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Lessons for LDCs of U.S. Income Tax Reform

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I. Introduction

It is commonly said that a wave of tax reform is sweeping the world, largely in response to the massive reform enacted in the United States in late 1986 (and by the United Kingdom, even earlier). Developing countries, always pressed for public revenues and plagued by tax systems that distort economic decision making, that contain substantial inequities, and that strain scarce administrative capabilities, can be expected to look to the United States and other developed countries for suggestions on improving their tax systems. Moreover, it is only appropriate that bilateral donors of foreign aid and multinational organizations should urge LDCs to benefit from the tax reform experience of developed countries.

Translating tax reform from developed countries to LDCs involves considerable risk. Most obviously, economic conditions and administrative capabilities differ considerably between developed countries and nations of the Third World. In general, in LDCs there are many more impediments to the efficient operation of markets, the distribution of income is substantially less equal, and both taxpayers and tax administrators have substantially less capacity to deal with complex tax laws. At the same time, the need to mobilize resources, to encourage saving and investment, to stimulate development, and to earn foreign exchange may be more urgent than in the more developed nations. Even if one knew with certainty the appropriate tax policy for a highly advanced nation, it is by no means clear that the same policy would be appropriate for a country at a substantially lower level of development. In fact, considerable disagreement exists even regarding the

appropriate tax policy for developed countries.

This paper is an attempt to indicate the relevance for LDCs of income tax reforms recently enacted or considered in the United States. It begins with a brief exposition of the reasonable objectives of tax reform and then proceeds to an examination of particular issues. While roughly the same objectives should motivate tax reform in both developed and developing countries, the weight attached to various objectives will differ, depending on economic and administrative realities; for example, in a country severely lacking in the human resources necessary to cope with complex tax provisions, the "fine tuning" that might be justified on equity grounds in a developed country must often give way to the achievement of "rough justice."

Similarly, the discussion of particular tax issues will not be equally applicable in all LDCs. Issues of rate reduction and determination of the tax threshold (the level of income at which liability for income tax begins) will be generally relevant in all countries, regardless of their level of income. The discussion of excluded sources of income and preferred uses of income is also generally useful, though in some low income countries even efforts to implement some of these reforms may be doomed. Much of the discussion of issues in the taxation of income from business and capital may be of little relevance to the poorest countries; even among those LDCs with relatively high levels of income, implementation of many of the reforms considered or enacted in developed countries may be infeasible for administrative reasons.

In most instances the judgments made here are probably generally accepted, at least by experts on tax reform in developing countries. But in other cases the conclusions are more controversial. These should provide an ample research agenda for those working on tax reform in developing countries.

The primary thrust of this paper is an examination of the feasibility of reforming a tax based on income in the light of experience in developed countries. Among the most difficult problems revealed by this examination are

those of inflation adjustment and the timing of recognition of income and allowance of deductions. These difficulties lead some observers to suggest that direct taxation should be based on consumption, rather than on income.

Space (and lack of expertise) also precludes discussion of the question of improved administration, including changes in withholding, advance payments, and the structure of penalties.[2] Silence on this issue should not be interpreted as implying that it is unimportant. Neither the need for improved tax administration nor the extreme importance of withholding needs emphasis in most developing countries.

The Tax Reform Act of 1986 enacted in the United States represents one of the most ambitious income tax reforms ever undertaken by a developed country. Even so, it falls far short of the potential for reform offered by the Treasury Department's November 1984 report to President Ronald Reagan entitled Tax Reform for Fairness, Simplicity, and Economic Growth (hereafter Treasury I), which was perhaps the most comprehensive set of proposals for fundamental tax reform since the Carter Commission issued its report in Canada in 1966. It thus seems appropriate to include in the present discussion the reforms proposed in Treasury I, as well those enacted in the 1986 Act. Of course, the U.S. Reforms share many common elements with those enacted earlier in the United Kingdom and those being discussed in other developed countries, including Australia, Canada, France, Japan, New Zealand, and West Germany.

II. Objectives of Tax Reform

A. Economic neutrality

Many prominent advocates of tax reform in the United States and other developed countries believe strongly that free markets do relatively well—and certainly better than central planning or attempts by politicians and bureaucrats to guide economic decision making--in allocating the scarce resources of a nation. In particular, they believe that markets can generally

be relied upon to indicate fairly accurately what consumers want, the least expensive means of satisfying consumer demands, and the best way to organize and finance production, if only there is little governmental intervention. As President Reagan stated the proposition in a 1981 address to the Congress, "the taxing power of government...must not be used to regulate the economy or bring about social change." In the realm of income tax policy non-intervention translates loosely to uniform and consistent taxation of all real economic income. For expositional convenience this absence of tax-induced distortions can be called "economic neutrality."

Even in developed countries legitimate concern can be expressed about whether a comprehensive income tax is truly optimal or even neutral. It can be argued, for example, that a tax that is neutral may not be optimal because it violates the conventional dictates of the theory of optimal taxation. A detailed discussion of this issue would take us far afield from the assigned topic of this paper.[3] Suffice it to say that both difficulties of implementation and perceptions of inequity cast considerable doubt on the practical utility of the theory of optimal taxation.[4]

A related line of reasoning having its foundations in the theory of the second best raises more troublesome issues, particularly in the context of a developing country. That theory indicates that it is generally difficult to know whether reducing some economic distortions will actually improve resource allocation, rather than worsening it, if not all distortions can be eliminated. Applied to questions of tax policy, this implies that reducing tax-induced distortions in the interest of greater neutrality may not actually improve resource allocation. Nonetheless, most economists probably would agree that tax reforms of the type introduced in the United States are likely to improve the allocation of resources, at least in a static sense. (Dynamic issues are discussed immediately below.) Because distortions are much more pervasive in developing countries, one must be somewhat more wary of naively assuming that a

seemingly more neutral tax system would be better from a resource allocation point of view. Even so, there are some theoretical reasons to believe in the case for neutrality, even under the conditions prevailing in most LDCs.[5]

Potentially the most telling argument against the neutrality of the income tax rests on the fact that such a tax is not neutral in its treatment of saving for future consumption.[6] Whereas a tax based on consumption does not alter the terms on which present consumption can be sacrificed in exchange for future consumption, an income tax does alter these terms, making saving for future consumption relatively less attractive. Offsetting considerations include the fact that a higher tax rate is required to yield a given revenue under a consumption-based tax than under an income-based tax; as a result, remaining distortions will be magnified, including notably those against work effort. Whether the efficiency gain from neutrality toward the saving/consumption choice outweighs the loss due to these distortions is problemetical. (It is a classical application of the theory of the second best.) U.S. advocates of consumption taxation have argued that the gains from static neutrality in the allocation of resources across sectors achieved by the 1986 Act (or by any comprehensive income tax) are outweighed by the efficiency losses resulting from more general application of the income tax to income from business and capital. Moreover, it may be more difficult to achieve goals of vertical equity under a consumption-based tax than under a tax based on income. In addition, important non-economic concerns may properly dominate the result of economic inquiry into this matter.

B. Tax Equity

A second major objective of tax reform is the achievement of equity or fairness. Equity has two important aspects: vertical and horizontal. Vertical equity involves the variation in average tax rates (tax as a percentage of income) across income brackets. Horizontal inequities occur whenever tax burdens at a given level of income differ significantly.

There is little scientific basis for judgments about what constitutes vertical equity in the tax system. Most observers agree that at least some progressivity (increase in average tax rates as income rises) is appropriate and that regressivity is to be avoided. But there is little agreement on the proper degree of progressivity, and significant support exists for a flat rate (proportionate) tax, especially if taxation is limited to income in excess of some minimum level. Those who favor a low degree of progressivity may fear the adverse incentive effects caused by high marginal tax rates; by comparison, those who favor a high degree of progressivity may play down such disincentives.[7] It should be noted, however, that concern with incentive effects, at least in a static framework, are more appropriately characterized as being based on a desire for neutrality, than on concern for fairness.[8]

The income tax laws of many countries treat income quite differently, depending on how it is earned and how it is spent. For example, in the United States interest on general purpose obligations of state and local governments is tax exempt, even though interest on similar corporate debt is taxable. Similarly, many fringe benefits provided by employers are tax exempt, although an employee wishing to provide similar benefits for himself or herself would generally be required to provide them from after-tax income, without the benefit of either an exclusion from taxable income or a deduction for the expenditure. Besides distorting choices between sources and uses of income, depending on their tax treatment, such differences create substantial variations in the amount of tax paid by families of equal income who are otherwise similarly situated. One of the important objectives of U.S. tax reform was to reduce these horizontal inequities.[9]

It should be noted that differences in taxation may not actually result in horizontally inequities. If, for example, income from two investments are treated differently, investors can be expected to reallocate savings among them until they earn the same after-tax rate of return in each. No horizontal

inequity results, but resource allocation is distorted.[10] In many important cases differences in taxation do, however, cause horizontal inequities. In any event, considerations of both horizontal equity and neutrality point in the same direction, to comprehensive taxation of all income.

Inequities of the type described do not just reduce the actual fairness of the income tax. They also undermine the perception that the tax system is fair. A particularly important source of perceived inequities in the United States, as well as the cause of real unfairness, was the proliferation of tax shelters. Many affluent taxpayers were combining rapid deduction of expenses and/or postponement of the recognition of income, conversion of ordinary income to preferentially taxed capital gains, and deductions for interest payments to produce artificial accounting losses used to offset or shelter income from other sources, including employment and professional practice.

Deterioration of the perception of fairness must cause concern in a tax system based on "voluntary" compliance.[11] Taxpayers can reasonably be expected to be troubled by the awareness that high income individuals and profitable corporations pay little or no tax, even if methods being used to avoid taxes are totally legal. The expert's distinction between legal tax avoidance and illegal tax evasion may have little meaning for a taxpayer being ridiculed by a friend or neighbor who is using tax shelters to avoid paying taxes. Unless the perception that the tax system is unfair can be reversed, taxpayer morale is undermined and evasion may become uncontrollable.

Tax reform in the U.S. has commonly been advocated by liberals interested in using tax reform to increase the overall progressivity of the income tax. As a result, battle lines have often been drawn along boundaries between income classes, and relatively little attention has been devoted to issues of economic neutrality and horizontal equity. By comparison, Treasury I adopted as a working hypothesis the view that tax reform should not change the distribution of tax liabilities across income brackets; that is, the tax reform proposed

would be distributionally neutral.[12] Rather than pitting the wealthy against the middle class, for example, this approach was intended to draw attention to the waste of economic resources induced by the tax system and to rally those in all income classes who were paying their share of taxes against others with the same income who were using various tax preferences to pay less than their share. In other words, it focussed on economic distortions and horizontal inequities, rather than on issues of vertical income distribution.

This discussion of horizontal and vertical equity probably cannot be carried over directly to LDCs without substantial modification. First, the U.S. income tax is a "mass tax," in that it affects a majority of all households; by comparison, in most developing countries the income tax is paid only by an elite and relatively affluent group comprising only 10 to 20 percent of all households. Thus in LDCs much of the contribution the income tax makes to overall progressivity results from the mere existence of the tax, rather than from its graduated rate structure. (Of course, the existence of tax thresholds, as well as administrative realities, are important in reducing the coverage of the income tax and creating this phenomenon.)

Second, in many developed countries tax evasion is a relatively unimportant source of inequities; by comparison, in developing countries evasion may rival (or surpass) poor tax structure as a source of inequities.[13] In LDCs attention must be given to improving taxpayer compliance and administration, as well as to improving the underlying tax structure.

Third, being paid by most families, the income tax has symbolic importance in developed countries that it lacks in LDCs. Moreover, the typical developing country relies less heavily on the income tax for revenues than does the typical developed country. For both of these reasons, loss of taxpayer morale that results from perceived inequities is probably less of a problem in LDCs; it pales by comparison with other perceptions of inequity found in LDCs.

Fourth, the taxpaying population at a given income level may be more

homogeneous in LDCs than in developed countries; if so, there may be somewhat less horizontal inequity. Finally, there is almost certainly much less awareness of the nature of various abuses in LDCs than in developed countries. Thus perception problems may be less important than in developed countries.

C. Lower Rates

The single feature of the 1986 Act that has received the most attention is the reduction in marginal tax rates. Reducing marginal rates was an extremely important objective of tax reform in the United States, for both political and economic reasons. Whereas arguments about economic neutrality may not be persuasive to most taxpayers, the prospect of lower rates is quite appealing. Of course, average tax rates (including the effects of taxes on corporations) could not be reduced overall in a revenue-neutral tax reform. But expansion of the tax base would make it possible to apply lower marginal rates, while leaving revenues unchanged. Lower marginal rates have the obvious advantage of reducing disincentives to a wide range of economic activities, including work effort, saving and investment, and efficient operation of enterprises. Moreover, any distortions that might survive tax reform would be less important if marginal tax rates could be reduced. Finally, there is less gain from tax evasion, the lower are tax rates.[14]

D. Simplification

Because of the proliferation of tax preferences accorded various sources and uses of income through exemptions, exclusions, deductions, credits, and special rates, the tax system of the United States has become increasingly complicated over the years. In addition, by distorting economic choices the system complicates economic decision making. One of the important forces initially underlying U.S. tax reform was the desire to simplify the system.[15]

There are at least three elements to the simplification argument for tax reform. First, compliance with the law—understanding the provisions, keeping the records, and completing the forms—would be easier under a simpler system

with fewer tax preferences. Second, economic decision making would be simpler if choices were not so heavily influenced by tax considerations. Finally, it appears that many American taxpayers wanted simplification for others, as much as for themselves; that is, many Americans apparently felt that under a simpler system the "other guy" would be less able to take advantage of tax breaks to pay less than their fair share of taxes. For convenience, these three arguments can be identified as simplification per se, simplification of decision making, and the "other guy" case for simplification. The last two of these arguments for simplification can be seen to be closely akin to the neutrality and horizontal equity arguments described earlier.

To some extent these three arguments are also relevant in developing countries. But, as noted before, because the income tax is not a "mass tax" in most developing countries, the "other guy" argument for simplification probably has less force. And, as suggested above, there are enough non-tax impediments to rational economic decision making in developing countries that the complexity created by tax influences on decision making may also be of relatively less concern than in developed countries. Moreover, since it is also easier to avoid taxes (or even to evade them) in LDCs, the tax system presumably interferes less with decision making than in developed countries.

In LDCs simplification per se is important for reasons beyond those in the United States, where concern centers on the inability of a high percentage of the population to cope with the income tax law. In developing countries low levels of literacy and accounting skills and lack of economic and legal sophistication pose serious problems for taxpayer compliance. But even more serious is the inability of the tax administration of most LDCs to implement a complex law. Given severe limitations on administrative resources it makes sense for developing countries to utilize relatively simple income taxes to raise money in a way that achieves rough justice, rather than enacting complicated systems that cannot be administered effectively.

E. Other Objectives

Tax policy is often advocated as a means of encouraging saving, investment, innovation, economic growth, and international competitiveness. Explicit incentives for saving and investment were accorded relatively low priorities in the formulation of Treasury I for several reasons. First, there was a strong feeling that economic growth and international competitiveness would take care of themselves if the tax system could be made more neutral. It is extremely difficult to provide investment incentives that do not discriminate across industries and types of assets, and therefore distort economic decision making. Moreover, such incentives are an important building block of the tax shelters that undermine both actual and perceived equity.

Second, structural tax policy is a relatively blunt and ineffective instrument to use in attempting to increase aggregate saving. A far more direct and effective approach would be to reduce the federal budget deficit. In addition, using tax policy to increase investment may be a mixed blessing if saving cannot also be increased. Manipulation of national income accounting identities reveals that a nation's deficit on current account in its international payments is equal to its excess of aggregate investment over total saving, including that by governments. Investment incentives may therefore simply aggravate short-run problems of international competitiveness, rather than solving them, as is commonly thought.[16]

Finally, structural tax policy did not, in any event, appear to be the appropriate means of combating problems of international competitiveness at a time that the dollar was generally agreed to be substantially overvalued. Reducing the federal budget deficit, which should produce a lower value of the dollar, appeared to be a more appropriate response.

There is reason to believe that in LDCs, as in developed countries, reducing tax-induced distortions to economic decision making would have a beneficial effect on the efficiency of resource allocation and economic

growth—particularly if non-tax distortions could be reduced at the same time. Even so, there is more reason to be concerned explicitly about economic growth as an objective in LDCs than in developed countries.

F. Revenue Neutrality

The recent debate on tax reform in the United States occurred within the context of revenue neutrality. This constraint—that tax reform could not result in markedly higher or lower revenues—had an important influence on the debate. It helped prevent irresponsible raids on the Treasury by those who would retain or increase tax preferences; if tax rates were to be reduced substantially, it would be necessary to eliminate many tax preferences, including popular ones. That tax reform would not be used to raise taxes provided at least limited comfort to those who saw their tax preferences being taken away. Though they feared that higher rates might eventually be imposed on the new reformed base in order to reduce the federal budget deficit, they knew that revenue neutrality would place a cap on the damage they would experience, at least for the immediate future.

Whether revenue neutrality makes tax reform easier or more difficult to achieve has long been subject to debate. Arguments can be constructed for either view. Fundamental tax reform might appear to be more attractive in an environment in which total revenues are being reduced, because there will be relatively fewer losers than in a revenue neutral context, the losses that do occur will be smaller, and tax reductions for those who gain from tax reform will be greater. On the other hand, it is sometimes easier to raise additional revenue by curtailing tax preferences than by raising rates, especially if only moderate amounts of revenue are needed and the loopholes involved are particularly egregious or if a sudden drop in revenues creates a fiscal crisis that forces unpopular action to be taken. One might conclude from this that revenue neutrality is the worst context in which to attempt tax reform. All in all, it appears that no general judgment can be made about the importance of

revenue neutrality for tax reform in developing countries.

U.S. tax reform was intended to be revenue neutral in the aggregate, but not for individuals and for corporations, considered separately. All the tax reform proposals beginning with Treasury I, up to and including the 1986 Act, involved massive transfers of liabilities from individuals to corporations.[17] Reductions of marginal tax rates for individuals were thus substantially greater than would have been possible if the reform had been revenue neutral for individuals and corporations considered separately. This presumably increased the attraction of tax reform to individuals.[18]

Although the economic and political factors that produced the shift of liabilities from individuals to corporations in the U.S. tax reform are also operative in developing countries, there are important differences. The fact that the private sectors of most developing countries import foreign capital has important implications. First, to the extent that such capital comes from equity investment by corporations headquartered in countries allowing foreign tax credits such as the United States (or from countries that provide tax sparing), there is an important question of whether increased corporate taxes would be allowed as credits (or spared), rather than resulting in increased aggregate (LDC and home country) taxes on income from investment in LDCs. To the extent that increased corporate taxes really represent increased real burdens on the corporations in question, it might be unwise to raise corporate taxes in order to reduce individual taxes. The recent reduction of U.S. rates, together with changes in U.S. rules for determining the source of income from multinational operations and for calculating foreign-tax credits, will put downward pressure on corporate rates around the world. On the other hand, economic rents may constitute a relatively more important component of the corporate tax base in developing countries than in developed ones. Where this is true it may be possible to derive greater revenues from the corporate sector without driving out capital and retarding development. But this is risky

business, as going too far can destroy the investment climate of a country.[19]

G. Sacred Cows

During the 1984 presidential election campaign President Reagan promised not to eliminate the deduction for home mortgage interest. Surprisingly enough, this was the only instance in which a "sacred cow" was publicly identified and placed off limits prior to the release of Treasury I. As a result the authors of Treasury I had a relatively free rein in formulating proposals for tax reform that approximated taxing real economic income.

The tax reform debate identified many more examples of preferential treatment that could not be touched for political reasons. Among provisions removed fairly quickly from the tax reform agenda were veterans' benefits, housing allowances of the military and the clergy, most employer-provided fringe benefits, and most ordinary itemized deductions for charitable contributions. While some of these exceptions to the tax reform process can be defended on policy grounds (deductions for charitable contributions being perhaps the best example), for the most part the result was less equity, higher rates, and unnecessary distortion of economic decision making.

Some notable sacred cows were injured, if not slain, in 1986. The itemized deduction for sales taxes, one of three major broad-based sources of general revenue of state and local governments, was eliminated. Further inroads were made into the tax-exempt status of securities issued by state and local governments both for themselves and on behalf of non-profit organizations. Unemployment compensation was made part of taxable income.

Certain types of organizations and particular types of income have long been given undeserved or questionable preferential treatment in many developing countries. These include certain fringe benefits, housing, income of the military, government enterprises, the income tax of non-profit organizations, and the income tax treatment of various taxes paid by individuals. Eliminating these loopholes is crucial if tax reform is to be truly effective in many

countries. Thus U.S. experience in this area is highly relevant for LDCs, for it shows that progress can be made in reducing the tax-preferred status accorded such organizations and income. But there is a much more important lesson in the resistance of these and other loopholes to reform. It would be far better never to have enacted the preferences in question.

III. Taxation of Individuals

The discussion that follows covers the following types of reform of the taxation of individuals: rates, tax thresholds, excluded income, preferred uses of income, income shifting, and simplification. Within each of these topics the organization is roughly as follows: What was done in the United States, what was not done or done wrong, and the relevance of the U.S. experience for developing countries.

A. Tax Rates of Individuals

Rate reduction is one of the most important benefits of the 1986 Tax Reform Act. Before there were more than a dozen rates, from 11 percent to 50 percent; the new law has only four rates; 15, 28, 33 and 28 percent. (The 33 percent rate occurs because a 5 percent surcharge is applied to income between $71,900 and somewhat in excess of $170,000 for a married couple filing jointly, in order to take back the benefits of the 15 percent rate and the personal exemptions for those with incomes in excess of the lower figure.)

It is anomalous that the marginal rate should rise to 33 percent for the upper middle class before reverting to 28 percent.[20] A commonly heard political judgement is that it would have been difficult to adopt a more traditional three-rate system with a top rate of about 33 percent; without the promise of the eventual reversion to a 28 percent marginal rate, much support (or at least tolerance) of tax reform by high income taxpayers would have evaporated, and preferential treatment of long-term capital gains would have

been inevitable. An alternative would have been to adopt a pure two-rate system of perhaps 15 and 28 percent. This, however, would have substantially reduced revenues and the progressivity of the income tax; even further closing of politically sensitive loopholes, such as those for the oil and gas industry probably would not have been enough to offset this.

Marginal tax rates now prevailing in many LDCs are high enough to cause serious disincentives and distortions, and incentives for brain drain and capital flight have been increased by rate reduction in the United States and other developed countries. It thus seems appropriate that developing countries consider reducing their top marginal rates, perhaps to the range of 30 to 40 percent. Doing so need not reduce significantly either tax revenues or the progressivity of income taxation, since the effects of rate reduction can be offset by base broadening that maintains revenue and distributional neutrality. LDCs presumably should not follow the U.S. lead in applying higher marginal tax rates to the upper middle class than to the wealthy.[21]

B. Tax Thresholds

During the 1970's historically high rates of inflation eroded the real value of tax thresholds—the lowest level of income at which income tax is paid. This problem was not addressed in the 1981 tax reform.[22] The 1986 Act eliminates the taxation of incomes below the poverty level by increasing deductions for personal exemptions and the standard deduction allowed those who do not itemize. In addition, the earned income tax credit, a refundable credit available only to low-income families with children that first increases with earned income and then declines as income exceeds a certain figure, was increased and indexed for inflation. As noted earlier, the benefits of the personal exemption are phased out at very high levels of income.

Increasing the tax threshold to eliminate tax on poverty-level incomes was one of the few tax reform proposals that encountered little serious opposition. There was, however, some debate on the best technique for achieving this

objective. Tax credits are more efficient than deductions (in terms of revenue loss) in achieving a given tax threshold. But their effects are probably substantially less transparent to many taxpayers than those of a deduction.[23]

Issues of tax administration must figure more prominently in the LDC decision on tax thresholds than in developed countries. It would be hopeless to attempt to collect income tax from a percentage of the population approaching that in the United States. Tax thresholds limit the size of the tax-paying population, as well as serving an important equity goal. For administrative reasons LDCs might usefully consider curtailing somewhat the differentiation of tax thresholds based on numbers of dependents.[24] This troublesome and controversial suggestion flies in the face of commonly accepted principles of tax equity. It is made in recognition that tax administrators have little ability to verify the number of exemptions claimed; as a result such differentiation creates a tax on honesty and rewards dishonesty.

Though the issue deserves further study, it does not appear appropriate in most LDCs to introduce a system such as the earned income tax credit (with or without limiting it to families with children). Besides involving potentially substantial revenue costs, such a proposal would add yet another layer of administrative complexity to systems that generally already suffer from excessive complexity that strains administrative capability. Moreover, such a scheme would benefit primarily those fortunate enough to find employment in the more advanced sectors that come in contact with the tax administration, and not the truly poor, who tend to be employed in other sectors.

C. Excluded Income

Despite the fanfare that accompanied passage of the 1986 Act, little progress was made in dealing with the most important exclusions from taxable income of individuals, aside from elimination of the partial exclusion of long term capital gains (to be discussed in Section IV). For the first time unemployment compensation was made fully taxable, the tax treatment of social

security benefits was tightened somewhat, deductions for meals and entertainment were reduced, and the living allowance component of scholarships was made taxable. By comparison, veterans' benefits remain fully tax exempt.

Interest income on debt securities issued by state and local governments has historically been exempt from federal income tax. Though this exemption may have originally resulted from the view that it is constitutionally required, more recently it has been defended primarily as a form of federal support for the activities of state and local governments. Indeed, based on that reasoning, the exemption is also applied to interest on debt issued on behalf of certain non-profit organizations. Though the 1986 Act continued the basic exemption for interest on general obligation bonds of state and local governments, it did restrict somewhat the availability of the exemption for interest on bonds used to finance private-purpose activities.

There are few areas in which disadvantages of tax exemption are more obvious than in the case of interest on government debt. Yet many developing countries provide such an exemption, even for interest on debt of the national government itself.[25] The presumed reason for such exemptions is to reduce the cost of borrowing. But at best it is likely that the reduction in interest rates resulting from the exemption no more than compensates for the lost tax revenues. More likely, the interest savings fall short of foregone tax revenues, with high-income bondholders pocketing the difference. This is the expected results if foreigners who receive no benefit from the exclusion are marginal purchasers of the bonds. In extreme cases, taxpayers may be able to borrow on a tax deductible basis in order to invest in tax-exempt securities, earning a substantial after-tax premium via tax arbitrage.

The 1986 Tax Act did little to correct one of the most important omissions from the income tax base of the United States, fringe benefits provided by employers. Such benefits include health insurance, a limited amount of group life insurance, and a variety of less important benefits. Moreover, employees

can be allowed to choose between tax-preferred benefits via "cafeteria plans." Of particular interest to many developing countries is the fact that housing allowances of the military and the clergy benefit from tax preferences.[26]

Besides causing marginal rates to be higher than necessary, preferential treatment of fringe benefits creates inequities and distorts compensation packages and consumption choices in favor of goods and services that can be provided in tax-preferred forms. The availability of cafeteria plans makes quite explicit one major defect of the failure to tax fringe benefits: removing a portion of income from the tax net via fringe benefits and cafeteria plans necessitates higher rates on income that cannot escape tax.[27]

Developing countries should not follow the unfortunate pattern of the 1986 Act in perpetuating exclusions for fringe benefits. In some cases there are admittedly administrative and conceptual difficulties of valuing fringe benefits and allocating them to particular employees; in such instances it may be preferable to disallow business deductions for the cost of providing fringe benefits, rather than attempting to levy the tax on individual beneficiaries. Of course, in some cases such problems will not be important.

A related area of concern that falls between "excluded income" and "preferred uses of income" involves the tax treatment of such items as travel, meals, entertainment, and the provision of housing and automobiles for employees. These problems are often particularly troublesome in the case of the self-employed, who generally have relatively high incomes. There is no doubt that some business expenditures for meals and entertainment and those for most deductible travel constitute reasonable business expenses; but it is also clear that business deductions for meals, entertainment, and travel often provide substantial subsidies for private consumption. Similarly, tax deductible provision of cars and housing reduces the tax base, distorts economic choices, and generates inequities. In most developing countries it would be advisable to limit severely the availability of such deductions or to

include (at least part of) such expenditures in taxable income of the employee.

The 1986 Act tightens substantially the so-called non-discrimination rules intended to prevent top executives from providing tax-advantaged fringe benefits for themselves, without making them widely available to lower level employees. While this approach deals with cases of abuse, it does not address the underlying problem of overly generous tax treatment of fringe benefits. Moreover, the non-discrimination rules are incredibly complex. It would be far better for LDCs to deal directly with the underlying problems than to attempt to prevent abuses via non-discrimination rules.

Probably the most important item of tax-preferred income in most countries is the imputed income from owner-occupied housing. In the United States, the imputed income from such housing is not taxed; however, two of the important costs of generating that income, interest expense and property taxes, are allowed as deductions. In short, income from owner-occupied housing is effectively subject to a negative rate of income tax; that is, it is subsidized.[28] Besides reducing the tax base and leading to higher marginal tax rates, the preferential treatment of owner-occupied housing is unfair, and it results in too much capital being invested in such housing, at the expense of socially more productive investment in other sectors.

It may be unrealistic to attempt taxation of net income from owner-occupied housing, even though some countries have attempted to do so. Problems of valuation that plague implementation of property taxes would be encountered, but they would be accentuated because the stakes would be higher. At the very least the home mortgage deduction should be eliminated, in order to reduce the tax advantage of owner-occupied housing.[29]

There may be a tendency to suggest the provision of tax subsidies to rental housing, in order to create a more equitable and neutral tax relationship between homeowners and renters. While there is something to be said for this proposition, following this approach would create additional

administrative problems and perhaps accentuate horizontal inequities. More important, especially in an LDC context, it would aggravate distortions of investment decisions in favor of housing and against other sectors. Tax benefits provided directly to taxpayers as renters would benefit only the minority of the population that is subject to income taxation. It would be difficult even to use tax subsidies flowing to providers of housing to benefit the poorest households most in need of assistance.

D. Preferred Uses of Income

Treasury I proposed elimination of itemized deductions for all state and local taxes, one of the largest "tax expenditures."[30] By comparison, the 1986 Act only eliminated itemized deductions for sales taxes, leaving intact those for state and local income and property taxes. The deduction for state and local taxes causes taxpayers to favor the activities of such governments, relative to those of the private sector.[31] Moreover, its effect on equity is highly regressive, since the benefits of the deduction depend on the marginal tax rate of the taxpayer. Whereas for someone in the 50 percent bracket the federal government effectively pays only one-half the cost of state and local government, someone who pays no federal income tax or who utilizes the standard deduction pays the full cost of such activities. Thus the deduction is neither fair nor neutral. While the 1986 Act opened the door for more rational treatment of state and local taxes, the solution it provides is by no means satisfactory. Eliminating the deduction only for sales taxes discriminates between residents of states that rely heavily on sales taxes and those that do not, and it encourages sales tax states to shift reliance to the income tax. A far more appropriate response would have been to allow a deduction or a credit for some uniform percentage of all state and local taxes, if the deduction could not be eliminated entirely. Such a recommendation is equally applicable in developing countries. Of course, it is most relevant to those countries

with federal systems of government.

In the United States non-profit organizations undertake many activities that are assigned to the public sector in other countries. At least part of the explanation for this can be traced to the deductions allowed both corporations and individuals for contributions made to such organizations. In recent years a deduction has been allowed even for individuals who do not otherwise itemize deductions, in order to encourage contributions. This provision has been an open opportunity for abuse, since it is not economical to audit the small amounts claimed; much the same can be said for small amounts claimed by those who do itemize, but may lack adequate documentation. Another form of abuse can be traced to the tax treatment accorded the donation of appreciated property. Deduction has been allowed for the full value of such property, even though appreciation on the property is not reflected in taxable income. Though such treatment provides a substantial incentive for contributions of appreciated property, it violates basic rules for income measurement. Moreover, it creates substantial opportunities for abuse through the use of inflated deductions based on overvaluations of donated assets.

Treasury I would have eliminated the deduction for non-itemizers and allowed the deduction for itemizers only for contributions in excess of two percent of adjusted gross income. While this provision might have reduced incentives for charitable giving somewhat, incentives for marginal giving by itemizers with gifts in excess of the floor would have remained intact, except to the extent reduced by rate reduction; it was believed that the gains in simplification and equity justified its proposal. The 1986 Act eliminated the deduction for non-itemizers, but did not impose a floor on contributions by itemizers. Treasury I also proposed taxation of the appreciation on assets donated to charity. Though the 1986 Act did not follow this proposal, it does subject such appreciation to the alternative minimum tax (described below).

Given the relative unimportance of the tax-exempt sector in most

developing countries, it may not be necessary to devote considerable attention to tax reform issues affecting charitable contributions. A reasonable solution would be to follow the Treasury-I approach. In addition, closely controlled non-profit foundations that are used to avoid taxes or that provide unfair competition for taxable entities should be scrutinized carefully.

E. Income Shifting

In most countries the existence of graduated rates creates incentives to shift income between family members. (An exception would be the use of the family unit as the taxpaying unit, rather than either individuals or only the parents.) Where the taxpaying entity is the individual, the shifting of income is between spouses, often through transfers of the ownership of assets or the use of artificial transactions between husband and wife. The United States provides for joint returns, effectively treating the income of a married couple as if earned equally by the two spouses; the usual abuse in the U.S. therefore involves shifting of income to children. This problem is further accentuated by the use of trusts, which in the United States have traditionally been taxed under the graduated rate schedule applicable to individuals.

The 1986 Act reduces the possibility of shifting income to minor children and using trusts to minimize taxes. First, it applies the marginal tax rate of the parent to non-labor income of children under the age of fourteen in excess of $1000. Second, more income of trusts is construed to be that of the grantor of the trust, and the rate schedule applied to income of trusts is compressed, making use of that device to avoid taxes much less attractive.[32]

Attention to issues such as these would be appropriate for many developing countries, particularly those with well-developed commercial, financial, and legal systems. Fairly simple and obvious ways can be found to shift income between family members, in the absence of explicit prohibitions. Moreover, fairly simply techniques can often be utilized to avoid limitations of the type recently enacted in the United States. In particular, a closely held business

owned by the parents could pay a large deductible salary to a child. Such salary deductions might be disallowed as unreasonable if discovered, but the discovery of abuses may not be simple in a country in which administrative resources are scarce. This is especially true if there is no easy way to link the tax returns of children to those of their parents or to those of businesses controlled by their parents.

F. Simplification

There seems to be an irrepressible urge throughout the world to provide tax benefits to virtually every activity man can conceive as being "good." Besides interfering with equity and efficiency, yielding to this urge reduces the tax base, necessitates higher rates, and increases complexity. Whereas a developed country may be able to afford the luxury of a complex tax code, developing countries generally cannot. It is often best to forego tax preferences, even for activities that are universally agreed to be worthwhile, in order to assure the administrative feasibility of taxation.

In the United States any individual with income in excess of $5,000 is required to file an income tax return.[33] A high percentage of all tax liabilities of individuals are discharged through withholding at source on wages and salaries. A claim for refund (in the case of overpayment) or a check for underpayment is filed with the return. Though a small fraction of returns are audited, the calculations of taxpayers are generally accepted as accurate.

In several other developed countries a substantially smaller fraction of taxpayers actually file tax returns, their liabilities having been discharged through withholding at source. Treasury I included a proposal for a "return-free system," under which the Internal Revenue Service would calculate income tax liability for many taxpayers, based on information on filing status supplied by the taxpayer and information returns supplied by employers, lenders, state and local governments, financial institutions, and others.

currently providing such information on income and potentially deductible expenses. This proposal was not accepted by the U.S. Congress.

A return-free system of the type proposed in Treasury I is not feasible in developing countries because of the lack of adequate reporting of taxpayer information. But many such countries should strive to reduce the number of taxpayers who must file returns. For those with only labor income subject to withholding who do not itemize deductions, it should be possible to rely almost entirely on withholding, eliminating any need for the processing of tax returns. (Whether by law or by practice necessitated by administrative realities, many developing countries already follow such an approach.) Implementing such an approach requires careful attention to the design of the withholding system. That, in turn, rests on careful consideration of system design and the benefits of fine tuning; it is clearly easier in a system with such characteristics as individual taxpaying units, a single rate covering much of the taxpaying population, and few itemized deductions.

G. Other Provisions

The income tax of United States is perhaps the most complicated of any in the world. It contains provisions with no counterparts in the income taxes of many developing countries. Some of these provisions make very little sense on policy grounds, regardless of a country's level of development. While others are potentially appropriate for a highly developed country with the administrative skill required to deal with the implied complexities, most such provisions are probably best avoided by developing countries.[34]

IV. Taxation of Business and Capital

Assuring that the taxation of income from business and capital is at the same time fair, economically neutral, relatively simple, and conducive to economic growth is exceedingly difficult, especially in an environment of high

and variable inflation—a situation commonly found in developing countries. Though the tax reform proposals submitted to President Reagan in November 1984 by the Treasury Department made a concentrated effort to achieve these objectives, the 1986 Act fell short of realizing them in several important respects.[35] This section deals with the following general topics: corporate rates, the relationship between taxes on individuals and those on corporations and other business entities, timing issues such as depreciation allowances, the need for inflation adjustment, and provisions intended to curtail the use of tax avoidance and tax shelters. There is no discussion of reforms affecting the taxation of foreign-source income of multinational American firms; though these changes have highly relevant "implications" for the design of tax systems in LDCs, they contain few "lessons" for such countries, which are almost universally importers of capital.

A. Corporate Tax Rates

U.S. tax law has long provided graduated corporate rates, presumably to encourage small business. The idea is that the owner of such a business can pay corporate tax rates below both that paid by large corporations and the rate that would be applicable if the income were to be taxed at the marginal rate of the owner(s). For reasons to be spelled out below, Treasury I proposed that a single rate be applied to all corporations, except those electing to be taxed as partnerships.[36] By comparison, the 1986 Act continues the practice of applying a graduated rate structure to corporations.

This approach to encouraging the development of small business has obvious flaws. First, activities that might otherwise be included under one corporate structure may be broken down into numerous separately chartered corporations in order to take multiple advantage of graduated rates. In principle it would be possible (as in the United States) to restrict substantially this type of manipulation by allowing corporations subject to common control to benefit only

once from rate graduation. But this is likely to be a counsel of perfection in a developing country, where information on the ownership of closely-held corporations is often fragmentary.

Second, there is no necessary relationship between the size of a business and the total income attributable to its owner(s). Large corporations may be owned by individuals with low incomes. This is especially true in developed countries, where pension funds hold substantial stakes in the equity of large corporations. Conversely, companies qualifying for the benefits of graduated rates may be owned by wealthy individuals with high incomes. Thus graduated rates for small corporation are likely to do little to improve the equity of an income tax system, and they may harm it. Moreover, because of the ease of manipulation of organizational structure, graduated rates may be an extremely inefficient way of encouraging small business; that is, wealthy taxpayers may take advantage of such provisions to such a degree that the revenue cost of encouraging small business through this means may be unbearable.

Depending on the relationship between individual and corporate rates and the ease of using illegal means to evade taxes, professionals such as doctors and lawyers may use "professional corporations" to take advantage of the graduated corporate rate structure. In many countries evasion is so easy for these professionals that use of the corporate form is superfluous. It seems safe to say that in LDCs tax benefits of this type are generally not necessary to elicit an adequate supply of professional services.

In short, developing countries generally should not employ graduated corporate tax rates. Certainly they should not do so unless they have the administrative capacity to prevent the types of abuses just described.

B. Integration of Corporate and Personal Taxes

The United States is one of relatively few developed countries that do not provide meaningful relief from the double taxation of income from corporate

equity. Under the "classical system" found in the United States such income is taxed first when received by the corporation and again when distributed to shareholders. As a result there are incentives for corporate managers to prefer debt over equity finance and to retain earnings rather than distributing them; in addition, this system generally discriminates against investment in the corporate sector and against the use of the corporate form of business.[37]

Treasury I attempted to rectify this situation by allowing corporations a deduction for 50 percent of dividends paid to individual shareholders. In addition, it proposed that large limited partnerships be treated as corporations, in recognition that they have many of the economic attributes of corporations. (Some are even listed on the New York Stock Exchange.) The dividend-paid deduction approach was chosen over the much more common shareholder credit method (also called the imputation or withholding method) because of its greater simplicity.[38] An explicit decision was made in Treasury I to break with common practice and extend the benefits of dividend relief to tax-exempt shareholders and foreigners.[39] Taxation of dividends can be implemented effectively in developing countries only if there is a withholding tax. But if there is, there may be relatively little practical difference between the shareholder credit and the dividend-paid deduction.[40]

Dividend relief did not have strong support and is not provided in the 1986 Act. If anything, the defects of the classical U.S. system have been aggravated. For the first time in history the marginal rate paid by high-income individuals (28 percent) lies well below that paid by most major corporations (34 percent). This rate differential, which applies to retained earnings, as well as to income distributed as dividends, will accentuate the traditional advantage enjoyed by non-corporate investments. The rate differential will also accentuate the bias toward debt finance created by the classical system.[41] It would not be surprising to see corporations use the proceeds of large issues of debt to retire their shares or to buy the stock of

other corporations.

A corporate deduction only for dividends paid on new issues has all the allocative advantages of a deduction for all dividends, without the loss of revenues and windfall gains to owners of existing shares.[42] It does, however, suffer some administrative difficulties. Whether developing countries could implement a deduction only for dividends paid on newly issued shares, without encountering severe administrative problems and abuse, deserves consideration.

Under a flat rate income tax applied at the same rate to corporations and individuals, the equilibrium effects of allowing a deduction for dividends paid and taxing such dividends in the hands of shareholders can be duplicated by allowing no corporate deduction and excluding dividends from the taxable income of shareholders. Similarly, the standard practice of allowing corporations (and unincorporated businesses) a deduction for interest expense and taxing interest income is equivalent to exempting interest income and allowing no deduction for interest expense. There is, however, a crucial administrative difference in these two approaches. (Significant differences also exist in the tax treatment of interest and dividends paid to tax-exempt organizations and foreigners; these are not considered at this point.) It is far simpler and more certain to disallow corporate deductions for dividends and interest expense than to attempt to assure that dividends and interest are included in the taxable income of shareholders. While this approach suffers from perception problems, some countries might wish to consider adopting it.[43]

Of course, matters are not so simple if, as is common, income tax is levied at graduated rates. Disallowing a business deduction for interest involves more taxation than subjecting interest income to the marginal rates of low-income recipients of interest. But in most developing countries the concentration of wealth is such that most dividends are probably paid to individuals who are (or who should be) subject to the top marginal rate. Interest income may be more widely distributed. But in many countries the

taxation of such income via disallowance of deductions may be less important than the "tax" implicit in interest rates set at below market levels.

C. Timing Issues

If an income tax system is truly to be fair and neutral, income for tax purposes must resemble closely economic income. If the timing of the recognition of income and the deduction of expenses does not track economic reality fairly closely, there will be opportunities to reduce the present value of taxes by postponing recognition of income and accelerating deductions for expenses. The postponement of taxes can be a quite valuable benefit if interest rates are high, as they commonly are in developing countries.[44] The result is a tax system that is unfair and that distorts the allocation of resources toward activities offering the greatest opportunities for this type of mismatching of the timing of income and expense. In addition, the reputation of the tax system suffers as high income individuals and profitable corporations are seen to pay little or no taxes.[45]

In many cases current expenditures create assets of lasting but diminishing value. Proper income measurement requires that the costs of creating such assets be capitalized and deducted as the resulting assets decline in value, rather than being deducted in the year costs are incurred. For convenience we might call such activities "point input, phased output."

Probably the most familiar question of timing of this type involves depreciation allowances. If taxable income is to track economic reality, depreciation allowances must be based on economic depreciation, the time pattern of loss of value of a depreciable asset. Implementing this rule is difficult, at best, because accurate information on patterns of economic depreciation are not readily available.[46] Moreover, in many countries depreciation allowances are deliberately accelerated. First, it may be thought necessary to allow accelerated depreciation to compensate for inflation; otherwise, depreciation allowances for tax purposes will not allow tax-free

recovery of capital. Second, many countries use such techniques as accelerated depreciation and investment tax credits to provide incentives for investment. This approach has been followed in the United States since 1962. From 1981 to 1986 the combination of highly accelerated depreciation allowances and the investment tax credit produced capital recovery allowances for many assets that at 1981 levels of inflation were roughly equivalent to expensing (first year write-off) in real present value. Some contend that this is appropriate, noting that expensing is a standard component of proposals for basing taxation on consumption, rather than income, without noting that income tax treatment of debt and interest expense is inconsistent with consumption-based taxation.

This system came to be widely viewed as overly generous, in part because it resulted in the proliferation of tax shelters for individuals and elimination of income tax for many profitable corporations. This problem was aggravated when the drop in the inflation rate caused the real present value of capital cost recovery to exceed that of expensing. Moreover, the economic effects of these investment incentives differed widely across industries, with the degree of non-neutrality depending on the rate of inflation.[47] Treasury I proposed that the investment tax credit be repealed and that depreciation allowances for tax purposes be based on the best available evidence of economic depreciation. The depreciable basis of assets would be explicitly indexed for inflation. Although the 1986 Act repealed the investment tax credit, it did not reduce substantially the acceleration of depreciation allowances for equipment, perhaps in part because it provides no adjustment for inflation.

The principles underlying the Treasury I proposals for real economic depreciation are generally applicable to a much wider range of issues. The cost of discovering and developing natural resources should be capitalized and recovered through depletion allowances based on output.[48] Thus Treasury I proposed repeal of the existing provisions under which so-called "intangible drilling costs" (IDCs) in the oil and gas industry and analogous mine

development costs are deductible in the year incurred. It proposed elimination of percentage depletion, an irrational system under which taxpayers in natural resource industries are allowed to deduct a given percentage of income, without regard to the relationship between the total amount of such deductions and the capital expenditures ostensibly being recovered. Reflecting political pressures, the 1986 Act retains expensing of IDCs for independent operators, though it does tighten somewhat the alternative minimum tax relating to IDCs and makes deductions for IDCs by major oil companies and analogous expenditures in hard mineral development less generous.

Successful research and development (R & D) creates assets having value extending beyond the current period. The same can be said for expenditures on advertising and public relations. For accurate income measurement such expenditures should, in theory, be capitalized and amortized. Reflecting both the difficulty of valuing such assets and the perceived social benefits of R & D, under U.S. law such expenditures may be deducted in the year incurred. Of course, current expensing of advertising and similar expenses creates a bias in favor of this type of investment, relative to investment in productive assets. The same argument may apply to expenditures on research and development, but with less force, depending on the validity of external economy arguments.

By comparison with the activities just discussed, there are activities in which costs are incurred over time to create assets of increasing value that are then harvested or sold intact. A clear example would be timber. For such assets characterized by "phased input, point output" the conceptually correct approach under an income tax would be to tax the increase in value on an accrual basis.[49] Under such an accrual approach all costs of creating increases in value would be deducted as incurred. Such an extreme approach is politically unlikely and perhaps administratively infeasible in most cases. Thus in the case of timber Treasury I adopted the alternative of requiring capitalization of the costs of phased inputs, allowing their deduction only at

the time income is realized through the sale of the resulting assets. Because recognition of income is deferred until timber is cut, this approach would not fully eliminate the timing problem.

When applied in other areas the logic just described produces unacceptable tax postponement. For example, it has been applied in the construction industry as the "completed contract method" of accounting for multi-year projects. Under this method no income is recognized until a contract is completed, even though progress payments have been received. An alternative that reflects economic reality more closely would be to require that income be recognized for tax purposes on the basis of the estimated percentage of completion. The 1986 Act requires that this "percentage completion method" must be employed for at least 40 percent of the calculation of income from multi-period contracts. In addition, the completed contract method is not available for the calculation of income under the alternative minimum tax.

Some assets are characterized by both phased inputs and phased outputs. For example, vineyards, rubber trees, coffee plants, and fruit trees are characterized by unproductive gestation periods extending over several years, followed by lengthy productive lives. In such cases it would be appropriate to combine the Treasury I treatment of timber and of depreciable assets, requiring capitalization of pre-production expenses and subsequent amortization of such expenses over the productive life of the asset. A similar situation exists in the case of construction activities extending over several years, including self-construction of assets by the taxpayer. Construction-period costs, including interest and taxes, should be capitalized and then recovered through depreciation allowances, whether by a taxpayer-constructor or by a third party. Inventory accumulation provides another example of phased input and phased output. The 1986 Act provides that many costs of inventory accumulation that were previously expensed must be capitalized.

Accurate income measurement requires the use of accrual accounting. It

may be necessary and appropriate to allow small businesses to employ cash accounting, to ease compliance burdens. But allowing the use of cash accounting creates opportunities for abuse. For example, it has been common practice in the United States for cash-basis taxpayers to incur large expenses near the end of the fiscal year in order to generate tax deductions, even though the expenditures are for purchases related to the earning of income to be reported in the next year. Similarly, it is common for cash-basis taxpayers to postpone billing for sales and services rendered late in a year in order to postpone realization of income. In extreme cases an accrual-basis taxpayer takes a deduction in one year for obligations that will not be recognized until a year later by a cash-basis taxpayer. The same taxpayer may even be on both sides of such a transaction, for example, operating through one cash-basis partnership and another partnership reporting on an accrual basis.

Another abuse of cash-basis accounting has been particularly prevalent in the construction of housing. (The problem is, however, more widespread.) A housing contractor sells a home but accepts a note providing for deferred payment, which is then discounted to a financial intermediary. The contractor reports income only as the note is amortized, even though by discounting the note he has, in effect, realized cash from the sale of the home. The 1986 Act contains strong restrictions on the use of such "builders' bonds" and other instances of borrowing by those making installment sales.

If all forms of income are not taxed uniformly, substantial incentives exist for recharacterizing income and expense. If, for example, interest income is taxable, but capital gains are taxed preferentially, there is an incentive to convert interest income to capital gains. One way this can be done in the absence of rules preventing it is by issuing debt for less than its value at redemption and paying little or no interest explicitly. Much of the return implicit in the bond would be realized as a "capital gain" upon redemption. (By comparison, an accrual basis taxpayer may be deducting this

implicit interest as it accrues.) Of course, the manipulation inherent in such "original issue discount" bonds is fairly transparent, and rules have existed in the United States since 1954 to deal with this problem. In order to measure taxable income and expense correctly, it is necessary that lenders report the implicit interest on transactions of this type as it accrues. Use of a straight-line amortization schedule for tax purposes is too generous to the borrower, since it fails to take account of the effects of compound interest.

The rules dealing with timing issues are among the most complex features of the 1986 Act. One would advocate their adoption in toto by developing country only with considerable trepidation. Full consideration of the possibility of transplanting these rules to LDCs requires further study, but is beyond the scope of the present paper.[50]

D. Inflation Adjustment

A well-designed income tax must make allowance for inflation in the measurement of income from business and capital. Otherwise high and variable rates of inflation can produce grossly inaccurate measurement of taxable income. These inaccuracies can cause considerable inequity and distort the allocation of resources. In addition, they may generate disincentives for saving and investment and stifle capital formation and growth.[51]

Some countries use ad hoc substitutes for inflation adjustment; these include acceleration of depreciation allowances, LIFO (last in, first out) accounting for inventories, and preferential treatment of long term capital gains. Such ad hoc approaches are defective in several respects. Most obviously, they are appropriate, at best, for only one rate of inflation. At any other rate they may be either too generous or not generous enough. Ad hoc provisions enacted when inflation is high can result in enormous tax loopholes and opportunities for tax shelters when inflation declines; this has been the experience in the United States since enactment of overly generous accelerated depreciation allowances in 1981.

Second, while it is common to introduce ad hoc responses to inflation in the case of depreciable assets, capital gains, and goods sold from inventory, it is much less common to make similar adjustments for the erosion of the real value of debt resulting from inflation. If interest income and expense (or the principal of debt obligations) are not indexed, inflation may undermine incentives to save, increase incentives to borrow, and aggravate opportunities for tax shelters. To be satisfactory a system of inflation adjustment must reflect fairly accurately actual experience with inflation and must be applied to interest income and expense (or to the principal amount of debt), as well as to depreciable assets, capital gains, and inventories.

Treasury I included a comprehensive system of inflation adjustment. The basis of depreciable assets would have been adjusted to reflect inflation, the basis of capital assets would also have been adjusted, so that only real capital gains would be taxed (and real losses would be deductible, up to a limit), taxpayers would have been given a choice between using indexed FIFO (first in, first out) or LIFO accounting for inventories, and an inflation adjustment would have been applied to interest income and expense.[52]

The primary defect in this system was the method proposed for dealing with interest income and expense. The conceptually correct approach would be to allow taxpayers to exclude from income (and disallow interest deductions for) an amount equal to the product of the inflation rate and the principal amount of debt. Because it was feared that compliance with this approach would be too difficult, the Treasury Department proposed an alternative ad hoc substitute. The exclusion (and disallowance) would be the product of nominal interest income (and expense) and the percentage that the inflation rate represents of the sum of 6 percent plus the inflation rate.

This approach suffers from several shortcomings.[53] First, strictly speaking the indexing formula proposed would be accurate only for new debt yielding a real rate of return of 6 percent. In general the inflation

adjustment would be much too small, because the 6 percent real rate of return implicit in the formula substantially over-states real rates of return historically experienced. Moreover, the accuracy of the inflation adjustment would vary considerably, depending on the nominal interest rates on various debts.[54] It can be argued, however, that even with this design flaw the interest indexing in Treasury I would be a significant improvement over current law, which makes no allowance for inflation.

Second, the Treasury I proposal would exclude from tax a percentage of the spread of financial institutions (and others with positions on both sides of debt transactions).[55] It would have been appropriate, but more complicated, to limit interest indexing to income from loans financed from equity.

None of these proposals for inflation adjustment were included in the 1986 Act. Capital gains are now taxed as ordinary income, despite the lack of inflation adjustment. LIFO continues to be available; indexed FIFO is not allowed. Inflation adjustment is not allowed for depreciation; although the investment tax credit was repealed, depreciation allowances remain somewhat accelerated, perhaps because of the lack of inflation adjustment. Nominal interest expense remains fully taxable and fully deductible, subject to a variety of limitations intended to prevent tax avoidance.

Unless they can realistically expect very low and constant rates of inflation, developing countries that continue to levy traditional income taxes should consider seriously providing inflation adjustment. The need for inflation adjustment is probably greater than in the United States, since inflation is generally more rapid in such countries than in the United States. Unfortunately the ability to deal with the complexity of inflation adjustment is also generally much more limited. Further attention should be devoted to alternative techniques of inflation adjustment and to experience in other countries. The most difficult problems occur in attempting to adjust interest or debt for inflation. To avoid the difficulties with the Treasury I approach

described above, the conceptually correct approach requires knowledge of the average principal amount of debt during the year. A third alternative would be that used in Chile and proposed by Harberger for Indonesia.[56] It involves inflation adjustment of both the value of "real" assets and net wealth.[57] Experience in Chile suggest that such an approach hs been workable.

E. Tax Avoidance Measures

Because of inaccuracies in income mismeasurement resulting from timing issues, the preferential treatment of capital gains, and the full deduction of nominal interest expense, many high-income taxpayers in the U.S. have been able to avoid substantial amounts of taxes.[58] A common approach is to invest in a limited partnership established for this purpose. Because deductions are accelerated and recognition of income is deferred, current income for tax purposes is understated. Further understatement occurs because deductions are allowed for the full nominal amount of interest, rather than only the real component. When income is finally realized, it is often characterized as preferentially taxed capital gains. The partnership's artificial accounting losses are passed through to the partners, who use them to offset (or shelter) income from other sources.[59] A less elaborate means of sheltering income involves borrowing to make long-term investments. Nominal interest on the debt is fully deductible, while long-term capital gains benefit from preferential treatment.

Treasury I would have eliminated most of the opportunities for tax shelters by attacking the provisions that make them possible. It would have made the timing of the recognition of income and the allowance of deductions match much more closely the underlying economic reality. Deductions for interest expense would have been adjusted to take account of inflation, albeit in a very rough manner. Finally, real capital gains would have been taxed in the same way as other income. In short, the only generally available preference remaining would have been the advantages of deferral and step up of

basis at death for purposes of calculating capital gains.[60] While important in their own right, these probably would not have been enough to perpetuate seriously abusive tax shelters.

The 1986 Act followed a circuitous route in dealing with tax shelters, rather than the direct approach of Treasury I. While dealing with many timing issues and providing for the taxation of nominal long term capital gains as ordinary income, it left in place several building blocks of tax shelters, including accelerated depreciation, expensing of intangible drilling costs for independents, deferral and step up of basis at death for capital gains, and full deduction of nominal interest expense. Being worried about the inequities, distortions, and perception of unfairness created by tax shelters, the Congress introduced several complex new anti-shelter provisions.

First, it essentially divided income and expense into three separate "baskets." In one basket is income from employment and the active pursuit of a trade or business. The second contains investment income such as interest, dividends, royalties, and capital gains on investment assets and interest expense incurred to finance such investments. The third basket contains passive income and losses. In general this basket includes income and expenses from business activities in which the taxpayer is not an active participant, except for those from working interests in oil and gas properties (an exception explained by powerful political forces). Income and losses from limited partnerships (except for those of the general partners) and rental income and losses, including those from real estate, are presumed to be passive, but income from portfolio investments is presumed to be investment income.

Passive losses can only be deducted to the extent of passive income; they cannot be used to offset investment income or income from employment or the active pursuit of a trade or business. Similarly, investment interest can only be deducted to the extent of investment income; it, too, cannot be deducted against income from employment or a trade or business. These rules effectively

prevent the use of passive losses from tax shelter investments and excess interest expense from offsetting employment income and income from the active pursuit of a trade or business. These benefits have been purchased, however, at a high cost in terms of complexity. It is necessary to draw many arbitrary lines between similar transactions in order to distinguish between various types of income and various types of interest.[61] It would have been far simpler to adopt the straightforward scheme proposed in Treasury I, which would have substantially eliminated the building-blocks of shelters.

Seen from the perspective of traditional public finance theory, the "three basket" approach recently adopted by the United States seems highly anomalous. It converts a tax on global income into a schedular income tax. Schedular taxes have traditionally been opposed on the grounds that income from all sources should be taxed equivalently. Of course, that view rests on the (usually implicit) presumption that taxable income from various sources is measured accurately, that is, that it reflects economic income. At the heart of the U.S. retreat to a schedular system is the reluctance (or political inability) to eliminate tax preferences, as proposed in Treasury I. Given this fact of life an attempt to implement a global system would leave the door open for tax shelters and other avenues of tax avoidance. The schedular approach adopted in the 1986 Act is perhaps a reasonable response to this state of affairs, although a second-best one.

Since 1969 the United States has imposed an alternative minimum tax (AMT) on individuals. The AMT has a base that is much broader than that for the regular income tax. Because certain itemized deductions and excluded sources of income are included in the base of the AMT, its effect is potentially somewhat more far-reaching than the anti-shelter devices described above. As a result, it helps to prevent high-income individuals from paying no tax. The 1986 Act extends the AMT concept to corporations. In a sense, the alternative minimum tax is evidence of Congressional schizophrenia: preferences that allow

taxpayers to avoid tax are enacted, but the alternative minimum tax is imposed to prevent taxpayers from making excessive use of those preferences. Because of its proposals to eliminate virtually all opportunities for tax shelters and to severely restrict the availability of itemized deductions, Treasury I proposed repeal of the alternative minimum tax.

Because many itemized deductions and opportunities to avoid taxes were continued, the 1986 Act makes the AMT much more stringent. More items of tax preference are included in the base of the AMT, and the 21 percent AMT rate for individuals is 75 percent of the 28 percent rate applicable to high-income taxpayers under the regular tax. (By comparison, the previous AMT of 20 percent was only 40 percent of the top marginal rate of 50 percent.)

Many high-income individuals will be forced to calculate liability under both the AMT and the regular tax. Since many items of income and expense are treated differently under the two taxes, this reform increases substantially the complexity facing those potentially liable for AMT. The corporate AMT in the 1986 Act contains a particularly peculiar feature: liability is based in part on the "book" income used for financial accounting purposes.

It is difficult to know how to appraise the relevance of U.S. experience in this area. The first-best approach for LDCs, as in developed countries, is to adopt an economically sensible and comprehensible definition of income. While administrative constraints may preclude a precisely correct definition of income, it should at least be possible to avoid the most glaring deficiencies and thus the need for either a schedular approach or an alternative minimum tax. Failing that, the proper solution is not obvious. As in the United States, a schedular approach would prevent the most egregious abuses. But it would do so at substantial costs in terms of added complexity.

Introduction of an alternative minimum tax appears to be even less attractive for an LDC. The already thin administrative capabilities of the fiscal authorities would be stretched even further. Moreover, as a practical

political matter it seems fairly unlikely that much progress could be made in reaching through the AMT income that cannot be reached through the regular tax.

V. Concluding Remarks

Limitations of space preclude an extensive summary appraisal of the lessons for LDCs of U.S. tax reform. Suffice it to say that in many cases reforms enacted in the United States would be equally appropriate for LDCs; especially important is the fundamental approach of broadening the tax base in order to reduce marginal tax rates. In many developing countries it would be appropriate to adopt reforms proposed in the United States, but not enacted; these include more comprehensive taxation of fringe benefits, elimination of exemptions for interest on governmental securities, and reduction of the tax benefits of owner-occupied housing.[62] In the area of taxation of income from business and capital, problems that deserve attention by any LDC expecting to rely on a traditional tax based on income include relief from double taxation of dividends, inflation adjustment, and timing issues.

The complexities of inflation adjustment and timing issues, as well as concern about saving, investment, and economic growth, lead one to ask whether continued reliance on income taxation is preferable to personal taxation based on consumption. Consumption-based taxation has the substantial administrative advantages for LDCs that inflation adjustment is not necessary and that most timing issues disappear. Further attention should be devoted to the relative merits of personal taxation based on income and on consumption.[63]

FOOTNOTES

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1. For thorough analysis of the use of value added taxes in developing countries, including discussions of the European experience and the VAT recently enacted in New Zealand (called a "general sales tax" for cosmetic reasons), see Gillis, Shoup, and Sicat (forthcoming).

2. See, however, Bird (1983). Space also precludes examination of a long list of other features of the U.S. income tax, including special exemptions for the blind and elderly, the child care credit, the second earner deduction, deductions for moving expenses, energy credits, allowances for political contributions, the presidential check-off, income averaging, and a variety of tax incentives for activities such as investments in pollution control equipment and rehabilitation of historical buildings. Most of these would strain the administrative capacity of LDCs, and many would be bad tax policy. Finally, I do not discuss the tax treatment of non-profit organizations. While the non-profit sector is substantially smaller in most developing countries than in the more developed ones, there is reason to believe that

non-profit organizations related to and controlled by firms in the regular private sector may play a role in avoidance (or even evasion) of income taxation in some developing countries. It is interesting to note that in Colombia the activities of non-profit organizations have come under increased scrutiny in recent years.

3. See, however, Atkinson and Stiglitz (1980).

4. Difficulties of implementation include lack of knowledge about the relevant parameters, including elasticities of factor supply and product demand. Attempting to base taxation on such parameters, even if they were known, would probably not seem fair to most taxpayers. For efforts to implement the theory of optimal taxation in India, see Ahmad and Stern (1984).

5. For an argument to this effect, based on Harberger (1964), see Thirsk (1987).

6. See Feldstein (1978), Bradford (1980), or King (1980). McLure (1980) provides a simplified discussion of this issue.

7. Application of one rate to all taxpayers has the further advantage that there is no advantage in shifting income and deductions between taxpayers to take advantage of differences in rates.

8. In a dynamic context responses to incentives created by the tax system can affect both the rate of economic growth and the distribution of economic output, and therefore have implications for equity.

9. It might be noted, however, that the two sources of inequities mentioned in the text, tax-exempt securities and fringe benefits, were largely unaffected by the 1986 Act.

10. See Bailey (1974) and Feldstein (1976).

11. Some might argue that compliance with the U.S. income tax is voluntary in the same sense that the failure to rob banks is voluntary. But there is a substantial difference. Each year some 100 million U.S. taxpayers

calculate income tax liabilities and file returns, claiming refunds for overpayment or remitting residual liabilities, despite the well-known fact that only a minute percentage of tax returns are audited. Of course, the majority of revenue comes from withholding on wages and salaries.

12. See U.S. Department of Treasury (1984), Vol. 1, page 15. This is only one of several alternative definitions of distributional neutrality; see also McLure and Zodrow (1987) p. 44

13. This may surprise American readers accustomed to hearing estimates of the "tax gap," the amount of revenue that should be collected that is not. Much of this gap can be traced to illegal activities; in such instances it seems inappropriate to characterize the inability to collect taxes as primarily a problem of tax evasion.

14. There is little reason to believe that tax evasion would drop dramatically if tax rates were reduced. Yet there must be some truth to the notion that tax evasion and higher rates follow each other in a vicious circle, with evasion necessitating higher rates and higher rates stimulating more evasion.

15. It may be worth noting at the outset that the simplification objective was sacrificed early in the tax reform process in order to salvage tax preferences of particular benefit to politically important groups. There is, of course, little reason to expect experience to be different elsewhere.

16. For further description of the mechanism by which incentives that stimulate increases in investment not matched by increases in saving can cause worsening of the competitive position of a nation, see McLure ( ) or Summers (1987).

17. In judging such matters it is important where one starts. For example, in appraising the shift of liabilities from individuals to corporations in the 1986 Act it is important to recall that corporate income taxes were

reduced substantially in 1981. To some extent it may be more sensible to look at the combined effect of the reforms that occurred over the entire period beginning in 1981 than to focus only on the 1986 Act. But that is true only if the pre-1981 pattern of taxation was acceptable — a view that does not attract universal agreement. See also McLure (1986c).

Most estimates of the revenue effects of tax reform concentrate on the five year budget period following enactment. This tends to overstate the long-run increase in corporate tax liabilities, since many of the reforms involved one-time acceleration of liabilities through the correction of timing problems (discussed in section IV). For the same reason, revenue neutrality during the budget period may not imply long-run revenue neutrality.

18. Individuals may not have fully appreciated that the higher taxes collected from corporations would ultimately be paid by individuals in their capacities as shareholders, workers, consumers, or owners of capital in general; they may have simply seen the corporate tax as being borne by "someone else," including wealthy shareholders and foreigners. This appreciation was not facilitated by the failure of the estimates of distributional effects reported in Treasury I to take account of the increase in corporation income taxes. See U.S. Department of the Treasury (1984), Vol. 1, pages 46-61.

19. This appears, for example, to have happened in the case of Jamaica's extraordinarily high tax on bauxite. See also Gillis and McLure (1974).

20. This "humpbacked" rate structure is, however, consistent with the dictates of optimal taxation theory that low marginal tax rates sould be applied to the income of those with relatively elastic labor supply. Even though equity is ordinarily thought to be primarily a matter of variations in average tax rates (which increase monotonically with income under the 1986 Act), many taxpayers subject to the 33 percent rate probably wonder about

the fairness of their paying a higher marginal rate than those with incomes substantially above their own. Moreover, this pattern of rates creates unusual pressures on the timing of discretionary receipts and deductions. Where possible taxpayers will push income from 33 percent years into 28 percent years and move deductions into 33 percent years.

21. Again on the basis of the theory of optimal taxation it might seem appropriate to follow this course, considering especially that high-income individuals are presumably the ones most likely to be attracted to the United States by the prospects of lower marginal rates.

22. It is ironic that the across-the-board rate reduction of the 1981 Act was sold, in part, as a means of offsetting increases in marginal tax rates resulting from inflation-induced "bracket creep." Rate reduction does little to reduce the inequitable effects of the worst form of bracket creep, the movement of poverty level families onto the tax rolls.

23. Moreover, if the intent of personal exemptions is to remove from the tax base some minimal amount of income, the deduction is preferable to a credit on conceptual grounds.

24. In the U.S., some thought was given to a system of personal exemptions other than an equal per capita exemption and to basing the standard deduction on family size. Whether rightly or wrongly, these were rejected because of concern over their complexity. Of course, the standard deduction does depend on the filing status of the taxpayer (joint return, single return, or head of household).

25. Though the United States does not exempt interest on the federal debt, it does defer tax on interest on savings bonds until such bonds are redeemed.

26. Housing and housing allowances provided by employers in the U.S. are generally subject to tax, except for relatively unimportant cases in which housing is provided in remote places or on the business premises for the convenience of the employer.

27. Thus, for example, it is better to levy a tax rate of 30 percent on all income than to be forced to impose a rate of 40 percent because 25 percent of economic income takes the form of tax-exempt fringe benefits. Some may argue that this difference is more apparent than real, since in both cases tax revenues are 30 percent of income. But it seems likely that in most cases fringe benefits do not increase proportionately with fully taxable income. For example, the benefits of employer provided health insurance do not increase because an employee has a higher salary or works overtime. To the extent that fringe benefits and other tax-preferred sources and uses of income are inframarginal, the hypothetical example above is relevant.

28. In order to calculate the net imputed income from owner-occupied housing, it is necessary to deduct mortgage interest, property taxes, and other expenses from the gross rental value of such housing. Since gross rental income is not subject to tax, but mortgage interest and property taxes are deductible, the net contribution of owner-occupied housing to the calculation of taxable income is negative.

29. Basing taxation on the taxpayer's net equity would not be much better because it would also require valuation of houses. As the preceding footnote makes clear, the basic problem is the inability to subject gross rental income to tax; the deduction for mortgage interest would be quite appropriate, if only gross rental income could be taxed. David Bradford (1986) has suggested that it might not be inappropriate to continue the mortgage deduction, since it makes the benefits of the exclusion of imputed income more widely available and thereby improves the equity of the tax system. The logical conclusion of this line of reasoning would seem to be that tax benefits should be extended to rental housing. The wisdom of this advice for a developed country is debatable. Primarily the well-to-do would benefit significantly from the mortgage deduction, and

even those who would benefit from a deduction for rent would be among the relatively few who file tax returns. Given this and the need for non-housing investment in LDCs, the case for allowing mortgage interest deductions is even more limited than in developed countries.

30. For a thorough discussion of the concept of tax expenditures and further references to the literature, see Surrey and McDonald (1985).

31. There are, of course, reasons that services of state and local governments may be underprovided (or overprovided) in the absence of such tax subsidies. This may justify some federal subsidy for state and local expenditures. Neither it nor the fear of tax competition between the states justifies use of the tax deduction vehicle; see McLure (1986b).

32. As before, there is no personal exemption for trusts. Only the first $5,000 of taxable income benefits from the 15 percent rate; the remainder is taxed at rate of 28 percent. Even the benefit of the 15 percent rate is phased out between $13,000 and $26,000 of taxable income.

33. This is the figure for 1988, when increases in the personal exemption and standard deduction are fully phased in; it is based on the $3,000 standard deduction for single persons and the $2,000 personal exemption.

34. See note 2 above for a partial list of such provisions.

35. It bears repeating that the single most important shortcoming of the Treasury I attempt to achieve fair and neutral taxation of all income from capital resulted from the retention of preferential treatment of housing; see McLure (1986a).

36. Under U.S. law, there is no separate tax on partnerships; their income is attributed to the partners and taxed as part of the income of the partners.

37. See McLure (1979). Strictly speaking these propositions do not necessarily hold because of the preferential treatment accorded long term capital gains; see Slemrod (1983) and literature cited there.

Nonetheless, they accurately describe general tendencies.

38. The dividend paid deduction has the obvious benefit on simplicity grounds that only the corporation paying dividends needs to contend with the mechanics of dividend relief. By comparison, under a shareholder credit each recipient of dividends must include in taxable income the grossed-up-amount of dividends and than take credit for the imputed witholding tax implicit in the corporation tax. In principle this is no more difficult than implementation of witholding on wages and salaries, once taxpayers have gone through the learning process. It would, however, necessitate the filing of tax returns by low-income taxpayers who might not otherwise file, in order to claim refunds. Moreover, the widespread existence of Individual Retirement Accounts and pension plans for the self-employed would further complicate matters. If the benefits of dividend relief were to be extended to owners of such plans it would be necessary for each plan to file a tax return for the sole purpose of claiming the shareholder credit. The implied avalanche of paperwork could be avoided by denying the shareholder credit to such plans. But substantial confusion might still result; since corporations would presumably report dividends and imputed taxes to all shareholders, individuals would need to distinguish between reports pertaining to shares held on personal account (for which inclusion of dividends and claiming a credit would be appropriate) and those pertaining to IRAs and pension plans for the self-employed. To some extent a similar distinction must be made now. But the United States does not currently apply withholding to most dividends and interest received by individuals, as it should, due in large part to a successful public relations campaign by financial institutions in the early 1980s that resulted in a repeal of a law requiring withholding. This could constitute a major problem under the dividend-received deduction.

39. Under common (but not necessarily sensible) international practice, as embodied in current interpretation of foreign tax treaties, these benefits can be denied by allowing shareholder credits only for domestic shareholders; the equivalent effect cannot be achieved by providing a dividend-paid deduction and a correspondingly higher withholding tax only on dividends paid to foreign shareholders without provoking claims that treaties have be abrogated. See also Sato and Bird (1975) or McLure (1979). It was expected that other countries providing dividend relief would extend its benefits to U.S. shareholders; there was a thinly veiled threat that if such reciprocal treatment was not forthcoming the benefits of dividend relief would be denied residents of offending countries. Of course, achieving this result would likely involve abrogation of some U.S. tax treaties. Most developing countries would probably feel somewhat less constrained than most developed countries in dealing with the problem posed by foreign shareholders. Since there are relatively few double taxation treaties between developed and developing countries, LDCs adopting a deduction for dividends paid could compensate in the case of dividends paid to foreign shareholders by raising withholding taxes on such dividends. In most developing countries the tax treatment of dividends paid to tax-exempt organizations would probably be a relatively unimportant issue.

40. Colombia has recently followed an approach to the integration problem that is probably quite appropriate, although it violates the dictates of standard policy advice. It has excluded dividends from the individual income tax base, while continuing full taxation of corporate profits. To the extent that shareholders are in the top (30 percent) bracket, profits are taxed in the same way as under a standard approach to dividend relief (the dividend-paid deduction or imputation systems).

41. Each dollar of interest paid to taxpayers in the 28 percent bracket by a

corporation subject to a 34 percent marginal rate results in a tax saving of 6 cents. By comparison, under pre-1987 law such a payment to a shareholder in the 50 percent bracket by a corporation subject to a 46 percent rate would cost an additional 4 cents.

42. For a general explanation of this proposal and its benefits and for further references see Andrews (1984). It would be necessary to impose a tax on non-dividend distributions, as well as on dividends on new shares, in order to prevent existing shares from being converted to "new" ones eligible for the dividend deduction.

43. This is the approach advocated in Hall and Rabushka (1983) and (1985). For further discussion of this type of tax, see McLure, Mutti, Thuronyi, and Zodrow (1987), Chapter 9. An alternative would be to continue the usual approach (deduction of expense, taxation of income), but collect a non-refundable witholding tax on the payment of dividends and interest. This is economically equivalent to allowing no deduction and not taxing income. In either event it is difficult to deal with the possibility of structuring loans as rental agreements in order to gain deductions; this is especially important with graduated rates.

44. Interest rates are often high because of the expectation of rapid inflation. The need to combat the effects of inflation in causing income to be measured inaccurately is discussed in the next subsection. The remainder of this subsection discusses problems of timing that would exist even in the absence of inflation.

45. In a steady state situation without inflation or real growth merely postponing taxes probably would not cause perception problems, even though it would be distortionary. Taxes not paid yesterday would simply be paid today and today's taxes would be paid tomorrow. But in an economy in which nominal income is growing, whether because of real growth or inflation, taxes postponed today will exceed taxes postponed from

yesterday (which would perhaps be offset by deductions accelerated from tomorrow), creating perception problems.

46. Treasury I proposed depreciation schedules based on the estimates contained in Hulten and Wykoff (1981). Although these estimates are the best available and are widely accepted by economists, taxpayers complained vigorously about their deficiencies.

47. For estimates of the dispersion of marginal effective tax rates across industries, see U.S. Department of the Treasury (1984) Vol.2, p. 165.

48. The proper treatment of "dry holes" and other costs of unsuccessful exploration raises interesting and important conceptual issues. From an economic point of view costs resulting in abandonment of exploration in a particular area should reasonably be expensed. By comparison, those that help to determine the boundaries of existing known resources or that provide valuable information leading to nearby discoveries should be capitalized.

49. Tax experts will recognize this proposition — like most of the present discussion — as an implication of the so-called Haig-Simon definition of income based on consumption plus increase in net wealth.

50. See, however, McLure, Mutti, Thuronyi, and Zodrow (1987).

51. See Steuerle (1985) and McLure, Mutti, Thuronyi, and Zodrow (1987), Chapter 7.

52. It is generally necessary to limit the amount of capital losses that can be deducted. Otherwise taxpayers can pursue a strategy of realizing losses but letting gains "run" to take advantage of deferral. If both gains and losses could be constructively realized on an accrual basis, all losses should be deductible.

53. For a discussion of ways to overcome these problems, see Halperin and Steuerle (forthcoming).

54. If, for example, the inflation rate was 4 percent, interest income and

expense would be reduced by 40 percent under the Treasury I proposal. For a bond yielding 10 percent, the adjustment would be appropriate. But for one with a nominal yield of 5 percent the inflation adjustment should be 80 percent, rather than 40 percent. For any bond with a nominal yield in excess of 10 percent the inflation adjustment would be too great.

55. Suppose, for example, that a bank borrows at 8 percent and lends at 10 percent, realizing a spread of 2 percentage points. Presumably this spread is more or less independent of the rate of inflation, and it would be preserved by the conceptually correct approach to interest indexing. The Treasury Department approach would have eliminated a portion of the spread (40 percent in the case of a 4 percent inflation rate) from the tax base.

56. See Harberger (1982).

57. For a more complete discussion, see McLure, Mutti, Thuronyi, and Zodrow (1987), Chapter 7.

58. See U.S. Department of the Treasury (1985).

59. For a useful discussion of the mechanics of tax sheleters, see U.S. Congress (1984).

60. In addition to the deferral advantages inherent in cash-basis taxation of long-term capital gains, the U.S. income tax provides a further benefit, step-up of basis at death. That is, when an appreciated asset is transferred at death, no income tax is paid on gains accruing before that time, and the recipient of the transfer takes the value at the time of death as the basis for calculating future capital gains. It is sometimes proposed that these benefits be reduced or eliminated through the use of constructive realization, either periodically or at the time of death. Besides being politically controversial, such an approach would raise severe administrative problems of valuing property.

61. It might be noted that seven types of interest expense can easily be

identified; it has been said that there are as many as ten.

62. It is an indictment of the 1986 Act that the list of potentially important reforms not adopted is far longer than the list of important reforms included in the 1986 Act.

63. This is the topic of McLure, Mutti, Thuronyi, and Zodrow (1987). The tax treatment accorded income from foreign sources by developed countries must be considered carefully in any such examination. The United States, for example, allows foreign tax credits only for taxes based on net income. It is not unlikely that the United States government would not classify as a tax on net income a tax that allowed no deduction for interest expense, even if immediate expensing were allowed for depreciable assets. Developing countries that rely heavily on American investment might be unwilling to change to a tax system based on consumption in the absence of assurance that the U.S. Treasury Department would allow a foreign tax credit for such taxes paid by American multinational firms.

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