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**POLITICAL REGIMES AND
ECONOMIC POLICY PATTERNS
IN DEVELOPING COUNTRIES**

**John D. Hestley
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Mark Robinson**

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WORKING PAPER 67

**POLITICAL REGIMES AND ECONOMIC POLICY
PATTERNS IN DEVELOPING COUNTRIES, 1978-88**

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Summary

This working paper contains an empirical assessment of the relationship between political regime type and policy patterns in a range of developing countries for the period 1978 to 1988. The approach used was to develop a number of broad hypotheses about the likely policy preferences of different types of political regime and to explore these through measurable policy variables. To test these relationships empirically the policy variables were correlated with measures of political and civil rights using Spearman's Rank Correlation Coefficient, and for some policy variables a series of regression equations were estimated to allow for differences in economic structure.

Although the data has to be treated with some caution, the following conclusions emerge from the research. The results suggest that democratic regimes are no worse at controlling fiscal deficits than authoritarian regimes. Although they are unlikely to be any more effective in raising tax revenues, they are less prone to resort to the inflation tax as an instrument for meeting fiscal deficits. Democratic regimes also appear to spend relatively less on security and defence, and more on health, education and agriculture. Finally, the evidence does not support the view that democratic regimes are likely to follow less distortionary economic policies and hence have a greater market-orientation than authoritarian regimes.

Since policy preferences have a close bearing on economic outcomes, the study concludes that economic prospects should not be worsened, and may even be improved, by moves towards more open and accountable political systems in many countries of the developing world.

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1 Introduction

The purpose of this Working Paper is to explore analytically the relationships which might be expected between different types of political regime in developing countries and the way they manage their economies. At the core of the paper is an empirical assessment in which a set of fairly simple hypotheses are postulated about relationships between political regime types and the policies they might be expected to pursue. These hypotheses are tested systematically against indicators of policy using a political classification based on indices of political and civil rights. The periods 1978–82 and 1983–88 are covered in order to pick up the pre-adjustment and adjustment phases of policy performance.

An introductory section briefly surveys the debate concerning the relationship between political democracy and economic development. This is followed by an overview of research on the political determinants of stabilisation policies. A series of assumptions on the public policy process in democratic political systems are presented in the next section. These lead on to the main section of the paper in which a series of hypotheses on public policy formation are tested against empirical indicators for which the data is available. A concluding section summarises the main findings of this empirical work.

2 Democracy and development

The proposition that political democracy is conducive to economic development has been the subject of intense debate among political scientists and political economists for many years. A substantial empirical literature exists which has tried to test past experience against both this hypothesis and the counter argument that authoritarian government is more likely to promote economic growth in developing countries. This literature has been at least partially reviewed by Healey and Robinson (1992) and the major arguments are summarised below.

Theorists concerned with the relationship between democracy and economic development are strongly divided in their views. There are broadly three schools of thought: the ‘conflict’ approach which argues that democracy hinders development objectives; the ‘compatibility’ approach which is founded on the belief that the two processes are mutually reinforcing; and the ‘agnostic’ view that there is no clear relationship between democracy and development.

The view that democracy is positively correlated with economic growth and equity in a developing country context found widespread support in the 1960s, especially among modernisation theorists. According to this perspective, political democracy and economic development were two facets of an universal process of modernisation which could be mutually reinforcing. Many contemporary advocates of democratic development maintain that political pluralism favours

competition and predictability, both of which can facilitate economic growth.¹ In short, it is argued that 'political pluralism acts to release energies and foster conditions conducive to change, entrepreneurial risk, and economic development' (Sirowy and Inkeles, 1990:133).

In contrast, many of those who argue that democracy is incompatible with economic development are of the view that authoritarian regimes are better equipped to bring about sustained economic growth and capital accumulation by suppressing civil and political liberties and preserving distributional inequalities, thereby encouraging domestic savings.² They also consider authoritarian rulers to be more capable of taking tough decisions to control public expenditure and using it for productive purposes. Moreover, some proponents of the 'incompatibility thesis' have argued that economic development entailing high levels of industrialisation, urbanisation, literacy rates and a steady increase in wealth are essential pre-conditions for the evolution of political democracy (Lipset, 1959; Rustow, 1970).³

Sirowy and Inkeles (1990) have reviewed the evidence from thirteen quantitative studies on the relationship between democracy and economic performance. Three studies found an inverse relationship, six did not find any clear relationship, while four provided evidence showing a qualified relationship. Overall the studies offer inconclusive results with no clear pattern emerging and Sirowy and Inkeles attribute the variation in the findings to differences in scope and measurement.

The inconclusive evidence arising out of quantitative studies of the relationship between democracy and economic development lend support to a more agnostic view where neither democracy nor authoritarianism are conclusively correlated with growth and equity outcomes. In this respect Sørensen (1991:189) argues that 'the abstract distinction between democracy and authoritarianism provides insufficient guidance for deciding conclusively about

¹ One recent attempt to prove a systematic relationship between economic development and political democracy can be found in Pourgerami (1991). Drawing on data for 104 developing countries he argues that 'Positive associations between economic development and growth and political democracy provide conclusive evidence to support the hypothesis that developing countries achieving high levels of development are more likely to establish and sustain democracy, and nations with democratic political institutions are more likely to facilitate growth' (1991:42).

² For example, a commonly-held view in the 1960s was that the military, by virtue of its high degree of professionalisation and commitment to stability, provided the best hope for combining high levels of modernisation with political order.

³ These arguments are examined in Chapter 6 of Healey and Robinson (1992).

the effects on economic development'. Advocates of this position highlight the variability of development outcomes under democratic and authoritarian rule and draw attention to the importance of institutional factors such as the form of the party system and the nature and competence of the bureaucracy in influencing a country's economic performance.

3 Regime type and policy preference

The limitations of studies which examine the relationship between political democracy and economic growth lead us to question the usefulness of an approach which focuses on outcomes rather than on the intervening variables. As there are so many other factors at play on economic growth besides the influence of political regime type, it may be more appropriate to examine the policy levers at the immediate disposal of governments. In other words, the performance of governments in terms of economic policy management may reveal patterns that can be more convincingly related to variations in regime type than simple indicators of economic performance.

Although some of the characteristics of the policy process cannot be tested directly, some systematic quantified and case study research has been done, mainly on the political determinants of stabilisation policies, including policies on inflation, budget deficits, and in some cases, exchange rates, but comparatively little on markets and market-related policies. Most recent comparative research suggests that there is not a strong empirical relationship between regime type and policy performance in relation to stabilisation and adjustment policies implemented under conditions of economic crisis (Healey and Robinson, 1992).

Case study work on the 1980s' experience of stabilisation and adjustment by Shams (1989), Nelson (1990), Mosley *et al.* (1991), and Callaghy (1990) on a wide range of developing countries tends to confirm that authoritarian regimes are no more likely to initiate radical economic reform, although some authoritarian dictatorships as well as democratic regimes have embarked on major and sustained reform. Haggard and Kaufman (1990) suggest that although authoritarian regimes have not always been better at imposing economic austerity, democracies seemed to find it more difficult to bring high inflation under control. 'Transitional' democratic systems seemed, on their evidence, to be less capable of bringing fiscal deficits, public expenditure and credit expansion under control than established democratic or authoritarian systems. Constitutional and competitive democratic systems were more likely to sustain macro-economic stabilisation where there were nationally organised multi-class political parties and movements which muted social conflict.

Although this research has generated some important insights into the formulation and implementation of stabilisation policies, it focuses exclusively

on economic policy reform. Our interest is in assessing the broader patterns of economic policy over a longer period, covering both the reform and pre-reform periods.

There has been little systematic work on the patterns of public expenditure, revenue-raising and public deficits and their financing in developing countries from a political economy perspective. Virtually no work has been done on the political determinants of market-oriented policies such as product pricing and marketing, exchange rate management and credit markets. The gap to be filled, in our view, is the relationship between different political systems of developing countries and the types of public policy they pursue. Only if such a systematic link can be traced is there any hope of tracing any further link to economic and social performance, whether measured by intermediate outcomes like national savings, investment and exports, or final outcomes like output growth and income distribution. Before investigating some of these policy patterns ourselves, we first consider some of the underlying political assumptions concerning the public policy process.

4 Assumptions about the public policy process in democratic political systems

A series of assumptions are commonly made about the process of policy-making under *democratic* political systems which provide a point of departure for our investigation. Central to these is the view that in countries where there are regular and fair elections which enable ruling governments to be peacefully challenged and replaced by opposition groups, and where there is freedom of expression and association, and a healthy respect for civil liberties, there is greater likelihood that the following policy-making ethos will prevail:

- Governments are likely to possess, and feel they possess, greater political *legitimacy*. This will allow them more confidence in making difficult policy changes. If a government has legitimacy it will be easier to make and implement new policies.
- Governments are likely to *consult* a wide range of interest groups when formulating and implementing their policies and bring about more workable policy as a result. They will also be more *accountable* for the policy decisions they take, both financially and politically. Policy agendas will change more rapidly to meet changing circumstances because there are mechanisms for subjecting governments to public scrutiny and criticism when their policies are becoming inappropriate, and for replacing them with opposition groups espousing alternative policy agendas.
- In a democratic political culture, governments will tend to be more *responsive* to a wide range of interests in civil society because they depend on a broader

constituency to preserve or regain power. They are likely to display greater willingness to meet the needs of the rural as well as the urban population, to be sensitive to the demands of small farmers as well as large ones, to respond to slum dwellers as well as business interests, provided political power is widely dispersed. Although political parties may serve the interests of a few dominant groups, in a more open and consensual political culture they will need to adopt policies that appeal to and meet the concerns of a large number of citizens.

- Organised opposition groups will tend to have more channels available to them to articulate and *voice* their concerns. They are free to exercise their power to influence policy choice through extra-parliamentary or even strike action.⁴
- Politicians under more liberal and competitive political systems are unlikely to rely on *repression*, and will tend to use persuasion and force of argument to seek compliance with their policy objectives.

These assumptions concerning the policy-making process in democratic political systems conform to expectations of what constitutes 'good government' and would not be expected to prevail under authoritarian modes of government (see, for example, Brautigam, 1991). We have therefore tried to formulate some more specific policy-centred hypotheses about the way that governments might behave under different political systems, although we recognise that there are many influences on the policy orientation of a particular political regime other than the process by which it gains and exercises power. Thus policy will be influenced by the prevailing ideology, trends in economic thinking, the calibre of the bureaucracy, external agencies, as well as the particular personalities in power and the political context in which they have to operate.

5 Political hypotheses on public policy formation

Our approach has been to develop a number of broad hypotheses about the likely policy preferences of different political regime types in developing countries. Where possible these hypotheses are linked to a measurable policy variable or outcome. To test the relationship empirically we constructed a range

⁴ Some authors have viewed this 'freedom' as a potential source of political instability and cause of policy paralysis, if governments are unable to make contractionary adjustments as a result of the hostility of the extra-parliamentary opposition.

of policy variables and then related these across countries on the basis of a political and civil rights index derived from the work of Gastil (1987, 1989).⁵

Our main interest is to determine whether there are any characteristic policy positions for those countries which are ranked high or low on their record of abuse of political and civil rights. The broadest possible data-set was chosen and where data is available it covers developing countries in Africa, Asia and Latin America.⁶

The policy variables were ranked against an index of political and civil rights and the Spearman's Rank Correlation Coefficient was calculated for each variable. The policy variables were also used as the dependant variable in regression equations which included variables for both the political rights index and variables designed to capture the effect of the structure of the economy.⁷

⁵ Countries are ranked according to their respect for political and civil rights. In both cases a high ranking is associated with high levels of authoritarianism, limited freedom, and the abuse of civil rights, while more open and inclusive political systems with good civil rights records have lower rankings. See Appendix II, Technical Notes, for details.

⁶ In an earlier piece of research those African countries for which data was available were grouped by political regime type, and their policy preferences were examined by a comparing the means for five types of regime, namely despotic, authoritarian, military, one party populist, and one party dominant or multi-party (Ketley, 1991). The problem with this approach is that when the potential sample comprises all developing countries it is extremely difficult to find a suitable number of categories to capture the diversity of political regime types without reducing the number of countries in each category to statistically insignificant levels. In the African research it was found that even with as few as five categories, several contained an insufficient number of countries, reflecting the prevalence of the authoritarian mode of government in the post-colonial period. Furthermore, no attempt was made to condition for the effect of the structure of the economy.

⁷ For a full explanation of the variables and the methods used see Appendix II, Technical Notes. Strictly speaking the qualitative data on political and civil rights should not be subjected to quantitative statistical procedures, although this does provide a way (albeit imperfect) of separating the exogenous effect of policy from the endogenous constraints on policy makers that are imposed by the structure of the economy.

5.1 Time preference and predictability: public budget deficits and their financing

In open and competitive political systems, governments are less likely to impose the cost of present expenditures on future generations because in a democratic system a ruling party is less likely to be re-elected if the electorate is overburdened with debt accumulated during previous periods of rule by that party. Consequently, the size and financing of the fiscal deficit is an important indicator of the time preference of a government.

Our hypothesis is that political rulers under more democratic systems will run smaller fiscal deficits to limit the long term cost of deficit financing on the economy and future governments.

In contrast, governments which are unsure of remaining in power or do not expect to regain power through competitive elections, will be more tempted to transfer the financial costs of public expenditure into the future and will be less concerned with the inflation rate (see section 5.2 below). They are also more likely to conduct the management of public finances in a 'closed' manner not exposing it to parliamentary (if it exists) and public scrutiny and criticism.

There are at least two qualifications. First, if democratic political parties operate in a polarised social or political environment (as they do, or might do, in some developing countries), the prospects of being re-elected next time will appear smaller if they rely on a narrow base of support, and this might reduce their time horizon. Second, many authoritarian governments have held power for long periods of time. This could lower their time preference but only if they maintain the expectation of retaining power despite their questionable or weaker legitimacy than governments which depend on popular choice and regular re-election.

A way of testing the time preference of governments in the developing world is to systematically compare the size of fiscal deficits across countries. However, there are several qualifications to the use of the fiscal deficit as a measure of a government's short-sightedness in public policy. First, it is necessary to assume that the deficit is at the level desired by the government. This may not always be the case: deficits have often arisen in an unplanned and unpredictable way because of the weaknesses of financial accounting and financial control procedures. External or internal shocks may also make the handling of the fiscal balance more difficult. Second, governments may achieve their desired time preference by borrowing either from the international banking system or the domestic monetary authorities. The combination chosen by a government will affect the intertemporal distribution of the costs of financing the deficit (see section 5.2).

In our sample of developing countries the size of the fiscal deficit was ranked against measures of political and civil rights. The Spearman's Rank Correlation Coefficient was calculated for the period 1978–88 and the sub-periods 1978–82 and 1983–88. The results are reported in Table 1, column 1 (see Appendix I).

When ranked according to the level of abuse of political and civil rights, the countries with the worst record (worst 20%) had an average fiscal deficit of 6.6% of GDP compared to 3.3% in the best 20%. The correlations did show the expected relationship, i.e. smaller deficits in more democratic countries. However, the results did not prove statistically significant at the 5% level on the sample of all developing countries.

This simple test on the developing countries as a whole does seem to provide some limited support for our hypothesis that less democratic governments will seek to pass the burden of public expenditure on to future generations.

5.2 The inflation tax

As indicated earlier, a significant part of the budget deficit is not financed by long term borrowing but by borrowing from the domestic monetary authorities. While raising finance in this way creates very little direct administrative cost for the government, it can have potentially high costs to the economy in terms of the distortionary effects of any inflation that is generated.

We postulate that democratic governments are more aware of the costs and unpopularity of high and unpredictable inflation and as a result rely on other, more orthodox, forms of taxation.

On the other hand democratic governments may find it politically impossible to control the fiscal deficit because they are more likely to be responsive to popular pressure for high public expenditure, which may also preclude the use of other tax instruments.

To test this, the proportion of the fiscal deficit financed by borrowing from the monetary authorities was correlated with the civil and political rights indices and the rank correlation coefficient was calculated (Table 1, Appendix I). *The correlation was positive, implying that the democratic governments were associated with lower borrowing from monetary authorities. However, none of the results were statistically significant.*

5.3 Fiscal deficit financing and political instability

Our tests do not distinguish between the stability of either democratic or authoritarian political systems. There is evidence from a recent study by Edwards and Tabellini (1991) that the greater the frequency of government

change, the greater is the scale of the budget deficit and its monetisation. They interpret the frequency of government change as a proxy for the probability of a government being replaced which in turn will influence how much it will care about its reputation in handling public policy. What is of particular interest to us is whether changes of government affect the management of public budgets differently under more democratic as opposed to less democratic systems. This requires a distinction between changes of government which are constitutional versus those which are irregular (e.g. coups).

Our hypothesis is that while changes of government which are constitutional create political instability or uncertainty, they are likely to generate smaller deficits and less inflationary financing of them, than situations where unconstitutional changes of government occur.

Edwards and Tabellini (1991) have tested these relationships for 52 developing countries for four periods 1963–73, 1973–78, 1978–83, and 1983–88. They have estimated structural equations for budget deficits (measured by deficit of the government as a percentage of GDP and change in the monetary systems' credit to government as a percentage of GDP) and have used two political variables—frequency of *regular* government transfers and frequency of *coups*.

Their results indicate that greater political stability is generally associated with smaller budget deficits. What is more important from our perspective is that the relationship between the frequency of coups and the budget variables generally had larger estimated coefficients than those for constitutional changes of government. In fact the only result that was statistically significant was the relationship between coup d'états and fiscal deficits. In other words there would appear to be a strong relationship between the scale and monetisation of the deficit and the frequency of unconstitutional changes of government. There is a similar difference in the strength of the relationship of both constitutional and unconstitutional political change with a measure of seigniorage.⁸ This suggests that governments which achieve power in an unconstitutional manner may have to rely on the inflation tax as a means of servicing the deficit. The interpretation of Edwards and Tabellini is that coups are associated with more radical changes in the nature and ideologies of governments which will lead to a greater disruption in government finances and may in turn lead to larger deficits, which are then financed by seigniorage.

⁸ CPI multiplied by M1/GDP where MI is broad money and CPI is the Consumer Price Index.

5.4 Representation and public revenue-raising

We now turn to hypotheses about the revenue-raising behaviour of governments, focusing mainly on taxation. Economists have been concerned for some time with theories of optimal taxation which suggest that governments should use less distortionary taxes and rely on a range of tax instruments. The degree to which a government uses a specific tax should reflect the marginal cost of enforcing and collecting that tax. Ideally tax policy should be designed to equalise the marginal costs of all available tax instruments. Empirical research in the United States has shown that taxes are used in this way (Mankiw, 1987). In developing countries the evidence suggests that different tax instruments are used more as substitutes for one another. This does not discredit the theory; as collection and enforcement costs are seldom measurable it is quite probable that at different stages of development specific types of tax are easier to collect. The ability to use a specific tax instrument will therefore depend on the calibre and technical capability of the state bureaucracy and the structure of the economy.

There are clearly political costs and benefits in the approach to the scale of taxation and the choice of instruments that are used. Research in developed countries has shown that political parties in power exhibit distinct preferences over expenditure and taxation. However, there has been little research on the relationship between political openness and taxation in developing countries and as a result our hypotheses are fairly simple and perhaps naive.

Our first hypothesis is that more representative and hence politically legitimate governments will have a stronger mandate to govern and thus tax. If the government, and by extension its actions, enjoys sufficient support then there should be less widespread and systematic tax evasion.

If the rule of law is better established under politically liberal systems this would tend to work in the same direction. Unfortunately it is not possible to test this hypothesis in a systematic way although there is ample anecdotal evidence of popular opposition to individual (i.e. direct) taxes under all types of political system.

Our second hypothesis is that the scale of taxation is unlikely to be systematically related to the type of political system, reflecting ideological preference more than the way in which political power is exercised.

This was confirmed by calculating the Spearman's Rank Correlation Coefficient using data on the total tax take as a percentage of GDP and our measure of

political liberty. *This simple test failed to reveal clear trends in either of the time periods.* Consequently we do not report the results. This outcome was expected since in addition to having different ideological preferences, governments are constrained by very different tax cultures; the acceptance of the principle of income taxation is by no means universal.⁹

Our third hypothesis is that governments under more liberal and democratic cultures are likely to seek a wider range of tax instruments, especially those which are 'less distortionary' in their incidence.

The assumption is that governments which have to be re-elected will tend to be more concerned with the welfare of numerically large lower income groups whatever their ideological bias. This should mean that they will tend to rely more heavily on taxes which fall directly on income and profits relative to taxes on trade, whether domestic or international. In addition we postulate that border taxes (taxes on international trade transactions) are often easier to impose, and require less bureaucratic structures and compliance than other forms of taxes. Authoritarian governments lacking in credibility but probably having greater coercive capacity to enforce compliance at borders are likely to embrace this tax instrument because it is more difficult to evade. They may also impose higher border tax rates. Consequently we anticipate that authoritarian regimes would derive a greater proportion of their revenue from this form of taxation.

To test this set of hypotheses the Spearman's Rank Correlation Coefficient (SRCC) was calculated on three different taxes: taxes on income and profit; taxes on domestic goods and services; and taxes on international trade and transactions (IMF Government Financial Statistics Yearbook, various years). *None of the above hypotheses found any support in our results. The rank correlation coefficients were insignificant in all three tax categories and many failed to have the expected sign. This would seem to suggest that there is no systematic relationship between regime type and the extent to which they use taxes on income, profits or domestic goods and services as a source of revenue.* Taxes on international trade and transactions (border taxes) had a negative sign in five of the six samples (Table 1), suggesting that contrary to our expectations, in more authoritarian political systems governments have been less reliant on taxes from international trade.

A inherent weakness with the above approach is that it fails to take into consideration the structure of the economy which is a major determinant of

⁹ For a review of the problems with cross-country tax comparisons see Tait *et al.* (1979).

optimal taxation policy. The size of the corporate sector, the relative importance of the formal as opposed to the informal economy, the agricultural/non-agricultural balance and the degree of trade and communication, as well as law and order, affect the choice of tax policy and its implementation.

To make allowances for these differences in economic structure, the political and civil rights indicators were included in estimated regression equations along with a selection of structural variables. The structural variables used follow the format suggested by Tait *et al.* (1979) and Edwards and Tabellini (1991), but were adapted to reflect the tax variable under consideration. For each of the three taxes an equation of the following form was estimated:

$$y = f(x, p)$$

where y represents the share of total revenue collected by a type of tax and x is a vector of variables that reflect the structure of the economy and thus the proportion of taxes likely to be collected from a specific form of tax; ' p ' represents the political or civilian rights variable. The objective is to see whether different types of regime tend to rely more heavily on one form of taxation, over and above the tax regime which is most suited to the structure of the economy.

A variety of structural variables were experimented with and finally measures for economic structure (share of agriculture or manufacturing in GDP), wealth (GNP per capita)¹⁰, urbanisation (percentage of the population in urban areas), and the openness of the economy (the ratio of the sum of imports and exports over GDP) were used. Table 2 (Appendix I) presents the Ordinary Least Squares (OLS) regression results of the tax equation using these structural variables and the political rights variable. The equations were also estimated using the civil rights variable but the results were no more revealing than those shown. *In general the equations performed very poorly; different sample periods had different coefficients and in some cases different signs. Many of the variables had the incorrect signs and the \bar{R}^2 was very low. The political variable was uniformly insignificant at the 5% level.*

The failure of the data to confirm our hypothesis can be partially blamed on the different ideological hue of regimes that share the same political and civil rights indices. A wide range of regimes collect a similar proportion of their income from each form of taxation. Another problem is that capitalist regimes will have a very different approach to taxation from socialist countries, but they may share the same index of authoritarianism. If the data existed and were it possible to measure ideological hue in any systematic way, then to combine this with the measures of authoritarianism and instability already available might

¹⁰ World Bank atlas methodology.

shed more light on this issue. Also more disaggregated data might help. We were only able to measure tax revenue; it was not possible, for example, to compare tax *rates* under different political systems.

5.5 Public expenditure patterns

Our hypothesis is that more democratic regimes will allocate public expenditure in a more widely dispersed way, both geographically or regionally, and with more concern to reach the large number of poor people who are potential voters. Our expectation is that social expenditure would be given a higher priority, especially expenditures at the primary level (i.e. health, education, agriculture), as popular pressures are likely to focus on these areas and more representative governments are likely to be responsive to these pressures. In democratic systems there will be relatively less expenditure on police and defence, as a result of a less repressive and coercive political ethos.

These propositions were tested by examining the proportion that governments spent in four key areas: defence, health, education, and agricultural services. In each case rank correlations were calculated with the political indices (Table 1). As the structure of the economy has an important effect on spending patterns, equations that attempt to condition for economic and demographic structure were also estimated (for sources see Table 4). The estimated equations take a similar form to those used to calculate the tax equations (Table 2) although they are based around the variables suggested by Heller and Diamond (1990). In each case a range of structural variables were tested before selecting those that were included (Table 3).

The proportion of public expenditure allocated to defence confirmed our hypothesis that more authoritarian governments spent more on defence than their more democratic counterparts.¹¹ In both the rank correlations and the estimated equations the results had the expected sign and were significant at the 5% level. Although the \bar{R}^2 was very low in the expenditure on defence equation,

¹¹ Although it would have been desirable to consider expenditure on the police as well as on defence, only data for the later was available. It is quite probable that countries with high defence expenditure will also have high levels of expenditure on the police and in many developing countries the distinction between the two is often quite arbitrary.

both the political and civil rights¹² variables had significant and positive coefficients. This result was supported by the SRCC results which were also significant and positive on the world sample.

When expenditure on education was linked to the political and civil rights variable, the SRCC showed some significant correlation and the results all had the expected sign. The estimated equations were less successful. The coefficient on the political rights variable had the wrong sign in two out of the three sample periods and none of them were significant.¹³ If we accept the results of the SRCC *there is some weak support for the hypothesis that more democratic countries spend more on education.* Once again the problem of data arises, especially for authoritarian countries.

Expenditure on health also showed a significant correlation with the variables on political and civil rights. The SRCC for the sample of all developing countries had the expected sign in each sample period. The regression equations showed the political variable to be correctly signed and significant in all three sample periods. *These results are suggestive; for both of the statistical measures we have used, expenditure on the provision of public health facilities would appear to have been higher in the more democratic countries.*

Finally expenditure on agriculture was related to the political and civil rights indicators. The results were ambiguously signed and not uniformly significant in the rank correlation calculations. However, in the estimated equations conditioned for the structure of the economy, the political rights variable was significant with the expected sign. All the other regressors also obtained the expected sign. *The results of the regression equation suggest that expenditure on agricultural services has tended to be higher in more democratic countries. This would appear to confirm our belief that more democratic countries are more likely to spread expenditure more evenly between urban and rural areas.*

The above results give some support to our hypothesis concerning government expenditure patterns under different political systems. Most of the expenditure variables seem to indicate that more authoritarian governments have distinctly different expenditure patterns that can be expected to have real effects on the social and economic development of their countries. Although neither the SRCC nor the regression equations are entirely satisfactory statistical measures, when both methods produce similar results the conclusions can be more readily

¹² The civil rights results mirrored political rights and have therefore not been included.

¹³ We expected more democratic countries to spend more on education, implying a negative correlation between the index of political and civil rights abuses and educational expenditure.

accepted. Further systematic data on primary health and education expenditure, or on the regional or rural/urban dispersal pattern of such expenditures would be required to test the thesis more precisely.

5.6 Price distortions and competitive market orientation

There is now a strong body of opinion which suggests that those countries which follow economic policies where prices are determined largely on a competitive market basis will generate greater incentives and a more appropriate environment for wealth creation. Many developing countries adopted policies during the 1960s and 1970s that had an anti-market or statist bias. This has often been explained by their colonial experience and the ideology of their political leaders and the type of intellectual influences which bore on them in their formative years or after independence (Healey and Robinson, 1992). For many political leaders in the developing world, markets and profit-making cultures were associated with foreign entrepreneurs and expatriate communities and hence with a strong notion of exploitation. These formative influences help to explain why policies were adopted that resulted in severe market distortions. However, they cannot explain why policies were often maintained for long periods despite their obvious shortcomings.

What remains to be demonstrated is whether democratic governments pursue less distortionary economic policies and why. We have found it difficult to formulate hypotheses on the relationship between a willingness to allow market distortions and authoritarianism, but there are several possible links.

Writers on Africa in particular have highlighted the problem of inadequate policy-making capacity as one of the reasons why problems were not corrected once they became apparent (World Bank, 1989). In this context the role of open feedback mechanisms are important.

It is therefore possible to hypothesise that those countries in Africa with authoritarian governments and poor policy-making capabilities have experienced severe economic distortions due to poor initial policy choice and the subsequent absence or suppression of feedback mechanisms. In countries in the rest of the developing world this hypothesis is less plausible since authoritarian regimes in Latin America and East Asia have often had very highly developed and strong administrations, with good policy making capabilities.

When policies are not appropriate to the prevailing conditions, change may involve reducing the economic rents to an existing interest group which has political power. New policy benefits a different group that may not exist as a political lobby prior to the change (Fernandez and Rodrick, 1990). This would seem to be a plausible explanation of the policy-making process in many developing countries. Authoritarian regimes may be in a better position, by virtue of their insulation from organised interest groups, to push through

unpopular policy changes. However, patronage politics works against this. Politically insecure governments have often sought personal support from specific interest group clients through the dispensation of political appointments, policy favours and exceptions, subsidies and the political allocation of scarce resources such as credit and foreign exchange. This has predisposed governments towards policies which allow administrative and political intervention and regulation, rather than functioning markets (Meier, 1991). Governments which feel politically secure as a result of their popular mandate may be less concerned to 'buy-off' particular powerful groups by means of patronage. They may therefore be less wedded to state intervention in pricing policy or markets.

The systematic testing of 'economic distortion' in different economies poses considerable problems. Data on the degree of control and liberalisation of food and export crops are available for some developing countries but the general degree of state regulation or distortionary pricing of products is not readily amenable to quantitative measurement. We have therefore focused on a few indicators of deviations from domestic or international competitive pricing levels which are available on a fairly systematic basis (at least for recent years). Comparative data was collected on indices of the Real Effective Exchange Rate (REER), the premium on the unofficial or black market exchange rate, and the level of the real interest rate.

It is difficult to form clear hypotheses about the effect of political openness on the management of the exchange rate. One issue is the extent to which appropriate exchange rate management is linked to the competence of the bureaucracy, and the freedom of an individual country to pursue an exchange rate policy of its choice. In Africa there is considerable evidence to suggest that some exchange rate distortions have resulted from bureaucratic incompetence. In some regions the real effective exchange rate has been allowed to appreciate because countries are tied to a monetary union (such as the Franc zone). Another factor which has already been discussed are the possibilities for patronage that are created by exchange controls. There is, however, little evidence that patronage has been the principal reason for governments adopting unrealistic exchange rate policies.

To test for any systematic relationship between political systems and exchange rate policy we used several measures. Initially we examined the stability of the REER.¹⁴ As an indicator of the degree to which governments fail to adopt a suitable exchange rate the REER index has its limitations. A consideration of the average REER index over each of the sample periods would not be particularly revealing as the resulting value could be either above or

¹⁴ The REER measure was taken from Lynn and McCarthy (1989).

below the base year level depending on whether the currency was over- or under-valued. To achieve a more useful measure of the effectiveness of exchange rate policy the average REER index was divided by the standard deviation for the sample period to provide a measure of stability. The resulting number will be higher for countries which have a more stable REER.

Calculation of the rank correlation coefficient indicated that this measure of the REER was lower the worse the political and civil rights ranking (i.e. a negative sign) in all the sample periods but the results were not significant statistically at the 5% level (Table 1). *This evidence, though weak, provides some support for the contrary view that authoritarian governments maintained more realistic exchange rates during the sample period.*

An alternative way of looking at exchange rate distortions is to consider the black market premium. Although this variable should be viewed as a composite of an exchange rate premium and a risk premium, it provides some indication of the appropriateness of the exchange rate stance of a government. The results of the rank correlation that compared the black market premium and the political and civil rights variables are difficult to interpret. The results are insignificant but all the political liberties rankings have negative signs and all the civil liberties rankings positive signs! On the null hypothesis that authoritarian governments are likely to pursue more distortionary policies a positive correlation is expected. Since political and civil rights records tend to move together there is no satisfactory explanation of these relationships.

Another area in which economic policy decisions have often induced economic distortions is in the financial sector. Many countries have pursued policies which entail some degree of financial repression. It could be argued that the policy of financial repression was the result of a conscious development strategy and is therefore not related to the nature of the political system in a country. However, there has been considerable debate over the wisdom of financial repression as a development strategy and the question that arises is why some governments have maintained a policy of financial repression long after it was discredited as a policy option. The responses fall into two categories. Some have argued that policies involving financial repression are difficult to reverse and may entail an exacting period of adjustment and are therefore maintained. Others have suggested that there are political advantages to be gained by credit rationing when governments are seeking to establish networks of patronage and that once these networks are established they become self-reinforcing. The beneficiaries, who are also clients, oppose any form of liberalisation.

A key indicator of the extent of financial repression is *the level of the real interest rate*. Using IMF data the real interest rate was calculated as $r = i - p$ where i is the nominal rate, p is consumer price inflation. This variable was

correlated with the political and civil rights indices. The results are inconclusive: although most of the samples have a negative sign, some do not, and none of the results are significant.

From these measures of distortion and our fairly simple correlations there would appear to be very little systematic support for the hypothesis that politically competitive governments followed less distortionary economic policies in the developing world in the period 1978–88.

6 Conclusions

In the light of both existing research (Healey and Robinson, 1992) and our empirical investigation, we are now in a position to form some tentative conclusions about policy behaviour in developing countries. Our results must be interpreted with a degree of care since they cover a relatively short period of time when the once dominant paradigm of state-centred development has undergone considerable change. Our empirical results must also be treated with some caution given the poor quality and lack of data and the limitations of the statistical methods used. Our main conclusions may be summarised as follows.

First, there is no strong evidence that since the late 1970s democratic regimes have experienced greater difficulty in controlling pressures for excessive public expenditures, as indicated by the smaller fiscal deficits in the more democratic countries. Although they seem unlikely to be more effective at raising current tax revenues or raising them in less regressive ways, democratic regimes seem less likely to resort to 'inflationary' financing as an instrument for meeting public expenditure deficits (i.e. via credit from the monetary authorities) and as a result of smaller deficits are less likely to impose debt burdens on future generations.

Second, there is some indication that countries which have progressed some way down the path of democratisation might reduce the share of public expenditure on defence and security. Such a shift in state behaviour should improve the economic and social welfare of ordinary people both directly and indirectly. There is also a suggestion that state expenditures on health and education and on agriculture should increase as a share of public expenditure where there is greater respect for political and civil rights. This would be our expectation since there are grounds for thinking policy might become more responsive to a wider range of interests under such circumstances, and that wider and more adaptable policy agendas may emerge over time.

Third, we find little systematic evidence from our sample of developing countries to suggest that market-oriented and economically competitive pricing policies are closely linked to more politically liberal regimes.

We have concentrated on the policy implications of political reform rather than economic outcomes, although some of the policy preferences that we have

highlighted in the more democratic countries are likely to result in improved economic performance and welfare. There are undoubtedly influences on public policy formation other than regime type, the most significant of which are variations in institutional capacities. We have briefly considered the influence of the frequency of government change on public policy; other possibilities include ideological preferences and the quality of public administrations.

Although the pattern of some public policies we examined were not closely related to regime type, there were a number of policy preferences shared by the more democratic countries which seem favourable to growth. We therefore conclude that economic prospects should not be worsened, and may even be improved, by moves towards more open and accountable political systems in many countries of the developing world.

Appendix I

Table 1 Spearman's Rank Correlation Coefficients

		Fiscal deficit	Expend. defence	Expend. education	Expend. health	Expend. agriculture	Tax on income & profits	Tax on domestic goods & services	Tax on int. trade & trans- actions	REER/ standard deviation	Black market premium	Real interest rate	Domestic financing	Financing from domestic money auth.	
Political rights	1978-82	-0.15	0.45	-0.23	-0.40	-0.04	-0.19	0.19	0.01	-0.18	-0.03	0.05	-0.05	0.08	a
		-1.23	3.69	-1.82	-3.28	-0.25	-1.53	1.55	0.08	-1.61	-0.24	0.40	-0.36	0.52	b
		72	55	59	59	54	66	68	66	81	78	59	56	43	c
		*	*												d
	1983-88	-0.15	0.35	-0.27	-0.30	0.14	-0.05	-0.02	-0.04	-0.01	-0.02	-0.20	-0.08	0.20	a
		-1.19	2.34	-1.90	-2.13	0.90	-0.35	-0.13	-0.30	-0.08	-0.14	-1.58	-0.52	1.18	b
		68	42	47	47	45	60	64	63	81	86	61	46	35	c
		*	*												d
	1978-88	-0.18	0.49	-0.34	-0.34	0.25	-0.06	0.09	-0.05	-0.04	0.00	-0.18	-0.13	0.16	a
		-1.59	3.46	-2.31	-2.33	1.60	-0.46	0.63	-0.34	-0.34	-0.03	-1.38	-0.78	0.82	b
		78	40	43	43	40	55	57	55	81	85	61	38	28	c
		*	*	*	*										d
Civilian rights	1978-82	-0.11	0.50	-0.27	-0.51	0.03	-0.17	0.22	-0.05	-0.20	0.05	-0.02	-0.02	0.04	a
		-0.98	4.17	-2.15	-4.45	0.24	-1.37	1.85	-0.43	-1.77	0.44	-0.16	-0.12	0.29	b
		74	55	59	59	54	66	68	66	81	86	61	56	43	c
		*	*	*	*										d
	1983-88	-0.18	0.46	-0.20	-0.34	0.29	0.14	0.07	-0.06	-0.08	0.05	-0.15	-0.06	0.15	a
		-1.45	3.30	-1.39	-2.40	2.02	1.10	0.55	-0.45	-0.70	0.42	-1.15	-0.41	0.89	b
		68	42	47	47	45	60	64	63	81	86	61	46	35	c
		*	*	*	*	*									d
	1978-88	-0.18	0.56	-0.30	-0.44	0.36	0.04	0.10	-0.09	-0.08	0.04	-0.14	-0.16	0.13	a
		-1.63	4.18	-2.05	-3.10	2.38	0.33	0.72	-0.63	-0.71	0.40	-1.07	-0.97	0.68	b
		78	40	43	43	40	55	57	55	81	84	60	38	28	c
		*	*	*	*	*									d
Expected sign		-	+	-	-	-	-	?	+	-	+	-	?	+	

Notes on row labels a=Spearman's Rank Correlation Coefficient; b=t statistic; c=N; d=* indicates significance (5% level)

Table 2 Taxation regression results

	Tax on income & profit			Taxes on domestic goods & services			Taxes on international trade and transactions		
	78-82	83-88	78-88	78-82	83-88	78-88	78-82	83-88	78-88
Constant	33.68	9.93	31.85	22.17	25.9	20.28	38.3	18.14	24.91
t	3.33	2.83	5.69	2.84	2.98	2.25	4.54	2.33	2.67
	*	*	*	*	*	*			
Share of agri in GNP	-0.17	-0.04	-0.45				0.09	0.55	-0.2
t	-0.86	-0.3	-2.87				0.56	3.76	-0.91
			*						
Share of manufactur- ing in GDP				0.87	1.14	1.1			
t				3.83	4.07	3.95			
				*	*	*			
% urban	-0.39	-0.19	-0.22				-0.15	-0.003	0.18
t	-3.4	-1.24	-2.05				-1.61	-0.03	1.13
	*		*						
Openness				-7.3	-13.39	-11.06			
t				-1.28	-1.98	-1.07			
GNP per capita	0.009	0.007	-0.002	-0.004	-0.005	-0.005	-0.005	-0.0019	-0.003
t	3.54	1.54	-1.14	-2.46	-2.28	-2.02	-2.19	-0.61	-1.74
	*			*	*	*			
Political index	0.01	-0.01	0.13	-0.01	-0.15	0.01	-0.19	-0.41	-0.02
t	0.05	-1.09	0.74	-0.06	-0.55	0.14	-0.86	-1.65	-0.1
\bar{R}^2	0.31	0.04	0.19	0.29	0.35	0.36	0.35	0.41	0.32
SE	12.41	13	6	10.29	10.67	10.07	10.36	9.62	8.39
N	47	43	38	47	43	38	47	43	38

Notes

Rows labelled *t* indicate *t* statistics; * indicates significance at the 5% level;
for a description of the variables and their sources see Appendix II, Technical Notes.

Table 3 Expenditure equation results

	Expenditure on defence as a % of total expenditure				Expenditure on education as a % of total expenditure				Expenditure on health as a % of total expenditure				Expenditure on agriculture as a % of total expenditure			
	78-82	83-88	78-88		78-82	83-88	78-88		78-82	83-88	78-88		78-82	83-88	78-88	
Constant	-0.34	-11.71	-11.71		-5.27	-36.7	-50.96		15	15.67	20.25		6.99	9.8	7.4	
<i>t</i>	-0.02	-0.44	-0.48		-0.37	-1.78	-2.71		2.87	3.2	3.36		2.66	2.44	2.57	
							*		*	*	*		*	*	*	
GNP per capita	-0.98	-1.7	0.0007	a	3.07	6.9	9.07	a					-0.0004	-0.002	-0.001	a
<i>t</i>	-0.62	-0.67	0.0003		1.86	2.4	3.75						-0.59	-1.6	-1.18	
						*	*									
Population growth rate (%)	1.41	2.95	0.23		2.09	4.35	3.98		0.99	1.61	1.28					
<i>t</i>	0.58	0.85	0.08		1.17	1.91	2.44		0.87	1.51	1.08					
							*									
Urbanisation rate (%)	-0.24	-0.93	-0.14		-0.001	-0.6674	-0.25									
<i>t</i>	-0.3	-0.74	-0.16		-0.001	-0.71	-0.42									
Primary school enrolment ratio					0.004	0.009	0.01									
<i>t</i>					0.09	0.21	0.26									
% urban					-0.08	-2.1	-0.25									
<i>t</i>					-1.19	-2.36	-2.9									
						*	*									
Infant mortality rate									-0.04	-0.15	-0.17					
<i>t</i>									-0.19	-0.65	-0.68					
Share of labour force in agriculture													0.1	0.07	0.09	
<i>t</i>													2.96	1.54	2.8	
													*		*	
Political rights	5.89	3.69	6.08	a	-1.03	1.79	1.7	a	-3.94	-4.49	-4.44	a	-0.18	-0.3	-0.1	a
<i>t</i>	2.21	0.86	2.11		-0.41	0.62	0.81		-2.51	-2.47	-2.75		-2.79	-2.04	-2.4	
	*		*						*	*	*		*		*	
R ²	0.09	-0.01	0.02		0.03	0.19	0.35		0.14	0.22	0.22		0.33	0.22	0.46	
SE	7	7.69	7.62		5.3	5.08	4.4		3.96	3.56	3.75		2.91	3.76	2.74	
N	37	26	30		37	26	30		37	26	30		37	26	30	

Notes Rows labelled *t* indicate *t* statistics; * indicates significance at the 5% level; *a* indicates that the log of the variable was used in estimating the equations; for a description of the variables and their sources see Appendix II, Technical Notes.

Table 4 Variables and sources

<i>Variable</i>	<i>Source</i>	<i>Unit/Definition</i>
Share of agriculture in GDP	World Development Report, various issues	%
Share of manufacturing in GDP	World Development Report, various issues	%
Infant mortality rate	World Tables, World Bank 1990 diskette	Per 10,000, divided by 10
Primary school enrolment ratio	World Tables, World Bank 1990 diskette	As a % of eligible age group
Share of the labour force in agriculture	World Tables, World Bank 1990 diskette	%
Fiscal deficit	World Tables, World Bank 1990 diskette	Overall fiscal deficit as a % of GDP
Political rights ranking	Gastil (1987)	See text
Civilian rights ranking	Gastil (1987)	See text
Share of the population that is urbanised	World Development Report, various issues	%
GNP per capita, US\$ Atlas Method	World Tables, World Bank 1990 diskette	World Bank Atlas Methodology
Population growth rate	World Tables, World Bank 1990 diskette	%
Expenditure on defence as a % of total expenditure	Government Financial Statistics Yearbook, 1985, 1989	%
Expenditure on health as a % of total expenditure	Government Financial Statistics Yearbook, 1985, 1989	%
Expenditure on agriculture as a % of total expenditure	Government Financial Statistics Yearbook, 1985, 1989	%
Expenditure on education as a % of total expenditure	Government Financial Statistics Yearbook, 1985, 1989	%
Tax on income and profits as a % of total revenue	Government Financial Statistics Yearbook, 1985, 1989	%
Domestic taxes on goods and services as a % of total revenue	Government Financial Statistics Yearbook, 1985, 1989	%
Tax on international trade & transactions as a % of total revenue	Government Financial Statistics Yearbook, 1985, 1989	%
Real effective exchange rate index	Lynn, R and McCarthy, F D (1989)	Index (1985 = 100)
Black market rate	World Currency Yearbook, Various editions	Ratio
Real interest rate	International Financial Statistics Ln 60.. – Ln 64x	%
Openness: imports + exports as a % of GDP	World Tables, World Bank 1990 diskette	%
Financing by domestic monetary authorities	Government Financial Statistics Yearbook, 1985,1989	%

Appendix II

Technical Notes

Due to the qualitative nature of the two measures of political and civil rights used in this paper, the bulk of the statistical work involves the use of the Spearman's Rank Correlation Coefficient (SRCC) to relate the political and civil rights variables with the quantitative measures of policy. Where feasible, equations have been estimated using Ordinary Least Squares Estimation techniques, although the authors are aware that the inclusion of qualitative variables violates many of the normal statistical assumptions. The regressions and SRCC are estimated for all the available data in three sample periods: 1978–82, 1983–88 and 1978–88. Inevitably the policy options open to governments have changed significantly in the 1980s due to IMF conditionality and the experience of structural adjustment in many developing countries. Consequently even if the equations performed well in the first period there is a strong possibility that the coefficients would have changed in the second period. For many of the variables a complete time series was not available, the values used are the average of the available data during the sample time period. A value was computed for any country for which at least three data points were available in each sample period.

The Spearman's Rank Correlation Coefficient was calculated as:

$$r_s = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2 - 1)}$$

and tested using

$$t = r_s \sqrt{\frac{n-2}{1-r_s^2}}$$

i Civil and political rights

Each of these variables are derived from Gastil (1987), Table 6. The variable was calculated as the sum of the scores for each year for each country in the two sample periods. In each year a country can score a value between 1 and 7 for both political and civil rights.

Political rights States rated 1 have a fully competitive electoral process (i.e. most Western democracies). Relatively free states are ranked 2 because, while the electoral process works and the elected rule, there are factors that cause a lower ranking. Ratings between 3 and 5 represent successively less effective implementation of

democratic procedures. Countries that have infrequent elections and limited opposition or in which issues of succession are decided outside of the public view or the electoral process are ranked in this category. States which fall into category 6 do not allow any competitive electoral processes, but are in some ways responsive to popular desire or respect belief systems that are the property of the society as a whole. Finally political despots who do not appear by their actions to be constrained by either public opinion or popular tradition score 7.

Civil rights 'In countries rated 1 publications are not closed because of the expression of rationed political opinion, especially when the intent of the expression is to affect the legitimate political process. No major media are simply conduits for government propaganda. The courts protect the individual, persons are not imprisoned for their opinions; private rights and desires in education, occupation, religion and residence are generally respected' (Gastil, 1987:35). Movement from 2 to 7 represents a steady loss of these freedoms. In countries ranked 2 the police and courts have more authoritarian traditions. Countries ranked 3 and below may have political prisoners, some torture occurs and varying forms of censorship prevail. States rated 6 almost always have political prisoners, the media is under government supervision, there is little right of assembly, and travel, residence and occupation are also subject to restrictions. But in 6 there is still some relative freedom in private conversations, illegal demonstrations occur and underground literature is circulated. In the police states that are ranked 7 there is pervasive fear, little or no independent expression of opposition, and imprisonment and execution are common.

Although Gastil (1987) provides the only source of this type of information the definitions are 'liberal' and have an identifiable bias. To provide an illustration, a socialist country such as Tanzania that undoubtedly enjoys a degree of popular legitimacy receives very poor rankings, which place it in the same category as many other authoritarian regimes that lack any popular support. Furthermore in the case of countries like Angola and Mozambique it is extremely difficult to comment on the level of political and civil rights repression as distinct from war atrocities when observers find it difficult to agree whether the countries are involved in a civil war or a war against an external aggressor.

ii *Infant mortality rate*

Taken as the average in each period scaled by dividing by 10.

iii *GNP per capita*

To provide a comparative measure the data used came from the *World Tables*, Table 1 (1990 update on diskette), which uses US\$ and the World Bank atlas methodology.

iv *Government financial data*

All government financial data and definitions are from the IMF *Government Financial Statistics*, Summary Tables (various editions), except the Overall Fiscal Deficit. Results are reported for the following categories:

Taxes on income and profits Taxes levied on actual and presumptive net income of individuals and profits of enterprises, including taxes levied on capital gains whether realised on land sales, on securities, or on other assets.

Domestic taxes on goods and services All taxes and levies on the production, extraction, sale, transfer, leasing, or delivery of goods and rendering of services, or in the use of goods.

Taxes on international trade and transactions Includes import and export duties, customs duties, profits of export and import monopolies, and exchange taxes.

Government expenditure on defence, education and health are self explanatory; spending on agriculture includes agricultural land management affairs such as irrigation, the construction of dams, agrarian reform and land settlement affairs, agricultural extension affairs and the administration costs of price support systems. For further definitions see IMF (1986) *A Manual on Government Financial Statistics*.

Data on Fiscal Deficits is obtained from the World Bank *World Tables* (1990 update on diskette). Defined as the sum of current and capital revenue and all grants received, less the sum of current and capital expenditure and government lending minus repayments.

v *Real Interest Rate*

Using $r = i - p$, where r =real interest rate, i =nominal interest rate (Source: IMF, *International Financial Statistics*, various years).

vi *Real Effective Exchange Rates*

1978–88 are taken from Table 6 (ascribed to the IMF) in Lynn and McCarthy (1989).

vii *Black market rates*

Presented as the ratio of the Black Market rate to the official rate. Black Market rates are taken from the *World Currency Yearbook* (various editions) and official rates are the conversion factors presented in the *World Tables* (1990 Update).

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