Public Choice **119:** 73–90, 2004.
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Effects of term limits on fiscal performance: Evidence from democratic nations *

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Accepted 3 February 2003

Abstract. Political reputation models feature forward-looking, rational voters who re-elect incumbents based on their estimate of an incumbent's ability level. Fiscal policy is one of the ways an incumbent establishes a reputation and thereby signals this ability level to voters. The reputation-building framework implies that term limits should affect fiscal performance; a term-limited incumbent places less value on reputation-building than an incumbent eligible for re-election does. We examine differences in fiscal performance in democratic countries under alternative executive term limit regimes. Our results generally agree with the prior findings of Besley and Case (1995a) who analyzed gubernatorial term limits in the American States. We provide new evidence that the fiscal effects of term limits differ under a two-term rule versus a single-term rule.

1. Introduction

Early studies of the coincidence between electoral cycles and fiscal cycles developed principal-agent models where voters re-elect or toss-out incumbents on the basis of past performance. Rogoff (1990) raised an inherent weakness in this sort of model, namely that it relies on "backward looking" voter behavior. Rogoff introduced an alternative framework based on asymmetric information to generate political business cycles consistent with rational forward-looking behavior. In the Rogoff analysis fiscal policy reflects in part reputation-building activity, and a forward-looking electorate formulates expectations about an incumbent's future performance based on his or her reputation.

The institution of term limits changes the incentive structure from one of reputation-building to one characterized by moral hazard. Besley and Case (1995a) exploit this idea in devising an empirical test of the political-agency model with and without term limits. Examining panel data on the American

* We are grateful to John Charles Bradbury, Richard Cebula, Chris Paul, Brian O'Roark, and an anonymous referee for helpful comments, and to the Bradley Foundation and The Center for Study of Public Choice for financial support.

States, they find systematic differences in state fiscal policies depending on whether the governor is subject to a binding term limitation or allowed to stand for re-election.[1] The American States provide a fruitful testing ground to examine this thesis; states operate under generally uniform constitutional and monetary regimes, and data are readily available in a detailed and consistent format. This paper extends the Besley-Case empirical strategy to investigate the impact of term limitation rules on fiscal outcomes using panel data for a sample of democratic countries.

Among the democratic nations present in our sample, roughly a third limit the terms in office of their chief executive.[2] If term limits influence behavior, as the Besley-Case results suggest, the policy consequences globally might be quite substantial. The results using a sample of 48 democracies indicate this to be the case. Further, the cross-country sample facilitates an extension of the Besley-Case analysis. Only one American State, Virginia, currently limits governors to a single term, which hinders investigation of differences between one- versus two-term limitations. Fortunately institutional variety among democratic nations allows us to pursue this issue, and we compare fiscal outcomes under the alternate term limit regimes.

The remainder of the paper is organized as follows. Section 2 reviews the Rogoff model and the Besley and Case empirical strategy. Section 3 specifies the cross-national empirical model, describes the data sample, and presents the empirical results. Section 4 concludes.

2. Modeling framework

The principal-agent framework stresses the role of institutional mechanisms that induce the agent to act on behalf of the principal. In the context of democratic political processes, periodic elections provide the most obvious and basic incentive mechanism: the chance for re-election constrains politicians to act in accord with the interests of their constituents. Regardless of whether one considers elections to be performance reviews or chances for competitive entry into the market, they are discrete events happening only periodically. This potentially provides politicians some slack between elections where monitoring partially loses its effectiveness; shirking cannot be disciplined until the next election. Modern attempts to examine democratic fiscal cycles have moved towards reputational models mainly because they incorporate rational expectations and forward-looking agents.[3] Rogoff (1990) develops a model in which incumbents use fiscal variables to signal their ability and thereby increase re-election chances. The Rogoff setup relies on imperfect voter information to reconcile political business cycles with rational forward-looking behavior. Fiscal cycles are the result of incumbent signaling behavior,

wherein adverse selection in political office is avoided via the information conveyed by fiscal policy choices.

Imperfect information makes it difficult for the voters to determine with certainty the skill or ability level of a politician. In response a politician naturally tries to signal his or her superior ability and thereby build a positive reputation with voters. In the Rogoff model fiscal policy choices reflect in part this reputation-building activity, and in this way a forward-looking electorate evaluates incumbents on the basis of performance signals. A good reputation is established if the politician's performance is perceived by the electorate as a positive signal. Such a perception consequently increases the likelihood of re-election.[4]

The signaling and reputation-building activities tied to the election cycle incentives of incumbents hold little relevance when term limits are imposed. In the absence of re-election incentives, the problem shifts to one of moral hazard: the incumbent no longer reaps the benefits of his or her actions that come from re-relection. The implication here is simply that an incumbent who cannot stand for re-election behaves differently than an incumbent eligible for re-relection.

Among the American States, over half impose a two-term limit on Governors. In these cases governors predictably exert high effort in the first term to enhance their reputations and raise the probability of re-election. Once re-elected to a second, lame duck term, governors reduce effort. Besley and Case (1995a) find evidence of cyclical activity in policy variables for two-term limit states.[5] For example, taxes and spending are lower in the first term than in the second. Besley and Case do not analyze the behavior of single-term limited governors, a relatively rare institution in the United States. Unlike the American States, however, the majority of democratic countries with term limits impose a single term rule. If only one term is allowed the politician essentially has a discount rate of zero for all future periods and lacks incentive to engage in reputation-enhancing activities. This leaves open the possibility that rather than fiscal cycles, fiscal outcomes may diverge systematically over time between one-term limit countries and unlimited or two-term limit countries.[6] In the cross-national empirical analysis we investigate this prospect in further detail.

3. Empirical analysis

3.1. *Specification issues and variable definitions*

Equation 1 specifies the basic empirical model, and we adopt the notation of Besley and Case (1995a):

$$P_{ct} = \gamma T_{ct} + \alpha Z_{ct} + \psi_t + \varepsilon_{ct}, \quad (1)$$

where c and t are country and time identifiers. We estimate Equation 1 using two alternative fiscal policy variables on the left-hand side, government revenues and government spending per capita.[7] In most of the models estimated, we enter both left- and right-hand side variables as natural logarithms. The main variable of interest is T, an indicator variable for whether the executive can or cannot stand for re-election. T equals one if the executive cannot stand for re-election in the next race, and equals zero otherwise. If the coefficient γ differs significantly from zero it lends support to the moral hazard thesis; that is, incumbents not seeking re-election behave differently than those seeking another term.

Z is a vector of control variables representing economic and demographic factors that affect fiscal outcomes, which differ across nations and within nations over time. These factors include: real income *per capita*, population, population density, the average rate of inflation, ethno-linguistic fractionalization,[8] the nation's Gastil Index of political freedom score, and openness (defined as exports plus imports divided by GDP).[9] A region dummy is included to control for different macroeconomic trends across the globe. The Data Appendix provides summary statistics for all variables and data sources. The variable denoted ψ is a dummy variable for each year in the sample, and ε represents the regression error term.

Because the empirical analysis concerns the effects of term limits on the discretionary behavior of a politician seeking to influence voter perceptions, we limit the sample to democracies. We selected countries using the Gastil Index of political freedom, which rates countries from one (the most free) to seven (those designated "not free"). We discard countries with a Gastil rating that exceeds four.[10] Also, we exclude all countries for which the relevant data were not available. Because non-term limit democracies act as a control in order to show the effects of term limits, it is not crucial to be all-inclusive. Furthermore, because two-thirds of the countries do not have any kind of term limits the sample is weighted in this direction. About one third of the countries have a term limit at some time in the sample as opposed to Besley and Case where about half of the American States have term limits. We note that the results are not sensitive to the inclusion of non-term limit countries. Table 1 lists all of the countries in the sample along with the term limit rules.[11]

The time period for the sample covers 1972 to 1990. For this period election results were available, as were the fiscal and economic data from the *Penn World Tables*. Not all of the nations above are contained in the sample in every year because of missing data. The final sample includes 48 countries for the time period 1972–1990. Table 2 shows the mean number of term-

Table 1. Term limits by country

Country	Term limit structure
Argentina, Australia, Austria, Belgium, Bolivia, Botswana, Canada, Costa Rica, Cyprus, Dominican Rep., Finland, France, Greece, Honduras, Iceland, India, Israel, Italy, Jamaica, Japan, Malaysia, Mauritius, Netherlands, Norway, New Zealand, Paraguay, South Africa, Spain, Sweden, Thailand, Trinidad & Tobago, United Kingdom, Uruguay, Venezuela	No term limits
Brazil, Chile, Colombia, Ecuador, El Salvador, Mexico, Panama, Peru, Switzerland, Turkey	One term limit
Portugal, Sri Lanka, USA	Two term limit

limited executives for each year in the sample. Interestingly the number of term-limited executives increases most noticeably in the early 1980s, largely the result of changes in South American countries (for example, Ecuador, Panama, and Peru). Some of the political unrest of the 1970s in that region began to subside at this time, and observations for some previously excluded countries begin to reappear in the data.

3.2. *Results on revenue and spending*

Table 3 presents the results for the effect of term limits on government expenditure. In Model (1) the left-hand side variable is government spending *per capita* and the specification is OLS double log. The coefficient on T, the indicator variable for incumbents who cannot stand for re-election, is positive, significant at the one-percent level, and equal to 0.11. This indicates that expenditures *per capita* are $86 higher in lame duck terms compared to non-lame duck terms as measured at the sample mean for term limit nations. As predicted and as Besley-Case observed in the American States, politicians appear to exert less effort to hold down spending when they cannot stand for re-election compared to when re-election remains an option. The results on the control variables appear as expected. Revenues increase with the log of income per capita and population. As other studies find, the provision of government services appears to be subject to economies of scale, and unit costs decline with population density. Somewhat surprisingly expenditures decreased with the average inflation rate over the sample period. Spend-

Table 2. Percent of sample with term-limited executives 1972–90

Year	Incumbent cannot run (%)
1972	15
1973	17
1974	16
1975	14
1976	14
1977	14
1978	16
1979	13
1980	21
1981	21
1982	21
1983	20
1984	22
1985	24
1986	20
1987	20
1988	24
1989	20
1990	20

ing was positively correlated with the Gastil index, indicating that less free countries tend to have larger governments, and negatively correlated with the ethno-linguistic fractionalization measure. We also include the level of government expenditures at the beginning of our sample period, 1972, to control for differences among nations in the base level of government spending.

The final control variable is openness, defined as imports plus exports divided by GDP. Rodrik (1998) finds that openness is a robust predictor of the size of government.[12] The coefficient on the log of openness lagged one period is positive and significant at the one-percent level in all four specifications in Table 3. The results for the lame duck indicators in all four specifications in Table 3, as well as those in Table 4, are highly robust and not overly sensitive to the inclusion of the openness, ethno-linguistic fractionalization, or Gastil index variables.

Model (2) in Table 3 is identical to Model (1) save that the dependent variable is expressed as government spending as a percent of GDP (multiplied by 100) rather than in *per capita* terms. The results are unaltered by this

Table 3. Government expenditures and term limits

	(1)	(2)	(3)	(4)
Dependent variable:	Gov. exp. *per capita*	Gov. exp./ GDP) X100	Gov. exp. *per capita*	Gov. exp. *per capita*
Specification	(OLS, double log)	(OLS, double log)	(OLS, double log)	(OLS, linear)
Incumbent cannot run	0.1139**	0.1139**		
	(4.97)	(4.97)		
Incumbent cannot run (one-term limit)			0.1559**	79.03**
			(5.10)	(3.70)
Incumbent cannot run (two-term limit)			0.0610*	–7.14
			(2.09)	(0.20)
Income *per capita*	0.2425**	–0.7575**	0.2335**	0.03**
	(12.07)	(37.70)	(11.61)	(7.45)
Population	0.0232**	0.0232**	0.0220*	0.0001
	(2.62)	(2.62)	(2.49)	(1.60)
Population density	–0.0627**	–0.0627**	–0.0623**	–0.68**
	(8.34)	(8.34)	(8.27)	(10.05)
Average inflation rate	–0.0441*	–0.0441*	–0.0450*	–0.09
	(2.39)	(2.39)	(2.45)	(0.121)
Openness	0.0763**	0.0763**	0.0751**	1.25**
	(2.89)	(2.88)	(2.81)	(3.67)
Gastil index score	0.0094	0.0094	–0.0019	7.68
	(0.45)	(0.45)	(0.09)	(1.36)
Ethno-linguistic fractionalization	–0.0079	–0.0079	–0.0086	–1.52**
	(1.45)	(1.12)	(1.20)	(4.70)
Gov. exp. *per capita* (1972)	0.6782**	0.6782**	0.6904**	1.02**
	(32.48)	(32.48)	(33.01)	(38.32)
Region dummies	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes
R^2	0.96	0.79	0.96	0.96
F-statistic	652.67	104.5	653.14	502.38
No. of observations	812	812	812	812

(t-statistics in parentheses)
* = 5% level; ** = 1% level.
All t-statistics are calculated using Huber-White standard errors.

Table 4. Government tax revenues and term limits

Dependent variable: Specification:	(1) Taxes *per capita* (OLS, double log)	(2) (Taxes/ GDP) X100 (OLS, double log)	(3) Taxes *per capita* (OLS, double log)	(4) Taxes *per capita* (OLS, linear)
Incumbent cannot run	0.1002**	0.1001**		
	(4.54)	(4.54)		
Incumbent cannot run (one-term limit)			0.1131**	270.96**
			(3.03)	(3.74)
Incumbent cannot run (two-term limit)			0.0861**	97.16
			(4.02)	(1.41)
Income *per capita*	0.4209**	–0.5791**	0.4189**	0.06**
	(9.52)	(13.10)	(9.30)	(6.68)
Population	0.0577**	0.0577**	0.0574**	0.0003
	(4.39)	(4.39)	(4.38)	(1.80)
Population density	–0.0407**	–0.0407**	–0.0408**	–0.53**
	(4.23)	(4.23)	(4.24)	(2.94)
Average inflation rate	0.0167	0.0167	0.0172	4.56*
	(0.97)	(0.97)	(1.00)	(2.38)
Openness	0.2584**	0.2584**	0.2578**	3.51**
	(6.68)	(6.68)	(6.66)	(3.21)
Gastil index score	0.0688**	0.0688**	0.0655**	66.44**
	(3.23)	(3.23)	(3.23)	(3.69)
Ethno-linguistic fractionalization	0.0010	0.0010	0.0012	–3.38**
	(0.13)	(0.13)	(0.16)	(3.62)
Taxes *per capita* (1972)	0.6747**	0.6747**	0.6778**	1.26**
	(17.10)	(17.10)	(16.65)	(34.04)
Region dummies	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes
R^2	0.97	0.85	0.97	0.95
F-statistic	933.33	137.19	903.53	437.17
No. of observations	762	762	762	762

(t-statistics in parentheses).
* = 5% level; ** = 1% level.
All t-statistics are calculated using Huber-White standard errors.

transformation, save for the fact that the R^2 is much lower. The *per capita* measure is employed in Models (3) and (4).

The results in Table 3 also explore the difference between single-term limits and two-term limits using a minor extension of Equation 1 that adds separate dummy variables for the one-term and two-term limit countries.[13] Model (3) in Table 3 presents these findings. The coefficient on the lame duck indicator variable in two-term limit countries remains a significant predictor, this time at the five-percent confidence level, and indicates that expenditures are $45 higher when a lame duck is in office, again estimated at the sample mean for term-limited nations. Importantly, the coefficient on the one-term limit indicator variable (i.e., the incumbent is always a lame duck) is also positive and significant at the one-percent level. The presence of a lame duck executive in a one-term limit nation has the effect of raising expenditures by $120, substantially larger than the effect in two-term limit cases. These results are consistent with Besley and Case's findings, but go further demonstrating that the magnitude of the term limit effect is materially different in the two term limit structures.

As a robustness check, Model (4) presents the results of estimating a variation on Equation (1), this time running the model without taking natural logarithms of both the left- and right-hand side variables. Again the coefficient on the one-term limit indicator variable is positive and significant at the one-percent level. However, the coefficient on the two-term limit dummy is not significant and is negative. The effect of term limits exhibits a fair degree robustness across these alternative specifications and, importantly, the effect of a one-term limit remains significant regardless of whether variables on both sides of Equation (1) are logged.

Table 4 shows the results of estimating Equation (1) using government revenues, the majority of which are taxes, as the left-hand side variable. The dummy for incumbents who cannot run in the next election is positive and significant at the one-percent level in Model (1). A lame duck executive raises government revenues *per capita* by an average of $107 as measured at the sample mean. The magnitude of this effect is slightly larger than that observed in the expenditure models.

As with Table 3, Model (2) in Table 4 again replicates Model (1) replacing *per capita* revenues with revenues as a percent of GDP as the dependent variable. The results are again largely unchanged except that the R^2 is lower. The *per capita* measure is employed in Models (3) and (4).

Model (3) in Table 4 follows the procedure described for Table 3, and includes both a one-term indicator variable and a lame duck indicator variable for two-term limit countries. As in Table 3, the coefficient on one-term countries is significant at the one-percent level. Importantly the coefficient on

the lame duck in a two-term limit country is significant at the one-percent level for the revenue models. The estimated magnitude of the lame duck effect for one-term limit nations is $121, nearly identical in magnitude to the expenditure effect in those countries. For two-term limit countries revenue is $91 *per capita* greater when the chief executive cannot be re-elected, nearly double in magnitude compared with the spending effect.

Model (4) presents the results of re-estimating Model (3) without taking natural logs of all variables. In Model (4) the one-term lame duck dummy is significant (at the one-percent level) but the coefficient on the two-term indicator is insignificant.

3.3. *Single-term limits and government growth*

The results in Tables 3 and 4 provide substantial evidence that expenditures and revenues increase in the lame duck term for countries that have implemented a term limitation rule. In order to investigate further the effects of single-term limits we turn to an alternative estimation strategy; specifically we investigate the long-term effect of term limits on the size of government. Do term limits cause the size of government to diverge from that of non-term-limited countries?

Like Besley and Case (1995a) we find that spending decreases in the non-lame duck term, and spending increases in the lame duck term. In effect, two-term limits contribute to fiscal cycles, but not necessarily to an overall, long run expansion in the size of government.[14] However, government size in countries with a single-term limit might diverge from other countries because executives never stand for re-election, and consequently they have little or no incentive to engage in reputation-building. This implies that one term limits may influence the growth of spending and revenues, even if two-term limits do not result in long-run fiscal expansion.

We examine this implication by modifying the regression model to analyze the growth rates in government spending and revenue across countries:

$$\mathrm{Ln}(\mathrm{P_{ct}}/\mathrm{P_{ct}}(-1)) = \gamma_1 \mathrm{T1_{ct}} + \gamma_2 \mathrm{T2_{ct}} + \alpha \mathrm{Z_{ct}} + \psi_t + \varepsilon_{ct}, \qquad (2)$$

Table 5 displays the results of estimating Equation (2) for expenditure growth (Model (1)) and revenue growth (Model (2)). The variables on the right-hand side are largely the same as in the previous specifications except that we now include GDP *per capita* growth. Note that we have explicitly separated the lame duck indicator variable into a single-term (T1) dummy and a two-term (T2) indicator. Furthermore we do not include the openness, ethno-linguistic fractionalization, or Gastil index variables in the growth specifications.

If a one-term limit has the predicted effect of causing a divergence in spending and tax revenues because all elected chief executives discount future

Table 5. Single-term limits and government growth

Dependent variable:	(1) Growth rate of expenditures	(2) Growth rate of taxes
Incumbent cannot run (one-term limit)	0.018∗ (1.96)	0.009 (0.65)
Incumbent cannot run (two-term limit)	–0.006 (0.42)	–0.003 (0.17)
Income *per capita*	–0.002 (0.34)	0.002 (0.22)
Income *per capita* growth	0.743∗∗ (12.39)	1.05∗∗ (11.55)
Population	0.0002 (0.11)	0.004 (1.12)
Population density	–0.002 (0.99)	–0.004 (1.23)
Average inflation rate	–0.008 (1.71)	0.001 (0.18)
Region dummies	yes	yes
Year dummies	yes	yes
R^2	0.23	0.22
F-statistic	8.14	7.10
No. of observations	764	714

(t-statistics in parentheses)
* = 5% level; ** = 1% level.

terms in office, then we expect a positive and significant coefficient on T1. If, as Besley-Case find for the American States, a two-term limit causes fiscal cycles, not a net growth in government, we expect an insignificant coefficient on T2. Essentially this model tests for a difference between one-term limit countries and others to determine whether one-term limit countries grow faster and therefore diverge from other countries in spending and revenue levels over time.

Table 5 reports the results of estimating the growth model specified in Equation (2). In Model (1) the left-hand side variable is growth in expenditures *per capita*. The coefficient on T1, 0.018 is significant at the five-percent level. On average government spending in single-term limit countries grows 1.8 percentage points faster than in other countries. Consistent with the Besley-Case finding for the American States the coefficient on two-term limit

Table 6. Term limits and fiscal volatility

Dependent variable:	Standard deviation of (detrended) government
Incumbent cannot run (one-term limit)	–0.504∗∗ (2.74)
Incumbent cannot run (two-term limit)	0.520∗ (2.07)
Average income *per capita*	–0.00003 (1.75)
Average income *per capita* growth	0.951∗ (2.45)
Average population	–0.002∗∗ (4.44)
Average population density	0.0082 (1.46)
Average inflation rate	0.016∗∗ (6.38)
Average gov. expenditure as a % of GDP	0.074∗∗ (5.22)
Region dummies	yes
R^2	0.70
No. of observations	47

(t-statistics in parentheses)
* = 5% level; ** = 1% level.
All t-statistics are calculated using Huber-White standard errors.

countries, T2, is insignificant. We note that dropping the two-term limit variable from the regression affects neither the significance nor the magnitude of the coefficient on T1.

To clarify this result, this does not necessarily imply that countries with a one-term limit have higher government spending growth rates than other countries at a given point in time. Rather, these findings suggest that countries that limit executives to a single term in office exhibit modest but constant upward growth over long time periods, while other countries' growth varies according to exogenous factors as incumbents react with policy in order to signal their ability.

In Model (2) the effects of term limits on the growth of revenues are explored. Here neither the one-term limit indicator nor the two-term limit indicator is significant. It is important to note that the revenue variable has a

much higher variance than the expenditure variable and while the spending exhibits roughly constant and regular increases across all countries, revenues bounce up and down more irregularly.

3.4. *Fiscal volatility*

As a final empirical issue we investigate the fiscal cycle hypothesis in a more direct fashion by examining fiscal volatility across countries. First, we expect two-term limits to increase volatility, whereas countries without term limits will exhibit random variations (about trend) emanating from exogenous shocks to spending. The prediction for single-term countries derives from the prior findings. These countries should experience a constant upward trend, which may be less responsive to exogenous pressures because the executives do not seek re-election. We therefore anticipate reduced fiscal volatility under a single-term limit and amplified volatility under a two-term limit.

The cross-sectional model to test the volatility hypothesis is:

$$\sigma_c = C + \gamma_1 T_{1ct} + \gamma_2 T_{2ct} + \alpha Z_{ct} + \varepsilon_c, \tag{3}$$

In order to estimate Equation (3) we first compute a measure of fiscal volatility, σ. We use the standard deviation of the detrended residuals obtained when regressing the level of government spending as a percent of GDP[15] on a constant and a linear time trend (a procedure adopted from Romer 1986). This measure becomes the dependent variable in the above specification. We include eight conditioning variables in Z in this model: the average of GDP *per capita*, average growth of GDP *per capita*, average of population, average of population density, average level of government spending *per capita*, and the average rate of inflation.[16] Equation (3) also includes in the set of conditioning variables region dummies.

The main variables of interest are again the one-term limit (T1) and two-term limit (T2) indicator variables. Note that here T1 and T2 denote that a country has the particular term limit structure rather than signifying particular years in which an incumbent may not seek re-election.[17]

The results shown in Table 6 provide considerable support for the volatility thesis. The coefficient on T1 is negative and significant at the one-percent level and the coefficient on T2 is positive and significant at the five-percent level. A one-term limit causes spending volatility to decrease by 0.5 percentage points while a two-term limit causes spending volatility to increase by 0.52 percentage points. The mean volatility for the sample equals 1.13 percent, which means that a two-term limit increases the mean to 1.65, a 44 percent increase. A one-term limit reduces the mean to 0.63, a 43 percent decrease.

4. Concluding remarks

Using cross-national data we provide evidence that term limits affect fiscal outcomes. These fiscal effects differ systematically under a single-term limit versus a two-term limit rule. On net, one-term limit countries have levels of government that systematically grow over time relative to countries with two-term limits or no term limits. A one-term limit promotes a modest, steady increase in government spending over time, but dampens fiscal volatility. A two-term limit adds significantly to fiscal volatility, but not to the expansion of government over time.

These findings square with the analysis that term limits change the political constraints executives face and thereby attenuate the incentive to establish positive political reputations via superior performance. The question still to be answered is why do countries adopt term limits? Many emerging democracies in Africa installed term limits in the 1980s, as have the recently democratized nations of Eastern Europe. Our findings indicate that this development has implications for international fiscal performance. Institutions are relatively easily amended compared to other, deeper parameters that seem to affect fiscal policies.

Notes

1. Additionally, Crain and Tollison (1977) provide evidence that the campaign expenditures of term-limited governors are significantly less than expenditures by governors who can be re-elected.
2. This includes the countries in our sample that have a parliamentary system, one that fuses the executive and legislative functions into a single branch of government. Excluding the parliamentary democracies in our sample forty percent of the countries term limit the chief executive. As discussed in further detail in the empirical section of the paper we retain the parliamentary countries in the pooled time-series, cross-sectional sample to help control for year-specific changes in fiscal policy.
3. A related literature beginning with Kydland and Prescott (1977) examines strategic fiscal behavior, or time-inconsistency. The essential feature of this literature is that political agents in the current period will make different (and suboptimal) policy choices from future agents if there is some chance that they will not be in office in future periods and future officeholders have different policy preferences. The problem stems from voters' inability to make binding contracts with politicians over fiscal policy outcomes. Persson and Svensson (1989) and Alesina and Tabellini (1990) develop models wherein public debt plays a role in constraining future policymakers' choices, therefore locking in the choices of the present regime to some degree. Besley and Coate (1998) and Glazer (1989) construct models of suboptimal provision of capital goods in order to bind future policymakers. Crain and Tollison (1991) provide empirical evidence of strategic fiscal policy using American State data.
4. Besley and Case (1995b) extend the basic model by applying it to yardstick competition in tax setting, relying on the model of Banks and Sundaram (1993).

5. Other studies of term limits examine the effect of Congressional retirement, a self-imposed term limit, on voting records. Lott and Davis (1992) provide a review of this literature. Interestingly, Besley and Case (1995a) find no effect for retiring governors while Lott and Reed (1989) find no effect in Congress. They attribute this to the fact that only "good" politicians survive until retirement age. However, McArthur and Marks (1988) find a significant lame duck effect in the floor voting patterns on the automobile "domestic content" legislation in the House of Representatives in 1982.
6. The cyclical pattern of fiscal variables observed by Besley and Case indicates that taxes in term limit states do not increase continuously over time relative to non-term limit states.
7. Note that in Tables 3 and 4, specification (2), the left-hand side variables are entered as government spending and revenue as a percent of GDP, rather than in *per capita* terms.
8. Ethno-linguistic fractionalization, as used for example by Easterly and Levine (1997), is chosen as a proxy for the level of interest group activity, which tends to increase government spending. It is an index reflecting the number of disparate language and ethnic groups within the population.
9. This set of control variables reflects those commonly employed in empirical studies of cross-country fiscal performance. For examples, see the edited volume by Poterba and von Hagen (1999).
10. The Gastil Index has a discrete seven-step rating system for both political and economic freedom. Because we were concerned with democratic institutions, we rely on the political freedom index. Although the index attempts to rate countries' institutions in terms of degrees, a 5, 6, or 7 essentially means that general elections with relatively wide suffrage are not the primary means of determining political leadership.
11. *The Statesman's Yearbook* and *Constitutions of the World* were used to determine which countries have term limits, as indicated in the Appendix. These sources were used to determine the structure of term limits, either single or two-term.
12. The interesting result in Rodrik is that open economies have larger governments than closed economies, ostensibly to protect the citizens from external shocks. In order to see if this result is important, we include it in our model to determine the effect. Although Rodrik looks only at government spending, it is appropriate to apply the test to revenues. Rodrik uses average figures over various time periods for government spending and openness while we have attempted to use openness in the pooled time series. Rodrik also uses a lag of openness, which we adopt, with the only difference being that variable is always a one-year lag rather than a lagged average over longer periods. Including the openness variable further limits the sample of countries because the variable is not available for many countries in the *Penn World Tables*. To preserve the sample size we do not include openness in all regressions. We also continued to use the time period of 1972–90, which is longer than the sample used by Rodrik.
13. We note that no countries have more than a two-term limit.
14. Besley and Case (1995a) find no effect of term limits on long-run growth in the size of American State governments.
15. Expenditure as a percent of GDP was chosen in lieu of expenditure *per capita* due to the fact that the nations within the sample had wildly different standard deviations for the *per capita* measure. The use of the percent of GDP measure introduced a greater degree of standardization in the model, reducing the number required control variables to explain the variance.
16. Ibid. p. 11.
17. In the results reported both dummy variables are included in the estimation equation. Both were run separately and neither the size nor significance of the effects were altered, so we report only the regression model that included both variables.

18. Includes data on whether term limit is single or double term, as well as when it was initiated.

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Data Appendix 1. Sources

Variable name	Source
Government expenditure	*Penn World Tables* 5.6
Government revenue	International Monetary Fund. *International Financial Statistics Yearbook*, Volume XLII. Washington, DC: International Monetary Fund, 1989. Also Volume XLVIII, 1995.
Income *per capita*	*Penn World Tables* 5.6
Incumbent cannot run in next election[a]	*The Statesman's Yearbook*, 110th Edition through 130th Edition. St. Martin's Press: London, 1973 through 1993. and *Constitutions of the World, 1993*. Washington, DC: Congressional Quarterly, Inc., 1993.
Openness	*Penn World Tables* 5.6
Population[b]	*Penn World Tables* 5.6
Gastil index	www.freedomhouse.org
Ethno-linguistic fractionalization	Easterly and Levine (see References) www.worldbank.org
Average inflation (1965–90)	Sachs, Jeffrey and Andrew M. Warner, *Sources of slow growth in African economies*, www.cid.harvard.edu/cid_public_data.htm

[a]Includes data on whether term limit is single or double term, as well as when it was initiated.
[b]Includes population growth and population density, which are simple transformations of the root variable.

Data Appendix 2. Summary statistics of country variables

		Countries:	
	All	term-limit	non-term limit
Government expenditure *per capita*	973.12 (675.52)	712.88 (500.12)	1069.91 (706.34)
Taxes *per capita*	1893.89 (1669.64)	1013.22 (920.88)	2216.47 (1764.07)
Population	39866.02 (107125.1)	42166.56 (53341.03)	40983.76 (119143.9)
Population density	95.61 (109.80)	72.46 (74.82)	104.22 (119.15)
GDP *per capita*	6527.26 (4432.91)	3635.83 (2674.04)	7439.10 (4493.50)
Average inflation (%)	18.15 (20.80)	27.99 (23.81)	14.67 (18.51)
Openness	57.33 (28.77)	48.37 (22.81)	60.67 (30.04)
Gastil index score	2.34 (1.66)	3.11 (0.87)	2.05 (1.48)
Ethno-linguistic fractionalization	31.50 (24.39)	29.77 (19.37)	32.14 (25.99)

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