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A COMPARATIVE ANALYSIS OF THE FISCAL POLICIES
OF INDUSTRIAL AND DEVELOPING COUNTRIES

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Brewer, Thomas L.--A Comparative Analysis of the Fiscal Policies of Industrial and Developing Countries: Policy Instability and Governmental Regime Instability

This paper analyzes the government budget deficits of thirty-eight industrial and non-oil developing countries. Data for nineteen large industrial and nineteen large non-oil developing countries' policies from 1967 through 1981 are compared to determine the relative sizes and degrees of instability in government deficits. As a group, the developing countries' deficits are not notably larger or more unstable than the industrial countries' deficits. Furthermore, among the developing countries, fiscal policy instability and governmental regime instability are not associated with one another across countries. The findings therefore call into question theoretically and intuitively based assumptions about economic policy instability in developing countries.

1. INTRODUCTION

Recent developments have prompted renewed interest in the instability of the fiscal policies of developing and industrial countries. Among industrial countries, the current and projected American budget deficits have, of course, been an object of much comment. Among developing countries, the external indebtedness problems of Argentina, Brazil, and other countries have also drawn considerable attention to their fiscal policies.¹ Developing countries, moreover, are commonly noted to be politically less stable than industrial countries, and it is frequently assumed that political instability tends to lead to instability in economic policies. This paper presents a comparative analysis of the fiscal policies of large industrial countries and large non-oil developing countries, and it also analyzes the relationship of fiscal policy instability to governmental regime instability.

One would suppose on intuitive grounds that countries with relatively unstable governments would tend to have relatively large and increasing government deficits; governments in a politically unstable country are reluctant to impose fiscal restraint for fear that it will lead to political pressures that will topple an already precarious regime. Moreover, central assumptions from the pluralist theory of political science suggest that the essence of politics is a struggle among competing groups who want to gain governmental power and implement policies reflecting their own group interests and/or their perceptions of national interests.² Pluralist theory implies that when the composition of government changes, policies also tend to change. Although pluralist theory has generally been based on observations of political processes in "stable" industrialized democracies, these central notions about regime change and policy change should also be applicable to other countries.

Three hypotheses derived from these theoretical considerations as well as common perceptions are tested. First, government deficits in developing countries tend to be large relative to the deficits of industrial countries. Second, the size of the deficits tends to be unstable over time in developing countries compared with the deficits of industrial countries. Third, there is an association between instability in government deficits and instability in government regimes.

These hypotheses are tested by a cross-national comparative analysis of nineteen non-oil developing countries and nineteen industrial countries--all with gross national products in excess of \$5 billion in 1979. The study is thus specifically limited to economically large and hence significant countries. It is not intended to be a study of a representative sample of all countries.³

The comparisons of the countries' fiscal policies are based on the government deficit as a percent of GDP, as computed from data in International Financial Statistics reported by the International Monetary Fund (1983). By using the deficit as a percentage of GDP, we are of course directly controlling for differences in the sizes of the countries in cross-national comparisons; we are also indirectly controlling for price changes in the measurements of instability over time.

Data were collected for the fifteen year period from 1967 through 1981. Data on the government budget deficits of several countries were not available for years prior to 1967, so it was established as the initial year for data collection. Similarly, government budget deficit data were not available for many countries for the years after 1981 at the time the data were being collected. Since the deficits of several countries in the study, including the United States in particular, have increased considerably since 1981, the

cross-national comparative findings of this study might be quite different if post-1981 years were included.

2. EMPIRICAL FINDINGS

A. The Level and Instability of Budget Deficits

Table 1 presents the findings concerning the individual countries, and it also compares the averages of the two country groups for each of the four indicators of fiscal policy. The operational measure of the overall degree of instability is the standard deviation of the ratio of the deficit to GDP over the fifteen year period. Overall instability has been separated into long-term trends and short-term volatility by time series regressions of deficit/GDP on years. The slope of the regression line thus indicates the long-term trend, and the standard error of the estimate indicates the short-term volatility.⁴

It is evident that the developing countries exhibit only slightly greater tendencies to have large deficits in comparison with the industrial countries-- a difference that is not statistically significant at the .05 level.⁵ Nor are the differences in fiscal policy instability between the two groups statistically significant. The long-term trend for the developing countries is in fact less positively inclined than it is for the industrial countries, though again the difference is not significant at the .05 level.

B. The Association Between Fiscal Policy Instability and Governmental Regime Instability

Three indicators of governmental regime instability have been used. One is based on the number of times the ruling group in a given country changes; changes in the governing party and changes from civilian to military government (and vice versa) constitute changes in the ruling group. A second indicator is based on the number of times the head of the government changes; thus, a

large number of such changes indicates relative instability. A third indicator combines the first two by first ranking the countries by the number of ruling group changes and then breaking tied ranks according to the number of changes in the head of government.⁶ The resulting data make it possible to rank the countries in terms of three governmental instability indicators. Given the fact that we are trying to measure an inherently complex multi-dimensional concept, it is appropriate to use all three indicators in the analysis of the relationship between governmental instability and fiscal policy instability.

The correlation coefficients for those relationships are presented in Table 2. They reflect rank-order correlations across countries between the indicators of governmental instability and the four indicators of fiscal policy. None of the correlations are at all sizable or statistically significant. There is therefore strong evidence of the independence of political instability and economic policy instability among these large non-oil developing countries.

3. CONCLUDING REMARKS

The evidence for these developing countries and the comparisons with the industrial countries suggest that common assumptions and theoretically based hypotheses about developing countries need to be reconsidered. Many developing countries' deficits have actually been small and/or stable relative to many industrial countries' deficits over the fifteen year period in the study. Furthermore, to the extent that there have been differential degrees of fiscal policy instability among the developing countries, those differences are not associated with differences in governmental instability.

Thus, it is likely that fiscal policy fluctuations in developing countries are at least as much counter-cyclical responses to fluctuations in national income and employment conditions as they are responses to changing political conditions. Indeed, fiscal policy instability in developing countries may be no less economically destabilizing than fiscal policy changes in industrial countries. Only further comparative research, however, will enable us to determine whether such suppositions are supported by evidence.

FOOTNOTES

¹Fiscal policy instability in developing countries has been previously studied by Kanasa-Thanan (1959), Kelly (1982), Mansfield (1980), and Morgan (1979). However, none of these studies, nor any others to my knowledge, have compared those policies with any industrial countries' policies or with degrees of political instability.

²See Dahl (1982) on pluralist theory.

³Standardized lists of industrial and non-oil developing countries from the IMF (1983) were used, except that Mexico was considered an oil producing country and dropped from the list of non-oil developing countries. Bangladesh was deleted because it was not independent until 1971. Of the 21 countries classified as "industrial" by the IMF, only Luxembourg and Ireland fell below the \$5 billion threshold and hence were omitted from the analysis. Several developing countries had to be eliminated from the analysis because of inadequate fiscal policy data even though they were above the GNP threshold: Chile, Ivory Coast, Sudan, Syria, and Uruguay. The threshold of \$5 billion GNP in 1979 was used for two reasons: 1979 was the last year for which comparable data for the countries were available; data availability and data collection resources prohibited the inclusion of many more countries. GNP data were taken from World Bank (1980) and U.S. Government (1981).

⁴There are numerous ways to distinguish and measure long-term trends and short-term volatility in time series data. Each method has its advantages and disadvantages. For discussions and applications of several alternative ways of measuring instability, see for instance Coppock (1977), Suss (1976), and Lanyi and Suss (1982).

⁵The data on the level of developing countries' deficits are skewed by Israel's much higher level. If Israel were omitted from the computation, the mean level for the developing countries would be only 3.5 percent.

⁶Information about governmental changes was collected from the following sources: Banks (1981), Economist Intelligence Unit (1983), Europa Yearbook (1983) and Paxton (1983). Additional details about the definitions of the governmental instability variables and the data generation process are available from the author on request.

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TABLE 1

COMPARATIVE FISCAL POLICY DATA
(GOVERNMENT DEFICIT AS PERCENT OF GDP, 1967-81)

<u>Country Group Means</u>	Mean Level	Overall Instability (Std. Dev.)	Long-Term Trend (Regr. Coeff.)	Short-Term Volatility (Std. Error of Est.)
Industrial Cos. (n = 19)	3.0	2.0	+0.46	1.4
Developing Cos. (n = 19)	4.3	2.2	+0.19	1.7
<u>Individual Indus. Cos.</u>				
Australia	2.4	1.7	+0.08	1.7
Austria	2.9	1.1	+0.12 ^a	1.0
Belgium	4.8	3.0	+0.56 ^a	1.7
Canada	2.3	1.4	+0.23 ^a	1.0
Denmark	0.3	2.2	+0.34	1.6
Finland	0.5	1.5	+0.17 ^a	1.3
France	0.5	1.0	+0.00	1.0
Germany	1.4	1.1	+0.16 ^a	0.9
Ireland	9.7	4.2	+0.86 ^a	1.7
Italy	8.8	3.9	+0.79	1.8
Japan	2.7	2.4	+0.36 ^a	1.8
Netherlands	2.5	1.7	+0.23 ^a	1.4
New Zealand	4.2	2.6	+0.38	2.0
Norway	3.2	2.4	+0.11	2.4
Spain	1.8	0.7	+0.09 ^a	0.6
Sweden	2.7	3.3	+0.64 ^a	1.7
Switzerland	0.6	0.5	+0.04	0.5
United Kingdom	3.2	2.6	+0.38 ^a	2.0
United States	1.9	1.3	+0.13 ^a	1.2
<u>Individual Developing Cos.</u>				
Argentina	3.9	2.5	+0.26 ^a	1.9
Brazil	0.2	0.5	-0.08 ^a	0.3
Colombia	0.6	1.1	-0.09	1.0
Greece	3.1	1.4	+0.26 ^a	0.9
Guatemala	1.8	1.9	+0.23 ^a	1.6
India	4.6	1.4	+0.25 ^a	0.7
Israel	18.4	2.8	-0.16	1.9
Kenya	3.7	1.5	+0.12	1.4
Korea	1.7	1.1	+0.13 ^a	0.8
Malaysia	8.0	4.1	+0.70 ^a	2.8
Morocco	7.8	5.1	+0.82 ^a	3.7
Pakistan	6.7	1.9	+0.21 ^a	1.7
Peru	3.7	1.9	+0.13	1.9
Philippines	0.8	1.8	+0.10	1.8
Singapore	(1.2) ^b	1.1	+0.02	1.1
South Africa	3.8	1.7	+0.06	1.4
Thailand	2.8	1.5	+0.04	1.5
Turkey	3.1	1.7	+0.18 ^a	1.3
Zaire	7.7	6.3	+0.35	5.1

^aStatistically significant at .05.^bSurplus.

TABLE 2

CORRELATION BETWEEN FISCAL POLICY AND GOVERNMENTAL INSTABILITY

(SPEARMAN'S r)

<u>Indicators of Fiscal Policy</u>	<u>Indicators of Governmental Instability</u>		
	<u>Faction</u>	<u>Head</u>	<u>Combined</u>
Average Level (Mean)	0.12	0.07	0.08
Overall Instability (Std. Dev.)	0.08	-0.02	-0.03
Long-Term Trend (Regr. Coeff.)	0.01	-0.10	-0.08
Short-Term Volatility (Std. Error of Est.)	0.01	-0.09	-0.11