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The Political Economy of the Jamaican Tax Reform

Roy Bahl

The policy analysis and implementation that led to the 1986 and 1987 Jamaican tax reform may be an important addition to the growing knowledge about taxation in developing countries.[1] The reform program was comprehensive: it covered the entire tax system, encompassing both the tax structure and tax administration (see chapter 1). And, like the Indonesian reform discussed in chapters 2 and 4 of this volume, it involved the development of a training program. Most important, however, the underlying research considered not only the reform of each tax in the system, but how the pieces of the new system would fit together. Among other things, this meant trying to find the right set of connections among tax policy, trade policy, and industrial policy. If the Jamaican tax reform study is to lay any claim to fame in this literature, it is due to this comprehensive approach.

This study might add to the literature in three other ways. First, Jamaica was reorienting its entire system in the 1980s and tax reform was to be a part of these broader changes. Edward Seaga was elected prime minister in 1980 with a mandate to replace the direct controls that had long governed the economy with an export-driven, private-sector-led economic growth strategy. The challenge to the project was to find a tax package that would fit this mandate and be politically acceptable. Second, the Jamaica reform was comprehensive enough to give an opportunity to observe the possibilities of "shocking" the tax system and still having a viable reform—something history tells us is not likely to be successful. Third, the experience in Jamaica can add something to what is known about the politics and the process of tax reform, i.e., how to go about involving interest groups and the general public in the design and "selling" of a comprehensive tax reform without compromising the integrity of the reforms. Fourth, this study gives some insights into how to get over the initial hurdles of implementation —"the science of implementation," if there is such a thing. In fact, just as in the Indonesian effort (chapter 4), the project stayed with the work through the public debate and to implementation, and was involved in the early stages of monitoring the performance of the new system.

This paper summarizes the results of this four-year effort. The goal is to fit the pieces together and to tell the story in a context of the politics and the economics of the Jamaican tax reform. The concluding section of this chapter lists the lessons learned from this work and draws some parallels with the conventional wisdom.

The Jamaican Economy

If the reform of a tax system is not in step with the goals of a government's economic and political program, it can have little chance for success. The best of tax reforms will not have the desired effects on the economy, and quite possibly will make matters worse, unless it is designed to reinforce the macroeconomic plan which the government intends to follow. The Jamaican tax reform was a continuing process of trying to stay up with the changes in the Jamaican economy and in the government of Jamaica's economic policies. To understand the work of the tax project and the factors that shaped the design of the reform program, it is necessary to understand the economic and political context.

Macroeconomic Performance

The Jamaican economy suffered a severe and sustained contraction from 1973 through 1980.[2] Estimates published in the International Monetary Fund's (IMF) *International Financial Statistics* show the following:

GDP (1980 prices) declined 18 percent
GDP per capita (1980 prices) declined 26 percent
the Consumer Price Index rose 304 percent
government expenditure rose 419 percent
government revenue rose 274 percent
net foreign assets dropped U.S. $582 million
estimated unemployment rose from 22 percent to 27 percent

There was no economic miracle in the first half of the 1980s. The Seaga administration lived up to its promises by turning government policy toward deregulating the economy and changing its orientation from import substitution to export-driven. However, there was a long way to go, foreign exchange reserves were short, the government treasury was all but bare, and the government had to ride out the collapse of the bauxite industry. Moreover, there was considerable pressure from foreign creditors to adopt more austere economic policies and there would be an election in 1984. Still, many felt that economic policy did not go far enough or fast enough.

The Jamaican economy grew slowly in the first half of the 1980s. Real GNP increased by only 2.6 percent between 1980 and 1986 (table 5.1). Though even this modest increase represented a turnaround from the real 18 percent decline between 1973 and 1980, Jamaica's growth has remained well below that of other developing countries and below that of most Caribbean countries. The 1980–86 period was also one of economic instability. There were real GNP declines in 1984 and 1985, the Jamaican dollar was devalued in 1983 and 1984, and the rate of inflation varied erratically between 5 percent in 1981 and 31 percent in 1984.

The foreign exchange shortage has remained acute in the 1980s, in spite of very sizable devaluations. Imports, particularly of consumer goods, fell significantly in response to the devaluation, but the current account balance of payments deficit was about 14 percent of GDP in 1984. Despite rescheduling, foreign debts outstanding grew relative to export earnings and external debt increased from the equivalent of 90 percent of GDP in 1983 to 145 percent in 1986.

Inflation increased by more than 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. The U.S. dollar moved from an average J$2.76 in 1983 to an average J$4.00 in 1984. This devaluation was largely the initial response of market forces to the liberalization of a previously pegged undervalued exchange rate. The new system was a managed float operated through a biweekly auction system. The money supply (M1) grew by about 21 percent in 1983 and 14 percent in 1984.

The government deficit had reached more than 17 percent of GDP in 1983, by World Bank accounting, but had fallen to below 6 percent by 1986. The reduction was accomplished by a substitution of external for domestic borrowing, tax rate increases (especially the stamp duty on imports), and an expenditure reduction program. About 4,000 positions (4 percent of the civil service positions) were cut in 1984.

Table 5.1 Selected Indicators of the Performance of the Jamaican Economy

	1975	1980	1981
Per capita GDP (J$)			
Real	1,069.5	856.8	867.9
Nominal	1,292.0	2,226.9	2,439.2
GDP growth rate (percentages)			
Real	−0.5	−5.8	2.7
Nominal	20.5	11.1	11.0
Rate of inflation (percentages)			
CPI average annual (point to point)	15.7	28.7	4.8
GDP deflator	20.8	17.9	8.1
Fiscal deficit (in J$ millions)			
Real	211.3	319.5	313.8
Nominal	255.3	830.4	881.8
Percentage of GDP	9.8	17.5	16.7
Foreign debt outstanding			
Nominal (in US$ millions)	388.3	2,055.4	1,311.1
Percentage of export earnings	49.5	214.2	134.0
Percentage of government expenditure	37.6	164.5	172.7
Balance of payments (in US$ millions)			
Current account deficit	282.8	166.0	336.8
Percentage of GDP	9.9	6.2	11.4
Exports (in US$ millions)	784.0	959.2	978.1
Percentage of GDP	27.4	36.2	33.1
Imports (in US$ millions)	1,123.5	1,172.6	1,481.1
Percentage of GDP	39.3	44.2	50.1
Exchange rate (percentage average)	0.9091	1.7814	1.7814

Source: GDP—Statistical Institute of Jamaica, *National Income and Product 1986*; CPI —Bank of Jamaica, *Statistical Digest*, various years; fiscal deficit—World Bank, *Jamaica: Economic Situation and Public Investment*, vol. 1, p. 48, and Bank of Jamaica, *Statistical Digest*, various years; foreign debt—Bank of Jamaica, *Statistical Digest*, December 1981 and July 1987; exports—Planning Institute of Jamaica, *Economic and Social Survey*,

Social Conditions

The 1980–85 period was a hard one for most Jamaicans. Though the average per capita GNP was U.S. $940 in 1985, much of the population lives near a subsistence level of income. It is estimated that 40 percent

1982	1983	1984	1985	1986	Percentage change 1980–86
862.6	866.0	844.0	794.9	803.3	–6.2
2,658.8	3,114.4	4,089.5	4,852.4	5,706.0	156.2
1.1	2.3	–1.4	–4.5	2.2	n.a.
10.9	19.3	33.6	20.3	18.8	n.a.
7.0	16.7	31.3	23.3	10.4	n.a.
9.7	16.6	34.8	26.0	16.3	n.a.
313.2	335.6	144.1	106.1	84.7	–73.5
965.4	1,206.4	698.0	647.6	601.6	–27.6
16.5	17.3	7.5	5.8	4.5	n.a.
2,739.9	3,266.9	3,261.6	3,499.0	3,520.0	71.3
356.5	476.4	464.4	615.5	581.7	n.a.
188.1	213.4	350.9	429.5	344.4	n.a.
408.6	358.7	335.3	304.4	105.6	–36.4
12.4	9.9	14.2	15.1	4.3	n.a.
768.5	685.7	702.4	568.5	605.1	36.9
23.4	19.8	29.3	27.9	25.0	n.a.
1,375.9	1,281.0	1,183.3	1,143.7	976.4	16.7
42.1	40.7	48.4	54.8	40.3	n.a.
1.7814	1.9322	3.9428	5.5586	5.4778	502.6

1975, 1982, 1984, and 1986; government expenditures—World Bank, *Jamaica: Economic Situation and Public Institute*, vol. 1, and Bank of Jamaica, *Statistical Digest*, various years; balance of payments—International Monetary Fund, *International Finance Statistics*, and Planning Institute of Jamaica, *Economic and Social Survey*, 1986.

of the national income is earned by the top 10 percent of the population, and that this inequality has not been significantly reduced in the past two decades.[3] The distribution of land wealth, as might be expected, is even more skewed.[4] When it is reported, then, that *average* real per capita income decreased by J$62 between 1980 and 1985, one can imagine that there was some considerable worsening of living standards for the poor.

The inflation of over 30 percent brought on by the devaluation was led by an increase in food prices, and deregulation and removal of subsidies led to some increases in public utility charges, petroleum prices, and housing rents during this period. A food stamp program was put in place in 1984 to provide some relief to lower-income Jamaicans. The unemployment rate, though difficult to measure, appeared to be 15 percent or higher. Jamaican authorities report the percent of labor force employed to have risen from 72 percent in 1980 to 77 percent in 1984.

Jamaica's "brain drain" of the 1970s—educated Jamaicans migrating abroad in search of better economic opportunity—imposed a heavy cost on the economy. There was a net outmigration of 129,000, or 6 percent of the (average) population between 1974 and 1980. The outmigration has continued into the 1980s, although at a lower rate. Between 1981 and 1984, 1.4 percent of the (average) population (30,500 persons) migrated from Jamaica.

Economic Policy

The Seaga administration's economic program was outlined in the Ministry of Finance and Planning *Ministry Paper 9*, "Taxation Measures 1982–83." This program counted on controlled expansion of aggregate demand to bring order and real economic meaning to relative price movements in commodity, labor, money, bond, and foreign exchange markets, and to the distribution of income and wealth. Implicit in the program was the proposition that economic growth and efficiency would be improved if private markets and private decisions were permitted a larger role. Accordingly, *Ministry Paper 9* proposed to reduce public ownership of commercial enterprises, public sector control of prices (except the prices of foreign exchange), and regulation of imports, exports, and domestic investment.

The economic program which the government has actually followed since the issuance of *Ministry Paper 9* has been consistent with the strategy outlined, with a notable and important exception. Import licenses and price controls were for the most part phased out as promised. The government deficit has been reduced dramatically and the first phase of a comprehensive income tax reform has been undertaken. Most of these initiatives have not gone so far as some had hoped, but the program has generally been in the direction promised.

The notable exception is the foreign trade regime. The price of foreign exchange has not been decontrolled—except for a period during 1983–84 when there was a "controlled float" of the Jamaican dollar—and the foreign exchange shortages in the economy persist. As discussed below, the taxation of international trade has probably exacerbated the problem. The formulation of a consistent trade policy still remains at the top of the government's list of unfinished economic reforms.

Foreign Pressure

Jamaican economic policy since 1980 has been shaped, partly if not largely, to satisfy the conditions imposed by creditors. In some cases these actions compromised the design and implementation of the comprehensive tax reform.

The government negotiated separate loan agreements with the World Bank, the IMF, and the U.S. government in 1981–82. The agreement with the Fund 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 began to push for a deficit reduction program. With the unemployment rate in the 20 percent range and the bauxite sector declining, substantial public employment reductions seemed out of the question. The government turned first to tax rate increases on the perennial excise products—cigarettes and spirits—and in the following year to the major rate increases under the import stamp duty mentioned above.

These discretionary actions affected the planning for the tax reform in several ways. First, it seemed (at the time) to make it all the more clear that major tax reductions of any kind would be out of the question, and raised the possibility that the structural reforms would have to be introduced simultaneously with a tax increase. Second, the import duty rate increases effectively introduced a major new indirect tax and further distorted the pattern of relative prices. As a result, the simplified general sales tax (the general consumption tax, or "GCT") that would be proposed as a substitute for the existing system of several indirect taxes would be harder to sell because it would now be even more of a "shock" to the system.

An agreement with the World Bank led to a trade liberalization program beginning in 1987. This, in effect, recalled the stamp duty rate increases enacted in 1985 and 1986. The program called for a "flattening" of the duty rate structure and the elimination of most import exemptions, hence it moved the import stamp tax structure back in the direction of the proposed GCT. This would have made implementation easier except that the Bank and the government agreed to postpone implementation of the GCT and to consider a program of export rebates.

Another major influence was U.S. government policy. Though neither its balance of payments loans nor its project assistance carried conditions in the same way as did the Fund and Bank loans, U.S. foreign policy did play a role in shaping tax, trade, and industrial policy in Jamaica. First, it was the U.S. government that provided the funding for the comprehensive tax reform project. Second, there was always the implied threat that Jamaican economic policy, should it take a wrong turn, could dampen U.S. enthusiasm for supporting the programs of the Seaga administration. Third, and perhaps most important, was the U.S. tax reform of 1986. By lowering the corporate rate to 34 percent, it compromised the foreign tax credit position of U.S. firms investing in Jamaica and gave the tax reform program one more argument for lowering the corporate rate.

The Setting for Tax Reform

In some ways, Jamaica in the early 1980s was not the ideal setting for tax reform. Successful tax reform in almost everyone's eyes meant tax reduction, an understandable reaction to the slow growth in the economy, inflation, and the resulting income tax bracket creep. But given the size of the government deficit, tax reduction seemed a farfetched possibility. There was considerable pressure to hold the line on expenditure retrenchment. Such cuts would almost certainly mean reductions in government employment, and would have to take place at a time when unemployment was very high and when the private sector economy was performing too poorly to absorb the surplus labor. Major budget cuts in other programs seemed out of the question because of the potential disruption to the economy and because of the obvious political drawbacks.

This meant that if tax reduction was to be accomplished, it would have to come at the expense of an increase in the government's budget deficit or a reduction in some other cost of government. The former would not be a possibility for two reasons. First, increased domestic borrowing would put more pressure on domestic prices. Second, the IMF loan agreement required a reduction in the government deficit and a ceiling on domestic credit. The cost reduction route was only a little more promising. One possibility centered on the state enterprises, which were a known drain on the central government budget. There was a call for divestment in some cases and for increased user charges to cover operating costs in others. But divestment takes time, and increased user charges on some items (e.g., electricity) would have been even more unpopular than increased taxes. Another deficit reduction strategy would center on removing some costly government subsidies, for example, raising the price of petroleum products or eliminating import duty exemptions on a wide variety of producer goods. Though some of these measures were eventually taken, they proved to be as politically difficult as had been expected.

There were some favorable aspects of the setting for a comprehensive tax reform. First, and most important, the tax system was believed to be, and was in fact, unfair. This widely held public view turned out to mean that the horizontal inequities inherent in the present tax structure and accentuated by the way the system was administered had gone beyond tolerable limits. Piecemeal reform to fill this year's revenue gap, long the approach taken to the annual budget crisis in Jamaica, would no longer be acceptable. The public—business, labor, the press, and foreign investors—seemed to have given the Seaga administration a clear mandate to put forward a plan for a complete overhaul of the tax system. This dissatisfaction and the willingness of the government to think carefully through the problems with the present system were keys to the eventual implementation of the reform.

A second stimulus was the 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 a balanced budget balance should be achieved by tax increases or expenditure reductions, but it gave annual advice on which tax rates to increase in order to fill the fiscal gap. The World Bank was more aggressively pressing for tax structure change in the areas of tariff reform and indirect taxation. The U.S. government did not condition its aid package on tax reform, but it did urge changes in the tax system and financed the tax project that was eventually to lead to the reform. These external pressures made it urgent and politically beneficial for the government to embrace "its own" tax reform project.

Third, the Seaga administration's political hand was strengthened in the 1984 elections when its party (the Jamaica Labour Party) won parliament in an uncontested election. The issues that led to this political victory did not have to do with the economic reforms, but the control of parliament did mean that the reform program would eventually be reviewed and decided by a more friendly and unified parliament than otherwise would have been the case.

Table 5.2 The Changing Structure of Taxes in Jamaica, 1980–88 (as percentage of total taxes)[a]

	80–81	81–82	82–83	83–84	84–85	85–86	86–87	Budget 87–88
Taxes on foreign trade	44.7	45.5	38.5	34.0	40.5	44.2	42.2	44.8
On imports[b]	(17.2)	(20.0)	(22.5)	(23.6)	(21.2)	(32.1)	(30.0)	(35.8)
On exports[c]	(27.5)	(25.5)	(16.0)	(10.4)	(19.3)	(12.1)	(12.2)	(8.9)
Taxes on consumption	22.0	19.8	20.7	23.7	20.2	19.3	18.5	14.5
Sumptuary[d]	(12.4)	(10.3)	(10.5)	(12.2)	(10.5)	(10.1)	(8.6)	(n.a.)
Other[e]	(9.6)	(9.5)	(10.2)	(11.5)	(9.7)	(9.2)	(9.9)	(n.a.)
Taxes on income and wealth	33.3	34.6	40.6	42.3	39.3	37.8	39.2	40.8
On companies[f]	(11.8)	(12.6)	(17.2)	(13.4)	(13.8)	(14.1)	(17.6)	(16.9)
On individuals[g]	(19.4)	(20.1)	(21.3)	(27.2)	(24.5)	(22.8)	(20.9)	(22.3)
On property[h]	(2.1)	(1.9)	(2.1)	(1.7)	(1.0)	(0.9)	(0.8)	(1.6)
Total as percentage of GDP	23.4	26.9	26.1	23.3	25.4	26.2	30.6	30.6[a]
Memorandum items (as percentage of total taxes)								
Taxes collected at import[i]	9.0	13.9	16.1	16.1	15.5	26.3	19.6	n.a.
Bauxite taxes[j]	26.6	24.5	15.0	9.0	16.8	9.3	9.9	6.6
Total consumption taxes[k]	39.2	39.8	43.2	47.3	41.4	51.4	48.6	50.3

[a]Total taxes include the bauxite levy.

[b]Taxes on imports include customs duty, tonnage and warehouse fees, consumption duty on imports, stamp duty and additional stamp duty on customs inward warrants, and retail sales taxes collected on imports plus consumption duties on motor fuels and the balance of retail sales taxes.

[c]Taxes on exports include bauxite taxes (defined in note j) plus the following taxes on tourism: travel tax, tax de sejour, additional hotel tax, and hotel license duty.

[d]Sumptuary taxes are consumption and excise duties on alcoholic beverages and tobacco products.

[e]Other consumption taxes include other excise duties; other consumption duties; other stamp duties; entertainment duty; taxes on betting, gambling, and lotteries; and miscellaneous taxes and licenses such as motor vehicle licenses, telephone tax, and retail sales

tax on used vehicles.
[f]Taxes on companies exclude taxes on bauxite companies but include betterment taxes and bank and trust company surcharges.
[g]Taxes on individuals include individual income tax, PAYE, and the education tax. (Note that both this item and total tax revenues are understated because information on other payroll taxes—NIS, NHT, and HEART in particular—was not available for all years.)
[h]Taxes on property consist solely of the property tax.
[i]Taxes collected at import include customs duty, tonnage and warehouse fees, consumption duty on imports, stamp duty and additional stamp duty on customs inward warrants, and retail sales taxes collected on imports.
[j]Bauxite taxes include the bauxite levy and company taxes on bauxite companies.
[k]Total consumption taxes are the sum of taxes on consumption and taxes on imports.
Source: The basic source for most of the tax data is the monthly statement of revenues from the Collector-General. A few numbers for 1982–83 were estimated on the basis of preliminary data because the available final data did not contain as detailed a breakdown as desired. The figures for 1985–86 were for the most part estimated by the Board of Revenue. Collections for 1985–86 from the bauxite levy were assumed to decrease by the same proportion as projected output over the previous year (Planning Institute of Jamaica, *Quarterly Economic Report*, October–December 1984–85, p. 25). Other information on the bauxite levy came from the same source (p. 60), except that the out-turn for fiscal 1984–85 was estimated to be the same proportion of target as the results for the first three quarters of the year. GDP data on a fiscal-year basis came from the same source (pp. 24–25) for 1983–84 to 1985–86. The middle estimate is used for the latter year. Fiscal-year GDP for earlier years was estimated from calendar-year data in Statistical Institute of Jamaica, *National Income and Product 1983*, on the assumption that growth was even throughout each year.

Finally, it should be noted that at the time the first of the new reforms was to be put in place (1986), the Jamaican economic situation improved. The decline in oil prices, a lower rate of inflation, and a good tourist season all set the stage for the individual and, later, the company income tax reform to produce far more revenue than had been expected. The extent to which the tax program itself was responsible for this favorable economic performance is an issue that we take up below.

Fiscal Structure

At the time of the initiation of preparations for tax reform, Jamaica was taxing at a level equivalent to about 23 percent of GNP. Since 1983, this share has grown to 30 percent, primarily because of the increasing use of import taxes. We will see that by world standards this is a very high level of taxation.

The structure of Jamaican taxes is described in table 5.2. By 1983, the tax structure was relatively balanced in the sense that taxes on income, domestic production, and foreign trade were all important components. Between 1983 and 1986, however, the taxation of domestic production had declined in favor of increased taxes on imported goods. The current situation—with nearly half of all taxes derived from foreign trade—is that Jamaica's fiscal position is very sensitive to its foreign-exchange position. Individual income taxes have not increased as a share of total financing since 1983.

Problems with the Pre-Reform Tax System

Analysis of the Jamaican tax system indicated that there were three fundamental problems to be resolved. The first is that taxes were too high and, as a consequence, the investment of financial and human capital in the economy was being discouraged. Second, the tax system had badly distorted the structure of relative prices and therefore economic decisions. As a result, the economy was not performing as efficiently as would be the case under a system that was more neutral in its effect on relative prices. Third, a poor administration taxed only that income and consumption that could be easily reached, thereby narrowing the effective tax base and making the system unfair.

Were Taxes Too High?

It is the rare country where the public does not feel that it is overtaxed. At the beginning of the tax project in 1983, the tax ratio[5] was 23.3 percent and was thought to be "too high." But the complaint that taxes are too high can mean many things. It can signal a dissatisfaction with the quality and type of public services being provided, as was case of the U.S. tax revolt of the late 1970s. Another possibility is to argue that taxes are too high by international standards and this somehow makes Jamaica less competitive in attracting investment. Finally, and perhaps a more appropriate argument in the case of Jamaica, is that high taxes discourage work effort and savings and bias investment decisions in such a way that economic growth is slowed.

International Comparisons. To answer the question whether Jamaica taxes more heavily than do other countries, we make use of what has become known as "tax effort" analysis, where "tax effort" is defined as the extent to which a country utilizes its taxable capacity. This tech-

Table 5.3 Taxation Norms in Developing Countries

Measure	Jamaica Actual value	Jamaica Estimated value	Sample average	Sample size	Jamaica ranking	Source equations
Tax/GNP ratio						
1983	23.3	21.1	16.6	52	11	(1)
1972–76	19.0	17.9	16.1	47	13	(2)
1969–71	19.4	19.5	15.1	47	10	(3)
1966–68	16.9	16.9	13.6	49	12	(4)
Tax Effort Index						
1983	1.1037	—	—	52	19	(1)
1972–76	1.0640	—	—	47	18	(2)
1969–71	0.9930	—	—	47	23	(3)
1966–68	0.9986	—	—	49	25	(4)

Estimating Equations

1. $Ty = 0.1148 - 0.0215Ypa + .2116Ny + .096MXy - .004D + .0256D^{*}Ypa$
   $(7.435)\ (-4.198)\quad (1.813)\quad (4.91)\quad (-0.107)\ (2.28)$
   Adj $R^2 = 0.4681$
2. $Ty = 9.9949 - 0.0008(Yp - Xp) + 0.4068Ny + 0.1938Xy$
   $(6.15)\quad (-0.34)\quad (5.41)\quad (3.12)$
   Adj $R^2 = 0.413$
3. $Ty = 11.47 + 0.001(Yp - Xp) + 0.44Ny + 0.05Xy$
   $(7.84)\quad (0.38)\quad (5.45)\quad (1.17)$
   Adj $R^2 = 0.376$
4. $Ty = 14.95 - 0.0742Ay + 0.2951Ny$
   $(9.682)\quad (2.074)\quad (3.678)$

where

Ty = ratio of taxes to GNP
Ypa = per capita income in thousands of U.S. dollars
Yp = per capita income in U.S. dollars
Xp = per capita export income
Xy = share of nonmineral exports in GNP
Ny = share of mining in GDP
Ay = share of agriculture in GDP
MXy = sum of imports and exports as a share of GDP
D is the dummy variable = 1, if Caribbean; otherwise, D = 0

Source: Equation 1—see text; Equation 2—Alan Tait, Wilfrid Gratz, and Barry Eichengreen, "International Comparisons of Taxation for Selected Developing Countries, 1972–76," *IMF Staff Working Papers* 26 (March 1979):123–56; Equation 3—Raja Chelliah, Hessel Baas, and Margaret Kelly, "Tax Ratios and Tax Effort in Developing Countries, 1969–71," *IMF Staff Working Papers* 22 (March 1975):187–205; Equation 4—Roy Bahl, "A Regression Approach to Tax Effort and Tax Ratio Analysis," *IMF Staff Working Papers* 18 (March 1971):570–613.

nique of international tax comparisons was originally developed by Lotz and Morss[6] and extended by Bahl[7] as an ongoing project of the Fiscal Affairs Department of the International Monetary Fund. Since the early work, the Fund has continued on a periodic basis to make intercountry comparisons using basically this approach.[8]

The earlier Fund studies showed Jamaica's estimated taxable capacity, or taxable potential, to increase from 16.9 to 19.5 percent of GDP and then to fall off to 17.8 percent during the 1972–76 period (table 5.3). For other developing countries in these samples, however, estimated taxable capacity continued to increase. Jamaica was an "outlier" in the 1970s in the sense that its capacity to raise revenue was actually declining. However, the public sector did not retrench; in fact, the government expenditure-GDP elasticity averaged about 2.0 over the 1974–80 period. Jamaica's actual level of taxation and its tax effort (the actual ratio of taxes to GNP divided by estimated taxable capacity) increased through the 1970s with the result that tax effort was 6.4 percent above the international norm by 1972–76.

We have updated this analysis to 1983. In the regression model specified here, four determinants of taxable capacity are included. The tax ratio is hypothesized to vary directly with the level of per capita income and with two measures of the availability of "tax handles," the openness ratio (MX_y) and the share of mining and other extractive activities in GNP (N_y). The former, measured as the ratio of imports plus exports to GNP, enhances taxable capacity because of the relative ease of taxing the foreign trade sector; and the latter is meant to reflect the greater taxable surplus associated with mineral exports. A dummy variable is included for Caribbean location ($D = 1$ is Caribbean location) to account for the greater taxable capacity that comes with close proximity to the U.S. market.

This equation is estimated on 1983 data for fifty-two developing nations, with results shown in equation (1) of table 5.3. Nearly half of the variations in the tax ratio are explained. The openness ratio and the mining share are significant (at the 0.1 level) and have the expected positive signs (t-statistics are shown in parentheses). The negative coefficient on the per capita income variable suggests that after one accounts for the foreign trade and mining "tax handles," higher income LDCs appear to tax away a smaller share of GNP. This would be consistent with the hypothesis that a given share of GNP is needed to cover the "fixed cost" of government, no matter how small the country. Above this basic share, the effective tax rate may fall as income increases. A

Caribbean location does not significantly affect the tax ratio per se.

This equation has been used to estimate taxable capacity in 1983 for each of the fifty-two countries in the sample. By this measure Jamaica has a predicted taxable capacity of 21.1 percent of GNP. Its even higher actual level of taxation (23.3 percent), then, gives it a tax effort which is 10.4 percent above normal and ranks Jamaica nineteenth among these countries (table 5.3). Of the ten member nations of the Caribbean Common Market (CARICOM) included in this sample, only Dominica, Guyana, Trinidad, and Tobago show a higher tax effort. The regression approach tells us that by international standards Jamaica is a high-taxing country, and that its relative level of tax effort has been increasing during the last decade.

Narrow Bases. Another explanation for the dissatisfaction with the level of taxation in Jamaica is that nominal tax rates are too high. As shown above, Jamaica's 23.3 percent tax share of GNP in 1983 is high by world standards. This is a more onerous burden if GNP is not fully included in the tax base. A recurring theme in the Jamaica tax story is that the base of virtually every tax has been significantly narrowed by exemptions, preferential rate treatment, and administrative constraints. The result has been that nominal (marginal) rates had to be set very high to satisfy revenue requirements.

Before reform in 1986, the individual income tax base was narrowed by the exclusion of perquisites of "allowances" from tax, by sixteen personal tax credits, and by the preferential treatment of wages earned from overtime work. More importantly, poor administration meant that only the sector of the economy subject to witholding—the Pay-As-You-Earn (PAYE) sector—was effectively taxed. Dividend income was not fully reached because of poor administration, and interest income earned from bank deposits and capital gains was not taxable. The result was that only about 40 percent of the true taxable base was actually taxed. In order to raise the necessary amount of revenues the lowest marginal tax rate was set at 30 percent with no standard deduction and it reached 57.5 percent at the relatively low income level of J$14,000. The frequently heard complaint that the income tax system discouraged work effort and investment really meant that those who were included in the income tax net were forced to pay very high marginal rates.

A similar story may be told for five payroll taxes, none of which have yet been restructured. The education tax and the Human Employment and Resource Training (HEART) trust are not contribution programs, and like the individual income tax, their base does not include allowances for the self-employed sector. The base of the three payroll tax contribution programs—each of which contains a significant tax element—is also narrowed by statutory exemptions (there is a ceiling on wages taxed under the National Insurance Scheme) and allowances are not taxed. Removal of the NIS ceiling and the taxation of allowances alone would have permitted an equal yield reduction in the average rate on the three contribution programs by over 1 percent of wages.

The base of indirect taxes was also limited by exemptions. In 1985, only about 20 percent of the value of all imported goods was subject to import taxes. As a result, the import stamp rate was over 200 percent on some items, and was 30 and 16 percent on capital goods and raw materials, respectively. The base for domestic indirect taxes was also limited. Only about 16 percent of final consumption of services and one third of domestic manufacturing output was in the tax base. If the present indirect tax system, with the present base, were to be replaced by a value-added tax of the manufacturer-importer type, comparable to that of Indonesia (chapter 4), the rate would have to be in the range of 20 to 25 percent in order to maintain revenue yield. This rate would be high by world standards.

The property tax base also falls well short of its legal goal of taxing the full market value of land. The 1974 valuation roll is still in use, hence less than half of the true land value base is under tax.[9] The tax base is further narrowed by preferential assessment of agricultural and hotel properties. As a result, the top statutory property tax rate is 4.5 percent, extremely high by international standards.

Allocative Effects

Neutrality is a basic maxim in taxation (see chapter 1). The tax system should raise the desired amount of revenue in such a way as to leave unaffected relative prices of commodities and services and factors of production. The modern and more practical 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 that neutrality is a desirable goal. The polar view is that taxes can and should be used as levers to stimulate economic activity in desired directions. This interventionist approach underlaid the Jamaican philosophy of taxation in the 1970s.

The tax policy design proposed here departs from neutrality in recommending the retention of some differential tax treatments and the adoption of others—for example, continuing some investment tax incentives to remain competitive, and exempting certain consumption items from sales tax on administrative grounds or to protect the real income position of low-income residents. The question is how far to go in using the tax system as a lever to guide economic choices, correct undesirable distributional impacts of the tax system, or simplify administration. In the case of Jamaica, the relative price distortions introduced by the old tax system went beyond the justifiable exceptions and likely weakened the efficiency with which the economy operates.

It is no simple matter to prove the case that tax-induced distortions in relative prices have resulted in a significant welfare loss. Roughly, the welfare loss is 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 neither term is easily estimated. The net change in relative prices that is *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 there is suggests an inelastic response to relative price changes. One could have a nonneutral tax structure, then, and not suffer substantial welfare losses if only the relative price distortions are not very large.[10]

Implications for Equity. Relative price distortions not only impose an efficiency cost on the economy, they introduce an unfairness in the system that most taxpayers find even more objectionable. This clearly was the case with the previous income tax system in Jamaica. The self-employed were given favored treatment by the income tax administration and paid little or no individual income tax, while 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 a better opportunity to avoid tax through the receipt of allowances and overtime earnings and paid a lower effective rate.

The price distortions in the system also compromise vertical equity. Those who gain the most from evasion tend to be in the upper-income classes. Allowances are concentrated in the higher-income brackets, and even overtime income was claimed heavily by those who one would expect to be salaried rather than hourly wage earners. Jamaicans with unearned income—interest and dividend income—paid a lower effective tax rate and, since they tended to be concentrated in the higher brackets, this tax preference tended to reduce the overall progressivity of the system.

Administrative Problems

The Jamaican tax system has long been plagued by administrative problems. The previous tax system was very complex and therefore difficult to administer, particularly given a shortage of skilled staff as well as inadequate assessment, collection, and recordkeeping procedures.

Complexity. The complexity of the system made the assessment and audit function of tax officials difficult, a problem compounded by the shortage of skilled staff in virtually all of the tax departments. Complexity also raised compliance costs for taxpayers and in so doing either wasted important private-sector manpower or provided an additional incentive for tax evasion and avoidance.

The individual income tax included two separate rate structures, and a preferential rate for income earned by working overtime hours. There were sixteen allowable income tax credits and an even greater number of nontaxable perquisites or "allowances." The forms that are used to establish an employee's credit entitlements were rarely if ever updated and almost never monitored by either the employee or the income tax department.

For those who file year-end tax returns, the forms and instructions are long and detailed, even by comparison with other developing countries. An analysis of the content revealed numerous errors in the instructions and that the income tax forms did not even reflect the present law. Moreover, it was difficult to obtain a copy of the current income-tax law.

Complexity extended far beyond the income tax. Five different payroll taxes levied on four different bases and administered by three different government agencies involve a substantial burden on employers who collect and remit such taxes. There are 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 are over 100 rates, some providing needlessly small gradations.

Staffing Problems and Outmoded Procedures. A shortage of skilled staff is a major bottleneck to improved tax administration. DeGraw reports 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.[11] A disproportionately large number of these were technical positions. The reasons for the staffing problems were about the same in Jamaica as in other developing countries. Salaries were too low, even given the job security and prestige that a government post may offer. In 1983, a trained accountant making J$9,000 in the income tax department would make J$14,000 with a private-sector accounting firm. Moreover, there was no formal career development program, little opportunity for promotion, and the training program in place in 1983 was inadequate.

The methods used to assess and collect taxes in Jamaica 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 up-to-date master file of taxpayers. The system was completely manual, i.e., there was little if any use of the computer other than to print bills. This effectively ruled out the use of third-party information, the cross-checking of sales and income tax returns, etc.

The income tax was essentially a PAYE levy and there was little if any use of presumptive assessments on the hard-to-tax sectors, such as self-employed professionals. The major problem was, and remains, record-keeping. The income tax file room is inadequate in size and all records are manually kept. Files are regularly misplaced or lost, and records are frequently out of date or incomplete.

Objectives of the Reform

One is tempted to claim all good things for the objectives of a comprehensive tax reform, i.e., to argue that the reformed system should be designed to meet all the maxims for a good tax system better than the old system did. Too many tax reform studies are unable to resist this temptation and end up falling into the trap of designing a system with multiple and often even conflicting objectives. In fact, there are important decisions to be made about exactly which objectives of tax reform are the most important and about what the government is both willing and politically able to give up.

The Jamaican tax reform took simplification and neutrality as its primary objectives. The goal was to put in place a system that the government will have some chance of administering efficiently and to "get the prices right." To be sure, there were important constraints that limit how much can be done: political resistance to taking back too much of the progressivity in the system, raising an adequate amount of revenue, and reckoning with the goals of trade and industrial policy. Still, the primary thrust was in the direction of restructuring the tax system so that it would have a less distortive effect on relative prices and therefore on economic decisions.

Both of these objectives point in the direction of proposing broader-based, flatter-rate taxes. The fewer the exemptions and "special features," the more easily are taxes assessed and collected. This will minimize the amount of time required to police those already in the system and give tax officials more time to expand the base by bringing the hard-to-tax into the net. Simplification also makes the tax system more understandable and therefore reduces compliance costs. It is also true that broader-based taxes can generate the same amount of revenues at lower marginal rates, which can reduce some of the harmful efficiency effects of the current tax system.

What about the place of equity in this comprehensive tax reform? Infusing the Jamaican project was the view that equity should not be a primary objective in the design of Jamaica's comprehensive tax reform. The steep progressivity of the individual income tax rate structure had the objective of increasing the vertical equity of the tax system, but it also increased the incentives for evasion and avoidance. Because the income tax administration was too weak to properly enforce the system, the loopholes and noncompliance grew, with the eventual result that individual income tax burdens came to be distributed quite regressively.

Another problem with taking vertical equity as a primary reform objective is that unacceptable efficiency costs may result. 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 more luxury type goods—and the disincentives to savings and investment that such measures might 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.

None of this is to say that equity is not an important consideration in the design of the Jamaican tax reform. The following were taken as constraints in developing the reform program and form an important part of the research program. First, the overall system should not be made more regressive than it formerly was. Since analysis showed the system to be proportional over the first eight deciles and regressive at the top end, a program of broad-based, flatter-rate taxes would not seem to compromise this objective.[12] Second, there should be no increase in the tax burden on very low income households. Our low-income household survey identified the consumption baskets of the low-income and therefore the "necessities" that would have to be excluded from the base of the proposed new general sales tax.[13]

Horizontal equity is an equally important objective of the reform. The objectives of "getting the prices right" and equal treatment of equally situated individuals and businesses are very closely linked. Horizontal inequities not only may induce uneconomic behavior by firms and workers, they contribute to a general undermining of confidence in the tax system and encourage noncompliance (see chapter 1). There is probably no better rationalization for shirking one's taxpaying duty than to point at the unfairness in the tax system.

It is important to distinguish structural reform of the tax system from a revenue-raising program. The objective was a "revenue-neutral" system (see chapter 1). In truth, "one-period" revenue neutrality is about the best that can be promised. One might design a system that will yield the same revenue as the present system in the first year of reform, but it is quite unlikely that the revenue income elasticity of the restructured system will be the same. In the present case, the shift to flatter-rate, broader-based taxes is expected to lower the built-in income elasticity of the income tax system by eliminating the bracket creep induced by inflation. On the one hand, this will hold down the growth in the government share in GNP, but on the other it will not give the government the automatic increases in revenue that it so often wants in order to expand social programs. This is another of those important tradeoffs among policy objectives where a tax reform may force the issue.

Taxes, the Foreign-Trade Regime, and Industrial Policy

The foreign-trade regime and industrial policy have led to significant distortions in resource allocation in Jamaica, not all of which are unwanted. Some result from policies designed expressly to favor one industry or sector over another, others from the goal of discouraging the consumption of imported goods, and still others have been justified on grounds of protecting certain domestic production activities from foreign competition. In other words, taxation may not be the most important policy instrument in the hands of government. 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 this should be done. Should the basic taxation maxims of horizontal equity and neutrality be stressed, even though these might run counter to the objectives of the foreign-trade regime and the existing program of tax incentives to industry? Alternatively, should tax policy play a more supporting role and focus on reinforcing the allocative impacts of other government policies? Or, is it possible to design a tax reform that can be relatively neutral in its effect on the allocation of resources and at the same time keep in step with the government's goals of conserving foreign exchange, encouraging export development, and stimulating investment?[14]

Policies and Problems

Trade and industrial policies in Jamaica have the objectives of stimulating domestic and foreign investment and stabilizing the nation's external balance so as to ensure competitive international markets for exported goods, and allocating enough foreign exchange to support the demands for local industrial growth and "necessary" consumption of imported goods. Many different instruments have been used to support these policies since 1983: 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 have been reinforcing, but other times they have been offsetting, and the net impacts have not always been in step with the stated strategy of the Seaga administration to support a private-sector-led, export-driven growth. To complicate matters, the government's approach to trade and industrial policy has been changing continuously over the past five years—in no small part due to the pressures brought by external creditors.

Probably a fair characterization of these policies as followed in Jamaica is that they have been targeted on favored activities and sectors and that they have been interventionist in spirit. The policy mix is designed precisely to affect economic choices and therefore to stimulate certain production and consumption activities and to discourage others. Horizontal inequities and relative price effects are at the very heart of this strategy. This leaves the tax policy strategist to face the possibility that a more "neutral" tax program would push the government to an even greater use of targeted, direct controls to reestablish any desired preferences that the tax reform may have taken away.

Trade and Tax Policy

By 1984, the Jamaican dollar was considerably overvalued,[15] thereby effectively taxing exporters by forcing them to sell foreign-exchange earnings at a low price and to buy imported inputs at world market prices or higher. Not surprisingly, the results were a shortage of foreign exchange and an active illegal currency market. The collapse of the Jamaican bauxite industry (a major earner of foreign exchange) in 1983 and the heavy drain on foreign exchange reserves caused by debt repayment and oil purchases combined to yield a precarious situation. The government responded to the foreign-exchange shortage first by establishing a parallel market for foreign exchange, then with an extensive system of import licenses, and finally with a devaluation. The Jamaican dollar has not been devalued further, and the system of import licenses has been gradually phased out.

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

This led to a call for a trade liberalization program and a rationalization of the stamp duty rates. As a condition of a World Bank loan, it was agreed that beginning in 1987, a four-year reform would be aimed at broadening the base of the import duty and rationalizing the rate structure. In particular, the program called for the 1985 tax rate increases to be rolled back to 10 percent for raw materials, 20 percent for capital goods, and 30 percent for consumer goods. By 1991, 30 percent was to be the maximum duty rate.

Industrial Policy

Like many countries, Jamaica has sought higher national-income growth by increasing investment in the island's businesses. But there are many different ways to structure economic policy to encourage development and expansion of the private sector. At one extreme is a strategy that attempts only to improve the general climate for investment and employment generation, and leaves it to the market to determine the amount and mix of new economic activity. This approach attempts to avoid policy measures that will distort economic choices, and to restrict government interventions to those cases where inefficiencies arise from market failure. The policy tools consistent with this approach are the development of public infrastructure such as roads, ports, and public utilities, and possibly an increased investment in human capital. On the revenue side, this approach is most consistent with a set of broad-based, low-rate taxes—the tax policy strategy argued here for Jamaica.

Jamaica presently follows an industrial policy closer to the other extreme—a highly targeted policy where the government intervenes to encourage development in certain sectors of the economy. The program includes incentives to "approved" firms, under separate programs for firms producing for domestic and for export markets. The incentive package can include exemption from import duty, tax holidays, and special capital allowances. Prior to 1980, when the emphasis was on import substitution, these programs did not work well, i.e., they imposed a revenue cost and led to inefficient uses of resources that outweighed the gains from net new investment generated. Thirsk calculates welfare losses of between 3 and 38 cents per dollar of investment under the import substitution regime. The Seaga years have seen a shift in emphasis toward subsidizing labor-intensive exports and agriculture, with the result, Thirsk estimates, that this program, potentially, could generate net social benefits from anywhere between 1 and 29 cents per dollar of investment.[16] Such estimates are very difficult to make, but the Thirsk analysis is probably as close as one can get to quantifying these impacts. One might draw the conclusion that the evidence is not clear that the government gets a very large return even from its present tax incentive legislation.

There are, however, more implicit elements to Jamaica's industrial policy. Perhaps the most important is the way in which it alters the relative price of labor and capital and therefore the incentive to substitute capital for labor-intensive technologies. An unfortunate and unintended side effect of the present system of incentives is that they have encouraged the growth of capital-intensive enterprises. Here it might be argued that the government's intentions are unclear, that some of its policies have potentially offsetting effects on one another. For examples:

Tax holidays from the company tax have increased the after-tax rate of return to investors and stimulated aggregate investment. The provision for large writeoffs of capital expenditures gives an incentive to shift this investment toward shorter-lived capital investments.

Payroll tax contributions (employer and employee) have been substantial and probably introduce a bias against labor, as does the provision for a substantial severance allowance for employees who are laid off. The tax credit to firms for employing (newly trained) workers under the HEART program works in the opposite direction, but the amounts involved are very small. The substantial increase in stamp duty rates on capital equipment in 1985 gave an incentive to substitute labor for capital. This effect was somewhat offset by the reduction beginning in 1987, but the tax rate on capital goods remained at 20 percent of c.i.f. value.

The effects of lax income tax administration on capital-labor substitution are not easily seen. On the other hand, wages are taxed at a higher rate in the formal sector than in the self-employed sector; therefore, an incentive exists to substitute capital for labor in the PAYE sector. It is this sector where most industrial activity resides. On the other hand, interest income was not taxed at all before the 1986 reform, dividend income appeared to be substantially underreported, and there were income tax credits for investment in life insurance, a home mortgage, and a unit trust.

Compatible Tax Policies?

The problem became how to design a new tax structure that would not be out of sync with the government's other economic policies, but would stay with the principal tax reform objectives of neutrality and simplification. The above discussion of trade and industrial policy makes it painfully clear that a move to neutrality in the tax system has made the overall allocation of resources even worse—both because of the preexisting distortions and because the tax reform might be seen by the government as a call for even more targeting of trade and tax incentive policies in an attempt to restore the position of favored sectors. Far from getting the prices right, there was the real danger that tax reform could make matters worse.

On the other hand, it is possible to stay with the objectives of creating a "good" tax structure and not compromise the overall efficiency with which an economy operates. In fact, some parts of the proposed tax reform program could be seen as reinforcing the objectives of the government's trade and industrial policies. In some cases this is not true because the government's policies are unclear and in some instances are even contradictory. The proper strategy here is to urge changes in the economic policies, or at least a clarification of objectives. In other cases, there is simply an incompatibility between the proposed tax policy and the existing trade-industrial policy. This requires the government to face up to some important tradeoffs. There is also the possibility that defects in trade and industrial policies will prove transitory, and the tax reform ought to be pointed more toward the longer term where all of the government's economic policies are more in step with overall development strategy.

Three components of the tax reform package were at issue here: the introduction of a value-added type consumption tax, a reduced rate of company tax, and the disposition of the tax incentive programs in place prior to reform.

First, the project proposed replacement of the existing domestic indirect taxes with a general consumption tax (GCT) to be levied at a single rate on importers, manufacturers, and large distributors. Bird has suggested the possibility that the import stamp duty could also be brought under the GCT, but a temporary additional rate of 15 percent on imports would be necessary to protect revenues.[17] Some features of this proposal would fit the government's economic program as well as the wish list of the donors. Introduction of the GCT with its value-added feature will provide exporters (who would be zero-rated) with an automatic rebate for taxes paid on imported inputs. The proposed basic rate structure of the GCT—a single basic rate and a luxury rate—is consistent with the goals of an equal tax treatment of imported and domestically produced goods, and discouraging nonproductive uses of foreign exchange. However, the 15 percent tax on imports, even if temporary, reintroduces a significant element of protection.

The most important way in which the GCT does not fit government industrial policy is that it is not targeted to provide relief to particular activities (the single important exception being the zero-rate for exporters). All firms would face the same rate and all imports would be taxed according to the same rate schedule if the import stamp duty were subsumed with the GCT. The present practice of exempting certain imported goods and taxing others at preferential rates, or the proposals to give rebates to exporters on a partly judgmental basis, gives the government a latitude for stimulating activities in "favored" sectors that the GCT would not accommodate.

The conflicting objectives of trade-industrial policy and tax policy led to a significant problem in the design of the GCT. If the government was unwilling to simplify the rate structure applicable to imports, then incorporating the import stamp duty into the GCT would lead to a more complicated rate structure than before. The costs of such complication would be high; indeed one of the main justifications for amalgamating indirect taxes into a GCT was simplification. Bird goes so far as to argue that "if there is a prospect that one of the prices that may have to be paid for getting rid of the import stamp duty would be to incorporate similar rate differentials in the GCT, then the idea of including the stamp duty should be put aside."[18]

The centerpiece of the corporate income tax reform, as proposed and enacted in 1987, was a reduction in the tax rate from 45 percent (including the additional company profits tax, ACPT) to 33⅓ percent. This increases the after-tax return to companies, and thus meets one of the principal objectives of national industrial policy. Moreover, it reduces the rate to match the top rate in the reformed U.S. system, thus protecting the foreign tax credit position of U.S. investors in Jamaica.

The reform, however, is not totally compatible with industrial and trade policies. The principal reason is that a general rate reduction is not targeted, i.e., the lower rate is available to all firms and not just to those who are "approved" under the incentive legislation. Another way to look at the implications of the 1987 tax reform is that the lower tax rate effectively reduces the comparative advantage given to existing incentive firms, e.g., a tax holiday is now worth less.

Finally, there was the question of what to do about the tax incentive legislation. Various proposals to scrap the incentive programs were probably ill-advised. Most competitor countries give comparable subsidy packages and withdrawal by Jamaica might have been read as a sign of a less hospitable business climate. Jamaica's political climate is still considered risky by some investors, and its economy has only recently shown signs of reversing a long-term decline. The mid-1980s was not a good time to take any major actions that might shake investor confidence.

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 prac-

Table 5.4 Rate Structure of the Individual Income Tax Prior to Reform

Statutory income[a]	Marginal tax rate
If income is less than J$7,000	
J$ 0– 4,000	0
4,001– 7,000	.70
If income is more than J$7,000	
J$ 0– 7,000	.30
7,001–10,000	.40
10,001–12,000	.45
12,001–14,000	.50
14,001 and over	.575

[a]Statutory income is the tax base for the personal income tax. It is the amount that is entered on the personal income tax return and equals the sum of income from employments and offices; pensions; rent of land, houses, or other property; dividends, interest, annuities, discounts, estates, trusts, alimony, or other annual payments arising within Jamaica; sources outside Jamaica; sources not stated elsewhere; and trade, business, profession, or cultivation of land or farming; less capital allowances.
Source: Income Tax Department.

tice, 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 above or below J$7,000. The top marginal rate was 57.5 percent (table 5.4). There was no standard deduction but taxpayers could qualify for sixteen separate tax credits. These credits had been added to the tax system over a period of years, for purposes that ranged from personal allowances to stimulation of savings to even employment of helpers in the home. Because the credits were not indexed to inflation, their value had been substantially eroded during the early 1980s. The income tax administration did relatively little monitoring of the credit system.

The base of the tax was further narrowed by the practice of permitting employers to grant nontaxable perquisites ("allowances") to employees. These perquisites were a matter of negotiation between employee and employer (including government ministries) and it was not required that they be reported to the income tax commissioner. The project's sample survey results showed that allowances averaged about 15 percent of taxable income, but were over 30 percent for those 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 ratio of allowances to taxable income averaged 40 percent.

Problems with the Preexisting System

The results of an exhaustive empirical analysis of the individual income tax system can be summarized in five general conclusions.[19] The first is that the income tax base was narrowed dramatically by the provision of tax credits, the exclusion of allowances, and various forms of evasion. More than half of potential individual income tax liability was not in the tax net in 1983. By our rough (and, we think, conservative) estimates, the full taxation of allowances and unreported income would have doubled individual income tax revenues. To give some idea of the opportunity cost of the administrative practice, this amount would have fully covered the government of Jamaica's deficit in 1983.

The second conclusion is that the income tax system was not as progressive as its statutory rate structure would seem to suggest. When measured against statutory income, the effective tax rates showed a pattern of graduation, but when tax liability is measured against a more comprehensive definition of income—including allowances and unreported income—the progressivity disappeared.

Third, we discovered substantial horizontal inequities in the system: a differential tax treatment of individuals in the same income bracket. This differential is somewhat arbitrary in that it depends on an individual's ability to hide income and to receive a larger share of income in allowances. For example, the average tax rate for individuals in the high income classes ranges from 50 percent for PAYE employees who comply with the tax law to zero for nonfilers, with an estimated average of less than 10 percent.

The fourth conclusion is that inflation raised effective tax rates via "bracket creep." Simultaneously, inflation had a (partially) offsetting effect on the vertical equity of the tax because the value of credits declined in real terms and because the effects of inflation in pushing taxpayers into higher tax brackets stimulated evasion and avoidance. We found that the three main avenues for escaping the high rates of individual income tax—evasion, allowances, and overtime—are all concentrated in the upper income brackets.

A fifth conclusion, more speculative than substantive, is that the marginal income tax rates were high enough to affect work effort, investment, savings, and compliance choices.

Evasion and the Hard-to-Tax Sector

Every income taxpayer faces the choices among tax evasion, tax avoidance, and fully reported income. The potential rewards for successful evasion or avoidance under the pre-reform system were considerable —the 57.5 percent marginal tax rate and the tax component of the various payroll levies. Although the opportunities for avoidance were certainly present—allowances and "overtime" income—self-employed Jamaicans more often captured these benefits by outright evasion.

As a first step in estimating the revenue loss to avoidance and evasion, we identified the population of Jamaicans working in six professions: accountants, architects, attorneys, physicians, optometrists, and veterinarians. From a random sample of this group, we determined that only about one in five paid income taxes in some year between 1981 and 1983, 60 percent did not even have an income tax reference number, and the revenue loss was equivalent to about half of total income tax collections in 1983. This analysis was extended to nine other self-employed occupations, with similar results. We concluded that fewer than one in five of the self-employed filed a return. A summary of the filing rates in these nine occupation classes is reported in table 5.5. Based on this sample of lower-income self-employed persons, the revenue costs from evasion were estimated to be on the order of 50 percent of income tax collections.

The Reform Program

The general direction for reform was to broaden the tax base by legal and administrative means, to lower top end marginal rates, and to protect the real income position of those at the bottom end of the income taxpaying population. All of this had to be done within a constraint of revenue neutrality and had to be mindful of the almost certain opposition of interest groups who had long since come to expect (and rely on) some of these tax preferences.

The key elements of the 1986 reform program were:

1. The credit system was replaced by a standard deduction of $J8,580.
2. A flat rate tax of 33⅓ percent replaced the progressive rate structure.
3. Fringe-benefit type allowances were made taxable as ordinary income, with some exceptions.
4. The preferential treatment of overtime income was eliminated.
5. Interest income, above a threshold level, was made taxable.

Table 5.5 Income Tax Filing Rates for Self-Employed Individuals: By Occupation

Occupation category	Percentage of self-employed who filed a return for 1982	Percentage of self-employed who filed a return for any year between 1982 and 1984
Service station	11.9	5.6
Customs broker	8.2	2.7
Auto repair	15.1	9.7
Auto parts	11.4	8.2
Hair care	11.1	5.8
Real estate	22.8	10.1
Contractor	11.4	5.3
Transport	21.5	13.3
Beverage and spirits	14.2	9.6
Total	17.3	10.9

Source: Roy Bahl and Matthew Murray, "Income Tax Evasion in Jamaica," Jamaica Tax Structure Examination Project Staff Paper No. 31, Metropolitan Studies Program, The Maxwell School (Syracuse, N.Y.: Syracuse University, November 1986).

Revenue and Tax Burden Impacts

One approach to estimating the structural impacts of the reform is to make use of historical data. At the time this proposal was being evaluated, the hypothetical question we asked was: what would have happened had these reforms been put in place in 1983?[20] The results show that the proposed system would have led to a reduction in the average rate of taxation from 14.5 percent to 9.8 percent of taxable income for those who actually paid income taxes in 1983. Enactment of the full program would have led to a revenue loss equivalent to about 26 percent of revenues. The distribution of tax burdens would have become 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.

Surprisingly, the revenue-income elasticity of the reformed system is not significantly less than that of the pre-reform system. This is because the standard deduction of J$8,580 is not indexed; hence average tax rates for all taxpayers rise with increases in income, and income growth also "bumps" previously exempt taxpayers into the taxpaying range. As a result of inflation, the distribution of burdens under the new tax system will become less progressive over time owing to the fact that neither credits nor the standard deduction are indexed and both weigh heavier in the tax calculus for lower-income taxpayers.

We also made out-year projections of the impact of the proposed reform, and compared these with projections of the pre-reform system. The results suggested that in 1987 the flat-rate tax would yield about 7 percent less than the pre-reform system, again with more progressivity in effective rates. For example, 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 pre-reform system. This increased progressivity was an unexpected bonus from the flat tax. Does this imply some sacrifice of the objective of reducing the marginal tax rate on productive activities? In fact, the increased marginal rates on higher income taxpayers is primarily due to the tax on interest. The effective tax rate on earnings actually drops in the top income brackets. Those who would emphasize the potential economic impacts of lower marginal rates on higher income taxpayers will applaud this change in the taxation of unearned income. Those who look to the tax system to reduce disparities in the distribution of income might be equally happy with the increase in the average rate of taxation in the top brackets.

Allocative Effects

Prior to enactment of reform, a major concern was whether income tax rate reductions would yield significant investment, saving, and work effort responses. Even if the short-run price elasticities of work effort, saving, and income tax compliance are very small (as the evidence suggests), the impact could be substantial because the marginal tax rates were reduced so dramatically. Though no solid evidence is available, it would not seem farfetched to argue that the after-tax return to investors and to increased work effort has been significantly increased. Under the proposed new 33⅓ percent flat rate schedule, the *incremental* tax cost of increased investment, etc., is much less than before. The benefits of outright evasion have also been lessened. Moreover, well-structured enforcement programs have a better chance for success than would be the case under the higher marginal rates.

Gauging the impact on saving is more complicated. One possible effect might be that since interest is brought into the tax base and one third of the gross return on savings accounts is taxed away, funds previously devoted to commercial bank savings deposits might be shifted to equities. Moreover, other preferential tax treatments of favored investments are removed with elimination of the income tax credit for the purchase of life insurance premiums and unit trust shares. These changes should have the effect of putting all types of investment on a more equal footing and *cet. par.* improving the relative attractiveness of purchasing stocks. Perhaps more important, the top marginal tax rate on income from all investments other than savings accounts will fall from 57.5 percent to 33⅓ percent. On the debit side, inclusion of interest in the tax base may encourage avoidance via capital flight, a shift to consumption, or a shift in investment to the more lightly taxed real estate sector.

First-Year Results

The first component of tax reform was enacted in January 1986. By May it was believed that most firms had switched their employee withholding to comply with the new system. Available data suggest a successful first year revenue performance of the new system—a 20 percent increase between 1986 and 1987. Despite this revenue productivity, the tax reform is not a tax increase in disguise. Barring offsetting discretionary reductions the old system would have yielded more. Revenues from the flat tax were more than we originally projected, but this is mostly due to the unexpected strong performance of the Jamaican economy. In fact, when we "backcast" using the true economic assumptions, the actual revenue performance of the new system falls short of expectations.

The Unfinished Reform Agenda

The Jamaican income tax reform, though it went much further than most tax structure revisions, has left some needed structural changes undone. Unless these issues are addresed, some of the important gains from the reform may be eroded. Moreover, there are the inevitable problems that creep into any reformed system in the first years of operation: administrative difficulties, ambiguities in the legislation, and loopholes that taxpayers are far more adept at identifying than were the tax reform designers.

The major structural problem with the Jamaican reform is that it leaves open some perquisite loopholes. The tax treatment of allowances for automobiles, housing, and especially uniforms and laundry gives away too much in some cases and is unclear in others. There is already evidence of abuse. A lesson that should have been taken from the experience in the late 1970s and early 1980s is that income taxpayers will take advantage of this type of loophole and there will be a migration of "legal allowances" to these categories. Predictably, our sample survey taken in the first year of the reform showed a movement in compensation toward the "nontaxable" allowances.

A second problem is that the reformed individual income tax is too income elastic, i.e., its revenues automatically increase at about twice the rate at which income increases. This will inevitably bring pressure on the government to enact discretionary changes to bring about tax relief. These discretionary changes, year to year and ad hoc, could eventually compromise the achievements of the reform program. The government should follow one of two courses of action in dealing with this problem. First, and probably best, the standard deduction could be indexed to the rate of inflation. This would get around the problem of having to make periodic discretionary adjustments in the standard deduction, it would hold down the increase in tax burden to match the growth in GNP, and it would hold harmless from tax increases those lower-income Jamaicans who have experienced no increase in their real income position. The second alternative is to make annual discretionary adjustments in the standard deduction *and* to lower the greater stimulative effect on the economy because of the lowering of the marginal tax rate, but it also has disadvantages. For example, it would politicize revisions in the tax structure to a much greater extent than is desirable, and it would raise pressures to make comparable reductions in the rate of corporation taxation.

Payroll Taxes

Five payroll tax programs use wages as the base for the tax contribution. These include the Education Tax, the Human Employment and Resource Training (HEART) Trust Fund, the National Housing Trust (NHT), the National Insurance Scheme (NIS), and the Civil Service Family Benefits Scheme (CSFBS).[21] The latter three are more properly viewed as contributions because individuals are entitled to benefits in proportion to their contribution.[22] The Education Tax and HEART are simply surcharges on the individual income tax. In total, these payroll taxes generate sizable revenues, equivalent to roughly half of individual income tax collections.

The Programs

The Education Tax was established to advance educational goals, but the collections from the tax go into the general fund and are not earmarked for education programs. The base of the tax is all earnings. The employee and his employer are each taxed at the rate of 1 percent on wages. Self-employed persons are taxed at the rate of 1 percent. Education Tax revenues were equal to about 7 percent of individual income tax revenue in fiscal year 1984–85.

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

The National Housing Trust (NHT) was established to improve the existing stock of housing. 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 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 annual wage of J$3,120. An employee's contributions entitle the employee to a variety of benefits, all of which are related to the amount of the contributions. Employee—but not employer—contributions are vested with the employee. In 1977–78, NHT revenues were well over one third of income tax revenues.

The National Insurance Scheme (NIS) is a funded security system. Contributors are entitled to a variety of benefits which are based on past contributions. In 1986–87, total contributions were just over J$82 million, and the NIS Trust Fund of J$912 million generated J$124 million in income. 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 Civil Service Family Benefits Scheme (CSFBS) is a forced insurance scheme for some Jamaican government employees. All persons in "pensionable offices" must contribute to the scheme. Coverage is in fact very limited—less than 25 percent of government workers participated in 1985. A contributor must pay 4 percent of total salary to the scheme. Revenues have grown erratically, but were only J$2.2 million in 1982–83.

Problems with the Present System[23]

Payroll taxes are closely linked to the individual income tax in terms of economic effects and in the minds of the Jamaican worker who reads the amount of deductions on his pay slip every week. But while the income tax reform has gone forward with a program to broaden the tax base and lower the marginal rates, the payroll taxes have not been restructured. At the time of the income tax reform in 1986, the rate of payroll tax contribution was frozen, and at the time of this writing no permanent improvements have been made.

Structural reform of payroll taxes involves two major problems. The first is the narrow base on which the payroll taxes are levied and consequently the high nominal rate of tax. The second problem is that administration is fragmented and there is little communication among the five programs. There are five separate recordkeeping systems, each has its own audit program, and (except for the Education Tax) each is responsible for its own audit program and for monitoring collection efficiency. Compliance with the Education Tax is monitored by the revenue board, but only two people are assigned exclusively to this task. NHT and NIS officials have authority to audit company records and to obtain income tax information, but their compliance staffs focus primarily upon 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 being paid to the issues of bringing the self-employed into the payroll tax net.

Proposed Reforms

Payroll tax reform should concentrate on simplification of the system, a broadening of the tax base and a lowering of rates, and a general overhaul of the administration of these five taxes. As a first step, the Education Tax should be abolished as a separate payroll levy and merged into the general tax system. To protect revenues, if necessary, this would require an increase in the individual income tax rate from 33⅓ percent to 35 percent. 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 economy-wide. That being the case, it is a good candidate for general fund financing. 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, and it would improve vertical equity because interest would be taxed and the standard deduction amount would not.

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

If the base of the payroll tax could be broadened, the rates could be lowered. Even if base broadening were confined to taxing allowance income and eliminating the ceiling on NIS contributions, the combined tax rate on payrolls for the four remaining programs could be reduced from 11.4 percent of wages to 10.4 percent of compensation. Elimination of the Education Tax would further reduce this average rate to 8.8 percent. With a stronger enforcement program that concentrated on increasing the contributions from the self-employed, the rates could be dropped even further.

Company Income Taxation

The corporate income tax has been a reliable, growth-responsive source of revenue for the government of Jamaica. In recent years, however, the structure of this tax has come under scrutiny because of the preferential treatment given to certain types of income and to income earned by certain types of companies, the absence of any mechanism to adjust taxable profits for inflation, and the separate treatment of companies and their shareholders under the income tax.

Rate and Base Structure

Before the 1987 reform, the company income tax was levied at a basic rate of 35 percent. In addition, there was an "additional corporate profits tax" (ACPT) 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. Companies that had distributed 40 percent of their pretax profits would recover all of the ACPT they had paid on these profits.[24] 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 permits deductions for capital allowances, rather than book depreciation. Enterprises could claim a prescribed initial allowance[25] and an annual deduction computed on a declining basis against historical cost. Inventories were valued using the first-in-first-out (FIFO) method. Losses could be carried forward five years but there was no provision for loss carrybacks. Capital gains on the sale of shares listed on the Jamaican stock exchange were not taxed.

There were many exceptions to this basic treatment of companies resident in Jamaica. Financial institutions were taxed under a separate and very complicated regime, as is the case in most countries.[26] Separate incentive legislation provided for a different rate and base of tax for incentive companies, and preferential treatment was given in the taxation of public enterprises.[27] With respect to the taxation of dividends, some resident shareholders received special relief, and dividends paid to nonresidents were generally subject to a special withholding tax rate, determined by treaties.

The company tax has actually accounted for about 15 percent of total tax revenues. This proportion has held approximately constant during the 1980–86 period, even with the substantial reduction in the payment from bauxite companies. Tanzi's comparative analysis for the 1980s shows that Jamaica has relied much less on the company income tax than other countries at a similar income level.[28]

Problems and Reform Needs

At the outset of the tax reform program in 1983, restructuring of the company tax was seen as essential. There were some areas where the tax was flawed, its structure was not totally compatible with the economic policies of the new administration, and revisions of other taxes almost certainly would change the way the company tax "fits" into the total system. The pre-reform company tax structure could also be criticized for its complexity, its bias toward certain types of investment decisions, and for the way it responds to inflation.

Complexity and Administration. Because of the many special features in its rate and base structure, the pre-reform company tax was not easily administered. The problems were magnified by a shortage of skilled staff and outmoded—in some cases flawed—operating procedures. Such difficulties of administration not only imposed administrative costs but led to more than a little 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 compromised administration relate to depreciation allowances and inventory valuation. The previous (and current) system of capital allowances is quite complex, involving numerous schedules for asset types, special types of allowances for different industries, and incentive laws providing special treatment to both favored industries and favored types of assets. As a consequence, income tax officers have spent too much time on classification issues at the costs of spending too little time with the important business of book audit, thus inviting abuse and leading to tax monitoring. Under such a complicated system, compliance costs are high. Large enterprises make use of accounting firms to assist them in compliance, but smaller enterprises almost certainly have had trouble understanding the available options. This introduces an unintended but potentially important non-neutrality into the system.

The law on inventory valuation requires that it be valued at the lower cost or market value, and most firms have used the FIFO method for determining the cost of their sales. However, some large firms have utilized the last-in-first-out (LIFO) method, which has neither been sanctioned in the courts nor approved by the Commissioner. Others have availed 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. They were successful because the income tax department lacked an effective audit branch.

Inflation. Brisk inflation during the 1980s, in concert with the present tax structure, has driven up real company tax rates, influenced investment choices, and provided additional incentives for tax avoidance and evasion. The law contained no provisions for inflation adjustments even though it was generally recognized that the base of the tax diverged substantially from real corporate income during periods of high inflation.

Under inflationary conditions the Jamaican approach to defining capital allowances understated capital consumption and LIFO accounting understated the cost of goods sold. Both of these factors caused profits to be overstated and, *cet. par.*, dampened the rate of investment. Wozny demonstrated that under the old tax structure the effective tax rate on an equity-financed capital investment in a basic industry increased from 42 percent to 60 percent when the inflation rate increased by 10 percent.[29]

The effects of inflation may also work in the direction of overstating profits and may cause firms to adjust their financing structures. Inflation causes a decline in the real value of corporate debt which results in untaxed gains that vary among companies according to the degree to which they are in debt. Moreover, the tax exempt status of interest income 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: to engage in transactions whose sole purpose is reduction in tax liability. Among the many avoidance techniques observed in Jamaica are 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. In principle, full integration of personal and company income taxes would require that distributed and retained company profits be taxed at the same rate as other sources of income. Jamaica, as most countries in the world, taxes distributed and undistributed corporate profits under the company tax, and dividend income under the individual income tax.

This tax structure was widely criticized on grounds that it biased investment decisions in favor of debt and against equity investments. Before the 1986 individual income tax reform, the problem was further complicated by the exemption of interest income. The bias in favor of debt, it is argued, led to thin capitalization of Jamaican corporations, inhibited the development of the domestic capital market, and created horizontal inequities, i.e., investors pay different amounts of tax depending on the composition of the portfolio which they hold.

Empirical analysis on a representative sample of Jamaican companies supports some of these claims, but not others.[30] The 1984–85 tax system in fact did favor debt-financed investment, but this had nothing to do with a lack of dividend relief. Rather, it was due to the fact that borrowers were able to deduct nominal interest payments from their gross book income in computing taxable income, while true economic income would have been computed by deducting only payments of real interest. 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.

While it seems clear that integration and a lower tax rate would be a step in the direction of "getting the prices right," it is by no means clear how much economic loss has resulted from the distortions introduced by the present system. One could take the position that these price effects either are not significant or they are offset by some other distortion in the system. With respect to the latter, consider that the bias in favor of debt was to some extent offset by the absence of capital gains tax on securities. Moreover, all dividend recipients were not being subjected to double taxation in any case. Less than 10 percent of the self-employed—a large proportion of those whom we would expect to face marginal tax rates in excess of the withholding rate of 37.5 percent —even filed a return.

The Reform Program

There were important constraints to reforming the company tax. An initial charge was to assure revenue neutrality. Although this requirement was later relaxed, it was clear that any proposal that carried too great a revenue loss would have no chance. There were three other important constraints. First, the new system would have to be within the present 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 could not be counted on immediately. Second, the reformed system of taxing companies and dividends would have to "fit" the new individual income tax structure. Third, it would have to be sensitive to the politics involved in tax relief for the business sector.

Proposed and Adopted Changes. The most important component of the proposed reform was to reduce the tax rate from 45 percent (including ACPT) to 33⅓ percent. The project and the tax reform committee further recommended that dividend distributions to residents be exempt from individual income tax. Among the strong arguments in favor of this proposal are that the system would be greatly simplified and thus more easily assessed and monitored.

This reform program would reduce the tax incentive to employ debt and all but eliminate the tax disincentive to distribute earnings. These improvements would not result from the elimination of double taxation, but rather from the lowering of the corporate tax rate to equal the new rate of the personal income tax. This rate equalization, combined with the recommendation to eliminate the transfer tax on capital gains arising from the transfer of corporate shares, meant that both distributed and retained corporate income attributable to resident Jamaican individuals would be taxed at the same rate as any other income earned by those individuals. In other words, full tax integration would effectively be achieved for this class of shareholders. The simplicity of the new personal-income tax would permit this without a complicated imputation and credit mechanism.

It was proposed that the withholding tax on profits remitted abroad be retained. 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 have received 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.[31] It was decided that the greatest efficiency gains would be achieved by lowering the basic corporate rate as far as possible.

The government adopted the recommendation that the company tax rate be reduced to 33⅓ percent and that the ACPT be abolished, and that the withholding tax on dividend payments to nonresidents be retained. The proposal to exempt dividend payments from personal tax liability, however, was rejected. The government instead decided on a separate entity approach whereby company profits and dividends would be taxed at 33⅓ percent, the latter under a withholding system. The government thus "passed" on the opportunity to fully (and simply) integrate the income tax.

One reason given for rejection of the proposal to exempt dividends received by individuals 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 revenue package. A more likely explanation is political, i.e., the Jamaica Labour Party's sensitivity to the growing public perception that it had become the party of the "big Man." The government was still feeling the criticism over the taxation of interest income that had been introduced the year before. The prime minister and members of the cabinet fully understood that the exemption of dividend income and the taxation of interest income represented equivalent treatment, but did not believe this could be explained to the public.

Impacts. Wozny has modeled the impact of the system actually introduced by the government for 1987.[32] Corporate income will bear a lower overall tax burden than it had under the pre-reform system but, because the tax burdens on other forms of income have been reduced by a greater degree, corporate-source income will be relatively disadvantaged, especially when distributed. The end result of this discrimination will 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 will also discourage the distribution of earnings to resident shareholders to a greater degree than the pre-reform system. Wozny's estimates are that this reform will 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 percent to 33⅓ percent in 1987 will increase the post-tax return on corporate investment and stimulate growth in the sector and in the demand for corporate equities. The imposition of a higher tax penalty on dividends than existed before the reform will, however, impede the flow of investible funds out of established widely held companies and into the hands of investors who will find the highest returns available for these funds. The introduction of full double taxation of corporate income in Jamaica, even though both the corporate and personal tax rates are lower than they were before 1986, is antithetical to the government's long-range economic strategy of structural adjustment, which calls for a reallocation of resources out of the low-return import-substitution sector into the export-promotion sector.

It is clear that much remains undone and there are still important distortions to investment choices that are attributable to the tax system. In particular, the change in the relative tax treatment of debt versus equity investments is not in the direction of getting the prices right, because full double taxation of dividends has been adopted. Another problem is that the system has not been restructured to deal with the problem of inflation: depreciation allowances remain unindexed and FIFO valuation of inventories remains the practice. The move to either LIFO or to indexing asset values to price level changes are beyond the administrative capabilities of the Income Tax Department at the present time.[33]

Indirect Taxes

The history of changes in the structure of Jamaican indirect taxes has been one of piecemeal adjustment to cover annual revenue shortfalls. As a result, the underlying problems with the system have persisted and perhaps even worsened. The conclusion reached by virtually all who have studied the system is that it should be replaced with a general sales tax. Our conclusion was the same.

The indirect tax system had not been restructured through June, 1988. It remains a complex system of five separate taxes.[34] From the revenue standpoint, the most important component of the system is the consumption duty, which is levied on the value of imported and domestically produced goods and is collected at the import and the manufacturing stage. The other two domestic indirect taxes, retail sales tax and excise duties, are insignificant in terms of revenues raised. Two taxes are levied on the import base: customs duty and stamp duty on inward customs warrants. The customs duty proper is a relatively small revenue source by international standards (less than 10 percent of Jamaican revenues), primarily because of Jamaica's membership in CARICOM. However, with significant rate increases beginning in 1984, the stamp duty has become a major fiscal instrument.

Problems

The Jamaican economy has simply outgrown its indirect tax system. Basically, the same laws, regulations, and forms designed forty years ago for the duty on rum and a few other items are still being used even though the present system covers nearly all manufacturing activities. Cnossen describes 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 multi-rate structure, and its complexity may have undesirable economic effects. Its distributional effects are largely undeterminable.[35]

Complexity

The administrative problems with the indirect tax system are in part due to its complexity. The five taxes are levied under separate acts, are administered by different divisions within the Customs and Excise Department, have different licensing and return requirements, and even require separate recordkeeping systems. The bases which are taxed are not the same, nor are the rate schedules which are a mixture of ad valorem and specific ones. Even the customs and excise officials have some problems fully understanding the system. The rate schedules are very detailed with many fine gradations, and tax officials spend far too much time classifying commodities for purposes of selecting the proper rate. Moreover, the base is not clearly defined in either the law or the regulations, and often the official must make a notional assessment of the taxable value of an object. The result is that the tax administration service, already understaffed, has much less time available to spend on the more important business of assuring a proper rate of compliance.

Efficiency

Jamaica's system of indirect taxation does not fit the neutrality goal. It distorts the relative prices of consumer goods from what would be the case in the absence of taxation, it gives enterprises an incentive to alter their methods of doing business, and it offers some degree of inefficient protection to domestic producers. As noted above, all of these concerns about the economic effects of the present system can be traced to a single underlying problem: the tax base is very narrow and revenue needs force a high effective tax rate and a concentration on those commodities where assessment and collection are relatively easy. Less than 20 percent of final consumption of services and less than one third of gross manufacturing sales are taxed.[36] The coverage of domestic value-added is thin because the consumption duty is essentially a manufacturers' sales tax and does not reach the distributive sector, small firms, or most of the services sector. Excluding the traditional excises, the average effective rate of indirect taxation on those commodities actually in the base is 36 percent (in 1983).

Much of the revenue from the domestic base comes from cigarettes, gasoline, and alcoholic beverages. About 40 percent of all indirect tax revenues, 20 percent of all tax revenue, and 5 percent of GDP in 1983 came from taxes on drinking, smoking, and driving. Relatively high tax rates on these items probably do not impose welfare losses in Jamaica because of the price-inelastic demand for these goods and the external costs associated with consumption of these goods. These taxes are easily assessed and collected, and consumption will not be enough to measurably affect revenues.

The problem with all of this is that the system becomes very dependent on this narrow base, perhaps to the neglect of fully developing the taxation of domestic produce and consumption. Reliance on the "perennials" for 85 percent of consumption duty has understandably dampened enthusiasm for developing a major training program in tax accounting and auditing. In Jamaica, the traditional excises have always been assessed on a specific basis, requiring the physical control expertise which is associated with an "excise man." But the ad valorem basis necessary to assess the broader domestic consumption and production sectors requires an ability to inspect the books of account of enterprises in the system. The consequence of not having a more solid tradition in ad valorem taxation is not only the shortage of skilled tax accountants but also the fact that domestic firms are not likely to have developed their accounts as properly as otherwise would have been the case. Both of these problems will haunt the implementation of the proposed general consumption tax.

Of perhaps more concern are the distortions potentially introduced by the consumption duty. Because the taxes are levied at the manufacturers and import stage, differential wholesale and retail margins are not recognized. As a consequence, the final tax burden on consumers varies by commodity in unintended (and probably unknown) ways. Using the Jamaica input-output table Bird estimates that the average (pyramided) effective tax rate on inputs was equivalent to 2.4 percent of the gross value of manufacturing output in 1983, compared to an average tax rate of 7.8 percent on total manufacturing output.[37] Since the rate of import taxation on raw materials and capital goods has been raised substantially since 1983, it is reasonable to expect that the proportion of tax that is hidden in the cascading has increased.

One would expect manufacturers—especially those who face a high rate of duty—to react to this by shifting functions such as blending, packaging, and warehousing to subsidiary distributors, thereby lowering their tax liability. We can only speculate about the importance of this problem, and draw upon anecdotal evidence of significant vertical integration in sectors where the indirect tax rates are high.

The Jamaican indirect tax system also protects domestic producers from foreign competition. Though a large proportion of imported goods enters the country tax-free, the stamp duty on imported goods is levied at a high rate. Bird estimates that in 1983–84, imports were taxed at a 19 percent higher rate than was domestic production. 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 has increased. The tax incentive program, to the extent it favors domestic producers with lower rates for raw materials or outright exemption for intermediate goods, has accentuated this protection.

Inelasticity

The revenue-income elasticity of indirect taxes is low by comparison to that for public expenditures, for at least two reasons. First, the tax base excludes much of the rapidly growing service sector and about 80 percent of imports. Second, the tax rate structure has not fully shifted from a specific ad valorem basis, and so is not as "automatically" responsive to income and price level growth as otherwise would be the case. Bird estimates that over the 1978–84 period, the buoyancy of all indirect taxes was about unity and for the consumption duty it was 0.78. Were it not for discretionary rate and base increases for import stamp duties and traditional excises, indirect revenues would not have grown to keep pace with GNP.

There are some bothersome implications of an income-inelastic structure. If indirect taxes are not doing their part in financing public expenditures, there will be pressure to make up for the shortfall by making discretionary adjustments. This has been exactly the case in Jamaica where the income elasticity of public expenditures was on the order of 1.2 over the 1980–86 period. The discretionary changes to correct this imbalance have almost always been made under time pressure and in the context of an immediate problem with the budget deficit or the foreign trade regime. Almost inevitably, the "reform" amounted to little more than an upward revision in rates. The allocative, distributive, and administrative effects of these changes, if carefully evaluated at all, have taken a back seat to the revenue goals and the political constraints. The resulting reforms make the system increasingly complicated and introduce some new directions to the system of relative prices.

Administration

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

Perhaps the major problem is the shortage of qualified staff. Under the present system, most of the inspectors lack the type of training necessary for effective auditing. The inspection program is also weak and burdened by operating procedures that are antiquated in some cases and weak in others. The ratio of the number of inspectors to the number of accounts is in an acceptable range, but the frequent visits to enterprises are not true audits. Due reports 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."[38] Even in the case of the traditional excises, where administration is relatively more manageable and physical methods of control are used, there is evidence that procedures are inadequate and that qualified staff are in short supply.[39]

Proposed Reform[40]

The goals of the reform program are 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, to tie its revenue performance more closely to the performance of the economy and less to annual discretionary actions, and to improve its administration. To accomplish these objectives, the project proposed adoption of a general sales tax of the value-added type. The major constraints in designing such a reform program are revenue neutrality and protection of low-income Jamaicans from any substantial increase in burdens.

Value-added Tax

The general consumption tax (GCT), was proposed to replace the present system of consumption duties, excise duties, and retail sales tax. The base of the tax would include importers, manufacturers, and large distributors, with the value-added feature of allowing a credit for taxes paid on inputs. Exporters would be zero-rated[41] and the major consumption items for low-income families would be excluded from tax, but otherwise there will be few exemptions. This should lower the costs of administration and compliance, make the system less horizontally inequitable, and eliminate some unintended effects on methods of doing business.

For reasons of administration, much of the service sector will be outside the base, as will small, handicraft-type manufacturers, smaller distributors, and all but the largest retailers. Bird's estimate is that to retain a constant amount of revenue, the GCT rate will have to be on the order of 20 to 25 percent. This translates into a retail-equivalent rate of 10 to 20 percent.

It is proposed that the present system of taxing cigarettes, petroleum products, and spirits will remain unchanged for the time being in order to protect revenue and minimize the amount of disruption associated with the reform. Accordingly, only about 30 percent of what is presently collected from the present consumption duty, retail sales tax, and excise duty will initially come under the GCT. Eventually, these taxes should be included for the difficulties associated with the administrative transition and the potential short-run revenue losses would be too great to bring them in at the present time.

Imports

If the reform merged consumption duty, excise duty, and the retail sales tax into the GCT, imports would be taxed at the same rate as domestically produced goods. The common external tariff would, of course, remain unchanged. A special problem arises, however, in the case of the import stamp duty. Should it be subsumed with the GCT?

There are good arguments for keeping it separate. It is a proven revenue producer, it enables the government to keep rates relatively high on certain imports to encourage foreign exchange savings, and it enables a targeting of import tax relief on certain sectors of activity. Perhaps the most persuasive argument is that integration of the stamp duty on imports and the GCT would almost certainly lead to a more complicated GCT and could thus defeat one of the main purposes of the reform.

But there are advantages to bringing the stamp duty into the GCT, especially in light of the government's program to broaden the import tax base and lower and simplify the rate. It could provide for a similar tax treatment for imported and domestically produced goods and would thus improve economic efficiency. Unwanted consumption would still be discouraged by the luxury rate under the GCT and the common external tariff. Most important, however, it would be a better approach (than the proposed system of export rebates) to compensate exporters for the tax on imported inputs.

As a practical matter, it would be impossible at this time to fully merge the import stamp duty into a flat-rate GCT. The revenue loss could not be made up without a substantial increase in the rates of other taxes or a cut in expenditures. The protective element in the stamp duty, however undesirable it may be from a point of view of economic efficiency, is not likely to be abolished overnight and cannot be shifted to the common external tariff. The remaining alternative to discouraging imports and correcting external imbalance—devaluation—will have few strong supporters. One possibility is to merge the GCT and the import stamp duty with a flat 20 percent temporary stamp duty on basically the same range of imports as covered by the present stamp duty.

Lessons For Tax Reform

The Jamaican tax reform provides a real-world setting in which to rethink some of the principles of tax policy analysis in developing countries. In some cases, old lessons were relearned. But the Jamaican experience also suggested some areas where the conventional wisdom ought to be challenged. Perhaps as important as the substantive issues are the lessons learned here about how to do a tax reform in a developing country, i.e., about how to maximize the chances that the work will lead to an improvement in the tax system.

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 that something must be done and tax policy is one area where the government can take aggressive action. In such times, it is easier to focus the attention of policymakers on the structural problems with the entire tax system and to think through the ways in which the tax system may be retarding economic growth. The same 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.

Jamaica's tax reform began when the economy was in dire straits: real GNP was declining, a devaluation was quite clearly in the immediate offing, the external debt burden was heavy and the country was under pressure from the IMF and the World Bank to reduce its budget deficit and limit domestic borrowing, and the unemployment and inflation rates were at unacceptably high levels. Things were bad enough that the Seaga administration and the general public were in agreement that nothing short of a complete overhaul of the tax system would do. The stated focus of the tax reform was on a "revenue neutral" restructuring of the system and the government was willing to take its time in thinking through the issues. Had the economy been growing, the government may have been less enthusiastic about the comprehensive restructuring objectives. Indeed, when the Jamaican economy did improve in 1986 and 1987, the government began to slow the pace at which it pushed for further tax reform in introducing the remaining parts of the comprehensive reform.

The potential pitfall to doing tax reform in a context of economic decline is that the government's interest and the energies of the project will be siphoned away to deal with the exigencies of each year's fiscal crisis. In Jamaica, this problem was dealt with by keeping the work of the comprehensive tax reform quite separate from the annual revenue-raising exercise. This turned out to be crucial. Had it been otherwise, the work of the project would almost certainly have been diverted to "quick fixes" to generate enough revenue to meet annual budget needs and tax reform would have remained a piecemeal exercise.

How Much Can a Tax System Be Shocked?

The conventional wisdom suggests an incremental approach to tax reform, i.e., it argues that if the existing system is shocked too much, it will compromise the success of the proposed reform. Individuals and businesses have become accustomed to the system and even to its shortcomings, they understand how it works and how they may comply with its provisions, and they have long since capitalized on many of its features. To shock the economy with anything more than an incremental reform will impose significant transition costs as firms and individuals try to adjust to major administrative burdens (especially if the reform calls for a new approach to taxation), and will necessarily rearrange the distribution of tax burdens among sectors and individuals in the economy.

The Jamaica experience suggests not only that the tax system can be shocked under the right circumstances, but that comprehensive reform can only take place if the system is shocked. What are the "right" circumstances? First, the government and the public must have lost confidence in the present system. Certainly, Jamaica had reached the point where patchwork reform was no longer good enough. The tax structure and the tax administration had drifted so far out of line with the nation's goal for economic development, and with its notions of fairness, that only a complete overhaul of the system would work. Second, the government and the public need time to absorb the shock. There was a full six-month debate of the proposals in the Jamaican press and by the time of enactment the shock effect had pretty much dissipated. Third, there is the possibility of revenue shock—large first-year losses that might result from transition problems or from the appearance of unexpected loopholes. Some steps were taken to guard against this in the Jamaica reform. It was recommended that the traditional excises—alcohol, petroleum, and cigarettes—which bring in about two thirds of indirect taxes, not be initially brought into the GCT.

Fourth, the administrative system must be able to absorb the change. In the case of the income tax reform, the new simpler system did not require new skills in the income tax department, and if anything, it made taxpayer compliance easier. There were some problems because the revisions to the act were confusing in some cases, but in general the transition was relatively smooth. Finally, if a big change is to be enacted, the taxpayer must see a package that brings him or her gains and losses. For example, the adoption of a flat-rate individual income tax was favored by higher-income Jamaicans but could never have been accepted unless nontaxable perquisites (which benefited those with higher income) were abolished and a high standard deduction (which benefited lower-income workers) was imposed at the same time. There was little pleasure and a little pain in the new tax package for nearly everyone. If the Jamaican reform had been constrained to incremental improvements, this income tax reform could never have happened.

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 implement progressive tax systems and in part it is because the costs of vertical equity are very high. It is one thing to recite the rhetoric linking progressivity in nominal rates of income tax to vertical equity, but quite another to show that such a linkage actually exists. The problem is with administration. The Jamaican 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. Giving up the progressivity in Jamaica's nominal rate structure had little if any effect on the distribution of income.

Indeed, the creation of a progressive distribution of tax burdens may not even be a primary consideration in formulating a tax structure revision because of the inherent tradeoff between vertical equity on the one hand and the goals of efficiency and simplification on the other. There are several dimensions to this tradeoff. First, the unbeatable combination of weak administration and the political power of higher-income residents will probably defeat the effort to restructure the income tax to make it more progressive. The corollary to this is that the addition of tax features to improve vertical equity often makes the system more complicated and difficult to administer, and imposes new costs on society. The addition of a family of special rates on luxury commodities, or the provision of tax credits for activities in which lower-income workers are thought to engage are cases in point.

Second, attempts to build vertical equity into the system may impose an efficiency cost on the economy. For example, the higher the standard deduction on income tax, the higher must be the tax rate, with whatever implications that may have for investment, productivity, evasion, and employment generation. The same is true for the exemption of commodities from sales taxation and the general sales tax rate. Third, tax preferences to achieve vertical equity have a revenue cost, either directly in terms of the tax relief, or indirectly in terms of the revenue sacrifice due to the greater complexity of the tax system.

What is the place of equity in comprehensive tax reform? The first goal ought to be to protect the lowest-income families in the society. This means that the issue is much less income taxation than interest taxes. The Jamaica project carried out a family budget survey to identify the market basket of low income families, and used these results to propose a short list of exemptions under the GCT.[42] This done, the goal in the Jamaica study was to work toward a system that was roughly proportional in its distribution of effective rates. Fine-tuning the distribution of tax burdens to achieve some particular pattern of progression was not considered.

Probably more important is the issue of horizontal equity, which the Jamaicans seem to have equated with fairness in taxation. The system was riddled with 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, etc. Such unequal treatment had undermined confidence in the tax system. The 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.

The Power of Data

Empirical estimates of the impacts of proposed tax structure changes on revenue yield and on the tax burdens of variously situated individuals and businesses were key in selling the reform package in Jamaica. The quality of the underlying data was not without problems, but the data gave a basis for removing some of the guesswork in evaluating the options. Most important, the presence of the data lifted the debate to a much higher level than otherwise would have been the case. There was a reasonable basis to guess as the differential impacts of alternative relief programs and both the government and the tax reform committee focused on simulating the impacts of alternative specifications of the rate and base.

The individual income tax reform was particularly influenced by the data analysis. In fact, it is very doubtful that so sweeping a reform as this could have occurred in the absence of a rigorous statistical study. The proposed flat tax would change the entire system and it was not intuitively obvious how various taxpayers or even the government treasury would fare. Moreover, the revenue and burden impacts would depend on the exact rate and standard deduction chosen. About two hundred combinations of rate and base were eventually run through the simulation model before a final structure was chosen. Even then, the government specified particulars for over one hundred "hypothetical" taxpayers and the tax impact of the proposed reform was calculated for each. It was a textbook example of looking for the "right" effect on the median voter.

A similar experience can be recounted in the design of the GCT. The issue was the choice of a simple revenue structure, or even a single rate, that would give the same revenue as the previous consumption duty, retail sales tax, excise duty, and stamp duty on imports. The second question was: how would various commodities be affected? As in the case of income taxation, this analysis required gathering data that the government had never before assembled. The result was a reasonably clean estimate of the base of Jamaica's indirect taxes, an estimate of the options open in structuring the rates for the GCT, and some idea about how various commodities might be affected by the new tax. Finally, the survey of low-income families provided some hard evidence on the expenditure patterns of the poor and headed off proposals for long lists of exemptions in the name of equity.

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. Too often the call for technical assistance in tax administration from the IRS 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. Because this may satisfy some of the urgency about "reforming" the tax system, the government may lose its enthusiasm about rethinking its tax policy. Second, the true, underlying "administrative" problem may be with the tax structure. It may be so complicated as to be beyond the capacity of the government to properly administer, or it may 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 invaluable exercise of questioning whether the tax system is affecting the economy in ways that reinforce government objectives.

The Jamaica case offers some good illustrations of why tax policy considerations should lead such work. The individual income tax was hopelessly complicated, with three rate schedules, sixteen tax credits, and a system under which employees could choose to grant nontaxable perquisites to their employees. It would have been virtually impossible to improve the administration of such a tax and resources spent in that direction would likely have been wasted. More to the point, why would anyone consider improving the administration of such an outrageously bad tax? Yet, the initial proposal for the Jamaica tax project was for IRS technical assistance in the area of income tax administration.

A second illustration relates to the introduction of the GCT. The present system is assessed primarily by physical methods and assumed notional prices. The skills required of an excise person have to do with physical control of inventory, so that measurement and training to improve administration would center on improving these skills. The proposed change to the GCT would require a different kind of expertise —primarily book-audit. An earlier program of technical assistance in the area of administration would almost certainly have strengthened the existing system, with all of its weaknesses, and the opportunity to switch to a more modern sales tax system might have been missed.

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 possible forecasts of revenue yield, tax burden impacts, and economic effect, it is also essential that the tax planner know the actual outcome and be ready to adjust the new system as necessary. It is especially important that the monitoring 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 the new legislation than tax reformers are at closing off all the avenues for tax avoidance. The more dramatic the structural reform and administrative "shock," the more likely are such loopholes to appear and to be undetected.

This is an important problem with the Jamaica reform. The 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, some loopholes were left open with respect to uniform, housing, and automobile allowances and these apparently dampened the propensity to convert allowances to wages. To study the initial compensation adjustments, we randomly sampled firms and carried out an inspection of payroll books before and after firms had converted to the new system. The results suggest that the tax reform led to a base expansion of only about 8 percent because some allowances remain untaxed. Apparently, the initial adjustment to the reform was for allowances to migrate to those categories which remain untaxed. One might discount these results on grounds that May 1986 was too soon to measure the impact of the reform, i.e., that neither firms nor the income tax administration had adjusted. 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 off. Either way, it is clear that there have been some abuses, and consequently there is some need to tighten legislation, provide tougher enforcement regulations, and do further monitoring.

Another reason for monitoring is to determine whether the reforms have met revenue targets and consequently whether some base or rate structure revision is necessary. It is not enough simply to rely on the *ex ante* projections of the revenue impact of the reform. Forecasts, by their very nature, are conjectural and inaccurate. The underlying data used to make the projections are sometimes flawed and always dated, the behavioral model may not accurately predict the response of individuals and businesses to the tax changes, and the underlying economic assumptions used to drive the model may turn out to be far off the mark. The latter in particular was a problem with the projections of the revenue impact of the Jamaica reform. The revenue yield turned out to be much greater than had been expected because the economy grew much faster than had been assumed in the forecast. This resulted in revenues well above the first-year targets, and an increase in the average income tax burden. One possibility is that the individual income tax may be too income-elastic, and the government should reconsider indexing the standard deduction to head off the public discontent which will surely come with continued real growth and/or the resumption of a higher rate of inflation.

Tax Reform or Fiscal Reform?

It is better to do a comprehensive fiscal reform—which also includes consideration of the expenditure side of the budget—than a comprehensive tax reform. It is a more difficult job, requires more resources and time, and probably raises many more controversial issues, but it allows the government to get a better picture of the overall implications of the tax reform under consideration.

The Jamaica tax reform mandate was revenue neutrality. What does this mean? It implies that the first-year revenue target for the reformed system is fixed by the intended amount of government expenditures, but it does not provide guidance on the desired income elasticity of the new tax system. The latter, of course, depends on the desired income elasticity of public expenditures. The result in the Jamaica case was the design of a new tax system whose revenue yield may or may not grow at the desired rate. To the extent that there is a divergence, discretionary changes will be necessary and a return to piecemeal tax policymaking will be invited.

Fiscal reform is also more desirable because it allows a more comprehensive study of the options for getting the prices "right," balancing the budget, affecting the distribution of income through the budget process, evaluating least-cost methods of achieving certain objectives, etc. The Jamaica reform was more far-reaching than most tax studies in that it considered the financing of public enterprises, the benefits of tax incentive legislation, and the effectiveness of the government's food stamp program. Still, the work came up far short of considering even some of the most relevant expenditure-side issues, for example, the actuarial position of the payroll tax contribution programs, and the possibilities for user charge financing. The project did a reasonable job of estimating who pays for the Jamaican public sector, but it did not go very far in considering who benefits.

How to Get Successful Implementation

The Jamaica reform suggests five rules about how to get to successful implementation of a tax reform. First, the government must see the project as its own and not that of a donor or even that of a technical assistance research team. The personal and close involvement of the prime minister set the tone for the Jamaica work, and the chairman of the revenue board was an active participant in the research. A very important and beneficial development in the Jamaica work was the prime minister's appointment of an independent tax reform committee. The committee was comprised of twelve leading citizens and included representatives of most of the major public interest groups. The project staff worked directly with the committee in their review of the tax reform proposals and in the formulation of the alternatives which they put forth to the government.

Second, the technical-assistance team should have the right mix of skills and experience and, above all, should have expert credentials. Nothing short of well-known tax policy experts with extensive policy experience would have satisfied the Jamaicans. The government was understandably uneasy about the risks and uncertainties associated with the reform; moreover, some aspects of the reform were very complicated and others raised important issues of administration that appeared to be stumbling blocks. It was essential to have senior staff who could draw easily and confidently on knowledge of tax systems and of successes and failures elsewhere.

Third, tax reform should not be hurried. It takes time to get the technical proposals properly in place, and the public debate needs time. 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."

Fourth, there is the important issue of timing. The income tax reforms have been enacted, but the government has not yet moved to introduce the GCT or restructure the sales tax. The lesson here is that a government is not willing to be associated indefinitely with tax reform, even good tax reform. Comprehensive reform tends to be associated with a particular administration and there is need to get on with it while the power is in place and while there is still enthusiasm for the reform program. Even the best of tax reform programs carries 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 years draw close.

Fifth, implementation requires a great deal of attention—probably more attention than it received in the course of the Jamaica work. The project did have two income tax administration experts reside in the country to work out administration procedures and to assist in training, and a sales tax administration expert to do the same for the GCT. On the other hand, too little attention was paid to the need for carefully drafting the new legislation and implementing regulations.

Notes

1 The Jamaica Tax Structure Examination Project was sponsored by the government of Jamaica from 1983 to 1987. The project was carried out by the Metropolitan Studies Program of Syracuse University's Maxwell School under the direction of the Board of Revenue of the government of Jamaica. The author organized and directed the project from start to finish. Funding for the project was provided by the government of Jamaica and the U.S. Agency for International Development Mission to Jamaica (under contract 532-0095-C-00-3020-00). This paper is an abbreviated version of various chapters in Roy Bahl, ed., *The Jamaican Tax Reform* (Cambridge: Oegleschlager, Gunn and Hain, forthcoming).

2 See also Dawes (1982); Chernik (1978).

3 This is discussed in Michael Wasylenko, "Tax Burden Before and After Reform," in *The Jamaican Tax Reform*, ed. Roy Bahl (Cambridge: Oegleschlager, Gunn and Hain, forthcoming), chapter 28.

4 James Follain and Daniel Holland, chapter 23 in Bahl, ed., *The Jamaican Tax Reform*.

5 The ratio of taxes to GNP.
6 Lotz and Morss (1967).
7 Bahl (1971); Bahl (1972).
8 Tait, Gratz, and Eichengreen (1979); Chelliah, Baas, and Kelly (1975); Chelliah (1971).
9 Follain and Holland in Bahl, ed., *The Jamaican Tax Reform*, chapter 23.
10 An extensive discussion of the effects of the Jamaican tax structure on work effort, saving investment, and compliance is in Roy Bahl et al., "A Program for Reform," in Bahl, ed., *The Jamaican Tax Reform*, chapter 1.
11 See DeGraw (1984).
12 See Wasylenko in Bahl, ed., *The Jamaican Tax Reform*, chapter 28.
13 See Richard M. Bird and Barbara Miller, "The Incidence of Indirect Taxes in Low Income Households in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*, chapter 29.
14 These questions are addressed in Carl S. Shoup, "Integrating Tax Policy, Industrial Policy and Trade Policy in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*, chapter 25.
15 A discussion of the foreign trade regime before 1983 is in Whalley (1984).
16 Wayne Thirsk, "Jamaican Tax Incentives," in Bahl, ed., *The Jamaican Tax Reform*, chapter 26.
17 Richard M. Bird, "Taxation of Services," in Bahl, ed., *The Jamaican Tax Reform*, chapter 22.
18 Ibid.
19 The underlying data and empirical analysis are described in detail by Bahl et al., "An Evaluation of the Structure of the Jamaican Individual Income Tax" and "A Program for Reform," in Bahl, ed., *The Jamaican Tax Reform*, chapters 3 and 4.
20 At the time this work was done, the most recent available data were for 1983.
21 See Alm and Wasylenko, "Payroll Taxes in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*.
22 Each of the three, however, has a tax element.
23 The allocative effects of this system of payroll are not discussed here. Alm and Wasylenko provide a careful discussion of the economic effects under alternative assumptions about the incidence of the employer share. Alm and Wasylenko, "Payroll Taxes in Jamaica."
24 James Wozny, "The Taxation of Corporate Source Income in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*, chapter 8.
25 For 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.
26 This is described in Martinez, "The Taxation of Financial Institutions in Jamaica," and Brannon, "Tax Policies for Life Insurance Companies in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*, chapters 10 and 11.
27 David Davies and Lauria Grant, "The Taxation of Jamaican Public Enterprises," in Bahl, ed., *The Jamaican Tax Reform*, chapter 13.
28 Tanzi (1987).
29 He defines 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. Wozny, chapter 8 in Bahl, ed., *The Jamaican Tax Reform.*

30 Ibid.

31 The international implications of the company tax reform are described in Oliver Oldman, David Rosenbloom, and Joan Youngman, "International Aspects of Revisions to the Jamaican Company Tax," in Bahl, ed., *The Jamaican Tax Reform.*

32 Wozny, chapter 8 in Bahl, ed., *The Jamaican Tax Reform.*

33 These issues are discussed in Break, Holland, and McLure (1986).

34 The system is described in John Due, "Jamaica's Indirect Tax Structure," in Bahl, ed., *The Jamaican Tax Reform*, chapter 15.

35 Sijbren Cnossen, "Future Development of the Sales Tax in Jamaica," in Bahl, ed., *The Jamaican Tax Reform*, chapter 20.

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

37 Bird, chapter 16 in Bahl, ed., *The Jamaican Tax Reform.*

38 Due, chapter 15 in Bahl, ed., *The Jamaican Tax Reform.*

39 Cnossen, chapter 20 in Bahl, ed., *The Jamaican Tax Reform.*

40 The work on indirect taxation was coordinated by Richard Bird. The design of the proposed reform is found in his "Choosing a Tax Rate" (chapter 18), and "Taxation of Services" (chapter 22) in Bahl, ed., *The Jamaican Tax Reform.*

41 No tax would be due on value-added *and* all taxes paid on inputs would be refunded.

42 See Bird and Miller, chapter 29 in Bahl, ed., *The Jamaican Tax Reform*; and Miller and Stone (1985).

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