1997

# The Jamaican Tax Reform: it's Design and Performance

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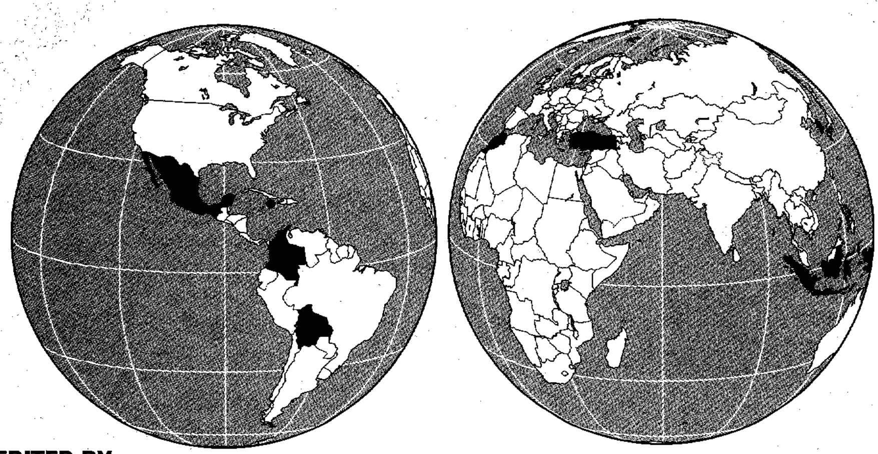
WORLD BANK REGIONAL AND SECTORAL STUDIES

# Tax Reform in Developing Countries





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The World Bank
*Washington, D.C.*

First printing December 1997

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*Cover design by Sam Ferro*

***Library of Congress Cataloging-in-Publication Data***

Tax reform in developing countries / edited by Wayne Thirsk.
p. cm. — (World Bank regional and sectoral studies)
Includes bibliographical references.
ISBN 0-8213-3999-0
1. Taxation—Developing countries. I. Thirsk, Wayne R.
II. Series.
HJ2351.7.T38 1997
336.2'05'091724—dc21

97-29643
CIP

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# The Jamaican Tax Reform: Its Design and Performance

*Roy Bahl*

Jamaica began comprehensive tax reform by establishing the Jamaica Tax Structure Examination Project in 1983. This research, training, and administrative improvement task force lead to the enactment of structural and administrative reforms for the individual income tax in 1986, the company income tax and property tax in 1987, and the general consumption tax (value added tax) in 1991. Tanzi (1987b, p. 228) defines a "successful tax mission as one that results in reform of the tax system of a country along the lines proposed by the mission." By this criteria, the Jamaican tax reform might be viewed as one of the more successful efforts in the last two decades.

This chapter describes and evaluates the results of the four-year Jamaica tax reform project. We also include an ex post evaluation of the performance and continuing reform of the new system since its implementation. The chapter concludes with a list of lessons learned, as well as some parallels with the conventional wisdom.[1]

This work adds to the literature on tax reform in four areas. First, the Jamaican reform was sufficiently comprehensive to "shock" the tax system and still obtain a viable reform—something history and many experts warn is not likely to occur (Goode 1984; Jenkins 1989). Second, the experience in Jamaica adds to what is known about the politics and the process of tax reform, that is, how to go about involving interest groups and the general public in the design and "selling" of a comprehensive tax reform without compromising its integrity. In fact, the project remained active during public debate and implementation, and was involved in monitoring the performance of the new system. Third, we can learn something about the survival of a tax reform when political leadership changes. Edward Seaga's administration championed reform but did not gain reelection in 1989; however, the Michael Manley administration and its successor continued the work on tax reform. We examine the extent to which the proposed and implemented reforms have been either embraced or discarded and extract some principles regarding sustainable tax reform. Finally, we examine the postreform performance to assess how well the objectives of the reform were met. In the case of Jamaica, reform has been ongoing.

The Jamaica tax reform project conducted its work between 1983 and 1987. The final results are reported fully in Bahl (1991b) and summarized in Bahl (1989, 1991a). A follow-on project focused on payroll taxes, and on a review of the status of the 1987 income tax reforms (Bahl and others 1992a, 1992b, 1992c; Sjoquist and Green 1992). More recently, the tax system has been reviewed by McLure (1993), Hubbell and McHugh (1992), Garzon (1993), and Bahl and Wallace (1993).

## The Economic and Political Context

Edward Seaga was elected prime minister in 1980 with a mandate to replace the direct controls that had long governed the economy with an economic growth strategy that was export driven and led by the private sector. One of the challenges he set for his administration was to find a tax package to fulfill this mandate, provide the necessary revenue, and be politically acceptable. The tax reform project was established to tackle the technical work of identifying this package. In this section we examine the work of the tax project and the economic and political factors that shaped the design of the reform program.

### *Macroeconomic Performance*

The Jamaican economy suffered a severe and sustained contraction from 1973 through 1980 (Dawes 1982; Chernick 1978). Estimates published in the International Monetary Fund's (IMF) *International Financial Statistics* for this period show the following:

- Gross domestic product (GDP) (1980 prices) declined 18 percent.
- GDP per capita (1980 prices) declined 26 percent.
- The consumer price index (CPI) rose 307 percent.
- The local price of the U.S. dollar rose 96 percent.
- Government expenditure rose 419 percent.
- Government revenue rose 274 percent.
- Net foreign assets dropped by US$582 million.
- Estimated unemployment rose from 22 to 27 percent.

There was no economic miracle in the first half of the 1980s. The Seaga administration lived up to its mandate with new government policies to deregulate the economy and change the orientation from import substitution to export promotion. However, foreign exchange reserves were short, the treasury was almost bare, and the government had to ride out the virtual collapse of the bauxite industry. Moreover, there was considerable pressure from foreign creditors to adopt more austere economic policies. In fact, the government's new economic policies did not really take hold until the mid-1980s and any positive impacts were interrupted by a severe downturn in 1984 and 1985, when real GDP dropped by more than 6 percent.

Nevertheless the Jamaican economy did grow. Real GDP increased by 5.7 percent between 1981 and 1983, and though modest, this increase represented a reversal from the real 18 percent decline experienced between 1973 and 1980. However, economic instability also marked the first half of the 1980s. There were real GDP declines in 1984 and 1985, the Jamaican dollar was devalued in 1983 and 1984, and the rate of inflation remained over 25 percent during 1984–85 (table 5.1).

The foreign exchange shortage remained acute in the early 1980s. The Jamaican dollar was devalued by over 100 percent between 1982 and 1985. The U.S. dollar moved from an average J$2.15 in 1983 to J$3.94 in 1984 and J$5.56 in 1985. This devaluation was largely the initial response of market forces to the liberalization of a previously pegged and undervalued exchange rate. The new exchange rate system was a managed float operated through a biweekly auction. Imports, particularly of consumer goods, fell significantly in response to the devaluation, and the current account balance of payments deficit was about 13 percent of GDP in 1984. Devaluation had the expected favorable impact on exports. However, domestic real incomes, and consequently the market for domestically produced goods, grew very little. Despite rescheduling, foreign debts grew significantly relative to both export earnings and government expenditures.

**Table 5.1 Selected Indicators of Economic Performance**

| *Year* | *Real growth in GDP (percent)* | *Increase in consumer CPI (percent)* | *Fiscal (deficit) surplus (percentage of GDP)* | *Exchange rate*[a] |
|---|---|---|---|---|
| 1980 | –6.2 | 27.3 | (17.5) | 1.78 |
| 1981 | 2.4 | 13.0 | (16.7) | 1.93 |
| 1982 | 0.9 | 6.3 | (14.5) | 1.99 |
| 1983 | 2.4 | 11.7 | (12.4) | 2.15 |
| 1984 | –1.4 | 27.8 | (12.8) | 3.94 |
| 1985 | –4.8 | 25.8 | (6.1) | 5.56 |
| 1986 | 2.0 | 15.1 | (5.9) | 5.48 |
| 1987 | 6.4 | 10.7 | (2.3) | 5.49 |
| 1988 | 1.9 | 8.3 | | 5.49 |
| 1989 | 6.3 | 14.3 | 0.2 | 5.74 |
| 1990 | 4.2 | 29.8 | 3.7 | 8.10 |
| 1991 | 0.5 | 80.2 | 5.5 | 12.85 |
| 1992 | 1.4 | 40.2 | 5.4 | 22.20 |

— Not available.

a. Jamaican dollars per U.S. dollar.

*Source:* Revenue Board and Ministry of Finance data.

Inflation hovered around 30 percent in 1984. This was due to a 77 percent increase in the exchange rate, the removal of subsidies on certain foods and public utility rates, and the rapid monetary growth of past years. Because the economy was heavily dependent on petroleum, fuel price increases in 1984 affected virtually all other components of the CPI. Electricity rates increased by about 100 percent in 1984. The fiscal deficit stood at more than 10 percent of GDP in 1984, and averaged 15 percent of GDP during the first five years of the decade. All in all, the mid-1980s did not appear to be a favorable time to introduce a comprehensive tax reform.

*Social Conditions*

Social conditions were also not favorable for a structural tax reform in the mid-1980s, especially given the emphasis on economic efficiency and simplification. Much of the Jamaican population lives near a subsistence level of income. In addition the distribution of income is very unequal. It was estimated that at the time of the reform 40 percent of the national income was earned by the top 10 percent of the population, and that this inequality had not been significantly reduced in the previous two decades (Wasylenko 1991). The distribution of land wealth, as might be expected, was even more skewed—half of the total assessed value of land was attributable to 5 percent of the total land parcels (Holland and Follain 1990). Given the average real per capita income decrease between 1980 and 1985 of J$62, one can imagine that living standards for the poor worsened considerably in the early 1980s.

The 28 percent inflation in 1984 reflected rising housing and food prices. Deregulation and removal of subsidies also led to higher public utility prices. This explains why housing expenditures (excluding rent) grew by about 50 percent, and was by far the largest component of increase in the CPI. A food stamp program started in 1984 provided some relief to lower-income Jamaicans. The unemployment rate, though difficult to measure, appeared to be around 15 percent.

Jamaica's "brain drain" of the 1970s—educated Jamaicans migrating abroad in search of better economic opportunity—imposed a heavy cost on the economy. Between 1974 and 1980 there was a net emigration of 129,000 residents, or about 6 percent of the population. This trend continued into the 1980s at a lower rate: between 1981 and 1984 more than 30,000 persons, or 1.4 percent of the population, emigrated.

*Economic Policy*

The Seaga administration's economic program was outlined in "Taxation Measures 1982–83," Ministry Paper No. 9 of the Ministry of Finance and Planning. Reforms in this program fell into two classes of economic policy: general macroeconomic policy and structural economic policy. The former determined elements of public sector deficit—the growth of monetary aggregates and foreign exchange payments and receipts. The latter embraced elements that influence economic agents and their choices with respect to work effort, savings, investments, product mix, input mix, and portfolio structure.

This program counted on the controlled expansion of aggregate demand to bring order to relative price movements in commodity, labor, money, financial, and foreign exchange markets, and to bring order to the distribution of income and wealth. It implicitly promoted the proposition that economic growth and efficiency would be improved if private markets and private decisions were permitted a larger role. Accordingly, Ministry Paper No. 9 proposed to reduce public ownership of commercial enterprises, public sector control of prices (except the price of foreign exchange), and the regulation of imports, exports, and domestic investment.

The government's economic program was consistent with the strategy outlined in Ministry Paper No. 9. Import licenses and price controls were for the most part phased out. The government deficit was dramatically reduced and comprehensive income tax reform was implemented in 1986. Tax incentive policies were adjusted to favor exports and the agriculture sector, and some divestment of public enterprises was undertaken. These initiatives did not go as far as some had hoped, but the program went generally in the direction promised.

A notable exception to this economic strategy was foreign trade policy. The price of foreign exchange had not been decontrolled—except during 1983–84 when there was a controlled float of the Jamaican dollar—and foreign exchange shortages persisted. Taxation of international trade probably exacerbated the problem. In 1985 stamp duty rates were increased markedly on all imported consumer and intermediate goods. This measure raised substantial revenue, but also further protected domestic manufacturers. The government began a rollback of these increases in 1987, and instituted a program of rebates to exporters to compensate for the taxation of imported inputs. When Seaga left office, the formulation of a consistent trade policy still remained at the top of the government's list of unfinished economic reforms.

### *Foreign Pressure*

Economic policy after 1980 was influenced by external lenders. Sometimes the conditions imposed were ignored; at other times the government had to sacrifice political, economic, and social objectives, which often imposed hardships on the population, and in some cases affected the design and implementation of subsequent comprehensive tax reform.

The government negotiated separate loan agreements with the World Bank, the IMF, and the U.S. government in 1981 and 1982. The IMF agreement provided for a target deficit level of 10 percent of GDP by fiscal year

1983–84. When the government did not meet this target, the IMF pushed for a deficit reduction program. With the unemployment rate already around 20 percent and the bauxite sector declining, substantial public employment reductions seemed out of the question. To meet the IMF target, the government turned first to tax rate increases on the most important excises—alcoholic beverages and cigarettes—and in the following year to rate increases under the import stamp duty.

These discretionary actions affected tax reform planning. It sent a message to the Jamaican public that tax reductions were infeasible, even in tough economic times. Furthermore, the import duty rate increases effectively introduced a major new indirect tax that further distorted the pattern of relative prices. On the one hand, this would be a convenient new straw man for the tax reformers to knock down. On the other hand, proposals for any general sales tax would now be harder to sell because it would shock the system even more.[2]

Another major influence was U.S. government policy. Although neither its balance of payments loans nor its project assistance carried conditions similar to the IMF or World Bank loans, U.S. foreign policy shaped tax, trade, and industrial policy. First, the U.S. government provided funding for the comprehensive tax reform project. Second, there was always the implied threat that faulty Jamaican economic policy could dampen U.S. support for the programs of the Seaga administration. Third, the U.S. tax reform of 1986 lowered the corporate tax rate to 34 percent, thereby jeopardizing the foreign tax credit position of U.S. firms investing in Jamaica and giving the tax reform program one more reason to lower the corporate rate.

## The Setting for Tax Reform

All government tax reformers know that the probability of enacting a reform program depends as much on timing as it does on the quality of the program. It depends on when during the election cycle the program is introduced, whether the same political party has won both the presidency and the congress, whether other "big issues" are overshadowing tax reform, whether the president or prime minister feels secure enough to discuss taxes, and the recent history of tax reform. In Jamaica, the timing was both right and wrong.

The budgetary position in the early 1980s would make tax reform a tough sell. Successful tax reform in almost everyone's eyes meant tax reduction, an understandable reaction to the slow growth in the economy, inflation, and the income tax bracket creep. But the route to tax reduction was not clear. Budget cuts would have to accompany tax reductions, leading almost certainly to reductions in government employment. This would have taken place at a time when unemployment was high and the private sector economy was performing too poorly to absorb surplus labor.

Otherwise, tax reduction would have to come at the expense of an increase in the government's budget deficit. This was ruled out for two reasons: (1) increased domestic borrowing would have put more pressure on domestic prices, and (2) the IMF loan agreement required a reduction in the government deficit and a ceiling on domestic credit.

Government "efficiency" or cost reduction was only a slightly more promising route to budgetary balance. One possibility centered on the state enterprises, which were a known to drain the central government budget. Options included divestment and increased user charges to cover operating costs. But divestment takes time, and increased user charges on some items (for example, electricity) would have been as unpopular as increased taxes. Other deficit reduction strategies centered on removing costly government subsidies, for example, on petroleum products, or eliminating the import duty exemptions on a wide variety of producer goods. Some of these measures were eventually adopted and they proved to be as politically difficult, as expected.

The setting for a comprehensive tax reform also had some positive aspects. First, and most important, the tax system was obviously unfair. A widely held public view was that the horizontal inequities inherent in the structure, which were accentuated by the way the system was administered, went beyond tolerable limits. Piecemeal reform undertaken to fill an annual revenue gap, the approach taken for a long time, would no longer be acceptable. The public—business, labor, the press, and foreign investors—gave the Seaga administration a clear mandate for a complete overhaul of the tax system. This public dissatisfaction and the willingness of the government to think carefully about these problems contributed to the successful implementation of the income tax reform in 1986 and 1987.

A second stimulus came from foreign donors. The IMF was pressing the government to reduce the fiscal deficit and limit domestic borrowing. The Fund took its usual position of being agnostic about whether budget balance should be achieved by tax increases or expenditure reductions, but it nevertheless gave annual advice on how much tax rates would have to be increased to fill the fiscal gap. The World Bank pressed more aggressively for structural tax changes in tariffs and indirect taxation. The U.S. government did not set conditions on its aid package, but did urge changes in the tax system and financed the tax project that eventually led to reform. These external pressures motivated the government to come up with its own tax reform.

Third, the Seaga administration's political hand was strengthened in the 1984 elections when the Jamaican Labor Party (JLP) won an uncontested election. The issues underlying this political victory did not involve economic reforms, but the election meant that proposals would be reviewed by a more friendly and unified parliament. In a sense the JLP would be replacing the tax system of the opposition party.

By the time the first phase of the new reforms was put in place in 1986, the economic situation had already improved. Real GDP growth rate was positive in 1986, and over 6 percent in 1987. The decline in oil prices, a lower rate of inflation, and a good tourist season all set the stage for the individual and company income tax reforms to produce far more revenue than had been expected.

## Problems with the Prereform Tax System

An analysis of the Jamaican tax system revealed four fundamental problems. First, high taxes discouraged investment in financial and human capital. Second, the tax system had badly distorted the relative prices driving economic decisions and, as a result, the economy was not performing as efficiently as it would under a system with more neutral effects on relative prices. Third, only such income and consumption as could be easily reached was taxed, thereby narrowing the effective tax base. Also, weak tax administration allowed those who could to avoid or evade taxes. A fourth overarching issue was the need for a harmonization of tax, trade, and industrial policies.

### *High Taxes*

At the beginning of the tax project in 1983, the ratio of taxes to GDP was 23.3 percent and was thought to be too high. But complaints about high taxes can mean many things. It can signal dissatisfaction with the quality and type of public services being provided, as was the case of the U.S. tax revolt of the late 1970s (Bahl 1984). It can also mean that taxes that are high by international standards somehow make a country less attractive for investment. In the case of Jamaica, high taxes discouraged work effort and saving, and biased investment decisions leading to reduced economic growth.

*International comparisons.* To examine Jamaica's tax load relative to other countries we used the comparative technique originally developed by Lotz and Morss (1967), extended by Bahl (1971, 1972), and updated on a periodic basis by the Fiscal Affairs Department of the IMF (Chelliah 1971; Chelliah, Baas, and Kelly 1975; Tait, Gratz, and Eichengreen 1979; Tanzi 1987a).[3] These tax effort studies have shown Jamaica to be a country with relatively high taxes. Estimated taxable capacity increased from 16.9 to 19.5 percent of GDP during the early 1970s and then fell off to 17.8 percent during 1972–76. However, the public sector did not retrench when Jamaica's capacity to raise revenues declined; in fact, the government expenditure–GDP elasticity averaged about 2.0 over the 1974–80 period. Jamaica's actual level of taxation and tax effort increased through the 1970s, resulting in a tax effort 6.4 percent above the international norm from 1972 to 1976.[4]

An updated analysis based on a sample of fifty-two developing countries indicates that Jamaica had a predicted taxable capacity equivalent to 21.1 percent of gross national product (GNP) in 1983. The actual taxation level of 23.3 percent in 1983 placed Jamaica 10.4 percent above normal and ranked it nineteenth out of fifty-two developing countries. In the sample of Caribbean Community (CARICOM) member countries, only Dominica, Guyana, and Trinidad and Tobago showed a higher tax effort. Regression analysis shows that by international standards Jamaica's taxes were high in 1983, and that its relative level of tax effort had been increasing.

Another approach to international tax comparison is the representative tax system, which relates a country's taxable capacity to the size of its various tax bases and the "average" effective rate at which other countries tax each of these bases (Bahl 1972). Bahl, Jordan, Martinez-Vazquez, and Wallace applied this methodology to 1983 data for the same fifty-two developing countries, and show Jamaica's tax effort to be 25 percent above the international average, fourteenth highest in the sample. Only Dominica, Guyana, and St. Lucia of the CARICOM countries ranked higher. Again, this confirms Jamaica's high tax status. This approach also allows us to sort out how each tax contributes to the total tax effort. In the case of Jamaica the conclusion is clear: the high tax effort is due to high rates of personal taxes. The breakdown on the tax effort index, which is 25 percent above average, is as follows: personal taxation (personal income tax and domestic indirect taxes) is 43 percent above the international average, company income taxation and property taxation are about average, and import taxation is 10.4 percent below average.

*Narrow tax bases.* A recurring theme in the Jamaican tax story is that the base of virtually every tax has been significantly narrowed by exemptions, preferential rate treatment, and administrative practices. The result is that nominal (marginal) rates were set very high to satisfy revenue requirements, which explains the dissatisfaction with taxation levels. Jamaica's 23.3 percent tax share of GNP in 1983 may have been a dramatic understatement of the burden on those who actually paid taxes.

Before reform in 1986, the individual income tax base was narrowed by the exclusion of perquisites, or "allowances," from taxable income, by sixteen personal tax credits, and by the preferential tax treatment of wages earned from overtime work. More importantly, because of poor administration only the pay-as-you-earn (PAYE) sector was effectively taxed. Dividend income was not fully reached, also because of poor administration, and interest income earned from bank deposits and capital gains were not taxable. Because of these exemptions only about 40 percent of the true taxable base was actually taxed. In order to raise the necessary amount of revenue, the lowest marginal tax rate was set at 30 percent with no standard deduction. It reached 57.5 percent at the relatively low income level of J$14,000. If comprehensive income had been fully taxed, the average tax rate would have been about 11 percent. The frequently heard complaint that the income tax system discouraged work effort and investment really meant that those included in the income tax net were forced to pay very high marginal and average rates.

A similar story may be told for the five payroll taxes. Two of these, the education tax and the Human Employment and Resource Training Trust (HEART) are not contribution programs. Both share shortcomings with the individual income tax: both allow deductions for allowances and both fail to capture the self-employed in the tax net. The education tax does not allow personal allowances, and income is taxed from the first dollar earned. The other three payroll taxes, National Insurance Scheme (NIS), National Housing Trust (NHT), and Civil Service Benefit Scheme, are contribution programs, but each contains a significant tax element. The bases of these taxes are also narrowed by statutory exemptions (there is a ceiling on wages taxed under the NIS) and allowances are not taxed. Removal of the NIS ceiling and taxation of allowances alone would have permitted an (equal yield) reduction in the average rate on the three contribution programs of more than 1 percent of wages.

The base of indirect taxes also was limited by exemptions. In 1985 only about 20 percent of the value of all imported goods was subject to import taxes. As a consequence of this, the import stamp rate was over 200 percent on some items, 30 percent on capital goods, and 16 percent on raw materials. A similar story can be told about the base for domestic indirect taxes. Only about 16 percent of final consumption of services and 33 percent of domestic manufacturing output was included in the tax base. If the indirect tax system had been replaced by a value added tax (VAT) of the manufacturer-importer type in 1983, a rate of 20 to 25 percent would have been necessary to maintain revenue yield (Bird 1991b). This would have been high by world standards.

The property tax base also fell well short of its legal goal of taxing the full market value of land. The 1984 roll placed total land value at over J$5 billion in comparison with about J$2 billion estimated by the 1974 roll (Holland and Follain 1990). The property tax base had been further narrowed by derating—agricultural properties were eligible for a 75 percent reduction in assessed value, and hotels for a 25 percent reduction—which imposed a revenue cost equivalent to one-third of the 1985 yield of the property tax. The top bracket statutory property tax rate was 4.5 percent of the assessed value of land.

### *Allocative Effects*

If the maxim of tax neutrality were followed, the tax system would raise the desired amount of revenue in such a way that the relative prices of consumption, investment, labor, and production would not be affected. The basic story is that the market, not the tax system, should guide economic decisions. In theory, the exception to this rule is that the tax system may be properly called on to compensate for market failure. As a practical matter, it is impossible to define a tax system that has no substitution effects. The modern restatement of the neutrality goal is to minimize the excess burdens associated with raising a given amount of revenue. Not every analyst or every economic planner agrees with the neutrality goal. In fact, a respectable view is that taxes should be used as levers to stimulate economic activity in desired directions (Ahmad and Stern 1991; Bird 1992, chapter 6). This interventionist approach guided taxation in the 1970s.

The tax project's major goal was to remove major distortions in relative prices, that is, to create a tax system that interfered less with the market. In fact, the final reform proposals recommended that some tax incentives be continued and that certain consumption items be exempt from sales tax to protect low-income residents. The question underlying the design of the reform, however, was how far should the government go in using the tax system to guide economic choices, correct undesirable distributional impacts, or simplify administration? The view was that the relative price distortions introduced by the tax system had gone beyond justifiable exceptions and had measurably weakened the economy's efficiency.

It is no simple matter to prove that tax-induced distortions in relative prices resulted in a significant welfare loss. The welfare loss is roughly proportional to the product of the size of the distortion in relative prices and the compensated price elasticity of demand (or substitution) for the good (or factor) in question. It turns out that the magnitude of these terms is not easy to estimate. The net change in relative prices caused by the tax code is difficult to estimate because several different provisions in the tax structure may be involved and because all may not affect relative prices in the same direction. As for the second term, there is very little evidence on the compensated price elasticities of substitution in developing countries, but what is there suggests an inelastic response to relative price changes.[5] One could have a nonneutral tax structure, then, and not suffer substantial welfare losses if the relative price distortions are small.

*Labor supply.* Economists have long been concerned with the effects of taxation on work effort. Theory tells us that a higher rate of tax on wages induces an individual to work less because the rewards for work are less (the substitution effect), but also that an individual will be induced to work more to make up for lost income (the income effect). There is almost no empirical evidence on this question for developing countries, but most observers would guess the price elasticity to be small (Bird 1992, chapter 7).

The impact of the tax structure on work effort in Jamaica may be of some consequence for two reasons. First, the effective rate of the combined income and payroll taxes are high, and therefore, the reduction in the net wage rate attributable to the tax system may be large. One might suppose that the labor supply response could be significant even if the price elasticity was low. Second, the compensated price elasticity of the labor supply may actually be larger than thought, because Jamaican workers have options other than to accept the tax liability. They may remain within the PAYE sector and evade or avoid taxes, or they may move from the formal to the informal sector of the economy. With an unemployment rate near 20 percent during this period, these responses would seem more realistic than choosing more leisure time or migrating abroad.

The distortive effects of the prereform system on labor supply emanated from the high tax rate imposed on marginal work effort, the mobility of labor between the formal and the self-employed sectors, the low quality of the income and payroll tax administration, and the numerous avenues left open for tax avoidance. There was widespread legal avoidance of income tax within the PAYE system in the form of nontaxable perquisites. In some cases, it also appeared that the preferential tax rate on overtime work had come to be viewed as a loophole. If labor ultimately carried the burden of both the employee and employer share of payroll taxes, and if the NIS and the NHT were contribution programs with no tax element, the average combined effective tax rate on labor would be more than 10 percent of taxable compensation.

Self-employment offered an attractive opportunity to evade taxes. About 95 percent of all income taxes were paid by PAYE workers in 1983, and only about 10 percent of those in the self-employed sector even bothered to file a return. Evasion was feasible because the probability of detection was low and enforcement of penalties was weak.

*Capital-labor choice.* The prereform tax system appears to have raised the price of labor relative to capital although the magnitude of the distortion is difficult to estimate because so many different taxes and subsidies were applied. It is almost as though the government had recognized this problem and attempted to correct it by adding other features to the tax system to lower the relative price of labor, for example, a preferential tax treatment of overtime earnings.

The net effect of these policies was probably to make labor more expensive, and to make the tax system more complicated and difficult to administer. Matters were further complicated by the complex pattern of tax shifting induced by these taxes and subsidies.

In the absence of a formal model to simulate the effects of the tax code on the capital-labor choices of firms, the project asked whether returns to labor were being taxed more heavily than returns to capital. The answer appeared to be yes. Before the 1986 reform, the average effective combined rate of income and payroll tax rates was on the order of 22 percent of statutory income and the combined top marginal rate was over 65 percent. The price of capital was relatively low because interest income was not taxed and dividends and capital gains were either exempt or, for administrative reasons, not fully included in the tax base. However, there were also important sectoral biases, for example, labor went relatively untaxed in the self-employed sector.

The investment decisions of firms were probably biased in favor of substituting capital for labor. To the extent that the employer's share of payroll taxes was borne by owners, the relative price of labor increased.

Moreover, capital investments were given generous allowances in computing the basis for company income taxation. The tax treatment of capital goods under the indirect tax system is not easily sorted out. Technically, capital goods were subject to an import stamp duty that had risen to 30 percent in 1986. In addition, a number of special taxes and subsidies were introduced to influence the input decisions of firms, and in many cases, these affected capital goods. More important is the incentive legislation. On the one hand, this encouraged capital intensity by providing initial capital allowances and exemptions from import taxes. On the other hand, it tied the length of the tax holiday to labor intensity, but since this was related only to CARICOM-traded goods, it was not a very powerful feature. The approval of firms for the incentive programs was said to be linked to the degree of labor intensity, but approval was a judgmental matter, and it is not clear how this effected capital-labor choices. Another preferential treatment of capital was the exemption of buildings under the property tax system.

At least one program induced firms to substitute labor for capital. The Human Employment and Training Program gives firms a tax credit (against HEART tax liability) equivalent to the wage paid to the HEART trainee. There is no hard evidence available on the impact of this program.

We could make no firm estimate of the net effects of these tax provisions on the relative prices of capital and labor. The weight of the evidence seems to side with the argument that the tax system increased the relative price of labor—a peculiar choice in a country with a highly literate but underemployed labor force. The size of the distortion may have been quite large, hence the tax system may have had a substantial effect on resource allocation, even if the elasticity of substitution was small.

*Savings.* If there was a strategy to use the tax system to increase the rate of private saving, it is not clear what it was. Consider the following package of effects:

- The marginal personal income tax rates were graduated and reached high levels for individuals with high marginal propensities to save.
- Four income tax credits were offered to those who would participate in specified types of savings programs.
- There were three compulsory payroll savings programs. For those who participated, the average contribution for a private sector worker was about 11.3 percent of compensation, and for a public sector worker it was 11.9 percent.
- Interest income was not taxed, but dividends were taxed under both the company and individual income taxes. In practice, however, a substantial portion of dividend income managed to escape taxation.
- Lax administration meant that a large portion of the self-employed sector completely evaded income taxes and therefore paid a marginal tax rate of zero. Since many of these were higher-income Jamaicans, the effect was to increase the rate of private saving.

- Retained earnings of companies were taxed at a lower rate than were distributions.

The tax system also affected the structure of investment although it is not clear that the effects were large. In theory, dividends were taxed at a marginal personal tax rate of 57.5 percent of income and were subject to the basic corporate rate of 35 percent. This double taxation of dividends, coupled with the tax-free status of interest income, allegedly led to the thin capitalization of Jamaican companies. There was also a bias in favor of real estate investments because the annual property tax was levied at a nominal level and because capital gains from land sales were effectively untaxed.

*Commodity prices.* The particularly important price distortions were the relative price of imported versus domestically produced goods, the differential tax treatment among domestically produced consumer goods, and the price of sumptuary consumption relative to all other goods.

With respect to the relative price of imports, discretionary policy had been ambivalent. Traditionally the exemption rate on imported goods was double the international average. Moreover, imports were underpriced because of the overvalued Jamaican dollar. The government responded with a system of import licensing in the early 1980s; devaluation during 1983–85; and the introduction of a new import tariff structure in 1984, which significantly increased protection of domestic industry.

The indirect tax structure was very complicated in the prereform period, with traditional goods taxed at between 15 and 30 percent, lower rates on raw materials than capital goods, and highest rates on imported consumer goods. The domestic indirect tax system mostly affected manufacturers, and the combination of the direct tax and the hidden tax on inputs led to an estimated 11 percent tax component in manufacturers' prices (Bird 1991b).

Finally, the indirect tax system relied on taxation of sumptuary goods for over four-fifths of revenues. The relative price distortions from higher tax rates on alcohol, gasoline, and tobacco may not generate substantial inefficiencies because of the low price elasticity of demand and because of the social costs resulting from drinking, driving, and smoking. On the other hand, the relative price of these goods had fallen in the early 1980s because they were effectively taxed at specific rates and because the real price of gasoline had been allowed to fall.

The indirect tax system affected relative commodity prices, but because the system was so complex it was difficult to identify these effects. A first step to getting the prices right, it would seem, is to simplify the system enough to understand its impacts on relative commodity prices.

*Tax evasion and avoidance.* Every income tax payer faces choices among tax evasion, tax avoidance, and fully reporting income. The potential rewards for successful evasion or avoidance under the prereform system were considerable—tax savings equal to the 57.5 percent marginal personal tax rate and the tax component of the various payroll levies. Opportunities for avoidance and evasion were certainly present. Jamaican companies awarded employees nontaxable emoluments, apparently without seeking government approval, and were able to raise both the take-home wage and reduce the firm's liability for the employer share of payroll taxes. Another vehicle for avoidance was the declaration of preferentially taxed overtime income, which was not monitored by income tax authorities. The self-employed often captured these benefits by outright evasion, taking advantage of the inability of the Income Tax Department to enforce the tax.

The costs of noncompliance to the economy were substantial. It is estimated that only one in ten self-employed Jamaicans bothered to file a tax return. This imposed a revenue cost equivalent to about 50 percent of individual income tax collections in 1983. If the prereform system had been fully complied with in 1983, it would have been possible to raise the same amount of revenue with a flat rate of about 20 percent (Alm, Bahl, and Murray 1991d).

### *Equity*

Relative price distortions not only imposed an efficiency cost on the economy, they introduced unfairness in the system that many taxpayers found even more objectionable. The self-employed were given favored treatment by the income tax administration and paid little or no individual income tax, whereas those enrolled in the PAYE system were forced to cope with what appeared to be onerous burdens. Even within the PAYE sector, private sector workers had opportunities to avoid taxes through the receipt of untaxed allowances and low-taxed overtime earnings. On average, a public sector worker paid a higher rate of individual income tax on total compensation than did a private sector worker (Alm, Bahl, and Murray 1991a).

The price distortions in the system also compromised vertical equity. The upper-income classes gained the most from the poor administration of the income tax, and from the availability of tax preferences. Allowances tended to be concentrated in the higher-income brackets, and overtime income was claimed more heavily by salaried workers than by hourly wage earners. Jamaicans with interest and dividend income paid a lower effective tax rate and because they tended to be concentrated in the higher brackets, this reduced the overall progressivity of the system.

The indirect tax system also compromised vertical equity since taxable domestic production and imports accounted for a higher proportion of the income of lower-income families. On the other hand, the exemption of unprocessed foods and housing consumption lessened the regressivity significantly. As Bird and Miller (1986, 1991) and Wasylenko (1991) show, it is very difficult to sort out the implications of commodity tax rate differentials for the distribution of income.

### *Administrative Problems*

The Jamaican tax system, like that of most low-income countries, was plagued by administrative problems. The tax system was complex and difficult to administer; there was a shortage of skilled staff, and assessment, collection, and recordkeeping procedures were inadequate.

*Complexity.* The complex system for assessment and auditing was made even more difficult by a shortage of skilled staff. Complexity also raised compliance costs for taxpayers and in so doing either wasted private sector manpower or provided additional incentives for tax evasion and avoidance.

Prior to the 1986 reform, the individual income tax included two separate rate structures and a preferential rate for overtime income, sixteen income tax credits and an even greater number of nontaxable perquisites. The forms used to establish an employee's tax credit entitlement were rarely, if ever, updated and almost never monitored by either the employer or the Income Tax Department.

The forms and instructions for year-end tax returns were long and detailed, even by comparison with other developing countries. An analysis by McLure (1984) revealed that the income tax forms did not reflect the existing law and that there were numerous errors in the instructions. Moreover, it was difficult to obtain a copy of the income tax law.

Complexity extended far beyond the income tax. There were five different payroll taxes levied on four different bases that were administered by three different government agencies. This substantially increased the burden on employers, who were required to calculate the liability for each employee, maintain appropriate records, and develop an administrative relationship with several different government agencies. There were also five different indirect taxes: the external (CARICOM) tariff, the import stamp duty, an excise tax, consumption duty, and a retail sales tax. Within this family of sales, excise, and import levies, there were over 100 rates, some with needlessly small gradations.

*Staff problems.* A shortage of skilled staff is a major bottleneck to improved tax administration. DeGraw (1984) reported that in 1983, a time when increased revenue mobilization was at a premium, there were 150 vacancies among the 449 positions authorized for the Income Tax Department. A disproportionately large number of these were technical positions. There were complaints about too few skilled staff throughout the tax administration service.

The reasons for the staffing problems are similar to those of other developing countries. Salaries were low, even given the job security and the prestige of a government post. In 1983 a trained accountant earning J$9,000 in the Income Tax Department could have made J$14,000 with a private sector accounting firm. The problem was more than just salary. There was no formal career development program and little opportunity for promotion. In the case of the Customs and Excise Department, entry-level personnel were recruited primarily out of secondary schools and had little background in accounting. To compound the problem, there was no training program.

*Outmoded procedures.* The methods used to assess and collect taxes were inadequate at the time the tax reform project began in 1983. There was no unique numbering system for either businesses or individuals, hence there was no master file of taxpayers. The system was completely manual, that is, there was little, if any, use of computers other than to print bills. This effectively ruled out the use of third-party information, cross-checking sales and income returns, and other tasks. Only about 60 percent of property tax liability was collected, and the cost of property tax administration was equivalent to about 12 percent of property tax revenues.

The income tax was essentially a PAYE levy. There was little, if any, use of presumptive assessments on hard-to-tax groups, such as self-employed professionals. The major problem was, and remains, the absence of an adequate information and recordkeeping system. The income tax file room was too small and all records were manually kept. Files were regularly misplaced or lost, and records were frequently out of date or incomplete.

Finally, there was no perceived need to monitor the performance of the tax system. There was no annual statistical volume reporting taxpayers by taxable income brackets or any attempt to develop a revenue forecasting model.

### *Tax, Trade, and Industrial Policy*

The allocation of resources in Jamaica was distorted by the foreign trade regime and by industrial policy. These distortions were not all unwanted. Some policies were designed expressly to favor one industry or sector, others to discourage the consumption of imported goods, and still others to protect certain domestic production activities from foreign competition. In other words, taxation was not the only instrument of economic policy in the hands of government, and in the mid-1980s, it probably was not even the most important. Clearly, the design of a comprehensive tax reform—especially one that sets out to correct distortions in relative prices—must take the goals and impacts of trade and industrial policy into account.

The problem is how to do this. Is it good advice to stay with the basic taxation maxims of horizontal equity and neutrality, even though these might run counter to foreign trade policy? Alternatively, should tax policy play more of a supporting role and focus on reinforcing the allocative impacts of other government policies? Or is it possible to design tax reforms that can be relatively neutral in their effects on the allocation of resources and at the same time support the government's goals of conserving foreign exchange, encouraging export development, and stimulating investment (Shoup 1991)?

Government policies for trade and industrial growth had the objectives of stimulating investment and stabilizing the nation's external balance to ensure competitiveness in export markets and allocate enough foreign exchange to support the demands for local industrial growth and necessary imported goods. Many different instruments were used to support these policies in the early 1980s: multiple exchange rates, devaluation, import licensing, tax incentives, protective tariffs, import duty exemptions, preferential tax rates for certain commodities, and special capital depreciation allowances. Sometimes the effects of these policies were reinforcing, but at other times they were offsetting. Hence, the net impacts were not always consistent with the Seaga administration's stated strategy to support export-driven growth through the private sector. To complicate matters, the government's approach to trade and industrial policy was continuously changing in the early 1980s—in part to accommodate pressures from external creditors.

The policies of the 1970s and early 1980s were interventionist in spirit. The policy mix was designed precisely to affect economic choices and, therefore, stimulate certain production and consumption activities and discourage others. Horizontal inequities and relative price effects were at the very heart of this strategy. This left open the possibility that a more neutral tax program would push the government to an even greater use of targeted, direct controls to reestablish preferences that the tax reform may have taken away.

By 1984, the Jamaican dollar had become considerably overvalued (Whalley 1984). The policy of a fixed exchange rate effectively taxed exporters by forcing them to sell foreign exchange earnings at a low price and to buy imported inputs at world market prices. Not surprisingly, this resulted in a foreign exchange shortage and an active, illegal foreign currency market. The situation worsened after 1983 with the collapse of the Jamaican bauxite industry (a major source of foreign exchange) and the heavy drain on foreign exchange reserves for debt repayment and oil purchases. The government responded with an extensive system of import licenses, and finally with a devaluation.

Beginning in 1984, the policy instrument used to shape trade policy was the stamp duty on inward customs warrants, essentially a surtax on the value of imported goods levied independently from the common external tariff. During 1984–85, the import stamp tax rates were increased dramatically as an emergency revenue measure. Collections nearly tripled in one year, and in 1985–86, the import stamp duty accounted for over 13 percent of total taxes. Revenues were derived principally from a 16 percent tax on raw materials, a 30 percent tax on capital goods, and a 40 percent tax on consumer goods. Although successful as a revenue measure, raising the stamp duties may have harmed the Jamaican economy in other ways: it was protectionist and, because it was so complicated, it appeared to be arbitrary in its application.

## Objectives of the Reform

It is tempting to claim that comprehensive tax reform can and should satisfy all of the criteria for a "good" tax system. Indeed, many tax reform studies are unable to resist this temptation and design a system with multiple or even conflicting objectives. In fact, there are important decisions to be made about exactly which objectives of tax reform are the most important and which can be given up.

The primary objectives of Jamaican tax reform were simplification and neutrality. The goal was to put in place a system that could be efficiently administered and "get the prices right." To be sure, there were important constraints: political resistance to taking back tax preferences, the need for progressivity in the system, the requirement of adequate revenue, and the goals of trade and industrial policy. Still, the primary thrust was to restructure the tax system to lessen the distortive effect on relative prices and, therefore, on economic decisions.

Both of these objectives pointed toward a reform package that would broaden the tax base and flatten the tax rate. A broader tax base can generate the same amount of revenue as the present system, but at lower marginal rates, which can reduce some of the harmful efficiency effects. With fewer exemptions and special features, taxes could be more easily assessed and collected. This would minimize the time required to police those already in the system and allow tax officials to expand the base and bring those who are hard to tax into the net. Simplification also makes the tax system more understandable and reduces compliance costs.

The other choice for an overall objective would have been to stay with the interventionist spirit of the prereform system. The project rejected this approach for two reasons. First, this was clearly out of step with the Seaga administration's economic program, which promised a market-oriented growth strategy. Second, even if one believed that manipulation of tax rates and bases was the best route to Jamaica's economic and social development, there were serious doubts about the ability of the tax authorities to implement a finely tuned system.

What about equity in this comprehensive tax reform? The view of the project was that equity should not be the primary objective in the design of a comprehensive tax reform in a developing country. The history of Jamaica's tax system is a case in point. The steep progressivity of the individual income tax rate structure was designed to increase the tax system's vertical equity. What it did instead was increase the incentives for evasion and avoidance. Because the income tax administration was too weak to enforce the system properly, the loopholes and noncompliance grew. Eventually individual income tax burdens became quite regressive.

Another problem with taking vertical equity as a primary reform objective is that efficiency costs may be imposed. One example is the tradeoff between what are usually viewed as special "equity" features of a tax—high marginal income tax rates on the rich and higher taxation of luxury goods—and the disincentives to saving and investment that such measures bring. Finally, there is the tradeoff between introducing selective tax treatments to enhance vertical equity and defining a tax base that is broad enough to provide adequate revenues. It would be unthinkable to prohibit the taxation of alcoholic beverages, cigarettes, or petroleum consumption on grounds of improving the overall equity of the tax system.

Equity was not ignored in the design of tax reforms, and the following constraints were included in developing reform programs. First, the overall system should not be made more regressive. Since Wasylenko's (1991) analysis showed the system to be proportional over the first eight deciles and regressive at the top end, a program of broad-based, flatter tax rates would not appear to compromise this objective. Second, there should be no increase in the tax burdens on very low income households. A low-income household survey by Miller and Stone (1987) identified the consumption patterns of low-income families and, therefore, the necessities that should be excluded from the base of new general sales tax (Bird and Miller 1986, 1991).

Horizontal equity was an important objective of the reform. Getting the prices right and equal treatment of equally situated individuals and businesses are very closely linked objectives. Horizontal inequities not only induce uneconomic behavior by firms and workers, they undermine confidence in the tax system and encourage noncompliance. There is probably no better rationalization for shirking one's taxes than pointing to the perceived unfairness in the tax system.

It is important to distinguish structural tax reforms from revenue-raising programs. The objective of reform was to design a revenue-neutral system. In truth, "one period" revenue neutrality is about the best that can be expected. One might design a system to yield the same revenue as the present system in the first year of the reform, but it is unlikely that the revenue-income elasticity of the restructured system will be the same. As the reform program unfolded, the government agreed to some reduction in revenue compared to the prereform system, but remained silent on the elasticity issue.

Nor was there any clear directive to change the mix of taxes away from its relatively heavy reliance on income taxation. In 1984 about half of government revenues were raised from direct taxes (table 5.2), a relatively high share for a low-income country (Tanzi 1987a).

## The Individual Income Tax

Prior to the 1986 reform, the individual income tax base, in theory, included all sources of income except bank deposit interest. In practice, however, there was no tax on capital gains and most self-employed income was outside the tax net. There were two rate structures, depending on whether income was

**Table 5.2 The Structure of Taxes**
*(percent of total taxes)*

| Tax | 1984 | 1985 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|
| Customs duty | 8.5 | 8.5 | 10.1 | 13.3 | 13.8 |
| General consumption tax | — | — | — | 9.9 | 21.3 |
| Special consumption tax | — | — | — | 12.9 | 10.2 |
| Consumption and excise duty | 28.3 | 25.8 | 23.2 | 5.8 | 2.3 |
| Stamp duty | 7.0 | 9.1 | 11.2 | 9.0 | 6.2 |
| Retail sales tax | 1.7 | 1.8 | 2.6 | 1.4 | — |
| Betting and gambling taxes | 1.4 | 1.3 | 0.6 | 0.6 | 0.5 |
| Income tax | 46.6 | 44.7 | 46.8 | 42.2 | 41.4 |
| Land and property tax | 2.0 | 1.2 | 0.8 | 0.6 | 0.5 |
| Motor vehicle licenses | 1.1 | 2.2 | 0.6 | 0.6 | 0.3 |
| Education tax | 0.4 | 2.0 | 3.8 | 3.7 | 3.5 |
| Total[a,b] | 1,504.7 | 2,022.6 | 7,923.0 | 11,481.0 | 19,050.4 |
| Exhibits | | | | | |
| Total indirect share | 49.9 | 51.0 | 48.0 | 52.9 | 54.3 |
| Total indirect share | 49.9 | 51.0 | 48.0 | 52.9 | 54.3 |
| Total direct share | 50.1 | 49.0 | 52.0 | 47.1 | 45.7 |
| Taxes as a percent of GDP | — | — | 23.8 | 22.9 | 25.7 |

— Not available.
*Note:* Years are fiscal years.
a. Includes other indirect taxes.
b. In J$ millions.
*Source:* Revenue Board and Ministry of Finance data.

above or below J$7,000. The top marginal rate was 57.5 percent. There was no standard deduction, but taxpayers could qualify for up to sixteen tax credits for purposes that ranged from personal allowances to stimulation of saving to employment of helpers in the home. Because the credits were not indexed to inflation, their value substantially eroded during the early 1980s. The income tax administration did relatively little monitoring of the credit system.

The tax base was further narrowed by the practice of permitting employers to grant nontaxable perquisites (allowances) to employees. These perquisites were negotiated between employee and employer (including government ministries) and did not have to be reported to the income tax commissioner. A sample survey taken for the project showed allowances to average 15 percent of taxable income, and frequently over 30 percent for taxpayers with incomes above J$18,000. Perhaps as important, there was a general perception that allowances were even greater—some prominent Jamaican analysts argued, from anecdotal evidence, that the allowance–taxable wage ratio averaged 40 percent.

## *Analysis of the Tax System*

The general direction for reform was to broaden the tax base, reduce top-end marginal rates, and protect the real income position of low-income families. This had to be done within a constraint of revenue neutrality and the almost certain opposition of interest groups who had long since come to expect (and rely on) some of these tax preferences.

Theoretical analysis of the income tax became an indispensable part of the blueprint for reform, and the project actually began with an analysis of the relative merits of alternative forms of income taxation (Break 1991; Alm, Bahl, and Murray 1991a, 1991b). However, it became clear at an early stage that any proposed reform would rise or fall on the empirical evidence. The reform would surely bring many winners and losers as lower rates replaced exemptions, and hard estimates of the revenue consequences of such a sweeping change would be crucial. The prime minister, who ultimately would have to champion the program, wanted to see the numbers at every turn of the work.

Gathering adequate data for the analysis turned out to be a major undertaking. There were no statistics of income tax, records were not computerized, complete and up-to-date information could not easily be obtained from the manual filing system, and there was no complete master file of either taxpayers or firms. To complicate matters further, neither nontaxable allowances nor overtime income were reported to the income tax authorities. There was no hard information on the rate of filing by the self-employed, but there were some records on audit activity.

The analysis of reform options required estimating the number of taxpayers, taxable incomes, nontaxable perquisites, and tax credits—all by income class. This was done by drawing a large random sample of taxpayers and manually recording data on taxable income, tax credits, tax liability, and so forth, from the files on each employer and each individual. The prime minister organized a special survey of employers, which yielded data on the value of nontaxable allowances by income bracket for about 60,000 workers. This was supplemented with a sample survey of a large number of self-employed individuals to determine the extent of evasion by nonreporting.

This analysis reached five general conclusions about the performance and failings of the existing system.

1. *The income tax base had been narrowed dramatically by tax credits, allowances, and various forms of evasion.* More than half of potential individual income tax liability was not included in the tax net in 1983. According to rough (and arguably conservative) estimates, full taxation of allowances and unreported income would have doubled individual income tax revenues. To give some idea of the opportunity cost, this amount would have fully covered the government deficit in 1983.

2. *The income tax system was not as progressive as its legal rate structure suggested.* When measured against statutory income, effective tax rates showed a progressive pattern, but when tax liability was measured against a more comprehensive definition of income—including allowances and unreported income—the progressivity disappeared. The progressivity of the statutory rate structure was all but negated by evasion and avoidance. Movement away from a nominally progressive income tax rate structure, therefore, would probably not compromise income distribution goals.

3. *The system contained substantial horizontal inequities.* Differential tax treatment of individuals in the same income bracket depended on an individual's

ability to conceal income and to receive a larger share of income in allowances. For example, the average tax rate for individuals in the highest income classes ranged from 50 percent for PAYE employees who complied with the tax law to zero for nonfilers, with an estimated average of less than 10 percent.

4. *Inflation raised effective tax rates via bracket creep.* Simultaneously, inflation had an offsetting effect on the vertical equity of the tax because the value of credits declined in real terms and because the increasing tax rate stimulated evasion and avoidance. The three main avenues for escaping the high rates of individual income tax—evasion, allowances, and overtime—were all concentrated in the upper-income brackets.

5. *Marginal income tax rates were high enough to affect work effort, investment, saving, and compliance choices.* Given the distortion in relative prices, this seemed a plausible argument, but there was little hard evidence. On the other hand, there is some empirical support for the argument that higher marginal tax rates are associated with higher rates of evasion and avoidance, even after taking account of the level of penalty rates and the probability of detection (Alm, Bahl, and Murray 1990).

### *Tax Evasion*

Tax evasion, tax avoidance, or reporting income are the choices facing every taxpayer. The 57.5 percent marginal tax rate and the tax component of the various payroll levies were powerful incentives for evasion and avoidance. Opportunities for avoidance were certainly present, and the self-employed often captured these benefits by outright evasion, taking advantage of the Income Tax Department's inability to fully enforce the tax (Alm, Bahl, and Murray 1991c).

To roughly assess the revenue loss from avoidance and evasion, the working population of six professions was estimated: accountants, architects, attorneys, physicians, optometrists, and veterinarians. Based on a random sample of this group, it was determined that only one out of five paid income taxes between 1981 and 1983, and 60 percent did not have an income tax reference number. The revenue loss was about one-half of the total income tax collections for 1983 (Revenue Board 1985). This analysis was extended to nine other self-employed occupations, with similar results. Even with liberal allowances for late filing, we concluded that less than 20 percent of self-employed persons filed a return. Based on this sample, the estimated revenue costs from evasion were on the order of 50 percent of income tax collections (Alm, Bahl, and Murray 1991d).

### *The Reform Program*

The key elements of the 1986 reform program were as follows:[6]

- The credit system was replaced by a standard deduction of J$8,580.
- A flat tax rate of 33.3 percent replaced the progressive rate structure.

- Allowances were included in taxable income with some exceptions.
- The preferential treatment of overtime income was eliminated.
- Interest income was made taxable above a threshold level.

Two important principles drove this proposal. First, as a package of reforms, the individual pieces would make little sense if viewed in isolation. For example, it would not have been politically possible to eliminate the overtime preference without reducing the marginal tax rates. Second, this program would not work without major improvements in administration. It was unrealistic to expect that an announced change in the tax status of allowances and lower marginal tax rates would automatically broaden the income tax base.

*Projected revenue and tax burden impacts.* One can estimate the structural impacts of the reform program by using historical data. At the time this proposal was being evaluated, the hypothetical question was: What would have happened had these reforms been implemented in 1983?[7] The results showed that the proposed system would have reduced average taxation from 14.5 to 9.8 percent of taxable income for those who actually paid income taxes in 1983 (Revenue Board 1985). Enactment of the full program would have led to a revenue loss equivalent to 26 percent of revenues. The distribution of tax burdens would have been more progressive because the impact of the interest tax, the taxation of allowances, and the relatively high standard deduction of J$8,580 would have offset the effects of the lower nominal rates on higher-income taxpayers. The estimated revenue-income elasticity of the reformed system would not have been significantly less than that under the prereform system. This is because the new system is not really a flat rate tax but a two-rate tax—0 and 33.3 percent—and income growth bumps a substantial number of workers into the taxpaying range. The standard deduction of J$8,580 was not indexed, hence average tax rates for all taxpayers would rise as income increased.

The project made out-year projections of the impact of the proposed reform, and compared these with projections for the prereform system. The results suggested that in 1987 the flat rate tax would yield only 7 percent less than the prereform system. The progressivity would be greater under the new system: it was estimated that those in the over J$50,000 income class would face an effective rate of 32.5 percent under the new system in 1987—about twice the effective rate they would have paid under the prereform system. This increased progressivity was primarily due to the tax on interest. The effective tax rate on earnings in all income brackets was projected to drop. Those who would emphasize the potential economic impacts of lower marginal rates on higher-income taxpayers applauded this reduced taxation of earned income, and those who look to the tax system to reduce disparities in the distribution of income were happy with the increase in the average rate of taxation in the top brackets.

*Allocative effects.* Would there be significant investment, saving, and work effort responses to this reform package? Even if the price elasticities of work effort, saving, and income tax compliance were very small (as the evidence suggests), the impact could be substantial because marginal tax rates were reduced so dramatically. At the time the reform program was designed, the project could only speculate on the size of any effects. It seemed plausible to argue that the after-tax return to investors and to increased work effort could be significantly increased. The rewards of outright evasion are lessened, and the upgraded system of enforcement had a better chance for success than a system with higher marginal rates.

The prospective impact on saving is more complicated taxes to assess. Since interest would be brought into the tax base and one-third of the gross return on savings accounts would be taxed away, there would be a reduction in the demand for commercial bank savings deposits relative to equity investments. Moreover, the reform program also removed other preferential tax treatments of investments by eliminating the income tax credits for the purchase of life insurance premiums and unit trust shares. Two responses were possible: (1) all investments would be put on an equal footing, thereby improving the relative attractiveness of purchasing stocks, or (2) the interest tax would encourage avoidance via capital flight, a shift to consumption, or a shift in investment to the more lightly taxed real estate sector. The project relied on a variety of arguments to suggest that the latter effect would not dominate, but in truth, there was no hard evidence.

### *Results of the Reform*

After seven years of experience with the reformed system permit some evaluation of its success might center around the following questions:

- Has it proven to be a sustainable reform?
- Have revenues grown as expected?
- Has administration improved?
- How have economic choices been affected?
- Have equity goals been served?

*Sustainability.* The first question is whether the individual income tax reform of 1986 was sustainable. Did it give way to government pressure to recover lost revenues or restore special preferences to target groups? Jamaica certainly presents an acid test of sustainability, because the new reform had to survive a political campaign and a change of administration. Although the income tax was not a major issue in the campaign, the winning People's National Party made a number of statements during the campaign about its dissatisfaction with the taxation of interest.

In fact, there have been few structural changes in the individual income tax since the 1986 reform and for the most part, these were consistent with the recommendations of the project. In the last year of his administration, Prime Minister Seaga announced an increase in the standard deduction from J$8,580 to J$10,400 effective January 1, 1989.

The project originally had recommended indexing the standard deduction, and the 1989 increase was approximately equal to the general rate of inflation during the period since the reform was enacted. The relief provided through this increase in the exemption was substantial—an estimated 32,000 individuals were dropped from the taxpaying population in the first year. The estimated cost of this program in fiscal year 1989–90 was J$106 million, or about 7 percent of estimated collections (excluding interest) for that year (Bahl and others 1992a, 1992c).

The Manley administration was active in reforming the income tax, and with two minor exceptions, these reforms remained consistent with objectives laid down for the 1986 reform. The standard deduction was increased to J$14,352 in 1992. This increase was less than the rate of inflation during the project. In 1992 the Manley administration also reduced the tax rate to 25 percent. These changes strengthened the reform program by emphasizing allocative effects and setting the stage for a higher rate of the GCT.

The two minor exceptions are a tax-free allowance for productivity worker increases, and a tax-free status for certain bonus payments and gratuities. Since there is little hope for effective monitoring of such provisions, there is ample opportunity for avoidance. Both became loopholes in the income tax system that are only available to some taxpayers.

Perhaps the real test of sustainability of the income tax reform was changes that did not happen. The flat tax structure was retained, the standard deduction was retained, and global base (including interest income) was retained. In fact, the Manley administration passed on the option to abolish the tax on interest income in favor of increasing the standard deduction and lowering the tax rate. Credits were not reintroduced and allowances (fringe benefits) were not expanded. The Jamaican flat tax, therefore, would seem to have passed a fairly stern sustainability test.

*Revenue performance.* Revenues from the individual income tax in the postreform period increased beyond the project's and the government's expectations. After the reform took effect in 1987, the individual income tax share of total GDP ratcheted up from its average level of about 4.6 percent in the 1980–86 period (table 5.3). In the first four years under the reformed system, individual income tax revenues averaged 6.3 percent of GDP. This was in spite of an increase in the standard deduction in 1989. This rapid growth enabled the government to further increase the standard deduction and lower the tax rate in 1992, bringing the individual income tax closer to its historical level of 5 percent of GDP.

There are several reasons for the revenue growth in the postreform period. The Jamaican economy grew and the income-elastic income tax responded. The tax on interest income was more elastic than had been expected. The amount collected from the withholding tax on interest has been equivalent to over 40 percent or more of the amount collected on earned income since 1987.

The conclusion we draw from these trends is that the revenue-increasing impacts of base broadening and simplification significantly

**Table 5.3 Individual Income Tax Revenues**
*(millions of J$)*

| *Fiscal year* | *Pay-as-you-earn sector* | *Individual other* | *Total on earned income* | *Interest* | *Total* | *Percent of GDP* |
|---|---|---|---|---|---|---|
| 1980 | 155 | 16 | 171 | — | 171 | 3.6 |
| 1981 | 206 | 15 | 221 | — | 221 | 4.1 |
| 1982 | 270 | 23 | 293 | — | 293 | 5.0 |
| 1983 | 347 | 25 | 372 | — | 372 | 5.3 |
| 1984 | 411 | 33 | 444 | — | 444 | 4.7 |
| 1985 | 512 | 35 | 547 | — | 547 | 4.9 |
| 1986 | 583 | 44 | 627 | — | 627 | 4.7 |
| 1987 | 640 | 40 | 680 | 256 | 436 | 6.0[b] |
| 1988 | 766 | 59 | 825 | 348 | 1,173 | 6.6 |
| 1989 | 941 | 69 | 1,010 | 429 | 1,439 | 6.7[b] |
| 1990 | 1,141 | 75 | 1,216 | 651 | 1,867 | 6.1 |
| 1991 | 1,489 | 196 | 1,685 | 604 | 2,289 | 5.2 |
| 1992 | 2,390 | — | — | — | 3,411 | 4.7[b] |
| 1993 | 3,408[a] | — | — | — | — | — |

— Not available.
a. Preliminary.
b. Denotes years when discretionary changes took place.
*Source*: Revenue Board and Ministry of Finance data.

outweighed the revenue-reducing effects of rate reduction and a standard deduction. The reformed system gives the Jamaican government an income tax with an elasticity slightly above unity, that is, it grows (and declines) at a slightly greater rate than GDP.

*Allocative effects: Compensation adjustments.* One of the main features of the reform was a broadening of the tax base—the replacement of tax credits and allowances with a standard deduction. However, the broad-base concept did not clear parliament untouched and important loopholes remained in three areas. The first is specifically outlined in the legislation. Housing allowances, one of the more prominent abuses of the prereform system, are permitted as nontaxable income if certain criteria are met. The other two important loopholes are provided at the discretion of the income tax commissioner. A nontaxable allowance for an automobile provided by an employer is permitted. The amount is calculated according to a schedule that relates the allowance to the engine displacement in cubic centimeters of the automobile.[8] The third, also given at the discretion of the commissioner, is a uniform allowance. This provision was originally intended for occupationally required uniforms, for example, policemen, but has been extended to cover business suits in some cases.

The first two allowances benefit primarily the higher-income classes, while the latter is a more general form of income tax relief. As experience with the new system has grown, clever tax avoiders have devised new schemes to beat the system.[9] There has been no significant move to expand the list of allowances, probably due to the reduced tax rate. On the other hand, there has not been a significant push to tighten enforcement on these perquisites. The income tax department, for the most part, accepts the declared amount of allowances.

The magnitude of distortions created by these loopholes is not known. Income tax reform should have resulted in a significant adjustment in the compensation package for PAYE employees—away from allowances and toward wages and salaries. However, as pointed out above, the remaining loopholes could dampen the propensity to convert allowances to wages. Unfortunately, there are no readily available data that will enable us to test these hypotheses.

To study the initial compensation adjustments, the project drew out a 5 percent sample of PAYE firms and government agencies and then sampled 20 percent of the employees. An inspection team headed by a senior auditor visited each firm/agency and recorded the wage and allowance particulars for each sampled employee. The data were taken for November 1985 before the reform was enacted, and for May 1986, after most firms had converted to the new system. The results of this sample survey are revealing (Wasylenko and Riddle 1987).

- Before reform, allowances were equivalent to an average of about 22 percent of total compensation. However, the tax reform led to a short-run base expansion of only about 7 percent because some allowances remained untaxed.
- An initial adjustment to the reform was for allowances to migrate to other categories, particularly uniforms.
- During the adjustment period, average wages increased by 19.9 percent, average allowances by 17.4 percent, and inflation by 11.6 percent.

One might discount these results on the grounds that it was too soon to measure the impact of the reform in May 1986. The other possibility is that these data do tell the true story—that allowances will not be brought fully into the base until the loopholes are closed. It does seem clear that base broadening alone does not explain the substantial revenue increase during 1986 and 1987. When the microsimulation analysis was redone with a 1988 sample, the results showed that nearly 60 percent of all allowances were untaxed, and that bringing all allowances into the base would increase revenues by about 13 percent (Bahl and others 1992a).

*Administrative dimensions.* One tenet of the reform program was that a simpler income tax structure would make administrative improvements possible, and that the reduced rates would remove some of the incentives to evade and avoid taxes. Since nonfiling by the self-employed was estimated to be the primary source of evasion, one test of the reform is whether there has been an increase in the share of total collections from non-PAYE taxpayers. The data in table 5.3 indicate that this has not been the case. For most of the 1980s, collections outside the PAYE sector were equivalent to 7 percent of PAYE collections. The rewards for evasion may have fallen and the avenues for avoidance may have been closed down after 1986, but the self-employed do not appear to have been drawn into the tax net. As of 1991, only 3.8 percent of the estimated 70,000 self-employed workers filed a tax return. This points to enforcement as a continuing bottleneck to a more revenue-productive income tax. From this information, one can only conclude that there is no strong evidence that a major enforcement push on the self-employed has accompanied the structural reform.

## Payroll Taxes

Five payroll tax programs use wages as the base for the tax or contribution (Alm and Wasylenko 1991). These include the education tax, the Human Employment and Resource Training Trust Fund, the National Housing Trust, the National Insurance Scheme, and the Civil Service Family Benefits Scheme (CSFBS). The latter three have a tax element, but can be viewed as contribution programs because individuals are entitled to benefits in some proportion to their contribution. The education tax and HEART are surcharges levied on the individual income tax. In total, these payroll tax contributions generated sizable revenues, equivalent to roughly half of individual income tax collections in the mid-1980s.

### *The Programs*

The education tax was established to advance educational goals; however, collections from the tax go into the general fund. The base of the tax is total earnings, that is, there is no ceiling above which income is not taxed, and there is no floor. Until 1989, the employee and the employer were each taxed at the rate of 1 percent of wages, and self-employed persons were taxed at the rate of 1 percent. Education tax revenues were equal to 6.5 percent of individual income tax revenues in fiscal year 1989. In 1989 the rates were increased to 2 percent for individuals and 3 percent for employers, and revenues increased to 3.5 percent of total tax collections (see table 5.2).

The HEART Fund was established in 1982 by the Human Employment and Resource Training Act to develop employee training schemes. Private sector employers whose monthly payroll exceeded J$7,222 were required to pay a 3 percent tax on total gross emoluments of employees. Unlike the education tax, HEART payments are deposited in an account earmarked for use by the Trust and do not go into the general fund. During 1984–85, revenues from the HEART tax were about 4 percent of individual income tax revenues. By law, compensation in the form of allowances should be included in the base for both the education tax and HEART; in practice allowances are not taxed.

The National Housing Trust was established to improve the existing stock of housing. To accomplish this, the Trust imposes a contributory rate on the wages of workers, and then uses these contributions to finance a variety of housing benefit programs. For an employed individual, the legal tax base is gross emoluments; the employee pays 2 percent and the employer 3 percent. The self-employed pay 3 percent of gross earnings, and domestic workers pay 2 percent of gross earnings. Allowances are in principle subject to the contribution, but in practice are excluded. An individual is exempt if annual wages are less than the minimum wage of J$3,120 per year. An employee's contributions entitle him to a variety of benefits, all of which are related to the amount of his contributions. Employee, but not employer, contributions are vested with the employee. In 1988 NHT revenues were equivalent to 20 percent of income tax revenues (excluding revenues from the tax on interest).

The NIS is a funded social security system. Contributors are entitled to a variety of benefits, which are based on past contributions. In 1987 total contributions were just over J$82 million, and the NIS Trust Fund generated income of J$124 million. The contribution rate for PAYE and self-employed workers is 5 percent of weekly gross earnings between J$12 and J$150 (split equally between the employee and the employer in the case of PAYE workers).

The CSFBS is a forced insurance scheme for some government employees. All persons in pensionable offices must contribute. In practice, coverage is limited and less than 25 percent of government workers participated in 1985. A contributor must pay in 4 percent of total salary. It was not possible to obtain detailed data for contributions and earnings under this program. It appears that revenues have grown erratically, and that contributions were only about J$2.2 million in 1983.

### *Problems and Proposed Reforms*

There were (and are) two major problems with structural reform (Alm and Wasylenko 1991; Bahl and others 1992b). The first is the narrow base on which the payroll taxes are levied and consequently the high nominal rates of tax that must be imposed to reach the revenue target. The second problem is that the administration is fragmented and there is little integration or even communication among the five programs. There are five separate recordkeeping systems, each with its own audit program, and (except for the education tax) each is responsible for assessment and monitoring collection efficiency. Compliance with the education tax is monitored by the Revenue Board, but in the past, only two people have been assigned exclusively to this task. NHT and NIS officials have the authority to audit company records and to obtain income tax information, but their compliance staffs focus primarily on the internal consistency of the records. The monitoring division of the HEART Trust Fund looks mainly at the training capacity of participants. And for all of these programs, almost no attention is given to bringing the self-employed into the payroll tax net.

The project made concrete recommendations for a reform of the payroll tax system to accompany reform of the individual income tax. The general thrust was that payroll tax reform should concentrate on simplifying the system, broadening the tax base, and lowering rates, as well as overhauling the administration of these five taxes. As a first step, it was recommended that the education tax be abolished as a separate payroll levy. To protect revenues, if necessary, this would have required an estimated increase in the individual income tax rate from 33.3 to 35 percent (in 1986).

HEART is a more difficult case because one might argue the benefits principle as a justification for financing worker training with an employer tax on private sector payrolls. Alternatively, it might be argued that the benefits of such a program are economywide, which makes it a better candidate for general fund financing than for earmarking. Moreover, the burden of employer payroll taxes may be shifted onto employees, and this would not place the burden for financing HEART where the government wants it. In general, the inclusion of these levies in the general income tax would improve the horizontal equity of the system because the income tax base is more comprehensive than the payroll tax base. It would also improve vertical equity because interest income would be taxed and the standard deduction would not.

The project urged the government to consolidate the administration of the two largest contribution programs, NIS and NHT. Centralized assessment, audit collection, and recordkeeping could lead to substantial reductions in administrative costs and in compliance costs. This consolidation, along with a simplification of the rate and base structure of the two taxes, would make enforcement easier and give officials more time to concentrate on bringing the self-employed within the payroll tax net.

If the base of the payroll taxes could be broadened, the rates could be lowered. Elimination of the ceiling on NIS contributions and taxing allowance income were seen as the most likely routes. With only these base-broadening measures, the combined tax rate on payrolls for the four remaining programs could have been reduced from 11.4 to 10.4 percent of compensation in 1986. Elimination of the education tax would have further reduced this average rate to 8.8 percent. With a stronger enforcement program to increase contributions from the self-employed, the rates could have been dropped even further.

### *The Postreform Period*

Payroll taxes had not been restructured at the time of the income tax reform in 1986, so the rate of payroll tax contribution was frozen in absolute amount at 1985 levels. This had a number of consequences:

- There was a revenue loss because the income tax base grew dramatically during the immediate postreform period.

- The value of benefits to CSFBS, NHT, and NIS enrollees was compromised.
- The overall regressivity of the tax system increased because payroll taxes do not allow a standard deduction. Even those families whose income tax liability was wiped out by the introduction of the standard deduction in 1986, or its increases in 1989 and 1992, had no reduction in their payroll tax liability.

The failure to reform the payroll tax system compromised the spirit of the income tax reform. Payroll taxes are perceived as income taxes in the mind of the Jamaican worker, who reads the amount of deductions on his pay slip every week. However, payroll taxes have separate rate, base, and administrative structures, and consequently create different equity, efficiency, and elasticity impacts. In some cases they offset rather than reinforce the goals of the income tax reform. Most important in this regard is that the payroll tax system makes the taxation of income more complicated, increases the tax burden on the lowest-income workers, and provides a substantial incentive to tax evasion.

Why did the Seaga administration not move to reform the payroll taxes at the time of the 1986 and 1987 income tax reforms, or even later? In the case of the CSFBS, NHT, and NIS contribution programs, part of the answer was that much administrative preparation work needed to be done, and that the benefits side of the program needed a thorough review. Then there were the political issues associated with merging the programs and bringing them under a more uniform and centralized scrutiny.

The education tax and HEART are a different story. Both are pure revenue raisers, and to abolish them would have meant looking elsewhere to make up the lost income. The administration felt that raising the income tax rate above 33.3 percent would have compromised its political acceptability, even though the trade for elimination of the education and HEART taxes would have significantly lowered the overall regressivity of the system. An increase in consumption duty rates was out of the question, and the general consumption tax (GCT) was not introduced until 1991. Finally, the Seaga administration had by now been associated with taxation for nearly four years, and with an election approaching its attention had shifted to the expenditure side of the budget.

The Manley administration was active in the payroll tax area. In 1989 the rate of education tax was increased from the previous levels of 1 percent each on employers and employees, to 3 percent on employers and 2 percent on employees. Revenue tripled between 1988 and 1989, as shown in table 5.2. However, the education tax remains an income tax in disguise. As noted above, it is more regressive than the general income tax because it allows no standard deduction. Moreover, because it increases the rate of tax on payrolls, it may discourage the growth of labor-intensive activities. The fact that the government has not reformed payroll taxes is one of the major failures of the tax reform project.

## Company Income Taxation

The company income tax has been a reliable, growth-responsive source of revenue. In the years prior to the reform, however, the structure of this tax has come under scrutiny because of preferential treatment, the absence of any mechanism to adjust taxable profits for inflation, and the separate treatment of a company and its shareholders.

### *Rate and Base Structure*

Before the 1987 reform, the company income tax was levied at a basic rate of 35 percent on chargeable income. In addition, there was an additional company profits tax of 10 percent levied on the same base. Companies were required to withhold tax of 37.5 percent of the value of dividends paid, but could credit these withholdings against ACPT liability. Wozny (1991) estimates that companies that distributed 40 percent of their pretax profits would recover all of the ACPT they had paid on these profits. ACPT credits could be carried forward indefinitely.

The tax base was defined in much the same way as that in other developing countries, with at least the same degree of complexity. Jamaican law permitted deductions for capital allowances rather than book depreciation. Enterprises may claim a prescribed initial allowance[10] and an annual deduction computed on a declining balance basis against historical cost. Inventories are valued using the first in, first out (FIFO) method. Losses can be carried forward for five years but there is no provision for loss carrybacks. Capital gains on the sale of shares listed on the Jamaican Stock Exchange are not taxed.

There are many exceptions to this basic treatment. Financial institutions are taxed under a separate and very complicated regime, as is the case in most countries (Martinez-Vazquez 1991; Brannon 1991). Separate incentive legislation provides a different rate and base of tax for incentive companies (Thirsk 1991), and preferential treatment is given in the taxation of public enterprises (Davies and Grant 1991). Some resident shareholders are given special relief on the taxation of dividends, and dividends paid to nonresidents may be subject to a special withholding tax rate. Before the reform, the company income tax was very complicated and very difficult to administer. Reform removed some but not all of these complications.

The company tax declined from about 20 percent of taxes to 16 percent over the 1980–85 period, even though there was a substantial reduction in the payment from bauxite companies (see table 5.4). The revenue yield from the company tax was unstable through the first half of the 1980s, but the general trend was downward because administrative improvements and collection campaigns could not offset the loss in revenues from the

**Table 5.4 Company Income Tax Revenues**
*(millions of J$)*

| *Fiscal year* | *Revenues* | *Percent of total taxes* | *Percent of GDP* |
|---|---|---|---|
| 1980 | 158 | 19.0 | 3.3 |
| 1981 | 210 | 22.5 | 4.0 |
| 1982 | 242 | 21.2 | 4.1 |
| 1983 | 293 | 20.0 | 4.2 |
| 1984 | 236 | 17.0 | 2.5 |
| 1985 | 364 | 15.7 | 3.3 |
| 1986 | 547 | 19.5 | 4.1 |
| 1987 | 597 | 12.4 | 3.8 |
| 1988 | 488 | 11.5 | 2.8 |
| 1989 | 623 | 12.8 | 2.9 |
| 1990 | 689 | 13.3 | 2.2 |
| 1991 | 1,280 | 11.2 | 2.9 |
| 1992 | 1,635 | 14.2 | 2.3 |

*Source:* Revenue Board and Ministry of Finance data.

bauxite companies and the downturn in the economy. Tanzi's (1987a) comparative analysis for the 1980s shows that Jamaica relies less on the company income tax than do other countries at a similar income level.

### *Problems and Reform Needs*

The view at the outset of the tax reform project in 1983 was that restructuring of the company tax was essential. The rate and base structure were not totally compatible with the economic policies of the new administration, and revisions of other taxes would change the way the company tax fits into the total system. In particular, the tax structure was biased in favor of certain types of investment decisions (for example, debt vs. equity) and certain types of firms (for example, incentive firms and some public enterprises). The major problem was its complexity: this imposed a high compliance cost on payees and a high administration cost on the government.

*Complexity and administration.* The company tax was not easy to administer because of its special rate and base structure. These problems were magnified by a shortage of skilled staff and outmoded operating procedures. Such administrative difficulties not only raised costs, but also led to arbitrariness in assessing the tax base, and inevitably to some unfairness in the way different firms were treated.

Two good examples of how a complicated structure can compromise administration relate to capital consumption allowances and inventory valuation. The system of capital allowances was quite complex (and was not changed by the 1987 reform). There are numerous schedules for different asset types, special allowances for different industries, and incentive laws that provided special treatment to both favored industries and favored types of assets. Income tax officers spent too much time classifying taxpayers at the cost of too little time on book audits, with the result that monitoring was lax. Compliance costs, in one form or another, are also raised by such a complicated system. Large enterprises make use of accounting firms to assist them in compliance, but smaller enterprises can less easily take advantage of the available compliance options. This introduced an unintended but potentially important nonneutrality into the system.

The other example has to do with valuing inventories. The law required that inventory be valued at the lower of cost or market value, and most firms used the FIFO method for determining the cost of their sales. However, some large firms had shifted to the last in, first out (LIFO) method, which had neither been sanctioned in the courts nor approved by the commissioner. Others avail themselves of even more advantageous approaches, such as writing off stocks that are over a certain age and excluding the proceeds of their sales from chargeable income. These practices went unchallenged because the Income Tax Department lacked an effective audit branch.

*Inflation*. Brisk inflation during the prereform period in concert with the present tax structure drove up real company tax rates, influenced investment choices, and provided additional incentives for tax avoidance and evasion. The law contained no provisions for infiation adjustments, except for the crude 20 to 90 percent approximation of an initial first-year allowance.

Under inflationary conditions this approach led to understated capital consumption (to a differential degree for assets of different lives) and FIFO accounting understated the cost of goods sold. Both practices caused profits to be overstated and dampened the rate of investment. Wozny (1991) demonstrated that the effective tax rate on an equity-financed capital investment in a basic industry increased from 42 to 60 percent when the inflation rate was 10 percent higher.[11]

Because the effects of inflation may also work in the direction of overstating profits, firms were given an incentive to adjust their financing structures. Inflation caused a decline in the real value of corporate debt, which resulted in untaxed gains that varied among companies according to the degree to which they issued debt. The deductibility of interest expenses under the previous system allowed a firm to compensate for the fact that capital allowances were not indexed, by substituting debt-for-equity financing of its capital assets. In the example of the capital investment presented above, the effective tax rate would actually have been lower with a 10 percent higher inflation rate if 80 percent of the investment had been debt financed.

Finally, the availability of three important avenues of tax avoidance—the preferential tax treatment of incentive activities, interest income, and capital gains—encouraged enterprises to undertake tax arbitrage, or transactions whose sole purpose was to achieve a reduction in tax liability. Avoidance techniques observed were revaluation and sale of assets with leaseback arrangements, revaluation and sale of assets with a distribution of the (nontaxable) proceeds to shareholders, and the leasing of capital equipment by incentive firms to affiliated nonincentive firms.

*Debt-equity choice.* Like most countries in the world, Jamaica taxes distributed and undistributed corporate profits under the company tax and dividend income under the individual income tax. The method by which the prereform system provided relief from double taxation of dividends (the ACPT) was complex and only partial. Interest expenses were deductible and, before the 1986 individual income tax reform, interest income received by individuals was exempt. This tax structure was widely criticized on grounds that it biased investment decisions in favor of debt and against equity investments. This, it was argued, led to thin capitalization of corporations, inhibited the development of the domestic capital market, and created horizontal inequities, that is, investors paid different amounts of tax depending on their portfolio composition.

The 1984–85 tax system was in fact horizontally inequitable and did favor debt-financed investment but this had nothing to do with a lack of dividend relief. It was due to the fact that borrowers were able to deduct nominal interest payments from their gross book income, whereas true economic income would have been computed by deducting only payments of real interest (Wozny 1991). The tax penalty on dividends that existed under the 1984–85 tax system was due to the overly favorable treatment of retained earnings, not to an overtaxation of distributed earnings.

Perhaps because the impact of the system had not been fully understood, there had long been a movement to remove the company tax bias between debt and equity finance. The focus in these proposals was on removing the double taxation of income. The Private Sector Organization of Jamaica (PSOJ) called for integration in the 1970s, but predictably did not propose that the undertaxation of capital gains be corrected. In 1979 the IMF studied the company tax and concluded not only that the existing system was effective in inducing corporate retention but that this was beneficial. The government agreed with this conclusion and it did not change the basic structure of tax, but it did lower the ACPT from 15 to 10 percent. The possibility of indexing depreciation or interest deductions was not seriously considered.

Even with respect to the narrow question of the double taxation of dividends, it is not clear how much economic loss resulted from distortions introduced by the system. One could take the position that these price effects either were not significant or that they were offset by some other distortion. With respect to the latter, consider that the bias in favor of debt was to some extent offset by the absence of a capital gains tax on securities traded on the Jamaican exchange. Moreover, all dividend recipients were not being subjected to double taxation. Less than 10 percent of the self-employed—a large proportion of those expected to face marginal tax rates in excess of the withholding rate of 37.5 percent—even filed a return.

The integration issue was raised again in connection with the comprehensive tax reform project. The Seaga economic program called for elimination of those features of the tax system that discouraged investment and called for the development of a domestic capital market. Moreover, the 1986 individual income tax reform forced reconsideration of the issue because the company tax rate and the withholding rate of 37.5 percent on dividends were now above the maximum individual rate of 33.3 percent.

### *The Reform Program*

The broad objectives of the company tax reform called for by the project and stated by the prime minister (Revenue Board 1985) were to simplify the present rate and base structure, remove the differential tax treatment of debt and equity finance, and provide effective investment incentives. The Tax Reform Committee took this charge to mean developing a simpler system and eradicating disincentives to investment and biases against equity finance.

There were several important constraints. An initial challenge was to assure revenue neutrality. This requirement was later relaxed, but it was clear that any proposal that carried too great a revenue loss would have no chance. Second, the new system would have to work within the existing administrative capabilities of the income tax department. Administrative improvements would come with a simpler, more rational system and with a better training program for the tax administration service, but these improvements would not be available immediately. The administrative constraint ruled out reforms such as inflation indexing of capital allowances. Third, the reformed system of taxing companies and dividends would have to fit the new individual income tax structure. This almost certainly meant a general rate reduction in the company tax. Fourth, the reform would have to be sensitive to the politics of detaxing the business sector. This ruled out disallowing deductibility of interest expenses or exempting dividend income from individual income tax.

*Proposed changes.* The most important component of the proposed reform was to reduce the tax rate from 45 percent (including ACPT) to 33.3 percent. The project and the Tax Reform Committee further recommended that dividend distributions to residents be exempted from individual income tax. A strong argument in favor of this proposal was that the system would be greatly simplified, and thus easier to assess and monitor. There would be a 33.3 percent tax on companies and no withholding on the personal tax liability of their shareholders.

More important, this reform program would reduce the tax incentive to employ debt. Along with the rate reduction and the proposed elimination of the transfer tax on capital gains arising from the transfer of corporate shares, it would all but eliminate the tax disincentive to distribute earnings. Both distributed and retained corporate income would be taxed at the same rate as any other income. In other words, full tax integration would be achieved for resident Jamaicans. The new flat rate individual income tax would permit this without a complicated imputation and credit mechanism. The strongest argument in favor of either integration or dividend relief is that higher rates of corporate profit distribution would improve the allocation of capital by subjecting investment decisions to the test of the market.

It was also proposed that the withholding tax on nonresidents be retained, and that branch and subsidiary firms be placed on a comparable tax basis. The magnitude of the basic rate reduction meant that the overall tax borne by foreign investors would be lower than it had been under the existing system and lower than the taxes levied by Jamaica's closest competitors in the region. Most foreign investors would receive a real tax benefit from the elimination of the withholding tax (it would not simply have resulted in an offsetting increase in their home country tax liabilities), but the line between investment attraction and revenue sacrifice had to be drawn somewhere.[12] It was decided that the greatest efficiency gains would be achieved by lowering the basic corporate rate.

To reduce the bias against risk taking a three-year carry-back of operating losses and an unlimited carry-forward was proposed. This proposal to consolidate returns was rejected because of its bias in favor of larger established enterprises, the administrative complexities involved, and the implied revenue loss.

The proposed reform was not compatible with existing industrial policies. A general rate reduction is not targeted, that is, the lower rate is available to all firms, and not just to those favored by industrial policy. This is inconsistent with the approach taken under the incentive legislation, where only approved firms are eligible for tax subsidies. The spirit of the targeting approach would have been to invest an amount equivalent to the company tax rate reductions in tax holidays for an expanded list of approved firms.

Despite its view that a targeted industrial policy was ill advised, the project held that scrapping incentive programs would be ill advised. Most competitor countries give comparable subsidy packages, and withdrawal by Jamaica could be viewed as a less hospitable business climate. Jamaica's political climate was considered risky by some investors, and its economy had only recently shown signs of reversing a long-term decline. It was not considered a good time to take actions that might shake investor confidence.

A middle ground articulated by Thirsk (1991) called for restructuring the incentives program; namely, to adjust other fiscal policies to strengthen rather than offset the attraction of Jamaican incentives. Among the possibilities were the following:

- Tax incentives could target investors whose home countries have negotiated tax treaties containing tax sparing clauses. In countries without such clauses, the United States, for example, tax incentives may represent little more than a transfer to the foreign treasury.

- Tax incentives could be replaced with expenditure subsidies for infrastructure development. This could be especially effective for investors whose home countries deny tax sparing.
- Criteria for choosing eligible firms could be redesigned to remove the bias in favor of capital-intensive activities.
- Income tax returns of all incentive firms could be audited and the effectiveness of the program continuously monitored.

*Adopted changes.* The tax authorities adopted the recommendations to reduce the company tax rate to 33.3 percent, abolish the ACPT, and retain the withholding tax on dividend payments to nonresidents. Branch and subsidiary firms were given equal tax treatment, subject to administrative problems of valuing branch profits, and an unlimited loss carryforward was adopted.

They rejected the proposal to exempt dividends from personal tax liability and decided instead on a separate entity approach whereby company profits and dividends would each be taxed at 33.3 percent, the latter under a withholding system. In doing so the government passed by the opportunity to fully (and simply) integrate the income tax.

Why would the government forgo the opportunity to integrate the income tax? One reason given was that the government was in a crucial stage of its negotiations with the IMF and was under pressure to minimize the revenue cost of the reform package. The full program would have cost an estimated J$98 million in fiscal year 1987, an amount equivalent to less than 20 percent of company tax revenues, and about 2.6 percent of total tax revenues. This would not have been a big revenue loss. A more likely explanation is political; namely, that the JLP did not want to be perceived as the party of the "big man." The government was still being criticized for the taxation of interest income introduced along with steep cuts in the marginal personal income tax rates the year before. There also was the problem of explaining the difficult concept of integration to the public such that they fully understood that the exemption of dividend income and the taxation of interest income represented equivalent treatment.

Wozny (1991) modeled the economic impact of the reform, with specific concern for the integration issue. Corporate income would bear a lower overall tax burden than it had under the prereform system but, because the tax burdens on other forms of income would have been reduced by a greater degree, corporate-source income would still be relatively disadvantaged, especially when distributed. The end result of this discrimination would be a lower supply of funds for equity investments, compared to what would have existed if the full integration proposal had been adopted. The 1987 tax system would also discourage the distribution of earnings to resident shareholders to a greater degree than the prereform system. Wozny (1991) estimated that this reform would lead to a reduction in the payout rates of widely held companies from about 0.32 to between 0.23 and 0.26.

The lowering of the corporate tax rate from 45 to 33.3 percent in 1987 increased the posttax return on corporate investment, and stimulated growth in the sector and the demand for corporate equities. However, the imposition of a higher tax penalty on dividends impeded the flow of investible funds out of established, widely held companies and into the hands of investors who presumably would have found the highest returns available for these funds. Even though both the corporate and personal tax rates are lower than they were before 1986, the retention of full double taxation of distributed corporate income is inconsistent with the government's long-range economic strategy, which calls for a reallocation of resources out of the low-return import substitution sector into the higher-return export promotion sector.

*Revenue performance.* The short-run revenue loss associated with the rate reduction was realized in fiscal year 1988, during the first full year of the reform. Revenues actually increased 3 percent in nominal terms, which actually translated into a reduction in the effective rate of taxation from 3.8 percent of GDP in 1987 to 2.8 percent of GDP in 1988 (table 5.4). The effective rate has remained below 3 percent since that time. The company income tax after reform is as cyclical as before, but appears to play less of a role as a revenue raiser. Apparently, the aggregate effect of the income tax reform was to shift the onus of payment from companies to individuals.

*Sustainability.* The company tax reform and the objectives of a lower tax rate, or simplification of the tax structure, appears to be sustainable in that neither the Seaga nor the Manley administrations proposed changes. Implicitly, this suggests some degree of support for an industrial policy that provides a generally lower tax rate for all companies, rather than lower rates for some companies at the expense of others. There was one bit of backsliding in a ministry paper issued by the Seaga administration in May 1988 in a proposal to provide a tax credit to any firm that expanded its equity base from its own profits through the issuance of bonus shares. This tax credit would have been difficult to monitor and its revenue cost would have been paid by other taxpayers in the form of a higher effective tax rate. In general, this proposal, which was eventually rejected, went against the spirit of the reform program in that it narrowed the tax base, implied an increase in the nominal rate for nonbenefiting firms, and complicated the tax structure.

## Indirect Taxes

The history of changes in the structure of indirect taxes in Jamaica has been one of piecemeal adjustments to cover annual revenue shortfalls. As a result, underlying problems within the system have persisted or even worsened. The conclusion reached by virtually all who have studied the system was that it should be replaced with a general sales tax (Due 1991a). The project and the Tax Reform Committee reached the same conclusion (Bird 1991a).

The prereform indirect tax system included five separate taxes (Due 1991b). From a revenue standpoint, the most important was the consumption duty levied on the value of imported and domestically produced goods and collected at the import and the manufacturing stage. Excise taxes on alcoholic beverages, cigarettes, and petroleum accounted for significant revenues, but the retail sales tax yielded only a small amount. Domestic revenue from these taxes represented about 40 percent of all indirect tax revenues, 20 percent of all tax revenue, and 5 percent of GDP in 1983. Two other taxes levied on the import base were the customs duty and stamp duty on inward customs warrants. The customs duty proper was a relatively small revenue source by international standards (less than 10 percent of revenues during the prereform period), primarily because of Jamaica's membership in CARICOM. However, with significant rate increases beginning in 1984, the stamp duty grew to become a major fiscal instrument.

### *Problems*

The Jamaican economy simply outgrew its indirect tax system. The same laws, regulations, and structure designed forty years earlier for the duty on rum and a few other items were now unable to also cover manufacturing activities. Cnossen (1991) described the situation well: "As Jamaica's economy has grown more complex, the administration of its indirect tax system, which is largely based on production checks, has become more cumbersome, impeding the free functioning of business and trade. The inherently fragmented nature of the present indirect system's coverage, its multirate structure, and its complexity may have undesirable economic effects. Its distributional effects are largely undeterminable."

*Complexity.* Administrative problems with the indirect tax system were in part due to its complexity. The five taxes were levied under separate legislative acts, administered by different divisions within the Customs and Excise Department, had different licensing and return requirements and separate recordkeeping systems. Taxable bases were not the same, and the rate schedules were a mixture of ad valorem and specific rates with many fine gradations. Because of this complexity tax officials spent far too much time classifying commodities for purposes of selecting the proper rate. Furthermore, the base was not clearly defined in either the law or the regulations, so tax officials often had to make a notional assessment of the taxable value of an object. The result was that the tax administration service, already understaffed, had much less time to assure compliance.

*Efficiency.* Jamaica's system of indirect taxation did not foster tax neutrality. It distorted the relative prices of consumer goods from what they would have been in the absence of taxation, it gave enterprises an incentive to alter their methods of doing business, and it offered inefficient protection to domestic producers. All of these concerns could be traced to a single underlying problem: the tax base was too narrow. Thus the need for revenue forced high effective tax rates on commodities where assessment and collection were relatively easy. Less than 20 percent of the final consumption of services and less than one-third of gross manufacturing sales were taxed.[13] Domestic value added coverage was thin because the consumption duty was essentially a manufacturer's sales tax and did not reach the distributive sector, small firms, or most of the service sector. Excluding the traditional excise taxes, the average effective rate of indirect taxation on those commodities actually in the base was 3.6 percent in 1983.

Perhaps more of a concern were the distortions potentially introduced by the consumption duty. Because the taxes are levied at the manufacturer and import stage, differential wholesale and retail margins are not recognized. As a consequence, the final tax burden on consumers varied by commodity in unintended ways. Using an input-output table for 1983, Bird (1991c) estimated that the average (pyramided) effective tax rate on inputs was equivalent to 2.4 percent of the gross value of manufacturing output, compared to an average tax rate of 7.8 percent on total manufacturing output. Since the rate of import taxation on raw materials and capital goods was increased substantially after 1983, it is reasonable to expect that the proportion of hidden tax increased.

To what extent does the Jamaican indirect tax system protect domestic producers from foreign competition? The system is not neutral in its treatment of internationally traded and domestically produced goods. Although a large proportion of imported goods previously entered the country tax free, the stamp duty on imported goods was levied at a high rate. Bird (1991c) estimates that imports were taxed at a rate 19 percent higher than that for domestic production in 1983–84. Moreover, consumer durables and capital goods were taxed at significantly higher rates than were other imports. With the shift in revenue reliance from consumption duty (which does tax imported and domestically produced goods at the same rate) to the import stamp duty, the rate of protection increased. To the extent that the tax incentive program favored domestic producers with lower rates for raw materials or outright exemption for intermediate goods, it accentuated this protection.

*Inelasticity.* The revenue-income elasticity of indirect taxes in Jamaica was lower than in most countries. One reason is because the tax base excluded much of the rapidly growing service sector and about 80 percent of all imports. Second, the tax rate structure had not fully shifted from a specific basis to an ad valorem basis, and so was not as automatically responsive to income and price level growth as would otherwise have been the case. Bird (1991c) estimated that over the 1978–84 period, the buoyancy of all indirect taxes approximated unity, while for the consumption duty it was 0.78. Were it not for the discretionary rate and base increases for import stamp duties and traditional excises, indirect revenue growth would not have kept pace with GNP.

*Administration.* The indirect tax system was beset by serious administration problems. As noted above, some of these problems were traceable to the complexity of the system and could be addressed by nothing short of a restructuring of the tax. Beyond this, however, there were important shortcomings in the areas of personnel, recordkeeping, and procedures that would compromise the effective operation of even the best-designed general sales tax.

The major problem was the shortage of qualified staff. Under the prereform system, most of the inspectors lacked sufficient training to audit effectively. The inspection program was also burdened by antiquated operating procedures and the virtual absence of an information system. The ratio of inspectors to accounts was acceptable, but the frequent visits to enterprises were not true audits. Due (1991b) reported that "there is no system of priorities for inspection nor guidelines for the inspectors, no system for them to report their findings, and little supervision." Even in the case of the traditional excises, where administration is relatively more manageable and physical methods of control are used, there was evidence that procedures were inadequate and that qualified staff were in short supply. For example, Cnossen (1991) reported that "consumption duty supervision of the largest beer factory in Jamaica is exercised by only one junior officer, largely on the basis of the brewing book."

### *Revenue Performance*

After 1985 the reliance on indirect taxes increased. By 1988, indirect taxes as a percent of GDP had climbed to over 13 percent, and indirect taxes accounted for 56 percent of all taxes (table 5.2). This represented substantial increases in the import stamp duty and in the consumption duty—in the latter case, particularly on alcoholic beverages, fuels, tobacco, and utilities. As the tariff reform began to take hold after 1988, the revenue from the import stamp duty began to fall. As table 5.5 shows, the split between the share of indirect taxes coming from imports and local goods has not changed markedly since the mid-1980s. The share of indirect taxes in GDP remains above that of the prereform period.

### *Proposed Reform*

The reforms proposed in 1986 and 1987 were to make the indirect tax system more neutral with respect to economic choices, less arbitrary in the way it treats similarly situated individuals and firms, more closely tied to the performance of the economy and less to annual discretionary actions, and more administratively efficient. The major constraints in designing such a reform program were revenue neutrality and protection against increased tax burdens on low-income Jamaicans.

The project proposed a GCT to replace the existing domestic indirect taxes. The proposed GCT had the VAT feature of allowing credit for taxes

**Table 5.5 Distribution of Indirect Taxes**
*(percent)*

| | Taxes on imports | | | Taxes on local products | |
|---|---|---|---|---|---|
| Fiscal year | Customs | Stamp | Consumption duty/GCT | Consumption duty, GCT, SCT, excise taxes | Stamp |
| 1985 | 18.9 | 12.3 | 9.8 | 50.9 | 8.0 |
| 1986 | 17.1 | 26.4 | 6.7 | 41.4 | 8.2 |
| 1987 | 13.0 | 21.9 | 5.7 | 46.1 | 14.2 |
| 1988 | 16.5 | 22.1 | 7.1 | 44.1 | 10.2 |
| 1989 | 23.0 | 17.0 | 7.9 | 41.8 | 10.2 |
| 1990 | 24.2 | 13.0 | 8.9 | 43.1 | 13.1 |
| 1991 | 25.7 | 15.1 | 9.3 | 36.7 | 13.2 |
| 1992 | 29.3 | 7.0 | 7.2 | 43.6 | 12.9 |
| 1993 | 26.8 | 1.7 | 15.6 | 45.6 | 10.3 |

*Source*: Revenue Board and Ministry of Finance data.

paid on inputs and was to be levied on importers, manufacturers, and large distributors. It was broad based,[14] and had a simple rate structure—most goods would be covered under a single general rate and some would be subject to a single luxury rate. The project also supported the possibility of bringing the import stamp duty into the GCT, but a higher GCT tax rate would be necessary, at least temporarily, to protect revenues (Bird 1991b).

The introduction of the GCT with its VAT feature would provide exporters (who would be zero rated) with an automatic rebate for taxes paid on inputs. This was preferred to giving rebates to exporters based on the estimated import content of their exported output, or on the value of exports. The proposed basic rate structure of the GCT—a single basic rate and (possibly) a luxury rate—was consistent with the goals of giving equal tax treatment to imported and domestically produced goods, and discouraging nonproductive uses of foreign exchange. Finally, the proposed GCT fit the government's policy of broadening the indirect tax base.

It was proposed that taxes on alcoholic beverages, cigarettes, and petroleum products remain unchanged in order to protect revenue and minimize disruptions associated with the administrative transition and the potential short-run revenue losses. Accordingly, only about 30 percent of collections from the consumption duty, retail sales tax, and excise duty would initially come under the GCT. The project recommended these taxes be included eventually.

Despite the recommendations of the project and the Tax Reform Committee, the GCT implementation was delayed for a number of reasons: the proper administrative machinery was not in place, inspectors had to be trained, firms registered, and a recordkeeping system designed. An organizational structure for assessment was needed, collections and appeals had to be decided on and put in place, and a taxpayer awareness program had to be completed. These are important issues and the world is full of instances where tax reforms have not succeeded, precisely because an administrative infrastructure was not in place before the tax became effective. Some observers feared that the GCT would be inflationary—or at least jolt prices with a onetime increase—and affect the market prices paid by lower-income families. This fear was compounded by the reasonable (and with hindsight, well-founded) expectation that a devaluation was probably not far off. With an election around the corner, the administration was especially concerned about any public policy that would potentially increase the price of consumer goods.

Unfavorable revenue consequences was another important reason why the implementation of the GCT was delayed. The project, the Tax Reform Committee, and the Seaga administration believed that there would be a transitional revenue loss because of administrative difficulties, and the government felt that it would be politically dangerous to set a high rate (recommended by the project) to provide an effective margin of safety. Moreover, the World Bank, as part of their lending program, had outlined a tariff reform that would significantly reduce revenues from customs and the import stamp duty over a four-year period.

Three other important considerations slowed the implementation of the GCT. The proposed export rebate scheme described above may have pleased exporters less than the previous drawback system. This kept pressure off the government to find a way to simplify the indirect tax system and to credit producers for taxes already paid on inputs. Another issue was the relaxed external pressure to complete the tax reform. Once the World Bank reached agreement with the government on the tariff reform and the export rebate, it withdrew its condition that the GCT be implemented in the following year. Finally, the Seaga administration had grown weary of treating tax policy as its political platform, and was ready to move on to more popular expenditure programs.

### *Actual Reforms*

Despite these reasons for delay, there seems never to have been any question that there eventually would be a GCT. By the end of 1989, the Manley administration had announced its intention to enact the GCT, and the tax became effective October 1991.

The GCT was introduced with a general rate of 10 percent. The rate was lower than the project estimated as a revenue-neutral rate because the (former) stamp duty was merged with the GCT.

No special rate was set for the taxation of services. The taxation of items at a single rate under the special consumption tax was not enacted. Although administratively the taxation of these items is listed under a heading of special consumption taxes, the rate structure for these items was not altered from the former excises taxes. The final law allowed for the following categories of exemptions and zero ratings: agriculture inputs, books and newspapers for education, expenditures by diplomatic organizations, export goods and related services, foodstuffs, government (bauxite treated like the government), health supplies, miscellaneous, and religious organizations.

The government opted to allow a transitional stock-in-trade credit scheme, with credit given as an allowance for preexisting indirect taxes paid by establishments on material inputs held as inventory by firms at the onset of the GCT. The law became effective October 22, 1991. In 1993 the tax rate was increased to 12.5 percent.

*Impacts*

It is too early to tell whether the long-term yield of the GCT will meet expectations, but early indications are of substantial revenue productivity. It was expected that transition would have reduced the revenue productivity of the GCT for at least a five years by comparison with the consumption duty. These transition issues include the choice of a 10 percent rate, the adaptation of the administration, and the transition credits. However, as may be seen from table 5.2, the revenue productivity of the GCT has been strong, and by 1993, it accounted for 31 percent of revenues (including the special consumption tax) as compared with 34 percent for the combined consumption duty, excise, and stamp duty in 1991.[15]

## Property Tax

The political sensitivity to property tax policy is far out of proportion with the amount of revenue raised. Its problems are not primarily structural.[16] In fact, the tax system itself is one that, properly implemented, could serve as a model for other countries. However, for a number of years, the government has been unwilling to levy the tax according to the intention of the law, with the result that it yields negligible revenue and distributes its burden unfairly.

*The System*

The base of the property tax is the unimproved market value of land, that is, the value of land as it would be if there were no structures on the site.[17] The valuation roll is supposedly updated every three to five years, though in practice updating is much less frequent. There are three important classes of preferential treatment: agricultural properties, hotel properties, and low-value properties. In effect, Jamaica has a classified property tax with lower rate schedules for agricultural and hotel properties.

About 60 percent of Jamaica's 550,000 parcels have land values less than J$2,000 (about US$500 in 1984) and are subject to a nominal property tax charge of J$5 per year. The remaining properties are taxed according to a progressive rate structure in terms of land value, rising to 4.5 percent on a site value of J$50,000.

Revenue from the property tax has fallen over the past decade from a little over 5 percent of total revenues to about 2 percent (table 5.2). This decline has occurred principally because of the failure of government to revalue on a regular basis. The property tax is a central government levy, and local governments have no influence over the rate or base.

*Problems*

There were two problems with the property tax. The first grew out of the failure of the government to bring in a new valuation roll between 1974 and 1986, and the second arose from inadequacies in the day-to-day administration of the tax. More debatable as problems are whether the progressive rate structure discouraged compliance and whether the improved value of property (land and structures) would be a more appropriate base.

Before the 1986 reform, the tax base was the 1974 value of sites. Because this base was fixed for over a decade, the yield from the property tax had fallen to a negligible revenue position. This lack of buoyancy created a number of problems:

- The low revenue yield put that much more pressure on other taxes to carry the revenue load.
- Landowners were undertaxed relative to labor and owners of capital. This discriminatory practice fit neither the economic nor the social policy of the government.
- Landowners were taxed according to the 1974 values. Because the pattern of land values had changed dramatically since 1974, distribution of tax burdens had become unfair.

The problems with the property tax were not limited to the delay in bringing in a new roll. There had been a policy of derating certain properties, most notably agricultural and hotel properties. Such tax incentives defeated the very purpose of a site value property tax, namely, to stimulate owners to use their land well. While the incentive benefits of derating are not at all clear, the revenue cost of derating is substantial—about 30 percent of revenues collected.

Finally, there were problems with the administration of the property tax. Typically, one thinks of four areas of property tax administration: identification of parcels, recordkeeping, valuation, and collections. Identification and valuation are less of a problem, and a 1984 valuation roll is now in place. Though constructing the new roll was difficult and showed the shortage of valuation expertise in the public sector, the more serious administrative problems had to do with recordkeeping, information flow, and collections. The following situation existed at the time the tax project made its recommendations:

- The collection rate for the property tax was only about 60 percent.
- The collection cost was about 12 percent of revenues collected.
- There were no reliable records on derated properties, that is, no list of the number that received preferential treatment or the nature of the preference.

- About one-third of the sites on the roll did not have any land use coding.
- Total property tax arrears were equivalent to over two years' revenue yield.

*Reform Options and Recommendations*

The project and the Tax Reform Committee considered three structural options for reforming the property tax: (1) expanding the revenue importance of the property tax, (2) changing the base from land to capital value, and (3) changing the rate structure to be flat rather than progressive.

*Revenue importance.* The value of taxable land increased from about J$2 billion in 1974 to over J$5 billion in 1984. Application of the existing rate structure to the new valuation roll would have moved the revenue importance of the property tax to the position it held in the late 1970s, when it accounted for about 5 percent of total revenues. If this increase in property tax was to be accomplished at the expense of an equal yield reduction in the income tax, the economy could benefit from efficiency and equity gains. The conclusion from Follain and Miyake's (1991, p. 654) general equilibrium analysis of such a tradeoff demonstrated the gains to labor and the losses to landowners from such a switch.

*Land versus capital value.* The major structural reform considered was a shift from a land value tax (LVT) to a capital value tax (CVT). The popular appeal of such a change is apparent—large buildings and high value residences indicate more taxable capacity. To tax these structures would generate revenue and would be equitable, since these properties are in the hands of higher-income individuals and businesses. Another consideration is that a developing economy may not want the development intensity that a LVT brings. On the other side are arguments that land value taxes do not impose an excess burden, that they capture the windfall gains of urban development from landowners, and that they are an effective way to tax those who accumulate wealth in the form of land. Of all the arguments in favor of the LVT the most persuasive is that it is administratively easier to implement because structures do not have to be valued. The Follain and Miyake (1991) analysis confirms the land development intensity advantages for the LVT, but also points out that "to oversimplify, the CVT generates a process with smaller buildings that house more labor and machines. The LVT encourages the construction of larger plants which house fewer workers and fewer machines."

*Rate structure.* Property tax rate structures are often progressive in developing countries to take account of the fact that the benefits from public investments and services are skewed toward those with higher property values (Bahl and Linn 1992, chapter 4). Moreover, a progressive rate permits lighter taxation of a larger number of holdings and concentrates the revenue collection on fewer properties where collection is administratively easier. Jamaican officials also felt that the tax supported the objective of forcing large landholdings into active use. Finally, a progressive rate can offset distortions in favor of holding land when the income tax base does not include capital gains.

These are strong arguments, but not totally persuasive. If a progressive rate is meant to force large landholdings into active use, then the base of the tax should be the aggregation of all properties owned by an individual, rather than "parcel progressivity." However, aggregation provides an incentive for taxpayers to use costly methods to avoid tax payment, and burdens an already inefficient enforcement system. This problem would be avoided under a flat rate tax. Moreover, a lower, single rate would avoid some of the shock of switching to the new tax roll and lessen political opposition to the reform. Finally, the flat rate would be more in keeping with the spirit of the proposed reform of the income and indirect tax systems—to broaden the base and to levy lower, flatter rate taxes.

*Recommendations.* The major recommendations of the project were as follows:

- The land value base should be maintained.
- The revenue from the property tax should be three times the present level. This would restore the property tax to the revenue level it would have achieved if its base had been kept up to date.
- The 1984 valuation roll should be adopted, and a flat rate should be applied to all land with value in excess of J$6,000. This would keep about 60 percent of properties off the roll. To avoid tax shock, this new system should be phased in gradually by even increments over a three-year period.
- Agricultural and hotel derating should be eliminated or substantially cut back.
- The administrative system should be completely overhauled, with particular emphasis on (1) improving collection procedures and recordkeeping, (2) developing a sales data bank that would permit assessment-sales ratio studies, (3) indexing land values to update the valuation roll between general revaluations, and (4) monitoring relief and derating in a more systematic way.

The Tax Reform Committee generally accepted these recommendations in proposing a tripling of the revenues to be accompanied by an equal amount reduction in the income tax, bringing in the 1984 roll, the retention of the land value basis, and a three-year period to phase in the reform. The committee was silent on the issue of derating, and held to the present progressive rate structure.

*Adopted reforms.* The government followed the recommendations to bring in the new land value base and to roll back the tax rates to minimize the amount of tax shock. The proposal to switch to a capital value base was dropped. The derating program for agricultural and hotel properties was continued. On the subject of future revaluation, the government committed itself to work on an indexing system, but little progress has yet been made.

The reform program enacted in 1986 has been a mixed success. Revenue growth did increase significantly after 1987, thanks to significant administrative efforts. However, the government froze the rates at the 1986 level, probably guaranteeing that the property tax would remain at 2 percent of revenues or less. Property taxes were estimated at about 1.2 percent of total taxes in 1990, and had shrunk to 0.5 percent by 1993.

In all countries, property taxation draws criticism from the public that is far out of proportion to the tax burden involved. This was also the case in Jamaica. One possible reason for the opposition is that it is a national tax and therefore the financing link to specific local services cannot be easily seen. Another is that the government was unsuccessful in convincing voters that one price of the popular income tax reduction was an increase in the property tax.

There have been no significant changes in the structure of the property tax since 1987. A new valuation roll was due to be put in place by the end of 1991, but public opposition was strong enough to delay this action.

## Conclusions

Although the reform is not yet complete, we might ask whether it has begun to address and resolve three problems: high taxes, a tax system that was affecting economic choices in inefficient ways, and weak tax administration.

### *Are Taxes Still Too High?*

At the beginning of the tax reform project, the ratio of taxes to GDP was 23.9 percent, a high ratio by comparison to other developing countries. In 1993 the ratio is estimated to be 25.7 percent. Does this increase suggest that the tax reform missed one of its goals? In part, the answer is yes and raises some questions. Why has the tax ratio risen? Why was a supposedly "revenue-neutral" individual income tax reform not neutral? In fact, revenue neutrality was achieved in two respects. First, the initial-year yield of the reformed system did not exceed the projections of the yield of the prereform system, and first-year revenue neutrality was the mandate given to the project. Second, there is a sense in which the long-run performance has been revenue neutral. A backcasting study done by the project indicated that, with some improvements in enforcement, revenues from the prereform system could also have grown to these levels.

It should also be noted that the increase in the overall tax ratio overstates the degree to which the reform itself stimulated revenue growth. Changes in the structure of taxes on consumption of locally produced and imported goods were not part of the reform program until 1991, but rose from 9.2 percent of GDP in 1985 to 11.1 percent in 1990.

The other half of the high-taxes story is that the tax bases were too narrow. Consequently, nominal tax rates had to be very high to meet revenue targets and the income and consumption in the net were subject to exorbitant rates. The strategy of the reform was to broaden the bases and flatten out (lower) the rates. Here the reform gets good marks.

- Interest income and a substantial portion of fringe benefits were brought into the individual income tax base; and the rate was lowered first to 33.3 percent and later to 25 percent.
- The proportion of imports taxed has increased dramatically, and the top tariff rate was lowered to 30 percent.
- The 1984 roll of property value (and under present plans a 1991 roll) replaced the 1974 roll, thereby expanding the base of taxed property values.
- The company income tax rate was reduced to 33.3 percent.

Other proposals to broaden the tax base have not yet been acted on. The payroll tax regime has not been changed. Transfer taxes have not been amended to reach capital gains. Broadening the income tax base through greater taxation of the self-employed has not yet happened to any great extent, and certain allowances remain nontaxable by law or practice. Finally, the GCT did significantly broaden the tax base by including sales down to the level of large distributors, but it provided for an extensive list of exemptions and zero-rated goods.

This said, however, the tax base clearly is broader than in the prereform period. Taxable individual income is a significantly greater share of GDP, as is company income and taxable property value. Some of this growth is attributable to the stronger performance of the economy rather than to the tax reform per se, but it is doubtful that the prereform system would have captured this growth as well as the new system has.

### *Allocative Effects*

The tax reform set out to remove some of the more obvious price distortions. In many ways it has been successful in cleaning up the tax structure and moving the system toward neutrality.

- The individual income tax was converted to a flat rate structure and previously nontaxable fringe benefits were brought into the base.
- The preferential treatment of overtime earnings was eliminated.
- The company income tax rate was lowered and the ACPT was eliminated.
- An indefinite loss carry-forward was introduced.
- Interest income was brought into the individual income tax base.
- A greater share of imports was brought into the tax base.

In other cases, there was no move toward neutrality. Dividends remain as before, taxed under both the company and individual income tax. Capital gains remain untaxed. The heavy employee and employer tax on payrolls has not been changed. The tax treatment of exports does not appear to provide the intended relief for taxes paid on inputs, since it involves an export rebate based on the value of exports rather than the tax content of inputs. Depreciation rates still do not reflect economic depreciation. Finally, the system of tax incentives, awarded to companies on a case-by-case basis, remains in place. A reasonable statement may be that the reform has gone far and in the right direction, but that many important distortions persist.

### *Economic Performance*

The bottom line in a tax reform that stresses neutrality is whether the economy somehow performed better than in the prereform period. But it is no easy matter to separate the effects of tax reform from everything else—a foreign exchange crisis, a change in administration, a devastating hurricane, and the recession and recovery of the U.S. economy.

The introduction of the tax reform program in 1986 did coincide with a stronger growth in the economy. There have been positive rates of GDP growth in every year although performance in 1991 and 1992 has been sluggish and characterized by high inflation in the aftermath of a significant devaluation of the Jamaican dollar (table 5.1). Still, the economy has been stronger after 1986 than before. On the basis of available evidence, no one could argue the extent to which these changes are due to the individual and company tax reform, but many, including the former prime minister, believed that the economy could not have performed as favorably under the old regime.[18]

To the extent that tax reform can be said to have stimulated economic growth, three areas offer support for the hypothesis. First, by increasing the revenue flow and controlling expenditures,[19] it reduced the fiscal deficit, relieved some of the pressure from the IMF and the World Bank, and perhaps increased the overall level of confidence in the government. The "confidence factor" is less directly measurable, but it is important. The stronger performance of the Jamaican stock market after 1986 gives some evidence of confidence in the government's fiscal policies.

A second possible effect is an increased work effort and an increased propensity to invest and take risks. These changes would be a partial response to the lower marginal tax rates. However, there is no way to measure or even estimate this with available data, although the small increase in the number of taxpayers suggests no significant movement from the informal to the formal sector. Third, one might argue that there have been some portfolio adjustments to the reform. The 33.3 percent tax on deposit interest on accounts over J$2,000 may have stimulated activity in the stock market, direct investment, and perhaps real estate. The aggregate effect on the savings rate is unclear.

## *Equity*

The vertical equity objectives of the reform were (1) not to increase the burden of taxation on low-income Jamaicans, and (2) not to increase the overall regressivity of the system. Both objectives were achieved.

Wasylenko (1991) estimated the distribution of tax burdens in the prereform period and found it to be progressive (table 5.6). In a later study, on 1990–91 data, Sjoquist and Green (1992) estimated that the reform had led to slightly more progressivity, and had lowered the tax burden for the lowest 40 percent of income earners.[20] There were three main contributing factors to this result: (1) the inclusion of interest income in the tax base, (2) the increase in the standard deduction, and (3) the slight progressivity of the GCT.

No estimates of the burden are available for a more recent period. One can speculate, however, that the overall progressivity of the system may have declined. The individual income tax rate was reduced to 25 percent (reducing progressivity), the standard deduction was increased (lowering the tax burden on the poor), and the GCT rate was increased (raising the tax burden on the poor).

## *Administration*

A major problem to be addressed by the tax reform project was weak tax administration.[21] Procedures were outmoded, staff was inadequate to do the job of administering a modern tax system, and the recordkeeping system was primitive. The strategy of the project was to simplify the tax system, put in place a modern training system, offer technical assistance

**Table 5.6 Distribution of Tax Burdens before and after Reform**

| | *Prereform, 1984* | | *Postreform, 1990–91* | |
|---|---|---|---|---|
| *Income group*[a] | *Income in J$* | *Tax (percentage of income)* | *Income in J$* | *Tax (percentage of income)* |
| 1 | 0–1,814 | 22.14 | 0–6,212 | 20.30 |
| 2 | 1,815–2,987 | 22.88 | 6,213–10,287 | 19.33 |
| 3 | 2,988–4,314 | 23.39 | 10,288–15,555 | 19.75 |
| 4 | 4,315–6,258 | 28.85 | 15,556–21,220 | 27.79 |
| 5 | 6,259–8,279 | 31.48 | 21,221–28,280 | 31.56 |
| 6 | 8,280–10,999 | 33.68 | 28,281–36,268 | 34.67 |
| 7 | 11,000–14,574 | 35.54 | 36,269–45,901 | 38.90 |
| 8 | 14,575–19,403 | 37.26 | 45,902–59,089 | 37.04 |
| 9 | 19,404–29,702 | 35.30 | 59,090–81,137 | 30.42 |
| 10 | Over 29,702 | 31.75 | 81,138–103,941 | 26.84 |
| 11 | n.a. | n.a. | Over 103,941 | 34.76 |

n.a. Not applicable.

a. Income groups are deciles for 1984; for 1990–91, groups 1–9 are deciles and groups 10 and 11 are quintiles.

*Source*: Prereform data from Wasylenko (1991) and Bahl (1991b, chapter 28); postreform data from Sjoquist and Green (1992).

in procedures, and help in the establishment of a computer center for the tax service.

The success of the project in improving tax administration has been uneven, but this is clearly the weak link in the work of the project. Subsequent evaluations by Hubbell and McHugh (1992), Garzon (1993), and Bahl and Wallace (1993) have confirmed this.

*Staff and training.* The numbers of trained staff remain inadequate (Bahl and Wallace 1993). The government's "Comprehensive Training Plan, 1992–95" (Revenue Board 1991) indicates a need to train an additional 120 revenue agents, and to train substantial numbers of staff in the areas of electronic data processing and general administrative duties.

Each department claims a significant staffing problem.

- The income tax department has an authorized staff of 458, but has filled only 274 of these positions with full-time personnel.
- The total number of GCT employees is 260. The GCT commissioner indicates that the office is in need of 50 more field officers (revenue agents) to determine whether the 9,000 enterprises that claim no liability in fact do owe tax.
- The inland revenue commissioner has called for more, highly trained staff, and particularly for additional revenue agents.
- The stamp and transfer tax office is grossly understaffed, by any standards. For example, there are only six officers to handle all verification of declared land transfer values, and none of the six are trained.

*Registration.* The failure to bring all taxpayers into the net remains a crucial problem. Not surprisingly, departmental officials do not have good estimates of the numbers of persons and companies who do not pay taxes. But even illustrative data seem to indicate that a substantial fraction of potential taxpayers are outside the tax base.

There are about 80,000 registered self-employed taxpayers, but only about 25 percent filed returns in 1992, a performance roughly comparable to that in 1986 (Alm, Bahl, and Murray 1991c). The comparable filing rates are 50 percent for companies filing on behalf of PAYE taxpayers, and 20 percent for companies filing for company tax. By any account, this is a substantial compliance gap, and it has not closed significantly.

As of 1993 there were about 26,000 enterprises registered for GCT—17,000 are taxpayers and 9,000 claim to be below the threshold. The large enterprise group (J$1 million turnover) has a compliance rate of 83 to 87 percent, and accounts for approximately 90 percent of the tax collected. The smaller enterprises have a compliance rate in the low 60 percent range.

*Underreporting.* There is significant underreporting of income. This is not unusual for a developing country, and tax administrations usually attempt to limit this with an aggressive audit program. In Jamaica the effectiveness of audits is compromised by inadequate staffing, inadequate access to information, and a penalty structure that does not provide a sufficient disincentive to evade taxes.

A bank secrecy law makes it impossible to properly audit the income tax on interest income. The Bank of Jamaica can do an audit of banks, but cannot examine the records of individual taxpayers; hence a "proper" audit is impossible. There are also restrictions on the sharing of information from income tax returns. The income tax department can obtain data from the Inland Revenue, customs, GCT, and Motor Vehicles Department, but cannot communicate these data to other departments without permission from the minister of finance. These laws and restrictions have seriously compromised audit effectiveness.

A major form of tax avoidance is the claiming of nontaxable allowances. Few adjustments are made by the Income Tax Department to the reported amounts. The auditors do not have detailed information on nontaxable allowances.

*Assessment procedures and recordkeeping.* There are inadequate and inefficient procedures used to assess and collect taxes. This raises administrative costs and slows the efforts to move toward full compliance. Basic problems are as follows:

- The Income Tax Department does not check the arithmetic of each return. Inland Revenue does a rough manual check at the time of collections.
- Inland Revenue manually posts *all* payments in ledgers.
- The GCT office does not do an annual report of activities when they monitor the efficiency of their operations.
- The Stamp and Transfer office keeps only hard copy of all transactions, but files these in numerical order each day.
- Inland Revenue accepts payment of taxes from businesses and individuals without verifying the taxpayer identification number.
- Hard copy returns are filed by the Income Tax Department by date received, and are kept for six years.

One of the major recordkeeping problems with the income tax has to do with the PAYE portion of the individual income tax. Each company files a tax list with summary information about each employee. Information on allowances is not reported, nor is information about payroll tax collections. In order to get full information about the tax payments by individuals, the tax officials must visit each company. For this reason, relatively little is known about the taxpaying status of individual PAYE employees.

*Complexity and structural issues.* The 1986 reform simplified the income tax system and probably reduced both compliance and administrative costs. But some loopholes were left open, and this has continued to compromise administrative efforts by failing to reduce the complexity of the income tax system and by continuing to give taxpayers an incentive to avoid income taxes. Major problems remain with nontaxable allowances in the areas of housing, uniforms, and automobiles (Bahl and others 1992a).

A second type of complexity in the current income tax structure is an exemption program for approved productivity schemes and for income received from gratuities. The productivity incentives are very hard to administer and are not well regulated in the law. The idea is to encourage higher wages in certain industries such as agriculture, tourism, and bauxite by exempting a portion of income from tax. In the tourism industry, gratuities may be exempted up to 10 percent of total sales receipts. The companies may deduct whatever is paid to the employees. The law is currently written so that the exempt portion is exempt from individual income tax, education tax, and NIS. These programs greatly complicate administration.

Finally, the recent rate reductions under the individual income tax have led to an eight-point spread between the top rates of the individual and company tax rates. This opens the door for tax avoidance by devising schemes to transfer income from company to individual status. Such schemes complicate the job of the tax administration and raise the cost of compliance for the taxpayer.

*Information*. A major problem with the entire tax administration system is an inadequate flow of information to support the assessment, collection, and audit process. The problems begin with the absence of a unique taxpayer identification number that is universally used. The current system permits multiple identification numbers. As a result of inconsistent identification numbers, an inadequate electronic data processing system, and secrecy laws, there are no integrated records for individual taxpayers or businesses showing their history of payment, tax liability, or financial summaries. In some cases, the law denies this information to the tax officials.

The process for moving taxpayer information is also flawed. In the past, the information was directed from each department to Fiscal Services, where theoretically it could be accessed by the various departments. However, access has not been adequate and the system remains manually operated. Finally, there has been inadequate training, and hardware and software development to allow each department to move beyond a manual approach to data entry and records storage.

On the positive side, there is now a master file of PAYE employers and self-employed filers although these computerized lists show only the names of the filers and contain no other taxpayer information. Another improvement in procedures has been the development of a registration, assessment, collection, and recordkeeping system for the GCT. The project assisted the Revenue Board in developing its own computer center and data processing facility. A professional staff is in place and other donors have been assisting in software development. Unfortunately, none of the major taxes were chosen for early emphasis. The land valuation roll is now on the system, as is certain customs valuation information, but neither the income tax nor the consumption duty files have been brought into the computerized recordkeeping system. Rather, the income tax files are still kept manually although there has been some improvement in file room procedures and organization.

## Lessons

The Jamaican tax reform presented a rare opportunity to do a comprehensive study of a tax system in a developing country. It was a big project in every sense, that is, importance to the government, resources committed, public interest, and willingness to implement a sweeping structural and administrative reform. The mandate was open at the outset in that it called for a restructuring of the entire tax system to fit a new economic program of a newly elected administration, and the project had substantial latitude in defining the scope of the work. The way in which the Jamaica study was carried out also makes it different. The prime minister was very much a part of the study and met with the team on numerous occasions about the specifics of the work. Although the project team was composed of foreigners, its members developed a very close working relationship with their Jamaican counterparts, and since the project continued for four years there was time to get to know the country. Work continued through the implementation stage (and with follow-on analyses in 1992 and 1993), so there was some opportunity for the project team to be involved in the selling and implementation, and even to observe the first results of the new system. Finally, because resources to support the project were adequate it was possible to assemble a team of experts with extensive knowledge of systems in other countries.

The Jamaica tax reform project has served up nine lessons about successful tax reform that may be transferrable to other settings.[22]

1. *Tax reform and the economic setting.* The best time to do a comprehensive reform of the tax structure is when the economy is performing poorly. There is a sense of urgency and tax policy is one area where the government can take aggressive action. At such times, it is easier to focus the attention of policymakers on structural problems of the entire tax system and to think through the ways in which the tax system may be retarding economic growth. Inefficiencies that are so visible when the economy is not going well tend to become invisible in periods of economic growth. Consequently, when the economy is growing, the attention of tax reformers shifts to piecemeal adjustments that are "popular" or that appear to improve vertical equity, and to administrative improvements. The attention of politicians shifts to the expenditure side of the budget during periods of economic growth, and this shift accelerates as elections approach.

2. *How much can a tax system be shocked?* The Jamaican experience provides some strong arguments in favor of shocking the system with a comprehensive reform. First, the prereform system had gotten so far away from desired government tax policy that incremental reform could not possibly repair it. Only a complete overhaul would suffice. Second, the best time to inflict the painful parts of a tax reform is when it can be done simultaneously with measures that provide taxpayer relief. For example, removal of allowances and tax credits under the Jamaican individual in-

come tax could never have been accomplished if a dramatic rate reduction and a high standard deduction had not been introduced at the same time. Third, if the primary objective of the system is to rectify distortions in relative prices, then large changes are called for (because the tax-price elasticities of saving, investment, work effort, and evasion are low).

3. *The role of equity considerations.* Vertical equity cannot be the driving force behind a comprehensive tax reform program in a developing country. In part this is because developing countries cannot successfully implement progressive tax systems and in part it is because the costs of vertical equity are very high. Consider the case of the individual income tax, where the issue most often arises. It is one thing to recite the rhetoric linking progressivity in nominal rates to vertical equity, but quite another to show that such a linkage actually exists. The problem is with administration. The individual income tax had the look of a progressive tax with a steeply graduated nominal rate structure, but in fact the tax was regressive because of the extent of evasion and avoidance at the top end. Doing away with the progessivity in Jamaica's nominal rate structure had very little effect on the distribution of income.

Probably more important is the goal of horizontal equity, which the Jamaicans equated with fairness in taxation. The prereform system was riddled with many such inequities: private sector workers received more income in nontaxable perquisites than public sector workers, self-employed workers paid lower taxes than those in the PAYE sector, those in certain industries had access to the preferential "overtime" tax rate while others did not, only some types of businesses could engage in arbitrage to avoid income taxes, and so on. Such unequal treatment undermined confidence in the tax system. A primary goal of the Jamaican study was to find a way to eliminate these horizontal inequities and the distortions in economic choices which they promoted.

4. *The power of data.* Empirical estimates of the impact of proposed tax structure changes on revenue yield and on tax burdens were key elements in selling the reform package. The quality of the underlying data was not without problems, but the fact that data were available gave a basis for removing much of the guesswork in evaluating the options and lifted the debate to a much higher level. It provided a reasonable basis for guessing at the differential impacts of alternative reform programs and simulating the impacts of alternative specifications of the rate and base.

5. *First policy, then administration.* A first principle for successful tax reform is to get the policy right and then deal with the administrative problems. The consumers and sponsors of a reform often cannot see beneath a plethora of administrative problems to the real issue, which may well be a badly structured tax. Or, how many times do we question the sense of creating a new tax structure when the old one cannot be properly administered? Too often the call for technical assistance in tax administration from the internal revenue service or from one of the international agencies is premature.

There are three good reasons for giving policy reform priority over administrative reform. First, administrative improvements can often generate a quick revenue impact. Second, the true, underlying problem may be the tax structure. It may be so complicated as to be beyond the capacity of the government to properly administer, or it may be so unfair that payment of taxes will be resisted no matter how much the administration improves. Third, if the reform goes no further than administration, the government will not go through the exercise of questioning whether the tax system is affecting the economy in ways that reinforce government objectives.

6. *Monitoring*. The results of a tax reform should be monitored in the first years after implementation. While it is essential that the reform study generate the best possible forecasts of revenue yield, tax burden impacts, and economic effects, it is also essential that the tax planners know the actual outcome and be ready to adjust the new system as needed. It is especially important for monitoring to begin immediately after the reform is implemented and before new avenues of avoidance become entrenched. Taxpayers (and tax evaders) are far more adept at finding loopholes in new legislation than tax reformers are at closing all the avenues for tax avoidance. The more dramatic the structural reform and administrative shock, the more likely such loopholes will appear and go undetected. The continuing reform of the Jamaican tax system has been greatly helped by the evaluations, analyses, and technical assistance since the close of the tax project in 1987.

7. *Tax reform or fiscal reform*? Is it better to do a comprehensive fiscal reform—which also includes consideration of the expenditure side of the budget—than a comprehensive tax reform? The former is a more difficult job, requires more resources and time, and probably raises more controversial issues. However, it allows the government to get a better picture of the overall implications of the tax reform under consideration. With hindsight, a fiscal reform would have been the better route because expenditure policy was a key element of Jamaica's taxation policies.

8. *Neutrality in taxation and economic policy*. Perhaps the most difficult part of designing a comprehensive tax reform is matching the tax policy design with the set of economic policies already in place. It is easy to recite the maxims of a "good tax" and to come to the proper conclusion that it should be neutral in its effects on economic choices. In the case of Jamaica, this matched the stated goal of the government to rely more on market forces to guide economic growth. However, there is almost always another set of policies in place that raise questions about whether neutrality is an appropriate objective of the tax reform. It is particularly difficult to define an efficient tax policy when existing trade and industrial policy has led to a set of preexisting distortions.

9. *Implementation*. The Jamaican experience suggests five rules about how to successfully implement a tax reform.

*Rule 1.* The government must see the project as its own and not that of a donor or even that of a technical assistance research team.

*Rule 2.* The technical assistance team should have the right mix of skills and experience, and, above all, have expert credentials. Nothing short of well-known tax policy experts with extensive policy experience would have satisfied the Jamaicans.

*Rule 3.* Tax reform should not be hurried. It takes time to get the technical proposals properly in place and include public debate. The Jamaican press and public interest groups were all involved in the debate, at a surprisingly technical level, for a full six months before the income tax reforms were implemented. By the time the law was enacted, a very major change in the system was not seen by the public as a tax shock.

*Rule 4.* Timing is important. Elected government officials are not willing to be associated indefinitely with tax reform, even good tax reform. Such programs carry unfavorable connotations for most citizens and politicians, and the zeal for even so noble a goal as getting the prices right wanes as time goes by and election time approaches.

*Rule 5.* Implementation requires a great deal of attention. The project did have two income tax administration experts and a customs expert resident in country to work out administrative procedures and assist with training, and a sales tax administration expert to do the same for the GCT office. On the other hand, probably too little attention was given to carefully drafting the new legislation and implementing regulations.

## Notes

1. Sections that refer to the design of the reform program and the estimated impacts are revised and abridged versions of two earlier papers by Bahl (1989, 1991a).

2. An agreement with the World Bank led to a trade liberalization program beginning in 1987. This, in effect, rescinded the stamp duty rate increases enacted in 1985 and 1986. The new program flattened the duty rate structure and eliminated most import exemptions. Hence it moved the import stamp tax structure back in the direction of the proposed general consumption tax (GCT). This would have made the introduction easier, except that the Bank and the government agreed to postpone implementation of the GCT in favor of a program of export rebates. At the time the project ended its work in 1987, the indirect tax system still had not been reformed.

3. For a good critique of this method see Bird (1976).

4. For this analysis is see Bahl (1991a).

5. For a good review of this literature see Ghandi (1987) and Skinner (1989).

6. The proposed income tax reform program went through a number of iterations before reaching the structure adopted in January 1986. The initial analysis and evaluation of the reform options was completed by the summer of 1985. The government's policy paper released in June (Revenue Board 1985) outlined the general format for the reform and provided a menu of alternative rate structures. The Tax Reform Committee accepted these in principle but recommended an even further broadening of the base and lower tax rates. The prime minister and the cabinet

generally accepted these proposals, but made some modifications in the proposed treatment of fringe benefits, the tax rate level, and the income exemption level. The revenue neutrality constraint was relaxed somewhat at the last minute: the prime minister instructed the Tax Reform Committee that a first-year revenue loss could be accepted, but it should not exceed J$40-J$60 million (about 9 percent of projected 1986 individual income tax collections).

7. At the time this work was done, the most recent available data were for 1983.

8. In 1991 the government began taxing the use value of automobiles provided by an employer, and treating only automobile allowances as an allowable deduction.

9. One recent example is the creation of company internal savings programs that pay an above-market interest rate but apply no interest withholding tax. This provides the firm with a ready source of capital and provides the employee with a higher after-tax return at the cost of less revenue to the government and less horizontal equity in the tax system.

10. Industrial buildings and machinery are given an initial allowance of 20 percent, but other asset investments receive a lower percentage according to a complicated schedule.

11. He defined the effective tax rate as the ratio of the present value of the tax payments (individual and corporate income) to the present value of the economic income arising from the investment. Economic income is measured as the difference between revenues and economic depreciation.

12. The international implications of the company tax reform are described in Oldman, Rosenbloom, and Youngman (1991).

13. The latter excludes food, petroleum products, cigarettes, and alcoholic beverages.

14. The traditional excises would continue to be levied under a separate structure.

15. The 1991 number is overestimated for purposes of this comparison because it includes stamp duty on domestic transactions.

16. The property tax is described in detail in Holland and Follain (1990, chapter 25).

17. For a good discussion of the site value base as applied in Jamaica see Oldman and Teachout (1979).

18. Prime Minister Seaga as quoted in "The Daily Gleaner," October 10, 1987.

19. The government deficit reduction was accomplished by a substitution of external for domestic borrowing, tax increases, and an expenditure reduction program. About 4,000 positions (4 percent of the civil service positions) were cut after 1984.

20. Sjoquist and Green (1992) included an estimate of the GCT burden in their computations, even though the tax was not introduced until late 1991.

21. This section draws heavily on Bahl and Wallace (1993).

22. These lessons are reported in more detail in Bahl (1990).

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