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Argentina

Tax Policy for Stabilization and Economic Recovery

November 8, 1989

Latin America and the Caribbean Region
Country Operations Department IV

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CURRENCY EQUIVALENTS

Currency Unit - Austral

Official Exchange Rate, November 1, 1989

US\$1.00	-	A\$650
1.00 A\$	-	US\$0.0015

Parallel Exchange Rate

US\$1.00	-	A\$710
A\$1.00	-	US\$0.0014

FISCAL YEAR

January 1 - December 31

GLOSSARY

CUIT	Codigo Unificado de Identificación Tributaria (Unified Taxpayer's Identification Code)
DGI	Dirección General Impositiva (General Tax Directorate)
EEC	European Economic Community
FONAVI	Fondo Nacional de Vivienda (Housing Fund)
GdE	Gas del Estado (National Gas Company)
OECD	Organization for Economic Cooperation and Development
VAT	Value-Added Tax
YPF	Yacimientos Petroliferos Fiscales

PREFACE

This report is based on the findings of a World Bank mission that visited Argentina between April 17 and May 5. The mission comprised the following members:

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The report benefitted from the studies produced by the Tax Policy Group (Public Sector Technical Assistance Loan, PSTAL AR-2712), under the direction of Juan Carlos Gomez-Sabaini. Particular thanks are due to Viviana Durán. Research assistance was provided by Gyózo Gabor and Roberto Manrique. Invaluable secretarial support was given by Lien-Hiep Nguyen and Francine Coscolluela.

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COUNTRY DATA - ARGENTINA

AREA	POPULATION	DENSITY a/	
2766.9 thous. sq.km.	32.0 million (1988) 1.5% annual growth	10.7 per sq.km 16.9 per sq.km of arable land	
POPULATION CHARACTERISTICS a/		HEALTH b/	
Crude Birth Rate (per 1000)	23.6	Population per physician (thous.)	0.5
Crude Death Rate (per 1000)	8.9	Population per hospital bed (thous.)	0.2
Infant Mortality (per 1000 live births)	34.4		
INCOME DISTRIBUTION b/		DISTRIBUTION OF LAND OWNERSHIP	
% of national income, highest quintile	50.3%	% owned by top 10% of land owners	..
% of national income, lowest quintile	4.4%	% owned by smallest 10% of land owners	..
ACCESS TO SAFE WATER (1980)		ACCESS TO ELECTRICITY (1989)	
% of population - urban	65%	% of population	95%
% of population - rural	17%		
NUTRITION a/		EDUCATION	
Calorie intake as % of requirements	119.2%	Adult literacy rate % (1980)	95%
Per capita protein intake (grams per day)	99.7	Primary school enrollment % a/	100%

GNP PER CAPITA IN 1988 c/ 2537

GROSS NATIONAL PRODUCT IN 1988 d/	%	ANNUAL GROWTH RATES (% constant prices)				
	US\$ Mln. of GNP (current prices)		1970-75	1975-80	1980-85	1988
GNP at market prices	75620.6	100.0	2.9	1.8	-3.4	-0.7
Gross Domestic Investment	10095.4	13.4	1.9	4.4	-16.2	-4.7
Gross National Savings	7450.2	9.9	0.5	2.0	-13.8	29.9
Current Account Balance	-2639.2	-3.5				
Exports of Goods & NFS	10337.3	13.7	-4.7	14.1	5.2	58.6
Imports of Goods & NFS	7849.4	10.4	0.6	13.3	-13.0	-4.5

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1988

	Value Added (constant prices)		Labor Force e/		V.A. Per Worker
	US\$ Mln.	% of Total	Thousands	%	US\$
Agriculture	10897	15.2	1370	12.0	7951.0
Industry	24291	34.0	3586	31.4	6773.6
Services	36356	50.8	6464	56.6	5624.3
Total GDP at Factor Cost	71544	100.0	11421	100.0	6264.4

GOVERNMENT FINANCE f/

	Consolidated Nonfinancial Public Sector g/			Central Government		
	Aust. Mln.	% of GDP		Aust. Mln.	% of GDP	
	1987	1987	1983-87	1987	1987	1983-87
Current Revenues	54661	30.8	35.1	18588	10.5	9.1
Current Expenditures	59995	33.9	37.8	20527	11.6	8.0
Current Balance	-5334	-3.0	-2.7	-1939	-1.1	1.1
Capital Expenditures	9102	5.1	7.4	551	0.3	0.4
Surplus h/	-18079	-7.4	-9.3	-12723	-7.2	-8.9
External Financing (net)	7411	4.2	1.8	6680	3.8	1.8

a/ For the period 1982-1985.

b/ For the period 1970-1976.

c/ Current US dollars. Estimated using Bank Atlas methodology.

d/ Current US dollar estimates, calculated from data in constant 1970 australes.

e/ Calculated by applying 1980 census shares to 1988 population.

f/ Executed budget estimates in current australes.

g/ Excludes provincial governments.

h/ Takes into account all revenues and expenditures.

EXECUTIVE SUMMARY

1. This study analyzes the Argentine tax system to provide an overview and diagnosis of its problems, both from a macroeconomic and efficiency standpoint, as well as to outline key reforms. The reform measures in tax legislation, tax expenditures, and administration discussed in Section E of this summary can contribute greatly to the stabilization of the economy and the process of structural adjustment into the 1990s.

A. Macroeconomic Instability and the Tax System

2. The tax system plays a key role in providing adequate conditions for macroeconomic stability and growth. Absence of sufficient revenue buoyancy is bound to lead to increased recourse to the inflation tax, unless growth can occur without increasing the claims of the public sector on overall resources. Although the size of the Argentine public sector has been shrinking in recent times, fiscal disequilibria have persisted, chiefly due to the crisis in the tax system. After reaching their highest level in 1986, revenues fell sharply in relation to GDP both in 1987 and 1988.

3. This instability in tax revenues in the face of macroeconomic instability partly reflects technical factors, such as payment lags, but it is also the consequence of rational choice on the part of the taxpayer in the absence of sufficiently strong disincentives against evasion, and of the contradiction of tax policy. The legal system has changed considerably over the last 10-15 years, bringing the average collection delay to less than a month. Yet, even this short delay can cause substantial revenue swings if inflation is high (the Olivera-Tanzi effect). In addition, there is evidence that the actual delay is longer than the legal one; the latter probably reaching the physiological limit under the present technology.

4. The hyperinflation outburst plunged tax revenues to a historical low. The early success of the stabilization effort, together with the adoption of ad-hoc revenue measures, has resulted in a partial turnaround of tax revenues, thanks also to the operation of the Olivera-Tanzi effect. However, resumption of growth and achievement of medium-term structural adjustment would be unlikely unless national revenues increase over and above levels of the mid-1980s, to around 23 percent of GDP, even under assumptions of strong adjustment in public enterprises (possibly with a substantial amount of privatization). Other measures needed include reform of the social security system, new and clearly defined rules for revenue sharing with the provinces, and substantial international support.

5. This task will require major adjustments, as statistical evidence points to a weakening of the link between GDP growth and tax pressure in the late 1980s, which is the result of increased tax expenditures and the arbitrary nature of tax policy in recent years. The proposals for reform of the VAT, income and energy taxes submitted by the Government to Congress in October, that go along the lines discussed further in this report, constitute a positive first step. They now need to be successfully implemented and followed by continued administrative reform and by further measures regarding tax expenditures.

B. The Tax System: Between Modern Taxes and Tax Handles

6. The deterioration of the tax system from a macroeconomic standpoint is partly the consequence of the worsening of its quality. This is evidenced in:

- The increasing importance of tax exemptions, particularly those attributable to the regimes of industrial promotion, Tierra del Fuego and the incentives to nontraditional exports. These subsidies, which topped 6 percent of GDP in 1987, and were probably higher in 1988, have resulted in the stimulation of low-value-added activities, in an inefficient localization of investment, as firms moved--at least on paper--their plants to peripheral areas of the country only to take advantage of tax exemptions, while overall investment rates have been at their historical low. Furthermore, the industrial promotion, by providing a vehicle for increased fraud and abuse, has contributed to the progressive paralysis of the tax administration.
- As a result of the extension of these measures that reduced revenues and undermined the main "modern" taxes (including VAT, income, and wealth taxes), tax policy has progressively been skewed towards the adoption of "tax handles," highly distortive, variable, and opportunistic tax measures that are the ad hoc response of the legislator and the executive power to the decline in traditional tax revenues. These handles have ranged from taxes on financial transactions, surcharges over consumption of intermediate goods, to open or disguised export taxes.

7. In sum, a contradictory legislative process has contributed greatly to the deterioration of the tax system by simultaneously embarking on broad-range reforms and legislating tax exemptions and ad hoc revenue measures that have only added to the complexity. The worsening economic crisis led to the adoption of a series of measures that partially reversed some of the more questionable initiatives of the past years, particularly in the area of industrial promotion. However, progress is still tentative and needs to be consolidated in the months ahead.

C. Tax Administration

8. Administration is the weakest link in the Argentine tax system. The gap between the legislation of modern taxes and the inability of the tax administration (DGI) to make them work has been one of the main causes of the deterioration of fiscal revenues and the legislation of tax handles. What is more worrisome, the performance of the administration has worsened over the years, thus turning the reform of DGI into a high priority.

9. The legal system has contributed to the reduced efficiency of tax administration. The instability brought about by the simultaneous recourse to tax handles and tax expenditures has been compounded by a generalized attitude of leniency towards evasion. In addition, procedures have been designed inefficiently, and excessive delegation of regulatory responsibility has resulted in volatility and capriciousness in administration. The legislature has periodically resorted to tax amnesties (twelve times since 1970). Besides paralyzing the inspection and control function of the tax agency, amnesties generate expectations of future leniency towards evading taxpayers, and lead to reduced voluntary compliance.

10. The tax agency itself has been subject at the same time to excessive administrative volatility (e.g., frequent changes in its own bylaws) and insufficient or misguided reforms. The agency lagged in adopting modern technologies and was generally unable to develop the systems to use them once technical means were put at its disposal. In addition, the most recent reorganization, while basically sound in nature, was carried out by stressing excessively the role of the central tax authority in the analysis of audit information, which hampered operations at the periphery.

11. The administration of DGI's personnel also has caused problems. While the number of employees has increased over the years to over 10,000, its functional distribution does not seem to reflect appropriate priorities. Little or no attention has been paid to the development of internal control and audit, which are crucial for an administration of this nature. As a result, links between top management and the operative level are weak, and planning is haphazard. Motivation of the work force has been a problem, with insufficient attention paid to development and training of personnel; also, union agreements have led to a compression of pay differentials in the agency. Management has been compelled to condone unacceptable work practices, which have lowered productivity and decreased the prestige of the agency. This also has been encouraged by the politicization of top managerial positions with excessive turnover and loss of executive continuity.

12. Agency reform has been underway in the past few years despite numerous setbacks. It must now assume a high priority on the Government's agenda, since it would otherwise be highly unlikely to implement the needed reform of the tax system. The main recommendations for reform are discussed below.

D. National-Provincial Fiscal Relationships

13. Provincial deficits have contributed in the past to overall public sector deficits. Provincial expenditures have tended to increase faster than available resources, partly because decentralization of several public functions has not been accompanied by a process of revenue decentralization or by a strengthening of the provincial revenue base. As a result, increased strain in the relations between central and provincial governments has surfaced. While overall transfers from the central administration to the provincial government (as a percent of GDP) nearly doubled in the last 20 years, considerable instability in revenue-sharing mechanisms is a problem of growing concern, that was evidenced by the crisis in the national tax system of 1988-89.

14. The most recent revenue sharing (coparticipation) law, approved at end-1987, represented an important step forward, as it restored transparency to a system that had increasingly been characterized by bilateral negotiating. However, although the law increased the provinces share in total revenues it failed to address several other problems: e.g., rational criteria for revenue distribution among the provinces, disincentives against free-ride behavior, and stability of the taxes subject to revenue sharing.

15. A lasting solution to national-provincial fiscal problems, however, will also require increased tax effort by the provinces, which enforce a variety of local taxes providing an important share of revenues. While these local taxes have undesirable economic properties (e.g., the cascading effect of the provincial gross sales tax), there appears to be room for a substantially greater share in provincial revenue with sustained administrative improvement and determined political willingness. This would occur principally by updating cadasters, adopting better management control techniques in provincial tax agencies, and strengthening coordination and information sharing with the national tax agency.

E. Tax Reform: Main Lines of Action

Objectives of the Reform: the Tax System for the 1990s

16. The moment is ripe in Argentina for a comprehensive tax reform to restore buoyancy to revenues, strengthen modern taxes, and drastically reduce the complexity and lack of transparency of the system. The tax reform must have two main objectives. First, it must increase overall revenues to levels compatible with resumption of investment and growth and a realistic servicing of internal and external debt obligations. Second, it should lead to a reduction of the economic inefficiencies and the drawbacks induced by the progressive loss of importance of modern taxes and the proliferation of tax handles. Accomplishing the first target would require designing a reform incorporating substantial increases in revenues above the 1987-88 performance. During that period, real national revenues fell below 20 percent of GDP; a tax reform compatible with growth would aim to increase this ratio by 3 to 4 percent of GDP. This target, albeit ambitious, is not out of line with similar countries' tax efforts, and, more importantly, with Argentina's own tax effort in the early 1980s.

17. The second objective will pose the greatest challenge. Restoring high revenues elasticity and reducing economic distortions will imply not only additional taxation on sectors that are now shielded in one way or the other, but also the elimination of several specific taxes that are earmarked to funds generally catering to special interest groups. Continued progress in the reform of the tax administration is also a precondition for success. For this, the opportunity posed by the present state of economic emergency is perhaps unique and should be exploited to its fullest extent.

18. In synthesis, the main recommendations for the Argentine tax system of the 1990s are as follows:

- All revenue should accrue from a small number of taxes, with the broadest possible base and moderate rates

(with the exception of cigarettes, oil and energy products and alcohol, which would be subject to specific taxes with high rates). All other taxes would be abolished.

- The core of the system would be the income tax, a national property tax, and a generalized VAT. In their revamped form, they would contribute roughly one-half of national revenues. The income tax at the personal level would be applied on a considerably larger base than it is today, with one or very few tax rates; maximum use would be made of withholding provisions. At the corporate level, a restructured income tax would be supplemented by an alternative minimum tax, levied on the basis of companies' capital or assets. The VAT would be generalized to all goods and services, at a uniform rate, which could be the present 15 percent or the 18 percent prevailing until August 1988. Provisions could be implemented for a taxation of value added in financial services.
- Additional revenues would accrue from a moderate, uniform import duty, and from the above-mentioned specific taxes on tobacco, alcohol, and energy products. The import duty revenues would also be boosted by the total elimination of quantitative restriction, as part of the process of opening of the economy endorsed by the Argentine government. The import duties and the restructured specific taxes could contribute a further quarter of national taxes.
- Social security contributions would provide the remaining revenues. It should be stressed that the entire social security system is in need of reform, and the levels and modalities of both contributions and benefits would need to be re-examined jointly.
- Earmarking of revenues would, at full effectiveness of the reform, be eliminated, with the exception of social security contributions. In the interim period, existing special funds would either be reduced through consolidation (as in the case of the energy sector), or would be granted a contribution related to the previous earmarked funds, from general revenues.
- As the reform would modify the mix between coparticipated and non-coparticipated revenues, the coefficient of coparticipation should be modified accordingly.

19. In order to deal with the economic emergency, the Government took several ad-hoc measures between June and August, including the imposition of export taxes, on taxes on financial assets and on the first sale of agricultural goods. While these measures contributed to a further worsening of the situation,

temporary, to be replaced by a comprehensive tax reform. In addition, the economic emergency law partially suspended tax exemptions under the industrial promotion regime, although only for a limited period of time. In late October, the Government introduced to Congress a proposal for a comprehensive reform of the tax system, that adopts several of the recommendations discussed below. In essence, the proposed reforms consist in a broad generalization of the VAT (with however a reduction in its rate to 13 percent), the imposition of a minimum alternative income tax on corporations, based on assets, a mild reduction in minimum exempted incomes for the personal income tax, a lowering and reduction of rates of the income tax, a modification of the excise tax rates, and a lowering of the tax on checks.

20. While the proposed law represents a break with the legislation of tax handles, it by no means exhausts the reform agenda for the nineties. The tax system needs to be further simplified, while several adjustments will undoubtedly have to be made to the corporate income tax. Administrative reform must be speeded up and kept at a high priority to avoid the perverse cycle observed in the past. Finally, tax expenditures still await a more permanent solution than the one dictated by the economic emergency law. Implementation of the December 1988 control measures (a task that poses an administrative challenge) is a precondition for successful tackling of this problem. The authorities should however continue exploring the possibility of arriving at an outright abolition of outstanding benefits, and the current suspension of the granting of new benefits should be sustained. In addition, the principle should be clearly established that any approval of tax expenditures should be part of tax legislation and not separate from it.

Strengthening of Modern Taxes

21. The main priority for fiscal reform that needs to be maintained is a substantial strengthening of modern taxes, i.e., income and VAT. Sizeable revenue increases from these taxes through their generalization and the abolition of exemptions and loopholes would permit a reduction in the number of taxes and tax rates. High revenue buoyancy would be fostered as well. Considerable revenue increases and efficiency also could be achieved through a comprehensive reform of energy sector taxation.

22. The income tax takes a disproportionately low share in total taxation in Argentina as a result of the design of the legislation, the application of inappropriate inflation-adjustment mechanisms, the erosion due to industrial promotion, and high evasion. Giving this tax a greater role in the future would require achieving a degree of popular consensus, so that the tax base can be increased and special exemptions abolished. The 1985/86 tax reform moved in this direction; however, in the end, it was ineffective. To be successful, a reform of the income tax would have to: (i) deal with the problems posed by the industrial promotion law provisions; (ii) substantially increase the tax base; (iii) use withholding provisions as much as possible to minimize Olivera-Tanzi effects and the difficulties of administration; (iv) revise the provisions of the tax that make it unstable in the face of inflation; and (v) eliminate the provisions that act as disincentives for foreign investment and use of risk capital.

23. Provisions of the Industrial Promotion Law. Substantial revenue gains can be expected from taking constructive measures to eliminate the two main sources of erosion of the income tax from industrial promotion: tax deferrals for individuals and investment deductions for corporations. In the case of personal deferrals, a unit should be established to track down contributors enjoying this benefit. The possibility of requesting a guarantee to protect the value of the remaining tax liability should also be explored. In the case of corporations, DGI monitoring of compliance and checking for fraud must be strengthened. DGI should withdraw benefits from enterprises not in compliance with the law.

24. Personal Income Tax Provisions. The adoption of worldwide income taxation would allow the inclusion of interest on external-currency bonds in the base. The income tax could further be extended to government bonds and the price-adjustable instruments, as well as to any dollar-based savings account that might be introduced in the future.

25. Minimum Income Provisions. The level of minimum taxable incomes in Argentina appears excessive, since it results in the shielding of large sectors of the middle class. A substantial reduction in minimum incomes must be envisaged if the personal income tax is to play a meaningful role in the tax system. To cushion the impact of lower minimum taxable incomes on lower-paid workers, the reform, if sufficient revenues were to accrue, could combine increased income taxation with somewhat reduced rates for social security taxes.

26. Withholding Provisions. Strengthening the withholding system is a precondition to accommodate a larger number of taxpayers and to reduce exemptions. Since most firms have the administrative capacity in place for handling withholding of social security taxes, the same vehicle could be used for this purpose. Unlike the present system, however, the withholding should allow identification of which category of taxpayers are paying the tax. Withholding should be extended to categories of taxable interest payments as well as payment of honoraria for professional services. Finally, both withholding and liabilities should be indexed for purposes of final settlement.

27. Tax rates in Argentina are not excessive by international standards. After the December 1988 measures are fully implemented, personal tax rates will vary between 6 and 35 percent; thus, the highest rate will not be considerably greater than the corporate income tax rate of 33 percent. Several arguments can be made, however, for further simplifying the rate structure, including the adoption of a proportional tax with a common rate for individuals and corporations. An increasing rate schedule complicates the administration of the tax in the presence of inflation, and might create substantial problems for the implementation of a generalized withholding system. A uniform rate of 25 percent would not produce a substantially different schedule of average tax burden than the current one; however, it would have the advantage of not requiring any further action for taxpayers whose incomes are subject to withholding taxes. Were a single rate not feasible, the rate structure should be simplified to at most three rates (10, 20, 30); it is important that the first rate be at least 10 percent, since it can be expected that a majority of revenues would accrue in that bracket.

28. Integration of Personal and Corporate Income Taxes. A uniform rate would also have the advantage of permitting a better integration of personal and corporate income taxes. The current integration scheme has many problems. The adoption of a uniform tax rate would allow the system to be simplified, either by granting a tax credit identical to the tax paid by the corporation (and imposing the declaration of dividends on a gross-up basis), or by exempting dividends altogether. The latter provision, however, would be appropriate only if the problems with the corporate income tax (and in particular the adjustment for inflation provisions) were resolved as well. It also would not be advisable to reinstate bearer shares.

29. Inflation Adjustment Mechanism. Evidence suggests that the inflation adjustment mechanism in place for corporations reduces the corporate tax liability excessively. Beyond the revenue consequences, this has compelled the legislators to suspend carrying forward tax losses, a measure that discourages investment of risk capital. A change in the inflation adjustment provisions in favor of full-fledged inflation-accounting (such as in the Chilean system) appears desirable. This would be complemented by a restoration of full loss carry-over to subsequent fiscal years. Besides improving horizontal equity, incentives to risk-taking and the prospective yield for the Treasury, the proposed reform would result also in reduced administrative and compliance costs for enterprises and for DGI, since the need to keep and audit two sets of accounting ledgers would be eliminated.

30. A strengthening of the value-added tax will play a pivotal role in restoring viability to modern taxes. Once again, a solution of the industrial promotion problem is a precondition for successful generalization and extension of the tax. The main recommendations in this respect, beyond those discussed below for energy taxation, are for an increased generalization in the application of the VAT, as well as for a re-examination of the simplified regimes. In particular:

- The VAT should be extended in principle to all services with the exception of those explicitly exempted. Professional services in particular should be subject to the tax at the general rate along with transportation services. Financial services involving fees should be taxed at the regular rate; other financial activities could be taxed through a tax on the interest spread, as currently is the case with several provincial governments.
- Agricultural products should also be included. A dual rate structure is not advisable in view of the administrative difficulties it generates; equity considerations should be dealt with through budgeted and targeted subsidies.
- The exemptions for pharmaceuticals and printing industry products should be removed, and alcohol and tobacco products, that are currently exempted from the base, should be incorporated.

- The exemption list should be simplified, possibly by renouncing the NCCA classification.
- The so-called simplified regime for small taxpayers, which has little to do with a VAT system, should be abandoned in favor of greater use of substitute taxpayer provisions, as originally implemented when the system was adopted.

31. Reform of the energy sector taxation offers opportunities for: (i) sharply increased economic efficiency; (ii) reduced complexity and increased transparency of the system; and (iii) increased net revenues for the Treasury and ultimately for the provinces. The latter effect, however, will only materialize if the pricing rules for the sector are modified to reflect economic considerations and prices are consequently not allowed to fall behind in real terms, as occasionally has been the case in the past, and if the current system of subsidies to the private sector and within the energy sector is dismantled or completely redefined. The forthcoming stabilization plan, together with the timing of the political cycle, offer opportunities for important advances in this respect.

32. On the basis of these considerations, a reform of energy sector taxation should incorporate the following recommendations:

- The VAT should be applied to all oil products and derivatives, and natural gas, at the standard rate, abolishing the current exemption for gasoline, kerosene, and gas oil. The VAT should be based on the commercial price.
- All the other specific or selective taxes should be unified into a single ad valorem tax applied to oil products, natural gas, and electricity, except for intermediate use of fuels and power by the power companies.
- The rates of the ad valorem tax should reflect desired contributions to two simplified energy and road funds reflecting user-charge considerations. Direct earmarking for the social security fund and the provinces should cease, to be replaced by funding from general Government revenues.
- YPF and the other energy companies should be subject to the corporate income tax as well as to a special windfall profit tax (in the case of YPF), which could be used for setting up a stabilization fund or for other purposes chosen by the Government.
- Royalties to the provinces should be reduced to levels compatible with international prices and comparative caloric content (Chapter VI).

Reform of DGI

33. Successful reform of DGI is unlikely unless the legal environment and tax policy practices change along the lines discussed in Chapter III. In particular, decreased legislative instability, simplification of the system through reduction in the number of taxes, a substantial reduction of tax expenditures, and the reform of the system of earmarked funds are all necessary conditions to improve DGI's external environment.

34. The main recommendations for DGI operational reforms are as follows:

(a) Procedural rules should be redefined, with operational efficiency as DGI's main objective. This reform should involve the design of processes that systematically lead to unambiguous conclusions, the elimination of randomness and subjectivity as determinants of the pace of the information flow, the integration of several taxes in one compliance form per taxpayer, the integration of processes that flow from and reinforce DGI's basic actions (i.e., those derived from fines and imprisonment), the reduction of procedural steps at the Fiscal Tribunal, and a well-conceived penalty system that cannot be used as a blackmail device by unscrupulous tax officials. The system should preserve and refine the inflation adjustment principles to update collections.

(b) The organizational design should be redefined at the operational level to retain at the center of the organization only planning, control, and support functions. No taxpayer should have any direct relationship with the central level of DGI. The regulatory decisions of the director of DGI should not be compulsory for taxpayers. (In most countries, this is a presidential prerogative.) DGI regulations should only serve as taxpayer guidelines. Tax-related operative capacities should not be granted to DGI's director but to the administrative units in charge of operational tasks. Division of work along operational lines should be designed in such a way as to explicitly allow DGI to build on the experience with individual taxpayers and develop an institutional memory.

(c) The DGI director position should be a fixed-term appointment. The subdirectors should not be political appointees. This recommendation is a key condition to stability of the tax system, particularly when the stability of the rest of the system is so fragile.

(d) Recommendations for the operational system follow the general lines of the reform program currently underway and are discussed in detail in the main text of the report.

Revenue Sharing and Provincial Finances

35. Proposals for modifying the current regime of coparticipation between national and provincial governments must take into account the continuing tendency to decentralize public expenditures in Argentina, and the much slower decentralization of revenues. As a consequence, the growing gap between provincial expenditures and revenues has been covered through a

higher participation in national revenues. Efficiency and equity considerations suggest that the decentralization of expenditures should not be reversed but possibly increased (in the areas of secondary education and mass urban transport, for instance). Also, a greater effort to decentralize revenues should be attempted. Modifications to the current co-participation approach would depend on the extensiveness of the decentralization initiatives.

36. Several problems are likely to be encountered. Collection of national taxes is concentrated in a relatively small number of provinces; in addition, the current co-participation law is strongly redistributive. Greater decentralization would then require a compensatory mechanism across provinces. One possible solution would envisage direct transfers among provinces, a system that has proven effective in the Federal Republic of Germany. Alternatively, the Government could be given exclusive jurisdiction over revenues collected in the Federal Capital to be used (wholly or in part) for redistribution to the poorer provinces, possibly against performance criteria in the execution of expenditures.

37. Previous attempts at modifying the taxation power of the provinces have been unsuccessful because of their poor design and the adverse consequences on provincial finances (the 1975 abolition of the provincial sales tax and the 1981 reform of the same tax). A prudent course towards decentralization might envisage the transfer to the provinces of a limited number of taxes with low collection costs and high revenue potential (e.g., taxes on financial assets or on interest on fixed-term deposits). These taxes are undesirable from several points of view; however, inasmuch as they continue to exist, the provinces might be given the power to administer them and collect surcharges on electricity and liquid fuels currently earmarked for them.

38. If a further decentralization of revenues were not possible, modifications to the co-participation system should incorporate the following points:

- Primary distribution should be maintained at the current levels.
- Taxes subject to co-participation should be clearly defined to avoid a repetition of the conflict over the fuel tax during 1988/89. The sharing coefficients would be adjusted to reflect the changed composition of taxes following a comprehensive tax reform.
- The operation of the law should be monitored and studied, in particular with respect to the appropriateness of the secondary distribution of revenues among provinces.

39. Reform in the arrangements at the national level, however, must not decrease the attention given to collection procedures in the

administration of local taxes. Overhaul of the provincial cadasters appears to be a necessary precondition for increased real estate tax revenues. Better information systems, management techniques, and billing procedures might also lead to increased revenues without any rate increases.

F. Organization of the Study

40. The policies summarized above flow from a diagnostic of the problems of the Argentine tax system viewed from both a macroeconomic and efficiency standpoint. These key reforms--in tax legislation, tax expenditures and administration--can contribute to the stabilization of the economy and to the process of structural adjustment into the 1990s.

41. Chapter I analyzes the two-way interrelations between macroeconomic instability and behavior of the tax system. Chapter II analyzes the main features of the tax system--structure, evolution, shortcomings--as well as the main lines of tax policy since 1984. Chapter III offers a diagnostic of the problems of the tax administration. Chapter IV makes detailed suggestions for reform of the tax system, particularly those that are likely to result in a strengthening of modern taxes. Chapter V analyzes the fiscal relationships between central government and provincial administrations.

CHAPTER I. MACROECONOMIC PERFORMANCE AND THE TAX FINANCING OF GOVERNMENT EXPENDITURES

1.01 The emergence of hyperinflation in Argentina during 1989 has dramatically altered the policy priorities for the short and medium term. A return to noninflationary conditions and to positive output growth will require fundamental reform in the public sector. A crucial role will be played by the tax system in the years to come; indeed, success of stabilization and structural adjustment hinges on the reversal of the taxation crisis. This Chapter analyzes the macroeconomic aspects of the tax system, reviews the role it played in the development of public finances in the past 15 years, and the burden it must carry in restoring macroeconomic stability. Section A reviews the contribution of the tax system to fiscal instability, and discusses some criteria to gauge the desirable evolution of aggregate tax revenues in the process of recovery and structural adjustment during the 1990s. Section B analyzes the macroeconomic determinants of tax system behavior focusing more specifically on the instability of the tax-GDP ratio as induced by the Olivera-Tanzi effect and the relationship between the growth of real GDP and tax pressure.

A. Fiscal Instability and Tax Revenues

Background: Fiscal Performance During 1970-1988

1.02 Argentina's recent history has been one of chronic macroeconomic instability and poor growth. The large budget deficits registered in the past 15 years, undoubtedly, are among the most important factors that have contributed to the steady deterioration of the economy. Shrinking local currency markets have reduced the scope for domestic borrowing by the Government; in turn, the latter was unable to increase domestic revenues in a way that would reverse a tendency towards recurrent, large budget deficits. Since 1972, the overall financing requirements of the nonfinancial public sector (NFPS) on a budget basis have been lower than 5 percent of GDP only in 1977 and 1986. Public finances deteriorated rapidly beginning in the mid-1970s (Table 1.1). High deficits, which topped 15 percent of GDP in 1975, developed partly as a result of the increase in inflation and the political upheavals during the second Perón Government. Progress was made in the second part of the 1970s, but could not be sustained; after a sharp reduction in the deficit during 1976 and 1977, a steady widening of NFPS financing requirements occurred, peaking at over 16 percent of GDP in 1983. The restoration of a constitutional government in December 1983 ushered in a period of fiscal consolidation, and the deficit dropped to a low of 4.3 percent of GDP by 1986. But lack of fundamental reform was revealed by the inability to reduce the deficit to levels compatible with economic stability. Indeed, the resurgence of inflation combined with the pressure of political obligations increased the deficit in 1987 to 7.4 percent of GDP, dropping slightly to 6 percent in 1988.

Table 1.1: ARGENTINA: NONFINANCIAL PUBLIC SECTOR ACCOUNTS, 1970-1988
(Percent of GDP)

	Average 1970-74	Average 1975-80	Average 1981-85	1986	1987 <u>a/</u>	1988 <u>a/</u>
<u>Current Account</u>						
Current Revenues	20.8	22.2	23.9	25.2	19.7	17.6
Tax Revenues	17.6	18.9	19.6	21.9	17.6	16.4
Non-Tax Revenues	3.0	3.3	4.3	3.3	2.1	1.2
Current Expenditures	18.6	20.4	26.5	23.7	22.6	21.0
Personnel	9.4	8.7	9.5	9.1	4.2	4.1
Goods and Services	2.3	2.9	3.3	3.1	2.2	1.8
Interest on Debt	0.6	1.5	3.9	2.3	2.7	2.1
Domestic	0.4	1.3	1.6	0.3	0.8	0.1
Foreign <u>b/</u>	0.2	0.2	2.3	2.1	1.9	2.0
Current & Capital Transfers	6.4	7.2	9.8	9.3	13.6	13.0
Social Security Payments	4.3	4.3	5.6	5.5	5.0	5.9
Other	2.1	2.9	4.2	3.8	8.6	7.1
General Government Savings	2.0	1.8	-2.6	1.4	-2.4	-3.4
Public Enterprise Savings	0.5	0.3	-2.3	0.5	-0.6	1.0
<u>Total Public Sector Savings</u>	<u>2.5</u>	<u>2.1</u>	<u>-4.9</u>	<u>1.9</u>	<u>-3.0</u>	<u>-2.4</u>
<u>Capital Account</u>						
Capital Revenues <u>c/</u>	0.3	0.5	0.8	0.9	0.8	1.2
Capital Expenditures	8.3	11.3	8.6	7.1	5.1	6.0
<u>Public Sector Financing</u>						
<u>Requirements</u>	5.5	8.7	12.6	4.3	7.4	7.1
Memo: Primary Surplus	-4.5	-6.2	-5.8	-0.5	-3.2	-5.0

a/ Excludes provincial governments, which have not provided budget information since 1986.

b/ Does not include interest on foreign debt by the Central Bank.

c/ Includes forced savings.

SOURCE: Ministry of Economy.

1.03 This fragile financial position was the result of contrasting trends in revenues and expenditures brought about by frequent changes in policies and by the general inability to exercise effective fiscal control. Expenditures substantially increased throughout the 1970s and early 1980s, with only a slight slowdown between 1975 and 1978. The share of the consolidated public sector in total output rose from about 25 percent in the early 1970s to almost 40 percent in 1983, fueled by the outlays associated with the South Atlantic War and the increasing disequilibria in the public enterprise sector. While a tendency towards a larger public sector was not limited to Argentina, the post-war growth was particularly marked and was a corollary of the import-substitution development model. The year 1983 marked a reversal of the trend towards bigger government and higher deficits, despite the increased burden posed by the increase in external interest payments. Although some progress was made, it was still insufficient to provide a stable macroeconomic environment. Total expenditures declined in relation to GDP every year after 1983 except 1987, and are estimated to have fallen to 32 percent of GDP in 1988, the lowest level in over a decade. The condition of public finances remains fundamentally weak; reductions in expenditures have not resulted in a fall of the deficit to a sustainable level chiefly because of the continued deterioration of tax revenues.

1.04 The tax system was unable to provide a sufficiently large revenue increase that could finance rising expenditures. Tax collection virtually collapsed in 1975, when overall revenues fell by almost 7 percent of GDP, a third in real terms. In the following years, revenues steadily recovered. Buoyed by a series of reform measures (the most important of which was the adoption and progressive generalization of the VAT between 1974-80), they reached an unprecedented 26.8 percent of GDP in 1980. Increase in tax pressure, however, came to a halt, and the 1980s witnessed a mediocre performance of Government revenues that has continued to the present despite several tax reform initiatives beginning in 1985.

1.05 Tax revenues deteriorated markedly during 1987 and 1988. Whereas the Government had based its budget for 1988, and the financial strategy underlying the "Plan Primavera," on the expectation of a modest recovery in revenues, this did not materialize, as collections for major taxes (in particular the VAT) fell to all-time lows, and new revenue measures were generally earmarked for increased expenditures in the social security sector or for provincial governments. The year closed with (gross) revenues almost two percentage points lower than in 1987. Thus, the progress made in expenditure reduction was almost entirely wiped out. The resurgence of inflation in the first few months of 1989 took its toll on revenues, and the expectation of some form of tax amnesty following the May elections apparently provided strong incentives for reduced tax compliance. The slide of the economy into hyperinflation further accentuated the crisis of the system; despite the fall in inflation following the recent measures taken by the new economic team, national taxes before coparticipation are not expected to reach, for the whole year, 15 percent of GDP.

Variability of Taxation and Budget Deficits

1.06 Macroeconomic management considerations point to two desirable features of the tax system: stability and strong buoyancy. Neither has

been attained in Argentina in the recent past. The reasons for the less-than-satisfactory performance of the tax system range, from inherent susceptibility to inflation to choices in tax policy that weaken the structure of the system. In this section, two types of macroeconomic weaknesses are analyzed: the effect of inflation on real revenues (the so-called "Olivera-Tanzi effect"), and the change over time of the relationship between aggregate revenues and output.

1.07 The recurrent deficits of the NFPS cannot be attributed only to insufficient revenue growth; indeed, the emergence of a deficit is a symptom of the existence of a broad public finance problem. In the end, protracted budget deficits are a manifestation of society's attempt to increase present consumption at the expense of future consumption. However, it also can be argued that revenue instability can complicate management of public finances, particularly if expenditures are structurally difficult to reduce and the options of the policymaker are limited. Argentina seems to have experienced a greater variability in its tax/GDP ratio than most other countries, which has certainly not helped its fiscal management.

1.08 The change in the overall deficit of the NFPS and the change in overall revenues for the period 1971/87 are shown in Figure 1.1. Only on three occasions (1979, 1984, and 1986) did a drop in revenues coincide with a stable or reduced deficit; in five other years (1973, 1974, 1978, 1980, and 1983), an increase in revenues occurred with an increase in the deficit. For the remaining nine years, the change in revenue collection and deficit were inversely related or of the same magnitude.^{1/} A reasonable inference from these data is that real expenditures are inflexible downwards; but when the real budget constraint is tightened because of unanticipated changes in tax or nontax revenues, this quickly translates into higher deficits. This feature of Argentina's fiscal accounts provides a partial explanation for the unusual macroeconomic variability experienced by the country. It also offers some guidance about priorities for future tax policy: not only should revenues be increased to permit an adequate fiscal functioning of the Government, but also changes should be made to the tax system to decrease its variability. These two issues are discussed in turn.

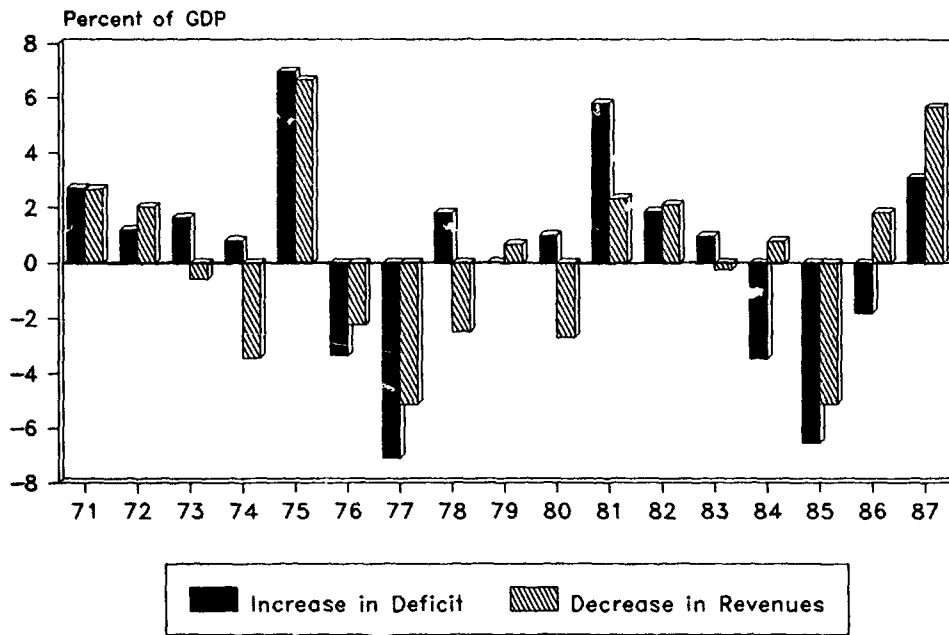
The Olivera-Tanzi Effect

1.09 In Argentina, as elsewhere, it has been suggested the tax system is inherently vulnerable to inflation, since real tax revenues are reduced through the operation of the so-called Olivera-Tanzi effect.^{2/} The operation of the mechanism is straightforward: given that taxes are collected (or due) with a certain lag from the occurrence of the "taxable event," the real value of taxation (or its share to nominal GDP) will be reduced if, during the period between accrual and collection, prices or

^{1/} The correlation coefficient between revenue and deficit changes is -0.65 over the sample period.

^{2/} The original contribution of Tanzi was in fact applied to the Argentine case.

FIGURE 1.1
ARGENTINA: DEFICITS AND TAXATION



real GDP increase. Under conditions of near price stability, this effect will be minimal; however, with high (and variable) inflation, the Olivera-Tanzi effect can be overwhelming, and cause a substantial deterioration in public finances.

1.10 The magnitude of the effect depends on the composition of the tax system and on the collection delay associated with each tax.^{3/} The loss from the Olivera-Tanzi effect can be computed by assuming that

$$(1) \quad T_t = \tau \text{GDP}_{t-\theta}$$

where τ is the "theoretical" tax ratio, θ is the average collection lag of taxes, GDP is nominal income, and T is total tax revenue. In the absence of inflation and output growth, the theoretical and observed tax/GDP ratios would coincide; however, given nominal output growth during the lag θ , the following relationship between observed and Olivera-Tanzi adjusted ratios will hold:

$$(2) \quad T_t/\text{GDP}_t = \tau / [(1 + \pi_\theta)(1 + g_\theta)]$$

where π_θ and g_θ are, respectively, the growth of prices and real output during the average lag θ .

1.11 Table 1.2 shows the estimated average collection delay for a sample of approximately 90 percent of national taxes.^{4/} The data are striking: the average collection delay has been reduced from over 45 days in 1975 to about 20 days in the late 1980s. This is the result of a generalized reduction in collection delays in individual taxes (through the institution of anticipated or partial monthly or even biweekly payments) and the shift in the composition of the tax system away from the taxes with the longest collection lags.

1.12 Figure 1.2 displays in the upper panel the tax-GDP ratio as observed and adjusted for the Olivera-Tanzi effect, and in the lower panel a plot of the Olivera-Tanzi effect, i.e., the additional tax revenue that could accrue in the absence of nominal GDP growth. The comparison of the two provides a valuable insight about the effects of high inflation on the variability of revenues. The observed ratio exhibited a variability 30 percent higher than the adjusted ratio, a feature uniform over the entire period. However, it is noteworthy that considerable variability remains in the Olivera-Tanzi adjusted series as well: after declining throughout the late 1970s and early 1980s, it increased again in the second part of the 1980s (Table 1.3). These observations point to: (i) the existence of problems in the structure of the tax system that may induce

^{3/} Thus, this definition accounts only for the "legal" Olivera-Tanzi effect as determined by the tax code. The response of the taxpayer to increasing inflation or high real interest rates also may affect the observed tax-GDP ratio, as the taxpayer can, in the absence of sufficiently strong disincentives, decide to "borrow" from the Government by delaying the payment of the tax beyond the legal limit. On this, see below.

^{4/} Cf. Durán (1989).

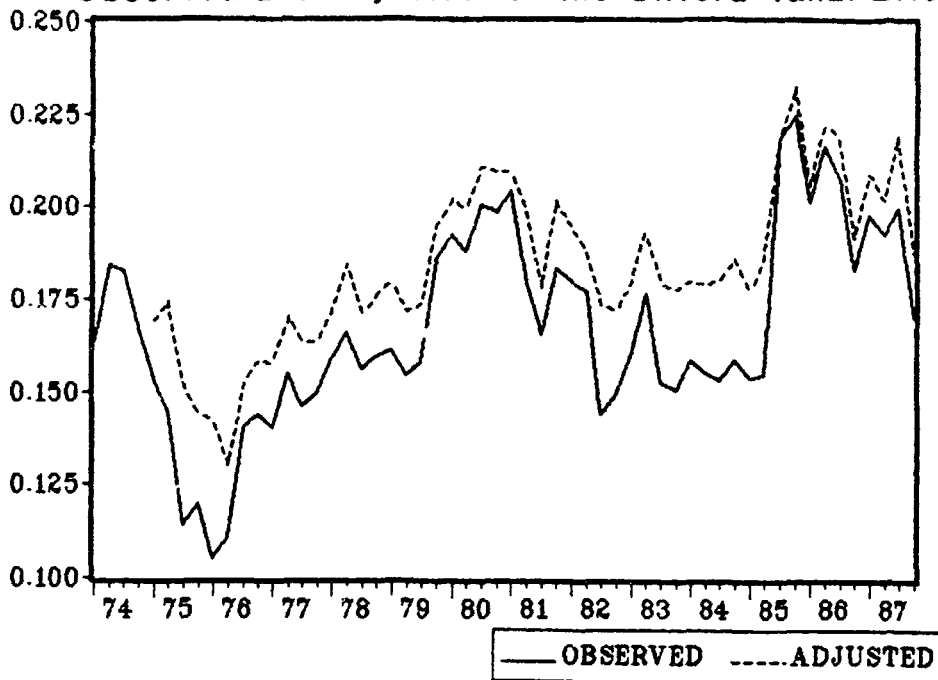
**Table 1.2: ARGENTINA: TAX COLLECTION DELAYS, SELECTED TAXES
(Days)**

	1975	1980	1985	1987
Income Tax	113	34	25	42
VAT	73	45	36	30
Social Security	22	24	22	23
Excises	79	45	24	27
Oil Tax	52	34	13	13
Imports	14	15	15	16
Exports	48	32	22	26
<u>TOTAL a/</u>	<u>48</u>	<u>32</u>	<u>22</u>	<u>26</u>

a/ Individual taxes weighted by share in real total income.

SOURCE: Durán (1989).

Figure 1.2
ARGENTINA: Tax-GDP Ratio, 1974/75-87
Observed and Adjusted for the Olivera-Tanzi Effect



The Olivera-Tanzi Effect, 1975-1987
(Percentage)

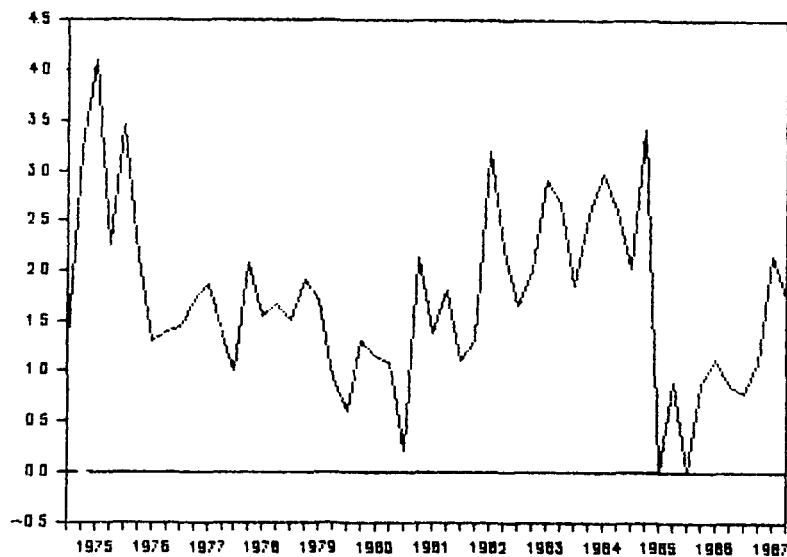


Table 1.3: ARGENTINA: VARIABILITY OF TAX REVENUES a/

Period	1975-79	1980-84	1985-87	1975-87
Adjusted <u>b/</u>	9.3	6.7	8.7	12.0
Not adjusted	14.9	10.6	14.6	16.0

a/ Coefficient of variation for seasonally adjusted Tax/GDP ratios
(standard deviation divided by mean, times 100).

b/ Tax/GDP ratio adjusted for Olivera-Tanzi effect.

revenue instability; and (ii) the possibility of changes in the link between taxes and the real tax base.

1.13 In addition, as shown in the lower panel, the series corrected for the Olivera-Tanzi effect lies uniformly above the uncorrected series; the difference was substantial throughout the 1970s and lasted until 1985. The figure also provides an important insight about the tax effort. The increase in revenues at the end of the 1970s was somewhat boosted by a decrease in inflation (so that the Olivera-Tanzi effect fell from about 1.5 percent of GDP in 1978 to less than 1 percent in 1980). By contrast, the sizeable increase in revenues between 1984 and 1985 was explained by an increased tax effort, since the corrected tax ratio rose by almost five points (despite a fall in real GDP of 5 percent). The Olivera-Tanzi effect also virtually disappeared, adding a gain of almost three percentage points of GDP. In contrast, the revenue performance of 1986 was entirely attributable to the lingering on of the Olivera-Tanzi effect due to the low levels of inflation during the first full year of the Austral Plan. The subsequent reversal of inflation had devastating effects: in 1987, although the average delay was less than a month, the doubling of the average increase in the combined price index to about 9 percent per month led to a loss of tax revenues of approximately 1 percent of GDP. This continued in 1988, when the overall loss due to inflation over estimated to top 2.1 percent of GDP.

1.14 Limits to a Reduction of the Olivera-Tanzi Effect. It would appear that few measures could be envisaged to reduce the average legal collection delay further. The Argentine tax system appears to be theoretically well positioned to deal with a steady-state, moderate inflation environment. Indeed, while comparable international statistics are wanting in this regard, the evidence suggests that the legal payment delay may be approaching the limit allowed by technology, and probably is beyond the economically justified one--in the sense that the social costs from a marginal reduction in payment delay exceed the additional real tax revenue, at average rates of inflation.^{5/} Considerable residual effects of inflation remain on tax revenues even after discounting for the legal delay, an indication of the gap between the legal tax system and the behavior of taxpayers. This translates into a fundamental principle of economic policy in high inflation countries: the benefits of a reduction in the Olivera-Tanzi effect will not always restore macroeconomic stability unless autonomous fiscal action is undertaken and understood as such.

B. Macroeconomic Stability and Tax Reform

Argentina's Tax Effort: An International Perspective

1.15 Tax policy cannot be effectively designed without an assessment of the needed level of taxation in relation to GNP as measured against the current tax effort. A characteristic of Argentina's tax policy has been

^{5/} Exceptions may be considered: e.g., some provisions of the excise legislation and the incomplete indexation of some VAT and income tax liabilities. It is doubtful whether significant gains in these cases can be expected.

its defensiveness, with ad hoc measures generally taken in response to unforeseen revenues shortfalls or in the context of stabilization programs. This approach has increased the variability of tax legislation and made the task of the administration of the system unnecessarily complex.

1.16 While the targeted fiscal effort must be defined in conjunction with the desired size of the public sector, Argentina's current tax effort can be put in perspective by an international comparison. Table 1.4 shows that: (i) Argentina's average tax pressure increased substantially from the early 1970s to the second half of the 1980s; by contrast, the increase in tax pressure has been limited in industrial countries and in other large LDCs in the Western Hemisphere; and (ii) during the early 1980s, Argentina's tax pressure was substantially higher than in Asian LDCs, was broadly in line with those in other middle-income Latin American countries (with the notable exception of Chile) but fell considerably short of industrial country averages.

1.17 More formal cross-country statistical analyses of the tax effort, which relate the overall tax pressure in a country to variables--such as the structure of the tax system, the level of development, the degree of openness and the importance of the manufacturing sector--generally have shown that Argentina's effort is less than could be expected given its socioeconomic features.^{6/} Whatever the actual significance of these cross-country and regional comparisons, Argentina cannot be considered anywhere near its taxation limit, nor can the unsatisfactory 1987/88 revenue performance be reversed without major reforms of the tax system. The most relevant comparison is perhaps with Argentina's own past tax effort: a restoration of the 1980 tax pressure, for instance, would give a substantial contribution to stability and resumption of growth. A perspective on the task ahead for a salutary tax system adjustment can be gained through a discussion of the changes that can lead to stabilization and resumption of growth in Argentina.

Tax Revenues: The Scope of the Tax Reform

1.18 Resumption of growth and investment in Argentina requires fundamental reform in the public sector; otherwise, it is difficult to envisage macroeconomic conditions different from those of the 1980s. Table 1.5 displays projections of key macroeconomic variables for the next decade in Argentina in an effort to assess what future tax efforts are needed to promote stabilization and resumption of growth. These projections imply a slow but steady recovery in national savings and investment, a reduction in inflation and a resumption of moderate growth in per capita income and consumption after the reductions experienced in the 1980s. They also envisage a strong measure of international support. A benchmark for the success of the underlying strategy, however, would be a turnaround in public sector savings. This would be necessary both to eliminate the need

^{6/} The literature on tax action isolates several factors that may contribute to determining the level of the overall tax pressure in a country: e.g., the structure of the tax system, the level of development, the degree of openness, the importance of the manufacturing sector Cf. Tait et al. (1982). For a critique see Bird (1976) and Tabellini (1985).

**Table 1.4: ARGENTINA: COMPARATIVE TAX-GDP RATIOS, 1970-1987
(in Percent)**

	1970-1974	1975-1979	1980-1984	1985-1987
Argentina <u>a/</u>	17.3	18.4	21.4	24.3
Industrial countries	31.0 <u>a/</u>	32.0	33.5	33.8 <u>b/</u>
<u>Developing Countries:</u>				
Brazil	24.9 <u>d/</u>	24.3	23.3	22.2 <u>c/</u>
Mexico	11.4 <u>b/</u>	14.6	17.8	13.7
Venezuela <u>e/</u>	20.0 <u>d/</u>	22.3	24.1	20.6 <u>c/</u>
Chile	20.1 <u>f/</u>	24.0	24.4	23.1
Peru	13.6	14.6	14.3	12.6
Colombia	11.4 <u>f/</u>	12.6	11.7	10.9
Western Hemisphere	18.0	19.3	20.0	-
Asia	14.3 <u>f/</u>	15.1	13.4	13.9 <u>g/</u>
Africa	..	19.5 <u>h/</u>	20.9	..

a/ 1972-1974 only.

b/ 1985-1986 only.

c/ 1971-1974 only.

d/ Omits state government.

e/ 1974 only.

f/ 1985 only.

g/ 1977-1979 only.

SOURCE: Secretaria de Hacienda, Argentina; Central Bank and National Statistical Institute of Peru; IMF, Government Finance Statistics Yearbook (several issues); IMF, International Financial Statistics, June 1989.

Table 1.5: ARGENTINA: KEY MACROECONOMIC INDICATORS: PUBLIC SECTOR REFORM SCENARIO
(In Percent Unless Otherwise Specified)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Annual Real Growth Rates												
GD ^a (constant market prices)	(0.2)	(3.0)	(2.0)	2.3	2.6	2.6	3.2	3.2	3.6	3.8	3.8	4.2
GD ^a Per Capita (constant market prices)	(1.7)	(4.5)	(3.5)	0.8	1.1	1.1	1.7	1.7	2.1	2.3	2.3	2.7
Private Consumption Per Capita	-	(3.9)	(3.0)	(1.4)	(0.4)	0.2	0.9	0.8	1.5	1.8	1.8	1.8
National Accounts												
(Share of Current GD^a)												
Total Investment	14.0	12.7	12.0	13.1	14.2	14.8	15.4	16.0	16.4	16.8	17.2	18.0
Private	9.1	8.3	8.1	9.2	9.7	10.1	10.6	11.1	11.4	11.8	12.2	13.0
Public	5.1	4.4	3.9	3.9	4.5	4.7	4.8	4.9	5.0	5.0	5.0	5.0
National Savings	8.9	10.3	8.1	8.1	10.3	11.6	12.4	13.7	14.8	15.8	16.4	17.5
Private	11.8	12.8	13.3	7.1	7.3	7.6	8.1	7.3	8.4	9.4	10.0	11.1
Public	(3.0)	(2.5)	(5.2)	1.0	3.0	4.0	4.3	6.4	6.4	6.4	6.4	6.4
Foreign Savings	5.1	2.4	3.9	5.0	3.9	3.2	3.0	2.3	1.6	1.0	0.8	0.5
Public Sector												
(Commitment Basis as % of Current GD^a) s/												
Total Current Revenues	19.6	17.1	15.8	19.1	20.1	21.1	22.4	23.5	23.5	23.5	23.5	23.5
Total Current Expenditures	24.5	21.0	20.9	21.1	20.6	21.1	22.1	22.1	22.1	22.1	22.1	22.1
Wages & Salaries of General Government	4.2	3.7	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Goods & Services of General Government	2.2	1.9	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Transfers & Other Current Expenditures	13.8	11.4	9.6	8.9	8.7	9.3	10.4	10.9	11.4	11.8	12.3	12.3
Interest	4.3	4.0	6.1	6.7	6.4	6.3	6.2	5.7	5.2	4.8	4.3	3.3
Domestic ^{b/}	0.8	0.9	0.9	0.8	0.8	0.6	0.8	0.7	-	1.1	0.9	0.8
Foreign	3.5	3.1	4.8	3	4.8	4.6	4.5	4.2	3.9	3.7	3.4	3.0
Public Enterprise Primary Surplus	1.9	1.4	(0.1)	2.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
Capital Expenditures	5.1	4.4	-	4.1	4.6	4.7	4.8	4.9	5.0	5.0	5.0	5.0
General Government	1.8	1.1	0.9	1.1	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0
Public Enterprises	3.4	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

s/ Excludes provinces.

b/ Includes only the real interest rate component.

SOURCE: IBRD staff projections, from Argentina, 1989 Country Economic Memorandum

for recourse to the inflation tax to close sector accounts and to provide the savings necessary to increase public and private investment substantially above the present depressed level--which barely includes net increases in the capital stock after depreciation. For this to occur, the public sector primary surplus would need to increase from an expected -5 percent of GDP in 1989 (an exceptional result because of hyperinflation in the public sector accounts) to almost 7 percent by the late 1990s. The magnitude of the adjustment implicit in these figures is large, but it accurately reflects the seriousness of the current situation confronting the Argentine economy.

1.19 The burden of the adjustment will have to fall equally on expenditures, revenues, and on public enterprise real prices. The projections in Table 1.5 envisage a strong containment of Government current expenditures and a sharply improved performance of public enterprises. Neither assumption can be realized in the absence of fundamental reform in the public sector. The burden for the tax system, however, is also considerable: from the low level of 17.3 percent of nominal GDP (total net current revenues) in 1988, and the expected substantially lower level in 1989 (projected at less than 15 percent of GDP), revenues would attain 23.5 percent of GDP by the mid-1990s, and remain at those levels thereafter. These magnitudes imply that a revenue-enhancing reform of the tax system is necessary, which should be expected to yield as much as an additional 3 points of GDP, after discounting for the positive effects of the reduction in inflation brought about by stabilization.

Tax Buoyancy and the Olivera-Tanzi Effect: Econometric Evidence

1.20 Without this increased tax effort, the restraint on current and capital expenditures would need to be even greater. This austere scenario would probably be impossible without falling into the trap of low growth/low investment that has characterized the 1980s. The required swing in revenues undoubtedly poses a tremendous challenge to the tax system and to policymakers. Whether the magnitude of the task is in the realm of possibility depends to a large extent on political will and on achievement of a national consensus about economic priorities. The question naturally arises as to whether, under conditions of re-established macroeconomic stability, the swing in revenues would imply fundamental or marginal adjustments to the tax system. Some insight in this respect also can be gained by an analysis of the past behavior of the tax system relative to macroeconomic variables like inflation and GDP growth.

1.21 Appendix Table A.1.1 shows the results of an econometric analysis of the relationship between national tax revenues, inflation, and economic growth over the period 1975-88. Two main policy-oriented conclusions emerge:

- (a) Even after discounting for the "legal" Olivera-Tanzi effect, a considerable influence of inflation over the tax-GDP ratio remains. Thus, despite the measures to reduce the collection lags, the

Argentine tax system remains fundamentally weak regarding increases in inflation.^{7/} Based on the 1984-88 elasticity, a doubling of inflation from 5 to 10 percent per month would decrease revenues (after correcting for the legal Olivera-Tanzi effect) by 0.6 percent of GDP. Including the loss due to the legal Olivera-Tanzi effect, revenues would decrease a further 0.8 percent of GDP, for a total loss of 1.4 percent of GDP.

- (b) The elasticity of the tax-GDP ratio with respect to real output has decreased greatly over the years but particularly after 1980 (the year of the short-lived generalization of the VAT). Indeed, based on the observed data, the link between real output and taxation seems to have become more and more fragile, despite undertaking several tax reforms since 1985. While according to sample elasticity, a year of strong growth (between 4 and 5 percent) would have increased the tax/GDP ratio by one percentage point in the late 1970s, it would take six years of growth at 4 percent to obtain the same result based on the estimated elasticities of the late 1980s.

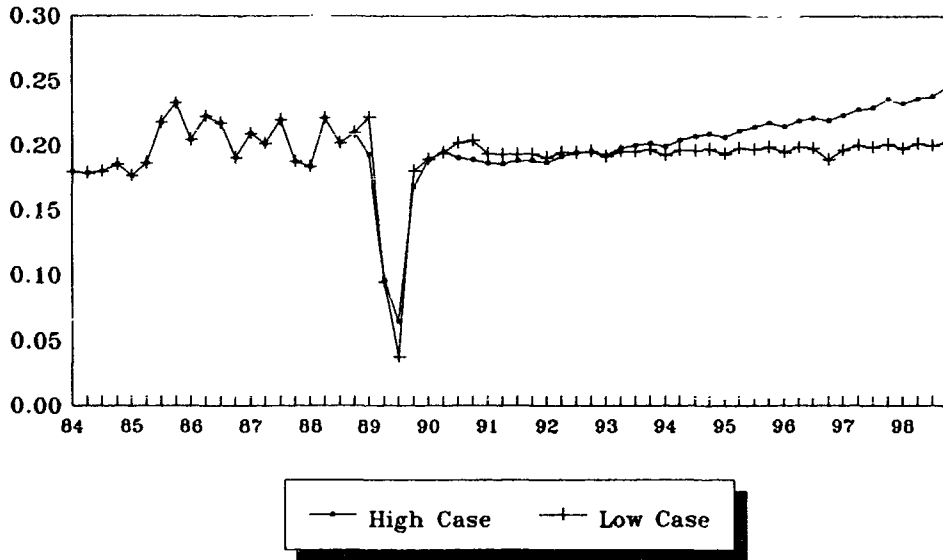
1.22 The latter conclusion is particularly troublesome. The expectation of a positive relationship between real output growth and the share of taxes comes from the fact that for most taxes marginal rates are higher than average ones. Real taxes thus can be expected to grow over time proportionately more than the real base (in the case of total taxes and real GDP), and provide more room for the expansion of public services if desired. A weakening of the link between taxes and real GDP, on the contrary, implies that either expenditure control must become stronger, or that discrete tax measures must be taken with more frequency which will contribute to increased instability in the tax system.^{8/} The second alternative corresponds more closely to the Argentine experience in the past few years (Chapter II).

1.23 Scenarios for the 1990s. Figure 1.3 shows two illustrative projections of the tax/GDP ratio for the same period as in Table 1.5. The lower curve is what would be produced by a spontaneous evolution of taxes in the absence of measures to increase the elasticity with respect to real GDP growth. The higher curve instead assumes that the GDP elasticity would

^{7/} The estimated semi-elasticity of the tax-GDP ratio with respect to inflation is decreasing over the sample period. It can be concluded that the efforts to reduce the payment delays have not been in vain, but indeed have contributed to a reduction in the Olivera-Tanzi effect.

^{8/} A weak link between revenues and output, on the other hand, results in a smaller deterioration of the tax/GDP ratio in the event of a recession, as shown by the projections in Figure 1.3.

Figure 1.3
ARGENTINA: Tax-GDP Ratios
Alternative Projections



High Case: Historic Income Elasticity
Low Case: 1984-88 Income Elasticity

revert to its 1975-81 value. The message of these projections is rather clear:

- (a) The Olivera-Tanzi effect cannot be counted on to restore tax revenues at sustainable levels during the 1990s. While successful stabilization in late 1989 or early 1990s will produce an increase in the revenue-GDP ratio, the increase will be insufficient to restore revenues to pre-1987 levels, let alone to increase the tax effort as required for lasting improvements.
- (b) In this respect, it is also apparent that unless the reasons that have contributed to the loss of buoyancy in tax revenues in the past can be effectively removed, the tax system will not be able to generate the resources needed to restore medium-term stability and growth.

CHAPTER II. THE TAX SYSTEM: BETWEEN MODERN TAXES AND TAX HANDLES

2.01 Argentina prides itself on its modern and technically sophisticated tax legislation. For many years, the Argentine legal framework was a model for tax legislators in South America. The country adopted income taxation at an early stage of its economic development, and took measures to integrate corporate and income taxation. It also adopted the VAT before a number of EEC countries. The problems of tax indexation in the context of an inflationary economy did not escape the attention of legislators either; thus, several mechanisms to deal with inflationary adjustments have long been in operation. However, even a cursory look at Argentina's tax system reveals a large--and widening--gap between its sophisticated design and the every day reality. Increasingly, the legislature has had to resort to ad hoc and inefficient taxation because the legislature has been effectively undermining the legal foundation of all major modern taxes. In the process, little or no attention has been paid to the need for adequate tax administration, which has reached a crisis state (Chapter III). In sum, the entire tax system has an urgent need for sweeping and fundamental reforms.

2.02 This Chapter reviews the main strengths and weaknesses of the tax system. The recent evolution of the system is reviewed together with the policies that have contributed to shaping it, with particular attention to the legislation of tax expenditures. The analytical tool of "tax handle" is used to analyze the composition of tax revenues. Tax-induced distortions on factor choices are discussed in the context of estimates of effective marginal taxation rates on capital income.

A. Overview: The Structure of the Tax System

2.03 Argentina is a federal state and as such taxing power resides with the Central Government and the 22 provinces. Each enforces its own taxes within the limits set by constitutional and legal provisions. In addition, there are provisions for sharing with the provinces some of the revenue collected by the Central Government. (Provincial taxes and revenue-sharing arrangements are analyzed in Chapter V.)

2.04 Table 2.1 delineates tax revenues by major source between 1970-88 and Table 2.2 shows the composition of their relative share over the same period.^{1/} The considerable variation of revenues over the years is

^{1/} The data in Table 2.1, and all data used in the remainder of this report in calculating percentages of GDP, are obtained by deflating the nominal values of tax revenues by a price index given by the simple average of the CPI and WPI, and dividing the value thus obtained by estimates of quarterly real GDP produced by the Argentine Central Bank. These estimates differ (at times considerably) from the estimates used by the Ministry of Economy, which are based on an unofficial series of nominal GDP.

Table 2.1: ARGENTINA: REAL TAX REVENUES BY SOURCE, 1970-1988
(Percentage of Real GDP)

	Average 1970-74	Average 1975-79	Average 1980-84	1985	1986	1987	1988
<u>National Tax Revenues</u>	<u>15.1</u>	<u>15.9</u>	<u>18.3</u>	<u>20.7</u>	<u>21.9</u>	<u>19.5</u>	<u>18.6</u>
Income Tax	1.9	1.4	1.4	1.2	1.5	1.9	1.5
Property Taxes	0.5	0.5	1.0	0.9	1.0	1.0	1.1
Capital Tax	0.0	0.4	0.8	0.6	0.7	0.6	0.6
Net Worth Tax	0.0	0.0	0.0	0.0	0.2	0.1	0.1
Other Property Taxes	0.5	0.1	0.1	0.2	0.2	0.2	0.4
Sales and Excise Taxes	5.4	7.2	9.6	9.4	10.4	8.7	8.6
Value Added Tax	1.7	3.1	4.3	3.3	3.7	3.7	2.9
Excise Tax	1.3	1.2	1.7	1.5	1.8	1.9	1.4
Tax on Checks	0.0	0.1	0.1	0.4	0.6	0.5	1.0
Energy Tax	1.5	1.8	2.7	3.5	3.5	2.1	2.4
Stamp Duty	0.4	0.3	0.3	0.2	0.3	0.2	0.2
Foreign Exchange Transaction Tax	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Other Sales Taxes	0.4	0.6	0.4	0.3	0.3	0.3	0.3
Foreign Trade Taxes	2.1	1.9	2.1	3.3	2.8	2.2	1.6
Import Tax	1.0	1.1	1.2	1.0	1.4	1.7	1.3
Export Tax	1.0	0.7	0.8	2.2	1.3	0.4	0.3
Other Trade Taxes	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Social Security Tax	4.8	4.9	4.2	5.3	5.6	5.4	4.1
Other Taxes	0.3	0.1	0.1	0.1	0.0	0.2	0.9
Forced Savings	0.0	0.0	0.0	0.6	0.6	0.0	0.9
<u>Provincial Tax Revenues</u>	<u>2.2</u>	<u>2.5</u>	<u>3.5</u>	<u>3.4</u>	<u>3.8</u>	<u>..</u>	<u>..</u>
Property Tax	0.4	0.5	0.8	0.9	0.9	..	..
Gross Sales Tax	0.9	1.3	1.8	1.7	2.1	..	..
Automotive License Tax	0.2	0.2	0.3	0.4	0.3	..	..
Stamp Duty	0.5	0.4	0.4	0.3	0.5	..	..
Other Tax	0.3	0.2	0.2	0.1	0.1	..	..
<u>TOTAL TAX REVENUES</u>	<u>17.8</u>	<u>18.4</u>	<u>21.8</u>	<u>24.1</u>	<u>25.7</u>	<u>..</u>	<u>..</u>

SOURCE: Ministry of Economy, National Directorate of Budgetary Programming.

Table 2.2: ARGENTINA: COMPOSITION OF REAL TAX REVENUES, 1970-1988

	Average 1970-74	Average 1975-79	Average 1980-84	1985	1986	1987	1988
National Tax Revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Income Tax	12.5	8.8	7.7	5.8	6.9	9.7	8.1
Property Taxes	3.5	2.7	5.4	4.3	4.6	5.3	5.9
Capital Tax	0.1	2.3	4.6	3.0	3.1	3.3	3.2
Net Worth Tax	0.0	0.0	0.1	0.1	0.7	0.7	0.5
Other Property Taxes	3.4	0.4	0.6	1.2	0.8	1.3	2.2
Sales and Excise Taxes	55.8	44.7	52.5	45.6	47.5	44.6	46.2
Value Added Tax	11.3	19.3	23.3	15.9	16.8	18.7	15.6
Excise Tax	9.0	7.2	9.3	7.4	8.4	9.5	8.1
Tax on Bank Debits	0.0	0.7	0.4	1.1	2.8	2.8	5.4
Energy Tax	9.8	11.0	15.2	16.9	16.0	10.9	12.9
Stamp Duty	2.5	1.9	1.6	1.0	1.3	1.1	1.1
Foreign Exchange Transaction Tax	0.6	0.8	0.8	0.7	0.6	0.7	1.1
Other Sales Taxes	2.6	3.7	1.9	1.7	1.5	1.3	1.6
Foreign Trade Taxes	13.9	12.4	11.3	15.7	12.8	11.4	8.6
Import Tax	6.9	6.7	6.4	4.7	6.4	8.9	7.0
Export Tax	6.7	4.9	4.7	10.5	5.9	2.2	1.6
Other Trade Taxes	0.3	0.8	0.3	0.5	0.4	0.4	0.0
Social Security Tax	32.2	31.0	22.4	25.7	25.4	27.7	22.0
Other Taxes	2.0	0.4	0.7	0.3	0.0	1.1	4.8
Forced Savings	0.0	0.0	0.0	2.8	2.7	0.1	4.8

SOURCE: Ministry of Economy, National Directorate of Budgetary Programming.

reflected in their composition. Three features stand out: (i) the extremely low reliance on direct income taxation; (ii) the importance of nongeneral consumption taxes, particularly taxes on energy products; and (iii) the large number of national taxes.

2.05 Low Reliance on Direct Taxes. By all standards, Argentina relies on direct taxation much less than elsewhere. This trend has been only partly reversed recently. Income taxes peaked at 3 percent of GDP in 1970, when they yielded about 15 percent of total revenues; they steadily lost relative (and absolute) importance, and by 1984, all but disappeared, yielding a dismal 0.7 percent of GDP, or less than 5 percent of total tax revenues (i.e., less than a fourth of the tax on oils and fuels). After the reforms of 1985/86, income taxes recovered somewhat, rising to 1.5 percent of GDP in 1986 and 1987 but declining again to 1.2 percent in 1988. By comparison, income taxes represent between 30 and 60 percent of total revenues in the OECD countries. Even in comparable countries, the importance of direct taxes is much higher: the average income-tax-to-GDP ratio for countries with per capita incomes of more than US\$1,700 was 8.1 percent (Table 2.3). By contrast, Argentina relies more than countries of similar income levels on direct taxes on wages and salaries to finance social security funds. This is the result of the early adoption of the social security system, together with unfavorable dependency ratios that have forced not only high tax rates on labor but more recently specific earmarking of excise taxes, as discussed below.

2.06 The higher-than-average reliance on property or wealth taxes is partly a result of the adoption of integrated taxes on net assets of corporations and individuals during the 1970s. The taxes have been controversial in many respects. Some decry the lack of integration with the income tax arguing that an alternative minimum income tax should be considered; others point out that they discourage foreign investment, since, unlike income taxes, few countries allow a credit for a tax paid in this respect. Whether or not these arguments are compelling, capital and net-worth taxes share some characteristics of modern taxes; namely, generality of application and a rationale based on economic theory. This is not the case for other property taxes that have been progressively imposed on easy-to-capture items and with powerful distortive effects, such as taxes on fixed-term deposits that discriminate against savings and other financial assets.

2.07 The greater-than-average reliance on taxation of goods and services, in turn, basically has been the result of two contrasting trends: the introduction of the VAT and the use of ad hoc taxes on goods and services. The early introduction of the VAT increased the importance of general and nondistortive taxation. Indeed, the policymakers explicitly attempted a revenue-neutral reform in 1980 whose objective was to reduce the disincentive against the use of labor produced by the employer's contributions to the social security fund and to foster exports by changing the mix of taxes paid by corporations towards a tax that can be refunded to exporters according to GATT rules. While the reform failed to accomplish all objectives, prompting instead a profound crisis in the national-provincial fiscal relationship (Chapter V), the generalization of the VAT was an important development.^{2/} However, the subsequent period was marked by a

^{2/} Even if the revenue assumptions of the 1980 reform had materialized, however, it is unlikely that it would have had the desired effects on labor demand. See McKee et al. (1986).

Table 2.3: ARGENTINA: THE STRUCTURE OF TAXES AND MIDDLE-INCOME LDCs a/

	Total	Income	VAT	Social Security	Import	Export	Wealth	Other
	<u>Percent of GDP</u>							
Argentina <u>b/</u>	19.9	1.5	3.5	5.3	1.4	0.7	1.0	6.5
Middle LDCs	22.8	8.1	3.1	3.9	2.7	0.4	0.6	4.0
OECD <u>c/</u>	37.0	14.5	5.0	9.2	..	..	1.8	6.5
	<u>Share of Total</u>							
Argentina <u>b/</u>	100.0	7.5	17.8	26.7	7.2	3.5	5.0	32.7
Middle LDCs	100.0	35.6	12.6	15.6	13.0	2.1	3.1	18.0
OECD	100.0	39.2	13.5	24.9	..	..	2.8	17.6

a/ Per capita income of US\$1,700 or more in 1981.

b/ 1986-1988.

c/ 1983.

SOURCE: Tanzi (1987), Secretaria de Hacienda, OECD (1986, 1987).

sharp reversal in the quality of taxation of goods and services. With the major taxes being eroded by the special regimes, the Government looked for additional revenues by relying on increased taxation in areas where collection is easy, but at the cost of more distortions. Thus, taxation on energy-related products has become progressively more important^{3/} and contributed to distortions in relative prices, lack of transparency in the finances of the energy sector, and jeopardizing, at times, anti-inflationary objectives.

2.08 Excises and ad hoc taxes also have been used liberally. While traditionally excises on "vice goods" (cigarettes, alcohol) or other selective items are looked at with sympathy because of the low welfare loss associated to them, their extensive and haphazard application results in a greatly distorted system and further complicate the task of tax administration. In effect, reliance on this type of taxation is a sign of structural weakness in the tax system.

2.09 Fragmentation and Dispersion of the System. The result of this trend has been increased fragmentation and dispersion of the system. A detailed analysis of the quantitative composition of the Argentine tax system in 1986 (Thiery, 1988) shows that

- The national tax system included at least 45 taxes, the majority of which were administered by DGI.
- Of these, only 12 provided more than 1 percent of total national revenues, while 33 yielded in total less than 10 percent of revenues (i.e., less than 2 percent of GDP.)
- Seventeen of the 45 taxes were earmarked, either in part (5) or in full (12) for a variety of special funds.

2.10 The latter feature is particularly important in Argentina. There are several special accounts and funds whose function is to provide subsidies for specific economic sectors or to channel funds for investment in selected areas. The mechanisms to feed these funds are extremely complex and opaque. The extent of their presence in the country is the reflection of the fragmentation of the sociopolitical system, the power of pressure groups, and lack of administrative foresight. This situation has become increasingly complex during 1987/88, with the approval of new taxes and surcharges for a variety of earmarkings (e.g., the social security system and the provincial governments).

B. Modern Taxes and Tax Handles

2.11 It is impossible to capture in one indicator the quality of a tax system or its problems. The traditional attributes of equity, economic efficiency, simplicity, and revenue potency are not easily quantified nor weighed equally by the policymakers. However, a useful way to gauge the

^{3/} Taxes collected by the energy sector now amount to about 20 percent of total revenues, an unusually large proportion of revenues in a country with no significant energy exports.

current state of the Argentine tax system is to consider the widespread use of "tax handles." Tax handles are at the opposite end of the spectrum from modern taxes. The latter taxes are economic policy, whereas tax handles are biased toward administration. Modern taxes satisfy three basic conditions: (i) generalized application on solid economic grounds; (ii) the existence of a current account in their administration--since there is a separation between the tax return and tax payment; and (iii) the delegation of important administrative duties to the taxpayer himself or to third parties economically involved with the taxpayer. Broadly-based income and profit taxes, property taxes, and value-added taxes satisfy these three conditions, although in Argentina condition (i) is generally not empirically verified. In contrast, tax handles, although often relatively easy to administer, are not general taxes, and typically are not economically sound. However, they share with modern taxes condition (iii), since most of the administrative work is performed by the taxpayers.

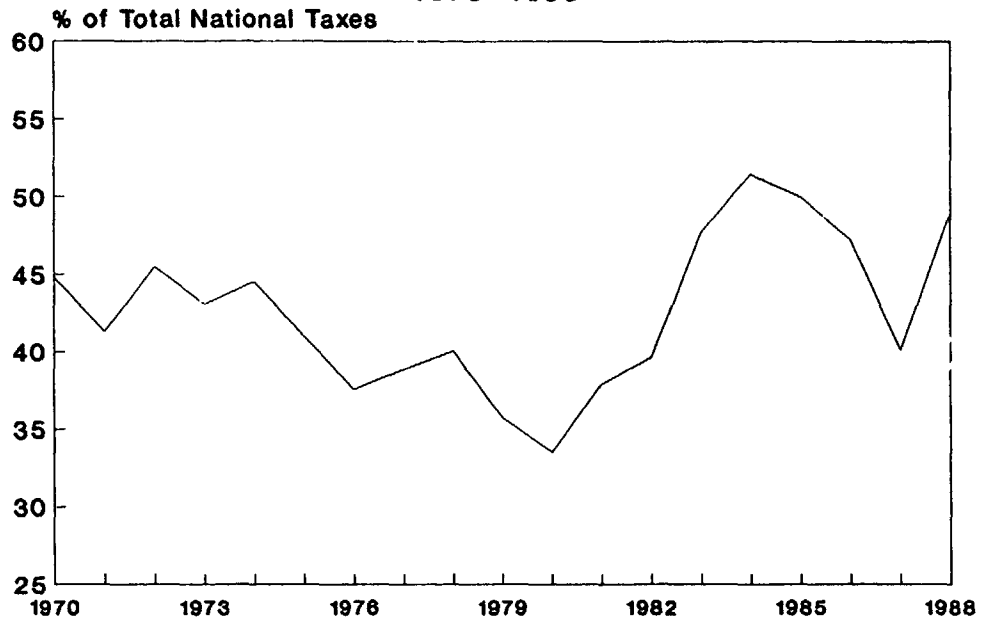
2.12 Tax handles are usually established for a limited time by the legislature. Their yield quickly diminishes when taxpayers learn to devise schemes to avoid them. Tax handles may be ad hoc (e.g., forced savings or taxes on bank debits) or piggybacked on existing taxes (e.g., surcharges on gasoline tax, tires, cigarettes). Extensive use of tax handles may contribute to greater variability in revenues. Their diminishing returns, coupled with legislative hiatuses between approval of new handles may result in sudden revenue loss and equally sudden increases, complicating the task of both the administration and the policymakers. Other tax handles may be more easily administered but more pernicious to the economy and more tempting for the legislator. An example is export taxes, periodically used to compensate for shortfalls or sudden spending needs, which were a fundamental component of the Austral Plan and of recent stabilization measures.

2.13 A high proportion of tax handles in the overall tax system should be of concern to the economist and policymaker alike. Not only are the economic distortions associated with nongeneral taxes likely to be multiplied and interact through synergy, but also the reliability of revenues may decrease. In addition, the taxpayers, witnessing a weakness in the structure of the formal tax system plus the capriciousness of legislation, may modify their behavior to further complicate the task of administration. Thus, reliance on tax handles usually leads to a fundamental deterioration of the tax system.

2.14 Argentina has increased its reliance on tax handles (Figure 2.1).^{4/} After reaching the lowest proportion of total national revenues in 1980--the year of the generalization of the VAT--the use of tax handles to address short-term revenue needs to rise dramatically over the subsequent four years. The tax reform measures that restored social security contributions and led to an increase in income taxes marked a reversal of the trend that became especially strong in 1987 (because of the reduction in export taxes). However, 1988 saw a combination of policy measures to reduce the importance of modern taxes with a scramble for new tax handles to compensate for another fall in revenues. As a consequence, when overall tax revenues fell precipitously and contributed to the crisis that began at year's end, tax handles rose, far above the average in the 1970s.

^{4/} In Figure 2.1, modern taxes comprise income taxes, social security contributions, the VAT, and wealth taxes.

Figure 2.1
Tax Handles
1970-1988



C. Tax Policy: The Growth of Tax Expenditures

2.15 The proliferation of tax handles is the result of the deterioration of the modern tax system. In turn, the expansion of tax expenditures and the associated opportunities for tax evasion are the most important reasons for such deterioration. Without doubt, this is the area where the legislature--because of misconceptions about the nature of territorial investment subsidies and lack of vision and recognition of the national interest--has done the most damage to the fiscal integrity of the State. Industrial promotion laws were developed as a result of piecemeal legislation dating as far back as the 1960s, but substantially strengthened at the end of the 1970s. They mostly favor the four provinces of La Rioja, Catamarca, San Luis and San Juan, the promotion of selected sectors (under the administration of the National Industry Secretariat), and industrial development in Tierra del Fuego.

2.16 Their approval was the result of an ultimately self-defeating legislative process. Powerful and costly tax incentives were approved: (i) without a clear identification of the limits of tax expenditures; (ii) by creating incentives for collusion between the application authority and the subsidy recipients; and (iii) without providing administrative capacity to control the scheme. In addition, the legislature succumbed to competing pressures from special interest groups, resulting in a piling-up of incentives: at the end of 1987, virtually all investment activity was subsidized to some extent (the only exception being the Federal Capital).

2.17 Tax exemptions and subsidies for industrial promotion have been awarded through six different instruments: (i) exemption from import duties and VAT on purchases of capital goods; (ii) deferral of tax payments by investors up to a certain percentage of the amount invested; (iii) exemption from the tax on profits; (iv) exemption from the tax on capital; (v) exemption from the VAT; and (vi) exemption from the stamp duty. Deferral of tax payments was modified in 1977, when the deferred tax amount was indexed (previously, high rates of inflation resulted in the virtual disappearance of the tax liability within a relatively short period of time). Under the regime in force until end-1988, the deferral (up to five years, beginning three years after the completion of the investment) constituted a substantial subsidy since real interest rates were extremely high.

2.18 The administration of the schemes was the responsibility of either the Ministry of Economy (for subsidies targeting favorite sectors, e.g., steel and paper) or the provinces benefitting from the investment. Both arrangements led to an administrative nightmare. In the first case, the secretary of trade and commerce was unable to set up a reliable monitoring system, and little or no coordination was attempted with the tax agency. In the second case, since it was in the interest of the province receiving the subsidy to increase the amount, severe problems developed. The laws provided for a maximum subsidy amount to be awarded by each province annually. However, the amount referred only to the first year tax cost, which could be made very small without such effort. What is more important is that the laws did not provide any way to certify whether the tax expenditures were, in fact, conforming to the projected specifications. The approval of a project was, in reality, a license for unqualified and unlimited exemption from the VAT.

2.19 As a result of this process, the "theoretical" fiscal cost (excluding the special regime applicable to Tierra del Fuego), limited to 0.4 percent of GDP in 1980, grew to 2.6 percent of GDP by 1987 (Table 2.4). This, however, represents only the fiscal cost declared at the moment of the approval of the subsidized project; actual tax expenditures may be considerably larger. In addition, Tierra del Fuego exemptions were estimated at around 0.8 percent of GDP in 1988 (Table 2.5). Most of the tax expenditure increase was registered in the four favored provinces (La Rioja, Catamarca, San Luis, and San Juan), which acted quickly to grant exemptions from the VAT (a national tax) to attract real and fictitious investment from neighboring provinces. It is reckoned that over 4,000 enterprises benefit from the promotion scheme.

The New Promotion System

2.20 A recognition of the intolerability of the continued erosion of revenues led to the adoption of restrictive measures lately. Their effect, so far, has been limited. In September 1988, Congress approved a new law meant to replace all previously existing promotion schemes (with the exception of Tierra del Fuego and other minor ones). The law foresees three different regimes: (i) promotion of sectoral and regional projects; (ii) incentives to "priority" projects; (iii) selected promotion of investment and reinvestment of profits. The main difference with the earlier scheme is that the subsidy is now provided in the form of a bond that can be transferred once or is nontransferable depending on the type of subsidy, redeemable against tax obligations involving income and wealth taxes, capital gains tax, and VAT. This provision is meant to close the most obvious loophole in the earlier scheme: the open-ended exemption from VAT for items produced in subsidized projects. Projects under item (i) would roughly benefit from the same "package" enjoyed by regional promotion schemes: tax exemption bonds for up to 40 percent of the amount invested, redeemable against obligations for income, capital, wealth, capital gains and VAT, transferable once and valid over a period of three years; tax bonds usable against tax obligations arising from the execution of the project; exemption from import duties for capital goods; same-year payment of VAT on capital goods (now applicable to all investments in Argentina, however). Projects under (ii) would enjoy the same benefits as under (i), but with a maximum subsidy of 30 percent in the case of tax rebates to the investor. Projects under (iii) would have a maximum rate of 15 percent.

2.21 Overall, these changes would move the system towards greater manageability and would reduce its opaqueness to a certain extent; but the new law confirmed the reliance on an inappropriate instrument for the pursuit of economic objectives. Furthermore, some provisions--such as a minimum mandated annual concession of subsidy equivalent to 0.3 percent of GDP--cast a shadow on the willingness of the legislator to drastically reduce the erosion of tax revenues.

2.22 The rapid deterioration of the economy at end-1988 prompted more forceful but still limited action on the part of the Government. The Omnibus Law of December included two important provisions. First, the open-ended tax exemption already granted to promoted projects would be replaced by tax bonds similar to those under the new law, thus at least limiting the tax expenditures that were not intended by the legislators. This measure, of great administrative complexity, did not address the heart of the problem, namely the outstanding stock of projects.

**TABLE 2.4: ARGENTINA: THE THEORETICAL COST OF INDUSTRIAL PROMOTION
(Percent of GDP)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988 <u>a/</u>
Administered by SICE	0.67	0.65	0.32	0.86	0.59	0.62	0.80	0.77	0.10
Administered by four Provinces <u>b/</u>	0.01	0.03	0.04	0.10	0.25	0.88	1.39	1.82	2.15
<u>TOTAL</u>	<u>0.67</u>	<u>0.67</u>	<u>0.37</u>	<u>0.96</u>	<u>0.84</u>	<u>1.50</u>	<u>2.19</u>	<u>2.60</u>	<u>2.25</u>

a/ Includes only projects approved through 1987.

b/ Catamarca, La Rioja, San Juan, San Luis.

SOURCE: Secretaria de Hacienda.

Table 2.5: ARGENTINA: OTHER TAX EXPENDITURES, 1988
(Percent of GDP)

	Percent
<u>Exemption From Import Duties</u>	1.1
<u>Nontraditional Export Subsidies</u>	0.6
Tax Rebates	0.4
Income Tax Exemptions (10 percent)	0.1
Exemption of Subsidies from Income Tax	0.1
<u>Subsidies to Tierra del Fuego</u>	0.8
<u>Exemption From Income Tax For BONEX, Interest</u>	0.1
<u>TOTAL</u>	<u>2.6</u>

SOURCE: González Cano (1988)

Second, the law contained a provision stating that no new industrial promotion project could be approved before the effectiveness of the new industrial promotion law. The latter requires regulatory instrumentation plus a supplementary law to assign the benefits among the provinces.

2.23 In the wake of the hyperinflation crisis, the Government and Congress took bolder action. In May 1989, a partial moratorium on the benefits of industrial promotion was declared in the form of a 90-day exemption reduction of 25 percent in the four favored provinces and a 180-day reduction of 50 percent elsewhere). The Economic Emergency Law, promulgated on September 1, 1989, extended the suspension of 50 percent of industrial promotion benefits for a further 180 days. All of these measures, however, are of a temporary nature.

Other Tax Expenditures

2.24 The industrial promotion regime represents the most enduring threat to the stability of the tax system and the development of modern taxes; however, it is by no means the only source of revenue loss. Special exemption from taxes (particularly the income tax) and direct tax-subsidy schemes are commonplace in Argentina (Table 2.5). The Tierra del Fuego regime cost was estimated at about 0.8 percent of GDP in 1988 (half the entire yield of the corporate, personnel, and foreign entities' income tax). This expenditure subsidizes employment for approximately 90,000 people in what is essentially an electric screwdriver industry, most likely with a negative value added. In other words, each workplace subsidized has a cost of approximately US\$9,000 per year, which represents a multiple of the salary received by the employee. The subsidy to the area is sometimes justified by the politicians on the basis of national security considerations. It is apparent, however, that its cost is excessive even using that rationale.

2.25 Equally important are the exemptions granted to selected imports (mostly capital goods) and the subsidies granted to nontraditional exports in the guise of tax rebates. The rationale for either expenditure is weak, since in neither case is the cost to the Treasury and the society at large ever made explicit.

D. Efficiency and Equity Aspects of the Tax System

Marginal Effective Tax Rates on Capital

2.26 The revenue consequences of the industrial promotion system have been documented in the previous section; its economic consequences are more difficult to assess. One way of doing so is to calculate marginal effective tax rates on capital income (according to the methodology proposed by King and Fullerton (1984)), by measuring the internal rate of return a firm would have to generate given the structure of the tax system to remunerate capital at the prevailing market interest rate. The estimates permit an assessment of the extent to which the legal tax system --comprising the formal tax system and the system of tax exemptions has: (i) built-in biases against the financing of capital formation according to the type of financing selected; (ii) is inflation-proof; and (iii) distorts capital formation according to geographical location as a result of the industrial promotion system. The results are presented for the combination

of income and wealth taxes before 1985/86, and for the system as it will be after 1990 according to current legislation.

Features of the Legal Tax System

2.27 In the absence of distortions generated by industrial promotion, the tax system appears to be inflation-proof. Marginal effective tax rates under each financing alternative are invariant with the average rate of inflation both for debt financing and for investments financed by risk capital with annual distribution of dividends. The reason for this remarkable neutrality lies in the inflationary adjustment mechanisms provided in the corporate tax law, which, in effect, reduces the inflation-induced distortions to zero.

2.28 In addition, contrary to the case in most industrial countries and elsewhere, the tax system does not appear to have a built-in tendency to discriminate against risk capital--whether it is accompanied by dividend distribution or by retained earnings--but to favor debt financing. Tax rates for investment financed by debt are substantially higher than either capital-raising alternative. This consequence results from the difference between the (partial) integration of personal and corporate income taxes in the case of risk capital and the lack of it in the case of debt-financed investment. In the latter case, the return on capital is subject to double taxation and thus much higher effective tax rates.

2.29 The reforms of the income tax system between 1986 and 1989 have resulted in a substantial lowering of marginal tax rates. This has occurred despite the abolition of bearer shares, which has subjected dividend payments to the personal income tax. The key for understanding this apparent paradox lies in the partial integration of the corporate and personal income taxes and in the complex relationship between personal and corporate wealth taxes. In the case of debt financing, the corporation, as observed, does not pay any wealth tax, either before or after the reforms, since no increase in net worth is produced by a leveraged purchase of an asset. This would leave the company liable for the corporate income tax, and the taxpayers liable for the personal income tax and the net wealth tax. The combination of these taxes (together with the partial deductibility of interest for the company) yielded the relatively high marginal tax rate of 55.6 percent. The reforms have left this constellation of taxes relatively unchanged, but substantially lowered the rates for the personal income tax and the corporate and personal wealth taxes: as a result, the marginal tax rate has fallen to 32 percent for an "average" investment.

2.30 No personal income tax was levied on dividends before 1986. Corporate income was, thus, subject to the corporate income and net worth tax; the same was true for retained earnings. After 1989, dividends will be subject to personal income tax, but with an integration that will be almost complete when the maximum marginal tax rate for individuals falls close to the level of the corporate tax. Retained earnings, instead, are not subject to taxation at the personal level, since the capital gains tax does not apply to stock sales. Both forms of investment financing, however, benefit from the integration of the corporate and personal wealth

taxes, unlike debt financing. This eventuality, coupled with the reduction in rates, results in a substantial reduction in effective marginal tax rates (from 38.1 percent to 27-28 percent in the case of an "average" investment).

The Effect of Industrial Promotion

2.31 While the formal structure of the corporate tax system compares favorably with other countries, substantial differences emerge when the effects of industrial promotion are taken into account (Table 2.6).^{5/} The marginal effective rates on capital are generally negative, implying a sizeable subsidy to investors in the promoted industries. Except with debt financing (which would not have allowed the individual investor to take advantage of tax deferral), the subsidy rates are greater than the return to the saver. This implies that the discounted value of the subsidies granted on unit investments exceeds the cost of the investment by far, thus, requiring no net output from the application of a new unit of capital to generate a return to the saver. Obviously, social welfare (and product) is reduced by the increase in investment benefitting from this level of subsidy.

2.32 The proposed changes in the promotion legislation, coupled with the changes in the income and capital taxes, and the VAT reduction from 18 to 15 percent, would produce a substantial reduction in the dispersion of marginal tax rates between promoted and non-promoted firms. Whereas, for an "average" investment, before 1986 the tax system would have created a wedge of almost 10 percent in the case of retained earnings (in absence of industrial promotion), and a negative wedge (subsidy) of over 141 percent in the case of a promoted industry, the non-promoted wedge is reduced to 27 percent after the reform, and the subsidy for the promoted firm is reduced to 89.2 percent. Similar reductions are observed for the other financing choices, the most dramatic of which occurs in the case of debt-financed investments.

2.33 The reduction of the dispersion of rates between non-promoted and promoted projects may however, paradoxically, entail negative consequences for fiscal revenues. The abolition of the individual income tax deferral for investors of deferring taxes for individual investors gives a powerful contribution to reduced dispersion, and also raises the revenue potentially accruing to the treasury. The same is not true of other measures, which reduce dispersion but decrease revenues. The most important in this context is the reduction in the VAT rate from 18 to 15 percent, which has greatly contributed to decreasing the disparity between promoted and non-promoted projects, but at a revenue cost that can be calculated between 0.5-0.8 percent of GDP. The obvious policy implication is that a drastic reduction of tax incentives, rather than tax rates, is the best course from a welfare and revenue viewpoint.

^{5/} The table considers only the most generous scheme applicable to industrial promotion, that of the four provinces of La Rioja, San Luis, Catamarca and San Juan. Other schemes with a lesser degree of generosity fall between the two extremes, with proportionate distorting effects. The data shown for the "post-reform" calculations refer to the most generous alternative available under the new (but not yet effective) promotion law.

Table 2.3: ARGENTINA: MARGINAL EFFECTIVE TAX RATES ON CAPITAL

(1) Tax-liable taxpayer - non-promoted investment				
Type of Investment		Debt Financing	Distributed Dividends	Retained Earnings
"Average"	Pre-Reform	55.6%	38.1%	38.1%
	Post-Reform	33.8%	29.1%	27.5%
Machinery	Pre-Reform	53.4%	35.8%	35.8%
	Post-Reform	28.9%	26.0%	24.5%
Structures	Pre-Reform	57.9%	41.8%	41.8%
	Post-Reform	38.4%	34.3%	32.8%
(2) Tax-liable taxpayer - investment in the four provinces <u>a/</u>				
"Average"	Pre-Reform	-26.8%	-141.7%	-141.7%
	Post-Reform	-4.8%	-93.6%	-89.1%
Machinery	Pre-Reform	-82.3%	-155.2%	-155.2%
	Post-Reform	-15.2%	-106.3%	-101.8%
Structures	Pre-Reform	-45.6%	-119.8%	-119.8%
	Post-Reform	11.6%	-72.5%	-67.7%

Assumption: rate of return to saver = 10% in real terms

a/ Provinces of La Rioja, Catamarca, San Luis, San Juan

SOURCE: Authors' calculations

Tax System and Vertical Equity

2.34 The marginal effective tax rates on capital income show that considerable horizontal dispersion is likely to be generated as a result of the promotion system. With respect to vertical equity (defined as the burden of taxes by income level), Figure 2.2 shows that Argentina is characterized by a mildly U-shaped distribution of tax burden by income decile. This distribution is shared by other Latin American countries. It implies that the middle class bears a proportionately lower burden of taxation than either the very poor or the very wealthy. For the former, the greater burden is the result of the regressive character of many indirect taxes (particularly excises); for the latter, it is because only the very wealthy pay income and capital taxes in the country.^{6/}

2.35 While it is not easy to ascertain the consequences of changes in the structure of taxes on the distribution of the tax burden, these data do suggest that a tax system with a fragmented structure and reliance on nongeneral taxes on goods and services results in a tax burden shape that might be questioned on equity grounds.

E. Tax Policy and Instability

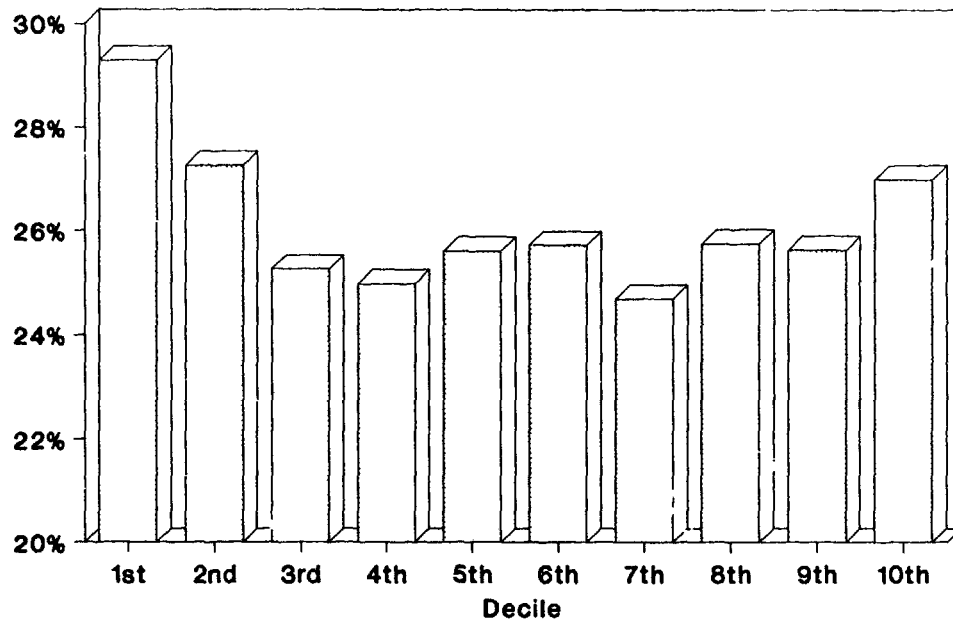
Instability of Legislation

2.36 The structure of a tax system is, to a large extent, the result of the legislative and executive process in a society. Political variability and uncertainty is often reflected in the quality and consistency of tax legislation. This has, undoubtedly, been the case in Argentina in recent times. In this respect, little difference is noticeable between the pre- and post-December 1983 tax policy, which has generally been vexed by contradictory tendencies. Attempts to eliminate obvious distortions and loopholes, and to change the structure of taxation towards greater reliance on direct taxes, led to the passing of reforms virtually at the same time tax expenditures were being considerably increased, thus undermining the major modern taxes. Increased powers for the tax administration proved ineffectual in dealing with the inadministrability of the industrial promotion regimes. Revenue expediency led to a considerable complication of the system, to highly distortive taxes, and to increased vertical and horizontal inequity. Conflicting priorities have been responsible, on the whole, for the deterioration of the tax system.

2.37 Overall, consequently, the tax system is characterized by excessive change, which has contributed to a deterioration of the possibility to administer it. While only the reforms of 1973 and 1985/86 can be considered major, the tax system is continually redefined at the margin (Table 2.7). The policy mix is open-ended also because legal modifications interact with revenue-oriented measures and promotional ones. Change, an administrative problem itself, becomes unmanageable. Legal instability is aggravated by a second tier of regulatory interpretation that further impedes the pace of change: between 1986 and 1988, DGI

^{6/} As in all studies of the incidence of taxes by income levels, these results depend critically on the assumptions about the distribution of individual taxes. For this, see Santiere (1989).

Figure 2.2
Tax Burden by Income Decile, 1986



Source: Santlere(1989)

Table 2.7: ARGENTINA: TAX LAWS ISSUED, 1973-1988 a/

	1973-75	1976-80	1981-85	1986-88	1973-88
Structural Laws	6	26	16	3	51
Forgiveness	2	2	4	1	9
Industrial Promotion	2	7	10	3	22
<u>TOTAL</u>	<u>10</u>	<u>35</u>	<u>30</u>	<u>7</u>	<u>82</u>

a/ Does not include laws issued for establishing tax handles.

SOURCE: Impuestos Nacionales 1989 and Hector Massaferro, "Manual de Incentivos Tributarios," Boletin de la DGI, Noviembre 1986.

issued more than 400 general resolutions (Chapter III). The abundance of this second-tier regulation is evidence of poorly drafted legislation or of capriciousness in administrative perspective.

Main Reforms of Major Taxes, 1984-88

2.38 A laborious and difficult process led to the approval between 1984 and September 1986 of laws and decrees that modified the income tax both for corporations and individuals. A first intent of the legislator was to increase the ability to control income through increased patrimonial control. The first measure consisted of a decree that made it mandatory to report the existence of foreign assets and liabilities of residents. The effects of the measure, however, were nullified by subsequent interpretation. A more important attempt was initiated in 1985. The first measure was the elimination of proprietary banking and stock exchange information. Until then, DGI had not been allowed to use information of financial institutions when auditing a taxpayer unless the information complemented other evidence. The change in legislation gave DGI sweeping powers in this respect; however, from the beginning the measure was ineffective, and very limited in application, since there was no system to make use of increased access to information (Chapter III).

2.39 A further measure with more complex ramifications was the abolition of bearer shares. These shares had been used by a majority of corporations since dividends were not subject to personal taxation, thus providing an incentive to the formation of corporations, given their lower tax rate. Furthermore, the previous regime allowed fund recycling within the enterprise through the issue of shares. While the legislature sought to impose limitations on the abuse of the bearer's share, the 1985 law abolished these shares altogether.

2.40 The income tax was modified in 1985, and then again in 1987 and 1988. Minimum taxable incomes were reduced but subsequently raised again (Chapter V). The rate schedule for the personal income tax was modified (to a range of 7-45, 10-45, and 6-35 percent, respectively, for taxes due in 1986, 1987/88, and 1989). The exemption of dividends from income tax was abolished, with a credit given for corporation tax. As discussed in Chapter V, other modifications touched the inflationary adjustment and the loss carryover.

2.41 Legislative changes also involved the VAT through a modification of the regime for small taxpayers and changes to the rates and bases (Chapter V). Most importantly, the employers' contribution to the social security fund was restored in 1985, terminating the experiment in supply-side reform that had backfired because of poor design (as discussed above). Direct taxation was reinforced by provisions that strengthened the capital tax through an extension of the taxable base to agricultural buildings. The process had its setbacks, however: an attempt to introduce land taxation in exchange for a substantial lowering of export taxes failed in 1988, and the revenue sharing law with the provinces lapsing in 1984 and not to be renewed until the end of 1987.

Legislating Tax Handles

2.42 While the legislature was taking measures to strengthen the modern aspects of the tax system, it legislated an impressive array of tax handles, or more generally a series of bad policy measures. Indeed, as

time progressed and the expected increases in revenues from modern taxes failed to materialize, tax policy became increasingly subject to ad hoc legislation, disregarding the consequences to the soundness of the tax system.

2.43 The first measure, in direct contradiction to the streamlining of the tax system, was the approval of a tax amnesty--the most recent in a long series of measures that have periodically undermined tax administration and contributed to the general evasion propensity of the public. Tax amnesties paralyze the administration and result in a very unfavorable trade-off between a modest recovery at a reduced price and future losses of taxation (Chapter III). These considerations notwithstanding, Congress approved the amnesty measure, which yielded only 0.2 percent of GDP.

2.44 Next, a so-called "forced savings" scheme was approved, which combined in one law a measure of questionable fiscal soundness, a statement of purpose, and an attack on the revenue-sharing system with the provinces. The scheme provided for a 40 percent surcharge on the income, capital, and wealth taxes for 1985 and 1986. As the name of the tax suggests, the surcharge was not intended as a tax, but rather as a forced loan to the State, repayable with interest with a grace period of five years. As the scheme did not represent a tax, it was not to be shared with the provinces either. This last feature in particular made forced savings popular with the Central Government, so that the scheme was repeated for 1988/89. The public was initially skeptical of the repayment promise, and with good reason: the interest rate was set in a way as to rapidly reduce the real value of the liability of the Government; in the end, the onset of hyperinflation led to a vaporization of the remaining balance.

2.45 The Plan Austral incorporated measures to increase substantially export taxes, which rose in 1985 to a post-1970 high of 2.3 percent of GDP. Export taxes have been a perennial bone of contention, and are symptomatic of the problems in the Argentine tax system. Since exports of agricultural products are easy to tax, the Government has periodically relied on this tax to finance public expenditures or to compensate for shortfalls in other sources of tax revenue. Singling out this sector also has been justified because of its alleged lower-than-average participation in the total tax burden. This argument, which is difficult to prove given the uncertainties linked to any calculation of effective sectoral taxation, is specious, since the low participation is attributed to specific application of modern direct taxes, which could include a productivity-oriented land tax.

2.46 The legislating of bad taxes continued, particularly in 1987 and 1988, when the Government became increasingly anxious to replace revenues from falling modern taxes. A new tax amnesty was declared, which yielded the lowest return in the recent history of this measure. In January 1988, a package included reinstating of the forced savings scheme, a substantial increase of the tax on bank drafts, and the imposition of additional taxes on gasoline, gas, and telephones earmarked for the social security fund. Similarly, in March 1988, additional surcharges were imposed on cigarette taxes, the tax on interest on fixed-term deposits, and the tax on holdings of financial assets--this time earmarked for the provincial governments, in addition to the revenues provided by the co-participation law. In August,

in a quid pro quo with industrialists, the Government, in the middle of a fiscal crisis, decided to lower the general VAT rate from 18 to 15 percent, thereby providing a powerful impetus to the slide of the economy towards hyperinflation.

2.47 The deterioration of the quality of the legislation was, in part, a result of the dynamics of the political process. In the latter years of the Alfonsín administration, the Congress was often hostile to the Central Government, and special interests with conflicting priorities (e.g., industrialists, provincial governments, agricultural exporters) saw their power reinforced.

2.48 A typical example of the recent deterioration of tax policy is provided by the vicissitudes of the December 1988 tax package, which produced the so-called "Omnibus Law" (Law 23548). The original intent of the Government was to increase revenues by an annual equivalent of about 1.5 percent of GDP. This was determined to be the shortfall for the achievement of 1989 fiscal targets compatible with moderate inflation. The increase in revenue was to be accomplished by: (i) restoring VAT rates to 18 percent; (ii) increasing the base of the VAT and possibly increasing the rates on selected excises. A quick-action program to strengthen DGI's operational ability was meant to complement the legislative effort. The actual law incorporated few, if any, of the desired features. For example, the VAT rate, instead of being increased was in fact lowered to 14 percent.^{7/} The enlargement of the tax base was basically rejected. The legislature approved a change in the regime affecting small VAT taxpayers, which is of questionable value (Chapter IV). The undermining of revenues continued as rates were reduced (for future years) for the income and wealth taxes. In addition, subsidies to the provinces were included. Thus, the law to strengthen modern taxes ironically contributed to their further weakening. The only positive aspects of the law were (i) the suspension of granting new subsidies under the industrial promotion law; and (ii) the creation of a subsidy bond to be given to currently "promoted" industries, in lieu of unlimited VAT exemption, as discussed in paragraph 2.22.

^{7/} The reduction in the rate was subsequently rescinded.

CHAPTER III. TAX ADMINISTRATION

3.01 There is ample consensus in Argentina that the weakest point of the tax system is tax administration. Tax agencies are perceived as inefficient, prone to corruption, unable to modernize, and generally unable to provide necessary services to the public. While to a certain extent the crisis in tax administration reflects the general crisis of the State, deeper reasons can be found of a systemic nature. This Chapter identifies and analyzes the problems of tax administration in Argentina, focusing on the General Tax Directorate (Dirección General Impositiva, DGI), the most important agency. The first section will review the main features of the legal and administrative environment in which DGI operates; the second Section assesses the internal performance of the agency.

A. Administration and the Legal Tax System

3.02 The efficiency of the tax administration is the result of (i) the legal framework, and the attitude of legislators vis-à-vis the requirements of sound administration; (ii) the attitude of the taxpayers and the degree of tolerance towards tax evasion; and (iii) the ability of the administration to organize itself and use its resources effectively. All of these factors are not easily manipulated by policymakers, but rather define the environment in which tax administration takes place. Inappropriate tax legislation can reflect extreme approaches with regard to administration: it can either ignore it, or make it the determinant factor of decision. An illustration of the first possibility is the enactment of modern taxes without regarding to their technical and operational requirements. Taxes become too complex to be properly administered. The second case is illustrated by: (i) the selection of easy-to-tax bases or activities (the tax handles discussed in Chapter II) that introduce price distortions and undermine vertical and horizontal equity; or (ii) the recognition of administrative incapacity as in the case of forgiveness of tax liability, under which, for a reduced "price," tax policy attempts to replace temporarily what tax administration could not achieve with noncompliers.

3.03 These elements are reflected in Argentina's tax system, which, as documented in Chapter II, is characterized by instability and lack of generality. In addition, the legislation has reflected, to a certain extent, the generalized attitude of leniency towards the taxpayers, and has not been immune from loopholes. Finally, procedures have generally been designed inefficiently, and the tax administration granted excessive regulatory delegation. These elements add up to excessive complexity and inconsistencies in the tax system.

3.04 Leniency. An attitude of leniency towards noncompliers by politicians has resulted in legislating a set of "escape valves" to soften or eliminate the intent of many tax laws. Leniency is defined as (i) a procedural system traditionally biased in favor of the taxpayer at the expense of the State, (ii) the cyclical nature and predictability of measures to forgive taxes (especially before elections), and (iii) loopholes that are built into the laws.

3.05 Loopholes. Loopholes are abundant in the Argentine legislation due to the unelaborated nature of certain parts of the legal texts as well as to the excessive number of incentives. The definitions, exemptions, and rate regimes of individual taxes are in many cases incomplete; tax procedures are approached without an operational concept of integration of the different taxes. When too much is left to interpretation, the initiative to find loopholes in their favor will undoubtedly increase.

3.06 Inefficient Procedures. Procedures are designed inefficiently. Procedures are efficiently designed when they minimize time and operational costs for the taxpayer and the administration within a general framework of due process. This goal is achieved if a general system contemplates systematically many possible likely events for the taxpayers. An event is systematically defined when both its occurrence and solution are predefined within a process. Argentina's procedural rules foresee events such as deadline extensions or ad hoc changes in tax returns whose definition is at the will of the taxpayers; they also often allow the dilution of a case at no cost to the taxpayer. These interruptions of ongoing processes increase the possibility of erroneous outcomes and decrease internal control. They create a climate that encourages noncompliance and abuse by taxpayers that makes the administrative task much harder. In short, the system becomes less reliable and at a higher cost.

3.07 Excessive Regulatory Delegation. The excessive regulatory discretion of the DGI director is one source of instability in the rules of the game for taxpayers, with significant potential revenue effects (Table 3.1). In the last two years, DGI has issued 400 general resolutions. Such an amount makes their generality doubtful. In addition, this regulatory power represents a source of discretion to individually adjust the interpretation of the laws beyond the jurisdiction of any other body.

3.08 Complexity. Complexity in tax administration can be defined by the number of theoretical possibilities in the law. Complexity increases as taxpayers reinterpret and combine legal provisions to achieve results beyond the original purposes of the law. The parameters that lend to unnecessary complexity are the number of taxes, the number of definitions of tax bases, the number of definitions of exemptions, and exceptional treatments in the laws and the number of rates. The laws in Argentina are extremely complex. Substantive laws have created too many incentives; procedural laws define a profusion of circumstantial situations of taxpayers that further complicate the system. Finally, the design of the tax administration organization, with its hybrid centralized-decentralized approach to operations, compounds the complexity.

3.09 Tax Code Inconsistencies. Tax code inconsistencies appear throughout the system, examples of which are:

- (a) The evolution of the tax structure has contributed to the impossibility of administering taxes as legally designed. The repeated granting of generous tax expenditures, and the imposition of ad hoc taxes to compensate for their fiscal costs and

**Table 3.1: ARGENTINA: PRESIDENTIAL REGULATORY DECREES AND REGULATIONS
ISSUED BY DGI, 1984-1987**

	1984	1985	1986	1987	1984-87
Decrees	61	32	25	22	140
DGI Regulations	57	64	68	119	408

SOURCE: Memoria of DGI 1984-85, and Boletin of DGI 1986-87.

solve immediate liquidity problems of the budget, have resulted in more instability and complexity of the system in the long run.

- (b) The substantial powers granted to the director of DGI and the stringent obligations of taxpayers do not correspond to the built-in incentives for taxpayers to postpone payments with little or no cost (this situation was modified only in 1988). Although an Argentine businessman has to submit six different tax returns monthly, it is likely that he will report a very low or no tax liability. This strict periodicity, meant to minimize Olivera-Tanzi effects, coupled with a theoretically highly empowered federal government, is not effective.
- (c) While administrative powers are decentralized, computer operations are highly centralized, making the exercise of a decentralized tax administration impossible.

B. Administration and Substantive Tax Law

3.10 The most significant elements of the substantive laws that affect administration are the number of taxes and the number of taxpayers, the inflation adjustments of tax bases, the use of presumptions of tax bases, the level and variations of tax rates, and incentive schemes.

Number of Taxes and Number of Taxpayers

3.11 The number of taxes has increased significantly in Argentina during the past few years due to the decreasing yield of income, capital, and net worth taxes and to the erratic behavior of the VAT.^{1/} Until very recently each tax specified an identification number for its respective taxpayers. From the administration's perspective this meant that the same taxpayer would appear in the administration as many times as the taxes he had to comply with. The duplication of effort is obvious. Also, the lack of connection among the different taxes created interrelations many of which contained built-in redundancies.

3.12 The number of taxpayers per tax is defined by some basic parameters. Minimum taxable income automatically excludes a number of taxpayers. The application of inflation adjustments to these parameters may also affect the universe of taxpayers. The parameters also define a spatial distribution of taxpayers and the socioeconomic stratum to which they belong. The lack of inflationary adjustments to the taxable bases may move the cut-off point from initially targeted middle-income taxpayers to low-income ones. This substantially increases the number of taxpayers--or worse, those with unproductive returns.

^{1/} However, the number of taxes as such is not an indicator of the increased burden on DGI since most of the administrative effort of the newly established taxes is borne by the private sector or public enterprises in their capacity as collection agents.

3.13 In the case of VAT, a parameter that determines the number of taxpayers is the definition of the distribution level at which the tax is designed to operate. The inclusion of wholesalers and retailers as taxpayers of VAT during the early 1970s dramatically increased the number of registered taxpayers. According to several tax administrators a large-scale VAT was not manageable under the existing administrative structure when introduced in 1974. In 1980 the number of VAT taxpayers was reduced by the introduction of the concept of "substitute" taxpayer, under which the seller could withhold the VAT due from the buyer. This approach decreased the number of taxpayers and ensured the collection of their taxes from businesses. In 1986, the substitute taxpayer approach was replaced by a simplified regime and an exemption regime, which increased the number of taxpayers substantially. In 1989, the small taxpayer does not pay VAT; instead he pays a "turnover" tax. From an administrative perspective the consensus is that substantive VAT legislation evolved without due consideration to implementation capacity (Chapter IV).

Level and Design of the Tax Rates

3.14 Tax rates are a key determinant of the manageability of a tax system. Taxpayer noncompliance is directly related to high rates. The combination of legal rates on "theoretical" taxpayers yields a potentially high tax in Argentina. More importantly, only the taxpayer fully assesses the cumulative tax burden when several layers of government are involved. Separate taxing powers among levels of government (with administrative partitions at each level) serve to limit the understanding by tax officials of the total tax burden on the administration's side. Hence, tax officials have only a partial view of the tax burden.

Inflation Adjustments of the Tax Bases and Loss Carryovers

3.15 Partial inflation adjustments to the tax bases were introduced in the tax reforms of 1974-76. Originally introduced to mitigate the fiscal drag due to the interaction of rising nominal incomes with inflation and the progressivity of the income tax rates, inflation adjustments are currently used to minimize the negative impact of inflation on collection and to mitigate distortions caused by the tax laws with respect to the sources of business finances. However, while inflationary adjustments are a necessity in Argentina, their application is costly and difficult. Law 21894/1978 expanded inflationary adjustments to the base tax and made them compulsory. This law also requires the adjustment of losses to be carried forward. Law 23260/1985 amended the adjustment rules so that taxable income is determined by adjusting the financial items of the taxpayers' balance sheet for inflation.

3.16 Inflation adjustments are administratively expensive. Taxpayers' compliance costs are increased if they have to keep a parallel accounting system for the inflationary adjustment for tax purposes. For the tax administration they are costly because audits become more complex. In addition to their search for actual economic bases, the auditors have to audit the inflation adjustment process itself.

Use of Presumptive Tax Bases

3.17 The use of presumptive bases is a way to simplify or eliminate administrative efforts when the tax base is difficult to determine. The Argentine legislation contemplates several presumptive bases. Changes in the net worth of a taxable unit can be used to assess a minimum taxable income. The law authorizes the director of DGI to develop reference standards for establishing tax bases when taxpayers do not provide the necessary information. For instance, individual incomes are presumed to be at least three times the yearly amount paid for rented housing.

Incentive Schemes

3.18 Given their diversity and capricious nature, tax incentives are one of the factors that contribute to management problems for the tax administration. They change a standardizable "production" system to an individual job-order one. The possible administrative granting of permits are determined by the initiative of taxpayers, in that, the administration has to deal with as many interpretations of benefits as are proposed by taxpayers. The potential efficiency of standardized mass production is completely lost. Operationally, the diverse, highly detailed nature of incentives demands a larger, more qualified and specialized force of inspectors. Additionally, incentives induce hard-to-detect avoidance-and-evasion schemes that further complicate tax administration.

3.19 The administration of tax incentives is primarily the responsibility of the Secretariat of Industry and Commerce, the various provinces and Tierra del Fuego National Territory. These administrative entities grant the incentives, establish the conditions for their application, and approve on a case-by-case basis. DGI's role is only one of audit of compliance with the obligations acquired by the beneficiaries, since their noncompliance returns them to a regular taxpayer status.

C. Individual Compliance: Procedural Laws

3.20 As primary instruments of administration, procedural laws establish obligations and rights for taxpayers^{2/} and related third parties, as well as duties and legal powers for tax officials. The Argentine tax procedures follow the general pattern of modern tax systems, whereby the division of labor between authorities and taxpayers has increasingly given formal obligations and burdens of proof to taxpayers and third parties, and greater sanctioning powers to the tax authorities. This structure, however, alternates with perhaps the strongest built-in deterrent to compliance: the recurrent suspension of legal requirements for tax administration by granting amnesty.

^{2/} Taxpayers must issue receipts, file a timely and accurate return, keep records of the transactions that support the returns, and pay the balance due on the self-assessed tax. If questioned by the tax administration on the accuracy of their returns, they must answer on time the citations issued by tax officials and produce the records of their transactions. On request of the tax administration with regard to the payment of the self-assessed tax, taxpayers must settle the amount due promptly.

3.21 Procedural rules in Argentina are complex and not designed to properly accomplish the massive tasks implicit in the public management of modern taxes. The laws provide for many situations even for the most elementary act of filing, an approach that goes opposite to the requirements of standardization and automated processing. In addition, the relationship between the tax administration and the taxpayers remains severely biased against the administration: extremely long procedures can follow an unfavorable audit before a final injunction is issued, by which time a tax amnesty may have wiped out the effects of the legal action.

3.22 The basic procedural law (Law 11683) was modified and amended 15 times between 1972 and 1989. In 1972, two major reforms were implemented. The official assessment was substantially modified by creating an administrative liquidation and its appeals process and the beneficiaries of tax exemptions were obliged to comply with certain information rules under penalty of losing the benefits and being tried. In 1976, tax liabilities and credits were to be adjusted for inflation and public entities become taxable. In 1978, the wholesale price index was officially adopted for purposes of all inflationary adjustments; noncompliance was declared punishable with imprisonment; some presumptions were specified as official determinants of taxes in cases where there was no tax return; and the appeals process at the Fiscal Tribunal was reorganized. In 1986, the presumptions for the official determination of taxes were increased, the lack of compliance with formal requirements was made punishable by automatic fines and business closure; and, finally, DGI was given a much clearer role in the control of companies benefiting from industrial promotion. In 1988, the authority of the Secretary of Finance to determine interest payments on tax arrears was substantially increased. DGI's institutional products--assessments and other decisions--are reviewed by the tax tribunal. Fines and other penalties are reviewed by ordinary courts.

Tax Amnesties and Forgiveness

3.23 In Argentina three possibilities exist for "forgiving" tax obligations: amnesty (blanqueo), moratorium (moratoria), and "ready compliance" (facilidades or presentación espontánea). Amnesties cancel taxes and penalties due to evasion in exchange for a reduced "compensatory" tax; moratoria are restricted to interest due and inflation adjustments of taxes in arrears; and ready compliance gives more time to taxpayers and may reduce the inflationary adjustment of the amount due.

3.24 Repeated tax forgiveness (Table 3.2) is a symptom of either political recognition of administrative paralysis or of the excessive tax burden of the nominal tax rates. By definition forgiveness measures are the temporary suspension of administrative powers in exchange for some reduced payment by evaders or taxpayers in arrears. They are in fact an attempt to substitute legislation for poor administration. In the case of amnesties they neutralize auditing powers; in the cases of moratoria and ready compliance they void official collection capacities. During the forgiveness period, taxpayers effectively assume all administrative roles.

Table 3.2: ARGENTINA: TAX FORGIVENESS

Year	Collections from Measures			As Percent of	
	Total	Per Capita	Benefitted #	Total Revenue	GDP
<u>Forgiveness</u>					
1956	1.820	19,480	96.5	3.4	0.3
1962	3.874	8,586	451.3	10.4	0.7
1970	8.108	26,545	305.4	8.8	0.8
1971	0.042	46,622	0.9	0.1	0.0
1974	13.252	21,653	612.0	11.7	1.0
1977	11.270	35,932	313.7	11.0	1.1
1984	4.474	21,551	207.6	2.0	0.2
1987	1.947	8,658	224.9	1.1	0.1
<u>Moratorium</u>					
1966	9.086	80,248	113.2	15.4	1.3
1970	4.022	48,917	82.2	5.2	0.5
1973	1.417	50,395	28.1	2.2	0.2
<u>Ready Compliance</u>					
1976	2.032	10,712	189.7	3.1	0.2
1981	6.094	68,698	88.7	5.9	0.7
1982-					
1983	7.251	53,786	134.8	2.9	1.4

SOURCE: DGI

Forgiveness measures are stop-and-go policies that increase substantially the difficulties of enforcing taxation over time, since they become part of the normal expectations of taxpayers. As such they act on an incentive to permanently evade or delay payment of taxes. The inducement of evasion and tax arrears augments even more the task to be accomplished by the tax administration.

Legal Power of the Tax Administration

3.25 Processing of modern taxes implies two broad types of ex post compliance controls: (i) on the accuracy of privately assessed bases and (ii) on the accuracy of payment of assessed values. These are the core tasks of tax administration: assessment and collection. By contrast, in the case of tax handles, control of evasion and collection occur simultaneously. Taxpayers submit their returns and simultaneously pay the amount declared. If the tax administration audits the return and discovers an arrearage, it will immediately collect the amount due; however, there is no current account for taxpayers.

3.26 With respect to individual taxpayers, the administration has broad powers to investigate, assess, and collect taxes within the time limits allowed by the statute of limitations. In its auditing capacity the administration has the power to presume the values of certain tax bases using proxy indicators. The institutional output of the audit function becomes the official determination of tax liability. Additionally, tax officials are empowered to impose fines and some other penalties. For example, imprisonment and arrest may be recommended by tax officials to judges.

Third Parties in Collections and Auditing

3.27 After long use of third parties to support the collection function--the banking system since the 1950s and withholding agents since the mid 1970s--DGI has decided to use third parties to support tax audits. The decision to audit economically significant transactions (SITER) is based on reports by sellers and buyers of the number of transactions with potential taxpayers. The establishment of disclosure obligations, the elimination of the financial sector secrecy and of bearer shares are indications of an increasing tendency to monitor taxpayers through their relations with third parties.

3.28 DGI has the final legal authority to establish withholding obligations, which has been exercised to establish withholding methods of collections for several payment transactions, among which are income from salaries, dividends, interest, honoraria, commissions, rents, royalties, payments due to judiciary decision, and real estate transfers.

3.29 In addition to the support of the private sector, DGI has been empowered since 1984 to enter into collaborative agreements with the provinces. This policy is noteworthy because the multilevel relation of taxpayers may induce taxpayers' decisions to favor one level at the expense of the others. This bias can result from the spontaneous taxpayers' loyalty preferred level or be a function of its relative efficiency.

Sanctions for Noncompliance

3.30 Noncompliance may cause the following sanctions: temporary closure of business, personal arrest for repeat offenses, a fine of A\$200 for corporation and A\$100 for individuals for not filing, fines of 1/2 to one times the tax omitted in the returns for first offenders, and twice the tax in the cases of reoccurrence fines between 2 and 10 times the tax omitted in cases of fraud, with interest payments at the rate defined by the Secretary of Finance for taxes in arrears. A bill recently introduced in Congress would substantially increase penalties for evasion (with prison terms ranging from 3 months to 10 years).

D. Administration: The Internal Organization Laws

3.31 Several agencies are charged with collecting national taxes: the General Directorate of Taxes (DGI), the Social Security Administration, the Customs Service (ANA), and other minor bodies. The DGI is by far the most important of the agencies both with regard to the amount of revenue collected (Table 3.3) and its auditing and prosecuting powers. It operates over the entire national territory, with its main functions being the official reassessment of tax liabilities and revenue collection. It administers the income and capital taxes, the VAT on domestic transactions, the national excise taxes, and other minor taxes. Tax revenues are transferred to the national treasury, the provinces, several special funds, and recently to the social security system.

3.32 Theoretically, the tax administration agency ensures that tax laws are fully complied with. Full compliance, however, is not feasible in any country. The establishment of self-assessments and withholding obligations is, in fact, an implied recognition of the limits of administration by a public agency. Tax administration is mainly a policing function of partial ex-post controls (auditing and collection) based on a system of registration of the transactions done by taxpayers under legal obligation. Its institutional objective is limited to minimizing noncompliance.

3.33 To achieve its institutional objective, the tax administration performs many functions including the preparation of data relating to taxpayer compliance, the development of administrative tax policy, the support in the development of an economic policy for taxes, and the official interpretation of the tax laws. To this end, the DGI director is empowered to interpret the legal system, through general resolutions. Finally, the tax agency performs administrative functions related to its internal management and organization of human and material resources. These functions may be assigned to a single agency or divided among different governmental units.^{3/} In the case of Argentina, the current design integrates all of the above functions in DGI.

^{3/} In Chile, for instance, the collection function occurs only in the Department of the Treasury. See CIAT Executive Secretariat: Study of the Organization of Tax Administration in the 27 CIAT member countries. Panama, June 1988 for a description of the various approaches in Latin America.

Table 3.3: ARGENTINA: TAX COLLECTIONS BY REVENUE AGENCY

	1970-74	1975-79	1980-84	1985	1986	1987
<u>TOTAL TAX REVENUE (GROSS)</u>	<u>17.0</u>	<u>17.5</u>	<u>20.7</u>	<u>23.2</u>	<u>23.6</u>	<u>17.3</u>
DGI Tax Revenue	8.0	8.6	11.4	11.6	12.2	10.5
ANA Tax Revenue	2.0	1.8	1.9	3.2	2.5	2.0
Social Security	4.7	4.6	3.9	5.0	5.0	4.8
Provincial Taxes	2.2	2.5	3.5	3.4	3.8	0.0
<u>TOTAL TAX REVENUE (PERCENT)</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
DGI Tax Revenue	46.7	48.4	55.4	50.0	51.8	60.9
ANA Tax Revenue	12.1	11.0	9.3	13.7	10.7	11.4
Social Security	27.9	26.7	18.7	21.7	21.3	27.7
Provincial Taxes	13.2	13.8	16.6	14.6	16.2	0.0

SOURCE: Ministry of Economy, National Directorate of Budgetary Programming, May 19, 1989.

3.34 The Argentine legislation on the internal organization of tax administration gives the impression of substantial development as does other tax legislation. Organizational design incorporates the above conceptual framework. DGI is organized as a self-contained, autarkic agency with a certain degree of independence from many public-sector rules. The two main features of the current organization are its extremely centralized approach due to the legal responsibility at the central level to determine and collect taxes individually and a division of work supposedly designed to deter corruption.

3.35 The internal structure of the organization was changed in 1968, 1969, 1974, 1980-82, and 1987. The last reorganization followed the guidelines of a study prepared by the Fiscal Affairs Department of the IMF (Silvani, 1987). DGI was restructured by reducing the previously dispersed design of top management from nine to four subdirections. Of these, three were the previously geographically dispersed supervision zones. Four functional offices--planning, tax law, operations, and administration--were created in lieu of seven departments: studies, administration, audit, programs and norms of tax inspection, technical and juridical matters, collections, and computer services. The three regional zones eliminated were incorporated into the operations office in Buenos Aires. The new organization also accepted the IMF's recommendation to upgrade the existing unit in charge of large taxpayers^{4/} in addition to the division of work by regions in the case of provinces and districts in the case of Buenos Aires. Finally, the reform separated by function the formerly autonomous Office of Excises.

3.36 Resolution 278/87 embodied an organizational strategy that substantially strengthened the centralization of DGI; however, the effort to improve the headquarters of the administrative apparatus was not balanced by a similar improvement in the design at the operational levels. It is not apparent from Resolution 278 that DGI had as clear a strategy regarding the regional operations as it apparently did for its own operations. According to officials interviewed in Córdoba and Tierra del Fuego, the new organizational design was decreed without consultation with the staff. In their opinions, its design should have considered two other key factors: computer technological strategy and the degree of autonomy of the operational units to interact with taxpayers.

3.37 The new organization maintained a highly centralized computer operation that by all standards was considered a failure. Had modernization and decentralization been the objective of DGI's reorganization, the appropriate adjustment between computer services and the regional operations would have been the guiding principle. Additionally, division of work among operational lines was done in such a way as to impede the build-up of institutional memory. Currently, any acquired know-how is lost due to the yearly rotation of tax officials.

^{4/} The idea of disaggregating large taxpayers to be managed by a separate unit has been discussed in Latin America for a long time. The Argentine tax system adopted this organizational strategy in the mid seventies (see Francisco M. Vasquez, 1985).

3.38 Argentine authorities have not yet accepted that the only way to free management time to think and act comprehensively about the task ahead for DGI is to completely separate top management from operations. The current procedural design and its related organizational approach allow decisions on individual taxpayers to be taken by the DGI director and the central level staff. (This dual possibility causes simultaneous action on identical matters at central and regional levels.) Additionally, in spite of the strong emphasis of the IMF report on enhancing the nature of DGI as a service to taxpayers, it is not apparent that the subsequent reform measures followed the advice.

3.39 Auditing functions are designed to control individual compliance of taxpayers. Their objective is to detect, prove, and punish evasion, which involves managerial and operational functions. To detect evasion, DGI has the capacity to select who to audit. This is actually the main managerial function of any tax administration. Selection is discretionary and depends on the sampling strategy. Once the selection is defined, the operational functions are triggered. To investigate, DGI mainly requires a technical skill in accounting. DGI employs various legal methods to prove and punish evasion based either on the taxpayer's accounts or on third party information supported by the legal capacity of making presumptions about what tax should be paid by taxpayers based on their profile. The punishment of evasion through fines and other sanctions completes the control cycle.

3.40 The collection function concerns the receipt of taxpayers money. The law gives no discretionary powers to DGI to choose among taxpayers to collect tax obligations. It has to collect all assessed taxes. Administratively, collection occurs at the discretion of the taxpayers or is induced by the authorities. The capacity to collect is determined by the accounting instruments developed by DGI to track taxpayers transactions. Argentina has a long tradition of using banks as collection points under various agreements. In contrast to other countries, DGI does not have collection points of its own. In addition, injunctions for late payment of taxes due have not been issued for the past several years.

3.41 The new legal framework gave the Director-General of DGI the power to modify the structure and functions of the organization by internal resolution, within certain limits. These changes should be implemented within the limits of the number of personnel and the salary scale agreed by DGI with its employees with reference to government salary scales. This capacity is another source of instability along with the legal system, the regulatory capacity, and the high rotation of DGI directors.

3.42 In the area of personnel management, the civil service career coexists with collective bargaining by the workers union which has flattened the shape of the salary curve. The salary scales generally evolved with a relatively small dispersion of salaries between the top and the bottom, making DGI's posts attractive to clerical employees but extremely unattractive to professional and managerial officials.

3.43 To guard against corruption, by statute, public officials must report their wealth to personnel offices when they begin public employment. Additionally, the organizational design places the internal control function (auditoria interna) in a specialized administrative unit.

E. Administration: How Has DGI Fared?

3.44 DGI was one of the most respected public agencies in Argentina 20 years ago. It was known for the high caliber of its technical personnel as well as high morale. The degradation of DGI as an institution has paralleled that of the erosion of the tax system. This degradation has simultaneously been cause and effect of the vicious circle of poor legislation and poor administration that has brought about the collapse of the tax system.

3.45 The internal ability of the agency to process and use information has been hampered by the failure to introduce more modern systems of information gathering and processing and the lack of long-range planning. DGI entered the 1980s without a clearly defined strategy to cope with increasing demands on its resources and with obsolete internal operating and processing systems. Compounding these problems was a long-standing tradition of politicization of key managerial positions and a very high turnover in the Director-General position: the current administration appointed four directors in its first two years in office; the former Director under the old administration had been the longest-serving in the last 25 years, with a tenure of just over two years. Since May of 1989, two more directors have been appointed and have resigned.

Overall Indicators of Administrative Performance

3.46 Administrative performance can best be grasped by two indicators: the evasion gap and the collection gap. Unfortunately, the necessary data to calculate these ratios are not available in Argentina. The evasion gap relates assessments of taxes to would-be assessments estimated on proxy bases usually involving disaggregated data from the national accounts. The second is the ratio of actual collection to total assessments. Unfortunately, the necessary data to calculate these ratios are not available in Argentina.

3.47 DGI was once involved in the collection of information that could partially measure the above indicators. However the deterioration of the national accounts makes any effort to determine the evasion gap futile.^{5/} The information flows designed many years ago are still in effect. Regional administrations send periodic reports on different aspects of performance; however, administrative capacity at headquarters has not been able to adequately process the information to produce the overall performance indicators. This situation reflects the very serious problem of information management that extends beyond DGI to most of Argentine's public sector institutions.

^{5/} The results reported by Duran (1989) regarding potential collections of VAT show a negative evasion, which points to the difficulty of obtaining accurate information.

3.48 An example is provided by the distribution of DGI's personnel by function (Table 3.4). The number of employees assigned to tax audits is very low compared to those fulfilling collection functions. This is rather peculiar in a country where there are no payment facilities for taxpayers in DGI and where the banking system devotes numerous employees to collections tasks. Collection is likely to be a function for which a reduction of personnel in DGI may increase productivity.

Managerial Functions

3.49 Managerial functions in DGI are highly centralized. Participation in tax policy, the general interpretation of the law, the selection of taxpayers to be audited, and the negotiations with the banking system in developing and monitoring collection systems are all centralized. In some countries like Colombia the selection of taxpayers to be audited is divided between centrally and locally defined programs. In México, the administration recently decided to completely decentralize the selection of taxpayers, establishing monetary targets for performance audits. The overall view of the operation and its direction and coordination are necessarily of a centralized nature.

3.50 The main hurdle for managerial performance is the lack of information systems to guide the decision-making process. There have been initial efforts to collect and meaningfully process information for different purposes. However, the content and reliability of the information gathered are necessarily poor in the absence of feedback from information sources. The establishment of medium-term objectives for information systems planning is absolutely necessary to provide a basic operational framework for DGI top management.

3.51 Involvement in Tax System Design. There is always a conflict between policymakers and administrators. Argentina is no exception. The Secretariat of Finance comprises the Directorate of Revenue Policy and DGI. As has been shown, the very broad regulatory capacity of the DGI's directorate has become in practice a means to autonomously define a substantial part of applied tax policy. This policy includes economic and administrative aspects without distinguishing between the two.

3.52 One could seriously question this situation on grounds of adequacy of the perspective of the DGI director on formulating policy. DGI is mainly an administrative unit that should not be greatly involved in economic policy formulation. Its participation should be limited to providing ideas about the feasibility, development, and implications of policy proposals. Given the record of Argentine legislation, it appears that it has been precisely on administrative matters where the participation of DGI has been either nonexistent or unattended, too. However, the DGI was expressive by the recent establishment of a simplified VAT regime; its position was that VAT was not manageable as defined in the case of small taxpayers.

3.53 Intergovernmental coordination is another aspect of tax policy that has been losing ground after the failed integration attempts through VAT sharing.

Table 3.4: ARGENTINA: DISTRIBUTION OF PERSONNEL BY FUNCTION

	Tax Audit	Collection	Data Processing	Administrative Coordination	Total
General Direction	-	-	-	41	41
Operations	2,686	5,010	-	-	7,696
Planning	235	207	-	-	442
Support	145	310	465	1,372	2,292
<u>TOTAL</u>	<u>3,066</u>	<u>5,527</u>	<u>465</u>	<u>1,372</u>	<u>10,471</u>

SOURCE: DGI

3.54 Interpretation of Tax Legislation. The interpretation of tax legislation has been excessive in Argentina. According to tax consultants, the excess of regulatory activity by the DGI director reflects improvisation. Many of the resolutions contradict previously enacted ones, creating a climate of uncertainty for taxpayers and for all who those participate in the tax process.

3.55 Organization and Definition of Operational Work. The central level of the tax administration is charged with programming and controlling regional operations. Under the current design, this task competes with day-to-day participation in individual tax matters. The result is that these day-to-day activities dominate the attention of DGI's top managers. This severely limits the possibility of accomplishing a broad managerial function that could effectively define the institutional objectives and strategies. However, DGI has institutionalized several routine decisions, such as a periodic fiscalization plan and a system of managerial control.

3.56 The participation and involvement of top management in the actual definition of the plan's strategy does not compare with its involvement in individual decision of the taxes to be paid by a given taxpayers. This lack of leadership in the definition of the plan explains why its priorities are not in line with the realities of tax evasion. Under current conditions it appears that industrial promotion and the control of the operations of withholding agents, included for the first time in the Fiscalization Plan of 1989, should have been be the main objectives. The inertia of the plan, however, reproduces a number of actions with apparently very low productivity.

3.57 In the case of collections, the managerial challenge in Argentina is not to define a given strategy as in the case of tax audits. The real challenge is to build the collection accounting system on which all other strategies can be based. As explained, this has been part of the overall strategy for the last three years. However, the results are still pending.

3.58 Development of Technical Support to Operations. The technology for monitoring taxes by DGI is closely tied to the technology of the taxpayer or the related third party. The tax on checks is fully supported by magnetic records and audited systems. The other taxes lack, in general, these conditions. This fact makes DGI's possibilities much smaller. To overcome this handicapped position, DGI's management has to devise alternative sources of analysis and information to support the auditors and the collectors on the field.

3.59 DGI lacks supporting statistics, a taxpayer registry, and data processing. The solution to this situation is contained in infrastructural developments like the CUIT (unified taxpayer's identification code), the classification of taxpayers by economic activity, the reduction of information requested on the tax return, and the introduction of special forms for relevant economic transactions (SITER). The problem has been one of implementation at the computer level.

3.60 The main objective of the administration during the past three years has been to develop this kind of technical support. The CUIT, a technically defined, single identification number that subsumed three

previous identification numbers, was implemented by end-1988 after many delays. The idea of basing audit and investigations on computer processed criteria is excellent. Not only does it provide administrative efficiency, it also becomes an instrument of equity because taxpayers are selected using the same yardstick. It also becomes an instrument of internal control. Yet, the process has to be carefully planned and tested. This procedure was not followed in the present case. Argentine tax authorities attempted to implement new tasks simultaneously with the conceptualization and development of the new approach. In the end, none prevailed. What little institution building existed previously disappeared without substitute.

3.61 Internal Control. The nature of the tax process under the responsibility of DGI officials demands an excellent control system. Even though a unit is in charge of internal audit, the function has not currently been performed. The lack of control in DGI's operations weakens the system and corruption is becoming institutionalized. According to the information gathered, the staff at Internal Audit were not considered competent elsewhere. This situation is symptomatic of the priority given to this function by DGI's management.

Operations Directly Related to Taxpayers

3.62 Operations directly related to taxpayers are delegated by DGI's director to the operational units. The operation of DGI depends primarily on the delegation of functions. Thus, any failure of the system is the responsibility of the operational approach. However, decentralization, which seems necessary, is not practical due to the centralization of computer operations.

3.63 Taxpayer Assistance. The taxpayer is not just viewed by DGI as an opposing party, it is simply not regarded. This attitude is reflected in the lack of a unit with the mandate of guiding the taxpayers collectively and individually. Most Latin American countries have established units of taxpayers assistance. These units, initially conceived as small operations, have evolved to be part of the production "line" of the tax process. Apparently small details like the frequent scarcity of tax forms evidence the lack of concern for taxpayers compliance. Recently, however, the administration initiated a deliberate effort of tax form simplification and designed a computer-based balance sheet. This is the first step taken to develop a taxpayer assistance program.

3.64 Control of Evasion, Avoidance and Formal Requirements. Control of evasion is the core of the the tax administration process in systems where self-assessment is the universal method of determining the accrued taxes. Evasion control operations follow the selection process, which is considered a managerial function. Audits can be classified as either prior or ex post. In prior audits, the aim is to obtain data to use as a check against returns. This is the case of some presumptions derived from the presence of the administration during sample periods or the spot checks of inventories during a taxable year for consistency checks in the future. Ex post audits are the widely-known regular audits that attempt to check the statements of the taxpayers against the accounting books or third party information.

3.65 Audits can be assumed as integral (deep audit, in the Argentine terminology) or partial (check points). Also, audits can either be the follow-up of a more or less continuous monitoring process or completely incidental. The approach of the yearly tax auditing plan is a combination of deep and partial audits based on several criteria. Since the Argentine system does not keep the same tax officer with the same taxpayer for a long period, the specific know-how tends to be lost, once the officer is appointed to a different task.

3.66 The consensus of managers at all levels is that the auditing function is insufficiently staffed. However, the computerization of the selection process has been slow and poorly planned in terms of implementation (based on outdated information regarding basic data such as taxpayer addresses). This means that increases in the audit labor force alone will not resolve the problems.

3.67 In general, the comments of the regional managers suggest they adopt an informal system of negotiation with taxpayers to increase their declared bases, rather than engaging in strict and more direct applications of tax laws. Moreover, given the lack of internal control, the propensity for corruption during this process is unknown.

3.68 Collection and Control of Taxpayers Arrears. Collection may originate from the taxpayer spontaneous compliance (unforced collection) or from the use of the administrative power to oblige payment (coercive collection). Argentina's operation of unforced collection is a very well conceived system based on the use of the banking system's operational capacity and the Central Bank's clearinghouse infrastructure. The taxpayer's payment is magnetically coded so errors are eliminated. The collection reports are submitted in tapes by the banks on a daily basis and posted the next day for most collections (at most, after five days in remote areas). The banks are bound contractually to DGI to comply with deadlines and incur penalties and interest payments in cases of noncompliance. This system which started in the 1950s has evolved towards general application and expediency.

3.69 On the other hand, coercive collection is almost impossible given the incapacity of the authorities to locate the debits corresponding to the taxes collected by the banking system. These debits should be processed by the computer when the tax return entered the data banks. This has not happened recently. Without this record it is impossible to establish which taxpayers are in arrears or their outstanding balances. Some 20 years ago all unpaid taxes were identified within days of the payment due date. Although there was no systematic singling out due to the lack of a comprehensive current account, individual debits and credits were available until 1989. Now, records on debits are nonexistent. This structural weakness of DGI is widely recognized by taxpayers, who know the tax administration does not keep track of their individual indebtedness. Under these conditions the second most important operational function of DGI--the collection of overdue taxes--cannot be performed.

3.70 In contrast to the audit function, where some parameters of efficiency can be established, in the case of collection the accounting and statistical records from the banking system do not disaggregate the information by criteria useful for efficiency analysis.

Organization and Management of Computer Services

3.71 The problems with computer services are so vast that a complete analysis would require a separate study. Suffice it to say, computerization of tax operations in Argentina has been unsuccessful. Until very recently, the computer was used only in the collection accounting function; however, the conditions to have a sound accounting were essentially eliminated with the introduction of the computer in the late 1960s. The various tax data requirements were not programmed with an integrated approach in mind so analysis of data is greatly restricted. The limitations of the central computer service have prompted DGI to try to individually solve their data base problems.

3.72 With World Bank financial support, DGI initiated an ambitious program aiming at a substantial improvement in its computer-supported operations. The program entailed improving the operational conditions of the data processing unit and simultaneously developing strategic programs to support tax planning and operations. These programs included the development of applications to improve the auditing ability of tax officials once in the field and restructuring the current account for VAT. These programs were initiated in 1986, but their full implementation will not be possible since some were dropped or substantially reduced in scope.

3.73 More recently, in view of the delays in implementation of the program, the authorities, with further World Bank support, launched a new operations-oriented program. The proposed components related to computers were: (i) the purchase of 200 microcomputers to be used in the regional offices as the excessively large operations at Buenos Aires were decentralized; (ii) the development of software to efficiently control and service large taxpayers; and (iii) the introduction of DGI staff to techniques for auditing taxpayers with computerized accounts. By mid-1989, only the system for large taxpayers was on the way to completion.

Logistics: Human and Material Resources

3.74 Management of Human Resources. There are several human resource problems. The absolute size of DGI's work force is insufficient and the salary scale is inhibitory to recruiting good managers and professional staff. Additionally, corruption and bureaucratization probably have increased in the existing tax administrative environment.

3.75 In particular, human resources available for key tasks have failed to match the increasing demands posed by the evolution of the tax system and the increasing number of taxpayers. The total work force of DGI has been relatively stable at less than 11,000 over the past few years (about 6,000 personnel assigned to operations in Buenos Aires and the rest distributed among the provinces). Of the total, only 1,300 are tax inspectors who handle 1.6 million registered taxpayers. The ability of the

agency to retain and motivate qualified personnel is also hampered by many internal problems. However, the managerial discretion over salary matters is severely limited by existing union contracts that mandate an extremely flat compensation curve. An absenteeism rate of 25 percent is rationalized by DGI managers and personnel on grounds of low pay and poor morale. As a result, private-sector auditing firms routinely use DGI as a pool for recruiting qualified staff.

3.76 Procurement. The procurement process is one of the basic obstacles for efficient performance of DGI's operations. Enormous paperwork is required to make an official purchase involving approval by many agencies. For instance, the computer acquisition was decided in April 1987. After having passed through the Ministry of Education, Justice and Culture, the Ministry of the Economy, and the Secretariat of Public Duty, the order of purchase was signed in October 1988. The computers have yet to be delivered. A current Argentine law is at the root of the procurement difficulties that dates back to the 1950s.

Reform of DGI: Main Lines of Action

3.77 During the last three years DGI has been modified in various ways. In 1986 the agency had to assimilate simultaneously the impact of the modification of all taxes and long-lasting forgiveness measures. In addition, the new administration embarked in a long-term strategic program of institutional development. This line of action comprised the combined effort of reorganizing DGI plus carrying out the program designed with World Bank financial support. The emphasis of the strategic plan was the development and generalization of computer supported operations. The five components were: (i) system of collection; (ii) computerized system of audits (Fiscalización); (iii) codification of economic activity; (iv) organizational change; and (v) strategic planning.

3.78 By 1987, the management of DGI realized that the implementation of the restructuring program would not be completed during the Alfonsín Government's tenure. Its main components had been eroded in content, with new components introduced. The design of the computer support system for collections lagged behind schedule. SITER was also behind schedule and was not going to be finished as originally designed. Instead, technical assistance from the Spanish Government was requested to finish the SITER system component. Moreover, the pace of the procurement of computer equipment was not synchronized with the overall program schedule.

3.79 By mid-1988 the authorities decided to complement the long-term institutional planning efforts with a short-term, highly operational effort to control tax evasion and enhance the presence of DGI among taxpayers. The authorities requested World Bank support for a program of six subcomponents: (i) development of a data base for the 2,000 largest taxpayers; (ii) recruiting new tax inspectors; (iii) training new personnel; (iv) improvement of internal auditing; (v) developing tax inspection techniques; and (vi) provision of computer equipment for decentralization of DGI.

3.80 According to several DGI staff, during the last two years the centralization of information induced the collapse of computerized services and ultimately led to the operational units collating data by hand. The administrative costs of the approach included, inter alia, the loss of security due to the enormous volume of paper that arrived to Buenos Aires. The regional directors reported that the computer day was programmed not for 24 but 48 hours of operation on a diversity of data for a number of internal services, mainly in the area of support to audit taxpayers. The central administration was unable to manage the demand for computer use.

3.81 The substantial reliance on external local consultants had several effects. First, the expertise required was not apparent in many cases. Second, the institutional work pace was much slower than the possibilities offered by freelancers. Third, DGI line staff deeply resented the takeover of the institution by a number of outsiders both on grounds of pay differential and technical knowledge. This resentment has been expressed in the lack of necessary support and a growing negative attitude toward external consultants.

3.82 The Argentine strategy contrasts with that of Mexico. Instead of substituting local consultants for ordinary staff, the Mexican authorities attempted to accomplish their institutional development from within. Consultants would only be hired to solve problems when the consultant was an internationally recognized authority called in to address a highly specific problem.

F. Recommendations

3.83 A successful reform of DGI will be unlikely unless the legal environment and tax policy practices change along the lines discussed in Chapter II. In particular, decreased legislative instability, simplification of the system through reduction in the number of taxes, a substantial reduction of tax expenditures, the reform of the system of earmarked funds, are all necessary conditions to improve DGI's external environment.

3.84 The main recommendations for DGI operational reforms are as follows:

(a) Procedural rules should be redefined, with operational efficiency as DGI's main objective. This reform should involve the design of processes with built-in impulse to conclusions, the elimination of randomness and subjectivity as determinants of the pace of the information flow, the integration of several taxes in one compliance form per taxpayer, the integration of processes that flow from and reinforce DGI's basic actions (i.e., those derived from fines and imprisonment), the reduction of steps of the process at the Fiscal Tribunal and, a very well thought penalty system that does not lend itself as a blackmail device for unscrupulous tax officials. The system should preserve and refine the inflation adjustment principles to update collections.

(b) The organizational design should be redefined at the operational levels so as to retain at the center of the organization only planning, control, and support functions. No taxpayer should have any

direct relationship with the central level of DGI. The regulatory decisions of the Director of DGI should not be compulsory for taxpayers. (In most countries, this is a presidential attribute.) DGI regulations should only be guidelines to taxpayers. Tax-related operative capacities should not be granted to the DGI director but to the administrative units in charge of operational tasks. Division of work along operational lines should be designed in such a way as to explicitly allow DGI to build on the experience with individual taxpayers (an institutional memory).

(c) The DGI director position should be a fixed-term appointment. The subdirectors should not be political appointees. This recommendation is a key condition to stability of the tax system, particularly when the stability of the rest of the system is so fragile.

(d) Recommendations for the operational system comprise the main tasks defined by the two World Bank-sponsored projects and a number of actions and policies to be developed at different organizational levels. They are the following:

- (i) Along the lines of current World Bank-financed projects, actions should continue to cover:
- System of collection
 - Computerized system of audits (Fiscalización)
 - Codification of economic activity
 - Organizational change
 - Strategic planning
 - Development of a data base for the 2,000 largest taxpayers
 - Recruiting of new tax inspectors
 - Training of new personnel
 - Improvement of internal auditing
 - Development of tax inspection techniques
 - Provision of computer equipment for decentralization of DGI

These components cut across all of DGI endeavors. The measures recommended below are either a further requirement of the component framework or complement their initial thrust.

- (ii) The authorities should reinforce their present efforts by reviving the "motivation" fund (fondo de estímulos, ordered by the laws) as a complement to the redesign of the penalty system suggested above. This would allow DGI to retain sanctioning power sufficiently high to deter noncompliance while acting to deter corruption.

- (iii) The administrative implementation of a decentralized computer strategy should closely follow the rules of administrative delegations in the procedural and the organizational laws. Autonomous computer systems should be established to function as legal agents in the respective regional units. Systems design should, however, be kept centralized.

- (iv) The DGI campaign to control industrial promotion incentives should be strengthened and extended to other types of beneficiaries. This kind of activity can continue regardless of the implementation of the policy measures recommended above. Not only is it likely to produce increases in collections, but it will also improve the attitude of other taxpayers by enhancing the perception of equity of the tax system.

- (v) DGI should develop a management information system as the guide for future development of computerized services within the organization. The system should integrate all DGI functions to enable the appraisal of the operations as a whole, in addition to supporting and appraising individual operations. The adoption of parts of the Spanish computer software to complement the computerized support of tax audits should be part of this plan.

- (vi) Implementing the systems design for a current account for VAT should also be done as soon as possible. The possibility of using the design developed for the large taxpayers appears to be a viable alternative to the system developed for VAT. Because the former system is more comprehensive in terms of taxpayers coverage and taxes, its possible generalization to all taxpayers should be considered. Moreover, the decentralized operations concept is an advantageous feature.

- (vii) The general approach of the Tax Auditing Plan for 1989 should be revised to increase the risk to tax evaders. To do so, two tasks should be strengthened. First, emphasis should be given to the background data gathering to increase the probability of a visit from a tax agent or a citation, which should be a determinant in the selection of cases. Second, a more integrated approach to auditing should be implemented. The current piecemeal approach makes the probability of finding tax evaders very low in most cases. Also, the priorities of the plan should be assessed. The weight given to the control of withholding agents (e.g., employers), to taxpayers benefitting from industrial promotion, and to taxpayers liable for internal excises should be increased. The plan does not use the appropriate administrative instrument of audit. For instance, the results of SITER should be managed by Internal Audit. Using external audit for this purpose is redundant.
- (viii) Withholding should be extended as much as possible. The extension, however, should coincide with the administrative capacity to monitor its compliance.
- (ix) The allocation of human resources between the collection and the audit functions should be reversed. The excess number of tax officials in charge of the overstuffed collection function should be transferred to the inspection function. This will become more commonplace when the computerized systems become operational.
- (x) Working hours at DGI in Buenos Aires should be the same as the business community. It is obvious that the current arrangement is the official acceptance of the participation of tax officials in private practice and other activities.
- (xi) With respect to human resources, in addition to the reinstatement of the motivation fund, DGI should aim at renewing its managerial and part of its technical staff. Currently the top of the

organization is composed of career civil servants for which change and modernization may not be an objective. In the case of computer services and audit operations there is a need to strengthen the technical teams because the qualifications of current staff do not appear sufficient for the demands of the task.

CHAPTER IV. REFORMS FOR STABILITY AND GROWTH IN THE 1990s

4.01 The grave crisis now confronting Argentina requires the undertaking of major fiscal actions. While it is imperative that revenues be substantially raised in the short run, to avoid a resurgence of hyperinflation, the analysis of the previous chapters shows that business as usual in the tax area does not represent a viable option. Restoring high income elasticity to the tax system and reducing the revenue and economic costs due to the proliferation of tax handles require strong action to cut tax expenditures and strengthen the administration, and, concurrently, a comprehensive reform of the tax system, to enable Argentina to cope with the challenges of the 1990s. The first section of this chapter proposes a broad outline for a tax reform that would radically alter Argentina's tax system, increasing revenues and improving economic efficiency. The following three sections offer a detailed analysis of problems and possible solutions for: (i) the income tax and wealth taxes; (ii) the VAT; and (iii) the taxation of the oil and energy sector. Finally, some considerations are offered on the transition to the new tax system.

A. Tax Reform: Main Lines of Action

Objectives of the Reform: the Tax System for the 1990s

4.02 The moment is ripe in Argentina for a comprehensive tax reform to restore buoyancy to revenues, strengthen modern taxes, and drastically reduce the complexity and lack of transparency of the system. The tax reform must have two main objectives. First, it must increase overall revenues to levels compatible with resumption of investment and growth and a realistic servicing of internal and external debt obligations. Second, it should lead to a reduction of the economic inefficiencies and the drawbacks induced by the progressive loss of importance of modern taxes and the proliferation of tax handles. Accomplishing the first target would require designing a reform incorporating substantial increases in revenues above the 1987-88 performance, as discussed in Chapter I. During that period, real national revenues fell below 20 percent of GDP; a tax reform compatible with growth would aim to increase this ratio by 3 to 4 percent of GDP. As discussed in chapter II, this target, albeit ambitious, is not out of line with similar countries' tax efforts, and, more importantly, with Argentina's own tax effort in the early 1980s.

4.03 The second objective will pose the greatest challenge. Restoring high income elasticity to revenues and reducing economic distortions will imply not only additional taxation on sectors that are now shielded in one way or the other, but also the elimination of several specific taxes that are earmarked to funds generally catering to special interest groups. For this, the opportunity posed by the present state of economic emergency is perhaps unique and should be exploited to its fullest extent.

4.04 In synthesis, the Argentine tax system of the 1990s would look as follows, after a successful reform:

- All revenue should accrue from a small number of taxes, with the broadest possible base and moderate rates (with the exception of cigarettes, oil and

energy products and alcohol, which would be subject to specific taxes with high rates). All other taxes would be abolished.

- The core of the system would be the income tax, a national property tax, and a generalized VAT. In their revamped form, they would contribute roughly one-half of national revenues. The income tax at the personal level would be applied on a considerably larger base than it is today, with one or very few tax rates; maximum use would be made of withholding provisions. At the corporate level, a restructured income tax would be supplemented by an alternative minimum tax, levied on the basis of companies' capital or assets. The VAT would be generalized, at a uniform rate, which could be the present 15 percent or the 18 percent prevailing until August 1988. Provisions could be implemented for a taxation of value added in financial services.
- Additional revenues would accrue from a moderate, uniform import duty, and from the above-mentioned specific taxes on tobacco, alcohol, and energy products. The import duty revenues would also be boosted by the total elimination of quantitative restriction, as part of the process of opening of the economy endorsed by the Argentine government. The import duties and the restructured specific taxes could contribute a further quarter of national taxes.
- Social security contributions would provide the remaining revenues. It should be stressed that the entire social security system is in need of reform, and the levels and modalities of both contributions and benefits would need to be re-examined jointly.
- Earmarking of revenues would, at full effectiveness of the reform, be eliminated, with the exception of social security contributions. In the interim period, existing special funds would either be reduced through consolidation (as in the case of the energy sector), or would be granted a contribution related to the previous earmarked funds, from general revenues.
- As the reform would modify the mix between coparticipated and non-coparticipated revenues, the coefficient of coparticipation should be modified accordingly (see Chapter V).

Reduction and Increased Transparency in Tax Expenditures

4.05 Both the revenue and efficiency targets of the reform are unlikely to be met without a substantial reduction of tax expenditures and tax subsidies. As analyzed in Chapter II, tax expenditures, chiefly the industrial promotion, the special regimes for Tierra del Fuego, and the subsidies to nontraditional exports, have contributed to the weakening of

the VAT and the income tax, and may now amount to as much as 5 to 6 percent of GDP. Several positive although limited measures were taken beginning in December 1988, when an omnibus law replaced unchecked VAT exemptions with tax bonds. But, although the administrative apparatus needed to make the system function was set up, the bonds were not issued and the law not implemented. In May-July, industrial promotion benefits were partially suspended as were export subsidies; further curtailing measures were incorporated in the Economic Emergency Law of August 1989. The reform of the tax expenditure system ought to capitalize on the progress made so far, which has only been temporary. An outright abolition of outstanding benefits, as well as the continued suspension of the granting of any new benefits, must be given the highest priority on the reform agenda. In addition, the principle should be clearly established that any approval of tax expenditures should be part of tax legislation and not considered separately. Were an outright abolition to prove impossible, the December 1988 measures should then be implemented as quickly as possible.

Tax Reform: the Administrative Constraint

4.06 The analysis in Chapter III shows that any reform must take into consideration DGI as a binding constraint: a further overload of the agency beyond its capacity would condemn the reforms to failure.

B. Direct Taxes: A Proposal for Fundamental Reform

The Unsustainable Present Situation

4.07 Direct taxes in Argentina comprise the income tax (applicable to persons, corporations, and foreign entities); the tax on the net worth of the corporations; the tax on wealth of individuals; the tax on capital gains; and other minor taxes. There is little doubt that the perception of Argentina as a country where very few people pay taxes is due, to a large extent, to the severe problems of the income tax. As discussed in Chapter II, the relative importance of income taxes (both corporate and personal) in total tax revenues, and as a percentage of GDP, is strikingly lower than in any control group of countries, be they industrialized, middle income, or lower-income LDCs. In 1987, one year after the full implementation of measures that were supposed to restore prominence to direct taxation--on equity grounds--the total yield of the income tax was between 1.5-1.7 percent of GDP (depending on the price index used for the purpose). These statistics are usually in the minds of foreign and domestic observers and critics of the Argentine system. Yet, these judgments are only partially justified. As will be argued in this Section, the low importance of income taxes in Argentina is only partly attributable to evasion (which cannot be easily documented). Rather, there are several provisions of the tax laws--the result of political connivance, or of an unwritten social consensus--that ensure the relegation of the tax to the role of a minor one. In particular:

- The principle of territorial imposition leaves untaxed all earnings from foreign investment, which are a substantial part of Argentina's assets and income, while at the same time it offers countless opportunities for tax avoidance.

- The design of the personal income tax is such that not only the low middle income tax is automatically excluded from any obligation, but also, in all likelihood, large strata of middle- and upper-income taxpayers are also excluded.
- The industrial promotion has consistently shielded upper-income taxpayers.
- The corporate income tax has been mutilated by the industrial promotion system and by the application of an inflation-adjustment mechanism that, in all likelihood, reduces tax liabilities beyond what is justified on economic grounds.
- The crisis of the tax administration, documented in Chapter III has compounded all of these problems by preventing an effective application of pay-as-you-go provisions, and by making extremely low, in the eyes of the taxpayer, the probability that an income tax return will ever be audited.

Proposal for Reform

4.08 This Section proposes a radical change in the role of the personal and corporate income taxes in the tax system, as well as in that of the currently existing wealth taxes. While it is argued that there are several technical adjustments that need to be made to the existing legislation to reduce undue exemptions, the restoration of prime importance to the income tax must involve strong political willingness and action. These should be manifested in (i) a substantial reduction of the industrial promotion benefits (outstanding and planned); (ii) a substantial decrease in minimum taxable incomes for individuals, that, together with a greater use of withholding, would lead to a four- to five-fold increase in the number of individuals with a positive income tax liability; (iii) replacing the existing personal wealth tax with a national property tax, a step that could lead to a national land tax; (iv) the imposition of a minimum alternative income tax on corporations, on the example of Mexico and Bolivia, based on the existing net capital tax or on some variant thereof; (v) an overhaul of the inflation-adjustment system for corporate taxpayers, which would allow a resolution of the problem of excessive tax losses accumulated in recent years.

4.09 While the present lack of statistical information prevents a precise assessment of the revenue effects of the reform (and thus suggests a cautious implementation of the measures), it is not inconceivable to expect, based on the experience of countries with similar economic structures, that the yield from the revised personal income tax could reach three to four percent of GDP, and that the national property tax would yield an additional percentage point of GDP. A further 2 percentage points could be expected from the combination of the restructured corporate tax and the alternative minimum tax. Broad-based direct taxes could thus amount to between 6 and 7 percent of GDP, a two to three times increase over the 1987-88 average. This would bring their share in national tax revenues to approximately 25-30 percent, from the present 10-15 percent.

The Income Tax: Quantitative Aspects

4.10 The formal income and wealth tax legislation in Argentina is not very different from other countries. With the 1985/86 reforms, the personal and corporate income taxes have been (partially) integrated. Corporations pay a tax rate of 33 percent; after the full effectiveness of the 1988 reform, the personal income tax rates will be between 6 and 35 percent. Corporations are allowed to adjust their revenues for the effects of inflation. Despite these "modern" features of the legislation, however, the tax has failed to provide a noticeable source of revenue throughout the 1970s and 1980s.

4.11 Understanding the reasons why this system, although similar to other countries, yields such low revenues is made difficult by the extremely poor quality of statistical information. The 1984 Country Economic Memorandum on Argentina^{1/} noted that little systematic gathering of tax information for statistical and economic purposes was being done at DGI. No disaggregation is available on tax collections by taxpayer category, so that it is impossible to distinguish whether a payment is made by a corporation, by an individual, or by foreign investors. This unusual practice (unique among the countries that have an income tax) is the result of both extremely shortsighted administrative and political priorities and the inability to link revenue collection with the gathering of information useful to other branches and activities of the Government. This practice could be remedied if changes proposed for DGI are successful.

The Taxpayers

4.12 Registered taxpayers, both corporations and individuals, have decreased between 1975 and 1985/86 from 270,000 to 220,000 for corporations, and from 2.1 to 1.5 million for individuals (Table 4.1). Of the total, generally a little less than half of all individuals file an income tax return, while for the corporations the percentage is even smaller. Since the number of families in the country is estimated at over 8 million, this suggests only about 17 percent of potential taxpayers are known to the tax administration; only 8 percent bother to file a tax return; and less than 4 percent pay income tax (see below). For corporations, only about 40,000 of them filed an income tax return in the most recent years.

4.13 DGI analyzes the information contained in the tax returns. Table 4.2 shows the self-assessed tax liability for corporations and individuals.^{2/} The self-assessed income, however, must be understood as a maximum liability, since to arrive at the amount due, one must also exclude deductions for industrial promotion and various other reasons are excluded. Nonetheless, the data are rather striking. Total self-assessed taxes have been less than 1 percent of GDP since 1980. For individuals, the 1985 reform multiplied taxes due by a factor of four, but only reached 0.5 percent of GDP. The tax liability of corporations is also insignificant: in 1987, it was assessed at 0.5 percent of GDP.

^{1/} Economic Memorandum - Argentina, 1984, p. 118.

^{2/} In the case of corporations, the data are corrected to adjust for differences in fiscal years. Cf., Durán 1989.

Table 4.1: ARGENTINA: INCOME TAX - NUMBER OF TAXPAYERS

Year	Individuals			Corporations		
	Registered	Filed	Percent	Registered	Filed	Percent
1975	2,114,950	1,538,701	72.8	269,493	28,849	10.7
1976	2,183,875	957,040	43.8	285,395	49,174	17.2
1977	1,572,707	940,103	59.8	306,568	61,152	19.9
1978	1,615,016	752,260	46.6	227,254	62,404	27.5
1979	1,770,505	799,147	45.1	232,703	67,594	29.0
1980	1,881,592	1,059,199	56.3	245,944	77,692	31.6
1981	1,932,029	898,549	46.5	235,670	77,605	32.9
1982	1,995,242	766,774	38.4	243,779	78,481	32.2
1983	1,420,861	714,143	50.3	250,145	76,617	30.6
1984	1,473,287	616,557	41.8	194,626	66,721	34.3
1985	1,532,441	686,036	44.8	207,886	75,869	36.5
1986	-	836,443	-	219,369	46,948	21.4
1987	-	499,258	-	-	44,660	-

SOURCE: Durán (1989).

**Table 4.2: ARGENTINA: SELF-ASSESSED INCOME TAX LIABILITY
(Percent of GDP)**

Year	Individuals	Corporations	Total
1975	0.70	-	-
1976	0.29	2.38	2.67
1977	0.44	1.48	1.92
1978	0.44	0.79	1.23
1979	0.43	0.44	0.87
1980	0.43	0.57	1.00
1981	0.34	0.41	0.75
1982	0.24	0.42	0.66
1983	0.17	0.37	0.54
1984	0.17	0.22	0.39
1985	0.13	0.39	0.52
1986	0.52	0.39	0.91
1987	0.45	0.53	0.98

SOURCE: Durán (1989).

4.14 The low overall self-assessed tax is a manifestation of the low "revenue productivity" of individual tax returns. Table 4.3 shows the distribution of individual tax returns by self-assessed tax liability for 1986. Of the roughly 540,000 returns filed, 45.3 percent showed no tax liability. Of the remaining returns, 41 percent showed a tax liability between A\$0 and A\$1,000, with an average of A\$910, or US\$270 as of the December 1987 exchange rate. Thus, a full 96 percent of the filers provided 18 percent of the potential income tax revenue. At the other extreme, 176 individuals filed returns with liabilities in excess of A\$100,000 for an average of US\$186,000. An interpretation of these figures, and more specifically the high number of zero-liability returns, is that both minimum income provisions are excessive or that a large number of taxpayers tailor their returns to show an income below the threshold, relying on an extremely low probability of ever being audited.

4.15 In principle, the number of taxpayers might be higher, since a wage earner, subject to withholding and without other income sources, is not required to file a tax return. In practice, while information on the nature of these payments is totally lacking, there is a presumption that most of them derive from payments by foreign investors on remittances of interest or dividend income.

Main Recommendations for a Reform of the Income Tax

4.16 The extremely low revenues from the income tax are evidence of the potential for substantial increases. But a precondition for success is that a social consensus develop on the need to strengthen the role of this tax. The 1985/86 tax reform moved in this direction, but in the end it proved ineffective (as discussed in Chapter II). To be successful, a reform of the income tax would: (i) deal with the problems posed by the industrial promotion law provisions; (ii) substantially increase the tax base; (iii) utilize withholding provisions as much as possible to minimize Olivera-Tanzi effects and the difficulties of administration; (iv) revise the provisions of the tax that make it unstable in the face of inflation; (v) set up a minimum alternative income tax for corporations, based either on the current net capital tax or on a measure of corporate assets. The latter provision would be particularly important during the interim period before a full implementation of the measures to restore a functioning corporate income tax.

The Industrial Promotion Law and Direct Taxes

4.17 The industrial promotion law has undermined the corporate and personal income taxes in two ways. Individual investors were allowed to defer income tax payments up to 75 percent of the investment in a promoted industry for five years (without interest) and to further spread the payment of the liability over another five years. In practice, this has meant that a large number of individuals in the higher income checks have been granted wholesale income tax exemptions; lack of administrative support also has meant that the tax deferrals have not been recuperated. Corporations, on the other hand, have been allowed to discount from the corporate income tax (as well as net worth tax) up to 75 percent of the investment. This has led in many cases to the appearance of sizeable tax losses, which, along with the malfunctioning of the inflation-adjustment mechanism described below, have reduced the liability of many corporations to zero in many cases.

Table 4.3: ARGENTINA: PERSONAL INCOME TAX, 1986

Assessed Tax Bracket	Number of Tax Returns	Percent	Assessed Tax (A\$ '000) a/			
			Total	Percent	Average	(US\$)
0	243,047	45.03	0	0	0	0
1-1,000	225,429	41.77	204,663	18.74	0.91	260
1,001-10,000	66,056	12.24	485,318	44.44	7.35	2,100
10,001-100,000	5,037	0.93	289,516	26.51	57.48	16,422
100,001 +	176	0.03	112,641	10.31	640.01	182,860
<u>TOTAL</u>	<u>539,745</u>	<u>100.00</u>	<u>1,092,138</u>	<u>100.00</u>	<u>2.02</u>	<u>577</u>

a/ The assessed tax does not necessarily correspond to actual tax paid.

SOURCE: DGI.

4.18 Substantial revenue gains can be expected from confronting these two problems. In the case of personal deferrals, a special unit should be established to track down contributors enjoying this benefit; the possibility of requesting a guarantee to protect the value of the remaining tax liability should also be explored. In the case of corporations, DGI's monitoring of compliance and repression of fraud must be strengthened. DGI should also exercise its authority to withdraw benefits from enterprises not in compliance with the law. As previously argued, it is also of great importance that the suspension of the granting of any new benefits, and the non implementation of Law 23614 be sustained.

Personal Income Tax Provisions

4.19 Exempt Incomes. The tax on incomes of physical persons (incomes of the fourth category in the Argentine terminology) is applied, in principle, to all revenues originating in the country, except for those explicitly excluded. Thus, interest and profits on external assets are not taxable, whereas remittances of profits and interest income by foreigners are. This provision of the tax code, coupled with extremely open capital markets, both reduces the amount of taxes through a reduction in the base and encourages capital flight. While it might be difficult to enforce a worldwide income provision in Argentina in the absence of cooperation from other countries, it still remains true that interest and dividend income of the order of probably 5-8 percent of GDP remains legally exempt, and that, coupled with open capital markets, the provision constitutes an open incentive to capital flight.

4.20 Interest income on instruments deposited with financial institutions and on bonds issued by the Central Government (particularly the BONEX) is also exempt from personal income taxation, contributing to a substantial reduction of the potential tax liability. The rationale for the exemption of interest income can vary from the desire to encourage formal capital markets to the complications that would arise with the need to maintain inflation-adjusted accounting to avoid taxation of the inflationary component of interest payments, to the fear that the debt service on government-issued bonds could be increased. None of these arguments, however, stand closer to scrutiny. No exemption is granted to interest paid by nonbanking institutions, thus discriminating against direct access to capital markets by corporations; in any event, no tax is levied on the inflation adjustment of any contract that is thus structured. The generalization of this latter provision, in particular, could be used to avoid taxation of the inflationary component of interest without setting up excessively complicated personal inflation-adjustment schemes.

4.21 Minimum Income Provisions. The level of minimum taxable incomes in Argentina is excessive (Table 4.4). Minimum taxable income for a "typical" Argentine family amounted to 81 percent of per-family GDP in 1987, despite a reduction in basic deduction operated with the reform of 1985 (in part reversed); or, put in another way, marginal and average tax rates were equal to zero in February 1989 until the income of the individual reached the equivalent of 120 minimum vital wages (where a minimum vital monthly wage is equal to A\$350 of December 1987, approximately US\$100). These provisions are unusually generous by

**Table 4.4: ARGENTINA: MINIMUM TAXABLE INCOME (AVERAGE FAMILY) a/
(December 1987 Prices)**

Year	(1)	(1)	(1)/(2)
	Minimum	Income Per Family GDP	
1975-79	24,372.0	36,205.4	67.3
1980-84	32,816.5	33,636.9	97.6
1985	45,257.5	30,699.7	147.4
1986	20,520.2	31,889.4	64.3
1987	26,007.0	32,046.9	81.2

a/ The average family is estimated in 3.8 people.

SOURCE: Durán (1989) and Bank staff estimates.

international standards, and it is apparent that they not only serve to shield from income taxation low-income families, but that they ipso facto probably also reach deep into the ranks of the middle class.^{3/} A successful reform of the personal income tax must entail its extension to a much larger percentage of the population, something that could be accomplished by a reduction of minimum taxable incomes to a range of US\$1,000. This would still leave the most underprivileged segments of the society untaxed, but would permit an extension of the income tax to groups that are taxed in a majority of countries.^{4/}

Withholding Provisions

4.22 An increase in the base of the income tax would bring about a substantial increase in the number of taxpayers. To avoid complex administrative problems and minimize potential inflationary losses, withholding systems should be used as much as possible. Withholding is already present in the tax system and plays an important role in collection. In 1988, 51.6 percent of revenues were collected this way (61.8 percent of revenues of "large taxpayers"). It also provides an important stimulus for the taxpayer registration, since unregistered taxpayers are subject to higher withholding provisions.

4.23 There are currently three different withholding systems: (i) final withholding; (ii) withholding of incomes of dependent employees; and (iii) other withholding. The first form of withholding is essentially applied to remittances of dividends, royalties, and interest abroad, following the Argentine source-based taxation system. The second applies, in theory, to all dependent employees; if no other tax obligation exists on their part, no filing of income tax return is necessary. The third regime applies to several other activities, principally professional activities. As is the case for the rest of the statistical information on the income tax, it is, however, impossible to distinguish among withholding of different types, with the exception of whether the withholding is applied to a large taxpayer or not. As argued above, the generosity of minimum income provisions is such that in all likelihood few, if any, dependent employees are, indeed, subject to withholding. Casual observation seems to

^{3/} For instance, in December 1988, no DGI employee was qualified for withholding of income tax because salaries were lower than minimum taxable incomes. DGI offers the most attractive salaries in the public sector, except for the public enterprises sector.

^{4/} An objection to lower minimum taxable incomes often heard is that salaried workers are burdened by high social security payments, and increased taxation would encourage a shift towards the informal sector of the economy. While the argument may have some validity, as worker's contributions reach 16 percent of salary, excluding contributions to health funds, it points rather to the need to solve the problem of the social security system, burdened by excessive benefits and unfavorable demographic trends. It is not inconceivable to think of combining increased income taxation with somewhat reduced rates on social security taxes, if the increase in overall revenues and the reform of the social security system were to permit it.

suggest that most of the withholding is effected on remittances of profits and dividends abroad.^{5/}

4.24 Strengthening the withholding system is a precondition to accommodating a larger number of taxpayers and reducing exemptions. Most firms have the administrative capacity in place for handling withholding of social security taxes; the same vehicle could be used for this purpose. Unlike the present system, however, the withholding should allow the identification of which categories of taxpayers are paying the tax. Furthermore, while the exemption from submitting an annual return should be maintained, employers should be required to issue a form stating the amount withheld and paid to the DGI; in turn, a copy of this standardized form would be filed by the taxpayers with the tax agency. This provision would allow DGI to prevent evasion by withholding agents. Withholding should be extended to categories of taxable interest payments as well as payment of honoraria for professional services. Finally, both withholding and liabilities should be indexed for purposes of final settlement.

Tax Rates and the Integration of Personal and Corporate Income Taxes

4.25 Tax rates are not excessive by international standards. After the December 1988 measures are fully implemented, personal tax rates will vary between 6 and 35 percent; thus, the highest rate will not be much greater than the corporate income tax rate of 33 percent. Several arguments can be put forth, however, for a further simplification of the rate structure, which might go as far as the adoption of a proportional tax with a common rate between individuals and corporations. An increasing rate schedule is justified in terms of redistribution; however, as discussed in Chapter II, the redistributive power of the tax system is questionable at best. More importantly, however, an increasing tax schedule complicates the administration of the tax in the presence of inflation, and might create substantial problems in the implementation of a generalized withholding system. A uniform rate of, say, 25 percent would not produce a substantially different schedule of average tax burden than the current rate schedule. It would have the advantage of not requiring any further action by taxpayers whose incomes are subject to withholdings. If this alternative were not to prove feasible, a three-pronged structure (10, 20 and 30 percent) could be implemented. It is important that the first rate be at least 10 percent, since it can be expected that a majority of revenues would be collected in that bracket.

4.26 Integration of Personal and Corporate Income Taxes. A uniform rate would also have the advantage of permitting a better integration of personal and corporate income taxes. In the past, Argentina has changed the integration between the corporate and personal income taxes several times. Following the 1985/86 reforms, dividends were again made subject to personal income tax, and bearer's shares were abolished. The double taxation of dividends is addressed by granting a tax credit to recipients of dividends equal to 32 percent of the dividend received, provided no negative liability is generated for the taxpayer. A similar provision allows the taxpayer to credit the capital tax paid by the corporation against the wealth tax. In both cases, however, the integration is less

^{5/} It should be noted that foreign taxpayers can generally credit taxes paid in Argentina against home obligations.

than perfect, and creates administrative problems. The adoption of a uniform tax rate would greatly simplify the system either by granting a tax credit identical to the tax paid by the corporation (and imposing the declaration of dividends on a gross-up basis) or by exempting dividends altogether. The latter provision, however, would be appropriate only if the problems with the corporate income tax (and in particular the adjustment for inflation provisions) were resolved as well. It would also not be advisable to reinstate bearer shares. Should a three-pronged rate schedule be adopted, withholding on dividends by corporations would be done at the intermediate level.

Inflation Adjustment Provisions for Corporations: Nature of the Problem

4.27 The presence of inflation substantially complicates the evaluation of income for tax purposes, and the provisions for tax payments. Inappropriate consideration of the problem may lead to vertical and horizontal inequities (depending on the relationship between the date of production of income and the payment of the tax for different taxpayers), and to economic and revenue distortions. The problem is particularly complex as regards the evaluation of corporations' net income. Historic cost accounting is extremely ill-equipped for dealing with situations of high inflation. Accounting profits are a very distorted representation of "true" economic profits because the underlying assets and liabilities that generate the corresponding income flows and outlays are generally expressed in values that are differently dated. A basic principle would envisage the posting of all balance sheet items in a common monetary unit, evaluated at an identical period in time.

4.28 In Argentina, the system adopted in 1978 and subsequently modified, consists of a deduction from income given by the beginning-of-period net monetary assets multiplied by the rate of inflation during the fiscal year. In 1986, the system was modified so as to deduct capital contributions (and reductions) made over the course of the year. In addition, the law allows indexed depreciation of fixed assets according to "accepted accounting standards" as well as indexed deduction of inventories. The system, which evolved in a piecemeal fashion, is imperfect and generally produced excessive deductions for enterprises. Appendix 4.1 shows the theoretical nature of the problem, and provides evidence on its effects through the study of balance sheets and tax returns of 154 large enterprises. The general result is that the tax liability of the enterprises is reduced, on average, by as much as 60 percent; in fact, a large number of enterprises show negative tax balances. This, together with the effects of the industrial promotion laws, is probably one of the main reasons for the insignificant contribution of the corporate income tax to overall revenues. It is not possible to envisage a major role for the tax in the absence of corrective action in this area.

Treatment of Tax Losses

4.29 The practical result of the implementation of the inflation adjustment mechanism has been the accumulation of substantial losses for

tax purposes by the corporations. In response to this situation that was visibly reducing revenues, the legislature reacted by decreasing the time limit for carry-over of losses. Indeed, Law 23549 went even further by limiting loss carry-over altogether. This measure suffers the same problems of cures that deal with the symptom rather than the cause of an illness. Restriction of carry-over of losses is undesirable from an economic and efficiency viewpoint, since it affects risk capital and innovation.

Recommendations

4.30 Restoring the corporate income tax will require abandoning the current system in favor of a full-fledged inflation-accounting similar to the system used in Chile. This should be complemented by a restoration of full-loss carry-over to subsequent fiscal years. Besides improving horizontal equity, incentives to risk-taking, and the yield for the Treasury, the proposed reform would also result in reduced administrative and compliance costs for enterprises and for DGI, since the need to keep and audit two sets of accounting books would be eliminated.

4.31 An alternative proposal, which would require careful arrangements for the transition period, would allow first-year expensing of capital goods and inventories, and eliminate all provisions for depreciation and inventory valuation. This system would be complemented by an inflation adjustment provision limited to monetary assets and liabilities. The need for interim arrangements is motivated by the fact that, in their absence, revenues would fall dramatically in the first years of application.

4.32 Either proposal would need to be supplemented by the imposition of a minimum alternative income tax, which would be essential to collect any significant amount of revenue until the problem of accumulated tax losses is resolved and the new inflation-adjustment system is implemented. The tax could be provided by either the present net capital tax, with a substantially increased rate and no possibility of deduction for shareholders, or by a tax on gross assets, at a rate of about 1 percent. Either alternative lends itself to objections, but has also desirable features; the implementation of the minimum tax is however a precondition for the collection of significant revenues from the enterprise sector.

A National Property Tax

4.33 Argentina currently enforces, as detailed above, a tax on net wealth of persons. The tax yield is minimal, whereas the administrative costs and the distortions generated by the need to account for inflation are large. The burden on DGI from a correct administration of the tax would be impossible to sustain; this makes the rate of evasion probably very high. A simplification of the system, as well as its generalization beyond the small number of taxpayers currently subject to the tax, would be given by the adoption of a national property tax, applicable to real estate in general, that could be coordinated with the real estate tax at the provincial level. This tax would be more easily administered, provided

that the process of updating of the cadasters at the provincial and municipal level is continued; furthermore, if extended to agricultural land, would also contribute to the perception of a fairer distribution of the tax burden across economic sectors.

C. Generalization of the VAT

4.34 This section reviews the main problems associated with the VAT, with particular attention given to the measures needed to: (i) increase the base and (ii) reduce administrative complexities. The general recommendation is that the VAT be extended to all goods and services at a single rate, which should be at least as high as the present 15 percent, or that could go as far as the 18 percent prevailing until August 1988.

VAT: The Erosion of a Modern Tax

4.35 Argentina was an early adopter of the VAT: it was introduced in 1974 (with use becoming widespread from January 1975), replacing a series of sales taxes (but not, despite some attempts, the provincial sales taxes--see Chapter V). The tax has been modified, radically or in part, on several occasions since then. The changes have encompassed the definition of the base, the definition of the tax, the structure of the rates, the administrative treatment of small taxpayers, and the administrative arrangements for its payment. In addition, the tax has been the main target of the subsidies provided under the industrial promotion laws. It can be said without overstatement that the Argentine VAT represents, in a nutshell, most of the problems that have beset the tax system: instability, difficult administration, erosion.

4.36 Three broad periods can be distinguished in the history of the application of the VAT: 1975-80, 1980-83, 1983-88. At its inception in 1975, the definition of the base was essentially limited to goods, as only a few and not very significant services were included. In addition, most primary goods were also excluded. The tax was also designed to be of the consumption type: the VAT on purchases of investment goods was refundable over a period of three years, rather than instantaneously. Initially, the balances were not indexed (which implied a high effective tax rate on investment goods if inflation was also high); starting in 1979, indexation was introduced, but the amortization period increased to five years. The general rate was set initially at 13 percent, with a special rate of 21 percent; shortly thereafter, the rates were unified at 16 percent. The collection delay of the tax was progressively reduced from 90 to 63 days.

4.37 A major generalization of the tax was attempted in 1980, together with several other tax measures, the most important of which was a substantial reduction in employers' contribution to the social security fund, to be funded through the expected increase in VAT revenues. All the goods previously exempted were incorporated into the base (with the exception of some fuels, tobacco and newspapers), and the list of services was considerably increased. As a result, the number of registered VAT taxpayers grew impressively, from 105,883 in 1975 to 528,840 in 1981. The incorporation of primary goods in the base, as discussed in detail below,

was done without adding the producers of the goods to the ranks of the taxpayers. As a partial compensation for the inability to obtain refunds on VAT paid on inputs, primary producers were granted the possibility of deducting the VAT paid on inputs from income and capital taxes, in an arrangement that may have increased horizontal equity, but that had little to do with the properties of the VAT. The general rate was increased to 20 percent, with a differential rate at 10 percent. In addition, the payment lag was reduced to 55 days.

4.38 The generalization of the VAT was proven to be short-lived; and, starting in 1983, several measures were taken to reduce the scope of the tax. Most goods subject to the differential rate were again exempted, particularly foodstuffs and combustibles. The general and special rates were lowered from 20 and 8 to 18 and 5 percent, respectively.^{6/} VAT on capital goods again was made reimbursable in three installments. In all, only the reduction of the payment delay to 35 days could be expected to increase revenues. Beginning in 1986, as discussed below, a new "simplified" system for the treatment of small taxpayers was introduced.

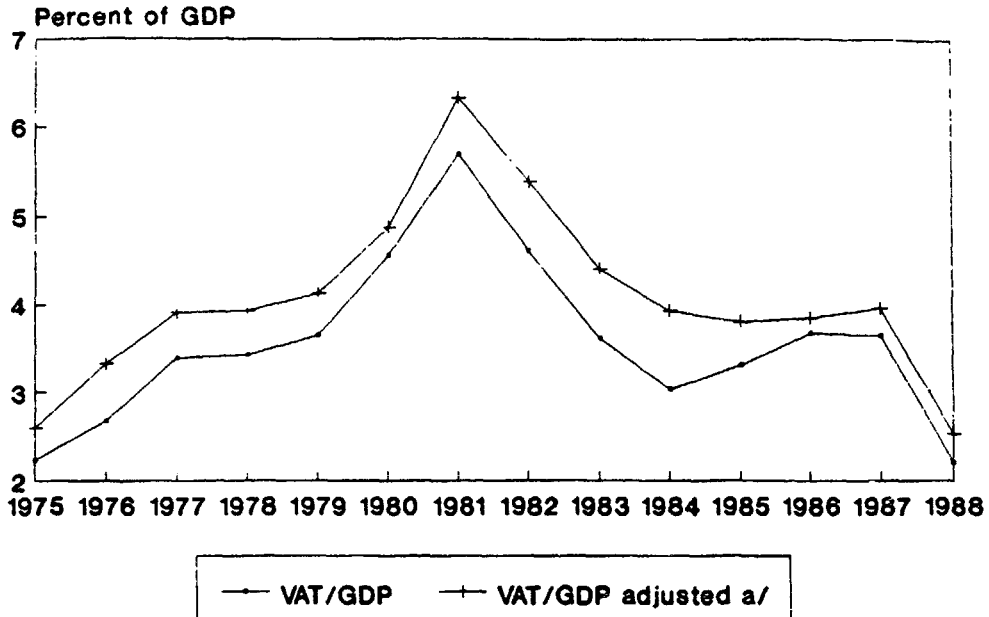
4.39 Other important modifications were introduced during 1988, most of them generally contributing to a lowering of VAT revenues. Reimbursement of the tax paid on capital goods was reduced to one year (effective in 1990), thus completing the transformation of the tax to one based on consumption. While this contributed to a decrease in the distortions of the tax, the revenue effects also can be important at a time of severe budget crisis. The general rate was reduced in August from 18 to 15 percent, as a quid-pro-quo for the collaboration of the industrialist with the price guidelines of the Plan Primavera. Finally, in the Omnibus Law of December 1988, an attempt was made to increase the base through the introduction of a differential rate of 7 percent on foodstuff and medicine. The proposal was, however, aborted, and the law ended up reducing the general rate further to 14 percent, although this provision was subsequently reversed in an attempt to cope with the emergence of hyperinflation in the second quarter of 1989.

Revenues: 1975-1988

4.40 The VAT has sometimes been referred to as a money-making machine for governments; indeed, where introduced, it has generally become one of the most important individual taxes. Argentina was no exception at the beginning of its experience with the tax (Figure 4.1). While national sales taxes had hovered around 2 percent of GDP in the years preceding the introduction of the VAT, revenues rapidly increased, first to around 3.5 percent of GDP (1977-80), and subsequently, with the 1980-81 generalization of the case, to even higher levels, reaching almost 7 percent of GDP by the second quarter of 1981. Revenues declined rather dramatically in the following years, and, by 1985, they were back to the pre-1980 yield. This happened despite measures that had reduced the payment collection delay, and, consequently, the relative importance of the

^{6/} For a short period, a special 25 percent rate on certain luxury goods was introduced.

Figure 4.1
VAT Revenues



a/ Adjusted for the Olivera-Tanzi Effect

Olivera-Tanzi effect. The sharp increase registered in collections at the end of 1985 and through mid-1986 was, in part, attributable to the decrease in inflation, and evidently to a better record of compliance on the part of taxpayers. However, beginning in mid-1987, revenues began a steady decline, which continued throughout 1988. At the end of 1988, VAT revenues had thus come full circle to their initial values.^{7/}

4.41 The progressive loss of importance of the VAT in the second part of the 1980s can be explained by the reduction of the theoretical base, discussed in the next Section, but also, probably to an important extent, by the spread of the industrial promotion benefits. In fact, it has been estimated that approximately 80 percent of the theoretical cost of industrial promotion as reported in Table 2.4 falls on the VAT. This presumption is indirectly confirmed by the eagerness of nonpromoted industrialists to obtain reductions in VAT rates, since they in effect reduce the competitive disadvantage vis-à-vis promoted industrialists.^{8/} In any case, the data show that in the space of a few years a modern and high-yield tax had been reduced considerably, thus contributing in a substantial way to the fiscal difficulties of the public sector and to the increase in tax-induced distortions, as successive governments were forced to increasingly resort to tax handles.

4.42 Reversing this situation, and rescuing the VAT as a modern tax, would require a determined effort to reduce or eliminate industrial promotion, increase the base of the tax, and modify the administration of the tax so that DGI resources can cope with it. The next few sections are devoted to a discussion of these two latter issues.

Potential and Theoretical Revenues

4.43 Value added taxation has long been popular since: (i) it does not generate any distortion in relative prices; and (ii) the tax does not distort the discounted value of consumption. This implies that the tax will not distort the choice of consumption among different goods and services nor the choice between present and future consumption. These desirable properties, however, are predicated on the ability of the tax to affect all goods and services in a uniform way. In practice, however, any VAT-type tax requires, for economic and revenue efficiency, the existence of two types of exemptions: partial and full. The first applies to goods or services that are difficult or impossible to tax, or for which the legislator decides, for noneconomic reasons, to grant a relative price advantage. The second (zero-rated VAT) essentially pertains to exports, virtue of the fact that it is not desirable to export one's own taxes. However, inasmuch as the importance of the partial exemptions grows, so does the loss of general coverage of the tax, and, as a consequence, the desirable economic properties of the tax are correspondingly reduced, and the administrative difficulties related to it increased. In the 15 years since the inception of the tax, Argentina has greatly decreased the generality of the tax to a point where it now severely undermined both in its economic and revenue-generating potential.

^{7/} Revenues declined even further in 1989, with the onset of hyperinflation.

^{8/} See, however, the data discussed in Durán (1989), which suggest that the effect of industrial promotion on revenues might be exaggerated.

4.44 The above point is illustrated by the increasing gap between potential base^{9/} and total GDP. In 1975/76, the potential base was equal to 53.1 percent of GDP; the 1980 reform increased it to 56.1 percent (between 1981-83), but the subsequent reversal reduced it again to around 46-48 percent of GDP (Table 4.5). To put these figures in perspective, one can consider that the potential VAT base in Europe (between 1980-82) was around 60 percent of GDP. Conversely, the revenue cost of the exemptions has been estimated at 6.6 percent of GDP in 1975/76, 9.6 percent in 1981-83, and 11 percent in 1985/88.

4.45 A reduction in the number of exemptions, besides having a desirable economic effect, would also bring about increased revenues. In deciding which sectors to aggregate to the base, however, two important considerations must be taken into account: absolute relevance of the sectors, and actual possibility to enforce taxation. As Table 4.5 shows, the most important exempted sectors in 1987 were: (i) combustibles (8.5 percent of GDP); and (ii) services, and foodstuffs. The first set of products, which is subject to a complex and separate taxation, is reviewed in the next Section.

Services

4.46 A perfect VAT would be applied to all services. In practice, there are services for which it is difficult to determine the value added itself (many financial and insurance services), and for which it would be correspondingly difficult to apply a VAT; and others that are not deemed taxable, either for equity reasons, or for administrative complexity (for instance, professional services).

4.47 The technique most coherent with the generality of the VAT would involve establishing the principle of taxation of all services, except for those that are expressly excluded. Instead, Argentina (together with Chile, Mexico, Ecuador, Perú and Costa Rica) chose the opposite way: services are, in general, excluded from VAT with the exception of those that are explicitly mentioned in the Law. Since 1975, the list of taxable services has been modified twice: in 1980, when several services were added to the base (in particular distribution of water, gas and electricity, and services connected to the administration of, or work on, buildings); and in 1986, when the list of taxed services was reduced. The 1988 Omnibus Law did not introduce any change in this respect.^{10/}

^{9/} Defined as the share in GDP of the economic sectors not exempted from payment of VAT, net of their exports and investment. The calculations are described in Durán (1989).

^{10/} Thus, at present, the following services are subject to taxation: distribution of water, gas and electricity, services connected to the administration or construction of buildings; rental of movable objects, and structures for recreational purposes; services of hotels, bars, restaurants, public baths, swimming pools, hairdressers; garages; etc. The main exclusions from this list are: financial services, professional and technical services (except for those mentioned), insurance, transportation, education, health, and research.

**Table 4.5: ARGENTINA: VAT EXEMPTIONS
(% of GDP)**

	1975	1979	1981	1984	1987
Fruits and Vegetables	2.0	1.3	-	1.2	0.8
Meat	3.6	6.2	-	7.1	5.2
Milk Products	1.2	1.1	-	1.6	1.4
Other	3.7	3.4	0.2	3.4	3.4
Non-Alcoholic Beverages	0.5	0.5	-	-	-
Alcoholic Beverages	1.0	1.4	0.2	0.1	0.8
Tobacco	0.8	1.1	2.3	1.0	1.0
<u>Total Food, Drinks, and Tobacco</u>	<u>12.8</u>	<u>15.0</u>	<u>2.5</u>	<u>14.4</u>	<u>12.6</u>
Electricity	1.5	1.8	-	-	-
Transportation	7.1	6.7	6.5	6.2	4.7
Financial Services	6.9	10.0	12.4	7.1	7.3
Community Services	8.5	8.4	10.5	15.0	15.0
Housing	2.6	2.8	2.4	2.4	1.9
<u>Total Services</u>	<u>26.6</u>	<u>29.7</u>	<u>31.8</u>	<u>30.4</u>	<u>28.9</u>
Publishing	0.9	0.6	1.7	0.9	0.6
Combustibles	4.6	3.4	7.2	6.9	8.5
Pharmaceuticals	0.8	0.6	-	1.3	1.2
Means of Transportation	0.2	0.2	0.2	0.2	0.2
Other	1.0	1.1	0.5	0.2	0.2
<u>Others</u>	<u>7.5</u>	<u>5.9</u>	<u>9.6</u>	<u>9.5</u>	<u>10.7</u>
<u>TOTAL EXEMPTED</u>	<u>46.9</u>	<u>50.6</u>	<u>43.9</u>	<u>54.3</u>	<u>52.2</u>

SOURCE: Durán (1989)

4.48 EEC countries have generally accepted the viewpoint that exemptions increase distortions and administrative complications, and consequently adopted the principle of general imposition on all services, with the exception of what specifically exempted. Transitional arrangements were allowed in the initial stage of the transition to the VAT from the pre-existing sales taxes. In general terms, exemptions generally comprise postal, financial, real estate, health, educational, cultural and religious services. Within the broader context of the OECD countries, the treatment of services is less homogeneous (Table 4.6).

4.49 Exempting services from VAT does not generate a considerable revenue loss, per se, unless the services are part of final consumption. However, there are a number of considerations that suggest keeping the list of exemptions to a minimum: (i) the distortive effects and their cascading nature; (ii) the induced pressures for their increase; (iii) the interruption of the cross-checking chain, which is typical of a VAT, and the consequent increase in administrative difficulties; and (iv) the haphazard results in terms of equity. On the other hand, the elimination of certain exemptions entails a greater administrative cost, inasmuch as the number of taxpayers is increased. On balance, however, given the previous considerations, two reforms could be implemented in this area:

- Extend the VAT to all services, and allow exemptions on the basis of an exclusionary list, which is the technique used by Uruguay and the EC countries.
- Submit to taxation, in any case, professional services^{11/} and transportation.

4.50 Regarding financial services, all fee-related transactions would be subject to the general VAT rate; the remaining part of value added of the sector could be taxed on the basis of either an annual calculation of value added on the basis of factor remuneration, or on the basis of the spread between lending and borrowing rates, as is done in the determination of the gross sales tax in several provinces.

4.51 While the revenue impact of taxation of professional services may not be very high, taxation of transportation services at the general rate might yield as much as 0.6 percent of GDP.

Foodstuffs and Other Exemptions

4.52 The VAT legislation exempts several categories of goods by the more orthodox technique of subjecting them to the tax, in principle, and granting an ad hoc exemption. The list annex to Article 6 of the Law details the exemptions, which basically include foodstuffs, medicaments, military goods, paper, and products for the press. Article 7 exempts

11/ In practice, this could be accomplished by setting an obligation to obtain an annual licence (as a system of control), together with the obligation to issue tax receipts. To minimize compliance costs and inconvenience, four (indexed) annual payments could be submitted, possibly at the time of the presentation of the advance payments on account of income tax (Section B).

Table 4.6: ARGENTINA: VAT - TREATMENT OF SELECTED SERVICES IN OECD COUNTRIES, JANUARY 1987

Countries	Passenger Road Transportation	Insurance	Telephone	Professional Services	Advertisement	Entertainment	Hotels/ Restaurants	Financial Services
Argentina	E	E	S	E <u>a/</u>	E	S	S	E
Austria	S <u>b/</u>	E	S	S <u>b/</u>	S	S <u>b/</u>	S <u>b/</u>	E
Belgium	S <u>b/</u>	E	S	E/S	S	S <u>c/</u>	S <u>b/</u>	E
Denmark	E	S	S	S	S	S	S	E
Finland	E	S	S	E	E	E	E	E/S
France	S <u>c/</u>	E	S	S	S	S	S	E
Germany	S <u>c/</u>	E	E	S	S	S	S	E
Greece	S <u>b/</u>	E	S	S <u>c/</u>	S <u>b/</u>	S	S <u>b/</u>	E
Ireland	E	E	E	S	S	E/S	S <u>b/</u>	E
Italy	E	E	S <u>b/</u>	S	S	S	S <u>c/</u>	E
Luxembourg	S <u>b/</u>	E	E	S <u>b/</u>	S <u>b/</u>	S <u>c/</u>	S <u>b/</u>	E
Netherlands	S <u>b/</u>	E	E	S <u>c/</u>	S <u>c/</u>	S <u>c/</u>	S <u>b/</u>	E
Portugal	S <u>b/</u>	E	S <u>b/</u>	S	S	S <u>d/</u>	S <u>b/</u>	E
Spain	S <u>b/</u>	E	S	S	S	S <u>c/</u>	S <u>b/</u>	E
Sweden	E	E	E	E	S	E	S <u>b/</u>	E
Turkey	S	E	S	S	S	S	S	E
United Kingdom	S <u>e/</u>	E	S	S	S	S	S	E

E: Exempted

S: Subject to VAT

a/ Exempt services related to building activities.

b/ Reduced rate.

c/ Several rates.

d/ Zero-rated in some cases.

e/ Zero-rated.

SOURCE: OECD (1988); Bank staff calculations.

certain imports and exports and introduces the small taxpayers' regime, discussed below. As discussed in Chapter II, one of the aims of the December 1988 tax reform was to increase the base through a reduction in exemptions for foodstuffs and pharmaceuticals. The expected increase in the VAT base was estimated at between 6-23 percent of GDP, with a correspondingly wide range for the estimate of the revenue gain (between 0.1 and 0.7 percent of GDP). Congress did not accept the proposal (except for a list of 66 new Articles, partly compensated by an increase in the number of exemptions of other goods).

4.53 The logic underlying the proposal of increase in the base was intimately related to the nature of the VAT. Equity considerations are best served by a reduced rate, rather than an exemption; the former also allows for reimbursement of tax on inputs which, otherwise, necessitates ad hoc arrangements, with distortive effects on horizontal equity. In addition, the exemption system currently adopted the NCCA nomenclature, which is not well suited for the purpose, given the arbitrariness of some definitions.^{12/} The latter provision, in particular, is the source of continued administrative difficulties, both because of the need to distinguish taxed and exempted goods, and, among those taxed, between goods at the regular and special rates.

4.54 In sum, several measures can be taken to both reduce the distortions generated by the present system of exemptions and increase VAT revenues:

- Subject all agricultural goods and foodstuffs to the general rate;
- Eliminate the exemptions regarding pharmaceuticals and printing materials;
- Tax currently exempted alcohols and tobacco to the general rate of 15 percent;
- If any good were to remain exempted, this should be on the basis of zero-rating, and not exemption; in any event, serious thought should be given to abandoning the NCCA classification.

Small Taxpayers' Treatment

4.55 All the countries that have implemented a form of value-added tax have also created some special procedure to handle the problems posed by the incorporation of a large number of small taxpayers. These are usually poorly equipped administratively, and separate procedures are justified by the need to minimize compliance costs, or even to ensure a minimum of compliance from difficult-to-detect taxpayers. Argentina has successively adopted three different systems since 1975. Between 1975-86, taxpayers below a certain cut-off threshold could opt out of the VAT system, and fall

^{12/} For example, crackers are not subject to the VAT but pastry products are; rosemary, sage, and organo are exempt, but other herbs are not.

under the so-called "substitute taxpayer" regime. Between 1986 and 1989, the latter regime was suspended in exchange for a double alternative to the general regime: the "simplified" regime and the "exempt" one. Finally, the 1988 Omnibus Law introduced further changes to the criteria and the administration of the two alternative regimes.

4.56 The substitute taxpayer regime is one of the alternatives available to deal with small businesses, and it adds to the administrative advantages of an exemption system (given by the reduced number of taxpayers) the fact that, indirectly, the exempted taxpayers are actually taxed. Under the scheme, sales to entities not belonging to the VAT system are done at a higher tax rate. This surcharge (called "equalization tax" in Belgium or "equivalence surcharge" in Spain) is based on an estimate of the tax that the small business would have to pay. The Argentine legislation set a double criterion for noninscription: (i) type of activity; and (ii) maximum sales limits in a given period. The regime was in effect without much change until November 1986, when the "simplified" regime took effect.

4.57 Despite its name, the simplified regime resulted in a considerable complication for the administration of the tax. Two distinct regimes were established: total exemption and simplification. The exemption regime was applicable to very small businesses; the simplified one was compulsory for businesses with capital within a certain band, or belonging to particular sectors, and optional for others. The payment of the VAT for those belonging to the simplified system was done on the basis of a fixed amount determined with reference to a table that categorized: (i) type of economic activity, (ii) net capital (nine categories), and (iii) number of employees (from one to seven, including the partners), for a possible number of positions of 189. Once the tax debit was thus determined, the Law permitted the deduction of tax credits up to a certain maximum, with the difference to be paid in 11 monthly payments plus a final payment when the tax return was filed. In December 1987, in a simplifying attempt, the number of categories was reduced from 189 to 18.

4.58 The reform contained in the Omnibus Law included several provisions to further simplify the exempt and simplified regimes. In essence, the reform abolished the maximum net capital requirements for the exemption regime, replacing it with a maximum gross sale of A\$1.08 million in December 1988. Regarding the simplified system, the new law reduces the categories to three, based exclusively on the amount of gross sales, and abolishes the possibility of claiming tax credits, as well as the need for an annual filing.

4.59 Any simplified system involves elements of arbitrariness, since it is, by definition, a derogation to the set of norms that compose the Law. It is important, however, that no excessive arbitrariness be built into the system. In this respect, three features of the new system stand out. First, the post-1986 system is in no sense a tax on value-added. It is, instead, a kind of tax on gross sales, with no credits extended on sales and none given on purchases. It is thus much closer to the provincial gross sales tax rather than to the federal value-added tax. Secondly, the tax rates appear to be quite arbitrary. Within each bracket, for instance,

they vary from approximately 2.1 percent of estimated gross sales at the bottom to 1.2 to 1.7 percent at the top. There is thus, in principle, a substantial "step" problem: for example, a firm with annual sales of A\$2.04 million pays A\$24,000 in tax, while one with A\$2,040,001 pays A\$42,000--a marginal tax rate of 18,000 percent. The arbitrariness with which firms will have to be assigned to one category rather than another reduces the seriousness of this problem but itself raises questions. In the case of exemptions, there seems to be no provision for updating or revising the initial assignment of firms under the simplified system (an assignment that will presumably be based on the data presently available to the Administration). A provision is made for those under the simplified regime to move to the normal regime if more than 50 percent of their trade is with normally registered firms and if they wish to do so. It seems unlikely that with these rates plus ineffective administration many firms will do so.

4.60 Given the imperfections and arbitrariness of the current simplified system, the question is why was it adopted in the first place? Indeed, no convincing justification of the need to fundamentally alter the previous system can be found. The major shortcoming of the substitute taxpayer system is apparently due to fluctuations in the number of businesses entitled to it caused by delays in updating the maximum limit for sales and the concurrence of high inflation. However, this problem could have been solved by a more timely updating of the ceilings rather than by a total tax system overhaul. An alternative would be to reintroduce the system but with some strategic modifications.

4.61 First, the system should be applied at the retail level to avoid undesirable cascading effects. Second, the system should be limited to natural persons, thus freeing them from the overly complicated accounting system, but with no exception to the requirement for keeping and issuing receipts. Lastly, the system should be compulsory--rather than left to the discretion of the taxpayer.

D. Taxation of the Energy Sector

Overview

4.62 As noted in Chapter II, taxation of the energy sector has a greater importance than in most non-oil-exporting countries. In this sector, taxation and pricing are closely related issues. Rather than being linked to international prices, or to marginal cost, energy prices are set by the Government in ways that attempt to accommodate conflicting priorities of different sectors and special interest groups, as well as a variety of macroeconomic objectives. Producers' prices have generally tended to be low; high taxes have, instead, resulted in final prices for oil products that are above economic cost, while those for electricity and gas remain below economic cost. Energy taxation is characterized by complexity, inflexibility, and multiplicity at different stages of production. In the end, the amount of revenue available for use by the Central Government is thus a function of the complex pricing strategy, size of the investment program, and the structure of taxation itself.

4.63 Argentina's taxation of the energy sector is characterized by three main and unusual features. First, the sector collects a relatively high share in total revenues, by international standards (given that most of the production is for domestic consumption). Second, the structure of taxes is economically unsound, because it creates distortions from: (i) excessive taxation of certain petroleum products which result in high retail prices for these products compared to relatively low retail prices for natural gas, electricity and certain other fuels; (ii) high level of excise taxes which lead to low producer prices; and (iii) taxation at different levels which distort incentives throughout the production process. Thirdly, the system is unnecessarily complex due to the numerous different excise taxes, most of which are in one way or another earmarked for a variety of special funds, or, more recently, directed to specifically finance the social security system and to the provincial governments. Fourthly, despite the panoply of specific taxes imposed on the energy sector, most oil products and derivatives are exempted from the VAT.^{13/} The latter exemption, in particular, prevents YPF, GdE, and the power companies to deduct the VAT paid on their inputs, with a revenue advantage for the Treasury, but at a cost of increased distortions on investment and production choices. In addition, YPF is not subject to income tax, an indication of the character of "open turf" in which the YPF surplus has been held by policymakers.

Complexity of the System

4.64 The complexity of the system is revealed by analyzing the various steps of taxation. The price ex-refinery is the sum of the revenue of YPF, the royalties for the provinces, and a tax on refined oil. The latter is earmarked for two special funds (FCCC and FNGOE) which, in turn, transfer their revenues to public utilities. An administratively prescribed commercialization markup determines the commercial price on which three other taxes are levied: (i) tax on consumption of combustibles, earmarked for the combustibles fund which, in turn, transfers the funds to the national and provincial road system electric and gas companies, and YPF itself; (ii) a tax earmarked for the FONIT; and (iii) general revenues (determined as a residual). In addition, since 1988, an excise tax was imposed, with earmarking for the social security fund and provincial governments. In the case of diesel and fuel oil, the official sales price includes the VAT (levied on the price net of the excise). In total, taxes as a percent of the cost of production and the commercialization margin range from a minimum of 64.9 percent for diesel oil to 228.2 percent for super gasoline.^{14/}

4.65 The structure of the present system goes against two basic principles of efficient tax policy: simplicity and generality. The international experience and basic taxation theory suggest that (i) there exists no incompatibility between a general tax such as the VAT and specific taxes on oil products; and (ii) the latter should be set in the

^{13/} The exemption is extended to crude oil, regular and super gasoline, kerosene and gas oil, but not diesel and fuel oils.

^{14/} These percentages refer to the October 1988 price structure.

most simple and easy-to-administer way. Regarding the first point, the extra tax burden on oil and derivatives can be justified in terms of user charges considerations, of externalities, of economic efficiency (low demand elasticity), and of equity. Several alternatives are available to implement this taxation in practice; from an administrative point of view, the role of YPF as producer, refiner and distributor can help substantially.

4.66 The complexity of the current system derives from three causes: excessive number of taxes, excessive earmarking, and the system of compensations by the Treasury. The first problem is the result of the historic accumulation of taxes in the absence of a global view of the system on the part of the legislators. On the second issue, several problems can be noted. First, the earmarking of certain taxes for funding the social security system and the provincial governments has little or no underlying economic logic, but is rather the result of the continued deterioration of the formal tax system and the increasing use of tax handles described in Chapter II. Secondly, the use of differentiated taxation at successive stages of the productive process results in distortion of relative prices and the appearance of perverse incentives. Thirdly, the extensive earmarking of revenues, in combination with other government policies vis-à-vis the sector may result in negative net revenues for the Treasury. In Argentina, this has been the case in 1988, since YPF was entitled to withhold taxes collected to compensate itself for the excess royalty payments made to the provinces (Chapter V) and the service of external foreign debt, previously contracted on behalf of the Central Government.

Oil Product Taxation in the OECD Countries

4.67 OECD countries generally tax oil products with a general consumption tax and a specific tax for each product, with rates differentiated on the basis of several considerations. The tax is generally expressed in monetary units for physical units of the product. In practice, however, in a country with high inflation rates, an ad-valorem tax is the only sensible alternative. In addition, in those countries that have adopted the VAT, the tax is levied on oil products including specific taxes and import tariffs. In the EEC, in particular, oil products are subject to the regular VAT rate.

Proposals for a Reform of the Energy Sector Taxation

4.68 Reform of the energy sector taxation offers opportunities for: (i) sharply increased economic efficiency; (ii) reduced complexity and increased transparency of the system; and (iii) increased net revenues for the Treasury and, consequently, for the provinces. The latter effect, however, will only materialize if the pricing rules for the sector are modified to reflect economic considerations, and prices are consequently not allowed to fall behind in real terms as has been periodically the case in the past; and if the current system of subsidies to the private sector and within the energy sector is dismantled or severely redefined. The forthcoming stabilization plan, together with the timing of the political cycle, offer opportunities for important advances in this respect.

4.69 On the basis of these considerations, a reform of the energy sector taxation would incorporate the following recommendations:

- The VAT should be applied to all oil products and derivatives, and natural gas, at the standard rate, abolishing the current exemption regarding gasoline, kerosene, and gasoil. The VAT should be applied on the commercial price.^{15/}
- All the other specific or selective taxes should be unified into a single ad-valorem tax applied to oil products, natural gas and electricity, except for intermediate use of fuels and power by the power companies.
- The rates of the ad-valorem tax should reflect desired contributions to two simplified energy and road funds, and reflect user charge considerations. Direct earmarking for the social security fund and the provinces should cease, to be replaced by funding from general government revenues.
- YPF and the other energy companies should be subject to the corporate income tax, as well as (in the case of YPF) to a special windfall profit tax, which could be used for setting up a stabilization fund, or for other purposes chosen by the Government.
- Royalties to the provinces should be brought down to the levels compatible with international prices and comparative caloric content (Chapter V).

4.70 Revenue Effects of the Reform. The revenue effects of the reform would depend on the structure of the rates selected and on the rules governing prices of energy and oil products. Appendix 4.2 presents two base cases, one involving no real change in the average price of energy for consumers beyond the December 1987 real levels, and one involving price increases for electricity approaching long-run marginal cost and natural gas approaching opportunity cost. In the first case, the revenue impact would be negligible, and the advantages of the reform would be its economic and administrative aspects; in the second case, substantial increases in revenues accruing to the Treasury could be anticipated, due to price increases and reduction in subsidies.

E. Strategy for Implementation of the Reform and the October 1989 Package

4.71 A major tax reform such as the one proposed in the previous sections requires careful implementation, and will probably necessitate a period of at least one year before coming into full effectiveness. Three main points should be taken into consideration with regard to passage

^{15/} For the desirable rules concerning the determination of the commercial price, see Perry (1989).

through legislation and implementation of reform. First, bold action is possible and desirable. A large majority of Argentines now recognize that business as usual is no longer a viable option and are increasingly more insistent that inequity, special treatment, and privileges be stopped. The Government thus has a perhaps unique opportunity to introduce reforms that sweep away special interests. Second, while reduction of complexity and increased economic efficiency call for a decrease in the number of taxes and rates, these should not be accomplished without sufficient guarantee of increases in revenues from other sources. It would appear preferable to adopt a two-stage procedure, delaying the reduction of taxes and rates to the second stage of the reform. Priority could be given to a early abolition of several low-yield taxes (mostly excises, but including, for instance, the stamp duty, whose administration cost probably exceeds revenues). Legislation providing for the abolition of those taxes of more general application and greater revenue generation, in particular the various taxes imposed ad hoc on financial assets or transactions (e.g., the tax on checks), should be set for implementation at least six months from the effectiveness of the reform of other taxes.

4.72 Finally, as mentioned, the reform would alter the mix between revenues of exclusive competence of the central administration and those shared with the provinces. It would thus be necessary to re-examine the issue, as the guidelines of the 1987 coparticipation law would be partially obsolete (see Chapter V).

4.73 On October 20, 1989, the Argentine Government introduced, after a prolonged public debate, a tax reform proposal to Congress. The proposed package, if approved without substantial modifications, would contribute to move the Argentine tax system in the direction outlined in this section. Follow-up action must be envisaged, however, particularly with regard to the industrial promotion system, which is not directly affected by the proposed measures. Without this follow-up, it is difficult to envisage that the tax effort outlined as necessary in Chapter I would be attained in the foreseeable future.

4.74 In essence, the proposed reform consists of the following:

- A generalization of the VAT, with a simultaneous reduction in its rate from 15 to 13 percent, and the abolition of the special regime for small taxpayers.
- The introduction of a minimum alternative income tax on corporations, in the form of a 1 percent tax on company assets, together with the abolition of the tax on net worth.
- A modification of the corporate income tax that reintroduces carryover of tax losses for a period of five years.
- A slight lowering of minimum taxable incomes for individual taxpayers, together with a reduction in the number of and a lowering of the maximum rates.

- A modification of the rates and the earmarking schemes of several excise taxes on energy products and on "vice goods."
- The lowering of the tax on checks from 7 to 3 per thousand.
- A parallel proposal that would establish jail terms (from 3 months to 10 years) for tax evaders.

4.75 The revenue effects of the tax reform are difficult to assess, particularly since Congress may modify the proposal. A preliminary assessment points however to limited revenue gains, since the positive effects of the enlargement of the base of the VAT may largely be offset by the reduction in the rate, the abolition of the small taxpayer system and the tax credit that YPF will not be able to claim for VAT paid on its inputs (amounting in 1988 to slightly less than 0.2 percent of GDP, or about 8 percent of total VAT revenues). While the other measures envisaged in the Government's proposal are positive, their revenue implications may be limited. As repeatedly stressed, it will be necessary to seriously tackle industrial promotion and other tax expenditures in order to give modern taxes a major role in the Argentine tax system.

CHAPTER V. FEDERAL-PROVINCIAL FISCAL RELATIONSHIPS

5.01 Provincial deficits have represented a recurrent source of instability in public sector accounts. Continued decentralization of expenditures has resulted in an increasing provincial government share of GDP and total public expenditures. This, in turn, has produced periodic clashes with the Government over the amount and modalities of the transfers necessary to supplement provincial revenues. The conflicts have been fostered by an insufficient process of revenue decentralization and by the lack of strong incentives for fiscal responsibility. Indeed, particularly in the past few years, several measures adopted in relation to industrial promotion have, if anything, given incentives to the provinces to adopt a "free-ride" mentality when it comes to revenue transfer expectations.

5.02 Conflicts have erupted over all aspects of revenue sharing: the definition of taxes subject to sharing; the relative share of provinces and the Central Government; and the distribution of revenues among provinces. The next three sections analyze the main determinants of the dynamics of revenue sharing, as well as the experience with the most recent revenue sharing ("coparticipation") law. In the following sections, the taxes directly administered by the provincial governments are analyzed, and some possibility offered for the further decentralization of national taxes.

A. Revenue Sharing

Constitutional Provisions and Limits to the Taxing Powers of the Provinces

5.03 The Argentine Constitution delineates the division of powers among the various levels of government, and sets limits to the taxing authority of the provincial, and national governments.^{1/} The federal government is given exclusive jurisdiction over foreign trade taxes. Indirect taxation, on the other hand, although not specifically mentioned by the Constitution, was regarded from its inception as falling under the domain of both federal and provincial governments. Direct taxation, although of competence of both levels of government, could be used by the nation only when imposed by Congress in "equitable and proportional form."

5.04 Another constitutional provision of fundamental importance (Article 67) gives Congress the power to "grant subsidies from the National Treasury to the Provinces whose revenues cannot...cover ordinary expenditures." This provision established the legal basis for the various regimes of Aportes Nacionales del Tesoro (ATN). Starting in the first part of the century, the ATNs were supplemented by the addition of an explicit regime of revenue sharing. The so-called "coparticipation" between the provinces and the Government was instituted in 1935, and was based on laws that were renewed from time-to-time. It was left to elapse at the end of 1984. Between 1985 and 1987 there existed no clear legal framework to regulate transfers between levels of government, a fact that resulted in the use and abuse of discretionary powers. Law 23548 (approved in late 1987) reinstated the coparticipation scheme on a temporary, two-year basis. If not

^{1/} Articles 4, 9-12 and 67 of the Constitution.

explicitly revoked or modified, it will continue to represent the legal framework for the revenue relationships between the provinces and the Central Government. The Law was only partially successful in rationalizing the matter, as discussed below; in fact, without further modification, it may not represent a viable basis for stable national-provincial fiscal relationships.

5.05 The Law (which is in the form of an agreement between Congress and provinces) provides for:

- The centralization of certain direct and indirect taxes, despite the constitutionally provided sharing of powers between central and provincial governments;
- The rules regarding the sharing (coparticipation) of revenues between the Central Government and the provinces and among the provinces themselves (primary and secondary distribution).
- Several limitations to the taxing power of the provinces.
- A fund for subsidies to the provinces (Aportes del Tesoro Nacional, ATN).

5.06 The sharing regime is thus composed of automatic and discretionary components. In addition, the provinces receive other important transfers (from the national administration), either through earmarked funds (highway construction, etc.), or on a discretionary basis, the largest of which are contributions to low-income bounding activities (FONAVI). Overall, total transfers to the provinces have roughly doubled between the early 1970s and the late 1960s (Table 5.1).

Revenue Sharing: Dynamics

5.07 Three key policy-determined elements determine the dynamics of the revenue sharing in Argentina: (i) the rules governing the mix between revenues subject to sharing and those for exclusive use by the national administration; (ii) the rules concerning primary distribution (between nation and provinces) of total coparticipation revenues; and finally (iii) the secondary distribution, i.e., the criteria to divide total shared revenues among the 22 provinces.

5.08 The mix between shared and unshared revenues--the potential "base" of revenue sharing--is affected by factors in some ways beyond the control of the Government, such as economic growth and inflation, but also by its choice of deficit financing and other discretionary revenue measures. Table 5.2 shows that the mix has suffered from substantial variability since the early 1970s on account both of the reliance of the Central Government on deficit financing through an inflation tax and revenue measures (higher import taxes and forced savings schemes) that have involved unshared revenues. This variability is undesirable from many points of view, primarily because it may introduce arbitrary fluctuations in provincial revenues. Only the latest coparticipation law sought to deal

**Table 5.1: ARGENTINA: TRANSFERS FROM THE GOVERNMENT TO THE PROVINCIAL GOVERNMENT BY TYPE
(% of GDP)**

Year	Total	Free Allocation by the Provinces					Earmarked					Total Automatic	Total Discretionary
		Subtotal	Automatic			Discretionary Grants	Subtotal	Automatic	Discretionary				
			Subtotal Sharing	Revenue	Royalties				Subtotal	FONAVI	Other		
1972	3.19	2.65	1.70	1.61	0.09	0.95	0.54	0.22	0.32	0.00	0.32	1.92	1.27
1973	4.71	4.12	2.24	2.17	0.07	1.88	0.69	0.26	0.33	0.00	0.33	2.50	2.21
1974	6.44	5.82	3.19	2.97	0.22	2.43	0.82	0.35	0.47	0.17	0.30	3.54	2.90
1975	7.65	6.82	1.70	1.53	0.17	4.92	1.03	0.25	0.78	0.24	0.54	1.95	5.70
1976	5.90	5.04	2.72	2.57	0.15	2.32	0.88	0.24	0.62	0.33	0.29	2.96	2.94
1977	5.40	4.49	3.87	3.74	0.13	0.62	0.91	0.22	0.69	0.31	0.38	4.09	1.31
1978	5.45	4.22	3.68	3.47	0.21	0.54	1.23	0.28	0.95	0.66	0.29	3.96	1.49
1979	4.90	3.75	3.47	3.29	0.18	0.28	1.15	0.23	0.92	0.68	0.24	3.70	1.20
1980	5.46	4.08	3.78	3.62	0.16	0.30	1.38	0.23	1.15	0.78	0.37	4.01	1.45
1981	5.83	4.36	3.17	2.94	0.23	1.19	1.47	0.26	1.21	0.84	0.37	3.43	2.40
1982	4.67	3.54	2.84	2.42	0.42	0.70	1.13	0.22	0.91	0.62	0.29	3.08	1.61
1983	7.95	6.50	2.83	2.16	0.67	3.67	1.45	0.31	1.14	0.78	0.36	3.14	4.61
1984	6.19	4.85	2.34	1.79	0.55	2.51	1.34	0.27	1.07	0.87	0.20	2.61	3.58
1985	6.23	4.87	0.68	0.00	0.68	4.19	1.36	0.40	0.96	0.60	0.36	1.08	5.15
1986	7.38	5.43	0.79	0.00	0.79	4.64	1.95	0.41	1.54	0.84	0.70	1.20	6.18
1987	7.12	5.22	0.62	0.00	0.62	4.60	1.90	0.34	1.56	0.96	0.60	0.96	6.16
1988	8.32	6.12	5.37	4.58	0.79	0.75	2.20	0.46	1.74	0.95	0.79	5.83	2.49

Source: Argentina - Provincial Government Finance Study, Statistical Appendix (preliminary)

Table 5.2: ARGENTINA: DETERMINANTS OF FEDERAL-PROVINCIAL TRANSFERS, 1970-1988, (Percent)

Year	Revenues Subject to Sharing ^{a/}		Sharing Ratio for Provinces ^{b/}	Percent of Revenues Shared	
	(1)	(2)		(1)	(2)
1970	59.4	74.4	38.7	23.0	28.8
1971	49.8	70.1	38.7	19.3	27.1
1972	43.7	63.1	38.6	16.9	24.4
1973	35.1	63.7	48.5	17.0	30.9
1974	38.5	66.3	48.5	18.7	32.2
1975	20.2	64.6	52.4	10.6	33.9
1976	36.2	71.7	48.5	17.6	34.8
1977	61.8	79.1	48.5	30.0	38.4
1978	60.1	80.1	48.5	29.1	38.8
1979	57.2	81.6	48.5	27.7	39.6
1980	59.8	76.8	44.0	26.3	33.8
1981	50.7	73.5	32.6	16.5	24.0
1982	53.4	69.9	32.6	17.4	22.8
1983	25.3	62.7	29.0	7.3	18.2
1984	27.8	55.7	31.5	8.8	17.5
1985	36.8	55.7	..	..	..
1986	50.8	64.1	..	..	..
1987	42.4	..	59.4	25.2	..
1988	50.9	..	57.76	29.4	..

a/ Revenues subject to coparticipation divided by total expenditures of the central administration.

b/ Revenues transferred to the provinces over total revenues eligible for coparticipation.

(1) Includes resources raised by the Central Government through debt or the inflation tax.

(2) Excludes resources raised by the Central Government through debt or the inflation tax.

SOURCE: Based on information from the Secretaria de Hacienda.

expressly with it by stipulating that the total amount of resources available for the provinces would not fall below 34 percent of national tax revenues.^{2/}

5.09 Once the mix between shared and unshared revenues is determined, the next step is to determine the primary distribution between nation and provinces. Table 5.2 shows the evolution of the provincial share of national shared revenues since the inception of the coparticipation system. The increasing share of the provinces over the years (with the exception of the period 1980-84), to a certain extent, reflects the continued process of decentralization of expenditures, coupled with a much slower process of decentralization of revenue collection. Throughout the 1970s, the share of revenues of national origin in total provincial expenditures has been high (Table 5.3).

5.10 The primary distribution coefficient established by Law 23548 is the highest since the coparticipation initiative. Furthermore, the law, contrary to what occurred in the past, does not designate what taxes it encompasses, but instead includes in coparticipation, as a matter of principle, all national taxes, but with some specific exceptions. This latter provision has led to a conflict between the Government and the provinces regarding the fuel tax, as discussed below.

5.11 The product of the coparticipation mix, the primary distribution coefficient, and the actual tax collection at the national level determines the total amount of resources to be transferred to the provincial governments. Two types of problems can subsequently ensue: (i) the overall amount of transfers may be incompatible with overall provincial expenditures, particularly when national tax collection falls unexpectedly, as was the case in 1988; and (ii) the distribution of proceeds among the provinces may be more or less inadequate to meet their individual needs. The latter problem relates to the secondary distribution of coparticipated revenues. An extensive analysis of issues related to secondary distribution is beyond the scope of this study; however, a description of its recent evolution and major problems provides a useful framework for discussing the use of taxes by the Government and the provinces.

5.12 Except for the most recent coparticipation law, the secondary distribution of revenues among provinces has been determined by the application of coefficients measuring, inter alia, the degree of development of each province, and their ability to generate revenues. While the relative weight of each indicator has usually been determined by political considerations and the relative strength of the provinces (since the redistribution of revenues among the provinces is a zero-sum game), a long-term tendency to adopt redistributive criteria is evident in the data. At the beginning of the coparticipation system (1935), regressive indicators that assign a proportionally higher share to wealthier provinces accounted for more than 90 percent of the total. By 1973, regressive indicators had disappeared among those used, and redistributive indicators accounted for 35 percent. This tendency has progressively emphasized the redistributive character of the revenue-sharing mechanism. Subsequent to the expiration of the coparticipation law in 1984, however, the mechanism became substantially more arbitrary. The 1987 coparticipation law, on the other hand,

^{2/} Article 7. This provision does not address a grievance often expressed by some provinces; namely, their lack of access to seignorage revenues.

**Table 5.3: ARGENTINA: FINANCING OF PROVINCIAL EXPENDITURES
BY NATIONAL REVENUES: FEDERAL COPARTICIPATION AND OTHER, 1973-1986**

Years	(Revenues of National Origin/ Total Expenditures) (Percent)
1973	62.8
1974	65.2
1975	76.7
1976	73.1
1977	61.6
1978	55.9
1979	51.1
1980	49.3
1981	50.7
1982	55.4
1983	72.1
1984	54.5
1985	57.0
1986	55.0
Average 1973-1986	59.4

SOURCE: Based on data from Subsecretaria de Relaciones Provinciales de la Secretaria de Hacienda de la Nación.

did not contribute to improving the situation either, since it simply codified the de facto situation that had prevailed in the previous three years. As a result, the system remains strongly redistributive, but the criteria for redistribution are probably far from being optimal, in that recently special laws, that increased financial support to specific provinces, have been passed. The system appears particularly deficient (and may even be regressive) regarding its effects on interpersonal redistribution.

Coparticipation at Work: 1980-1988

5.13 National-provincial relationships underwent a period of extensive turmoil during the 1980s; Law 23546 was meant to restore order to what had become a serious source of deficits for the nonfinancial public sector as well as subject to arbitrary administrative action. The cause of the crisis was the 1980 tax reform. The generalization of the VAT failed to yield sufficient revenues to cover both the needs of the social security system (after the abolition of employers' contributions) and those of the provinces. Since priority was given to the social security system, the provinces suffered a reduction in their share of total shared revenues, which fell from an average of 48.5 percent during 1976-79 to a low of 29 percent in 1983. The magnitude of the crisis was such that the discretionary transfers from the central administration jumped to over 3 percent of GDP (1987), and the coparticipation regime was suspended altogether at end-1984.

5.14 Between 1985-87, the relationships between levels of government were ruled by a "Transitory Financial Agreement" (Convenio Financiero Transitorio, CFT), which, if anything, further complicated the issue. The amount of transfers from the Central Government to the provinces was in fact fixed in nominal austral terms rather than as a share of revenues; strong disagreement emerged on the clauses for inflationary adjustment. In any event, the Treasury and the provinces had recourse to additional contributions ("Aportes adicionales del Tesoro Nacional") whose amount and distribution was subject to bilateral politicking. In 1987, the discretionary contributions became quite important, representing 9 percent of total government transfers to the provinces. Revenue sharing in the course of those three years, was subject to: (i) uncertainty over the rules of the game and consequently over the amount of total transfers; (ii) disagreement between the provinces and the central administration; and (iii) excessive discretion in the allocation of revenues among the provinces.

5.15 Law 23548, which has governed the relationships between the Government and the provinces since January 1, 1988, was intended to remedy these problems. First, the share of the provinces in total shared revenues was set at 56.66 percent, which represents the highest level since 1935.^{3/} Second, the amount of additional (discretionary) contributions from the Treasury (ATN) was set at a maximum of 1 percent of revenues. Third, the

^{3/} In addition, the total coparticipated amount is increased by 10 percent of the revenues accruing from the special surcharges on liquid fuels, gas and telephones, with the primary destination being the social security system.

coefficients for the secondary distribution, among the provinces, were negotiated and included in the law. Each of the three aspects, however, encountered difficulties during the first year the Law was applied.

5.16 The definition of coparticipating revenues was the subject of the first disagreement between the provinces and the Government. The issue was the tax on combustibles, whose function was modified to implement an agreement with YPF whereby the oil company would withhold part of the tax it collected to compensate itself for the interest payments on foreign financial debt, the "excess royalties" to the provinces, the subsidies to other parts of the energy sector and other items. The provinces maintain that this mechanism unduly reduces the amount of coparticipated taxes by shifting the burden of a subsidy to a state enterprise from the Government, in part, to the provincial governments.

5.17 The most important shortcomings of the Law were due to the shortfalls in revenues collected at the central level (see Chapter I). Total coparticipated revenues dropped sharply by 2 percent of GDP. As a consequence, despite the high percentage distribution to the provinces, revenues received from coparticipation only fell by 9.5 percent in real terms. The crisis grew during 1988, and led to the progressive approval of measures that went counter to the spirit of the law, by permitting exceptions to the rule and allowing special treatment. In May 1988, Congress approved a law creating a "Transitional Fund for the Financing of Fiscal Disequilibria of the Provinces," which was to garner revenues provided by a special surcharge on cigarettes, a tax on fixed-term deposits, and a tax over the transfer of public bonds. The fund was to help 15 designated provinces until the end of 1988. In December 1988, the tax for areas affected by flooding, financed by a 2 percent tax on interest on deposits, was extended for a period of three years, again directed to a selected group of provinces. In December 1988, after long and difficult negotiations, Congress approved, in a quid-pro-quo to introduce modifications to the industrial promotion system, i.e., the issue of a state-guaranteed bond for the provinces in the amount of A\$3 billion (0.3 percent of GDP). The bond, guaranteed by future coparticipation revenues, would be repayable in 24 months.^{4/} Finally, a new bond for A\$2 billion would be issued in 1989, the proceeds of which would be distributed to the provinces and the Central Government according to the provisions of the coparticipation law.^{5/}

5.18 With the onset of hyperinflation, the revenue sharing mechanism collapsed together with the formal tax system. The Government decided, in May and June 1989, to shore up provincial finances by extending the "Transitional fund" for a six-month period, and by authorizing the reopening of direct subsidies from the Treasury, financed through Central Bank money creation. The revenue sharing regime was thus at a point of crisis.

^{4/} The use of bonds needed clarification. The Government did not allow the Central Bank to rediscount the bond, which in itself was not negotiable in financial markets. Consequently, the provinces may have used it to obtain credit either through provincial banks or through semi-voluntary placement with suppliers.

^{5/} The events in early 1989 have rendered this provision of the end-December Omnibus Law moot.

B. Own Revenues of Provincial Governments

5.19 As discussed, the National Constitution delimits the taxing powers of the provinces. The most important limitations are those set by the coparticipation law itself, which, being in the form of an "agreement" between Congress and the provinces, stipulates that the latter would not impose taxation similar to that collected nationally, with the exception of the "classic" provincial taxes, namely sales tax, real estate tax, stamp duty, and automobile tax. The Law also makes detailed provisions on the admissible features of the sales tax and the stamp duty, which to a certain extent overlap more extensively with national taxes.

5.20 Provincial taxes are an important source of revenue for provincial governments in the aggregate and are vital for a number of the most developed ones. Overall revenues have been considerable: varying between 3.3 and 5.1 percent of GDP over the last 10 years and providing financing for over a third of total provincial expenditures (Table 5.4). For the province of Buenos Aires, they constituted the largest source of financing in 1986 (Table 5.5).

5.21 The most important tax, from a revenue standpoint, is the gross sales tax: strictly speaking, the set of taxes on gross production and consumption of goods and services (Table 5.6). Yields during 1981-87 were an average 39 percent of all provincial self-generated revenues (including royalties). The sales tax is characterized by: (i) a cascading nature, being imposed at all stages of the productive process, without possibility of credit for taxes paid; and (ii) an overlap with the base of other national taxes (VAT, excises, import duties). Tax administration requires an important effort of coordination among provinces, since it is generally enforced at the production (rather than at the retail) level. Of particular relevance is the tax on electricity, which is enforced only by a limited number of provinces, the most important of which is Buenos Aires.

5.22 Several objections have been raised against this tax over the years, essentially because of its unfavorable economic effects. Indeed, two attempts were made to eliminate it, with dire consequences for provincial revenues. The first occurred in 1975 on the occasion of the institution of the VAT (a coparticipated tax). However, this led to a sharp reduction in revenues for the provinces, and consequently it was reinstated in 1976. A second attempt was made in 1981, with the general intent to transform the tax on gross revenues into a sales tax at the retail level. Once again the revenue effect of the measure was negative, leading to a reversal of the reform.

5.23 Next in importance is the property tax, a traditional source of revenue for local governments in many countries, and in Argentina representing about 17 percent of the provincial revenues. The tax base is the assessed value of real estate, as ascertained through the provincial cadaster. The tax is levied on residential property, land, and productive structures.

5.24 The tax has been marred by several problems due to (i) poor maintenance of the cadasters, now thought to be vastly outdated, and (ii) the difficulty in administering the tax itself, which requires more complex mechanisms than the sales tax. Improvements in revenue

Table 5.4: ARGENTINA: QUANTITATIVE IMPORTANCE OF PROVINCIAL GOVERNMENTS' OWN REVENUES - 1981-1987 (Percent)

Years	Own Revenues, as Percent of	
	GDP	Total Expenditures
1981	5.1	39.0
1982	4.0	42.1
1983	3.3	30.2
1984	4.2	33.5
1985	4.2	36.6
1986	4.9	37.3
1987	3.9	27.7

Average 1981-1987	4.2	34.7

SOURCE: Provincial Government Finance Study, Statistical Appendix; February 1988 (preliminary draft).

**Table 5.5: ARGENTINA: OWN REVENUES AND PUBLIC EXPENDITURES
BY PROVINCE, 1986**

<u>Provinces</u>	<u>Percent</u>
Buenos Aires	56.1
Santa Fe	40.6
Cordoba	35.7
Entre Rios	34.5
Mendoza	26.1
Tucuman	24.7
La Pampa	20.2
Salta	20.1
Jujuy	19.5
Rio Negro	18.4
Chubut	17.8
Neuquen	17.5
Sgo. del Estero	17.2
Misiones	16.4
Chaco	13.3
San Juan	13.0
Santa Cruz	11.3
San Luis	10.7
Catamarca	8.8
Corrientes	8.2
La Rioja	7.1
Formosa	6.4

SOURCE: Mensaje del Proyecto de ley de presupuesto 1986.

**Table 5.6: ARGENTINA: COMPOSITION OF TAX REVENUES
OF PROVINCIAL GOVERNMENTS: 1960-1980 AND AVERAGE 1981-1987
(Percentage)**

All Taxes

Categories	1960	1970	1980	Average 1981-1987
Property	16.9	15.5	16.2	16.9
Sales	28.5	30.6	39.0	39.2
Stamp	13.5	15.7	13.1	8.5
Motor Vehicle	4.5	4.6	6.7	7.0
Others	36.6	33.6	25.0	28.4
TOTAL	100.0	100.0	100.0	100.0

SOURCE: 1960-1970 and 1980: Consejo Federal de Inversiones Promedio
1981-1987: Provincial Public Sector Finance Study. For
consistency, royalties are included among own revenues.

collection could be expected by tackling these two factors. The tax on rural land also provides the opportunity for constituting the base for a national or at least more generalized land tax, which presents several advantages from an efficiency standpoint (Chapter IV).

5.25 The tax on automobiles also falls within the same broad category of property taxes in the form of an annual "patent". The cost of the patent is determined by each province as a percentage of the car's value and other factors such as model and power. The tax increased in relative importance over the years and now represents almost 10 percent of own provincial revenues.

5.26 The last among the main provincial taxes, the stamp duty, comprises a series of taxes levied on a variety of goods and services. Although its relative importance has shrunk considerably over the years, it still provided 12 percent of total provincial revenues over 1981-87. The stamp duty collected in the Federal capital area is not coparticipated.

C. Decentralization of the Tax System

5.27 Conflicting considerations can apply to the issue of decentralization of the tax system. A centralized tax system has two major advantages: (i) it prevents local governments from competing against each other in attracting investment through disruptive tax-reduction wars, whose ultimate result is generally a reduction in overall revenues with little, or no effect, on the levels and the localization of investment; and (ii) since tax collection is not generally evenly distributed across the national territory, centralization makes any desired redistribution among local governments easier to do. The argument against decentralization is that the separation between spending and taxing may produce an incentive for increased public expenditures, since the tax effort at the local level is less when revenues are centralized.

5.28 In Argentina, it is apparent that the argument in favor of centralization has been effectively turned on its head by the implementation of industrial promotion laws. Allowing the provinces (particularly the four provinces of La Rioja, San Juan, Catamarca and San Luis) to grant tax subsidies that affect (for the most part) national rather than local taxes has become an invitation to fiscal irresponsibility that has been amply utilized, as discussed in Chapter II.

5.29 However, a step forward was made with respect to qualifying the industrial promotion law through a law approved by Congress in September 1988 plus the emergency measures promulgated in May 1989. The intent of these measures is to reduce incentives for "free-ride" type behavior by delimiting the scope of the promotion subsidies and centralizing the administration of the scheme. Little or no progress, however, was made in increasing provincial participation in the revenue collection effort. In this respect, several revenue sharing arrangements in other countries offer alternatives to increase fiscal responsibility--from formulas that link sharing in national revenues to own tax effort (as in the United States) to "prizes" for participation in collection of taxes (as recently proposed in Mexico, and, to a certain extent, in Brazil). The possible decentralization of some taxes has, however, been publicly expressed, often reinforced

by a widespread belief in that greater efficiency results from provincial administration of tax collection. The next few paragraphs review the areas of overlap between provincial and national taxation and the possible directions a decentralization of collection could take.

Current Federal-Provincial Overlap in Taxation

5.30 Wealth taxes. The real estate tax and the automotive tax fall within the scope of taxation of wealth, although with several shortcomings. In fact, there is little justification (beyond tax collection expediency) for including only some of the components of private wealth and not others, and for not appropriately considering the liabilities of the taxed unit. An alternative to the current situation might take the form of a provincial tax on net wealth of individuals and enterprises, replacing the equivalent national taxes. The current real estate and automotive taxes would be one of the components of such tax. Efficiency considerations would also suggest that, in the absence of a reform of this type, the provincial taxes should be considered as downpayments for the national tax; however, the implications of this on the distribution of tax revenues among the provinces would be negative.

5.31 Gross Sales Tax and VAT. The overlap between these two sets of taxes is obvious and, in fact, proposals are often made to integrate them under the provincial administration. Several problems would need to be resolved, however. First, the provincial sales tax, contrary to common perception, is not merely levied at the retail level, but extends, in principle, to the production and wholesale level as well. While it is probable that in relative terms the administration of the tax by the provincial authorities might be more efficient than the DGI, the net result of the integration of the two taxes might be a reduction in overall yield. A possible solution would be to allow the provinces to set individual surcharges above a certain common minimum, possibly limited to the retail level, in connection with an extension of the definition of the substitute taxpayer.

5.32 Two problems could arise. First, the provinces would need to coordinate their administration to a greater degree than at present, since the mechanism of "credit against taxes on inputs" is complicated by interprovincial sales. A precondition for success would be the completion of the SITER at DGI as well as increased cooperation between the provincial and national tax administrations that includes a sharing of data bases and administrative procedures.

5.33 The second problem is also substantial, since it goes to the heart of the secondary distribution issue. The territorial distribution of tax collection, in fact, is highly skewed, particularly in the case of the VAT: approximately three quarters of total collections are obtained from the Federal Capital and the Province of Buenos Aires (Table 5.7). A decentralization of VAT thus would need to be complemented by a redistribution mechanism to avoid a substantial drop in revenues for the poorer provinces. While this is not unheard of in other countries (e.g., in the Federal Republic of Germany), and the Consejo Federal de Inversión might provide the appropriate institutional mechanism, a careful design of the system would be required.

**Table 5.7: ARGENTINA: VAT COLLECTION BY JURISDICTION
(Percent of Total)**

Federal Capital	60.5
Buenos Aires	18.5
Cordoba	5.0
Mendoza	2.2
Santa Fe	6.0
<hr/>	
Sub-Total	92.2
<hr/>	
Other	8.8
<u>TOTAL</u>	<u>100.0</u>

SOURCE: DGI.

Royalty Payments to the Provinces

5.34 While hydrocarbon deposits are by law a national property, the provinces in which they are located have traditionally been granted royalty payments for the use of these nonrenewable resources. Law 17319/67 fixed the royalty rates at 12 percent for oil and gas, although the rate can be reduced to 5 percent in case of low productivity of the wells. The percentage is calculated on the official sale price or the international price if the country is an importer, but only in the case of oil. In 1980, a decree of the former government set the international price as the reference price for both oil and gas, delinking the payment of royalties from the domestic price. At that time, international prices were considerably higher than domestic prices; consequently, the decree established a gradual adjustment mechanism to the new levels. Nevertheless, by 1986 royalty payments had jumped by 360 percent in real terms (Table 5.8), moving from 0.16 percent of GDP to almost 0.8 percent.

5.35 Decree 2227 set as reference the price of the "Arabian medium," both for oil and gas (according to caloric conversion). The price is calculated in January of each year based on the December price; the austral price then is increased following the evolution of domestic prices during the year, provided it does not exceed the international price.

5.36 A literal application of these rules would have resulted in a strong reduction of revenues for the provinces receiving royalties. This also would have had important implications on the expenditures of these provinces: in many of them, in fact, royalties have come to represent one of the most important, if not the most important source of revenue (Table 5.9). The Central Government, therefore, decided in 1987 to guarantee royalty payments based on 1986 reference prices, the difference to be absorbed by the Government. In 1987, the difference amounted to 56 percent of the royalties calculated on the basis of international prices. The subsidy scheme continued in 1988; however, in February the Government decided to make YPF responsible for its payment, in exchange for greater participation in the revenues for the tax on combustibles. The solution proved only temporary, however, because YPF was unable to meet internal budget targets and pay the royalties using the amount allocated by the Central Government. The cost of the subsidy to YPF for 1988 was estimated at US\$350 million. To rectify this situation, the authorities decided to freeze the royalty payments at nominal levels of September 1988 until they reached levels corresponding to the international prices or a better solution could be found.

5.37 The issue is bound to remain problematic for some time since it embodies several of the major problems of the Argentine tax system: (i) it is quantitatively important; (ii) affects the financial position of YPF greatly; (iii) affects the financial position of the provinces concerned in a significant way; and (iv) reduces the amount of shared revenues for all the other provinces.

**Table 5.8: ARGENTINA: ROYALTY PAYMENTS TO THE PROVINCES
1972-1986**

	<u>Millions of December 1986 Australas</u>	<u>Millions of July 1988 US Dollars</u>
1972	75	--
1973	66	--
1974	209	--
1975	161	--
1976	119	--
1977	115	--
1978	198	--
1979	180	--
1980	168	--
1981	228	144
1982	385	250
1983	576	364
1984	528	332
1985	631	394
1986	773	483

SOURCE: Provincial Government Finance Study; Statistical Appendix
(preliminary).

TABLE 5.9: ARGENTINA: ROYALTY PAYMENTS TO SELECTED PROVINCES AS A PERCENT OF CURRENT REVENUES

	<u>1981</u>	<u>1986</u>
Chubut	29.5	50.3
La Pampa	6.0	7.8
Mendoza	11.5	22.3
Neuquen	29.0	57.7
Rio Negro	17.7	26.5
Salta	3.0	14.9
Santa Cruz	46.0	65.4

SOURCE: Provincial Government Finance Study; Statistical Appendix
(preliminary)

Conclusions and Recommendations

5.38 The first prerequisite of a revenue sharing regime between federal and provincial governments should be transparency and stability. This had been the case since the inception of the coparticipation system in 1935; however, this quality was subverted during the 1980s, leading to the abolition of the system and a period of uncertainty and arbitrariness in the distribution of revenues. While the 1988 coparticipation law did re-establish a transparent legal framework, its very name, "Transitional Provisions for the Distribution of Fiscal Revenues between Nation and Provinces," indicates that several issues remain open for discussion-- although, unlike the previous law, it will not expire unless replaced by a new one.

5.39 Proposals for modifying the current regime must also take into account the continuing tendency to decentralize public expenditures in Argentina, and the much slower decentralization of revenues. As a consequence, the growing gap between provincial expenditures and revenues has been covered through a higher participation in national revenues. Efficiency and equity considerations suggest that the decentralization of expenditures should not be reversed but possibly increased (in the domain of secondary education and mass urban transport, for instance). Instead, a greater effort towards decentralization of revenues should be attempted. Modifications to the current coparticipation approach would depend on the extensiveness of the decentralization.

5.40 Several problems are likely to be encountered. As mentioned, collection of national taxes is very concentrated in a relatively small number of provinces; in addition, the current coparticipation law is strongly redistributive. Greater decentralization would then require a compensatory mechanism across provinces. One possible solution would envisage direct transfers among provinces, a system that has proven effective in the Federal Republic of Germany. Alternatively, the Government could be given exclusive jurisdiction over revenues collected in the Federal Capital, to be used (wholly or in part) for redistribution to the poorer provinces, possibly against performance criteria in the execution of expenditures.

5.41 Previous attempts at modifying the taxation power of the provinces resulted in reversal because of their poor design and the adverse consequences on provincial finances (the 1975 abolition of the provincial sales tax and the 1981 reform of the same tax). A prudent course towards decentralization might envisage the transfer to the provinces of a limited number of taxes with low collection costs and high revenue potential (e.g., the taxes on financial assets or on interest on fixed-term deposits). These taxes are undesirable from several points of view (Chapter II); however, they do exist, and some provinces already have similar taxes on their books. Similarly, the provinces might be given the power to administer and collect surcharges on electricity and liquid fuels currently earmarked for them--even if a reform of oil sector taxation were to occur along the lines suggested in Chapter IV.

5.42 If a further decentralization of revenues were not possible, modifications to the coparticipation system should incorporate the following points:

- Primary distribution should be maintained at the current levels.
- Taxes subject to coparticipation should be clearly defined to avoid a repetition of the conflict over the fuel tax during 1988/89. If, as a result of the national tax reform, the mix between coparticipated and non-coparticipated taxes were permanently altered, appropriate adjustments should be made to the 1987 coparticipation law.
- The special funds created after the approval of Law 23548 should be eliminated.

5.43 The reform in the arrangements at the national level, however, must not decrease the attention given to collection procedures in the administration of local taxes. In particular, overhaul of the provincial cadasters appears to be a necessary precondition for increased real estate tax revenues. Better information systems, management techniques, and billing procedures might also lead to increased revenues without any rate increases.

Appendix 1.1: TAX REVENUES, OUTPUT AND INFLATION

1. In order to investigate the aggregate relationship between output, inflation and tax revenues, a series of regressions were run on quarterly data from 1975 to 1988. The general functional form of the regressions was as follows:

$$a.1) \quad (T/GDP) = a_0 + a_1 INFL + a_2 ALM(GDP) + \epsilon$$

where T is national tax revenues, INFL is the quarterly rate of change of the combined price index, ALM(GDP) represents a polynomial distributed lag of real GDP. National tax revenues have been adjusted in order to correct for the "legal" payment lag (the "legal" Olivera-Tanzi effect), based on estimates of average collection delays from Durán (1989). Given the way the tax variable has been constructed, the expectation is that inflation should not exert any effect on the tax-GDP ratio, unless there exists a difference between the legal and actual behavior of individual taxpayers. The sign of the coefficient on GDP is expected to be positive, signalling that an increase in real output leads to a more-than-proportional increase in the base.

2. In the course of the estimation, the lag on real GDP was chosen beginning with two periods of delay, and extending for a further four quarters. The estimates were generally satisfactory, with the expected signs and explaining a good part of the variance of the dependent variable. Table A.1.1 shows the parameter estimates and the t-statistics of the elasticities with respect to inflation and to real GDP. Two main policy-relevant conclusions emerge:

- (a) Even after discounting for the "legal" Olivera-Tanzi effect, a considerable influence of inflation over the tax-GDP ratio remains. Thus, despite the measures to reduce the collection lags, the Argentine tax system remains fundamentally weak regarding increases in inflation.¹ Based on the 1984-88 elasticity, a doubling of inflation from 5 to 10 percent per month would decrease revenues (after correcting for the legal Olivera-Tanzi effect) by 0.6 percent of GDP. Including the loss due to the legal Olivera-Tanzi effect, revenues would decrease a further 0.8 percent of GDP, for a total loss of 1.4 percent of GDP.
- (b) The elasticity of the tax-GDP ratio with respect to real output has decreased greatly over the years but particularly after 1980 (the year of the short-lived generalization of the VAT). Indeed, based on the observed data, the link between real output and taxation seems to have become more and more

^{1/} The estimated semi-elasticity of the tax-GDP ratio with respect to inflation is decreasing over the sample period. It can be concluded
Continued on next page

fragile, despite undertaking several tax reforms since 1985. While according to sample elasticity, a year of strong growth (between 4 and 5 percent) would have increased the tax/GDP ratio by one percentage point in the late 1970s, it would take six years of growth at 4 percent to obtain the same result based on the estimated elasticities of the late 1980s.

3. The latter conclusion is particularly troublesome. The expectation of a positive relationship between real output growth and the share of taxes comes from the fact that for most taxes marginal rates are higher than average ones. Real taxes thus can be expected to grow over time proportionately more than the real base (in the case of total taxes and real GDP), and provide more room for the expansion of public services if desired. A weakening of the link between taxes and real GDP, on the contrary, implies that either expenditure control must become stronger, or that discrete tax measures must be taken with more frequency, which will contribute to increased instability in the tax system.²

2/ A weak link between revenues and output, on the other hand, results in a smaller deterioration of the tax/GDP ratio in the event of a recession.

**Table A.1.1: ARGENTINA: ELASTICITY OF THE TAX-GDP RATIO
(T-Statistics in Parentheses)**

Period	Inflation	Real Output
QIII 1975-QIV 1988	-0.024 (2.55)	0.24 (1.98)
QIII 1975-QIV 1981	-0.063 (6.64)	0.36 (9.71)
QIII 1981-QIV 1985	-0.041 (4.29)	0.40 (2.37)
QIII 1984-QIV 1988	-0.034 (4.28)	0.04 (0.43)

SOURCE: Bank staff calculations.

APPENDIX 2.1: EVALUATING THE TAX BURDEN IN ARGENTINA

1. A substantial problem in evaluating tax developments and the overall tax burden in Argentina is posed by the absence of reliable series of nominal national accounts. The Central Bank of Argentina produces quarterly estimates of national accounts at constant 1970 prices. In addition, unofficial estimates of nominal GDP (with an implicit unofficial GDP deflator) are used both in policy discussions and for analytical purposes. A major revision of national accounts methodology is underway, and is expected to result in the re-estimation of nominal and constant prices of national accounts for a long time series. Traditionally, furthermore, inflation developments in Argentina have been evaluated on the basis of an index that gives equal weight to the consumer and wholesale price index, the so-called combined price index. While there is no reason why the implicit GDP deflator and any combination of price indices should coincide, large divergences between the two give rise to problems of interpretation. As shown in table A.2.1, the implicit (unofficial) GDP deflator and the combined price index have evolved relatively in parallel between 1970 and the early 1980s, with the exception of 1974 and 1975, when, probably as a result of the large terms-of-trade change, the unofficial implicit price deflator showed a more substantial rise than the combined price index. The difference in price levels was virtually reabsorbed in the following years. Starting 1983, however, the two indices have shown a marked tendency to diverge, despite the absence of noticeable persistent terms-of-trade changes in favor of Argentina. Since 1985, the level of the two indices has differed by almost ten percent.

2. Variable intra-annual inflation rates also tend to introduce a bias in calculated ratios to GDP. Unless the tax-GDP ratio is constant during the year, the use of overall nominal revenues divided by overall annual GDP may lead to under- or over-statements of the tax pressure, depending on how the seasonal tax patterns interact with the movements in the inflation rate.

3. Estimating the tax burden under these circumstances involves an element of arbitrariness. In view of the fact that the nominal GDP series are unofficial, and that the rising divergence between the implicit deflator and the combined price index since 1983 is not easily explained, this study has utilized a definition of the tax pressure based on quarterly official real estimates of GDP, and on quarterly tax collections deflated by the combined price index. In other words, the tax pressure is defined as

$$1) \quad \tau = \sum_i (T_i / P_i) / \sum_i Q_i \quad i = 1 \text{ to } 4$$

where T_i is actual gross national taxes collected in quarter i ¹, P_i is the combined price index in quarter i , Q_i is the estimate of real GDP at 1970 prices produced by the central bank of Argentina.

1/ Since quarterly information on provincial tax collection is not available, it was not possible to perform the adjustment for intra-annual inflation in this case.

4. Using this definition, the highest value for τ ratio was reached in 1986 at 21.8 percent of GDP (Table A.2.1, column 2), a value marginally higher than the previous peak in 1980, at 21.2 percent. This value is higher than the one obtained by utilizing the unofficial implicit GDP deflator, which instead produces a maximum of 19.8 percent in 1980, 1985 and 1986. The difference is more substantial, as can be expected, for the years of maximum divergence of the two price indices. In 1988, the series that uses the implicit price deflator only yields a tax ratio of 16.9 percent of GDP, against 18.5 percent using the combined price index.

5. The fourth column in Table A.2.1 shows the tax ratios calculated using the implicit price deflator and without adjustment for intra-annual inflation. The series shows a divergence from the series in column (3) in years that had ample variation in inflation (1975 and 1985).

6. It is to be hoped that the continued upkeep of a national tax data base, as well as the forthcoming revision of national accounts will result in the elimination of the uncertainties now surrounding these aggregates.

**Table A.2.1: ALTERNATIVE MEASURES OF TAX PRESSURE, 1970-1988
(Percent)**

	(1) Ratio of Implicit GDP Deflator to Combined Price Index	(2) "Real" Tax Pressure <u>a/</u>	(3) "Real" Tax Pressure <u>b/</u>	(4) "Nominal" Tax Pressure <u>c/</u>
1970	100.1	16.0	16.0	16.0
1971	99.8	14.2	14.3	14.3
1972	98.1	12.3	12.6	12.6
1973	103.7	14.0	13.5	13.6
1974	109.9	18.7	17.1	17.0
1975	111.0	14.2	12.8	12.0
1976	105.0	13.4	12.7	13.0
1977	103.9	16.2	15.6	15.5
1978	103.2	17.5	17.0	16.8
1979	104.0	18.0	17.4	17.4
1980	106.7	21.2	19.8	19.8
1981	105.6	19.3	18.2	17.9
1982	99.7	17.2	17.1	16.4
1983	97.0	17.0	18.2	16.8
1984	104.7	16.6	15.7	15.4
1985	109.1	20.6	18.9	19.8
1986	109.1	21.8	19.9	19.8
1987	109.0	19.4	17.6	17.3
1988	109.5	18.5	16.9	16.8

a/ Quarterly taxes deflated by combined price index, divided by real GDP.

b/ Quarterly taxes deflated by unofficial implicit GDP deflator divided by real GDP.

c/ Annual taxes divided by annual nominal GDP.

SOURCE: INDEC, Secretaria de Hacienda.

APPENDIX 2.2: MARGINAL EFFECTIVE TAX RATES ON CAPITAL INCOME

1. This appendix describes the methodology utilized in Chapter II to calculate marginal effective tax rates on capital income for Argentina. The discussion of the results is provided in Chapter II; it should be noted that the calculations do not include the effects of the as yet unknown further reform of the corporate income tax system under examination by the Argentine Congress. The original reference is provided by King and Fullerton (1984), henceforth K-F. Marginal effective tax rates represent the difference between gross and net returns on different types of investment; a tax system neutral with respect to the composition of investment would produce identical marginal rates across different investments, and would not discriminate according to other characteristics such as ownership of capital, geographical location, type of financing. In addition, marginal tax rates should not be excessively high to avoid disincentives to investment in capital goods.

Methodology

2. Assuming a price-taking firm in both goods and financial markets (the hypothesis of "individual arbitrage" of K-F), the tax wedge is defined as the difference between a given (arbitrary) after-tax rate of return available to an individual investor and the pre-tax real rate of return on investment that the firm would need to generate in order to fund the investment. In absence of taxes, the real rate of interest available to the saver and the real rate of return on the firm's investment would be identical. The tax system creates a difference between the two, through the interaction of personal and corporate taxation, as well as through investment incentives provided to firms and individual investors.

3. Defining p as the required pre-tax rate of return on the investment and s as the after-tax market return to the saver, the wedge--expressed as a tax rate--is

$$1) \quad W = (p - s)/p$$

Interest on deposits with financial institutions is exempt from income taxation in Argentina.¹ Hence, the after-tax opportunity real rate of return on a financial investment for an individual saver, given a nominal interest payment $i=(1 + r)(1 + \pi) - 1$ on the amount invested, is given by

$$2) \quad s = r - w_p$$

where w_p is the personal wealth tax rate applicable.

4. In order to calculate the wedge created by the tax legislation, we assume an arbitrary after-tax real rate of return s (set, in the calculations below, at 10 percent), and calculate the corresponding nominal cost of capital for the firm, ρ , which, given its price-taker status in

1/ We ignore the 2 percent tax on fixed-term deposits established for the provincial governments in 1988.

savers. Depending on the type of financing of the investment (debt financing, raising of risk capital with distribution of profits or retained earnings), the cost of capital will be related to the market interest rate i in different ways.

5. In the case of debt financing, the firm will be remunerating a unit of capital according to (2). As interest payments on debt are generally tax deductible, the firm's cost of capital will be lower than the market interest rate, other things being equal. In Argentina, in particular, real interest payments (only) are deductible from the tax base.² However, real interest payments on corporate debt are not generally deductible from the personal income tax. Thus, the following relationship between the market interest rate i and the firm's cost of capital ρ will hold:

$$3) \quad \begin{aligned} [\rho + (\rho - \pi)\tau - \pi](1-\mu) - w_p &= s \\ &= i - \pi - w_p \end{aligned}$$

where μ is the personal income tax rate. This implies that

$$3a) \quad \rho = i / (1 + \tau)(1-\mu) + \pi[1 - (1-\mu)(1+\tau)] / [(1 + \tau)(1-\mu)].^3$$

6. If the investment is financed by raising risk capital through new share issues, the firm has two possible ways of distributing the proceeds of the investment: dividends and retained earnings. In the case of dividends, the Argentine tax law allows (since 1986, when anonymity of shares was abolished) for a partial credit for the tax paid by the corporation, but does not exempt dividend payments from personal income tax. In addition, the law provides for a credit on account of the wealth tax paid by the corporation⁴. Inflation accounting (through revaluation of physical assets and liabilities in the balance-sheet) implies that only real dividends are paid out; following McLure *et al.* (1988), we assume that the firm pays out the entire dividend at the end of each year. In addition, as discussed below, some incentive schemes in Argentina provide for direct subsidies to the individual investor (ξ), in the form of deductibility of part of the amount invested against income and capital tax payments, which are not available in the case of investment in non-subsidized activities or in the alternative financial asset. Thus, given individual arbitrage, the following condition must hold:

2/ While all interest is deductible as a business expense, the inflation adjustment provision increases the tax liability of the firm by the amount of the nominal component of the interest payment; hence, only the real component of interest payments is deductible as a business expense.

3/ This implies that, as long as the real interest rate is positive, the firm is able, through the partial deductibility of interest payments, to remunerate corporate bonds at a higher rate than the internal rate of discount it can otherwise obtain on the investment.

4/ Both the credit for the corporate income and the wealth taxes must not generate a credit for the taxpayer.

$$4) \quad (\rho - \pi)(1 + c - (1-\xi)\mu) - (w_p - w_c) = s$$

where c is the amount of credit with respect to income tax paid by the corporation and w_c is the corporate wealth tax rate. This implies in turn that

$$4a) \quad \rho = (i - w_c) / [(1 - (1-\xi)\mu)(1 + c)] - \pi[1 - (1 - \mu)(1 + c)] / (1 - (1-\xi)\mu)(1 + c)$$

7. While the 1986 reform made dividends subject to the personal income tax, it did not do so for capital gains. Therefore, if the corporation retains the earnings from the project, the taxpayer will not pay income tax on the proceeds, but will not get a credit for corporate tax paid either. In this case, the following condition for the cost of capital to the firm will hold:

$$5) \quad \rho - (w_p - w_c) = s + \pi$$

implying

$$5a) \quad \rho = i - w_c$$

8. After establishing the relationship between the cost of capital for the firm--depending on the source of finance--one can proceed to calculate the pre-tax rate of return, net of depreciation, necessary to support it. This is equal to

$$6) \quad p = MRR - \delta$$

where MRR represents the marginal rate of return on the asset, and δ is the economic rate of depreciation of the asset.

9. For a given cost of labor and of intermediate inputs, the firm maximizes its profits from an additional investment in capital goods. In order to do so, it calculates the present value of after-tax returns from an infinitely-lived asset with a marginal rate of return (MRR) that falls over time at the rate of economic depreciation δ and increases in nominal value at the rate of inflation π . Given a corporate income tax rate τ , a corporate wealth tax rate w_c , and the firm's nominal cost of capital ρ , the present value of after-tax returns is

$$7) \quad V = \sum^{\infty} \{ [(1-\tau)MRR - w_c](1-\delta) / (1+r) \}^i \\ = [(1-\tau)MRR - w_c] / (r + \delta)$$

r_f is the firm-specific real cost of capital = $(\rho - \pi) / (1 + \pi)$, which will vary by source of financing. Note that, in the case of debt financing, the corporation will not be subject to the wealth tax, since its net worth will be left unchanged for tax purposes.

The unit cost of the investment is

$$8) \quad C = 1 - A$$

where A is the present value of the investment incentives allowed for tax purposes.

The firm will invest until the cost of an additional investment in capital equals the marginal after-tax return. Setting V equal to C yields the following expression:

$$9) \quad p = [(1 - A)(r + \delta) + w_c] / (1 - \tau) - \delta$$

which is a function of economic and tax parameters, that can be calculated for different alternatives. With p thus determined, one can then use (1) to calculate the tax wedge, or marginal effective tax rate on capital income.

Taxation of Capital Income in Argentina: Relevant Parameters

10. As discussed in the main text, direct taxation of corporations in Argentina includes a corporate income tax and a net worth tax (Table A.2.2). Prior to the 1985-86 reform, dividends were not subject to taxation, and shares were generally issued in bearer form. The reform resulted in the abolition of unregistered shares; corporate dividends were made subject to the personal income tax, while a partial system of integration of the corporate and personal income tax systems was instituted. Furthermore, the monetary adjustment mechanism for the corporate income tax was modified to take into account the change in the net asset position of the company during the course of the year. The 1988 reforms included the shift from an income- to a consumption-based VAT (to take full effect in 1992), which will allow full refund of VAT on capital inputs, as discussed below; and a modification of the rates of the corporate and personal income and wealth taxes (a substantial lowering). Finally, other legislation suspended the carry-over of losses to other fiscal years for a period of three years, and limited such carry-overs to a maximum of 50 percent of the annual tax liability henceforth. A major reform of the industrial incentives system is discussed in the next section.

11. The corporate income tax is thus now levied at a rate of 33 percent (45 percent for foreign-owned corporations). The net worth tax is levied at a rate of 1.5 percent on the net worth of the corporation, evaluated on the basis of inflation adjusted amortized value of physical assets. The tax on individual wealth is levied at a rate of 2 percent. As a consequence of the December 1988 tax package, the net worth tax rate will be lowered to 1.25 percent, and the maximum personal income tax rate will fall to 35 percent. As commented, capital gains are not taxed.

12. Depreciation of Investment. Depreciation of investment allowed for tax purposes follows "generally accepted accounting principles"; in special circumstances, the tax administration may accept different depreciation schedules. Generally accepted principles in Argentina include straight-line depreciation, and for individual investment goods have been interpreted by the tax agency (DGI) as follows:

Machinery	10 years
Automobiles and Trucks	4 years
Buildings	33 years

Table A.2.2: SUMMARY OF CORPORATE AND PERSONAL INCOME AND WEALTH TAXES a/

	Pre-1986	Post-1988
Corporations:		
(1) Income Tax Rate		
Ordinary	33.00%	33.00%
Foreign Corporations	45.00%	45.00%
(2) Capital Tax Rate	1.50%	1.25%
(3) VAT Rate	18.00%	15.00%
Individuals:		
(1) Maximum Marginal Income Tax Rate	45.00%	35.00%
(2) Wealth Tax Rate	2.00%	1.00%
(3) Taxation of Dividends	NO	YES
(4) Taxation of Capital Gains	NO	NO
(5) Integration of Corporate and Personal Income Tax	NO	YES <u>b/</u>
(6) Integration of Corporate and Personal Wealth Tax	NO	YES <u>c/</u>

a/ Does not reflect the proposed October 1989 tax reform.

b/ A tax credit equivalent to 32 percent of dividends received is granted, provided it does not generate a credit in favor of the taxpayer.

c/ The taxpayer can deduct the capital tax paid by the corporation, provided no credit is generated.

13. The unamortized portion of the investment good is revalued each year according to the change in the wholesale price level; this revalued book level is the basis for the computation of the net worth tax.

Investment Subsidies: the Industrial Promotion System

14. As discussed in the main text, the numerous incentive schemes are available for individuals and corporations intending to invest in Argentina, affecting after-tax returns in significant ways. The most important relate to the system of industrial promotion, which was modified in September 1988 by a law that has not yet been implemented, since it lacks a regulation and an ancillary law on the territorial distribution of benefits to become effective. The old system consisted of a series of incentives to invest affecting the cost of capital as well as the flow profitability. Different regimes, with varying degrees of generosity, applied nationwide, to four favored provinces,⁵ to the territory of the Tierra del Fuego, and to selected industrial sectors. The new regime replaces all of the separate legislation with a uniform one, with the exception of the special regime for Tierra del Fuego.

15. The Old Promotion System. Under the series of laws that constituted the old promotion regime, the present value of an investment project could be altered through five instruments, two of which affect the cost of capital and three the stream of profits. The first two consist of the exemption from import duties and VAT for capital goods purchases⁶. For investors in a promoted company, the laws provided for either a reduction of the taxable base of the income and wealth tax by a certain percentage of project costs, or the deferment of the payment of income and wealth taxes by the investor for a given percentage of the amount invested in the project.⁷ The deferment was applicable to any income and wealth tax liability, valid for five years, and the payment subsequently spread over a further five years. This alternative was invariably chosen by investors (who, until 1986 did not have to pay any income or capital gains tax on income received from corporate sources). Until 1982 the deferment was not indexed, which implied in effect the disappearance of the tax liability; subsequently, the deferment maintained a high value, given the large discount implicit in the high real interest rates prevailing in Argentina.

5/ San José, San Luis, La Rioja, Catamarca.

6/ Until 1988, VAT on capital goods was refunded over a period of three years for non-promoted industries (following an income-type approach to VAT). A reform of the system will result to a shift to a consumption-type VAT by 1992, with full refund of capital goods during the year of purchase. Under the previous regime, the subsidy granted by this exemption consisted in a more favorable cash-flow for the investor.

7/ Since 1985, the deferment is applicable to up to 75 percent of 60 percent of the value of the investment (up to 45 percent of total project costs).

16. The second set of subsidies consists in the exemption (at variable rates) from income and net worth taxes, as well as from the payment of VAT for the corporations benefitting from the promotion.⁸ The benefits were subject to declining schedules over time.⁹

17. The New Promotion System. In September 1988, the Argentine Congress approved a new law meant to replace all previously existing promotion schemes (with the exception of Tierra del Fuego). The law foresees three different schemes: (i) promotion of sectoral and regional projects; (ii) incentives to "priority" projects; and (iii) selected promotion of investment and re-investment of profits. The main difference with the earlier scheme is that the subsidy is now provided in the form of a bond (that can be either transferred once or is non-transferable, depending on the type of subsidy), redeemable against tax obligations (involving income and wealth taxes, capital gains tax and VAT). This replaces the earlier scheme, that resulted in an open-ended exemption from VAT for items produced in subsidized projects. The provision, meant to prevent tax avoidance and to strengthen administrative control over the subsidy system, would not significantly alter the present value of tax subsidies for a corporation with a tax liability. The law, furthermore, abolished the possibility of deferring tax payments for individuals.

18. Projects under item (i) would roughly benefit from the same "package" enjoyed by regional promotion schemes: tax exemption bonds for up to 40 percent of the amount invested, redeemable against obligations for income, capital, wealth, capital gains and VAT, transferable once and valid over a period of three years; tax bonds usable against tax obligations arising from the execution of the project; exemption from import duties for capital goods; same-year payment of VAT on capital goods (now applicable to all investments in Argentina, however).

19. Projects under (ii) would enjoy the same benefits as under (i), but with a maximum subsidy rate of 30 percent in the case of tax rebates to the investor. Projects under (iii) would have a maximum rate of 15 percent.

8/ Within the scheme applicable to the four most-favored provinces, the exemption was total, and in the case of the VAT it included a retention on the part of the promoted enterprise of the VAT collected from buyers as well as a refund of the VAT paid on inputs. In other schemes, the tax exemption was limited to a deduction from income tax (transferable to later years) equal to 100 percent of investment in employee housing and of participation of employees in the earnings of the company, 65 percent of the amount of wages and salaries, and 75 percent of the investment in durables. As argued below, these latter incentives do not affect the marginal effective taxation of capital, which assumes a ceteris paribus regarding other factor inputs.

9/ The benefits under the old promotion regime are discussed at length in Sanchez-Ugarte and Zabalza-Martí (1986).

Quantifying the Tax Incentives to Firms and Investors

20. The various tax allowances, general and for promoted projects only, must be evaluated in present discounted value form in order to determine the extent to which they contribute to reducing the required before-tax rate of return on investment p . In order to do so, it is useful to derive a discount function $D(x)$, such that

$$10) \quad D(x) = \sum_{i=0}^x 1/(1+r)^i = \{((1+r)^{x+1} - 1)/(r(1+r)^x)\}$$

and also

$$10a) \quad D(x,y) = 1/(1+r)^y D(x)$$

which represents the discounted value of $D(x)$ y years from now.

21. Depreciation allowances as discussed above are on a straight-line basis with a revaluation of the unamortized amount according to the change in the rate of inflation. Hence, their present discounted value A_d (for a depreciation period of N years, starting in year 0) is equal to

$$11) \quad A_d = \sum_{i=1}^N (\tau/N)/(1+r_f)^i = (\tau/N) D(N-1)$$

22. Incentives for Individual Investors. As seen in eq (4a), the calculation of the tax wedge requires an assessment of the discounted value of the incentives provided to the saver for an investment in a promoted activity (ξ). Under the old promotion system, these consisted either in the possibility of deducting from the tax base a certain percentage of the actual contribution to the investment, or of postponing the payment of taxes (income, capital and VAT) corresponding to a certain percentage of the total value of the investment for five years, and then spreading out the payment over a period of five years. Since the second alternative was superior to the first, the benefit for the investor under the old regime was then equal to

$$12) \quad \xi = 0.75 \tau_p [1 - 1/5 D(5,5)] \\ = 0.75 \tau_p [1 - ((1+r)^5 - 1)/(5r(1+r)^9)]$$

where r is the opportunity rate of return for the saver (set here at 10 percent).

23. Under the new promotion system, the second alternative has been abolished, and the only incentive to the individual investor is represented by the possibility of subtracting up to forty percent of the contribution to the investment from the taxable base, over a period of three years, provided that no tax credits are generated. Assuming that the tax credit can be deducted entirely over the first year of life of the project (the most favorable assumption for the investor), then

$$\xi = .4\mu$$

for a period of three years.

24. Effect of Incentives on the Cost of Capital to the Firm. The promotion system reduces the cost of capital for the firm by providing an exemption from import duties on capital goods and by allowing full deduction of VAT on the same goods within the year of purchase. Both types of subsidies are of relatively limited importance in Argentina, however, since all capital goods are routinely exempted from import duties, and the VAT provision will be applicable to all investments as of 1992. In the latter case, the subsidy amounted to the difference between the refund of VAT over a period of three years against an immediate refund, i.e. to

$$A_v = \tau_v [1 - (1/3)D(2)]$$

25. VAT Exemption. The exemption from VAT represents in effect a direct subsidy for each unit of product sold, equal to the amount sold times the tax rate. If the exemption were not limited in time, this subsidy would modify condition (4) to read

$$4a) \quad V = [(1 - \tau)(1 + \tau_v)MRR - w_c] / (r_f + \delta)$$

where τ_v is the VAT rate, assuming that the producer takes the sale price of the good it produces as given. In reality the exemption from VAT under the old industrial promotion system was granted on a declining scale for a limited number of years. In the case of the four provinces, for instance, the law provided for a 100 percent exemption for the first five years, and a reduction of five percent per year for the following ten years. Thus, the term τ_v in (4a) is replaced by $\beta\tau_v$, where β is the present discounted value of the VAT exemption, per unit of output, given by

$$\begin{aligned} 13) \quad \beta &= \sum_0^4 1/(1 + r_f)^i + \sum_5^{14} \tau_v(1-0.5(i-5))/(1 + r_f)^i \\ &= \left[\sum_0^{14} 1/(1 + r_f)^i - \sum_5^{14} 0.5(i-5)/(1 + r_f)^i \right] \\ &= D(14) - \sum_5^{14} 0.5(i-5)/(1 + r_f)^i \end{aligned}$$

26. Exemption from Profits and Capital Taxes. These exemptions also affect the marginal after-tax return to capital. They consist in the deduction from profits and capital taxes of up to 75 percent of the actual cost of investment. Given the possibility of indexed tax loss carryover, this is equivalent to an exemption from capital and profit taxes for a virtually indefinite period, given the minimal tax profits generated by an industrial promotion project, as will be seen below. Both of the above subsidies are essentially left intact by the 1988 reform of the promotion system.

APPENDIX 4.1: ADJUSTMENT FOR INFLATION

1. The text argues that the current inflation adjustment mechanism may be largely responsible for a massive reduction of corporate income tax liability. This can be shown by starting from the Haig-Simmons (henceforth HS) definition of net income, equal to consumption plus the change in net worth of the economic unit, i.e., as

$$(1) \quad Y_0 = C + (W_1 - W_0)$$

where Y_0 is net income (in absence of inflation), W is the net worth of the economic unit, over the periods 0-1. Corporations do not consume: they only transform. Hence, C drops out of (1), which can be disaggregated into

$$(2) \quad Y_0 = A_1(1 - \delta) + M_1 - P_1 - W_0$$

where A_1 are end-of-period physical assets net of depreciation δ , M_1 are end-of-period financial assets, P_1 represents monetary liabilities.^{1/}

2. In a context of changing prices, (2) must be adjusted, since A includes items whose book value does not automatically increase with the rate of inflation, i.e., is equal to $\sum A_{i1}$, where each i represents a physical good bought at a different date i . In order to express (2) in a constant price level, it will be necessary to multiply each component of A by its corresponding rate of price inflation π_i , as well as the initial net worth W_0 . Thus, the ideal definition of the balance sheet would read as,

$$(3) \quad Y_f = \sum A_{i1}(1 + \pi_i)(1 - \delta) + M_1 - P_1 - W_0(1 + \pi_0)$$

i.e., both the beginning-of-period net worth and the end-of-period physical asset holdings are inflated by the corresponding rates of inflation. Subtracting (3) from (2) gives the ideal inflation adjustment clause, i.e., the part of the change in the balance sheet which is due only to the movement of the price index, and that consequently should be subtracted from the net profit emerging from the income statement of the corporation:

$$(4) \quad R^* = Y_f - Y_0 = \sum A_{i1}(1 - \delta_i) \pi_i - W_0 \pi_0 = A_1 \pi_A - W_0 \pi_0$$

i.e., end-of-period (unamortized) physical assets (including inventories) net of beginning-of-period net worth, expressed at end-of-period prices.^{2/} This, by and large, is the inflation adjustment mechanism adopted by Chile (see Casanegra de Jantscher, 1985).

3. Equation (4) can be rearranged, taking into account balance-sheet identities, to read

$$(5) \quad R^* = -\sum A_{i0} \delta_i \pi_i + \pi_0 \sum A^N - \pi(M_0 - P_0)$$

^{1/} This derives from the balance sheet identity $W + P = A + M$, i.e., total liabilities (including net worth) equals total (monetary and nonmonetary) assets.

^{2/} Note that the beginning-of-period net worth must be expressed in uniform beginning-of-period prices.

i.e. the adjustment is equal to the sum of net monetary assets, plus the indexation of the amortization of fixed assets, minus the accumulation of any new assets, multiplied by the inflation rate from the date of their purchase to the end of the period. Notice that, since inventories (usually) have a rotation period of less than one year, the above formula provides for total discounting of beginning-of-period inventories, but subtracts from the adjustment end-of-period inventories (times the rate of inflation).

The Argentine Inflation Adjustment System

4. The Argentine legislation (that evolved relatively independently of the accounting profession advances) adopted the so-called "global method." This is a piecemeal method, that incorporates: (i) a monetary adjustment clause, defined as $\pi(M_0 - P_0)$; and (ii) an indexed depreciation of capital goods and inventories. Taxable income is computed by adding (subtracting) an adjustment to the income statement result equal to

$$(6) \quad RA = \pi(\delta A_0 + I_0 + M_0 - P_0)$$

where A is expressed in uniform beginning-of-period price units, without accounting for past amortization, and I is the stock of inventories. By comparing (5) and (6) one can thus realize that the Argentine and "ideal" system differ in two important respects: (i) no accounting is done for the accumulation of physical assets during the period, and (ii) whereas beginning-of-period inventories are discounted, end-of-period ones are not added back. Thus, it is likely that this adjustment will result in large (and unjustified) reductions from company income for tax purposes.

5. The 1986 tax reform further modified the system, but rather than moving in the direction of a Chile-like provision, it introduced adjustments for changes in the balance-sheet registered in the course of the year. This is a bad approximation to the two missing terms in eq. (5), since in-period accumulation of assets and inventories need not be financed via capital contributions (or dividend payments).

Revenue Consequences of the Inflation-Adjustment Mechanism

6. Given that the legal adjustment mechanism is an imperfect approximation to the ideal adjustment system, it is legitimate to inquire in which sense, if any, a bias might be generated. To explore this issue empirically, a sample of tax returns of 154 large enterprises (representing about 30 percent of the universe of large enterprises) was obtained from DGI files, over a period of two fiscal years, before and after the 1986 reform. Two pieces of information were analyzed: the profit according to inflation accounting criteria, and the taxable profit according to the income tax provisions. The results are instructive (Table A.4.1). On average, only 6.2 percent of the large enterprises registered a tax liability which was, on average, equal to 1.8 percent of real net income (against a legal rate of 33 percent). This result cannot be attributed only to the inflation adjustment, since it includes, for instance, the effect of carry-over of losses. The effect of the inflation adjustment is instead singled out in the last column of Table A.4.1.

Table A.4.1: ARGENTINA: PROFITS AND LOSSES, 154 LARGE ENTERPRISES

Fiscal Year	Percentage with Positive Tax Liability	Tax As Percent of Acc. Profits	Ratio between 33 of Acc. Profits and Tax Profits
December 1983	12.0	3.5	10.2
June 1984	2.6	0.3	20.7
December 1987	2.2	2.2	-19.5
June 1988	7.9	1.3	21.8
<u>Average</u>	<u>6.2</u>	<u>1.8</u>	<u>8.3</u>

SOURCE: DGI, and Bank Staff calculations.

7. The negative value for December 1987 is due to the fact that the sum of the tax profits was negative. In general, however, it is apparent that the effect of the inflation adjustment is to reduce the tax liability of the enterprise to a fraction of what would be produced by inflation accounting procedures. The inflation adjustment, furthermore, introduces horizontal inequities, since the relationship between tax profits and inflation adjusted profits appears to be weak and haphazard. The correlation coefficient between accounting and tax profits was, in fact, equal to 0.22 (December 1987), 0.59 (June 1984), 0.0 (December 1987), and 0.14 (June 1988). These data suggest, furthermore, that the 1985 reform may have worsened the situation, since the decrease in the correlation between tax and accounting profits was registered at a time when the rate of inflation had been cut to about half. In the four years, the result of the inflation adjustment has been to reduce profits below those indicated by the inflation-adjusted accounting in approximately three-fourths of the cases.

APPENDIX 4.2: TAXATION OF THE ENERGY SECTOR - ALTERNATIVE SCENARIOS

1. The effects of the reform of taxation of the energy sector discussed in Chapter IV depend crucially on the rates at which the ad-valorem tax would be set, on the real prices of energy products, and on the removal of distortions and subsidies from the energy sector towards the public and private sector.

Summary of Tax and Pricing Recommendations

2. An improvement in energy taxation could be accomplished through measures that simplify the tax system, consolidate multiple taxes into a single uniformly applied ad valorem tax, and move toward greater reliance on direct income taxes of the oil and gas companies. The following reforms are recommended:

(a) VAT should apply to petroleum all products, natural gas and electricity at a standard rate. YPF, GdE, and the power companies should then be able to deduct all VAT paid on inputs.

(b) All other consumption taxes and surcharges (plus the crude tax and the "national" tax on natural gas) should be substituted by a single ad valorem energy tax applied to petroleum products, natural gas, and electricity. There should be a rebate for the ad valorem tax paid on fuels and power consumed by the power companies themselves (otherwise there would be double taxation).

(i) A basic rate could be 15 percent for an ad valorem energy tax. This would replace all existing energy and electricity funds and any specific earmarking. The proceeds of which would be distributed in a manner to temporarily fund ongoing high priority investments, such as Yacyreta, in order to finish these works. Once these works are finished the earmarking of funds for energy projects would cease and the proceeds of the ad valorem tax would go to the Treasury.

(ii) An additional "road users charge" at a rate of about 35 percent of the commercial price should be applied to gasoline and gasoil, earmarked for a single "Road Fund." This would replace present specific earmarking for national and provincial roads.

(iii) Total rates for gasolines, gasoil, and diesel used in transport would have to be higher if the intent is to maintain actual levels of gross revenues from indirect taxes on fuels.

A new tax rate structure on transport fuels could be (as percent of commercial price) as follows:

Extra Gasoline:	179%
Regular Gasoline:	141%
Gasoil, Diesel for transport:	110%

The Treasury (after deducting the 15 percent earmarked for the single Energy Fund and the 50 percent earmarked for the single Road Fund) would then get a 124 percent tax on extra-gasoline, 86 percent on regular gasoline and 35 percent on gasoil and diesel for transport. Total rates on transport fuels could eventually be lower, given that collections would increase substantially as a consequence of the proposed energy price changes, from the proposed elimination of subsidies, the proposed income taxes (on YPF, GdE and private oil producers), and possible improved tax collection and tax reform in non-energy areas.

(c) The VAT and the ad valorem energy tax should be applied to a "commercial price," determined according to the following price policy recommendations:

- (i) Petroleum Products: The refinery price should be equal to the FOB international price, i.e., the previous month's average, plus distribution and marketing margins.
- (ii) Natural Gas: The price should be approximately 90 percent of equivalent fuel oil price for industrial and power users plus differential distribution costs for residential-commercial users, including adjustments for any geographical or seasonal differentials.
- (iii) Electricity: The tariff should be set at least at the long-run marginal cost (LRMC). The final consumer price, including the ad valorem tax (but excluding VAT) should be at a level to cover financial needs of the entire power sector.

(d) If the need arises, consideration should be given to an additional excise tax on residential natural gas consumption above a monthly minimum, so the total price equals that of kerosene. In the short run, however, this would imply a large increase in the price of gas for medium and large residential consumers. Such a tax could be phased in more slowly, and final consumer prices of gas and electricity should be

coordinated so as not to cause an uneconomic shift toward increased electricity use away from gas.

(e) YPF, GdE, and private petroleum and natural gas producers and distributors should be subject to the normal corporate income tax plus possibly an income surcharge tax (or a windfall profits tax). Proceeds of these taxes might be placed in an Investment Stabilization Fund and assigned to Government, YPF, GdE, or other public agencies for investment purposes. The Fund could accumulate financial resources in periods of "high" international prices and be used in times of "low" prices. In this way, total public investment financed out of oil surpluses would be made more stable than if all of it were spent immediately, and contribute to sound macroeconomic management and increasing investment.

(f) Royalties should be determined on the basis of producer prices determined on the basis of FOB international prices for crude oil at refinery gates or at embarkation port; also from the commercial price minus distribution and transport margins for natural gas.

(g) The recommended changes on indirect tax structure, rates, and earmarking defined above could and should proceed as soon as possible along with the establishment of income taxes for YPF, GdE, and private producers. The suggested windfall profits tax and the Investment Stabilization Fund need to be carefully designed before implementation.

Revenue Effect of the Proposed Reform

3. A rough calculation of the impact of recommended changes in energy taxation, an increase in related prices, and a reduction in subsidies shows a substantial positive fiscal effect and additional revenue flowing to YPF and the Government for needed investments.

4. Subsidies to private sector entities and payments of excess royalties need to be reduced. These subsidies total close to US\$1 billion per year as summarized below (Fourth Quarter 1988 US Dollars):

	<u>US\$ million/year</u>
Subsidy to Petrochemicals	68
Crude Oil Subsidy to Private Refiners	107
Coke to YCF	18
Excess gas and oil royalty payments	327
Compre Argentina	<u>550</u>
	1,070

5. Approximate estimates of the impact of new tax rates (applied to unchanged before tax prices) are given in Table A.4.2, which show that a continuation of the same tax rates on gasoline, a higher tax rate on gas oil, and lower rates for other fuels (15 percent VAT plus 15 percent ad valorem) result in overall energy fuel tax revenues about US\$123 million lower than existing revenues. However, as shown in Table A.4.3, this decline is more than offset by additional tax revenue earned when prices before tax are increased, assuming an increase in before tax prices of 21 percent for LPG, 52.25 percent for natural gas, and 20 percent for

Table A.4.2: APPROXIMATE IMPACT OF ALTERNATIVE RECOMMENDATIONS ON CHANGES IN INDIRECT TAXES
(millions of US\$, excluding effects of increases in prices before taxes)

	<u>Gasolines</u>				<u>Fuel</u>			<u>Natural</u>		<u>Total</u>
	<u>Extra</u>	<u>Regular</u>	<u>Gas oil</u>	<u>Diesel</u>	<u>Kerosene</u>	<u>Oil</u>	<u>LPG</u>	<u>Gas</u>	<u>Elect.</u>	
A. Volume (thousand m3)	3510.00	2990.00	8250.00	178.00	600.00	4818.00	798.00 ^{1/}	14800.00	35505.00 ^{2/}	
B. Consumer Price (US\$/m3)	690.00	610.00	360.00	280.00	330.00	170.00	31.98 ^{3/}	2.66 ^{4/}	0.046	
C. Commercial Prices (US\$/m ³)	234.00	238.3	174.00	193.00	226.00	114.00	26.6 ^{3/}	1.84 ^{4/}	0.034	
D. Present Tax Rate (percent of commercial price)	194	156	105.9	45.1	46.1	48.8	20.1	44.0	37.9	
Estimated Present Tax Revenue (million US\$)	1598	1111	1528	15.49	62	268	64.78	365.80 ^{5/}	427.50	<u>5587</u>
E. New Tax Rates-High Rates on gasoline and gas oil (percent of commercial price)	194	156	125	30	30	30	30	30	30	
Estimated New Tax Revenue (million US\$)	1598	1111	1802	10	41	165	92	287	357	<u>5464</u>

^{1/} Thousand tons

^{2/} GWH

^{3/} Price per 45 kg cylinder

^{4/} Price per MCF

^{5/} Includes taxes from municipalities and provinces

(Volumes and prices for average 1988, tax rates in effect October 1988)

NOTE: If tax revenue collections outside the energy sector were to improve to a point where reductions in gasoline taxes and gas oil taxes were possible, alternative tax rates on extra gasoline could be 165 percent, regular gasoline 135 percent, and gas oil 105 percent. This would result in estimated total revenue of US\$4,787 million, or about US\$800 million lower than present estimated total revenue of US\$5,387 million.

**Table A.4.3: APPROXIMATE FISCAL EFFECT OF RECOMMENDATIONS ON TAXATION
AND ON PRICING
(1988 figures, in millions of US\$)**

	<u>Proposed</u> with increases in commercial prices <u>2/</u>
1. INDIRECT TAXES	
Estimated impact with changes in taxation system (based on new rates applied to unchanged before tax prices)	-123 <u>1/</u>
Additional indirect tax revenue with increases to before tax prices <u>2/</u>	+256 <u>2/</u>
Additional VAT not deducted	-111 <u>3/</u>
<hr/>	
2. REDUCED COMPENSATIONS FROM GOVERNMENT (net effect of before tax price increases and reductions of subsidies)	+1,217
<hr/>	
3. APPROXIMATE INCREASE IN DIRECT TAXES (FROM INCREASED YPF INCOME)	+411
<hr/>	
NET FISCAL EFFECT	+1,650

1/ Tax rates are rates on gasolines and gas oil and described in Table 4.2, line E. from Table 4.2.

2/ Commercial price increases of 21 percent in LPG, 52.25 percent for natural gas, 20 percent for electricity.

3/ VAT not deducted on present rates, but which would be deducted by state companies under the new system.

electricity (which approaches economic costs based on October 1988 prices and exchange rate). Private sector consumers of fuels thus receive a lower tax rate on higher fuel prices.

6. The total net fiscal effect could be as high as US\$1,650 million per year assuming the new tax rates and higher prices (as described in the previous paragraph), reduced subsidies to private sector and provinces of US\$1,070 million, an increase in tax revenue of US\$411 million from income tax on YPF, which earns more revenue, and a corresponding reduction in the need of the Government to compensate state energy enterprises. Of course other scenarios of price increases and subsidy reductions are possible, since the net fiscal benefit can be divided in various ways between increased YPF investment, increased investment elsewhere, and reduction of the fiscal deficit.

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