available in particular circumstances there can be little doubt that businesses with heavy investment in plant and inventories are taxed on an "income" which is unreasonably high, while those who rely heavily on borrowings for purposes of substantial investment in land obtain a taxable base which is unreasonably low.

In submissions received by it, the Taxation Task Force heard much about the problems of the increased replacement costs of assets in times of inflation and the

need for some adjustment to taxable income to allow for it, but virtually nothing about the benefits of borrowing. This is hardly surprising. High interest rates already place heavy liquidity burdens on many borrowers and to render a substantial portion of such interest charges as non-deductible for tax purposes could make the overall cost intolerable in many cases. When one recognises that many people in this position would be young farmers with heavy borrowings to finance their properties and with little or no depreciable assets, it is not difficult to appreciate that the implications are far from being of mere academic interest. Unless some relief were provided, it must be accepted that many farmers could be placed in an impossible liquidity situation. Certainly in the long run they might have much to gain through the capital appreciation of their property, but that is of little help to them if they die of thirst from the lack of liquid funds in the meantime.

The problem is indeed one of liquidity, thrust onto the borrower because of high interest rates caused by inflation.

Let us consider the position before inflation where a businessman could borrow at a true interest rate of 4% repayable over a 20 year period. If the amount borrowed was \$100,000 his outgoings in the first year would be:

Interest: 4% on \$100,000	\$4,000
Principal Repayment:	\$5,000
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	<u>\$9,000</u>

Assume instead a typical loan in the 1980's where the annual interest rate is 19% which might reasonably be broken down into true interest of 4% and inflation protection of 15%. In this case the outgoing in the first year is:

Interest ("Real"):	\$4,000
Inflation Protection:	\$15,000
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	<u>\$19,000</u>

Even if his marginal tax rate is 60c in the dollar the borrower would be \$1,000 better off in the first year (tax paid cost of \$15,000 tax deductible interest is \$6,000 against \$5,000 principal repayment — non-deductible). If his marginal tax rate is only 48c in the dollar (more typical of a young farmer with heavy commitments) his net cash saving would be \$2,800.

The problem with present high interest rates (payable in cash annually) is that, effectively, a substantial amount of "real" capital repayment is compressed into the early period of the loan — considerably more so than was required 10 years ago. In the above illustration for example, the borrower is required to pay 15% per annum in reduction of "real" principal owing. The accumulated effect of this rate of repayment is to reduce the "real" value of the loan to one half after the first five years whereas, in the first illustration (i.e. no inflation), it would be reduced to only one quarter in the same time.

In principle therefore, the obvious answer to the problem is as follows:

- (a) Provide for the use of indexed debt;
- (b) Calculate interest charges at "real" rates on the "real" value of borrowings;
- (c) Provide for "real" capital repayment in equal instalments over fixed terms.

The effect would be:

- (a) Relatively lower "real" capital repayments in the early years of loan period;
- (b) Relatively higher "real" capital repayments in later years;
- (c) Higher taxation revenues from borrowers;
- (d) Lower taxation revenues from lenders;
- (e) An overall easing in liquidity problems for the borrower when it is most critical, i.e. the early period of borrowing, compensated by larger repayment commitments at later stages.

Though the Taxation Task Force pointed clearly to the distortions of the present position as outlined, it stopped short of recommending the recognition of inflation adjusted debt for taxation purposes. Such a move would have wide ranging implications for the whole financial system in New Zealand, extending far beyond the confines of taxation, and it therefore requires further study. Nevertheless the opportunities provided by inflation for the large-scale transfer of wealth from lenders to borrowers, unrecognised in the taxation system, are of sufficient importance to warrant effective and urgent action.

C. Capital Gains

The onset of high rates of inflation has considerably complicated the practical problems of taxing capital gains.

In principle there is no reason why capital gains (whether made by business or by a private individual) should not be taxed. Such gains increase taxable capacity in just the same way as does a gain on income. Based upon overseas experience, it is not a large revenue earner, being somewhat less than 2% of total tax revenues on average. Nevertheless there are instances of substantial capital gains being realised by some persons and organisations. The failure to tax real capital gains is inequitable in principle and is seen by many to be so. It is also true that several of our closest trading partners have instituted a capital gains tax, particularly the United States of America, the United Kingdom and Canada. They were instituted in times of relatively low inflation however, and no inflation adjustment is allowed for. This is clearly causing problems in the United Kingdom however, where because of their high rates of inflation in recent years (similar to New Zealand) they are now trying to introduce some form of inflation adjustment but are running into serious practical problems.

The introduction of a capital gains tax in a period of high inflation would probably bring with it more inequities than it would cure, unless the effects of inflation were also taken into account.

In times of high inflation it would be inequitable to tax nominal capital gains without allowing for inflation. For example, to tax the nominal gain on a capital asset purchased 20 years ago now realised for double its nominal dollar cost would imply that this gain is exactly the same as that on an asset acquired for the same cost one year ago and sold for double that cost today. Such a comparison clearly does not recognise the quite different circumstances in each case.

There is also another important consideration to take into account. As we have already discussed, a critical factor in determining gain or loss on the sale and purchase of assets is the source of the funds used for the purpose. If the funds are borrowed, the result is very different from the case where the investor used his own resources. In fact, it is quite possible to make a "real" profit through the use of borrowed funds even where the nominal "gain" is less than the rate of inflation over the same period. For example, the purchase of an asset and its subsequent sale for a nominal gain less than the inflation experienced over the same period, will still yield real gain if it was entirely financed from borrowings.

A reasonable calculation of a capital gain for tax purposes is therefore primarily dependent upon three factors:

- (a) The nominal gain in dollars;
- (b) The rate of inflation over the period from purchase to sale;
- (c) The proportion of borrowings used to finance the assets.

In practical terms, the problems of measuring the borrowings used by the private investor as distinct from the businessman or business unit (where comprehensive books of account are required) are almost insurmountable and were a critical factor leading to the Taxation Task Force advising against the introduction of a capital gains tax at the present time. Both problems (i.e. distinguishing real from nominal gains and the determination of borrowing "gains") would disappear or at least be significantly reduced if inflation rates returned to the modest rates of the 1960's.

For the reasons given above it is difficult to see how a satisfactory capital gains tax can be introduced while inflation rates remain at anything approaching their present level. It is probable however that most of the large capital gains currently being realised are associated with substantial borrowings and, if a practical way of including such gains in the tax net could be devised, a substantial section of the inequities associated with the non-taxation of capital gains would be rectified.

II. CONCLUSION

In conclusion I have to admit that I have outlined as briefly and simply as I can, three of the major problem areas in our present tax system which are fundamentally caused by inflation, without saying too much about how to overcome them. In relation to the personal income tax scale, I suggested two obvious remedies, i.e. flattening out the rate of progressivity as it affects the majority of income earners and/or automatic adjustment of the scale to a suitable cost of living index. Given the political will, both are reasonably simple to implement. To effectively freeze the present scale through automatic indexation however, would merely perpetuate all of its unsatisfactory features (some of the most important

of which are not associated with inflation and are therefore not examined in this paper). A re-examination of the present scale is therefore essential and it is pleasing to note that, in indications given to date, the 1982 budget will contain significant changes.

The problems of business income determination for taxation purposes are much more complex. The fundamental effects can be clearly illustrated as I hope I have done in my comments above. A practical remedy is much more difficult, not only because of the need for certainty in the calculation of any adjustments necessary, but also because of other important effects it could have within the financial community and indeed for the whole economy. For example, I noted the tentative view of the Taxation Task Force that inflation adjusted debt instruments might be a necessary practical requirement of such a change. The distortions currently existing are serious however. They penalise investment in plant and other depreciable assets which in many cases are badly needed in assisting in our economic recovery (and which incidentally are generally labour intensive) and subsidises borrowing, particularly for investment in non-depreciable and often unproductive assets. It is also one of the prime reasons for the very high capital values of land relative to the return derived from it. Despite the problems however, there appears to be little cause for believing that satisfactory remedial action could not be taken, provided there was sufficient incentive to do something about it and the necessary investigation was carried out.

The most effective answer of course, is to reduce inflation to insignificant levels, e.g. less than 3%. If we could rely upon such a reduction within the next few years the case for change is largely undermined. But an indefinite continuation of double-digit inflation, unrecognised in our accounting and taxation system, will inevitably lead to a misallocation of scarce resources and to a concentration of ever great wealth in fewer and fewer hands. The economic and social consequences are too obvious to need further elaboration.