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Government Role and the Efficiency of Policy Instruments 1/

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Abstract

Comparisons about the role of the government in an economy are usually made by reference to the share of tax revenue or of public expenditure in gross domestic product. However, governments often use other tools for pursuing their objectives. The paper discusses these other tools, shows the extent to which they can replace the traditional fiscal instruments, and assesses their quantitative importance. Various highly speculative hypotheses are advanced about the role of these other tools in countries at different levels of development.

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Summary

In recent years there has been a big debate about the proper role for the public sector. Some want a small public sector. Others a large one. This debate has been pursued by reference to the share of taxes or public spending in gross domestic product. According to this approach, the public sector of, say, China plays a much smaller role in the economy than that of Japan or the United States. The problem with these comparisons is that they focus on orthodox tools for pursuing public sector objectives and ignore nonorthodox tools. In other words, they focus on taxes and public expenditures and ignore quasi-fiscal regulations and quasi-fiscal activities in general.

The paper shows that public sector objectives can be pursued not only through taxes and public sector spending, but also through quasi-fiscal regulations and quasi-fiscal activities in general. Often countries that show a low tax ratio or a low ratio of public spending to GDP are the same ones that rely more on quasi-fiscal regulations and activities. This is clearly the case when one compares the developing countries or the economies in transition with the industrial countries. The paper speculates that, at a given moment, most governments wish to pursue broadly similar objectives so that when they have no access to taxes to finance public spending, they rely on less desirable tools.

The paper provides some quantification of the scope of these other tools and shows that they can be quantitatively very important. It also speculates on what may happen if the role of government does not change but recourse to these other tools is reduced.

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I. Current Debate on the Role of Government

For the past several years, a raging debate has been going on about the role that the public sector should play in the contemporary world. The collapse of the centrally planned economies and the real, or alleged, failures of the welfare state in mixed economies have brought about an in-depth reevaluation of that role in an environment that is much more pro-market than was the case in recent decades. As this and other recent economic conferences confirm, perhaps, at no other time has so much attention been paid, by economists, political scientists, and policymakers, to what the government should do.

In this largely normative debate, some economists argue in favor of a minimalist state, in which the government should have very limited functions essentially justified by the narrow application of economic arguments related to market failure such as the existence of externalities, public goods, monopolies, and informational deficiencies. These economists reveal much faith in the market and little faith in the actions of the government. Others argue that the retreat of the state from many activities, and a more timid role for it, would lead to many problems such as the growing incidence of crime (and especially of organized crime), the growth of poverty, a progressively less even income distribution, and so forth. They justify a larger government role by recourse to the Musgravian functions, such as allocation of resources, when the market fails to do so optimally; the redistribution of income, when the market generates a distribution that is not considered fair by society; and the stabilization of economic activities, when the automatic working of the market leads to economic instability accompanied by unemployment, inflation, and balance of payments disequilibrium.

In modern and complex societies the objectives pursued by the government have become broader and more difficult to define. For example, it is now better recognized that the private sector may fail to allocate resources optimally not just at a moment in time, but inter-temporally thus justifying public sector intervention vis-à-vis many new areas that involve different periods such as the environment, research, and pensions. The distribution of income has also acquired more facets as governmental intervention has been justified not just by the uneven size distribution of income but, with increasing frequency, by income differences which may arise because of gender, age, and ethnic, regional and physical characteristics of individuals. Even the stabilization function has become more multi-dimensional and, now, it may relate to output, employment, price level, balance of payment, public debt, level of public spending, and level of taxation.

A quantitative impression of what a minimalist state might imply in terms of the level of public spending is provided by the historical statistics, for the 1870-1913 period, shown in Table 1. It will be seen that government expenditure, as a share of GDP, was much lower a century ago than in later years. These low shares of public spending into GDP, were not exhibited by primitive societies but by societies that were quite advanced

Table 1. The Growth of Government Expenditure, 1870-1990

(In percent of GDP)

	Late 19th Century About 1870 <u>1/</u>	Pre-World War I About 1913 <u>1/</u>	Post World War I About 1920 <u>1/</u>	Pre-World War II About 1937 <u>1/</u>	Post World War II 1960	1980	1990
Austria	...	...	14.7	15.2	35.7	48.1	48.6
Belgium	...	...	...	21.8	30.3	58.6	55.5
Canada	...	...	13.3	18.6	28.6	38.8	45.8
France	12.6	17.0	27.6	29.0	34.6	46.1	49.8
Germany	10.0	14.8	25.0	42.4	32.4	47.9	45.7
Italy	11.9	11.1	22.5	24.5	30.1	41.9	53.2
Japan	8.8	8.3	14.8	25.4	17.5	32.0	31.7
Netherlands	9.1	9.0	13.5	19.0	33.7	55.2	54.0
Norway	3.7	8.3	13.7	...	29.9	37.5	53.8
Spain	...	8.3	9.3	18.4	18.8	32.2	41.8
Sweden	5.7	6.3	8.1	10.4	31.0	60.1	59.1
Switzerland	...	2.7	4.6	6.1	17.2	32.8	30.7
United Kingdom	9.4	12.7	26.2	30.0	32.2	43.0	39.9
United States	3.9	1.8	7.0	8.6	27.0	31.8	33.3
Average	8.3	9.1	15.4	18.3 <u>2/</u>	28.5	43.3	45.9
Australia	...	...	...	...	21.2	31.6	34.5
Ireland	...	...	...	...	28.0	48.9	41.0
New Zealand <u>3/</u>	...	...	...	...	26.9	38.1	44.0
Average	...	...	...	...	25.4	39.5	39.8
Total average	8.3	9.1	15.4	20.7	27.9	42.6	44.8

Sources: European Commission, *Tables on General Government Data*, 1995; *OECD Economic Outlook*, 1994 and 1995; Vito Tanzi and Domenico Fanizza, "Fiscal Deficit and Public Debt in Industrial Countries, 1970-94," WP/95/49, May 1995; B. R. Mitchell, "International Historical Statistics," (various issues); Acha Hernandez, "Datos Basicos para la Historia de Financiera de España," 1976; Bureau of Census, "Historical Statistics of the U.S.A.," 1975; IMF, *Government Finance Statistics*; IMF, *World Economic Outlook*. Table reproduced from Vito Tanzi and Ludger Schuknecht, "The Growth of Government and the Reform of the State," (IMF Working Paper, forthcoming).

1/ Or nearest available year after 1870, before 1913, after 1920, and before 1937.

2/ Average computed without Germany, Japan, and Spain (all undergoing war or war preparations at this time).

3/ GFS data, data available for 1960 is 1970.

and sophisticated. However, in that period the state did not engage in activities such as higher education, provision of health services, social security and public welfare on a mass scale, unemployment compensation, and many others that are now common.

An impression of the level of expenditure needed by an extended role of the public sector is provided by statistics for recent years especially for the so-called welfare states among the industrial countries. Table 1 provides these statistics. It will be seen that, for some countries, total public spending has exceeded 50 percent of GDP and has even approached or exceeded 60 percent of GDP. For the group of countries reported in Table 1, public spending, as a share of GDP, grew from an average of around 10 percent at the beginning of the century to 45 percent in recent years. ^{1/} These data refer to market-oriented industrial countries. In the centrally planned economies that characterized Eastern Europe, the role of the state was even more extended.

II. The "Efficiency" of Policy Instruments

The economic discussion on the role of the state has been conducted in terms of market failure, emphasized by those who wished to justify a larger role; or, in terms of government failure, emphasized by those who wished to limit that role (see Stiglitz, 1995). Among the latter, a particularly influential group has been that associated with the public choice school. The components of this group have shown how rent-seeking by special interests and other bureaucratic behavior lead to the growth of government expenditure and to the failure of public policy in achieving its stated objectives. ^{2/} (See Mueller 1989.) In the public sector, principal-agent problems are common and the difficulty of writing precise but not excessively constraining contracts or instructions for the behavior of agents acting on behalf of the public sector leads to results that are often at odd with the objectives of the policymakers. In many countries, corruption on the part of some public officials adds to the problem. (See Tanzi, forthcoming.)

In this paper, I wish to focus on a different aspect of the role of government, an aspect that is neither related to traditional market failure nor to government failure in the public choice sense. This aspect has been largely ignored in the literature and especially in the public finance literature. It relates to the gap that often exists between government goals and the availability of fiscal instruments necessary to pursue those goals and how governments react to that gap. Because the policy instruments are the vehicles that must implement, or are supposed to implement, the intentions of the policymakers, when these instruments are not available or

^{1/} This increase was due mainly to governmental policies rather than to technical factors often summarized under the term of "Wagner's Law".

^{2/} The contribution of the "New Italian School" through the work of Alberto Alesina, Guido Tabellini and others is also relevant in this context.

are not efficient, difficulties may arise. 1/ When this gap exists, there are two possibilities: either the policymakers give up in pursuing some of their objectives, or, at least, they modify their objectives to make them consistent with the available instruments; or they continue to pursue the same objectives but they do so through reliance on less efficient instruments.

Unfortunately, the second possibility seems to be common thus resulting in poor economic policy and in a more confused role of the state. The final results from governmental action are, thus, often different from the intended results. In this context, the "efficiency" of a policy instrument is defined à la Tinbergen: an instrument is efficient when a modest change in it brings about a significant change in the policy objective pursued through the use of that instrument. (See Johansen, 1965, pp. 12-14.) It is thus not the usual allocative definition of efficiency.

Economists and political scientists generally associate the scope and the importance of the public sector (or, putting it differently, the role of the government) with the share of public spending or tax revenue in national income. Public finance courses deal with taxing and spending and ignore monetary or foreign trade policy because the latter is not supposed to deal with *fiscal* objectives. Also, these courses generally do not discuss regulations. 2/ The implicit assumption is that those objectives can only be pursued through tax and public expenditure instruments. The higher the level of taxation or of public spending, the greater the role of the government in the economy is assumed to be. On this assumption, the government plays a much larger role in Sweden than in Japan and in industrial countries than in developing countries. Those who wish to impose constitutional limits on the level of taxation ought to be pleased with its level in developing countries.

Developing countries are generally characterized by: (a) an income distribution that is less even than in industrial countries; 3/ (b) less stable macroeconomic developments, as measured by fluctuations in output, prices, or balances of payments outcomes; and (c) more pervasive market

1/ Of course, the availability of policy instruments depends on the availability of good institutions. Here we focus on the instruments rather than the institutions.

2/ Johansen (pp. 22-25) lists the main instruments at the government's disposal, including monetary policy, prohibitions, and government's own business activity but then limits the fiscal policy instruments to payments to the government (taxes) and payments from the government.

3/ Gini coefficients are generally much higher in developing countries than in developed countries.

failure due to lack of information, prevalence of monopoly or monopolistic practices, and externalities of various kind. ^{1/}

While the evidence available points to a greater need for governmental action in developing countries as compared with industrial countries, it is the latter that exhibit a much larger role for the government when that role is measured by levels of taxation and public spending: On the average, the level of taxation and of public spending, measured as a share of GDP, is at least twice as large in industrial countries as in developing countries. As pointed out above, this difference cannot be explained by a lower need for public sector intervention in developing countries. It is, rather, explained by these countries' difficulties in raising tax revenue. For a variety of reasons, which cannot be discussed here, the developing countries are far less successful at collecting taxes than the industrial countries. Does this mean that the policymakers of the developing countries scale down their policy objectives to reflect this reality? An argument will be made in the next section that, often, governments that cannot raise a desired level of tax revenue do not scale down their role in the economy, but, rather, they attempt to pursue that role through nonfiscal instruments. Thus, the role of the government is not reduced, but the way in which that role is pursued is changed. These other instruments are largely, but not exclusively, *quasi-fiscal activities and quasi-fiscal regulations*. These are activities not connected with the budget but which can have effects, broadly similar to those of fiscal actions.

Quasi-fiscal activities and regulations have also been important in industrial countries when the desire to maintain a larger role for the government has collided with the reality of inadequate tax revenue. In some cases, as for example in Italy for much of the 1970s and part of the 1980s, this led to the creation of quasi-fiscal activities within the financial system which allowed the government to finance more cheaply its public debt. (See Bruni, Penati and Porta, 1989.) In other cases, such as the United States in the 1980s, this led to the use of quasi-fiscal regulations often referred to as unfunded mandates to local governments and to private enterprises. In general, one finds that these quasi-fiscal activities tend to be more used by the less advanced industrial countries.

III. The Importance of Quasi-Fiscal Activities and Regulations

If a government wanted to encourage an economic activity, it would normally be best if it did it through a subsidy to that activity given through the budget. If a government wanted to discourage an economic activity, it would be best if it did it through a tax. This is the standard Pigouvian way of dealing with both positive and negative externalities. In reality, however, and especially in developing countries, the economic

^{1/} In its *World Development Report 1983*, the World Bank attempted to construct "indices of price distortions" for many developing countries. It is not clear how accurate is the picture provided by this heroic attempt. See p. 60 of that Report.

encouragement or discouragement of certain activities is often not done through the budget but through other means, mainly quasi-fiscal activities or quasi-fiscal regulations. 1/ These are *fiscal* actions carried through nonfiscal instruments. They are, thus, *outside* the budget, replacing the spending-taxing function of the budget.

In a well working market economy, regulations should be limited to helping define the rules of the game and to protecting the citizens against particular risks. Thus, the government could regulate the merger of firms, to maintain competition; it could require children vaccination, to ensure health; it could regulate the distribution of pharmaceutical products for the same reason; it could determine traffic rules and require driver's licenses to ensure traffic safety; it could regulate banks and insurance companies to protect their customers against unwarranted behavior by those who run those institutions, and so on. Within limits, these are considered legitimate regulatory activities on the part of the public sector. They would not be considered quasi-fiscal regulations. The function of a driver's license or of traffic regulations cannot be replaced by a tax and a subsidy.

1. Quasi-fiscal regulations

However, assume that the government wants to help poor families by subsidizing the rental cost of their lodgings. 2/ It could do it with an explicit subsidy to the relevant families given through the budget and financed through taxation. Without discussing the merit of this policy, this would be a normal use of the taxing-spending instruments of governments. Assume, however, that the tax or other ordinary resources of the government are limited, but that the government still wants to pursue its objective of subsidizing the rental expenditures of poor families. A quasi-fiscal regulation that will broadly promote this objective is rent controls. Rent controls are equivalent to a policy that subsidizes the rentees and taxes the rentors. 3/ In other words, rent controls replace the function of the budget and thus reduce the level of taxation and the level of spending while still broadly pursuing the government objectives. The fact that the end result of this governmental action is likely to be less efficient in terms of the objective sought than if it were done through the budget is part of our story, but it does not change the reality that rent controls are substitutes for actions that could be taken through the budget. There are many other examples of quasi-fiscal regulations from zoning laws to uncompensated and obligatory military service.

1/ In the environmental area, regulations have often been used in industrial countries. These often have a quasi-fiscal effect. Of course, tax incentives and tax expenditures are also used to achieve this objective.

2/ This could be considered the subsidization of a merit good.

3/ Please note that the burden of the tax is not on the general taxpayers but on those who own the houses that are rented.

2. Quasi-fiscal activities through the foreign exchange system

Assume that a country exports coffee and imports medicines and that the government wants to subsidize the use of medicines by taxing the coffee producers. A conventional, though not economically efficient governmental policy, 1/ would be to tax the exporters of coffee, thus raising the level of taxation, and to subsidize the importers of medicines, thus raising the level of public spending. However, the government may have difficulties (administratively or politically) in pursuing this course of action. An administratively or politically easier alternative is to use the exchange rate mechanism to promote the same social objective by using appreciated exchange rates for the import of medicinals and for the export of coffee. 2/ The government compels the coffee exporters to sell to the central bank their foreign exchange earnings for which they receive a smaller amount (in domestic currency) than they would have received if they had been free to sell their foreign exchange in the market. The government then sells this foreign exchange (also at an appreciated rate) to the importers of medicines, who buy their medicines more cheaply (in domestic currency). Once again, taxing (the coffee producers) and subsidizing (the users of medicines) has taken place without an apparent effect on the level of taxation and on the level of public spending. The unwary observer, who used the conventional data on taxing and spending, would conclude that the role of the government in that country is more limited than it actually is.

The above example can be extended to the export of other agricultural products and, especially, to the export of mineral products. In each case, the exporters are forced to yield to the government, at an overvalued exchange rate, the foreign exchange that they earn. 3/ Thus, *de facto*, these exporters are being taxed sometimes at very high rates. When the foreign exchange is provided to the importers of particular products, also at an overvalued exchange rate, the net result is similar to that of a budgetary subsidy to the goods that use this exchange rate for imports. Multiple exchange rate regimes are very common (see IMF, 1994). Depending on the coverage of the special rates, the quasi-fiscal taxes and subsidies they entail can be substantial.

1/ Please note that in this sentence, efficiency refers to the allocative concept rather than to the concept as defined earlier.

2/ The fiscal or revenue effect of multiple exchange rates has been recognized for a long time. See Bernstein (1950) and Sherwood (1956).

3/ Alternatively, they may be forced to sell their products domestically at prices which are well below the world price for that products. This is frequently the case with petroleum, which, in oil-producing countries such as Nigeria, Iran, Venezuela, Russia and other countries, is sold at what appear to be ridiculously low prices. In this case, the implicit taxation of the oil sector and the implicit subsidies to oil consumers do not appear in the budget. In these countries, the implicit taxes on the producers and the implicit subsidies to the producer may be very large.

Quantitative import restrictions are also often used by many countries. These also provide implicit subsidies to some groups and implicit taxes to others. However, it is often difficult to quantify these effects.

3. Quasi-fiscal activities through the financial system

Quasi-fiscal activities are often carried out *through the financial system* and can take many forms. But they all result in the implicit taxation of some groups (depositors, holders of cash) and in the implicit subsidy of other groups (borrowers, banks with problem loans, government). In all cases, they do not result in explicit tax revenue or public spending. They thus lead to lower ratios of taxes or public spending in GDP. A comprehensive analysis of this aspect is not possible here. 1/ We limit ourselves to a few examples.

In some cases, the financial institutions are required to lend to enterprises or to the government at below market interest rates. 2/ Or, some financial institutions can benefit from preferential rediscounting practices with the central bank and can thus pass on an implicit subsidy to those who borrow from them. Or, highly risky borrowers can get the loans at an interest rate that does not reflect the risk. Or, some borrowers can borrow at a risk-free rate because the government (or some part of it such as the central bank) guarantees the loans. In still other cases, the government gets subsidized credit by forcing banks to hold uncompensated or undercompensated high reserve requirements at the central bank. In most cases, "... control on international capital flows [are] coupled with controls on domestic financial intermediaries" (Giovannini and De Melo, 1993, p. 953). These controls result in "financial repression" which is a form of implicit taxation.

We have provided examples of governmental activities that are common especially among developing countries and economies in transition and that result in implicit taxation. This taxation is at times accompanied by implicit subsidies to particular groups while in other cases it is for the benefit of the government that can thus pursue some of its objectives without raising explicit taxes. Inflationary finance, that is, the direct lending by the central bank to the government, is an example of a quasi-fiscal operation that is mainly an implicit tax (on holders of cash) collected by the government. Up to a certain point, this tax increases with the level of inflation.

1/ See G.A. Mackenzie (1994); Mackenzie and Stella (forthcoming); Maxwell Fry (1993); and Christopher Chamley (1991).

2/ In particular circumstances, especially when the inflation rate is high and the interest rates are low, the implicit subsidies to those who borrow can be huge. As these subsidies are not shown in the budget, a country can have high inflation even when the formal budget appears to be in balance. This was the case in Brazil in years past.

In the next section, we provide available quantitative estimates of some of these activities. These are by no means all the channels through which what are essentially fiscal objectives of the government are pursued through the use of nonfiscal instrument. In some way, what we have shown is just the tip of the iceberg.

IV. Some Quantification

In the previous section, we have provided examples of quasi-fiscal activities and quasi-fiscal regulations that can proxy for the spending and taxing actions of the government. We have argued that these activities and regulations allow the government to play a larger role without having to raise taxes or spend more. We have no way of quantifying all of these quasi-fiscal activities and even less the quasi-fiscal regulations. If we could, we would attempt to answer the question: By how much would the tax level and the spending level have to rise to replace the implicit taxes and subsidies with conventional or explicit taxes and government spending? Yet some idea of the dimensions involved can be obtained from the analysis of a few specific quasi-fiscal activities. Here we report some available estimates.

Giovannini and De Melo (1993) have estimated the implicit taxes that the governments of various countries obtain from "controls on international capital flows coupled with controls on domestic financial intermediaries" (*ibid.*, p. 953). These controls allow governments to finance themselves at artificially low interest rates. These authors emphasize that their estimates are minimum estimates because they limit their calculations to the interest that the government saves on servicing its debt. They are thus likely to substantially underestimate the true scope of quasi-fiscal "revenue" from the financial sector.

Table 2 reports these estimates for 24 countries. The table shows that revenue from financial repression can be very high both as shares of GDP and as shares of (conventionally measured) tax revenue. For the years reported, these implicit taxes raised more than five percent of GDP in Mexico and in Zimbabwe and smaller but still large amounts in several other countries. Greece, Portugal, and Turkey are the only European countries in the table each "raising" a bit over two percent of GDP from this source. The unweighted average for the whole group is two percent of GDP and nine percent of government revenue. ^{1/}

Maxwell Fry (1993) has estimated, for 26 countries, the seigniorage that the government received from its monopoly over money creation in 1984. ^{2/} This is revenue *additional* to that from financial repression. When this seigniorage leads to inflation, it is a kind of excise tax whose

^{1/} Please note that the table refers to years in the 1970s or the first half of the 1980s. In some of the countries covered the current situation may be very different.

^{2/} Earlier estimations are available in Fischer (1982).

Table 2. The Size of Revenue from Financial Repression

Country	Sample	Revenue from Financial Repression	
		Percentage of GDP	Percentage of tax revenue
Algeria	1971-1987	4.30	11.42
Brazil	1983-1987	0.48	1.57
Colombia	1980-1984	0.24	2.11
Costa Rica	1972-1984	2.33	12.76
Greece	1974-1985	2.53	7.76
India	1980-1985	2.86	22.38
Indonesia	1976-1986	0.00	0.00
Jamaica	1980, 1982	1.38	4.74
Jordan	1978-1987	0.60	2.40
Korea	1975-1987	0.25	1.36
Malaysia	1974-1981	0.12	0.31
Mexico	1984-1987	5.77	39.65
Morocco	1977-1985	2.31	8.89
Pakistan	1982-1983	3.23	20.50
Panama	1977-1987	0.69	2.49
Papua New Guinea	1981-1987	0.40	1.90
Philippines	1975-1986	0.45	3.88
Portugal	1978-1986	2.22	6.93
Sri Lanka	1981-1983	3.40	19.24
Thailand	1976-1986	0.38	2.57
Tunisia	1978-1987	1.49	4.79
Turkey	1980-1987	2.20	10.89
Zaire	1974-1986 1/	0.46	2.48
Zimbabwe	1981-1986	5.50	19.13

Source: Giovannini and De Melo, op. cit., p. 959.

1/ The sample for Zaire does not include the years 1981, 1982, and 1983.

revenue is obtained by multiplying the tax rate (which is the current inflation rate) by the tax base which is the "... geometric average of beginning-of-year and end-of-year values of currency in circulation plus bank reserves." (p.10). Fry's estimates are shown in Table 3. Once again, the revenue importance of these implicit taxes is striking. In five countries (Argentina, Egypt, Mexico, Peru and Yugoslavia) this unorthodox revenue source generated more than seven percent of GDP and large proportions of tax revenue. Once again, these estimates pertain to 1984. Major changes have taken place since then in some of these countries. Christopher Chamley (1991) has also attempted to estimate the tax revenue from implicit financial taxation in four African countries--Ghana, Somalia, Zaire and Zambia--for the 1971-1986 period. He has used two alternative methods for this calculation. 1/ The average revenues for the whole period, shown as percentages of GDP, are given in Table 4. Once again, the importance of this implicit source of revenue is obvious. The yearly estimations, shown in Chamley's article, indicate a great variability of this source. In particular years, it provided much higher values than those shown in Table 4.

Unfortunately, there are no good estimates of the implicit taxes and subsidies associated with multiple exchange rate systems, domestic price controls, or quantitative restrictions on trade. The bits of evidence indicate that these taxes or subsidies may be very high. For example, Brian Pinto (1989, p. 329) has estimated that the implicit marginal tax rate on exports by Ghana was 91 percent. This implicit tax was a consequence of the overvaluation of the exchange rate.

V. Concluding Remarks

This paper has addressed some issues related to the positive role of the government. It has highlighted the fact that governments can pursue their roles in various ways and through various instruments. These instruments extend well beyond the range of taxes and public spending which are the ones that attract most attention especially by public finance economists. The use of quasi-fiscal activities and quasi-fiscal regulations is common among countries. These are nonfiscal instruments used to achieve or to influence the same objectives as those pursued through taxes and government spending.

While all countries use, to some extent, these other instruments, much greater prevalence of their use is found in developing countries and, to a lesser extent, in poorer industrial countries. Economies in transition also make much use of them. The information available suggests that quantitatively--in terms of the percentage of GDP that would be needed to replace them with explicit taxes and public spending--these other instruments, in developing countries, may be as important as the traditional tax and spending instruments. 2/ Because the developing countries have

1/ The reader is sent to the original article for details.

2/ This is also especially true in economies in transition.

Table 3. Seigniorage Revenue in 26 Developing Countries, 1984

Country	Seigniorage Tax Revenue	
	Percentage of GNP	Percentage of government current revenue
Algeria	1.6	n.a.
Argentina	7.4	46.5
Brazil <u>1/</u>	2.5	9.1
Chile	0.9	2.7
Cote d'Ivoire	0.4	1.5
Egypt	7.5	16.7
Ghana <u>1/</u>	0.7	6.2
Greece	3.1	8.7
India	1.0	7.6
Indonesia	0.7	6.2
Korea <u>3/</u>	0.1	1.4
Malaysia <u>3/</u>	0.1	0.5
Mexico	7.2	41.9
Morocco	1.7	6.8
Nigeria <u>3/</u>	0.9	5.1
Pakistan <u>2/</u>	0.5	2.6
Peru <u>1/</u>	8.7	58.0
Philippines	2.4	22.1
Portugal	5.3	14.6
Sri Lanka <u>2/</u>	0.8	3.4
Tanzania <u>4/</u>	3.1	18.6
Thailand <u>3/</u>	0.2	1.3
Turkey <u>3/</u>	2.6	13.9
Venezuela	1.5	5.7
Yugoslavia	9.8	132.8
Zaire <u>2/</u>	3.0	16.1

Source: IMF, *International Financial Statistics* and World Bank, *World Tables 1989-90: Socio-economic Time-series Access and Retrieval System, Version 1.0* (Washington, D.C.: World Bank, March 1990). Taken from Fry, op. cit., p. 11.

1/ 1985.

2/ 1986.

3/ 1987.

4/ Seigniorage, 1985.

Table 4. Tax Revenue from Implicit Financial Taxation
In Selected Countries, 1971-1986 Averages

(Percentages of GDP)

Country	Rate of Return Method	Cash Flow Method
Ghana	6.8	4.8
Somalia	4.9	4.3
Zaire	7.8	7.2
Zambia	4.3	4.0

Source: Arranged from Table 2 in Chamley (1991), pp. 524-525.

levels of taxation which, as percentages of GDP, are only about half as large as the industrial countries', it can be concluded that through the use of these quasi-fiscal instruments, the governments of developing countries attempt to play roles which may not be too different from those of the governments of industrial countries. They just do it with different tools. Thus, those who favor a minimalist role for the state should not get excited when the tax level of a country is low until they assure themselves that traditional tax sources have not been replaced by less-traditional, or hidden, implicit taxes.

We could formulate a general hypothesis, which, admittedly, has not been fully proven in this paper. With inevitable variance around the mean--due in part to the random presence of more or less conservative governments at given times and in given countries--most governments would like to play broadly similar roles. When the taxes they can raise are not sufficient to finance the desired expenditures, they tend to rely on less orthodox, nontax instruments. Perhaps a corollary of this general hypothesis is that *governmental goals change more over time than across space.* ^{1/} Demonstration effects might explain the tendency for the governments of various countries (adjusting again for the political coloring of the party in power) to try to promote similar goals and to play similar roles. When these roles change over time, they tend to change for all countries.

Public finance specialists and, perhaps, most other economists believe that *fiscal* instruments are more efficient than *quasi-fiscal* instruments in pursuing the role of the state. Economists normally prefer taxes over regulations, and direct, budgetary subsidies over subsidies given through

^{1/} This may explain, for example, why there is much less variation in taxing and spending for industrial countries at a point in time than there is over time. Please refer again to Table 1.

quotas, subsidized credit and so on. In this context, the term "efficiency" has two distinct meanings: as defined by Tinbergen, and as generally used by economists (i.e., having to do with Pareto optimum and the allocation of resources). On both grounds, economists as a group tend to prefer fiscal to other instruments. However, in particular cases--such as for inflationary finance--some major economists, such as Phelps (1972) and Dixit (1991) have argued that the economic efficiency of particular instruments can only be judged in the context of a general equilibrium approach. Thus, a priori one cannot be sure that taxation is always preferable to inflationary finance. Furthermore, the alternative of raising more tax revenue may not be available and the marginal benefit of public spending may be very high. This latter point was made for multiple exchange rates by E. M. Bernstein as far back as 1950 when he wrote:

"The case of multiple [exchange] rates as a tax service. . . does not rest on its economic merit. It rests rather on the fact that it is easy to impose . . . [and] that it is easy to enforce . . . These are not good reasons for preferring one type of taxation to another. They may, however, have the merit, in countries with budgetary difficulties, of being better than no additional taxes." (Bernstein, 1950, pp. 236-237).

Still, today, most economists believe that these alternative revenue sources are very inefficient. Furthermore, the particular case for inflationary finance (the case discussed by Phelps and Dixit) is considerably weakened when one takes into account the loss in tax revenue that often accompanies high inflation in the presence of significant collection lags. (See on this Tanzi, 1978.)

The above discussion leads to some rather uncomfortable conclusions. Current attitudes and thinking show a strong preference for (a) purely fiscal over quasi-fiscal tools for promoting the government's goals; (b) economically efficient over distortionary taxes; (c) the complete separation of fiscal from monetary policy and the elimination of monetary repression. The preference for this separation is evident from the many papers now available arguing for the complete independence of central banks which would eliminate the quasi-fiscal role played by these institutions; 1/ and (d) the removal of all impediments to trade and especially those associated with multiple exchange rates and quantitative restrictions. 2/

These preferences will, in time, significantly reduce the instruments and the controls available to the governments to pursue their goals. This is clearly desirable and consistent with a greater dependence on the market. If the governments can scale down their goals to make them consistent with their reduced ability to control, and with the greater role given to the market, the reduction in the use of quasi-fiscal instruments and in the

1/ A progressively larger number of countries has been introducing legislation that makes the central bank an independent agency.

2/ The tendency is also to remove impediments to capital movements.

total resources that the governments have controlled through explicit and implicit taxes will lead to a healthier economy. However, if governments cannot moderate their objectives, and/or do not find market-friendly ways of promoting them, 1/ then fiscal deficits might become more common than they have been because governments may not reduce, or may even increase spending in the face of reduced resources. This problem will be of particular relevance to developing countries and to economies in transition: 2/ first, because these countries are the ones that have relied the most on quasi-fiscal instruments; and second, because these countries will have greater difficulties in raising needed revenue from efficient tax sources. In these countries, the need to moderate the ambitions of governments and to build strong revenue sources from efficient tax systems will be particularly great. Major reforms in taxes and in public spending will be an essential feature of future developments. 3/

1/ The Chilean-initiated experiment of privatizing the pension system is an example of a market-friendly way to promote a governmental objective.

2/ In Russia, for example, the Central Bank had, until recently, directly financed at highly negative interest rates the activities of state enterprises. To some extent, the financing compensated the enterprises for the social expenditures they were carrying. (See Tanzi 1993.) If the enterprises no longer finance these social expenditures, the budget may have to take over some of them.

3/ For a discussion of related issues see Tanzi and Schuknecht (forthcoming).

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