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THREE CASES OF TAX REFORM IN LATIN
AMERICA: ECUADOR, CHILE AND HONDURAS

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THREE CASES OF TAX REFORM IN LATIN AMERICA
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Preface

Non-oil tax revenues in Ecuador grew, in real terms, at an annual rate of 5.25% during 1970-1988; less than the growth rate of GDP (6% per year), but almost equal to the growth rate of non-oil GDP during the period.

This, together with the growth of the oil revenues of Ecuador's Government, encouraged a rapid growth of public expenditures, assorted subsidies and tax breaks. The questions now are these: Will all that be sustainable if and when oil revenues fall substantially? Can non-oil tax revenues be raised so as to maintain the levels of public expenditures, subsidies and tax breaks if and when oil revenues fall substantially?

Chapter 1 shows that the answer to both questions is no.

Government revenues other than "Copper Revenues" declined in Chile during 1988-89, and are expected to remain at the new (relatively low) level during 1990, simultaneously with a three-fold increase in copper revenues.

This leads the critics of the current fiscal policy in Chile to argue that most copper revenues have been transferred to the private sector through tax reductions. These reductions have taken the form of a VAT rate cut, in mid 1988, and a reform to the income tax regime, in January 1989. A related criticism of these measures is that they take advantage of a temporary phenomenon, like the copper bonanza, to carry out tax changes of a lasting nature.

Thus, a reversal of the 1989 reform, along with other changes to the income tax, might be currently considered as taxation options in Chile. Their adoption will probably yield additional revenues of about 2.13% of GDP, which will come in handy when and if copper revenues fall in the future.

Alternatively, chapter 2 puts forward another proposal to (1) improve the tax system by making the income tax even closer to an expenditure tax; and (2) increase revenues to meet an eventual fall of copper revenues, or to replace other inferior quality taxes, or to compensate the revenue effects of desirable further reductions in the customs duty rate.

Ninety-five per cent of tax revenues in Honduras have been generated by three sets of taxes during the last decade: Taxes on international trade, sales and excise taxes, and the income tax. Chapter 3 reviews their recent performances and estimated 1991 revenues.

Chapter 1. Non-Oil Tax Revenues and Tax Reform in Ecuador

I. Introduction

Aside from all tax and non-tax revenues related to oil, the remaining revenues collected by the government of Ecuador consist of transfers (net) from its own enterprises, user charges and taxes. This chapter is concerned with the latter.

The revenue from non-oil taxes collected at the central, provincial and municipal levels of government (regardless of their destinations: the budget, FONAPAR, the universities, free medical care for children, the Transit Commission of Guayas, the Rehabilitation Center of Manabi, etc.) have fallen as a fraction of GDP between 1970 and 1988: from about 11% on average 1971/73 to 9% in 1988, as indicated in Table 1.

This is just a natural consequence of oil being a more important component of GDP after 1973. A policy issue arises, however, because public expenditure may, and probably will, lack downward flexibility to adjust to eventual declines in oil revenues in the future.

The issue is not that non-oil tax revenues have been substantially eroded: They actually rose in real terms by a factor of 2.5 between 1970 and 1988; that is an annual growth rate of 5.25% (See Table 1), almost the same as the growth rate of non-oil GDP during the period.

The issue is whether public expenditure, assorted subsidies and tax-breaks could be cut if and when oil revenues fall. If the answer is yes, then there may not be a fiscal deficit problem in the future and there would be no reason to be concerned with the performance of non-oil tax revenues; but if the answer is no, then non-oil tax revenues would have to be increased to make up for any reductions in oil revenues in the future.

Non-oil tax revenues have not been substantially eroded as a fraction of non-oil GDP: They only fell from about 11% on average 1971/73 to 10.5% on average 1986/88. This can hardly be considered a buoyancy "substantially" smaller than one or a "substantial" deterioration of the non-oil tax ratio, when non-oil GDP is taken as the denominator.

This does not mean that there are no problems whatsoever with the non-oil tax system. What makes the 1970-1988 performance of non-oil tax revenues very poor is the high volatility of the tax ratio during the period: By 1983 it had fallen to about two-thirds of what it used to be in the early seventies; it rose back to this value by 1986 and fell again in 1987 and 1988.

The most important components of the non-oil tax system in Ecuador are (1) the taxes on international trade (custom duties, surcharges and taxes on exonerated duties); (2) the income tax; (3) the tax on mercantile transactions, TMT (a value-added-type tax); and (4) taxes on specific consumptions, TSC (which strikes cigarettes, beer, soft drinks and alcoholic beverages).

The tax reform under consideration comprises the elimination of a number of taxes which yield negligible revenue and changes in the income tax, the TMT and the TSC.

Table 1. Non-oil tax revenues of the non-financial public sector in Ecuador, 1970-88

(Nominal in billion sucres; real in billion sucres of 1975 and percentage of GDP)

Year	Central Government			Local Governments			Central & Local Governments		
	Nominal	Real	% of GDP	Nominal	Real	% of GDP	Nominal	Real	% of GDP
1970	3.0	5.4	8.6	0.6	1.1	1.7	3.6	6.5	10.3
1971	4.0	6.7	9.9	0.5	0.8	1.2	4.5	7.5	11.1
1972	4.6	7.6	9.8	0.5	0.8	1.0	5.1	8.4	10.8
1973	6.1	9.4	9.8	0.5	0.8	1.0	6.6	10.2	10.8
1974	8.2	9.0	8.8	0.7	0.8	0.7	8.9	9.8	9.5
1975	9.5	9.5	8.8	0.7	0.7	0.8	10.2	10.2	9.6
1976	11.0	9.7	8.3	0.8	0.7	0.8	11.8	10.4	9.1
1977	13.9	10.5	8.4	0.9	0.7	0.7	14.8	11.2	9.1
1978	16.1	11.2	8.4	1.1	0.8	0.8	17.2	12.0	9.2
1979	19.4	11.6	8.3	1.3	0.8	0.7	20.7	11.9	9.0
1980	23.8	12.0	8.1	1.5	0.8	1.4	25.3	12.8	9.5
1981	26.6	11.7	7.7	1.8	0.8	1.6	28.4	12.5	9.3
1982	28.9	10.8	7.0	2.1	0.8	1.5	31.0	11.6	8.5
1983	35.4	9.5	6.3	2.5	0.7	1.2	37.9	10.2	7.5
1984	57.5	11.1	7.1	4.2	0.8	1.0	61.7	11.9	8.1
1985	83.9	12.4	7.6	5.1	0.8	0.9	89.0	13.2	8.5
1986	127.5	15.6	9.4	5.6	0.7	0.7	133.1	16.3	10.1
1987	163.7	14.5	9.1	10.3	0.9	0.5	174.0	15.4	9.6
1988	267.7	15.5	8.6	13.4	0.8	0.4	281.1	16.3	9.0

Sources:

Ministerio de Finanzas, Subsecretaria de Presupuesto-Ingresos Fiscales.

Petrei, H., "Las Finanzas de los Gobiernos Seccionales en Ecuador", April 1989, tables A1/A3.

The revenues of the three taxes whose reform is being considered represented about 56% of all non-oil tax revenues in 1988, up from 33%-37% in the early seventies. The reason for this is that their joint revenues in real terms grew at an annual rate of 8%; while the revenue of the other important tax in the system, the one on international trade, has remained constant in real terms for the last fifteen years at around 4.5 billion sucres of 1975.

The revenue of every one of the three taxes to be reformed is, in real terms, greater in 1986/1987 than it was in 1970/1973: The income tax revenue in real terms has increased by a factor of 2; the TMT revenue in real terms has increased by a factor of 6; and the TSC revenue in real terms has increased by a factor of 5. The revenue performances of the three taxes to be reformed are shown in Table 2, and can be summarized as follows:

Income tax. The 1970/73 average revenue in real terms was about 1.6 billion sucres (2.15% of average GDP). During 1974/1981 its revenue in real terms grew steadily, although it declined as a percentage of GDP due to the increasing importance of oil after 1973.

The income tax revenue started deteriorating in 1982, both in real terms and as a fraction of GDP, to reach a minimum of less than 1.5% of GDP in 1984. It bounced to about 1.9% in 1986/87 but, despite this modest increase, the income tax revenue has become second to the TMT revenue since 1985.

The poor revenue performance of the income tax is, in part, due to the way the tax has been devised, with different tax treatments to the incomes of different sources and many exemptions, all of which makes it possible for tax payers to find loopholes and opportunities for evasion and elusion.

It is also due to administrative pitfalls in the way the tax is implemented. The Secretaria del Frente Economico has estimated the number of potential tax payers at about 3 million as of 1984/87, but the registered tax payers were just about 1.7 million of which 900,000 were exempted.

According to the same source, the number of audited tax payers ranged from 4,500 to 5,500 per year during 1984/87 (less than 0.3% of registered tax payers). These audits are performed by a staff of 415 accountants; i.e., each of them audits about 12 tax payers per year.

Table 2. Revenues of the income tax,
the TMT and the TSC in real terms.
(billion sucres of 1975)

Year	Income tax		TMT		TSC		Total		
	Real	% of GDP	Real	% of GDP	Real	% of GDP	Real	% of GDP	% of non-oil taxes
1970	1.19	1.90	0	0	0.15	0.24	1.34	2.14	21
1971	1.61	2.41	0.78	1.17	0.15	0.23	2.54	3.81	34
1972	1.80	2.33	1.00	1.30	0.39	0.51	3.19	4.14	38
1973	1.87	1.95	1.20	1.25	0.39	0.41	3.46	3.61	34
1974	1.68	1.64	1.20	1.17	0.34	0.33	3.22	2.14	33
1975	2.01	1.86	1.38	1.28	0.37	0.34	3.76	3.48	37
1976	1.94	1.65	1.34	1.14	0.38	0.32	3.66	3.11	35
1977	2.10	1.68	1.64	1.31	0.38	0.30	4.12	3.29	37
1978	2.45	1.83	2.04	1.52	0.69	0.51	5.18	3.86	43
1979	2.45	1.75	2.09	1.49	0.96	0.68	5.50	4.02	46
1980	2.54	1.71	2.23	1.51	0.78	0.53	5.55	3.75	43
1981	3.28	2.14	2.34	1.53	0.84	0.55	6.46	4.22	52
1982	2.68	1.73	2.35	1.52	0.88	0.57	5.91	3.82	51
1983	2.33	1.55	1.99	1.32	1.12	0.74	5.44	3.61	53
1984	2.28	1.45	2.20	1.40	1.21	0.77	5.69	3.62	48
1985	2.60	1.58	2.65	1.62	1.07	0.65	6.32	3.85	48
1986	3.18	1.91	4.63	2.77	1.24	0.74	9.05	5.42	56
1987	2.99	1.86	4.25	2.65	1.43	0.89	8.67	5.40	56

Source: Ministerio de Finanzas, Subsecretaria de Presupuesto-Ingresos Fiscales.

Tax on mercantile transactions, TMT. Its revenue fluctuated between 1.2% and 1.6% of GDP during 1971/1985. An effort to increase non-oil tax revenues was made in 1986 when the rate of the TMT was raised from 6% to 10%, with the result that the revenue rose by slightly more than 1% of GDP in 1986 and 1987, as indicated in Table 2.

As a consequence of this and of small increases in the collection of other taxes, non-oil tax revenue in 1986/88 rose slightly above 9% of GDP although it did not quite reach the percentages of 1971/73, as shown in Table 1.

While the income tax used to yield more revenue than the TMT up to 1984, after that year the TMT became with the import duties the two most important sources of non-oil tax revenue.

According to calculations of the Secretaria del Frente Economico, taxable value added for the whole economy in 1986 was

about 720 billion sucres, which would have yielded approximately a TMT revenue of 72 billion. Actual revenue, however, was only 37.7 billion sucres. This suggests that substantial evasion is taking place, and it has been pointed out that the main evasion procedure consists of under invoicing of sales and over invoicing of purchases.

Tax on specific consumptions, TSC. Revenue-wise this is the least important of the three taxes. Its revenue stayed below 0.5% of GDP until 1978, when the tax on cigarettes locally produced was enacted. Then revenue jumped to a level close to 0.7% of GDP and kept growing during most of the eighties until it reached 0.9% of GDP in 1988.

II. Income Tax Reform

The first stage of the income tax reform took place early in 1988, with the passing of Law 006 which adopted a tax withholding system. The second stage of the reform is the concern of this chapter. The main characteristics of this stage are: 1) Unification, 2) Elimination of deductions and exemptions in the personal and business tax, respectively, 3) Adjustment for inflation, and 4) Special regimes and presumptive income.

Unification

The reform proposes a unique tax treatment to incomes from different sources, as well as the elimination of several earmarked surcharges.

The current system has four taxes on personal income:

- 1) Progressive tax. It strikes all income except earnings received on financial instruments issued by recognized financial institutions, at rates between 8% and 40%.
- 2) "Unico" tax. It strikes at 8% the earnings received on the financial instruments referred to above. It is called "unico" (unique) to indicate that these earnings cannot be subject to any other tax.
- 3) Proportional tax. This tax strikes all incomes in addition to the progressive tax already indicated in 1). According to this tax (a) wages and salaries (i.e., remuneration to pure labor) are subject to a 6% tax if they exceed 120,000 sucres a year and are exempted below that level; (b) earnings from labor cum capital (for example, the taxi driver who owns the cab) are subject to a 6% tax regardless of how much is earned in the year; and (c) earnings of capital if no labor is involved

(except the financial earnings referred to above) are subject to an 18% tax.

- 4) Additional tax. It comprises two surcharges of 11% and 8% on the sum of the taxes due by virtue of 1) and 3) above. The first surcharge is earmarked to the universities and certain schools. The second one strikes the incomes originated in the provinces of Guayas and Manabi only, and its revenue is earmarked to the Transit Commission of Guayas and the Rehabilitation Center of Manabi.

As a consequence of the multiplicity of personal income taxes, a resident tax payer may face a minimum marginal tax rate ranging from 8% to 30.94%, and a maximum marginal tax rate ranging from 8% to 69.02%. See Table 3.

The reform proposes to replace all of the above by a personal income tax which strikes the sum of all incomes at rates from 10% to 25%, with a minimum annual taxable income of 2 million sucres (about U\$S 3,000).

The current system also subjects business income to different tax treatments:

- 1) Non-incorporated business income. The individual partners are tax-liable for total profits at the rates of the personal income tax as indicated above.
- 2) Corporation income. Retained profits are taxed at 20% plus surcharges on the tax due at rates of 15% and 8%. The revenues from the surcharges are earmarked as in the case of the "Additional tax" mentioned above.
The income derived from financial instruments issued by recognized institutions are taxed at 8%, as in the case of the personal income tax.
The share holders are tax-liable for distributed profits at the rate of 18%.
- 3) Foreign companies. Their total profits are subject to a 40% tax plus the 8% and 15% surcharges.

The reform proposes to tax business income of local companies at 25%, and to make partners and share holders not liable to pay any tax on distributed profits. Foreign companies would also be subject to the 25% tax, which can be used as a credit by the recipients of the dividends abroad who would be, in turn, subject to a 36% tax rate.

Table 3 shows a comparison of the marginal tax rates under the current and the proposed systems. The current system has widely dispersed rates for the different sources of the income of, perhaps, the same person. This induces tax payers to allocate resources following tax incentives which may be, and normally are, unrelated to economic efficiency or productivity. Moreover, the possibilities for tax elusion and tax loopholes are only enhanced

Table 3. Marginal tax rates under the current and the proposed systems

	Current system Marginal tax rate		Proposed system Marginal tax rate	
	Minimum	Maximum	Minimum	Maximum
<u>Interest</u>	8%	8%	10%	25%
<u>Wages & Salaries</u>			10%	25%
8%(1+11%+8%)	9.52%			
(40%+6%)(1+11%+8%)		54.74%		
<u>Earnings of Labor cum Capital</u>			10%	25%
(8%+6%)(1+11%+8%)	16.66%			
(40%+6%)(1+11%+8%)		54.74%		
<u>Corporate Undistributed Profits</u>			25%	25%
20%(1+15%+8%)	24.6%	24.6%		
<u>Corporate Distributed Profits (100%)</u>			25%	25%
(8%+18%)(1+11%+8%)	30.94%			
(40%+18%)(1+11%+8%)		69.02%		
<u>Non-Corporate Profits</u>			25%	25%
(8%+18%)(1+11%+8%)	30.94%			
(40%+18%)(1+11%+8%)		69.02%		
<u>Non-Residents</u>			36%	36%
40% (1+15%+8%)	49.2%	49.2%		

by the current dispersion of marginal tax rates.

The proposed system, on the other hand, keeps the marginal tax rates between 10% and 25% without distinguishing among different sources of income. This avoids creating tax-induced misallocation

of resources and improves equity.

The effects of the proposed reform on revenue, however, are not so clear cut. On the one hand, the reduction of rates (instead of ranging from 8% to 69%, the rates would range from 10% to 25%) would reduce revenue, ceteris paribus. On the other hand, ceteris non paribus est as evasion would become less attractive and more business would be encouraged by the lower tax rates and, therefore, additional revenue would be generated.

The net effect on revenue is difficult to ascertain. Nonetheless, an approximate estimate can be done based on 1987 income tax collection. Out of a total of 33.7 billion sucres, some 15 billion correspond to personal income tax. Tax payers in different tax brackets would get different tax relief from the reform, as indicated in Table 4. Since the composition of tax collection by income brackets is known, it is possible to estimate the loss of revenue due to the reductions of the rates, ceteris paribus.

Table 4. An estimate of the income tax revenue loss due to the reductions of the rates
(Values in sucres of 1987)

Annual income brackets (million sucres)	Tax relief (%)	Percentage of the 15 billion revenue in 1987	Estimated loss of revenue (billion sucres)
up to 2	100.0	26.5%	3.98
2 to 2.5	82.9	4.4%	0.55
2.5 to 3	75.3	6.4%	0.72
3 to 4	70.4	7.6%	0.80
4 to 5	68.2	5.8%	0.59
5 to 7	61.8	5.2%	0.48
7 to 10	58.0	8.0%	0.70
10 to 12	54.4	5.1%	0.42
12 to 15	51.8	7.3%	0.57
15 to 25	51.5	8.0%	0.62
25 to 35	50.3	4.0%	0.30
35 to 50	48.4	5.3%	0.38
50 to 100	47.2	5.0%	0.35
100 to 500	45.9	1.5%	0.11
		100.0%	10.56

The revenue loss of 11 billion sucres (about 0.6% of GDP) per year must, however, be considered an upper bound estimate for two reasons:

First, the lowest bracket (which gets a 100% tax relief under the reform) is not likely to yield 26.5% of the revenue in 1990 simply because of bracket creeping due to the inflation that took place since 1987. In other words, by 1990 fewer tax payers will be earning less than 2 million sucres; hence the 100% tax relief will be obtained by relatively few tax payers which are bound to represent a lot less than 26.5% of the revenue.

If inflation had reduced the share in revenue of the lowest bracket by one half, and increased proportionately the shares of the other brackets (all of which get less than a 100% tax relief under the reform), then the estimated annual loss of revenue would be about 10.2 billion sucres of 1987. If inflation had completely eliminated the share in revenue of the lowest bracket, and increased proportionately the shares of the other brackets, then the estimated annual loss of revenue would be about 9.5 billion sucres of 1987.

Second, the above estimate does not include any reduction in evasion or expansion of taxable activities in response to lower marginal tax rates. A conservative estimate of these effects would probably reduce the estimated annual loss of revenue to about 8 billion sucres of 1987, or about 0.44% of GDP.

To express this figure in sucres of 1989, the inflation rates of 1988 (86%) and 1989 (estimated at 54%) will be used, to give a loss of revenue of 22.9 billion sucres of 1989.

Elimination of deductions and exemptions in the personal and business tax, respectively.

The deductions based on the number of dependents and on the mortgage payments and housing rent would be eliminated by the reform.

The reform also proposes to abolish the exemptions to the income tax granted by the following laws, although the benefits to the firms already exempted would be kept during the next five years:

- | | |
|------------------------------|--------------------------------|
| Industrial Development Law | Automobile Development Law |
| Artcraft Development Law | Ocean Shipping Development Law |
| Tourism Development Law | Mining Development Law |
| Fishing Development Law | Forestry Development Law |
| Agriculture Development Law. | |

In the cases of Tourism and Forestry the reform proposes to grant investment tax credits (i.e., the investments by the firms in these sectors would be deductible from their tax bases) up to a maximum equal to 30% of the tax base in the previous year.

Most of the exemptions to the income tax which would be repealed by the reform are granted by virtue of the Industrial Development Law and the Automobile Development Law.

These laws also grant custom duty exonerations to imported inputs which, together with high custom duties on finished products, creates very high effective protection to the beneficiaries of the development laws. As a result, the economy of Ecuador is pestered by activities without any comparative advantage, with absurdly high costs and low productivity, which are made attractive to private investors solely by the privileges granted by these development laws.

To eliminate the income tax exemptions is a step in the right direction, because it reduces the incentives to carry out uneconomic investments which are made artificially attractive by the tax exemptions. The main criticism is that tourism and forestry should have been subject to the same treatment as the other sectors.

Moreover, this measure will increase revenues unequivocally. According to estimates in "Reforma Estructural del Sistema Tributario Ecuatoriano 1989" by the Ministry of Finance, the income tax exemptions granted by the Development Laws would erode the base of the income tax in 1989 by about 11 billion sucres. This means a revenue loss of 2.75 billion (i.e., the new tax rate of 25% times 11 billion) which will be avoided by the reform.

Adjustment for inflation.

The reform proposal consists of:

(1) Adjusting for the full rate of inflation the book values of non-monetary assets and liabilities.

Non-monetary assets and liabilities are defined as those whose book values are fixed in nominal terms, such as constructions, inventories, machinery and equipment, non-interest bearing accounts payable, etc.

On the other hand, the adjustment of the monetary assets and liabilities (such as bank deposits, loans, suppliers' credits, accounts receivable, etc.) is presumably included in the nominal rate of interest, so that no further adjustments are necessary.

(2) Considering these adjustments as profits and losses, respectively, for income tax purposes.

This is, indeed, the correct procedure since the adjustments would only show net profits to the extent that inflation should increase asset values over and above the values of the liabilities.

In the absence of these adjustments (a) some profits may escape taxation altogether and (b) some losses can get taxed as if they were profits. The obvious example of (a) is the purchase of a building by borrowing at a floating rate of interest; with a sufficiently high rate of inflation the value of the mortgage will soon be several times the original (book) value of the building, and a "nice" loss will be conveniently shown for income tax purposes. The classic example of (b) is the sale of inventories originally valued in the books at a tiny fraction of the sale value, whereby a huge profit is shown despite the fact that the current cost may be a lot closer to the sale value, with a much smaller profit.

All these pitfalls can be avoided by adjusting for inflation assets and liabilities for income tax purposes. This avoids the creation of tax loopholes and improves the equity of the system. Its effects on fiscal revenue are difficult to ascertain because they depend on whether the current system involves relatively more cases like (a) or (b) in the preceding paragraph. If the cases like (a) currently prevail then the reform would increase fiscal revenues, and conversely if cases like (b) currently prevail.

Special regimes and presumptive income.

According to the reform there would be certain activities which would not have to submit profit and loss accounts to determine their tax bases. They would pay income tax on the following tax bases:

- 1) Non-corporate agriculture: 4% of the fiscal assessment of the land.
- 2) Construction enterprises: 12% of the construction value.
- 3) Insurance with foreign companies: 4% of the insurance premium.
- 4) Land developers without accounting books: 15% of the value of sales.
- 5) International transportation: 2% of the value of sales.
- 6) House rental: In the absence of a rent contract, the tax would be paid on the maximum legal rent according to the law of rent control.

Moreover, a system is created under the name "Estimacion Objetiva Global", EOG for short, which enables individuals engaged in entrepreneurial or professional activities to determine their taxable income in the following way: A committee is formed with three representatives of the Ministry of Finance (one of whom would be the president of the committee with double vote) and three representatives of the profession concerned. This committee would determine the tax base of an homogeneous group of tax payers and would distribute the tax burden among the individual members of the group.

While the presumptive tax base is a generally accepted procedure when the tax administration is weak, the EOG system is an entirely anomalous creature which should be cautiously avoided in a serious tax system. Not only is it vulnerable to corruption, but it is also administratively cumbersome and detrimental to economic efficiency.

What needs to be avoided with the presumptive income system is the proliferation of presumptive bases, which, if taken too far, results in arbitrariness and makes administration more, not less difficult. International transportation and construction enterprises seem to be clear examples of activities not typically carried out by artisans or small scale enterprises, unable to have accounting books. In cases like these the presumptive income system is very difficult to justify.

Appraisal of the reform.

The revenue effects of the reform would probably consist of a reduction of about 20 (22.9 minus 2.75) billion sucres of 1989 or about 0.4% of GDP (assuming for 1989 a GDP of 5,000 billion). This is an acceptable price to pay for the improvements that the reform would bring to the income tax of Ecuador.

Nonetheless, the reformed system will still be an income tax with all the undesirable features of such a tax; namely, double taxation on savings, hence the discrimination against savings, capital accumulation and ultimately growth. The reform is not even intended to make the tax a full fledged expenditure tax in the Chilean fashion, which is every-one's favorite in the public finance profession.

Since the base of an expenditure tax is narrower than that of the income tax, in order to maintain approximately the same revenue higher tax rates would be required. In the case of Chile the highest marginal tax rate is 50%.

The adoption of an expenditure tax to replace the income tax is a reform that Ecuador may want to consider in the future. Meanwhile the reform currently under consideration constitutes an improvement upon the old income tax system.

This reform, however, will not make the income tax a source of revenue capable of replacing oil revenues in the future in any significant magnitude. Other sources of revenue will have to be found, or public expenditures will necessarily have to be cut, if oil revenues are expected to decline.

III. The Tax on Mercantile Transactions

This tax will be reformed into a Value Added Tax, VAT. The tax is already a VAT at a 10% rate, and the reform proposes to enlarge the tax base by including currently exempted services.

Each registered tax payer has a fiscal debit (equal to the value of sales times the tax rate) and a fiscal credit (equal to the tax already paid by the supplier of his inputs). The tax due is the difference between the debit and the credit.

According to the reform the VAT in Ecuador will be of the consumption type; that is, capital outlays by firms can be deducted from the tax base in the period of purchase, just like any current outlays (raw materials, packaging, electricity, etc.), without any depreciation provisions being needed. This makes the tax base theoretically equal to aggregate consumption; hence, its name.

Incidentally, one should note that this is also the tax base of the expenditure tax, already mentioned in the previous section.

There are four issues concerning the VAT in Ecuador: (1) The tax base; (2) The tax rate; (3) Evasion; and (4) Exempted activities.

The VAT base

The theoretical tax base is, of course, not equal to value added but to aggregate domestic expenditure because imports are subject to the tax while exports are exempted. In case of a perfectly balanced trade account the base would be exactly equal to value added.

The preceding paragraph assumes that there are no exempted sectors, and the only exempted activity is exports. This is not the case of Ecuador. In fact, for 1986 the activities whose value added was taxable amounted to 721 billion sucres (according to the Secretaria del Frente Economico), while GDP was 1363 billion sucres that year. Unfortunately, the data to perform an analogous calculation for 1987 and/or 1988 is not available.

This suggests that about one-half of value added was not taxable. This includes the production and imports of basic foodstuff, several categories of raw materials for agriculture and industry, and a large category of services (restaurants, hotels, air passenger transportation, packing and storage, telecommunications, etc.). The current reform's proposal of enlarging the tax base by eliminating some of these exemptions is a measure to correct this pitfall of the system.

The potential revenue from a taxable value added of 721 billion sucres would have been 72 billion in 1986, but the actual revenue amounted to less than 38 billion in that year. This suggests a rate of evasion slightly above 50%.

The combined result of exemptions and evasion is an actual VAT revenue of about one-fourth of the theoretical revenue (about 2.7% of GDP, while the tax rate is 10%).

Very efficient VAT systems, like the ones in Chile, Sweden or Italy show a VAT revenue equal to about one-half of the theoretical revenue. On the other hand, very poor systems like the Argentinian one show an actual VAT revenue of about one-fifth of theoretical revenue.

The proposed reform of making services taxable, while basic foodstuff and raw materials would be kept exempt is probably not sufficient to make actual revenue substantially closer to theoretical revenue.

The VAT rate

The rate was increased in 1986 from 6% to 10% and revenue rose in real terms from 2.65 (in 1985) to 4.44 (average 1986/87) billion sucres of 1975 (an increase of the same magnitude as the increase in the rate, 67%).

The fact that the 1986 increase in revenue was proportional to the increase in the rate cannot be taken as evidence that further increases in the rate will increase revenue proportionately.

Increases in the tax rate would normally increase revenue by less than proportionately, simply because evasion is further encouraged by higher tax rates. That is, doubling the rate would probably increase revenues by less than 100%, because evasion is much more attractive at a tax rate twice as high as before.

The rate of 10% is still a low rate by comparison with other countries. Table 5 shows the VAT (or equivalent taxes with other names) rates in other countries.

Further increases in the VAT rate are more promising sources of additional revenue than further reforms in the income tax if and when oil revenues diminish in the future.

Table 5. VAT rates in other countries

Argentina	(1991)	16%	Kenya	(1986)	17%
Austria	(1980)	18%	Korea	(1986)	10%
Belgium	(1980)	16%	Luxembourg	(1980)	10%
Brazil	(1986)	17%	Madagascar	(1986)	15%
Chile	(1988)	16%	New Zealand	(1986)	10%
Colombia	(1986)	10%	Netherlands	(1980)	18%
Denmark	(1980)	20%	Norway	(1980)	20%
France	(1980)	17.6%	Sweden	(1980)	23.5%
Germany	(1980)	13%	U. Kingdom	(1980)	15%
Ireland	(1980)	20%	Uruguay	(1987)	21%
Italy	(1980)	14%	Zaire	(1986)	18%
Ivory Coast	(1986)	20%			

Sources: H. Aaron, The Value Added Tax (Brookings Institution, 1981); and Conference on Value Added Taxation in Developing Countries, The World Bank, April 21-23, 1986.

Moreover, the VAT of the consumption type is a more neutral, less distorting, way of raising revenues than most taxes, including the income tax. Its economic effects are essentially the same as the effects of the expenditure tax, already discussed at the end of the previous section, except that the VAT cannot be progressive since its very nature makes it a proportional tax.

Since the issue of progressivity is already dealt with through the income tax (or the superior expenditure tax which may eventually replace it), the VAT at a higher rate is suggested as the preferred instrument to increase revenues and face the problems posed by a reduction in oil revenues.

A sixty per cent increase in the tax rate, from 10% to 16%, coupled with a tighter control of evasion should be able to yield a 30% to 40% increase in revenue; that is, additional revenues of 30 to 38 billion current sucres or approximately 0.7% of GDP. This is a conservative estimate, taking into account that the sixty-seven per cent rate increase of 1986 gave a sixty-seven per cent increase in revenues in 1986/87 with respect to 1985.

VAT Evasion

The Secretaria del Frente Economico has estimated that almost 50% of the TMT is evaded, based on estimates of taxable value added for the whole economy which would have yielded a potential revenue of about 72 billion sucres in 1986, instead of the 37.7 billion

actually collected in that year. More recently, Ceteris has produced an estimate of evasion for 1989 which also indicates that actual revenue is about half of potential revenue.

A complementary procedure would be the calculation of the ratio $R = \text{fiscal debit} / \text{fiscal credit}$ for individual tax-payers, or for sectors of the economy. Those with low or declining values of R (particularly if these values are less than one) are either evading the VAT or having a poor economic performance.

Unfortunately, this data is not available in Ecuador at the moment, but an effort should be made to produce this information if evasion control is to be more effective.

Although a declining value of R does not necessarily mean that evasion is taking place, it must be considered a warning signal which may indicate the areas where further evasion control may be fruitful. Likewise, tax payers who consistently show a value of R less than one ought to be inspected.

In the case of Chile, where evasion has been estimated at 11% of potential revenue, the economy-wide value of R in 1987 was 1.5, up from 1.39 in 1979, as a result of improved procedures of evasion control. In the case of Ecuador there seems to be more room for improvement given the higher estimate of evasion (48% of potential revenue).

Of course, no one would ever dream of totally eliminating VAT evasion. It may be, however, feasible to cut evasion in Ecuador by one-fourth; that is, to 36% of potential revenue, still more than three times higher than that of Chile. If such an effort is successful, it would yield additional revenues of 8.5 billion sucres of 1986, or about 17 billion current sucres (0.3% of GDP).

VAT Exemptions

When there are sectors that lie outside the VAT system; i.e., sectors that are not liable for the VAT and do not even have to submit a VAT declaration, two phenomena take place: first, the exempted sectors cannot claim a fiscal credit for the VAT embodied in the price of their inputs; and second, no VAT is included in the price of their outputs.

Therefore, when the exempted sectors sell their outputs to a final consumer their value added, and nothing but their value added, turns out to be tax free and in this case the VAT exemptions entail a loss of revenue.

On the other hand, when the exempted sectors sell their outputs to be used as inputs by other (non-exempted) sectors, the buyers cannot claim any fiscal credit because no VAT was included

in the price, as the inputs come from a sector not belonging to the VAT system. This lack of fiscal credit means that the value added of the exempted sectors will ultimately be considered, for VAT purposes, as value added of the other sectors and be taxed. Therefore, in this case the VAT exemptions do not really exempt anything and do not entail any loss of revenue.

There is a distinction to be made between VAT exempted sectors and the sectors which are subject to a zero-rate VAT. The latter are activities that belong to the VAT system and whose value added is subject to a zero rate tax. Since these activities are within the VAT system, they get a fiscal credit for the VAT embodied in the prices of their inputs and, at the same time, their fiscal debit is identically zero. As a consequence, a zero-rated activity gets its own value added, and that of all its suppliers, tax free. In other words, the entire product of a zero-rated activity is tax free. The only zero-rated activity in Ecuador would be exports. When a box of shrimps is exported, the credit the exporter gets equals the VAT of the fisherman, the shipper, the packer, etc.; i.e., the VAT on the whole box of shrimp is rebated.

In the case of Ecuador sixteen groups of commodities would be exempted. These are: meats; milk; bread; sugar; salt; butter; canned fish and seafood; medicines; seeds; animal feed; fertilizers, herbicides and insecticides; books; artcraft; and certain imports.

To the extent that these commodities are used as inputs, they are not really exempted because the tax reaches them in the subsequent stage of production. Therefore, in this case the exemptions would not entail any loss of revenue. This may be the case of what can be called Group One: The "Exempted" Goods, which would include seeds; animal feed; and fertilizers, herbicides and insecticides.

On the other hand, the exemptions to all other groups of commodities (Group Two: The Truly Exempted Goods) entail not only a loss of revenue but also an undesirable distortion to the relative prices and therefore, to the market incentives to efficient resource allocation.

Most of the virtues of VAT, such as economic neutrality and administrative simplicity, would be lost or severely damaged by the exemptions. Incentives are created to pursue certain activities, regardless of efficiency or productivity, attracted by the exempted status of the activities. It is clearly inconsistent to create these incentives at the same time as similar exemptions, exonerations and deductions are being eliminated by the Income Tax Reform.

Since the exemption to the goods in Group One is not really an exemption at all, and the exemption to the goods in Group Two is

economically a mistake, it is recommended to eliminate all exemptions.

This would be consistent not only with the Income Tax Reform but also with the proposed inclusion in the VAT base of previously exempted services, such as laundry; telecommunications; car repairs; packing and storage; hotels, restaurants, discoteques and casinos; airline tickets; photo development; insurance; and private international shipping of letters and documents.

Appraisal of the TMT reform

There does not seem to be a reform as such. Most of the elements of VAT are already in place.

The main change, other than the name of the tax itself, consist of the reduction of the number of exempted goods and services.

This is a step in the right direction but it only goes half of the way, as many exemptions would still remain. Some of these are relatively harmless because they apply to inputs which will not escape the tax anyway.

The other remaining exemptions, which create distortions in relative prices and economic incentives, include mainly basic foodstuffs. This suggests that there may be a redistributive purpose in these exemptions. If this is the case, one should point out that such a legitimate purpose is badly served by the exemptions for they are not selective and make foodstuff cheaper for everyone, not just the poor.

It would be useless to sacrifice a good tax instrument in search of a distributive effect which such sacrifice cannot provide anyway.

Redistributive purposes will be better served by having a distortion-free VAT collecting as much revenue as possible, without exemptions, to provide maximum financing for the more efficient redistributive instrument: progressive public expenditures.

A distortion-free VAT has the potential to yield additional revenues, without unduly distorting efficiency and equity, to face the prospect of a fall in oil revenues. An increase in the VAT rate to 16% and rather modest improvements in evasion control may yield between 47 and 55 billion current sucres.

The combined effect on revenue of tightening evasion control and increasing the rate will be rather limited because these two actions partly cancel each other out: to increase the rate is to increase the incentives to evade, thus making evasion control less

effective and more costly. The combined effect will probably be in the neighborhood of 50 billion current sucres (1% of GDP).

However small this effect may be, evasion control ought to be tightened. A rate increase can be considered if and when oil revenues diminish in the future.

IV. The Tax on Specific Consumptions

This tax strikes four groups of commodities: (1) Cigarettes; (2) beer; (3) soft drinks and mineral waters; and (4) alcohol and alcoholic beverages.

This tax would replace existing taxes on the same goods and at the same rates plus several other taxes of negligible revenue.

The revenue from the TSC would be allocated to the general budget, while the revenues from the existing taxes are earmarked to several entities within the public sector.

The TSC would strike the goods of local production as well as imported, at the following rates:

Cigarettes: from 10% to 260%, depending on the quality of the tobacco, of the packing and of the filter;

Beer: 85%;

Soft drinks and mineral waters: 20%; and

Alcohol and alcoholic beverages: 100%.

The tax base would be the wholesale price of these goods with the exception of alcohol and alcoholic beverages. The tax base of alcohol and alcoholic beverages would be calculated as follows: The tax base per bottle is the alcoholic content (in Gay Lussac units) multiplied by the number of liters in the bottle and multiplied by 3, 4, or 6 sucres if the product is "aguardiente", or "anisado", or other beverages, respectively. Of course, the values 3, 4, or 6 would be adjusted for inflation twice a year.

The exemptions to the TSC comprises exports and intermediate sales of alcohol as well as alcohol for pharmaceutical uses.

The revenue performance of the four components of the TSC is shown in Table 6. It shows that cigarettes and beer yield about 80% of the TSC revenues (almost 0.4% of GDP each), while soft drinks and alcoholic beverages contributed very little to the TSC revenue (they never yielded more than 0.15% of GDP each and stayed below 0.09% of GDP during the eighties).

This suggests that in order to further simplify taxation,

prevent corruption and save on administrative costs, the taxes on soft drinks and alcoholic beverages (with its fine tuned base and the implied corruption opportunities) could be abolished with an annual revenue loss of about 0.17 billion sucres of 1975, or about 3.8 billion current sucres; that is 0.08% of GDP.

Table 6. Revenues of the taxes
on specific consumptions
(billion sucres of 1975)

Year	Cigarettes		Beer		Soft drinks		Alcoholic B.	
	Real	% of Total	Real	% of Total	Real	% of Total	Real	% of Total
1972	0	0	0.16	41%	0.11	28%	0.12	31%
1973	0	0	0.16	41%	0.11	28%	0.12	31%
1974	0	0	0.13	38%	0.10	29%	0.11	33%
1975	0	0	0.14	38%	0.11	30%	0.12	32%
1976	0	0	0.14	37%	0.13	34%	0.11	29%
1977	0	0	0.16	42%	0.12	32%	0.10	26%
1978	0.25	36%	0.21	30%	0.13	19%	0.10	15%
1979	0.46	48%	0.29	30%	0.12	12%	0.09	10%
1980	0.31	40%	0.29	37%	0.10	13%	0.08	10%
1981	0.36	43%	0.29	35%	0.12	14%	0.07	8%
1982	0.41	47%	0.29	33%	0.11	13%	0.07	7%
1983	0.47	42%	0.48	43%	0.10	9%	0.07	6%
1984	0.57	47%	0.48	40%	0.10	8%	0.06	5%
1985	0.40	37%	0.52	49%	0.10	9%	0.05	5%
1986	0.45	36%	0.63	51%	0.12	10%	0.04	3%
1987	0.67	47%	0.56	39%	0.13	9%	0.07	5%

Source: Ministerio de Finanzas, Subsecretaria de Presupuesto-Ingresos Fiscales.

Thirty eight taxes of negligible revenue would be abolished, some of which stopped yielding any revenue long ago while most others still yield revenues of less than 0.01% of GDP. These are taxes on:

- 1) Selective Consumptions;
- 2) Profits on the sale of rural land;
- 3) Stamp;
- 4) Cement production;
- 5) Airline tickets;
- 6) Ocean freight;
- 7) Casinos and gambling houses;
- 8) Oil exploration;
- 9) Ocean freight of crude oil and oil derivatives;
- 10) Sale of imported liquor;
- 11) Trees cutting and wood sale;

- 12)Rice processing;
- 13)Coffee processing;
- 14)Cotton and synthetic fibers;
- 15)Purchase of raw cotton;
- 16)Profits of private electricity companies;
- 17)Commercial and industrial users of electricity;
- 18)All users of electricity;
- 19)Electricity meters;
- 20)Electricity users in Quito;
- 21)Air freight;
- 22)Airlines which rent planes from other companies;
- 23)Airlines for passenger services;
- 24)Advertising in airplanes;
- 25)Services given to airlines by service companies;
- 26)Public shows (such as cinema, theater, etc.);
- 27)Public sport shows (such as soccer, baseball, etc.);
- 28)Slaughter houses;
- 29)Fire insurance premiums;
- 30)Insurance premium if the insurance company is in Guayaquil;
- 31)Railroad freight and passenger tickets;
- 32)International air freight;
- 33)Excess luggage;
- 34)Toilet articles locally produced;
- 35)Telephone users;
- 36)Diesel consumption;and
- 37)Airplane fuels and lubricants used by international commercial airlines.
- 38)Bequests.

The exact figure of the revenues yielded by the taxes above is not available. Nonetheless, an upper bound estimate of the foregone revenue entailed by abolishing them can be done as follows:

By deducting from non-oil tax revenues (as given in Table 1) the revenues of:

- (1) Income tax; TMT;and TSC (as given in Table 2);
 - (2) Local governments (as given in Table 1);
 - (3) Taxes on international trade (as given in the Annex);
 - (4) Tax on "Operaciones de Credito" (as given in the Annex);
 - (5) Other revenues, such as port charges and fines and interest on late tax payments (as given in the Annex),
- one gets a remainder.

This remainder can be considered an upper bound estimate of the revenues attributable to the taxes to be abolished. It is obviously an upper bound estimate because part of the remainder may be revenues of taxes that are not to be abolished. This is not a major concern, however, because the remainder itself is of a small order of magnitude.

The above calculation is performed in Table 7, and it indicates that the annual revenue loss involved in the elimination

of the 38 taxes would be at most 0.58 billion sucres of 1975, or 13 billion current sucres; that is at most 0.26% of GDP, and probably less than that.

Table 7. An upper bound estimate of the revenue loss involved in the elimination of the 38 taxes
(billion sucres of 1975)

<u>Year</u>	<u>Non-oil Revenues</u>	<u>Income Tax, TMT & TSC</u>	<u>Local Govern-ments</u>	<u>Foreign Trade Taxes</u>	<u>Tax on "O. de Credito"</u>	<u>Other</u>	<u>Remainder</u>
1981	12.50	6.46	0.80	4.36	0.21	0.27	0.40
1982	11.60	5.91	0.80	3.64	0.17	0.28	0.80
1983	10.20	5.44	0.70	3.39	0.29	0.21	0.17
1984	11.90	5.69	0.80	3.90	0.55	0.23	0.73
1985	13.20	6.32	0.80	4.66	0.42	0.32	0.68
1986	16.30	9.05	0.70	5.21	0.30	0.42	0.62
1987	15.40	8.67	0.90	4.44	0.34	0.40	0.65
Average							0.58

Appraisal of the TSC Reform

The reform has two effects.

One effect as far as taxes on beer, cigarettes, soft drinks and liquor are concerned is the elimination of the earmarking.

The other effect is the elimination of 38 small revenue taxes, many of which are earmarked. This will reduce administrative red tape and improve the efficiency of the whole tax system.

In order to further simplify the system it is suggested that taxes on alcoholic beverages and soft drinks be also abolished.

The elimination of the 38 taxes would entail an annual loss of revenue of at most 13 billion sucres, which would rise to about 17 billion if taxes on soft drinks and liquor are also eliminated.

This is an acceptable price to pay to get the advantages associated to the elimination of earmarking, the administrative simplification, the reduction in corruption opportunities, and the improved neutrality of the reformed tax system.

To concentrate taxation on few taxes of wide bases and

uniform rates is the golden rule of taxation, both from the administrative and economic viewpoints. The reforms considered here are steps in that direction.

V. Summary and Recommendations

Non-oil tax revenues in Ecuador grew, in real terms, at an annual rate of 5.25% during 1970-1988; less than the growth rate of GDP (6% per year), but almost equal to the growth rate of non-oil GDP during the period.

This, together with the growth of the oil revenues of Ecuador's Government, encouraged a rapid growth of public expenditures, assorted subsidies and tax breaks. The questions now are these: Will all that be sustainable if and when oil revenues fall substantially? Can non-oil tax revenues be raised so as to maintain the levels of public expenditures, subsidies and tax breaks if and when oil revenues fall substantially?

The answer to both questions is no.

Non-oil taxes are currently being reformed to make them more equitable and efficient, less vulnerable to tax loopholes and, perhaps, yield higher revenues.

But that will hardly be sufficient to make up for any substantial fall in the oil revenues of the government. If this should happen public expenditures, subsidies and preferential treatments would have to be cut, to avoid a situation like that of Argentina in 1989 or Bolivia in 1987.

The income tax reform will improve the old income tax by eliminating differential treatment to incomes of different sources, with marginal tax rates ranging from 10% to 25%.

This is a great improvement over the current system, in which a tax-payer may face a minimum marginal tax rate ranging from 8% to 31%, depending on the source of his income; and a maximum marginal tax rate ranging from 8% to 69%, also depending on the source of his income.

Another improvement of the income tax reform is the elimination of tax exemptions granted by several so-called Development Laws. These have diverted resources from productive activities, into tax sheltered activities not necessarily efficient or productive. The elimination of exemptions would reduce these incentives to misallocation of resources and yield more revenue at the same time.

On the other hand, some recommendations must be made to

further improve the reform: (1) The preferential treatment to forestry and tourism should be eliminated, along with the elimination of the other exemptions; (2) The use of presumptive income and "Estimacion Objetiva Global" to determine the tax base of selected activities should be replaced by the standard procedure of submitting profit and loss accounts, like all other taxable activities; (3) Serious consideration should be given to the replacement of the whole income tax by an expenditure tax, whereby savings are exempted in the Chilean fashion.

The revenue effect of the income tax reform would consist of a reduction estimated in about 20 billion current sucres a year, or about 0.4% of GDP.

The reform to the tax on mercantile transactions, to be called value added tax, consists of enlarging the tax base by including certain services although other important items would still be exempted from the tax.

Two recommendations are made to the implementation of the value added tax: (1) The rate should be increased; and (2) The exemptions should be eliminated altogether.

The reform does not even discuss the possibility of increasing the rate from its current level of 10% to, say, 16%. Most VATs in the world have rates above 10%, and this tax is an ideal instrument to raise revenue in a relatively minor distorting way.

Rather modest improvements in evasion control, coupled with an increase in the rate to 16%, would probably yield additional revenues in the order of 50 billion current sucres a year, or about 1% of GDP.

The sixteen groups of commodities that would remain exempted even after the reform should be given the same treatment as the services whose exemptions were abolished by the reform.

The reform to the tax on specific consumptions, TSC, would eliminate the earmarking on a variety of small revenue taxes, the most important of which are the taxes on beer and cigarettes.

It would also abolish 38 taxes of negligible revenue, although it keeps taxes on soft drinks and alcoholic beverages which also yield negligible revenues (some of the taxes to be abolished, such as the tax on ocean freight yields more revenue than either the tax on soft drinks or the one on liquor).

The revenue effects of the reform to the TSC consists of a reduction estimated in 13 billion current sucres a year, which would rise to 17 billion if the taxes on soft drinks and liquor were also abolished.

All things considered, and assuming that the VAT rate would be raised to 16%, the revenue effect of these reforms would consist of an increase in revenues of about 13 to 17 billion current sucres a year (50 billion from the VAT rate increase, minus 20 billion from the income tax reform, minus 13 or 17 billion from the TSC reform); that is, about 0.3% of GDP.

The fact that this figure is not nearly enough to compensate any significant fall in oil revenues does not diminish the importance of the reforms. These would produce a more rational and equitable tax system, which would create less distortions in the allocation of resources, would be less vulnerable to tax loopholes, and moreover would be capable of yielding a little additional revenue.

Annex

All individual taxes in this annex are non-oil (if one adds up all columns, the total equals the column labelled "Total No Petroleros"). The column "Total Petroleros" is included for the sake of completeness only.

INGRESOS PETROLEROS Y NO PETROLEROS DEL GOBIERNO CENTRAL DEL ECUADOR
(En millones de sucres)

AÑOS	GDP INDICE DE 10 ⁹ PRECIOS 1975=100	COMERCIO EXTERIOR			R E N T A			VENTAS INMUEBLES RURALES			
		NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	
1970	35.02	55.7	1,615.00	2,899.46	4.61%	666.00	1,195.69	1.90%	0.00	0.00	0.00%
1971	40.05	59.9	1,914.30	3,195.83	4.78%	965.40	1,611.69	2.41%	0.00	0.00	0.00%
1972	46.86	60.6	2,184.00	3,603.96	4.66%	1,090.60	1,799.67	2.33%	0.65	1.07	0.00%
1973	62.18	64.9	3,347.40	5,157.78	5.38%	1,212.40	1,868.10	1.95%	0.90	1.39	0.00%
1974	92.81	90.9	3,963.10	4,359.85	4.27%	1,522.60	1,675.03	1.64%	0.72	0.79	0.00%
1975	107.88	100.0	4,070.80	4,070.80	3.77%	2,010.80	2,010.80	1.86%	3.00	3.00	0.00%
1976	132.66	112.9	4,542.80	4,023.74	3.42%	2,190.50	1,940.21	1.65%	2.80	2.48	0.00%
1977	166.45	132.7	7,160.90	5,396.31	4.30%	2,789.50	2,102.11	1.68%	7.00	5.28	0.00%
1978	191.82	143.2	7,421.60	5,182.68	3.87%	3,513.50	2,453.56	1.83%	11.10	7.75	0.01%
1979	233.68	166.3	7,748.30	4,659.23	3.32%	4,081.00	2,454.00	1.75%	12.80	7.70	0.01%
1980	294.15	198.7	9,760.80	4,912.33	3.32%	5,043.70	2,538.35	1.71%	12.60	6.34	0.00%
1981	347.73	227.2	9,903.10	4,358.76	2.85%	7,443.00	3,275.97	2.14%	14.20	6.25	0.00%
1982	414.92	267.7	9,732.90	3,635.75	2.35%	7,184.30	2,683.71	1.73%	18.30	6.84	0.00%
1983	558.73	371.3	12,602.30	3,394.10	2.26%	8,636.00	2,325.88	1.55%	22.40	6.03	0.00%
1984	813.25	516.9	20,154.60	3,899.13	2.48%	11,781.00	2,279.16	1.45%	25.90	5.01	0.00%
1985	1,109.50	676.6	31,554.50	4,663.69	2.84%	17,570.90	2,596.94	1.58%	28.80	4.26	0.00%
1986	1,362.48	816.5	42,578.30	5,214.73	3.13%	25,976.80	3,181.48	1.91%		0.00	0.00%
1987	1,808.38	1,126.9	50,013.10	4,438.11	2.77%	33,708.20	2,991.23	1.86%		0.00	0.00%
1988											

EN LA COLUMNA DE COMERCIO EXTERIOR INCLUYE EXPORTACIONES NO CAFETERAS, EXPORTACIONES DE CAFE, IMPORTACIONES, IMPUESTO A LA EXONERACION DE ARANCELES Y DIFERENCIAL CAMBIARIO.

EN LAS COLUMNAS DE RENTA, GASEOSAS, CERVEZA Y ALCOHOLES SE INCLUYEN LOS IMPUESTOS ADICIONALES (8% Y 11% EN EL CASO DEL IMPUESTO ALA RENTA) Y LA PARTICIPACION A FONAPAR EN TODOS ESTOS CASOS. EN LA COLUMNA DE TIMBRES SE INCLUYEN EL JUDICIAL, TURISTICO Y EL DE CEDULACION.

AÑOS	CAPITALES EN GIRO			PREDIOS URBANOS			TRANSFERENCIA MUNICIPIO 10%		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	11.10	19.93	0.03%	12.30	22.08	0.04%	0.00	0.00	0.00%
1971	10.80	18.03	0.03%	14.10	23.54	0.04%	0.00	0.00	0.00%
1972	11.30	18.65	0.02%	21.10	34.82	0.05%	0.00	0.00	0.00%
1973	14.00	21.57	0.02%	27.60	42.53	0.04%	0.00	0.00	0.00%
1974	16.80	18.48	0.02%	19.30	21.23	0.02%	0.00	0.00	0.00%
1975	24.70	24.70	0.02%	38.80	38.80	0.04%	1.80	1.80	0.00%
1976	29.00	25.69	0.02%	43.60	38.62	0.03%	0.00	0.00	0.00%
1977	39.40	29.69	0.02%	71.20	53.65	0.04%	0.00	0.00	0.00%
1978	44.50	31.08	0.02%	54.80	38.27	0.03%	1.50	1.05	0.00%
1979	54.60	32.83	0.02%	80.70	48.53	0.03%	4.60	2.77	0.00%
1980	66.50	33.47	0.02%	93.40	47.01	0.03%	2.80	1.41	0.00%
1981		0.00	0.00%		0.00	0.00%	3.00	1.32	0.00%
1982		0.00	0.00%		0.00	0.00%	3.00	1.12	0.00%
1983		0.00	0.00%		0.00	0.00%	7.90	2.13	0.00%
1984		0.00	0.00%		0.00	0.00%	23.60	4.57	0.00%
1985		0.00	0.00%		0.00	0.00%	15.60	2.31	0.00%
1986		0.00	0.00%		0.00	0.00%	32.30	3.96	0.00%
1987		0.00	0.00%		0.00	0.00%	56.20	4.99	0.00%
1988									

AÑOS	GDP INDICE DE 10 ⁹ PRECIOS 1975=100		HERENCIAS, ETC.			OPERACIONES DE CREDITO			CREDITOS EXTERNOS		
			NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	35.02	55.7	4.20	7.54	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1971	40.05	59.9	2.50	4.17	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1972	46.86	60.6	3.20	5.28	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1973	62.18	64.9	3.80	5.86	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1974	92.81	90.9	7.10	7.81	0.01%	112.90	124.20	0.12%	0.00	0.00	0.00%
1975	107.88	100.0	6.80	6.80	0.01%	105.50	105.50	0.10%	75.30	75.30	0.07%
1976	132.66	112.9	8.30	7.35	0.01%	137.10	121.43	0.10%	79.40	70.33	0.06%
1977	166.45	132.7	46.50	35.04	0.03%	232.50	175.21	0.14%	73.20	55.16	0.04%
1978	191.82	143.2	50.90	35.54	0.03%	311.80	217.74	0.16%	96.40	67.32	0.05%
1979	233.68	166.3	34.50	20.75	0.01%	345.00	207.46	0.15%	178.90	107.58	0.08%
1980	294.15	198.7	51.50	25.92	0.02%	329.90	166.03	0.11%	233.50	117.51	0.08%
1981	347.73	227.2	62.60	27.55	0.02%	466.80	205.46	0.13%		0.00	0.00%
1982	414.92	267.7	86.10	32.16	0.02%	450.30	168.21	0.11%		0.00	0.00%
1983	558.73	371.3	107.50	28.95	0.02%	1,091.70	294.02	0.20%		0.00	0.00%
1984	813.25	516.9	106.20	20.55	0.01%	2,835.70	548.60	0.35%		0.00	0.00%
1985	1,109.50	676.6	175.90	26.00	0.02%	2,834.60	418.95	0.26%		0.00	0.00%
1986	1,362.48	816.5	201.10	24.63	0.01%	2,464.10	301.79	0.18%		0.00	0.00%
1987	1,808.38	1,126.9	159.20	14.13	0.01%	3,780.10	335.44	0.21%		0.00	0.00%
1988											

AÑOS	I. T. M.			CIGARRILLOS			BEBIDAS GASEOSAS		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	0.00	0.00	0.00%	0.00	0.00	0.00%	47.40	85.10	0.14%
1971	469.30	783.47	1.17%	0.00	0.00	0.00%	45.30	75.63	0.11%
1972	607.70	1,002.81	1.30%	0.00	0.00	0.00%	69.10	114.03	0.15%
1973	778.50	1,199.54	1.25%	0.00	0.00	0.00%	72.10	111.09	0.12%
1974	1,086.70	1,195.49	1.17%	0.00	0.00	0.00%	83.90	92.30	0.09%
1975	1,380.70	1,380.70	1.28%	0.00	0.00	0.00%	107.20	107.20	0.10%
1976	1,511.90	1,339.15	1.14%	0.00	0.00	0.00%	144.70	128.17	0.11%
1977	2,179.00	1,642.05	1.31%	0.00	0.00	0.00%	163.40	123.13	0.10%
1978	2,921.80	2,040.36	1.52%	354.40	247.49	0.18%	192.50	134.43	0.10%
1979	3,483.20	2,094.53	1.49%	772.00	464.22	0.33%	204.50	122.97	0.09%
1980	4,431.90	2,230.45	1.51%	618.20	311.12	0.21%	200.50	100.91	0.07%
1981	5,319.10	2,341.15	1.53%	820.20	361.00	0.24%	269.10	118.44	0.08%
1982	6,303.60	2,354.73	1.52%	1,101.70	411.54	0.27%	305.10	113.97	0.07%
1983	7,380.80	1,987.83	1.32%	1,743.40	469.54	0.31%	334.00	89.95	0.06%
1984	11,357.20	2,197.18	1.40%	2,948.90	570.50	0.36%	514.70	99.57	0.06%
1985	17,935.10	2,650.77	1.62%	2,730.60	403.58	0.25%	688.50	101.76	0.06%
1986	37,794.70	4,628.87	2.77%	3,663.50	448.68	0.27%	1,017.60	124.63	0.07%
1987	47,939.60	4,254.11	2.65%	7,578.70	672.53	0.42%	1,478.00	131.16	0.08%
1988									

AÑOS	GDP INDICE DE		C E R V E Z A			PRODUCTOS ALCOHOLICOS			CONSUMO SELECTIVO		
	10 ⁹	PRECIOS	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	35.02	55.7	86.00	154.40	0.25%	31.70	56.91	0.09%	0.00	0.00	0.00%
1971	40.05	59.9	90.70	151.42	0.23%	51.20	85.48	0.13%	0.00	0.00	0.00%
1972	46.86	60.6	96.20	158.75	0.21%	69.80	115.18	0.15%	0.00	0.00	0.00%
1973	62.18	64.9	107.00	164.87	0.17%	79.20	122.03	0.13%	0.00	0.00	0.00%
1974	92.81	90.9	118.30	130.14	0.13%	103.60	113.97	0.11%	0.00	0.00	0.00%
1975	107.88	100.0	141.50	141.50	0.13%	117.50	117.50	0.11%	0.00	0.00	0.00%
1976	132.66	112.9	158.20	140.12	0.12%	119.70	106.02	0.09%	0.00	0.00	0.00%
1977	166.45	132.7	214.00	161.27	0.13%	129.90	97.89	0.08%	0.00	0.00	0.00%
1978	191.82	143.2	298.20	208.24	0.16%	126.00	87.99	0.07%	0.00	0.00	0.00%
1979	233.68	166.3	479.30	288.21	0.21%	133.90	80.52	0.06%	0.00	0.00	0.00%
1980	294.15	198.7	580.80	292.30	0.20%	148.90	74.94	0.05%	0.00	0.00	0.00%
1981	347.73	227.2	655.90	288.69	0.19%	165.80	72.98	0.05%	0.00	0.00	0.00%
1982	414.92	267.7	787.20	294.06	0.19%	196.90	73.55	0.05%	0.00	0.00	0.00%
1983	558.73	371.3	1,788.00	481.55	0.32%	230.00	61.94	0.04%	34.40	9.26	0.01%
1984	813.25	516.9	2,487.20	481.18	0.31%	263.80	51.04	0.03%	56.80	10.99	0.01%
1985	1,109.50	676.6	3,502.00	517.59	0.32%	299.00	44.19	0.03%	1,040.00	153.71	0.09%
1986	1,362.48	816.5	5,132.00	628.54	0.38%	402.40	49.28	0.03%	967.00	118.43	0.07%
1987	1,808.38	1,126.9	6,284.00	557.64	0.35%	784.20	69.59	0.04%	884.00	78.45	0.05%
1988											

AÑOS	TRANSPORTE MARITIMO			AEROPUERTO			TIMBRES		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	31.10	55.83	0.09%	0.00	0.00	0.00%	3.30	5.92	0.01%
1971	35.80	59.77	0.09%	0.00	0.00	0.00%	3.10	5.18	0.01%
1972	45.40	74.92	0.10%	0.00	0.00	0.00%	4.30	7.10	0.01%
1973	47.60	73.34	0.08%	0.00	0.00	0.00%	4.60	7.09	0.01%
1974	42.10	46.31	0.05%	0.00	0.00	0.00%	8.20	9.02	0.01%
1975	39.00	39.00	0.04%	0.00	0.00	0.00%	2.90	2.90	0.00%
1976	47.90	42.43	0.04%	0.00	0.00	0.00%	4.60	4.07	0.00%
1977	48.50	36.55	0.03%	0.00	0.00	0.00%	38.70	29.16	0.02%
1978	46.00	32.12	0.02%	0.00	0.00	0.00%	13.30	9.29	0.01%
1979	58.90	35.42	0.03%	0.00	0.00	0.00%	18.10	10.88	0.01%
1980	46.00	23.15	0.02%	0.00	0.00	0.00%	18.20	9.16	0.01%
1981	53.30	23.46	0.02%	0.00	0.00	0.00%	5.70	2.51	0.00%
1982	58.70	21.93	0.01%	0.00	0.00	0.00%	5.30	1.98	0.00%
1983	63.10	16.99	0.01%	0.00	0.00	0.00%	5.80	1.56	0.00%
1984	88.80	17.18	0.01%	0.00	0.00	0.00%	6.42	1.24	0.00%
1985	141.40	20.90	0.01%	0.00	0.00	0.00%	6.64	0.98	0.00%
1986	224.00	27.43	0.02%	115.00	14.08	0.01%	3.18	0.39	0.00%
1987	653.00	57.95	0.04%	765.00	67.89	0.04%	6.14	0.54	0.00%
1988									

AÑOS	GDP INDICE DE 10 ⁹ PRECIOS		ESPECTACULOS PUBLICOS			JEFATURAS PROVINCIALES			PLUSVALIA OBRAS PUBLICAS		
	1975=100		NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	35.02	55.7	0.00	0.00	0.00%	51.00	91.56	0.15%	70.00	125.67	0.20%
1971	40.05	59.9	0.02	0.03	0.00%	55.70	92.99	0.14%	71.10	118.70	0.18%
1972	46.86	60.6	0.03	0.05	0.00%	160.90	265.51	0.34%	1.40	2.31	0.00%
1973	62.18	64.9	0.04	0.06	0.00%	190.10	292.91	0.31%	2.40	3.70	0.00%
1974	92.81	90.9	0.04	0.04	0.00%	220.70	247.74	0.27%	0.00	0.00	0.00%
1975	107.88	100.0	46.30	46.30	0.04%	262.30	262.30	0.24%	1.00	1.00	0.00%
1976	132.66	112.9	39.60	35.08	0.03%	277.50	245.79	0.21%	4.00	3.54	0.00%
1977	166.45	132.7	66.40	50.04	0.04%		0.00	0.00%		0.00	0.00%
1978	191.82	143.2	43.80	30.59	0.02%		0.00	0.00%		0.00	0.00%
1979	233.68	166.3	51.50	30.97	0.02%		0.00	0.00%		0.00	0.00%
1980	294.15	198.7	55.20	27.78	0.02%		0.00	0.00%		0.00	0.00%
1981	347.73	227.2		0.00	0.00%		0.00	0.00%		0.00	0.00%
1982	414.92	267.7		0.00	0.00%		0.00	0.00%		0.00	0.00%
1983	558.73	371.3		0.00	0.00%		0.00	0.00%		0.00	0.00%
1984	813.25	516.9		0.00	0.00%		0.00	0.00%		0.00	0.00%
1985	1,109.50	676.6		0.00	0.00%		0.00	0.00%		0.00	0.00%
1986	1,362.48	816.5		0.00	0.00%		0.00	0.00%		0.00	0.00%
1987	1,808.38	1,126.9		0.00	0.00%		0.00	0.00%		0.00	0.00%
1988											

AÑOS	TASAS PORTUARIAS			DERECHOS CONSULARES			PARTICIPACION BEDE		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	6.80	12.21	0.02%	47.20	84.74	0.13%	0.00	0.00	0.00%
1971	8.40	14.02	0.02%	68.70	114.69	0.17%	0.00	0.00	0.00%
1972	6.30	10.40	0.01%	61.70	101.82	0.13%	0.00	0.00	0.00%
1973	4.90	7.55	0.01%	86.10	132.67	0.14%	0.00	0.00	0.00%
1974	6.80	7.48	0.01%	100.90	111.00	0.11%	0.00	0.00	0.00%
1975	4.30	4.30	0.00%	85.40	85.40	0.08%	0.00	0.00	0.00%
1976	28.80	25.51	0.02%	76.40	67.67	0.06%	0.00	0.00	0.00%
1977	44.70	33.69	0.03%	39.10	29.46	0.02%	0.00	0.00	0.00%
1978	72.90	50.91	0.04%	40.80	28.49	0.02%	0.00	0.00	0.00%
1979	158.30	95.19	0.07%	52.00	31.27	0.02%	0.00	0.00	0.00%
1980	234.30	117.92	0.08%	42.00	21.14	0.01%	0.00	0.00	0.00%
1981	245.80	108.19	0.07%	45.00	19.81	0.01%	0.00	0.00	0.00%
1982	336.60	125.74	0.08%	54.40	20.32	0.01%	0.00	0.00	0.00%
1983	285.40	76.87	0.05%	58.40	15.73	0.01%	0.00	0.00	0.00%
1984	341.00	65.97	0.04%	141.60	27.39	0.02%	1,800.70	348.37	0.22%
1985	532.90	78.76	0.05%	247.20	36.54	0.02%	1,399.20	206.80	0.13%
1986	913.10	111.83	0.07%	426.70	52.26	0.03%	610.00	74.71	0.04%
1987	1,310.30	116.27	0.07%	628.10	55.74	0.03%	0.00	0.00	0.00%
1988									

AÑOS	GDP INDICE DE		INTERNACION TEMPORAL			PATENTES Y PERMISOS			FOMENTO PESQUERO		
	10 ⁹	PRECIOS 1975=100	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	35.02	55.7	70.00	125.67	0.20%	0.00	0.00	0.00%	0.00	0.00	0.00%
1971	40.05	59.9	71.08	118.66	0.18%	0.00	0.00	0.00%	0.00	0.00	0.00%
1972	46.86	60.6	6.20	10.23	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1973	62.18	64.9	3.60	5.55	0.01%	0.00	0.00	0.00%	0.00	0.00	0.00%
1974	92.81	90.9	20.00	22.00	0.02%	0.00	0.00	0.00%	0.00	0.00	0.00%
1975	107.88	100.0	27.90	27.90	0.03%	0.01	0.01	0.00%	0.05	0.05	0.00%
1976	132.66	112.9	1.40	1.24	0.00%	0.02	0.01	0.00%	0.02	0.02	0.00%
1977	166.45	132.7	9.60	7.23	0.01%	0.02	0.02	0.00%	0.02	0.02	0.00%
1978	191.82	143.2	26.70	18.65	0.01%	0.01	0.01	0.00%	0.01	0.01	0.00%
1979	233.68	166.3	19.80	11.91	0.01%	4.11	2.47	0.00%	0.01	0.01	0.00%
1980	294.15	198.7	0.00	0.00	0.00%	24.61	12.38	0.01%	0.02	0.01	0.00%
1981	347.73	227.2		0.00	0.00%		0.00	0.00%		0.00	0.00%
1982	414.92	267.7		0.00	0.00%	35.50	13.26	0.01%	3.70	1.38	0.00%
1983	558.73	371.3		0.00	0.00%	39.00	10.50	0.01%	7.00	1.89	0.00%
1984	813.25	516.9		0.00	0.00%	46.80	9.05	0.01%	3.60	0.70	0.00%
1985	1,109.50	676.6		0.00	0.00%	53.90	7.97	0.00%	1.70	0.25	0.00%
1986	1,362.48	816.5		0.00	0.00%	69.10	8.46	0.01%	1.60	0.20	0.00%
1987	1,808.38	1,126.9		0.00	0.00%	40.10	3.56	0.00%	2.50	0.22	0.00%
1988											

AÑOS	DERECHOS MINEROS Y FORESTALES			VENTAS PUBLICACIONES			M U L T A S		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	1.00	1.80	0.00%	3.00	5.39	0.01%	15.80	28.37	0.05%
1971	1.00	1.67	0.00%	1.70	2.84	0.00%	10.30	17.20	0.03%
1972	0.40	0.66	0.00%	8.10	13.37	0.02%	19.40	32.01	0.04%
1973	0.20	0.31	0.00%	1.70	2.62	0.00%	30.60	47.15	0.05%
1974	0.10	0.11	0.00%	14.40	15.84	0.02%	53.60	58.97	0.06%
1975	0.00	0.00	0.00%	13.10	13.10	0.01%	74.00	74.00	0.07%
1976	0.00	0.00	0.00%	3.40	3.01	0.00%	57.00	50.49	0.04%
1977	0.01	0.01	0.00%	4.30	3.24	0.00%	29.50	22.23	0.02%
1978	0.01	0.00	0.00%	5.40	3.77	0.00%	21.00	14.66	0.01%
1979	0.01	0.01	0.00%	8.90	5.35	0.00%	24.20	14.55	0.01%
1980	0.01	0.01	0.00%	6.40	3.22	0.00%	32.90	16.56	0.01%
1981		0.00	0.00%		0.00	0.00%	142.00	62.50	0.04%
1982		0.00	0.00%	4.30	1.61	0.00%	132.10	49.35	0.03%
1983		0.00	0.00%	6.10	1.64	0.00%	244.70	65.90	0.04%
1984		0.00	0.00%	11.30	2.19	0.00%	381.30	73.77	0.05%
1985		0.00	0.00%	11.80	1.74	0.00%	822.90	121.62	0.07%
1986		0.00	0.00%	15.71	1.92	0.00%	1,336.10	163.64	0.10%
1987		0.00	0.00%	5.00	0.44	0.00%	1,475.40	130.93	0.08%
1988									

AÑOS	GDP INDICE DE PRECIOS		PLANILLA CONSTRUCCION PUBLICA			INTERESES POR MORA			REMATES ADUANA		
	10 ⁹	1975=100	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	35.02	55.7	0.00	0.00	0.00%	13.00	23.34	0.04%	4.90	8.80	0.01%
1971	40.05	59.9	0.00	0.00	0.00%	12.00	20.03	0.03%	3.40	5.68	0.01%
1972	46.86	60.6	0.00	0.00	0.00%	23.00	37.95	0.05%	4.10	6.77	0.01%
1973	62.18	64.9	0.00	0.00	0.00%	36.00	55.47	0.06%	6.20	9.55	0.01%
1974	92.81	90.9	0.00	0.00	0.00%	54.00	59.41	0.06%	9.00	9.90	0.01%
1975	107.88	100.0	36.00	36.00	0.03%	70.00	70.00	0.06%	7.10	7.10	0.01%
1976	132.66	112.9	48.00	42.52	0.04%	74.10	65.63	0.06%	7.40	6.55	0.01%
1977	166.45	132.7	66.00	49.74	0.04%	97.20	73.25	0.06%	13.40	10.10	0.01%
1978	191.82	143.2	58.00	40.50	0.03%	108.60	75.84	0.06%	15.10	10.54	0.01%
1979	233.68	166.3	57.00	34.28	0.02%	130.30	78.35	0.06%	3.40	2.04	0.00%
1980	294.15	198.7	83.00	41.77	0.03%	156.50	78.76	0.05%	4.50	2.26	0.00%
1981	347.73	227.2		0.00	0.00%	216.50	95.29	0.06%	1.90	0.84	0.00%
1982	414.92	267.7	54.40	20.32	0.01%	276.50	103.29	0.07%	21.40	7.99	0.01%
1983	558.73	371.3	89.50	24.10	0.02%	234.40	63.13	0.04%	18.40	4.96	0.00%
1984	813.25	516.9	130.70	25.29	0.02%	467.20	90.38	0.06%	9.70	1.88	0.00%
1985	1,109.50	676.6	179.70	26.56	0.02%	815.40	120.51	0.07%	60.70	8.97	0.01%
1986	1,362.48	816.5	230.00	28.17	0.02%	1,237.40	151.55	0.09%	163.10	19.98	0.01%
1987	1,808.38	1,126.9	99.50	8.83	0.01%	1,707.50	151.52	0.09%	273.50	24.27	0.02%
1988											

AÑOS	NO ESPECIFICADOS			TRANSFERENCIAS		
	NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %
1970	196.60	352.96	0.56%	13.70	24.60	0.04%
1971	29.80	49.75	0.07%	17.00	28.38	0.04%
1972	95.50	157.59	0.20%	12.00	19.80	0.03%
1973	43.70	67.33	0.07%	1.10	1.69	0.00%
1974	37.30	41.03	0.04%	549.70	604.73	0.59%
1975	40.80	40.80	0.04%	724.10	724.10	0.67%
1976	340.90	301.95	0.26%	1,001.60	887.16	0.76%
1977	225.80	170.16	0.14%	154.80	116.65	0.09%
1978	202.31	141.28	0.11%	1.30	0.91	0.00%
1979	485.01	291.65	0.21%	683.30	410.88	0.29%
1980	501.91	252.60	0.17%	1,060.20	533.57	0.36%
1981	766.30	337.28	0.22%	0.00	0.00	0.00%
1982	1,755.80	655.88	0.42%	0.00	0.00	0.00%
1983	380.30	102.42	0.07%	0.00	0.00	0.00%
1984	1,402.50	271.33	0.17%	218.80	42.33	0.03%
1985	903.90	133.59	0.08%	296.50	43.82	0.03%
1986	1,540.40	188.66	0.11%	428.10	52.43	0.03%
1987	2,533.00	224.78	0.14%	1,494.00	132.58	0.08%
1988						

AÑOS	GDP	INDICE DE 10^9 PRECIOS 1975=100	TOTAL NO PETROLEROS			TOTAL PETROLEROS			
			NOMINAL	REAL	GDP %	NOMINAL	REAL	GDP %	
1970	35.02	55.7	3,001.10	5,387.97	8.57%	328.20	589.23	0.94%	3
1971	40.05	59.9	3,952.70	6,598.83	9.87%	367.20	613.02	0.92%	4
1972	46.86	60.6	4,602.38	7,594.69	9.82%	702.50	1,159.24	1.50%	5
1973	62.18	64.9	6,101.74	9,401.76	9.81%	2,261.00	3,483.82	3.64%	8
1974	92.81	90.9	8,155.56	8,972.01	8.79%	3,859.10	4,245.43	4.16%	12
1975	107.88	100.0	9,518.66	9,518.66	8.82%	3,802.93	3,802.93	3.53%	13
1976	132.66	112.9	10,980.64	9,725.98	8.28%	6,659.88	5,898.92	5.02%	17
1977	166.45	132.7	13,944.55	10,508.33	8.38%	5,905.59	4,450.33	3.55%	19
1978	191.82	143.2	16,054.24	11,211.06	8.37%	5,150.57	3,596.77	2.69%	21
1979	233.68	166.3	19,368.14	11,646.51	8.29%	7,913.65	4,758.66	3.39%	27
1980	294.15	198.7	23,840.75	11,998.36	8.10%	28,403.62	14,294.73	9.66%	52,
1981	347.73	227.2	26,599.30	11,707.44	7.65%	15,479.08	6,812.98	4.45%	42,
1982	414.92	267.7	28,908.10	10,798.69	6.97%	21,622.19	8,077.02	5.21%	50,
1983	558.73	371.3	35,410.50	9,536.90	6.34%	30,785.03	8,291.15	5.51%	66,
1984	813.25	516.9	57,606.02	11,144.52	7.08%	41,834.40	8,093.33	5.14%	99,
1985	1,109.50	676.6	83,849.34	12,392.75	7.56%	109,052.87	16,117.78	9.83%	192,
1986	1,362.48	816.5	127,543.29	15,620.73	9.36%	68,497.90	8,389.21	5.03%	196,
1987	1,808.38	1,126.9	163,658.34	14,522.88	9.05%	92,812.80	8,236.12	5.13%	256,
1988									

AÑOS	TOTAL GOBIERNO CENTRAL		
	NOMINAL	REAL	GDP %
1970	3,329.30	5,977.20	9.51%
1971	4,319.90	7,211.85	10.79%
1972	5,304.88	8,753.93	11.32%
1973	8,362.74	12,885.58	13.45%
1974	12,014.66	13,217.45	12.95%
1975	13,321.59	13,321.59	12.35%
1976	17,640.52	15,624.90	13.30%
1977	19,850.14	14,958.66	11.93%
1978	21,204.81	14,807.83	11.05%
1979	27,281.79	16,405.17	11.67%
1980	52,244.37	26,293.09	17.76%
1981	42,078.38	18,520.41	12.10%
1982	50,530.29	18,875.72	12.18%
1983	66,195.53	17,828.04	11.85%
1984	99,440.42	19,237.84	12.23%
1985	192,902.21	28,510.52	17.39%
1986	196,041.19	24,009.94	14.39%
1987	256,471.14	22,759.00	14.18%
1988			

Chapter 2. Taxation Issues of the Nineties in Chile

I. Introduction

The Chilean tax system provides about two thirds of total government revenues (i.e., about 20% of GDP); the rest being provided by three other sources: (a) State owned copper companies, in the form of transfers and taxes paid by them; (b) Other revenues, including user charges, transfers from other state owned companies, and the proceeds from privatization; and (c) Social Security contributions. Table 1 summarizes this information.

Table 1. Government Revenues, 1982-1990
(as percentages of GDP)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
TOTAL	31.2	29.4	29.8	29.2	29.0	28.3	29.0	26.9	27.6
Tax Revenue (excluding copper)	19.7	18.1	20.4	20.6	20.4	20.8	18.1	16.8	17.9
-Personal Income Tax	2.6	1.6	1.1	1.0	0.8	1.1	1.0	0.6	0.9
-Business Income Tax	2.7	1.5	1.7	1.9	1.7	1.8	2.1	2.0	1.5
-VAT	8.9	8.4	8.7	8.5	8.8	8.9	8.0	7.3	8.1
-Custom Duties	1.1	1.9	2.8	3.2	2.5	2.9	2.8	2.4	3.2
-Other Taxes	4.4	4.7	6.1	6.0	6.6	6.1	4.2	4.5	4.2
Copper Revenues	1.1	1.8	1.2	1.4	1.5	1.9	5.4	5.0*	4.9*
-Taxes	0.4	0.9	0.5	0.4	0.8	1.0	2.9	2.7*	2.6*
-Transfers	0.7	0.9	0.7	1.0	0.7	0.9	2.5	2.3*	2.3*
Other Revenues	7.9	7.2	5.4	4.8	4.6	3.4	3.6	3.4*	3.3*
Social Security Contributions	2.5	2.3	2.8	2.4	2.5	2.2	1.9	1.7*	1.5*

Note: The 1989 figures are a projection and for 1990 are estimates.
Source: Dirección de Presupuesto, Ministerio de Hacienda, unpublished data. Author's estimates are indicated by an asterisk.

Government revenues, both in current and constant prices, are indicated in the tables of Annex 1, and the percentage composition of revenues are indicated in Annex 2.

Eight observations emerge from the table above and the tables in the annexes:

1) Copper revenues almost tripled in 1988, and are expected to remain at about the same level in 1989 and 1990. Copper prices rose every month of 1987 and jumped in November to a value twice that of January. The price remained at that level (or higher) during 1988 and so far in 1989. It is conservatively assumed that for the rest of 1989 and 1990 the price will remain at the lowest value so far in 1989 (U\$S 1.1547, as in June 1989).

2) "Other Revenues" have declined consistently, both in real terms and as a fraction of GDP, as indicated in Table 1 and Table 2 of Annex 1. The share of "Other Revenues" in total government revenues in 1988-1990 is about one-half of what it used to be in 1982-83 (See Table 1 of Annex 2).

3) Although Social Security contributions have remained roughly constant in real terms, as indicated in Table 2 of Annex 1, they have declined consistently as fractions of GDP and will be negligible within the next decade (See Table 1 and Table 1 of Annex 2).

4) While the custom duties revenue remained roughly constant as a fraction of GDP over the entire period (between 2.5% and 3% of GDP), the revenues from (a) VAT, (b) income tax and (c) "other taxes" fell as fractions of GDP after 1987.

5) In the case of VAT, the revenue fell from the range 8.5%-9% of GDP to 7.5%-8%. In the case of the income tax, the revenue fell from about 3% of GDP to about 2.5%. The revenue of other taxes fell from about 6% of GDP to about 4.5%.

6) All these reductions amount to approximately 3% of GDP; e.i., tax revenue fell from about 21% of GDP during 1984-87 to about 18% during 1988-90, as shown in the second row of Table 1.

7) The reductions in government revenues indicated in 2), 3) and 6) are not fully compensated by the increase in copper revenues indicated in 1). Therefore total government revenues, which used to be around 29% of GDP up to 1988, fell by approximately 1.5% of GDP after that year.

8) The VAT collects about 44% to 46% of all tax revenues, and the income tax (both personal and business) collects about 14% to 17% of all tax revenues, so that these two taxes together yield more than 60% of the whole tax revenue (See Table 2 of Annex 2).

The Chilean tax system is geared to avoid distortions in relative prices, trying to preserve the relative incentives provided by the markets to the different activities. The system consists of few taxes with broad bases and nearly uniform rates.

These taxes are (1) Income tax; (2) VAT; (3) Custom duties; (4) Tax on "actos jurídicos"; (5) Tax on specific products (fuel and tobacco); and (6) Taxes shared by the municipalities and the central government (such as real estate taxes, patents, automobile license plates, taxes on gambling, on bequests and donations).

The category "other taxes" in Table 1 includes the taxes numbered (4) to (6) in the previous paragraph, and the relative importance of each one is shown in Table 2 of Annex 2. Clearly, the tax on specific products, fuel and tobacco, is the most important in this category and yields about half the revenue in the category.

The VAT and the income tax deserve special attention, for essentially three reasons: (1) They alone make up more than sixty per cent of total tax collection; (2) there is room for improvement in their implementation, in terms of efficiency, equity and revenue; and (3) they will be the least distortionary ways to increase government revenues if the current level of copper revenues is not sustainable in the future; or if a decision is taken to eliminate any of the inferior quality taxes currently included in the category "other taxes", or to further reduce the custom duties rate.

II. The Value Added Tax

The VAT in Chile is of the consumption type; that is, capital outlays by firms can be deducted from the tax base in the period of purchase, just like any current outlays (raw materials, packaging, electricity, etc.), without any depreciation provisions being needed. This makes the tax base theoretically equal to aggregate consumption; hence, its name.

The VAT rate is currently 16%, down from 20% as of June 1988. This reduction put the Chilean rate roughly in line with the rates in most countries of the world.

As indicated in Table 1, the revenues for 1989 (projected) and 1990 (estimated) are expected to fall, with respect to 1987, in about 1% of GDP. That is a fall of about 11%, less than proportional to the rate reduction of 20%.

There are four issues concerning VAT (1) To change the rate back to 20%; (2) Evasion; (3) Regressivity; and (4) Exempted activities.

II.1 VAT rate. The rate was originally set at 20% in 1975, to make sure that revenue was not going to be less than under the previous sales tax. The objective was achieved, and the VAT did become the main source of tax revenue.

The rate reduction of 1988 was adopted as a consequence of a favorable budget position, and the revenue is expected to fall about 1% of GDP. This suggests the magnitude of the potential revenue associated to a rate increase back to 20%. An independent estimate by Gemines also calculates the additional revenue from such an increase in about 1% of GDP.

Table 5 in Chapter 1 indicates that the current Chilean rate is about equal to the average VAT (or equivalent taxes with other names) rates in other countries.

II.2 VAT Evasion. VAT evasion has been estimated by an IMF mission with 1986 data, when the tax rate was still 20% ("Chile: Estimación de la evasión y análisis del cumplimiento en el IVA"). The estimated evasion-free revenue for that year is about 2,164 million dollars, while the actual revenue was 1,925 million dollars; that is, evasion in 1986 amounted to about 240 million dollars or 1.3% of GDP.

This estimated evasion of about 11% of potential revenue is substantially lower than the one estimated by M. Marcel with 1976-82 data ("Diez Años del IVA en Chile" Estudios CIEPLAN, no. 19, June 1986), who assessed evasion in about 25% of potential revenue.

With a lower tax rate the incentives to evade are diminished, unless the penalties for evasion or the probability of being caught were also reduced. Assuming this is not the case, one would say that after the rate cut of 1988, evasion should have gone down. Incidentally, this partly explains why revenue was cut by less than one-fifth when the rate went down from 20% to 16%.

It is too early to replicate the IMF study with 1989 data. Nonetheless, unless the penalties for evasion or the probability of being caught had been reduced, there is reason to believe that VAT evasion is likely to be less than 1.3% of GDP. A conservative estimate would perhaps consider VAT evasion to lie within 1% and 1.3% of GDP.

Of course, no one would ever dream of totally eliminating VAT evasion. Therefore, the additional revenue that may be forthcoming from evasion control is likely to be just a fraction of 1% of GDP.

Due to the nature of the tax, each registered tax-payer generates a fiscal debit (equal to the value of sales times the tax rate) and a fiscal credit (equal to the tax already paid by the suppliers of his inputs). The tax due is the difference between the

debit and the credit.

The ratio $R = \text{fiscal debit} / \text{fiscal credit}$ is a widely used instrument to detect evasion: Individual tax-payers, or whole sectors of the economy, with low or declining values of R (particularly if these values are less than one) are either evading the VAT or having a poor economic performance.

The economy-wide average value of R in 1987 was 1.5, up from 1.39 in 1979. Likewise, the tax-payers with R less than one (i.e., those who declare that no tax is due) declined from 28.9% of all tax-payers in 1979 to 13.9% in 1987. These improvements suggest that it becomes increasingly difficult to further control VAT evasion.

The average value of R for the agricultural sector went up from 1.67 in 1979 to 2.0 in 1987; and in the commerce sector the value of R went up from 1.13 in 1979 to 1.27 in 1987, while the average value of R for the industrial sector went down from 1.74 in 1979 to 1.61 in 1987.

Although a declining value of R does not necessarily mean that evasion is taking place, it must be considered a warning signal which may indicate the areas where further evasion control may be fruitful. Likewise, the tax-payers who consistently show a value of R less than one ought to be inspected.

Other sectors where evasion control may be fruitful are the firms not organized as corporations in agriculture, minning, and transportation. They are eligible to use the system of "Renta Presunta" for their income tax purposes, which exempts them from submitting receipts and other documents to the IRS and, therefore, makes it easier to conceal transactions and evade the VAT.

Finally, the tax-payers who do not submit tax declarations constitute another area where special attention should be paid: Fifteen per cent of the registered tax-payers did not bother to submit tax declarations in 1987.

The comments above should not be interpreted as a criticism to the Internal Revenue Service: According to the IMF study mentioned above, each IRS employee handled 350% more VAT declarations in 1987 than in 1979, and the cost of collecting revenue is estimated at only \$0.75 per \$100 revenue.

II.3 VAT Regressivity. The critics of this tax point out that the tax is regressive because it strikes consumption and, since the poor consume most of their incomes, their incomes get hit by the tax proportionately more than the incomes of the rich.

This criticism, in turn, has at least two answers:

First, the criticism relies on annual tax payments and annual incomes as the relevant concepts for evaluating the distributive merits of alternative taxes. A far superior approach for evaluating the distributive effects of taxation is to rely on life time incomes and life time tax payments. Over the life cycle both rich and poor get taxed in equal proportions by the VAT, simply because the savings of the rich will eventually be consumed and then taxed. All the VAT does is to postpone the tax for as long as consumption is postponed.

Second, the concern over the regressivity of particular taxes is misplaced. What one should be concerned with is the regressivity of the whole public sector operations: This includes public expenditure as well as taxation. Since public expenditure is a more powerful instrument of income redistribution than taxation, progressivity is enhanced when most of the revenue is collected through efficient taxes, such as VAT, which makes available for progressive public expenditure more revenue than other taxes, regardless of how progressive other taxes might be.

II. 4 VAT Exemptions. As explained in Chapter 1, when the exempted sectors sell their outputs to a final consumer their value added, and nothing but their value added, turns out to be tax free and in this case the VAT exemptions entail a loss of revenue.

On the other hand, when the exempted sectors sell their outputs to be used as inputs by other (non-exempted) sectors, the buyers cannot claim any fiscal credit because no VAT was included in the price, as the inputs come from a sector not belonging to the VAT system. This lack of fiscal credit means that the value added of the exempted sectors will ultimately be considered, for VAT purposes, as value added of the other sectors and be taxed. Therefore, in this case the VAT exemptions do not really exempt anything and do not entail any loss of revenue.

A totally different case arises with respect to the sectors which are subject to a zero-rate VAT, as explained in Chapter 1. These are activities that belong to the VAT system and whose value added is subject to a zero rate tax. Since these activities are within the VAT system, they get a fiscal credit for the VAT embodied in the prices of their inputs and, at the same time, their fiscal debit is identically zero. As a consequence, a zero-rated activity gets its own value added, and that of all its suppliers, tax free. In other words, the entire product of a zero-rated activity is tax free. The only zero-rated activity in Chile is exports. When an apple is exported, the credit the exporter gets equals the VAT of the farmer, the shipper, the packer, etc.; i.e., the VAT on the whole apple is rebated.

In the case of Chile the exempted activities are:

- 1) Payments of fringe benefits to workers or employees;

- 2) Imports by the Ministry of National Defense;
- 3) Imports under diplomatic privileges;
- 4) Imports under the temporary admissions system;
- 5) Imports of capital goods that are part of direct foreign investment;
- 6) Theater, movies, sports, circus and other cultural events;
- 7) International freight;
- 8) International and domestic passenger transportation;
- 9) Insurance;
- 10) Radio and TV stations, except paid advertisement;
- 11) News agencies;
- 12) Private education;
- 13) Public health;
- 14) Other services, such as Social Security, Casa de Moneda, Polla Chilena de Beneficencia, Compañía de Telégrafo (excepto telex).

Items 1), 6) 8), 12), 13) and 14) can safely be considered sales to final consumers, hence their exemption would give rise to a loss of revenue. As a practical matter, however, their magnitude is likely to be negligible.

Item 2), on the other hand, is likely to be of a sizable magnitude. Nonetheless, the payment of VAT by the Ministry of National Defense would just be a transfer within the public sector. The main advantage of having the Ministry pay the tax is to avoid the implicit earmarking that currently takes place: The Ministry would then have to request the Treasury to provide the funds, instead of taking them for granted.

The other items are likely to be mostly sales to other sectors, hence no loss of revenue is involved.

II.5 Final Assessment of the VAT. Given the way this tax is implemented in Chile, there is very limited scope for further improvements. Evasion control can be tightened with beneficial effects on justice, resource allocation and revenue. Nonetheless, the additional revenue from this source is not likely to reach 1% of GDP.

It is also unlikely that more than 1% of GDP can be additionally collected by increasing the VAT rate back to 20%, given the past experience when the rate was at that level. Further increases of the rate to, say, 24% will probably contribute less than another 1% of GDP to the revenue, given the increased incentives to tax evasion implicit in a higher rate.

The combined effect on revenue of tightening evasion control and increasing the rate will be rather limited because these two actions partly cancel each other out: to increase the rate is to increase the incentives to evade, thus making evasion control less effective and more costly. The combined effect on revenue of

tightening evasion control and increasing the rate back to 20% will probably be in the neighborhood of 1.5% to 2% of GDP.

However small this effect may be, evasion control ought to be tightened. A rate increase can be considered if and when copper revenues diminish in the future.

III. The Income Tax

This tax has evolved towards an expenditure tax, specially after the 1984 and 1989 reforms, in which savings are exempted and only consumption is taxed.

This is consistent with the variety of VAT adopted in Chile (Consumption-type VAT), and the only basic difference between the two is that the expenditure tax is made progressive by using rates that increase with expenditure, while the VAT is proportional with only one rate.

Therefore, these two components of the Chilean system are complementary to one another in the sense that the income (actually expenditure) tax provides the progressivity that the VAT cannot provide, without changing "the" basic feature of the system; that is, consumption is the tax base.

Consumption taxation, in the Chilean fashion, is theoretically the closest to a lump-sum way of raising revenue, since it leaves unaffected the market incentives for capital accumulation. This feature makes consumption taxation every-one's favorite in the public finance literature.

In practice, however, there is less consensus because several loopholes reduce the advantages of consumption taxation. Since other forms of taxation are also subject to loopholes, the issue of practical interest is how to close loopholes and improve the performance of the consumption, or expenditure, tax.

III.1 A Description of the Current System. There are two classes of tax-payers: Companies and individuals. Companies pay income tax on distributed profits; ultimately, as will be seen below, on 10% of distributed profits. Individuals pay income tax on the fractions of their incomes that are not saved...without savings being uniquely defined. This, in turn, gives rise to a paraphernalia of deductions, ceilings thereof, and definitions on what is, and is not, legally considered savings. There is not a unique legal definition of savings, and this constitutes a major loophole.

Companies in Chile do not pay taxes on their profits, unless these are distributed to the companies' owners (The tax on

distributed profits is known as Income Tax-Primera Categoría, and the tax rate is 10%).

The companies' owners are liable to pay income tax on distributed profits at progressive rates according to their individual incomes (which is known as Income Tax-Global Complementario at marginal rates which range from 5% to 50%), and they can use as a tax credit 90% of the tax paid by the company on distributed profits (so that Primera Categoría ultimately hits 10% of distributed profits).

This procedure makes savings by companies exempt from the income tax, while 10% of distributed profits get taxed at the Primera Categoría rate.

Personal incomes come from profits distributed by companies, interests, rents on property (in which case it is subject to Primera Categoría and Global Complementario) or from wages and salaries (in which case it is subject to Income Tax-Segunda Categoría at marginal rates which range from 5% to 50% and also to Global Complementario).

Personal savings are also exempted in various degrees, regardless of the source of personal income. The exemption takes the form of deductions from taxable income of amounts saved in different ways; such as purchases of newly issued shares of public corporations ("acciones de pago de sociedades anónimas abiertas"), or 20% of the purchases of "pagarés de depósitos nominativos" under certain conditions, etc.

To summarize the description of the system one can construct the following table:

Table 2. The Chilean Income Tax

Category	Type of income taxed	Tax Rate
First Category	Rents on property, interest, dividends and all incomes other than wages and salaries. 90% of this tax can be claimed as credit to the Global Complementario.	10%
Second Category	Wages and Salaries. Amounts saved in certain ways can be deducted.	Up to 10 UTM: 0% 10-30 UTM: 5% 30-50 UTM: 10% 50-70 UTM: 15% 70-90 UTM: 25% 90-120 UTM: 35% 120-150 UTM: 45% Above 150 UTM: 50%
Global Complementario	Incomes of both, the First and Second Categories. Amounts saved in certain ways are deductible.	Same as in Second Category.

To illustrate the Chilean reforms (started in 1984 and completed in 1989) to the traditional income tax, so as to make it more like an expenditure tax, Table 3 shows the case of a corporation which makes a profit of \$ 100, and distributes \$ 70.

Table 3. An Example

	Before the Reform	After the Reform
(1) Profit	100	100
(2) Tax-First Category [10% of (1) before the reform] [10% of 70 after the reform]	10	7
(3) Additional Rate [40% of (1)-(2) before the reform] [0% after the reform]	36	0
(4) Distributed Profits [70-(2)-(3)]	24	63
(5) Tax-Global Complementario [(4)*r]	24r	63r
(6) Credit to Global Complementario [60% of (3) before the reform] [90% of (2) after the reform]	21.6	6.3
(7) After taxes dividends [(4)-(5)+(6)]. If the rate of the Global Complementario, r, is:	45.6-24r	69.3-63r
0%	45.6	69.3
10%	43.2	63.0
50%	33.6	37.8

Source: Bernardo Fontaine T., "Sobre la ley de impuesto a la renta", Estudios Públicos, No.34, Otoño 1989.

The after-tax dividends after the reform can be even higher than the last three figures in the right hand column of Table 4, if the individual tax-payer uses these funds to buy financial instruments that qualify as personal savings, thus getting more deductions from the tax base of the Global Complementario.

The issues concerning the Chilean income tax (modified towards

an expenditure, or consumption, tax) are: (1) Tax loopholes; (2) Tax rates trade-off; (3) The system of Renta Presunta; and (4) Tax treatment to forestry.

III.2 Tax Loopholes. There are two kinds of these: First, those used by the individual tax-payers, by which some consumption is made to appear as savings in order to generate exemptions to the Global Complementario; and second, the loopholes used by companies, by which the distribution of profits is made to appear as investment in newly created companies, which exist only in paper.

A person who receives profits from a non-corporate firm (sociedad de personas) is entitled to a deduction from the Global Complementario by reinvesting some of the profits in the purchase of certain financial instruments. In the following year the same person can repeat the operation and also sell the instruments bought in the previous year, so that his savings will remain the same, and he gets the exemption again. This procedure can be repeated indefinitely and the tax payer will indefinitely get the exemption by simply buying and selling documents, without ever increasing his savings after the first year.

Another example is the case of the owners of a sociedad de personas who use profits received from the sociedad to create a real estate company which, in turn, does nothing but buy their houses paying for them with its own capital. This way the profits become exempt because they are reinvested, and the subsequent payments by the real estate company are not considered a distribution of profits but the prices of the houses. Therefore, no income taxes are due despite of the fact that the distributed profits are ready to be consumed and the houses still belong to the same owners. By setting the prices of the houses at a multiple of distributed profits, this procedure can be used for a number of years, until the houses become "paid in full".

The example above is a particular case of the so-called "auto-compra de empresas cuyos dividendos aparecerán como pago de deuda", which is a loophole made possible by the exemption of reinvested profits.

Two temptations should be resisted here:

(1) Imposing fine-tuned restrictions on which reinvestments are, or are not, eligible for the exemption may be worse than the loophole itself, because such restrictions may inhibit economically sound reinvestments; and

(2) Eliminating the exemption altogether, because this will move the system away from a full fledged expenditure tax.

The recommendation here is to move closer to a full fledged expenditure tax, by making it mandatory for the tax-payers to submit every year a net worth statement ("declaración patrimonial"). The difference between annual income and annual

increment of net worth should automatically be considered consumption, and subject to the expenditure tax. The original draft of the 1984 reform submitted to the Junta de Gobierno included the declaración patrimonial as a requirement for income tax purposes, but it was finally lifted for fears of such information being eventually used in the future to impose a net worth tax. This is a decision one may want to reconsider.

Other alternatives, which are not likely to improve the income tax, but will move it farther away from an expenditure tax consist of:

(1) To tax company profits, regardless of whether these are distributed or reinvested in the company, at a rate of 10%. This is expected to yield additional revenues equal to 1.3% of GDP;

(2) The profits that are distributed get hit by another 10% tax, only half of which can be used as a tax credit by the company owners. This is expected to yield additional revenues equal to 0.4% of GDP;

(3) To repeal all exemptions to the Global Complementario based on personal savings. This is expected to yield 0.1% of GDP; and

(4) To change the brackets of the Segunda Categoría and Global Complementario so as to make the tax more progressive. The proposed way to do this is by making the brackets narrower, without changing the rates, so that the tax-payers will automatically move to higher brackets. This is expected to yield 0.33% of GDP.

The combined revenue effect of this set of four alternatives amounts to additional revenues of 2.13% of GDP; more than half of it by reversing the January 1989 reform (i.e., by taxing all company profits, not just distributed profits). But this is precisely what makes the system close to an expenditure tax; hence, this is the least acceptable change. Better ways to eliminate loopholes and improve revenues are available.

III.3 Tax Rates Trade-off. Given that the tax bases of the consumption-type VAT and the expenditure tax are the same, the question arises as to which rate should be increased if more revenues become needed. Alternatively, one can ask why is it necessary to have two taxes on the same base? Wouldn't it be simpler to have only one tax at a rate sufficient to yield the same total revenue?

The answer is yes, it would be simpler, but which one? There is a trade-off between the VAT rate and the expenditure tax rates.

If VAT is the chosen tax, then its revenue should be raised by about 2% of GDP to make up for the current expenditure tax revenue which would be foregone (See Table 1). This will probably require a VAT rate above 24% (See Section II.5) which will, in turn, increase the incentives to evade the tax altogether as discussed in Sections II.2 and II.5. Moreover, without an expenditure tax the

system would not include any progressive tax.

If, on the other hand, a progressive expenditure tax was selected, its revenue would have to increase by a factor of four in order to replace the current VAT revenue which would be foregone (See Table 1). This will probably require marginal tax rates which will, in turn, be an irresistible invitation to widespread evasion.

Having two separate taxes, on essentially the same tax base, is a convenient way to have potential evaders facing the dilemma of which tax to evade...and probably none is worth the risk.

The Chilean VAT has proven to be a more powerful revenue raising device than the Chilean income (quasi-expenditure) tax, with less loopholes which make it more neutral and equitable than the alternative tax. Therefore VAT rate increases are to be preferred to increases in the rates of the income tax. The concern about progressivity, or the lack of it, should be dealt with along the lines suggested in Section II. 3.

III.4 The system of "Renta Presunta". By virtue of this system companies not organized as corporations in the sectors of agriculture, mining and transportation are allowed to declare a tax base unrelated to the profits actually made by the companies.

In the case of agriculture the tax base is 10% of the fiscal assessment of the land. This tax base is used for both Primera Categoría and Global Complementario. Since the Primera Categoría rate is 10%, the Primera Categoría tax would be 1% of land value. There is, however, a tax credit against the Primera Categoría tax equal to the land tax which washes out completely the Primera Categoría tax. As a consequence, the only income tax actually paid by agricultural producers is the Global Complementario.

"Agricultural Activities" are defined by the tax regulations to include the processing of primary products, so that agro-industries, cattle raising and meat packing, for instance, all fit under the umbrella of "agricultural activities" eligible for the system of Renta Presunta.

The November 1988 study "Racionalización Tributaria en los Sectores Agropecuario, Forestal y Pesquero" by E. Bitrán and G. Fierro of the Universidad de Chile estimates that the income tax revenue from the agricultural sector, under the current Renta Presunta system amounts to about 4 million dollars a year, on average for the last five years.

The same study calculates the potential revenue under a tax base equal to actual income, assuming four productions: Annual crops, fruits, vegetables and cattle raising (both milk and beef). Under this system the land tax (2% of assessed value of land) would

still have to be deducted from the income tax-primera categoría. All things considered, the revenue would be about 72 million dollars a year, distributed as follows (The negative value in the case of annual crops is due to the deduction of the land tax):

Annual crops	-3.42
Vegetables	6.66
Fruits	63.67
Cattle	<u>4.88</u>
Total	71.79 million dollars a year.

According to these estimates, the additional revenue from eliminating the system of Renta Presunta in agriculture would be 68 million dollars a year, seventeen times the amount currently collected under the Renta Presunta system, or 10% of all the income tax revenues in 1988, or 0.3% of GDP in the same year.

Another study made by the Facultad de Agronomía, Universidad Católica, analyzes the consequence of changing the tax base from Renta Presunta to actual income for four agricultural products: wheat, maize, apples and grapes. Table 4 summarizes the results of such change, keeping everything else in the income tax regime and tax rates constant.

Table 4. Effects of changing the tax base

	Tax base=Renta Presunta		Tax base=Actual Income		Per-centage Differ- ence in Taxes Paid
	Total Taxes Paid	After-tax Cash Flow	Total Taxes Paid	After-tax Cash Flow	
(Thousand Chilean pesos per hectare)					
Wheat	2.28	47.94	6.08	44.14	167%
Maize	14.75	78.38	9.96	83.17	-32%
Apples	7.62	491.71	136.48	362.85	1,691%
Grapes	13.21	1,276.00	491.57	797.64	3,621%

Source: Agronomía UC, "Preliminary Report to the World Bank".

The results in Table 4 confirm that income tax revenues from agriculture can be substantially increased by adopting actual

income as the tax base. In the cases of apples and grapes, the revenues would be eighteen and thirty-seven times, respectively, the amounts currently collected under the Renta Presunta system.

The after-tax cash flows of these two crops would fall by 25% and 37%, respectively, as indicated in Table 4. This, in turn, implies reductions between one-third and one-fourth in the internal rate of return of these crops. As a consequence some crop substitution is likely to take place, but ultimately the additional taxation will have to be reflected in the price of land.

For minning the taxable base in the system of Renta Presunta is equal to a percentage between 4% and 20% of sales, depending on the price of the metals or minerals extracted.

For cargo transportation the taxable base in the system of Renta Presunta is 10% of the market value of the vehicles.

In the cases of minning and transportation, no study about the potential revenue from eliminating Renta Presunta is available. A rough estimate, however, can be made on the following assumptions: (1) It will be assumed that 60% of minning excluding CODELCO (which represents about 7.5% of GDP) is not organized as corporations and, therefore, is eligible for the system of Renta Presunta.

(2) Given that Transport, Storage and Communications represent about 6% of GDP, it will be assumed that cargo transportation not organized as corporations represents 1% of GDP.

(3) According to assumptions (1) and (2), 5.5% of GDP is assumed to pay income tax under the Renta Presunta system which, it will be assumed, allows tax-payers to hide one-half of the actual, effective, tax base.

(4) It will be assumed that the average tax rate to which the affected tax-payers are subject is 13%. Therefore, the potential revenue from eliminating the Renta Presunta system in minning and transportation would be 13% of one-half of 5.5 of GDP; that is, 0.36% of GDP. A sensitivity analysis of this result is presented in Annex 3.

To check the consistency of the procedure above with the Bitrán-Fierro estimates for agriculture, one can estimate potential revenue in agriculture by the same procedure as in the cases of minning and transportation. In the case of agriculture, which represents about 8.8% of GDP, it will be assumed that 55% is not organized as corporations; that the system of Renta Presunta allows tax-payers to hide one-half of the effective tax base; and that, as in Bitrán-Fierro, the average tax rate is 12%. Therefore, the potential revenue from eliminating the Renta Presunta system in agriculture would be one-half of 55% of 8.8% of GDP times 12%; i.e., 0.29% of GDP, very close to the result obtained by the Bitrán-Fierro procedure.

One can conclude, under the assumptions above, that by making

agriculture, minning and transportation declare their effective tax base instead of a presumptive base, income tax revenue can be increased by 0.6% to 0.7% of GDP.

Two more beneficial effects should be added to the above: First, VAT evasion would be made more difficult by the requirement of submitting invoices and other documents for income tax purposes; and Second, income tax elusion by transferring profits from other companies to associated companies protected by Renta Presunta would be eliminated. This has been reported to be a widely used loophole: Many firms do the shipping of their products and inputs through their own transportation companies instead of hiring these services; and by over-invoicing the service these firms transfer profits to the associated transportation companies whose taxable bases, in turn, do not include such profits.

III.5 Tax treatment to forestry. Since 1931 there has been in Chile a "Ley de Bosques", which made forestry an income tax free activity for 30 years after the trees have been planted. The law was repealed in 1974, and replaced by decree 701, but most of the wood to be cut in the next five years will still be protected by the law of 1931.

Decree 701 of 1974 gave two types of incentives to forestry (not to related activities, such as industrialization of wood or any processing of it):

- (1) A direct subsidy equal to 75% of the cost of planting the trees and managing the forest; and
- (2) There is a credit to the Global Complementario equal to 50% of the tax on the income from forestry.

The foregone revenue due to the Ley de Bosques has been estimated by Bitrán-Fierro between 26 and 27 million dollars a year for the next five years (assuming a 36% marginal tax rate for the Global Complementario, on average; an exploitation of 32,000 hectares a year; and a conservative projection of wood prices).

New forests, protected by decree 701, would give rise to a subsidy of about 5.5 million dollars a year until 1996, when the subsidy will cease to exist. (For this estimate Bitrán-Fierro assume 40,000 hectares of new forest per year).

Therefore, the fiscal cost of the tax treatment to forestry can be taken to be about 31 million dollars a year during the next five years. (26 million of the Ley de Bosques plus 5 million because of the decree 701).

The credits to the Global Complementario that will be claimed starting in 1996, by virtue of Decree 701, have been estimated by

Bitrán-Fierro in about 10 million dollars a year during the first five or six years, increasing to about 17 million after the year 2010.

Therefore, after 1996 the fiscal cost of the tax treatment to forestry will lie between 10 and 17 million dollars plus whatever benefits are left of the old "Ley de Bosques". Bitrán-Fierro estimate this total figure in the neighborhood of 20 million dollars a year.

The fiscal cost of the tax treatment to forestry is then between 0.10% and 0.15% of GDP. This is additional revenue that can be obtained by making forestry subject to the same tax treatment as any other activity in the economy.

But, of course, this could only be obtained after the acquired rights of the current forest-owners vanish. The only fiscal cost that can be suspended immediately is that of the direct 75% subsidy on the cost of new forests. Therefore, in order to keep our estimates on the conservative side, no additional revenues will be considered from the repeal of the tax treatment of forestry.

Although it may not be an immediate source of additional revenue, the repeal of the tax treatment of forestry will have the immediate benefit of closing the following tax loophole: First, profits get transferred from related enterprises to forestry enterprises by overinvoicing purchases of wood; and second, the transferred profits get the 50% credit to the Global Complementario originally intended only for forestry.

IV. Miscellaneous

This section includes an issue that deserves attention as a potential source of revenue.

IV.1 Fishing Licenses. The exploitation of common property resources, like fishing, gives rise to the well known problem of over-exploitation or the premature depletion of the resource due, precisely, to the lack of well defined property rights.

Many countries deal with this problem by imposing access restrictions to these activities; in particular, to fishing. Three instruments are commonly used in Chile: temporary prohibition; minimum size of fish; and fishing quotas to individual enterprises.

From the viewpoint of resource allocation, these are sub-optimal instruments that do not preserve efficiency nor insure cost minimization by the affected producers. Temporary prohibition induces over-investment, to speed up production before the beginning of the prohibition season. Fishing quotas to individual enterprises directly prevent competition among them and, therefore,

total production is not necessarily obtained at the lowest possible cost.

The theoretically best instrument would be a tax on the quantity fished. This will curtail over-exploitation of the resource and yield revenue to the government at the same time. The practical difficulty is that the tax rate would have to be frequently adjusted to reflect the exogenously changing scarcity of fish in the territorial waters of the country. (It would not be optimal to discourage fishing, by taxing it, when there is plenty of fish in the coast, and vice versa).

Another alternative would consist of the following system: (1) An overall quota would be announced periodically by the government, according to the availability of fish; and (2) Licenses which enable the license-holder to capture given fractions of the overall quota would be auctioned off by the government. These licenses could be freely bought and sold within the private sector to insure flexibility between successive auctions.

The already mentioned study by Bitrán and Fierro estimated the additional revenue forthcoming from the system above. Their estimate rests on the assumption that the licenses would be sold at a price equal to 50% of the rent obtained by the fishing enterprises. Their calculations for 1986 reveal that these rents were about 225 million dollars, which would probably increase to 274 million if the same volume of production was obtained without over-investment and at the minimum possible cost, as it would be under a licenses system.

Of course, the reduction in profits entailed by the required payment of the licenses would reduce the income tax payable by the companies and their owners. All things considered, Bitrán-Fierro estimate that the license system would increase payments from the fishing sector to the government by 170% to 260%, depending on the amounts of Global Complementario currently paid, without creating marginal incentives to change the rate of production.

The additional revenues, under the assumption that the price of fish flour would be slightly below the average of the last 20 years, was estimated in the neighborhood of 115 to 120 million dollars, or 0.5% of GDP.

V. Summary and Recommendations

Government revenues other than "Copper Revenues" declined in 1988-89, and are expected to remain at the new (relatively low) level during 1990, simultaneously with a three-fold increase in copper revenues.

This leads the critics of the current fiscal policy in Chile to argue that most copper revenues have been transferred to the private sector through tax reductions. These reductions have taken the form of a VAT rate cut, in mid 1988, and a reform to the income tax regime, in January 1989. A related criticism of these measures is that they take advantage of a temporary phenomenon, like the copper bonanza, to carry out tax changes of a lasting nature.

This is not a correct criticism for two reasons: First, the changes in the income tax (both the 1984 and the 1989 reforms) are intended to make it more like an expenditure tax, hence more neutral and less harmful to market incentives for capital accumulation. These reforms are desirable independently of the existence of increased copper revenues, although one must admit that the latter provided a more receptive environment to the reforms. Second, the reduction of the VAT rate, on the other hand, is not a lasting measure at all. Indeed, changes in the VAT rate are the quickest and most effective way to adjust total revenues to changes in expenditure or in revenues from other taxes.

Nonetheless, a reversal of the 1989 reform, along with other changes to the income tax mentioned towards the end of section III.2, might be currently considered as taxation options in Chile. Their adoption will probably yield additional revenues of about 2.13% of GDP, which will come in handy when and if copper revenues fall in the future.

Alternatively, this report puts forward another proposal to (1) improve the tax system by making the income tax even closer to an expenditure tax; and (2) increase revenues to meet an eventual fall of copper revenues, or to replace other inferior quality taxes, or to compensate the revenue effects of desirable further reductions in the customs duty rate.

The recommendations of this report revolve around one single theme: To aim for a tax system whose base is aggregate consumption, through the adoption of a full fledged expenditure tax along with the already existing consumption-type VAT. The trade-off between these two instruments was discussed in Section III.3, to advise that increases in the VAT rate are more effective in raising revenue than increases in the rates of the current income tax due to the loopholes of the latter. Nonetheless, it is convenient to have the tax-payers declare the two taxes (separately) as a further deterrent from evasion, as discussed in Section III.3. Specifically, the recommendations of this report are:

- (1) To make the income tax closer to a full fledged expenditure tax, by closing the tax loopholes which make some consumption appear as saving, or some distributed profits appear as reinvestment in newly created companies, which exist only in paper.

One instrument to help close loopholes is to make it mandatory for the tax payers to submit every year a net worth statement ("declaración patrimonial"). The difference between annual income and annual increment of net worth should automatically be considered consumption, and taxed.

The elimination of the special treatment to forestry, and of the Renta Presunta system, recommended below, will also have the effect of closing loopholes to the income tax.

- (2) To replace the Renta Presunta system in agriculture, minning and cargo transportation by the standard system in which tax payers declare their actual incomes.
- (3) To repeal the special tax treatment to forestry.
- (4) To replace the current procedures to overcome the problem of over-exploitation of fisheries, by auctioning off fishing licenses at competitive prices.
- (5) To maintain the VAT as the main component of the tax system since it is better suited, and less subject to loopholes, than the income tax to respond to changing revenue needs in a most neutral way. It is, therefore, recommended to increase the VAT rate back to 20%.
- (6) To take measures to reduce VAT evasion. The elimination of the Renta Presunta system for agriculture, minning and transportation should help in reducing VAT evasion, because these tax payers will no longer be exempted from the obligation of submitting receipts and other documents for income tax purposes; hence it will be more difficult to conceal transactions and evade the VAT.

The IRS may want to tighten evasion control on the industrial sector, where the ratio fiscal debit/fiscal credit has fallen from 1.74 in 1979 to 1.61 in 1987, while the economy-wide average rose from 1.39 to 1.5 in the same period. Also, registered tax payers who have not submitted tax declarations in the last year may deserve special attention by the IRS.

The combined additional revenues associated to the above recommendations are as follows: Recommendation (2) is expected to yield between 0.6% and 0.7% of GDP; recommendation (4) may yield about 0.5% of GDP; and recommendations (5) and (6) may yield between 1.5% and 2% of GDP. In order to keep our estimates on the

conservative side, no additional revenues will be attached to recommendations (1) and (3).

Nonetheless, the total additional revenue conservatively associated to this proposal lies between 2.5% and 3% of GDP, substantially more than the 2.13% associated to the reversal of the 1989 reform and related undesirable changes to the income tax.

The proposal in this report gives more revenue than the alternative, without giving up the features which make the Chilean tax system one of the best in Latin America. It also gives more revenue than what would be lost if copper revenues went back to their levels before 1988.

Annexes

Annex 1. Government Revenues in
Real and Nominal Pesos, 1982-1990

Annex 1, Table 1. Government Revenues
in Current Pesos, 1982-1990
(Thousand million pesos)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total	386	458	564	752	945	1177	1569	1814	2117
Tax Revenue (excluding copper)	243	286	374	517	643	854	1017	1133	1376
-Personal Income Tax	34.9	30.9	23.8	26.1	38.5	42.2	54.2	41.2	66.1
-Business Income Tax	31.3	17.2	31.2	47.5	42.9	77.8	117.2	134.2	124.2
-VAT	110.1	131.5	165.4	219.9	287.6	371.6	434.7	493.5	623.7
-Custom Duties	13.1	29.7	53.1	81.3	81.1	119.0	150.4	161.0	241.7
-Other Taxes	53.3	76.4	100.8	142.2	193.0	243.8	260.9	303.4	320.6
Copper Revenues	13.7	28.0	22.8	36.1	48.9	79.0	292.2	337.2	375.8
-Taxes	5.0	14.0	9.5	10.3	26.1	41.6	156.9	182.1	199.4
-Transfers	8.7	14.0	13.3	25.8	22.8	37.4	135.3	155.1	176.4
Other Revenues	97.9	112.2	102.2	123.7	149.9	141.4	194.8	229.3	253.1
Social Security Contributions	31.2	35.6	45.2	54.1	68.1	78.2	102.8	114.0	115.2
<u>Breakdown of the Category "Other Taxes"</u>									
(Thousand million current pesos)									
	1982	1983	1984	1985	1986	1987	1988	1989	1990
Other Taxes	53.3	76.4	100.8	142.2	193.0	243.8	260.9	303.4	320.6
-on Property	15.2	18.1	27.6	32.2	42.1	58.7	74.1	90.0	114.0
-on "Actos Jurídicos"	13.3	16.7	20.7	33.8	41.9	57.9	64.3	86.5	48.5
-on specific products	24.8	41.6	52.5	76.2	109.0	127.2	122.5	126.9	158.1

Annex 1, Table 2. Government Revenues
in Constant Pesos (1982-1990)
(Thousand million pesos of 1985)

	1982	1983	1984	1985	1986	1987	1988	1989	1990

Total	<u>769</u>	<u>718</u>	<u>737</u>	<u>752</u>	<u>791</u>	<u>822</u>	<u>955</u>	<u>1013</u>	<u>1056</u>
Tax Revenue (excluding copper)	<u>484</u>	<u>448</u>	<u>489</u>	<u>517</u>	<u>538</u>	<u>596</u>	<u>619</u>	<u>633</u>	<u>686</u>
-Personal Income Tax	69.5	48.4	31.1	26.1	32.2	29.5	33.0	23.0	33.0
-Business Income Tax	62.4	27.0	40.8	47.5	35.9	54.3	71.3	75.0	62.0
-VAT	219.3	206.1	216.2	219.9	240.7	259.5	264.6	275.7	311.1
-Custom Duties	26.1	46.6	69.4	81.3	67.9	83.1	91.5	89.9	120.6
-Other Taxes	106.2	119.7	131.8	142.2	161.5	170.3	158.8	169.5	159.9
Copper Revenues	<u>27.3</u>	<u>43.9</u>	<u>29.8</u>	<u>36.1</u>	<u>40.9</u>	<u>55.2</u>	<u>177.8</u>	<u>188.4</u>	<u>187.5</u>
-Taxes	10.0	21.9	12.4	10.3	21.8	29.1	95.5	101.7	99.5
-Transfers	17.3	22.0	17.4	25.8	19.1	26.1	82.3	86.7	88.0
Other Revenues	<u>195.0</u>	<u>191.5</u>	<u>133.6</u>	<u>123.7</u>	<u>125.4</u>	<u>98.7</u>	<u>118.6</u>	<u>128.1</u>	<u>126.2</u>
Social Security Contributions	<u>62.2</u>	<u>55.8</u>	<u>59.1</u>	<u>54.1</u>	<u>57.0</u>	<u>54.6</u>	<u>62.6</u>	<u>80.4</u>	<u>57.5</u>

Annex 2. Percentage Composition
of Revenues

Annex 2, Table 1.
Percentage Composition of Government Revenues

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total	100	100	100	100	100	100	100	100	100
Tax Revenue (excluding copper)	63.0	62.5	66.3	68.8	68.0	72.6	64.8	62.5	65.0
-Personal Income Tax	9.0	6.7	4.2	3.5	4.1	3.6	3.5	2.3	3.1
-Business Income Tax	8.1	3.8	5.5	6.3	4.5	6.6	7.5	7.4	5.9
-VAT	28.5	28.7	29.3	29.2	30.4	31.6	27.7	27.2	29.5
-Custom Duties	3.4	6.5	9.4	10.8	8.6	10.1	9.6	8.9	11.4
-Other Taxes	13.8	16.7	17.9	18.9	20.4	20.7	16.6	16.7	15.1
Copper Revenues	3.5	6.1	4.0	4.8	5.2	6.7	18.6	18.6	17.8
-Taxes	1.3	3.1	1.7	1.4	2.8	3.5	10.0	10.0	9.4
-Transfers	2.2	3.0	2.3	3.4	2.4	3.2	8.6	8.6	8.4
Other Revenues	25.4	24.5	18.1	16.5	15.9	12.0	12.4	12.6	12.0
Social Security Contributions	8.1	7.8	8.0	7.2	7.2	6.6	6.6	7.9	5.5

Annex 2, Table 2. Percentage Composition
of Tax Revenues (excluding copper)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Tax Revenue (excluding copper)	100	100	100	100	100	100	100	100	100
-Personal Income Tax	14.4	10.8	6.4	5.0	6.0	4.9	5.3	3.6	4.8
-Business Income Tax	12.9	6.0	8.3	9.2	6.7	9.1	11.5	11.8	9.0
-VAT	45.3	46.0	44.2	42.5	44.7	43.5	42.7	43.6	45.3
-Custom Duties	5.4	10.4	14.2	15.7	12.6	13.9	14.8	14.2	17.6
-Other Taxes	21.9	26.7	27.0	27.5	30.0	28.5	25.7	26.8	23.3
-On property	6.3	6.3	7.4	6.2	6.5	6.9	7.3	7.9	8.3
-On "Actos jurídicos"	5.5	5.8	5.5	6.5	6.5	6.8	6.3	7.6	3.5
-On specific products	10.2	14.6	14.1	14.8	17.0	14.8	12.1	11.2	11.5

Annex 3. Sensitivity Analysis of the
Potential Revenue from Eliminating the Renta
Presunta System in Mining and Cargo Transportation.

There are two observations to start with: (1) Mining, excluding CODELCO, represents about 7.5% of GDP; and (2) Transport, Storage and Communications, TS&C, represent about 6% of GDP.

Just a fraction of mining can opt for the renta presunta system, because the corporations are not eligible for the system. In the columns of the table below, it will be assumed that such a fraction is 70%, or 60% or 50%.

Out of the total share of TS&C one would like to know the fraction corresponding to cargo transportation not organized as corporations. In the rows of the table below, it will be assumed that such a fraction is 20%, or 16% or 12%.

Annex 3, Table 1. Percentage of GDP Assumed
To Pay Income Tax Under the Renta Presunta System.

Fraction of TS&C corresponding to transport not organized as corporations	Fraction of Mining, excluding CODELCO, not organized as corporations		
	70%	60%	50%
20%	6.45% of GDP	5.70% of GDP	4.95% of GDP
16%	6.21% of GDP	5.46% of GDP	4.71% of GDP
12%	5.97% of GDP	5.22% of GDP	4.47% of GDP

The combination of assumptions used in the text leads to the adoption of the value 5.5% of GDP, halfway between the extreme values 6.45% and 4.47%.

It is also assumed in the text that the system allows tax-payers to hide half of that 5.5% of GDP. The table below presents estimates of the hidden tax base, assuming that the system allows tax-payers to hide 40%, or 50%, or 60% of the tax base (which, in turn, will be assumed to represent 4.47%, or 5.46%, or 6.45% of GDP).

Annex 3, Table 2. Estimates of Undeclared
Income in the Renta Presunta System.

The system allows tax-payers to hide	The system applies to the following percentages of GDP		
	4.47%	5.46%	6.45%
-----	-----	-----	-----
40% of their income	1.79% of GDP	2.18% of GDP	2.58% of GDP
50% of their income	2.24% of GDP	2.73% of GDP	3.23% of GDP
60% of their income	2.68% of GDP	3.28% of GDP	3.87% of GDP
-----	-----	-----	-----

The combination of assumptions used in the text leads to the adoption of the value 2.73% of GDP, halfway between the extremes 1.79% and 3.87%.

Finally, by using the average tax rate to which the affected tax-payers are subject; i.e., 13%, one can calculate the potential revenue from eliminating the renta presunta system in minning and transportation.

Thus 13% of 2.73% of GDP gives the result in the text; i.e., 0.36% of GDP, halfway between the extremes:

$$13\% \text{ of } 1.79\% \text{ of GDP} = 0.23\% \text{ of GDP, and}$$

$$13\% \text{ of } 3.87\% \text{ of GDP} = 0.50\% \text{ of GDP.}$$

One can, then, conclude that the potential revenue probably lies between 0.23% and 0.50% of GDP, and that the estimate of 0.36% is robust in the sense that rather wide variations in the assumptions leave the alternative results pretty close to 0.36% of GDP.

Annex 4. Aggregate variables
that can be used to forecast revenues

The variable that best predicts VAT revenue is private consumption. Using data from 1978 to 1988 the coefficient of private consumption is 17.68% (reasonably close to the VAT rate at the time, 20%).

That is to say, each additional 100 million pesos of private consumption had probably given rise to additional 17.68 million VAT revenue if the tax rate was kept at 20%, or 14.14 million if the rate is 16%.

The statistical results, the observations (indicated by asterisks) and the fitted line (indicated by dots) are shown below. The vertical axis shows VAT revenues in thousand million pesos of 1977, and the horizontal axis shows private consumption in the same units.

METODO ITERATIVO DE COCHRANE-ORCUTT

NUMERO DE ITERACIONES 4

AUTOCORRELACION DE RESIDUOS : .0101

FRECUENCIA= 1

PERIODO INICIAL: 1- 1978

PERIODO FINAL: 1- 1988

VARIABLE DEPENDIENTE: - VAT

VARIABLE INDEPENDIENTE	COEFICIENTE ESTIMADO	ERROR STANDARD	VALOR T
CP (- 0)	.17678	.24521E-01	7.2092
C	-9.9290	6.2989	-1.5763

R-CUADRADO= .867392

R-CUADRADO CORREGIDO= .850816

R-CUADRADO CORREGIDO(SIN RHO)= .850801

ESTADISTICO DE DURBIN-WATSON = 1.42299

NUMERO DE OBSERVACIONES= 10

SUMA DE CUADRADOS DE RESIDUOS= 14.0732

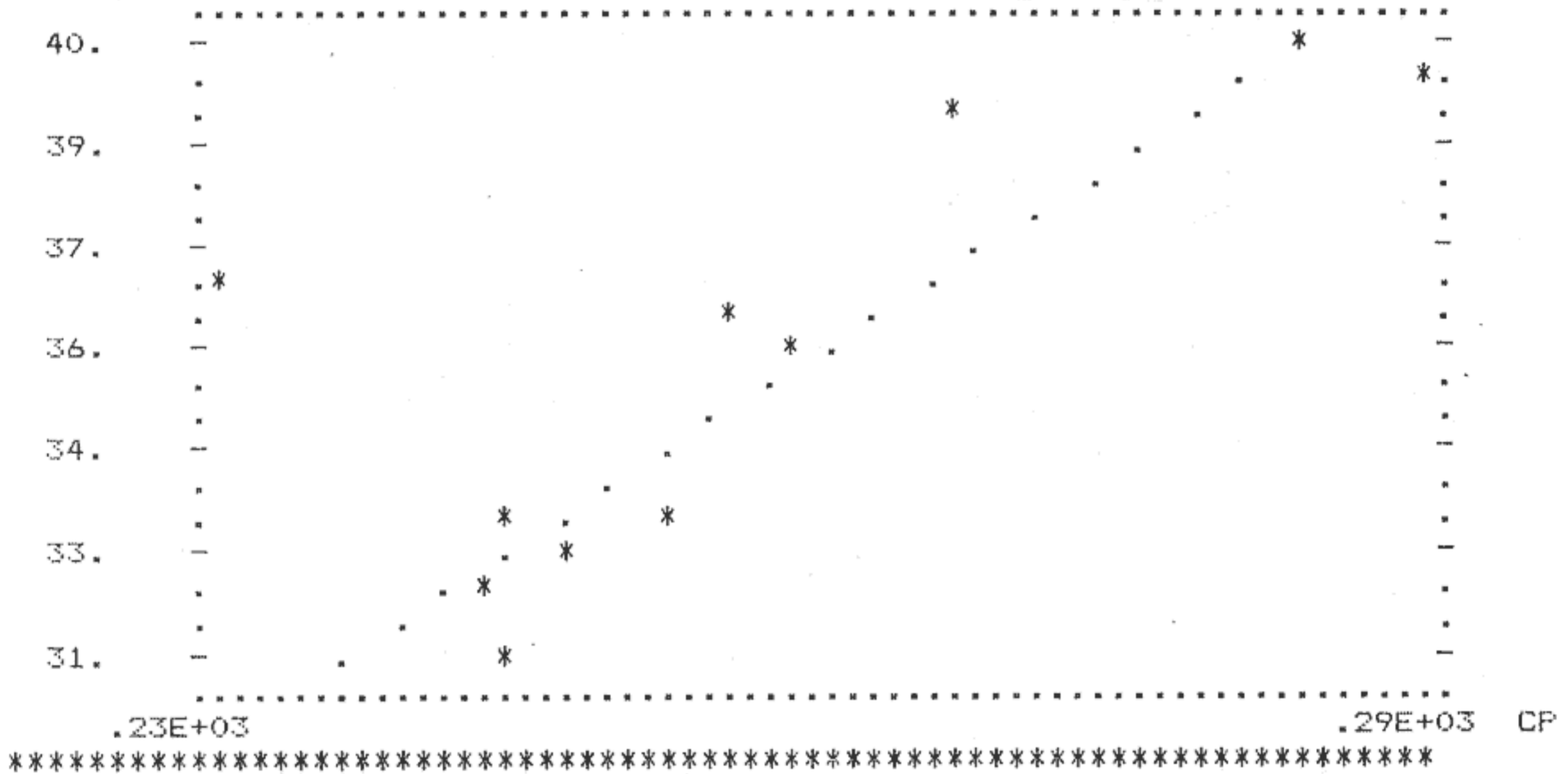
ERROR STANDARD DE REGRESION= 1.32633

ESTADISTICO F(1, 8)= 51.9733

ESTIMADOR DE LA MATRIZ DE VARIANZA-COVARIANZA

.601E-03	-.154
-.154	39.7

Unfortunately, no such clear results could be obtained for the income tax. The statistical evidence suggests that neither GDP nor total consumption nor private consumption serves as a good proxy to estimate income tax revenue. The reason may well be that many changes in the tax law took place during the period under study, 1975-88.



Chapter 3. Tax Reform in Honduras, 1990

I. Introduction

Tax revenues represented about 90% of the current revenues of the Central Government during the decade of the eighties, distributed almost equally among the three main components of the Honduran tax system: 1) Income tax; 2) Sales and excise taxes; and 3) Taxes on international trade. This report will study their revenue, equity and efficiency performances, as well as the reforms introduced by the Decree 18/90 of March 1990. Further reforms will also be recommended. Table 1 shows the Central Government taxes actually collected during 1984/89, and estimates for 1990 and 1991.

Table 1: Central Government Tax Revenues, 1984/91
(Nominal figures are expressed in million lempiras
and real figures are expressed in million lempiras of 1988)

	1984	1985	1986	1987	1988	1989	1990	1991
<hr/>								
<u>Income Tax</u>								
Nominal	233.9	240.6	250.3	298.1	340.9	366.6	420.0	550.0
Real	270.2	269.0	268.2	311.9	340.9	333.7	305.8	348.2
% of GDP	3.6	3.4	3.3	3.7	3.8	3.8	3.4	3.9
<u>Sales & Excise Taxes</u>								
Nominal	257.2	281.9	289.8	316.5	351.4	391.0	555.0	820.8
Real	297.2	315.2	310.5	331.1	351.4	355.9	404.2	519.7
% of GDP	4.0	4.0	3.8	3.9	3.9	4.0	4.5	5.8
<u>Trade Taxes</u>								
Nominal	346.1	409.1	404.8	440.7	408.8	444.2	640.5	854.0
Real	399.9	457.4	433.7	461.1	408.8	404.3	466.4	540.7
% of GDP	5.3	5.8	5.3	5.4	4.6	4.5	5.2	6.1
<u>Other Taxes</u>								
Nominal	47.0	54.2	52.5	60.9	69.8	76.6	68.3	113.2
Real	54.3	60.6	56.2	63.7	69.8	69.7	49.7	71.7
% of GDP	0.7	0.8	0.7	0.8	0.8	0.8	0.6	0.8
<u>Total</u>								
Nominal	884.2	985.8	997.4	1116.2	1170.9	1278.4	1683.8	2338.0
Real	1021.5	1102.2	1068.5	1167.8	1170.9	1163.7	1226.2	1480.3
% of GDP	13.6	14.0	13.1	13.8	13.1	13.1	13.7	16.6

Sources: 1) Proyecto Secplan/Cepal; 2) Ministerio de Hacienda; and 3) Draft of Budget Proposal for 1991 by Ministerio de Hacienda.

The estimates of nominal revenues for 1990 given in Table 1 are calculated as the actual revenues during January-August 1990 times 1.5, assuming that the revenues are uniformly distributed over the year. This may not be the best assumption to make in the case of the sales tax, because its rate was raised in March 1990 and therefore this assumption would underestimate 1990 revenue. Further attention will be paid to this issue in the section on Sales and Excise Taxes of this report.

To estimate the revenues in real terms and as fractions of GDP for 1990, an inflation rate of 25% and zero real growth are assumed.

The estimates of nominal revenues for 1991 are taken from the September draft of Budget Proposal by the Ministerio de Hacienda. To estimate the revenues in real terms and as fractions of GDP for 1991, an inflation rate of 15% and zero real growth are assumed.

The last line in Table 1 shows that the tax burden, which had previously been in the range of 13%-14%, would climb to over 16% in 1991. Such an increase would be mainly due to the revenues from (1) Sales & excise taxes (which jump from around 4% of GDP during 1984-89 to almost 6%); and (2) taxes on international trade (which rise from around 5.2% of GDP during 1984-89 to 6.1%). On the other hand, the revenues from the income tax in 1991 would barely exceed its 1984-89 average of 3.6% of GDP, and that from the other taxes would remain constant (and almost insignificant) as a fraction of GDP.

This chapter will review these government estimates for 1991, specially the increase in taxes on international trade which may constitute a warning signal of contradictory policies, given the government's commitment to open up the economy and to reduce the anti-export bias.

It will also review the fact that, despite the 1990 reform, the income tax revenue in real terms is expected to keep in 1991 the same value as in 1988.

II. Sales and Excise Taxes

The sales tax is a value-added type tax with two rates, 7% (which was raised from 5% in March 1990) and 10% (which applies to alcoholic beverages and tobacco manufactures). Most unprocessed agricultural products (including unprocessed wood and cork) are exempted, as well as medicines, seeds, minerals, books and school utensils, agricultural equipment and machinery, animal feed, fertilizers and herbicides, crude oil and kerosene, bakery products and noodles.

The excise taxes comprise twelve taxes on the following goods: 1) Beer; 2) Aguardiente; 3) Composite liquors; 4) Matches; 5)

Forestry production; 6) Petroleum derivatives; 7) Sugar; 8) Soft drinks; 9) Cigarettes; 10) New cars; 11) Selective consumption; and 12) Selective consumption (cars).

It should be noted that the goods included in these twelve categories are also subject to the sales tax whether they are imported or locally produced. Of course, if the goods happen to be imported they will be also subject to the custom duties and surcharges in addition to the sales and excise taxes.

Thus, an imported commodity may be subject to four cumulative taxes: Custom duty, surcharge, selective consumption tax, and sales tax. Likewise, a locally produced commodity may be subject to three cumulative taxes: Excise, selective consumption, and sales taxes.

A peculiar pattern of indirect taxation begins to show off: The Honduran tax system is not based on few taxes, of a wide coverage and uniform rates, which would preserve the relative incentives provided by the markets to the different activities of the economy. On the contrary, the system consists of a proliferation of taxes which pile up, one on top of the other, to strike the same goods several times. This pattern will be repeatedly observed throughout all the excise taxes, specially in the proposed reform of the selective consumption tax to be discussed below.

The combined revenue of the sales & excise taxes in real terms for 1990 has been estimated as 404 million lempiras of 1988 in Table 1, as explained above. If one now wants to drop the assumption that revenue would be uniformly distributed over the year, one can use the data in Table 2 (which shows separately the revenues before and after the rate change) to estimate the revenue during September-December as four-fifth of the revenue during April-August. Adding this revenue to the one corresponding to January-March, one gets an estimate for the whole year 1990 which takes into account the change of rate in April. Such an adjusted estimate turns out to be 441 million lempiras of 1988, 9% higher than the estimate of Table 1.

The Sales Tax

The revenue from this tax used to be less than the revenue from all the excises together. This is shown in Table 2 for 1988, 1989, and the first quarter of 1990. After its reform of March 1990 the sales tax yields more revenue than all the excises together. Expressed in lempiras of June 1988, the sales tax revenue during April-August 1990 is 117.4 million, while all the excises together yielded only 71.7 million.

The sales tax reform consisted of increasing its rate from 5% to 7% and repealing all the exemptions granted to institutions or persons, while keeping all the exemptions granted to specific

products in the so-called "basic goods" category.

The modifications have proven to be effective as revenue-increasing devices: They yielded a 61% increase in revenue in real terms (from 73 million lempiras during April-August 1989 to 117.4 million during the same months in 1990, as indicated in Table 2). But Table 2 also indicates that revenue in real terms had also grown by 10% (from 44.4 million to 48.5 million) during the first quarter of 1990, prior to the reform. If the 10% growth rate independent of the reform is carried over to the months of April-August, one may say that the revenue increase attributable to the reform is just 47% (from 80 million to 117.4 million) instead of 61%.

This increase, however, is even greater if we ignore the changes in revenue associated to the 10% rate, which was not changed. The increase in revenue in real terms associated to the lower rate is 59% (from 68 million lempiras during April-August 1989 to 108.1 million during the same months in 1990).

It should be noted, however, that a substantial part of the revenue increase in 1990 comes from a rise in the exchange rate (from 2 lempiras per dollar to 4.3) used to value merchandise in customs. This is a 115% increase which accounts for most of the increase in the sales tax revenue associated to imports from 25.8 to 58.3 million.

The revenue increase attributable to the tax reform itself can be mainly observed in the sales tax revenue associated to domestic sales taxed at the lower rate. This revenue rose from 36.3 to 50 million; that is, a 38% increase in real terms, virtually equal to the 40% increase in the tax rate (from 5% to 7%).

Table 2: Sales and Excise Taxes Revenues in Real Terms
(All figures expressed in million lempiras of June 1988)

	1988	1989	Jan-March 1989	Jan-March 1990	April-Aug 1989	April-Aug 1990
<u>Sales Tax</u>						
Total						
5% or 7%	144.0	148.6	38.0	39.0	62.0	108.1
10%	25.0	25.8	6.4	9.5	11.0	9.3
	-----	-----	-----	-----	-----	-----
	169.0	174.4	44.4	48.5	73.0	117.4
<u>Domestic</u>						
5% or 7%	n.a	n.a	24.2	27.4	36.3	50.0
10%	n.a	n.a	6.4	7.9	10.9	9.1
			-----	-----	-----	-----
			30.6	35.3	47.2	59.1
<u>Imports</u>						
5% or 7%	n.a	n.a	13.8	11.6	25.7	58.1
10%	n.a	n.a	0.0	1.6	0.1	0.2
			-----	-----	-----	-----
			13.8	13.2	25.8	58.3
<u>Excise Taxes</u>						
	180.4	179.5	46.7	51.6	73.0	71.7

Sources: 1) Proyecto Secplan/Cepal en base a cifras del Ministerio de Hacienda; 2) Ministerio de Hacienda "Comparativo de Ingresos enero/agosto 1989 y 1990"; 3) Depto. de Estudios Economicos del Banco Central de Honduras "Indice de precios al consumidor".

The Sales Tax Coverage

The repeal of exemptions granted to persons or institutions is also a step in the right direction of the March 1990 reform. This will reduce the scope for corruption and evasion, as well as preserve the relative incentives provided by the markets to different activities; i.e., will enhance efficiency in the allocation of resources.

The exemptions that have been kept on so-called basic goods may be less detrimental to efficiency than they appear to be. The reason is that the tax is of the value added type; hence it is only the value added of such goods sold to final consumers that will escape the tax altogether, while the value added of such goods sold

as inputs to other (non-exempted) sectors will be taxed in a subsequent stage of the production chain.

The repeal of these exemptions will probably 1) add little revenue, 2) improve efficiency only marginally, and 3) create administrative difficulties to enforce the tax upon small farmers. Therefore, these exemptions should not be a major concern of tax policy.

On the other hand, there is a problem with the inputs used to produce exports. According to article 12 of the sales tax law the fiscal credit for the tax embodied in the prices of inputs applies only to sales in the domestic market. That leaves exports as an exempted sector, distinct from zero-rated sectors. The latter are activities whose value added is subject to a zero rate tax and they can, at the same time, claim a fiscal credit for the tax embodied in the prices of their inputs despite of the fact that their fiscal debit is identically zero.

As a consequence, a zero-rated activity gets its own value added, and that of all its suppliers, tax free. In other words, the entire product of a zero-rated activity is tax free. A zero-rated activity in virtually every country in the world is exports. For example, when an apple is exported from Chile, the credit the exporter gets equals the sales tax of the farmer, the shipper, the packer, etc.; i.e., the sales tax on the whole apple is rebated.

In the case of Honduras exports are exempted, not zero-rated. That means that although the exporter's value added is tax free, he cannot claim a fiscal credit for the tax embodied in the prices of his inputs. That is, the exporter's value added is tax free but the value added by all its suppliers is not and, therefore, just a fraction of the value of exports comes out tax free.

This puts exports in a serious disadvantage, specially non-traditional exports which use relatively more imported inputs which are, in turn, subject to the sales tax that cannot be rebated.

The Sales Tax Rates

Increases in the tax rate would normally increase revenue by less than proportionately, simply because evasion is further encouraged by higher tax rates. That is, increasing the tax rate by 40% would normally increase revenues by less than 40%, because evasion is much more attractive at a higher rate. Similarly, reducing the rate of the sales tax would normally reduce revenue less than proportionately, on the grounds that evasion is discouraged by lower tax rates.

Nonetheless, this was not the case in Honduras in March 1990, when a 40% increase in the rate yielded 38% more revenue, as

indicated above. This resembles the case of Ecuador in 1986, when the sales tax rate was increased by 67% (from 6% to 10%) and so was revenue in real terms (from 2.65 billion sucres to 4.44 billion).

The explanations for this similarity between changes in revenue and in the rate, revolve around the fact that the rates were initially very low both, in the cases of Honduras and of Ecuador. On the other hand, Chile with a high rate of value added tax (wherefrom evasion is highly encouraged) provides an example of changes in revenue less than proportional to changes in the tax rate: When its rate was changed in 1988 from 20% to 16% revenue fell only by 11%, less than proportional to the rate reduction of 20%.

Thus, this evidence suggests that further increases in the Honduran sales tax rate, perhaps not above 10%, will probably result in proportional increases in revenue. The rate of 10% would still be a low rate by comparison with other countries, as indicated in Table 5 of Chapter 1.

Given the revenue performance of the sales tax on domestic sales during April-August 1990, it can be estimated that a further rate increase by 43.8%, from 7% to 10%, would probably yield additional revenues of 64 million lempiras of June 1988 per annum (That is, 43.8% of 50 million times 3 to get an annual estimate).

The revenue performance of the sales tax on imports during April-August 1990 is more difficult to understand: Most of the additional revenue is accounted for by the increase in the exchange rate, with no apparent effect of the tax rate increase upon revenues.

To make a conservative estimate of additional revenue associated to a further increase in the tax rate, it will be assumed that no additional revenue will be forthcoming from imports. This leaves the figure of 64 million lempiras of June 1988 as a lower bound estimate of a further increase of the sales tax rate to 10%. It should be reminded that this figure represents about 88 million current lempiras (given the rates of inflation of 10% and 25% for 1989 and 1990, respectively).

Excise Taxes

As indicated above, this category comprises twelve taxes, whose revenues are indicated in Table 3.

Table 3: Excise Taxes in Real Terms, 1984/91
(All figures are expressed in million lempiras of 1988)

	1984	1985	1986	1987	1988	1989	1990	1991
<u>Beer</u>	50.6	53.3	50.9	54.4	59.0	59.2	53.2	51.9
<u>Aguardiente</u>	9.1	10.1	10.1	10.2	10.6	9.9	8.3	8.5
<u>Composite liquors</u>	21.3	22.0	21.2	19.7	19.9	18.0	13.3	14.2
<u>Matches</u>	0.9	0.9	1.0	0.8	0.8	0.9	n.a.	n.a.
<u>Forestry</u>	0.1	0.1	0.1	0.1	0.1	0.1	n.a.	n.a.
<u>Petroleum Derivatives</u>	19.8	19.0	18.9	20.9	22.1	22.1	25.8	33.1
<u>Sugar</u>	4.2	3.8	3.6	4.1	4.1	4.4	n.a.	n.a.
<u>Soft Drinks</u>	12.9	13.8	14.0	16.4	17.7	18.1	18.2	17.3
<u>Cigarettes</u>	36.7	37.1	36.4	36.3	34.1	35.4	37.1	40.5
<u>New Cars</u>	3.1	4.8	4.2	5.6	5.5	4.9	n.a.	n.a.
<u>Selective Consumption</u>	3.8	4.4	4.8	4.6	5.5	4.9	n.a.	74.3
<u>Selective Consumption (Cars)</u>	0.6	1.3	1.2	2.3	2.5	2.6	n.a.	n.a.
The sum of the n.a. items is:							17.0	10.6
<u>Total</u>	163.1	170.6	166.4	175.4	181.9	180.5	172.9	250.3

Sources: Same as Tables 1 and 2.

Five observations emerge from Table 3:
1) Only seven, out of these twelve taxes raise any significant revenues: beer, aguardiente, composite liquors, petroleum derivatives, soft drinks, cigarettes, and selective consumption. The first three are per-unit taxes (beer: L. 0.35 per bottle; aguardiente: L. 5.40 per litre; and composite liquors: L. 4.50 per

litre), while the latter are ad-valorem (petroleum derivatives: 7%; soft drinks: 8%; cigarettes: 65%; and selective consumption : 10%). These seven taxes yielded 90% of the revenue of all excise taxes in 1989. While the other taxes do not produce any sizable revenue, their existence is typical of the way the Honduran system has been designed: Multiplicity of taxes, with narrow bases, negligible revenue and ample opportunities for corruption.

2) The combined revenue of all of these grew at an annual rate of less than 1.5% over the period 1984/90.

3) The substantial increase in the total (44.8%) shown in year 1991 is due to the assumption that Congress will pass a project to impose the Selective Consumption Tax (SCT) to a wide variety of goods, not currently subject to this tax. Thus, the revenue from this single tax would rise in real terms from about 5 million lempiras to 74.3 million.

4) According to the previous observation, SCT would stand out as the most significant excise, yielding more revenue than the excises on cigarettes or beer which have been front runners among all excises.

5) The SCT revenue increase is of the same order of magnitude as that associated to an increase of the sales tax rate to 10%, as estimated at the end of the preceding section of this report.

The Selective Consumption Tax

The SCT falls at a rate of 10% on a set of about 32 goods, all imported, a few of which are also locally produced or assembled (such as radio and TV sets, chewing gum and ethylic alcohol). This tax is levied in addition to the import duties, import surcharges and sales tax.

The SCT on cars has been reported as a separate category in Table 3. It falls at rates ranging from 10% to 30% according to engine capacity on imports of cars, of which there is no local production. Pick ups are not subject to the tax. The SCT on cars is levied in addition to the 5% tax on purchases of new cars (which are, of course, also subject to import duties, and import surcharges).

The proposal sent to Congress consist of 1) enlarging the list to about 100 goods (twenty of which are locally produced, as well as imported), including pick ups so that all vehicles would become taxed; and 2) increase the tax rate to 15%, 20%, 25% or 30% for all goods already subject to SCT; while the goods newly included will bear the SCT at rates ranging from 10% to 30%, in inverse proportion to the other taxes already imposed upon them.

This SCT reform is expected to yield additional revenues of about 75 million lempiras of 1988. This figure, in turn, can be broken down as follows:

	Lempiras of 1988
1) Increasing the SCT rate on cars to 30%	3.6 million;
2) Imposing the SCT on previously untaxed cars, at rates of 20% and 30%	17.6 million;
3) Increasing the SCT on other goods from 10% to rates between 15% and 30%	5.3 million;
4) Imposing the SCT on previously untaxed goods (other than cars), at rates ranging between 10% and 30%	48.8 million.
Total	75.3 million.

This estimate is based on the 1989 values of imports and local production of affected commodities. The values of imports have been adjusted for changes in import duties and surcharges and in the exchange rate. Likewise, the values of local production have been taken at current prices.

It should be noted that 40% of the 75.3 million lempiras (i.e., 30.2 million), is expected to be collected from only four goods: Beer, aguardiente, composite liquors, and tobacco manufactures. Of course, these goods are subject to the sales tax at the 10% rate, and are also already subject to other excises (along with petroleum derivatives and soft drinks, these are the goods which yield the highest excise taxes revenues).

Thus, as far as these goods are concerned, the SCT reform is indistinguishable from equivalent increases in the rates of the corresponding already existing excises.

On the other hand, there are certain goods locally produced or assembled which would now become subject to SCT such as painting, soap and detergents, shampoo, cosmetic and shaving lotions, refrigerators, air conditioners, leather briefcases, mattresses and pillows, and shoe polish. The revenue expected from the inclusion of these goods in the SCT base is estimated at about 9 million lempiras of 1988.

The remaining 36 million lempiras of 1988 would be collected on imports including cars (either already subject to SCT at a lower rate, or newly included in the SCT).

The preceding paragraphs suggest that the SCT reform is essentially equivalent to a combination of: 1) An increase in the other excise taxes on beer, alcoholic beverages and tobacco manufactures; and 2) An increase in the import surcharges on certain imports (specially cars). The rest of the SCT reform is of small significance, and consists mainly of imposing this tax to the

fifteen or sixteen locally produced goods mentioned above with a negligible impact on revenue.

To impose the SCT on beer and other alcoholic beverages might be justified on the grounds that it just replaces their excises which are per-unit taxes and, therefore, are being gradually eroded by inflation. But this substitution will not take place because the excises on beer and other alcoholic beverages are in the process of being made ad-valorem and, therefore, the SCT will be added to, not instead of, the existing excises.

Any increase in import surcharges, however disguised, would be inconsistent with the trade policy undertaken in March 1990, geared to the opening of the economy and the substantial reduction of the anti-export bias. Regardless of whether the goods upon which the increased surcharge is imposed are locally produced or not, this measure will result in an increase in the anti-export bias through its effect on the equilibrium exchange rate.

Surprisingly enough, to increase the anti-export bias seems to have been an intended result of the reform, according to the motives alleged by the Ministerio de Hacienda in the submission of the proposed reform to Congress:

"With respect to certain articles which put a heavy pressure upon the demand for foreign exchange, a rate between 15% and 30% is recommended; while those which can be supplied domestically will be taxed at 10%, rate considered appropriate given the high proportion of imported materials in their production."

The SCT reform is typical of the peculiar pattern of taxation in Honduras: When additional revenue is needed a decision on which goods will be further taxed has to be made; and the problem becomes an exercise in fine tuning, opening up opportunities to lobby in favor of taxes on somebody else's products. Normally, the same goods get oftenly selected. The approach has seldom been to impose general taxes of wide coverage, with less opportunities for distorting market incentives, lobbying and/or corruption.

Moreover, the reform would increase the number of SCT rates from one (10%) to five (ranging from 10% to 30%), thus creating additional opportunities for corruption.

All these pitfalls of the SCT reform might eventually have to be tolerated if there was no better alternative ways to raise equivalent amounts of revenue. But this is not the case, since a change in the sales tax rate to make it uniform at 10% would yield approximately the same revenue, would be more neutral with respect to resource allocation, and would not increase the anti-export bias of the trade policy.

The alternative of increasing the sales tax rate would,

furthermore, have the advantage of reducing the proliferation of capricious taxes and of made-to-measure lists of taxed goods which end up being hit by several taxes at the same time. In other words, this alternative would be a departure from the traditional Honduran system, towards a better one with fewer taxes, of wider bases and more uniform rates.

III. Income Tax

The income tax is imposed on firms (personas juridicas) and individuals (personas naturales). The brackets and progressive rates used to be the same for both up to March 1990, until decree 18/90 established separate scales for firms and individuals. Table 4 shows the old and new scales.

Table 4. Annual Income Brackets and Progressive Rates
Before and After the Income Tax Reform
 (Brackets expressed in thousand lempiras)

Before the reform		After the reform			
Common to firms & individuals		Firms		Individuals	
Bracket	Rate	Bracket	Rate	Bracket	Rate
0 - 5	3%	0 - 100	15%	0 - 10	0%
5 - 10	5%	over 100	35%	10 - 20	9%
10 - 20	9%			20 - 50	12%
20 - 50	12%			50 - 100	14%
50 - 100	14%			100 - 200	21%
100 - 200	21%			200 - 500	27%
200 - 500	27%			500 - 1000	34%
500 - 1000	34%			over 1000	40%
over 1000	40%				

In addition to these progressive scales there are surcharges of 10% and 15% for incomes above 100,000 and 500,000 lempiras respectively (500,000 and 1,000,000 for firms, after March 1990).

A characteristic of this tax in Honduras both, before and after March 1990, is the lack of integration between tax on firms and on individuals. Thus, the true rate of taxation is higher than indicated by the table above: Profits are taxed, regardless of whether they are distributed as dividends to the share holders or not; and if they are the share holders pay income tax again without having a credit for the tax already paid by the firm.

Actually the true-true rate of taxation is even higher than that, because there still is an additional 10% tax on dividends (art. 25 of the income tax law).

Honduran income tax is an extreme case of lack of integration. At the other end of the line one finds the cases of full integration, where every cent paid by the firm is credited against the tax liability of the share holders. In such a case, the personal income tax rate is exactly equal to the true rate of income taxation.

But even with full integration, the income tax possess the undesirable feature of double taxing savings, hence discriminating against capital accumulation and ultimately growth.

On the other hand, expenditure or consumption taxation in the Chilean fashion (up to 1989) is theoretically the closest to a lump-sum way of raising revenue. Unlike the income tax, it leaves unaffected the market incentives for capital accumulation. This makes the expenditure tax every-one's favorite in the public finance profession. To implement an expenditure tax it is necessary to avoid taxing companies (they don't consume) and to tax individuals only on the fraction of their incomes they don't save. This entails companies not paying taxes on their profits, unless these are distributed to the companies' owners.

The breakdown of income tax revenue in Honduras is shown in Table 5.

Table 5. Income Tax Revenue in Real Terms 1984/90
(All figures expressed in million lempiras of 1988)

	1984	1985	1986	1987	1988	1989	1990
Individuals	38.5	34.3	30.5	41.8	39.6	46.4	51.0
Firms	61.9	58.0	59.5	72.3	86.9	80.7	91.0
Fines	2.0	1.9	2.9	3.7	3.3	3.7	1.9
"Pagos a Cuenta"	106.6	111.6	111.2	118.1	135.3	129.3	93.8
Withholding	38.4	39.7	40.8	45.5	48.0	49.1	37.0
Withholding (art. 5 & 25)	22.9	23.6	23.4	30.4	27.8	24.3	28.1
Withholding (art. 50)							3.0
TOTAL	270.3	269.1	268.3	311.8	340.9	333.5	305.8

Sources: Same as Table 1 and "Recaudacion Acumulada del Impuesto a la Renta, enero 2 a agosto 31 de 1990" de Dir. Gral. Tributacion.

The first two lines in the table above indicate that the revenue from the income tax to firms is approximately twice as much as the one to individuals. By applying the same proportion to

"Pagos a Cuenta", one can estimate that the income tax borne by firms is, in real terms, in the range 150-160 million while the income tax borne by individuals is in the range of 75-80 million.

On the other hand, one would like to allocate to the tax borne by individuals the 10% tax on distributed profits of article 25; unfortunately, it is not possible to separate out this revenue from the one generated by article 5 (tax on foreign corporations). By assuming a fifty-fifty split, and using this assumption on the figures in the sixth row of Table 5 one can assign between 12 to 14 million more to the income tax borne by individuals. This raises the total income tax collected from individuals to 87-93 million.

Furthermore, the tax collected from individuals also includes the withholding displayed in the fourth row of Table 5, around 40-45 million lempiras of 1988. This raises the total income tax borne by individuals to the range of 130-138 million.

Thus, after these adjustments are made, the tax borne by firms is about 16% (not 100%, as suggested by the first two lines of Table 5) more than the tax collected from individuals. Nonetheless, this is strong evidence of how far away from expenditure taxation the Honduran income tax is.

The adoption of an expenditure tax to replace the income tax is a reform that Honduras may want to consider in the future. One step towards such a reform would be to replace part of the income tax on firms by the income tax on individuals. Specifically, the surcharges on firms (whose combined revenue is estimated for 1991 as 21 million lempiras of 1988 in Table 6) can be replaced by an increase in the income tax on dividends (currently at 10%, according to article 25 of the income tax law) which would yield the same revenue.

The Income Tax Reform of Decree 18/90

The revenue effects of the March 1990 reform cannot yet be observed because tax-payers are currently paying the tax on 1989 income. The only part of the reform with an immediate effect is the new withholding provision of article 50, which is yielding revenue since April 20, 1990.

Seven articles of the income tax law were modified by the reform: 1) The tax rate for foreign companies ranged from 5% to 15%, and was changed to values ranging from 5% to 35%; 2) The deductions that can be claimed by individuals were changed; 3) Losses can be carried over a three year period, not to exceed 50% of taxable profits in any of them; 4) New tax scales were adopted, as indicated in Table 5; 5) The obligation to submit tax declarations were changed; 6) and 7) New withholding procedures were adopted (article 50).

The most significant change in revenue to be expected in 1991 should arise from the changes in the tax scales, as shown in Table 5. An estimate of the additional revenue can be done based on the distribution by brackets of the 1988 revenue, to find the percentage revenue increase in that year if the new scales had been used. This procedure will be followed separately for firms and individuals in Tables 6 and 7 respectively.

Table 6: An Estimate of Additional Income Tax Revenue (Personas Juridicas) Due to the New Scales
(The brackets are expressed in thousand lempiras. The figures in all other columns are expressed in million lempiras)

Bracket	Income in the bracket	Revenue 1988	Revenue with new scale		
			ordinary	surcharge	total
1) 0 - 5	1.16	0.035	0.174		0.174
2) 5 - 10	2.80	0.102	0.420		0.420
3) 10 - 20	7.08	0.392	1.061		1.061
4) 20 - 50	21.48	1.849	3.221		3.221
5) 50 - 100	41.01	4.570	6.152		6.152
6) 100 - 500	145.15	29.588	50.802		50.802
7) 500 - 1000	76.98	22.336	26.942	0.752	27.694
8) over 1000	315.49	132.322	110.420	20.200	130.620
	Total	191.194			220.144

Notes: 1) In the new scale the rate is 15% for brackets 1 to 5, and 35% for brackets 6 to 8. 2) The surcharge in bracket 7 is 10% of the tax on the income in excess of 500 thousand lempiras. 3) The surcharge in bracket 8 is the same as before plus 15% of the tax on the income in excess of one million lempiras.

The table above suggests that the additional revenue in the income tax to firms, due to the new scale, would turn out to be 15% of the tax collected in 1988, in real terms.

An analogous procedure is followed to build Table 7.

Table 7: An Estimate of Additional Income Tax
Revenue (Personas Naturales) Due to the New Scales

(The brackets are expressed in thousand lempiras. The figures
in all other columns are expressed in million lempiras).

Bracket	Income in the bracket	Revenue in 1988	Revenue with new scale		
			ordinary	surcharge	total
1) 0 - 5	34.838	1.045	0		0
2) 5 - 10	555.810	20.152	0		0
3) 10 - 20	566.740	30.146	51.007		51.007
4) 20 - 50	484.035	40.150	58.084		58.084
5) 50 - 100	235.475	24.657	32.967		32.967
6) 100 - 200	81.132	12.620	17.038	0.419	17.457
7) 200 - 500	46.447	10.025	12.541	0.814	13.355
8) 500 - 1000	11.808	3.418	4.015	0.512	4.527
9) over 1000	14.638	5.495	5.855	1.191	7.046
		-----			-----
	Total	147.708			184.443

Notes: 1) In the new scale the rate is 0% for brackets 1 and 2 (these rates were 3% and 5% in the old scale); and the rest of the brackets keep the rates they had in the old scale (i.e., from 9% to 40%). 2) The surcharge in brackets 6 and 7 is 10% of the tax on the income in excess of 100 thousand lempiras. 3) The surcharge in brackets 8 and 9 is the same as before plus 15% of the tax on the income in excess of 500 thousand lempiras.

The table above suggests that the additional revenue in the income tax to individuals, due to the new scale, would turn out to be 25% of the tax collected in 1988, in real terms.

It should be noted that the totals of columns headed "Revenue 1988" in Tables 6 and 7 (191.19 and 147.71 million respectively) add to the income tax revenue of 1988, as shown in Table 1 (340.9 million). The estimate of revenue with the new scales, however, as indicated in the last columns of Tables 6 and 7 (220.1 plus 184.4 respectively; i. e., 404.5 million lempiras of 1988) exceeds by 16% the official estimate for 1991 as given in Table 1 (348.2 million lempiras of 1988). The difference of about 60 million lempiras of 1988 happens to be equal to the estimated additional revenue of increasing the sales tax rate to 10%, and slightly less than the estimated additional revenue of the SCT reform.

IV. International Trade Taxes

There are three taxes on imports; the tariff, the 10% surcharge of decree 14-54, and the 5% surcharge of decree 85-84. The first surcharge is being phased out gradually until its total extinction towards the end of 1991, while the latter will be permanently kept.

There are four taxes on exports; the tax on exports of coffee, of bananas, a temporary tax on all exports, and other (negligible) taxes on exports of seafood, minerals, livestock, etc.

Import taxes

Decree 18/90 introduced a major reform in the chaotic system of import taxes which existed before. That system included widely dispersed tariffs, several surcharges, and exonerations from some of the tariffs and/or surcharges. Moreover, all tariffs and surcharges were calculated on custom's assessments based on an exchange rate of 2 lempiras while most imports took place at an exchange rate above 3.5 lempiras.

In the area of import taxes the decree 18/90:

- 1) adopted the current exchange rate to assess goods in customs;
- 2) reduced all tariffs higher than 40% to this value, reduced tariffs in the range 30%-40% to 30%, reduced tariffs in the range 15%-30% to 15%, reduced the 15% tariff to 10%, and reduced the 5% tariff to 2% (The effects on revenue of measures 1 and 2 combined partially cancel each other out);
- 3) increased the 0% tariff to 2% (Measures 1 and 3 combined would increase revenue);
- 4) abolished several surcharges, leaving only the 5% and 10% mentioned above (The effects on revenue of measures 1 and 4 combined partially cancel each other out); and
- 5) abolished exonerations (This should increase revenue).

The overall revenue result can be observed in Table 8. In real terms, the reform has been revenue neutral up to 1990. There is virtually no difference between the total revenue (shown in the last row of the table) of Jan-Aug 1989 and of the same months in 1990. Likewise, the total revenue for the whole year 1989 or 1988 is approximately the same, in real terms, as that of 1990. The latter has been estimated as 1.5 times the revenue observed during the months January-August, on the assumption that revenue is uniformly distributed along the year.

The data also shows the decline in 1990 of the 10%-surcharge revenue, as compared to 1989 or 1988. This surcharge has been gradually dismantled since April 1990, and the reason it does not disappear faster is the increase in the exchange rate used for valuation purposes in Customs. This is also the reason why 1) the

revenue of the 5% surcharge increased in 1990, with respect to 1989, and 2) the revenue from tariffs & other charges remained constant between 1989 and 1990 despite of the tariff reductions and the elimination of most other charges.

The subsequent changes in 1991 and 1992 would result in a maximum tariff-cum-surcharge of 25%, and a minimum tariff-cum-surcharge of 10%.

These changes are likely to increase revenues in real terms because they will encourage more trade by significantly reducing protectionism and the anti-export bias.

Based on these reasons, one can estimate for 1991 an increase in real terms of total import taxes revenue of 22%, from 330.3 million to 404.6 million lempiras of 1988, as indicated in Table 8.

This is a conservative estimate, as compared to the 30% increase estimated by the Ministerio de Hacienda in the Budget Proposal to Congress. While I agree with the official estimate of

Table 8: Import Taxes Revenue in Real Terms
(All figures are expressed in million Lempiras of 1988)

	1988	1989	Jan-Aug 1989	Jan-Aug 1990	1990	1991
	-----	-----	-----	-----	-----	-----
Tariff & Other Charges	191.6	208.5	128.3	127.4	191.2	264.7
Surcharge (10%)	89.2	81.8	52.4	44.7	67.1	40.3
Surcharge (5%)	66.2	61.6	38.8	48.0	72.0	99.6
Total	347.0	351.9	219.5	220.1	330.3	404.6
	-----	-----	-----	-----	-----	-----

a 38% increase in real terms of tariff revenue (from 191.2 to 264.7 million lempiras of 1988), I find unacceptable the estimated increase in the 10%-surcharge revenue and rather expect this revenue to fall according to the phasing out of this surcharge (hence, its estimated value of 40.3 is 40% less than in 1990). With respect to the 5%-surcharge revenue, the assumption made is that it will grow in real terms at the same rate as the tariff revenue, 38% (hence, the estimated increase from 72 million to 99.6 million lempiras of 1988).

It should be noted that the estimated revenue increase (74 million lempiras of 1988) happens to be roughly equal to the one associated to the SCT reform, and slightly higher than those associated to 1) an increase to 10% in the sales tax rate, or 2) the changes in the income tax scales.

One should be careful, however, in adding up all these additional revenues. Some of them may not come around, or would be less than expected, if a measure intended to yield some other revenue is adopted.

In other words, the policies which would yield these revenues may not be consistent with each other. For example, the detrimental effects on trade of the SCT reform may prevent the achievement of additional revenues associated to the import tax reform.

In such a case a decision has to be taken concerning which policy to choose. An alternative would be to delete the part of the SCT reform related to imports, keeping the rest of the reform (which would then be essentially reduced to increases in the excises on alcoholic beverages, including beer, and on tobacco manufactures).

Export taxes

Decree 18/90 introduced a temporary tax on exports, at the rates of 9% on non-traditional exports and 12% on traditional exports. These rates were intended to be reduced over time until their total extinction on the first of July of 1991 for non-traditional exports, and at the end of that year for traditional exports. The deadline was moved forward for non-traditional exports, so that they will not be subject to this tax as of January first, 1991.

This deadline change, as well as the phasing out of the tax on traditional exports throughout 1991, are the reasons why the revenue of the temporary tax on exports is expected by the government to fall, in real terms, 20% between 1990 and 1991 (from almost 103 million to 82.3 million lempiras of 1988).

This may, however, be an underestimate of the true revenue loss in 1991 with respect to 1990, because losing 9% on 8-month's exports of non-traditional goods valued at 200-250 million lempiras of 1988 entails a loss of 20 million lempiras of 1988. But the revenue loss involved in phasing out the 12% tax on traditional exports (approximately 40 million lempiras of 1988) still has to be added to the above estimate. The overall estimate of the reduction in the revenue of the temporary export tax is, then, from almost 103 million in 1990 to 43 million in 1991.

The overall revenue result can be observed in Table 9. It gives a bleak outlook for the years 1991 onwards, after the revenue of the temporary tax of decree 18/90 starts to decline.

The adjustments performed in this report to the government's estimates of taxes on international trade for 1991 (540.7 million lempiras of 1988, according to Table 1), lead to an adjusted revenue of such taxes for 1991 of 480.2 million (i.e., 404.6 plus 75.6 million, according to Tables 8 and 9). This revenue is 11% less than the government's estimate and it is roughly the same, in real terms, as the revenue in 1990.

Table 9 shows that the export tax on coffee is not expected to yield any revenue in 1990 and 1991; furthermore, the export tax on bananas would yield a declining revenue in real terms, simply because its nominal value is constant regardless of inflation, changes in the exchange rate, or changes in the international price of bananas.

As a consequence, all export taxes will yield in 1991 approximately one-half of their 1990 revenues in real terms. Moreover, the temporary export tax of decree 18/90 will yield almost 60% of all taxes on exports in its final year, 1991, and a substitute source of funds will then have to be secured.

The rate of the export tax on coffee depends on the international price of coffee. According to decree 175/87 the rate is zero whenever the price per 60-kilos bag is less than the critical value of 200 lempiras (one hundred dollars of the time). After the change in the exchange rate of March 1990, the critical

Table 9. Export Taxes Revenue in Real Terms
(All figures are expressed in million Lempiras of 1988)

	1988	1989	Jan-Aug 1989	Jan-Aug 1990	1990	1991
Bananas Export	36.3	31.7	21.5	17.6	26.2	25.0
Coffee Export	22.2	17.7	17.3	0.4	0.6	0.0
Other Exports	3.3	3.2	1.6	4.4	6.6	7.6
Temporary Decree 18/90	-	-	-	68.6	102.9	43.0
Total	61.8	52.6	40.4	91.0	136.3	75.6

value in lempiras was doubled so that it remains roughly equal to one hundred dollars.

The tax on banana exports consists of one lempira per 40-pounds box on the first 38.5 million boxes exported (duly distributed among the exporters). Beyond this critical value, the exports of banana is tax-free. This is a procedure to prevent the tax from altering the market incentives in the margin, hence it resembles a perfectly lump-sum tax whenever exports exceed 38.5 million boxes.

When this tax was imposed (1958), one lempira was equal to half a dollar. Unlike the case of the coffee export tax, when the exchange rate was changed (March 1990) the rate of the banana export tax was not changed. It automatically became one-quarter of a dollar, and will eventually disappear in real terms at the same speed as the rate of inflation.

It is inefficient to let a lump-sum tax be quickly eroded by inflation while other, more distorting, taxes are being kept on an ad-valorem rate. To restore the tax rate at its original value of half a dollar would, assuming an exchange rate of 5 lempiras per dollar, increase revenue by 57.75 million lempiras in 1991; i.e., 36.6 million lempiras of 1988.

This would fill in 1992 about 85% of the gap left by the extinction of the temporary tax of decree 18/90, in a much less distorting way.

The proposed change in the rate of the banana export tax would make its revenue in 1991 equal to 61.6 million lempiras of 1988, still less than its values for 1980 and 1981 (77.9 and 64.8 million lempiras of 1988, respectively), and about equal to its value for 1982 (59.5 million lempiras of 1988).

It may not be legally feasible to change the rate of the banana export tax in 1991 because the latest reform to the banana export regime, which took place in 1987 (decree 62/87), established that the regime cannot be changed until January first, 1992. Therefore, the change suggested in the previous paragraph should be discussed and decisions be taken in the next twelve months for implementation precisely when the tax of decree 18/90 needs to be replaced.

Despite of the revenue difficulties, it is advisable to have taxes on international trade (both, on exports and imports) follow a declining trend. These taxes are very detrimental to competitiveness and efficiency in the allocation of resources, and the country should get rid of them as soon as possible.

The concern about loss of revenue is, however, understandable but this difficulty should be overcome by other, less distorting,

taxation alternatives such as the lump-sum banana export tax, or increases in the rate of the sales tax.

V. Summary and Recommendations

Ninety-five per cent of tax revenues in Honduras have been generated by three sets of taxes during the last decade: Taxes on international trade, sales and excise taxes, and the income tax. This report reviewed their recent performances and estimated 1991 revenues.

Each set of taxes contributed slightly less than one-third of total revenue until 1989. The income tax revenue lagged behind the other two in 1990, and even more so in 1991, according to Table 1.

The estimates in this report (Tables 6 and 7), on the other hand, come out with a 1991 income tax revenue 16% higher, in real terms, than the government's estimates upon which Table 1 is based.

According to the estimates of Tables 6 and 7, the income tax revenue would be 100 million lempiras of 1988 higher in 1991 than in 1990. This difference would only be 43 million if one looks at the numbers in Table 1.

The sales & excise taxes revenue in 1991, according to the government's estimates shown in Table 1, would be 520 million lempiras of 1988; that is to say, 79 million more than the adjusted revenue estimate of 441 million for 1990.

The estimates of the revenue effects of the SCT reform, 75 million for 1991, suggest that the above result needs to be corrected; it would imply that only 4 million would be the result of using the new sales tax rate during 12 months in 1991, instead of 9 months as in 1990. Actually, the use of the new rate during a full year is likely to yield around 15 million lempiras of 1988, rather than 4 million (given a revenue at the old rate of 39 million).

This means that the combined revenue of sales & excise taxes would be, in real terms, 90 million more in 1991 than in 1990, instead of 79 million. It also means that the government's estimate of 520 million lempiras of 1988 should be adjusted to 531 million (a minor correction of 2%).

The international trade taxes revenue in 1991 has been estimated at 480 million lempiras of 1988, only 15 million more than in 1990, and 60 million less than the government's estimate shown in Table 1.

To summarize, the estimated change in revenue between this year and the next is given in Table 10.

Table 10. Estimated Tax Revenues 1990/91 in Real Terms
(All figures are expressed in million Lempiras of 1988)

	Income Tax	Sales & Excise Taxes			International Trade Taxes		Other Taxes
		Sales	SCT	Other	Imports	Exports	
1990	306	260	11	170	330	136	50
1991	405	275	86	170	405	76	72
Change	99	15	75	0	75	-60	22

Sources: Tables 1, 2, 3, 6, 7, 8 and 9.

Ignoring the change in "Other Taxes" (22 million) because they are supposed to arise from administrative improvements, of dubious implementation, the rest of Table 10 predicts a revenue increase in real terms of 204 million lempiras of 1988, or 16% of 1990 revenue.

If this chapter's estimates in Tables 6 and 7 are considered too optimistic, and are consequently replaced by the government's estimate of an additional income tax revenue of 43 million instead of 99, then the overall revenue increase would be 148 million.

The replacement of any other of this chapter's estimates by the corresponding government's estimate would make the overall revenue increase in 1991 even bigger.

Therefore the most conservative estimate, almost certainly an underestimate, of the overall revenue increase in 1991 is 148 million lempiras of 1988.

Given this result the policy options are:

- 1) Public expenditure could be increased;
- 2) Some of the revenue raising measures discussed in this report could be deleted or new improvements in tax policy could be considered; and/or
- 3) The overall public sector deficit could be reduced.

According to the Departamento de Estudios Economicos of the Central Bank, the overall public sector deficit as of June 1990 amounted to 100 million current lempiras; that is, 73 million lempiras of 1988. If this figure is interpreted as an indication of an annual deficit of about 146 million lempiras, the additional revenue indicated above would be approximately enough to erase the deficit, in the absence of additional public expenditure.

The option of increasing public expenditure would probably be inconsistent with the structural adjustment program currently under way in Honduras, but in any case its analysis is beyond the scope of this study.

Finally, the alternatives of changing taxes, already existing or proposed, have to be considered:

First, to drop the STC reform. This would entail a loss of revenue in real terms of about 75 million lempiras of 1988; that is, approximately one-half of the additional revenues in 1991. The reasons to avoid this reform have been already spelled out in this report.

Second, to abolish the surcharges in the income tax to firms, with a loss of revenue in 1991 of approximately 21 million lempiras of 1988 (see Table 7). This would pave the way towards the adoption of an expenditure tax, and would reduce the abnormality of having a progressive income tax on firms.

Third, to increase the sales tax rate to 10%, which would increase 1991 revenue in approximately 64 million lempiras of 1988.

Fourth, to repeal the temporary export tax on both, non-traditional and traditional exports on January 1st, 1991. This would entail a loss of revenue in 1991 of approximately 43 million lempiras of 1988 (see Table 10).

Fifth, to adjust the lump-sum tax on banana exports to a value per box equal to half a dollar, as it was when first implemented. To preserve the lump-sum nature of the tax, only the first 38.5 million boxes exported would be taxed with an additional revenue of 36 million lempiras of 1988. If this is considered much too tough on the banana exporters, a "soft variety" of this alternative would be to tax only the first 30 million boxes exported (in such a case, the additional revenue would only be 23 million lempiras of 1988).

One can build different packages by combining the alternatives above. For instance, the adoption of the second and third alternatives only would yield a revenue increase of 43 million (i.e., 64 minus 21), which can be added to the 148 million to give a total of 191 million to reduce the deficit and/or expand public expenditures.

The adoption of the first three alternatives only would produce a fall in revenue equal to 32 million lempiras of 1988 (i.e., 75 plus 21 minus 64). After deducting this amount from the initial 148 million, what is left to reduce the deficit and/or increase public expenditure shrinks to 116 million lempiras of 1988.

The combined revenue effect of the second, third and fourth alternatives would be neutral (21 plus 43 minus 64 equals zero), so that the whole amount of 148 million would still be available to reduce the deficit and/or expand public expenditure. Another package with zero effect on revenue would be the second and the fifth (in its soft variety) alternatives.

The adoption of all five alternatives simultaneously would reduce revenue by 39 million (or 52 million if the fifth alternative is adopted in its "soft variety") below the initial value of 148 million.

None of the proposed packages would lead to total tax revenues in 1991 less than in 1990. Even in one adopts the first, second and fourth alternatives only, the loss of revenue would be 139 million, still less than the initial value of 148 million.

The recommended course of action would be to adopt all five alternatives simultaneously (the fifth alternative in its soft variety), which would still leave total tax revenues in 1991 about 100 million lempiras of 1988 above the total tax revenue of 1990.

These 100 million in real terms constitute a convenient safety net in case some of the assumptions or estimates in this chapter fails to materialize. This is an unlikely event, simply because the starting point of the calculations above is, on purpose, an underestimate of additional revenues for 1991, as explained in the discussion surrounding Table 10.

Chapter 4. Concluding Remarks

This review of three cases of tax reform in Ecuador, Chile and Honduras allows us to draw several conclusions and establish some comparisons.

All three countries have VAT, or VAT type taxes, income tax, taxes on international trade, and taxes on specific goods.

In all three countries the income tax generates rather small revenues: From less than 2% of GDP in Ecuador to at most 4% of GDP in Honduras, the Chilean income tax being in between. While the Ecuadorian reform will improve the quality of the income tax (reduce distortions, improve equity, etc.) at a relatively small cost of reducing revenue by about 0.4% of GDP; the other two reforms entail revenue increases of about 1% of GDP for Honduras and 2% of GDP for Chile, which still do not make the income tax the single most important source of revenue in these countries.

This role is played by the VAT in Chile with revenues of about 8%-9% of GDP; by the oil-related taxes and by the tax on mercantile transactions, TMT (a VAT type tax), in Ecuador; and by the taxes on

international trade in Honduras, where the sales tax (a VAT type tax) only yields less than 2% of GDP.

Some concern has been expressed in all these countries about an allegedly regressive distributive effect of VAT or VAT type taxes. Consequently several goods, mainly basic foodstuffs, are permanently considered for exemptions. The problem is that such a legitimate purpose is badly served by the exemptions for they are not selective and make foodstuff cheaper for everyone, not just the poor. It would be useless to sacrifice a good tax instrument in search of a redistributive effect which such sacrifice cannot provide anyway.

Redistributive purposes will be better served by having a distortion-free VAT collecting as much revenue as possible, without exemptions, to provide maximum financing for the more efficient redistributive instrument: progressive public expenditure.

Both, the Ecuadorian and the Chilean income taxes have special regimes for certain tax payers who are taxed on their presumptive income. While this is a common procedure when the tax administration is weak, one should be aware that the proliferation of presumptive bases results in arbitrariness and makes the tax administration more, not less, difficult besides being detrimental to economic efficiency.

The Honduran income tax has a different peculiarity: Business income is subject to progressive rates.

All three countries have taxes on specific goods on top of the VAT, or VAT type taxes, which also strikes these goods: Ecuador taxes beer, cigarettes, soft drinks and liquor to raise revenues of about 1% of GDP, less than the revenues of either TMT, the income tax or the taxes on international trade. Chile taxes fuel and tobacco to raise revenues of about 2.5%-3% of GDP, almost the same magnitude as the revenues from either the income tax or the taxes on international trade. Honduras taxes about forty goods with the so-called excise and selective consumption tax to raise revenues approximately equal to the sales tax (roughly 2% of GDP), and less than either the income tax or the taxes on international trade.

Endowed with their respective tax instruments, these countries addressed different issues. Ecuador was concerned with the flexibility of non-oil revenues. Chile was concerned with the financing of the additional public expenditures associated to the change of political regime. Honduras had just reformed much of the tax structure and was trying to ascertain the revenue outcome of the reform. This study reviewed the reforms undertaken in these countries and suggested alternative measures to deal with these issues.

The reforms put forward in Ecuador to face an eventual drop in

oil revenues will be able to yield, according to the calculations in this study, approximately 0.3% of GDP. The fact that this figure is not nearly enough to compensate any significant fall in oil revenues does not diminish the importance of the reforms. These would produce a more rational and equitable tax system, with less distortions in the allocation of resources, less vulnerability to tax loopholes, and capable of yielding a little additional revenue.

The proposed reform considered in Chile in 1990 consisted of (1) taxing company profits; (2) hitting distributed profits with another tax, half of which can be used as a tax credit by the share holders in their personal income tax statement; (3) repealing all exemptions to the "Global Complementario" based on personal savings; and (4) changing the brackets so as to make the tax more progressive. The combined revenue effect of these four measures amounts to an increase of revenue equal to approximately 2.13% of GDP, more than half of it by reversing the January 1989 reform.

Alternatively, if one wants to keep the January 1989 reform, the following set of measures could be adopted: (1) To replace the Renta Presunta system in agriculture, minning and cargo transportation by the standard system in which tax payers declare their actual incomes; (2) To replace the current procedures to overcome the problem of over-exploitation of fisheries, by auctioning off fishing licenses at competitive prices; (3) To increase the VAT rate to 20% and to take measures to further reduce VAT evasion.

The revenue effects of these alternative measures have been estimated as 0.6%-0.7% of GDP; 0.5% of GDP and 1.5%-2% of GDP, respectively. These amount to 2.5%-3% of GDP, which is more than the other proposal without giving up the features that make the Chilean tax system one of the best in Latin America.

The revenue effect of the Honduran reform of 1990 is estimated to be an increase of about 1.5% of GDP. Further reforms have been proposed in this study to improve the whole tax system. These consist of (1) dropping to STC reform; (2) abolishing the surcharge in the income tax to firms; (3) Increasing the sales tax rate to 10%; (4) repealing the temporary export tax on traditional and non-traditional exports; and (5) adjusting the lump-sum tax on banana exports to half a dollar per box on the first 30 million boxes exported.

All these additional measures would reduce the extra revenue by one-third, to only 1% of GDP, but will produce a tax system more capable to avoid distortions in relative prices, better suited to preserve the relative incentives provided by the markets to the different activities in the economy.