

Autocracy, Elections, and Fiscal Policy in Malaysia

Introduction

This article asks whether elections have economic consequences in non-democratic states. Although the Third Wave of democratization brought political reform to many countries, non-democratic governments remain prevalent across much of the world. Recognition of this fact has spurred much of the recent theoretical interest in the nature of non-democratic politics, especially the role of political institutions in autocratic regimes (Brownlee 2002a, b; Levitsky and Way 2002; Schedler forthcoming; Smith 2005). Recently, Gandhi and Przeworski (2001; 2006) have argued that democratic institutions such as legislatures increase autocratic regime stability. If non-democratic institutions have such consequences for regime durability, as these authors contend, a question that emerges is whether they have predictable consequences for public policy. Do elections under authoritarian regimes affect public sector behavior?

Using longitudinal data from Malaysia, this article argues that elections in authoritarian regimes can have systematic effects on fiscal policy. The theory is a refinement of models of the political business cycle. Political business cycles (PBCs) (Nordhaus 1975) are politically induced fluctuations in economic indicators such as spending, unemployment, and/or inflation that correspond to a country's electoral cycle. In Malaysia and in many other non-democratic regimes, elections bestow legitimacy on the regime by purportedly demonstrating its widespread popular support. They also signal to opposition parties that the government commands popular support, a thinly-veiled threat to opposition leaders who might challenge the status quo. In general, ruling parties in non-democratic regimes like Malaysia's seek to manufacture strong

electoral victories, viewing electoral returns as manifestations of the regime's popular support. Economic performance, government patronage, and redistribution are important determinants of the regime's legitimacy, so the government increases fiscal spending in the run-up to an election. Controlling for confounding variables, time-series analysis shows a robust positive association between elections and government spending from the years 1967 to 1997, a period that begins with the availability of reliable quarterly economic data and ends with the Asian Financial Crisis.

Malaysia is an ideal test case because it is a country in which political institutions under autocratic rule have attracted recent theoretical interest. Dan Slater (2003) shows how Malaysian Prime Ministers have used political institutions to concentrate executive power, demonstrating the different logic that political institutions can have under authoritarian regimes. William Case (2001) has argued that Malaysian government's unique blend of authoritarianism with democratic-style institutions yields political stability. Furthermore, many authors have studied the redistributive policies of the Malaysian government and the extensive use of political patronage (see e.g. Gomez and Jomo 1999). For this reason, observers familiar with Malaysia's long history of vote buying, vote stealing, and campaign media blitzes may find increased spending during elections unsurprising. But most studies of links between business and politics study off-budget expenditures from crony held corporate wealth, party owned investments, and the personal riches of politicians that fund many of the tactics of the ruling coalition.

In contrast to the anecdotal evidence that earlier studies have offered, this study focuses on the directly observable official expenditures as measured in the government's accounts. Uncovering the relationship between elections and budget allocations during elections presents a novel finding, and its implications go beyond the practice of marshalling private resources to secure public office. Elections in Malaysia affect macroeconomic management and policy

planning, introducing the additional political distortions into an economy already characterized by endemic corruption and rent-seeking. While analysts have often suggested that the Malaysian government manipulates the economy before elections, this is the first rigorous test of this proposition. Moreover, the finding that electoral institutions—even under autocratic regimes—have such large effects on national fiscal policy is a new piece of support for the growing consensus that non-democratic regimes often do not simply employ elections as “window-dressing.” Malaysia is an exemplar of what Levitsky and Way call “competitive authoritarian regimes” (2002: 53), sometimes called “electoral authoritarian” regimes (see Schedler forthcoming). Crucially, the theory presented here also suggests the conditions under which authoritarian regimes that hold elections should not manipulate fiscal policy: when civic freedoms are low and political repression is less costly. I argue in the conclusion to this article that findings from Malaysia are consistent with other recent studies of electoral politics in competitive authoritarian regimes, and furthermore that anecdotal evidence suggests that more dictatorial regimes use violence and intimidation rather than fiscal policy manipulation to ensure electoral victory.

Elections and Authoritarianism

The study of elections in non-democratic regimes has not proceeded much past the analyses found in Hermet, Rose, and Rouquié’s (1978) *Elections Without Choice*. In the introduction to this volume, Guy Hermet argues that the study of elections in non-democratic regimes can shed light on the ways that electoral systems operate in the real world, and can also demonstrate the effects of opportunities for public political action on the strength and stability of the non-democratic regime. However, it is his third justification for the study of non-democratic elections, where “the study of non-competitive elections represents one of the rare chances to

analyse factually the public manifestations of the governments which control them” that indicates the importance of electoral analysis even in cases where elections are non-competitive (Hermet 1978: 9). If we believe that political institutions in autocratic regimes may affect government policy, elections are a good place to look.

In a democracy, governments hold periodic elections where citizens have at least minimal freedoms to choose among candidates for office, and where governments, if they lose, surrender office to their opponents (Linz 2000: 53). Although elections are a necessary feature of all democracies, from Linz’s definition it is clear that elections alone themselves are not sufficient for democracy (see also Schedler 2002). What distinguishes elections under authoritarianism from elections under democracy is the institutional context in which elections occur. Elections under non-democratic regimes are manipulated systematically to such an extent that the likelihood of government turnover due to an electoral loss is quite low, although on many occasions we do observe democratic transitions at the ballot box amidst extraordinary political or economic upheavals.¹ But among all elections in non-democratic regimes, some are more competitive than others, and certain classes of non-democratic regimes adhere more to electoral rules than others. Distinguishing among the subset of all non-democratic regimes that hold elections, Levitsky and Way note several important characteristics of competitive authoritarian regimes.

In competitive authoritarian regimes, formal democratic institutions are widely viewed as the principal means of obtaining and exercising political authority. Incumbents violate those rules so often and to such an extent, however, that the regime fails to meet conventional minimum standards for democracy....In competitive authoritarian regimes...violations of...[the] criteria [of democracy] are both frequent enough and serious enough to create an uneven playing field between government and opposition....Although incumbents in competitive authoritarian regimes may routinely manipulate formal democratic rules, they are unable to eliminate them or reduce them to a mere façade (2002: 52-53).

Competitive authoritarian regimes are regimes that are non-democratic, but which also fulfill two additional requirements: (1) democratic institutions such as elections exist, and (2) the regime does not have a *carte blanche* to employ its political power to manipulate elections at will.

As not all non-democratic regimes with elections meet these criteria, elections in non-democratic regimes range from the competitive authoritarian regimes that Levitsky and Way introduce to the altogether non-competitive elections described by a number of authors in *Elections Without Choice*. The question remains, though, of why an autocrat would benefit from the creation of democratic institutions. If a non-democratic regime has no intent of leaving power, why would it subject itself to the risks of an election? Gandhi and Przeworski's (2001) discussion of dictatorial institutions focuses on the ways that dictators employ democratic institutions to enhance regime durability. Discussing elections in particular, they argue that elections are ways for the government to intimidate the opposition. By showing potential opponents to the regime that they are able to marshal some absurd vote return in their favor—often higher than 99% in many highly repressive states—incumbent governments demonstrate the strength of their rule, rendering oppositional challenge an unattractive option. By contrast, Hermet (1978) focuses on the legitimating quality of elections, both domestically and internationally. By utilizing an “objective” measure of the public sentiment supporting the regime (Lawson 1993: 196), authoritarian governments believe that they can reduce social and political pressures against their rule. While many citizens may be aware of the irregularities in the voting systems of their countries, the practice of holding elections in non-democratic states appears to be an effective political tool for rallying support from many parts of society for the incumbent regime, and deterring the opposition. This is particularly relevant for Malaysian elections, where strictly ethnic parties in a national coalition contest against an oppressed

opposition that the government paints as unprepared to handle the problems of a multi-ethnic society.

Besides Malaysia, examples of electoral competition in non-democratic regimes can be found in countries such as Mexico under the PRI and more recently in Egypt in 2005. In fact, it appears that most modern autocratic governments hold elections of some sort. To provide an upper bound on the universe of possible cases of elections under competitive authoritarianism, Table 1 lists all countries and years that Alvarez et al. (1999) code as both non-democratic and having either legislative or executive elections.

TABLE 1
Non-Democratic States with Elections, 1950-1990

Country Name	Years	Country Name	Years
Algeria	1962-1964,1977-1990	Malawi	1964-1970
Bangladesh	1973-1974,1979-1981	Malaysia	1957-1968,1971-1990
Benin	1960-1962,1964,1980-1989	Mali	1961-1967,1982-1990
Bolivia	1956-1963	Mauritania	1961-1977
Botswana	1966-1989	Mexico	1951-1990
Brazil	1967-1970,1978	Mongolia	1985-1990
Bulgaria	1981-1989	Myanmar	1974-1987
Burkina Faso	1960-1965, 1978-1979	Nicaragua	1951-1970,1974-1978
Burundi	1982-1986	Niger	1961-1973
Central African Republic	1961-1965,1987-1990	Pakistan	1956-1957,1962-1968
Cameroon	1961-1970,1973-1990	Panama	1978-1983
Cape Verde	1975-1990	Paraguay	1951-1990
Chad	1961-1974	Peru	1951-1955,1990
Colombia	1951-1952	Philippines	1965-1971,1978-1985
Comoros	1978-1990	Portugal	1951-1973
Congo	1963-1967	Rwanda	1962-1972,1981-1990
Czechoslovakia	1975-1986	Senegal	1961-1990
Djibouti	1977-1987	Seychelles	1979-1990
Dominican Republic	1961	Sierra Leone	1968-1990
Ecuador	1968-1969	Singapore	1965-1990
Egypt	1957-1960,1962-1990	Somalia	1980-1989
El Salvador	1951-1959,1962-1978	South Africa	1951-1990
Fiji	1970-1986	Sri Lanka	1977-1990
Gabon	1961-1990	Sudan	1974-1984
Gambia	1965-1990	Syria	1973-1990
Ghana	1957-1964	Taiwan	1952-1990

Guinea	1960-1983	Tanzania	1961-1988
Guinea-Bissau	1977-1979,1984-1990	Togo	1961-1966,1979-1990
Guyana	1966-1990	Tunisia	1961-1990
Haiti	1961-1963	Turkey	1951-1959
Honduras	1951-1953,1965-1970	Uganda	1962-1970
Indonesia	1971-1990	USSR	1977-1981,1983-1989
Ivory Coast	1961-1990	Western Samoa	1980-1990
Kenya	1963-1990	Yemen Arab Republic	1978-1989
Korea, South	1954-1959,1963-1971,1973-1987	Yugoslavia	1961-1990
Lesotho	1966-1969	Zaire	1970-1989
Liberia	1961-1979,1986	Zambia	1964-1990
Madagascar	1961-1971,1977-1990	Zimbabwe	1965-1977,1980-1990

Elections in the countries in Table 1 are of course not all directly comparable. In Southeast Asia, elections in Marcos' Philippines involved far more direct personal vote-buying than in Malaysia. Indonesia consistently held elections under the New Order, but severe restrictions on contestation and party formation made them far less competitive than those in Malaysia. For reasons that I discuss below, the model of the interaction between elections and economic policy in non-democratic states in this paper is increasingly applicable as regimes approach Levitsky and Way's model of competitive authoritarianism. In dictatorships where elections are merely a show of force, such as in Iraq under the final years of Saddam Hussein's rule, this model should not apply.

Electoral and Economic Interactions in Non-Democratic Regimes

In the first models of the opportunistic PBC, authors posited that politicians could manipulate the long-run Phillips curve through the judicious use of macroeconomic policy (Nordhaus 1975; Tufte 1978). Politicians could artificially—but temporarily—lower unemployment or induce economic growth before elections in order to create an illusion of a healthy economy. The rational expectations critiques that soon emerged argued that economic agents would surely recognize that incumbent regimes had this incentive, and would behave

strategically so that such political manipulations would have no real implications for the market (Alesina and Schultze 1989; Alt and Chrystal 1981; Beck 1987; Golden and Poterba 1980). Accordingly, voters would not observe economic improvement before elections, and political manipulations of the economy for electoral gain would be futile. Kenneth Rogoff and Anne Sibert revived the PBC model by positing that there exists a critical informational asymmetry between governments and the rest of society (Drazen 2000; Rogoff 1990; Rogoff and Sibert 1988). Incumbent governments have a better understanding of the future of the economy than other economic actors, and can exploit this informational advantage to enact policies to which the economy cannot adapt. In all models of opportunistic and rational PBCs, the incumbent government's real fear of losing power drives economic manipulations.²

Authoritarian regimes have similar incentives. The preceding discussion of competitive authoritarianism and the functions of elections in non-democratic regimes suggests that incumbent regimes devote significant resources to elections that they have no intention of losing. The discussion also noted that many authoritarian governments also employ more egregious forms of vote fraud. If a non-democratic government wants to manufacture a landslide victory for itself, why not simply lie? First, consider that the ability to defraud the voting public is a decreasing function of several factors, including voter civic awareness, freedom of the press, access to mass media, and other related national characteristics.³ These factors correspond roughly to the gradations between that Levitsky and Way describe between competitive authoritarianism and more severe types of authoritarianism (Levitsky and Way 2002). Where these factors are low or absent, governments may successfully manipulate elections in order to ensure that it is credible to claim that, for example, Saddam Hussein and his Ba'ath Party had the support of 99.9% of the voters in Iraq's 2002 general elections. In non-democratic states where

there are greater press freedoms and voter civic awareness is higher, governments must find other ways to ensure resounding victories in their favor, and the logic of the PBC should apply.

Second, political manipulation of the economy may be simply less politically costly, both domestically and internationally, than electoral fraud. Even if deception by voting fraud is possible due to low levels of domestic political awareness, the expected utility of employing fraud instead of more subtle means may make fraud unattractive. Even a low probability event of public outcry in response to rigged elections is likely to be far costlier for the regime than subtle—and perhaps more welcome—fiscal policy manipulation.

Policy manipulation for electoral gains by autocratic governments arises in the following manner. The incumbent regime, facing an impending election, wishes to ensure that it prevails. Among its possible tools for achieving this end are tactics ranging from discouraging voting by political opponents, to stuffing ballot boxes, to imprisoning political dissidents, to making programmatic policy statements that it has no intention of following once elected, to manipulating macroeconomic policy in its favor. The regime chooses some combination of these and other tactics based on the political and economic situation at the time of the election, as well as the general characteristics of the voting population. In cases where the expected costs of voter fraud or severe voter restrictions are high, incumbents choose to manipulate macroeconomic policy. Conversely, where voter fraud and coercion are relatively inexpensive ways to create the appearance of a resounding popular mandate, the incumbent may view other tactics as more appealing.⁴ The observable implication of this theory is that in non-democratic regimes that hold elections and have a relatively high level of civic awareness and press freedoms, there should be cycles of economic policy that coincide with electoral periods.

Proceeding from the critiques of the traditional PBC model, the following explications, qualifications, and refinements are necessary. First, in other studies of regime support in non-democratic regimes (Chen, Zhong, and Hillard 1997; Geddes and Zaller 1989), variable levels of civil/political awareness among voters are critical determinants of the incumbent regime's popularity function. Different levels of voter sophistication, therefore, are held in these studies to affect the voting population's appraisal of the incumbent regime. Without assuming a particular level of voter sophistication, it is compatible with the political realities of many non-democratic regimes to presume that authoritarian control of the media and political opposition would decrease the ability of the voting population to rationally anticipate the extent of political manipulation of the economy.⁵ Moreover, regarding the rational expectations critiques of the traditional PBC, the theory of fiscal policy manipulation in non-democratic regimes should survive intact. The Rogoff-Sibert models of political budget cycles with asymmetric information seem particularly relevant to a non-democratic state where the regime has a large degree of private information regarding macroeconomic policy and economic performance (Cukierman and Meltzer 1986; Rogoff 1990; Rogoff and Sibert 1988). In their models, information asymmetry is a sufficient condition for fiscal manipulations for electoral gain, even with sophisticated forward-looking electorates.

The formulation of this model of PBCs in non-democratic states renders moot refinements of the PBC model that incorporate the incumbent's incentives (Frey and Schneider 1978; Schultz 1995). Incumbent governments almost always seek additional votes gained through fiscal expenditures, whereas governments in competitive authoritarian states often avoid excessive vote fraud that produces election results that are not credible. Partisan considerations similarly do not affect fiscal policy decisions, as political parties in non-democratic regimes are

less likely to tie themselves to a particular inflation-vs.-unemployment ideological platform (Alesina and Roubini 1992; Hibbs 1977). Lastly, following the suggestions of Nordhaus (1989) and others, a final qualification is that non-democratic regimes should be more prone to engage in fiscal policy manipulations that have readily observable, immediate effects on their voting populations than in monetary policy manipulations with longer term effects on the Phillips curve. That is, political budget cycles should be the instrument of choice for electorally motivated economic policy manipulations in non-democratic states, not more indirect political monetary cycles (Grier 1989).

To recall the observable implications discussed above, non-democratic states where regimes face competitive elections should show predictable swings in their fiscal policy decisions that coincide with elections. Specifically, these regimes will, *ceteris paribus*, spend more in periods preceding an election. This increased spending may fund any number of electorally popular governmental initiatives, including increasing direct government transfers and implementing indirect transfers such as visible public works projects and bail-outs for failing industries that are key sources of electoral support (Alt and Chrystal 1981; Schultz 1995; Tufte 1978). We should thus observe higher government deficits in periods where the government faces elections.

The Case of Malaysia

The next two sections test this argument over time using longitudinal data from Malaysia, a country with a long history of elections under an autocratic regime. Econometric evidence from within one country cannot test the theory as a general proposition for every election in every competitive authoritarian regime, but it will establish that electorally motivated fiscal policy manipulation does exist in some competitive authoritarian regimes.

Since independence, Malaysia has displayed the formal institutions of many democracies: regular elections for a functioning parliament, a federal system, and an abundance of political parties. The electoral system features elections at a maximum of five year intervals, with parliamentarians for federal and state elections contesting in single-member districts. Elections take place a maximum of sixty days after the dissolution of parliament.⁶ However, while the electoral system functions as stipulated in the Malaysian Constitution, the actual electoral process shows the many imperfections from which the ruling coalition benefits in the conduct of elections, signifying that despite the many institutional trappings of democratic regimes, Malaysia is not a democracy.⁷

Three main communal parties make up the majority of the ruling Barisan Nasional (BN) coalition, and the largest of these is the United Malays National Organisation (UMNO). Although the Democratic Action Party regularly receives strong support from Chinese voters, and other, mostly tiny, non-communal parties often receive a few votes from urban Malaysians, the electoral system strongly favors rural—and hence Malay—voters. The government’s willingness to gerrymander electoral constituencies to its political advantage has increased over time, ensuring that the effective weight of Malay votes far exceeds that of non-Malay votes (Lim 2003). In Malay-dominant constituencies, Parti Islam SeMalaysia (PAS), a Malay-based Islamic party, has traditionally been UMNO’s most important challenger. As gerrymandering along communal lines cannot eliminate PAS as a threat, UMNO must be more creative in Malay constituencies. The party has used a strategy known as *kepala sepuluh* (“head of ten”), where local party workers take responsibility for ten Malay voters, using financial incentives to deliver UMNO votes. Under a related *anak angkat* (“adopted child”) system, UMNO election workers reside in the homes of voters, pay a modest sum to their hosts for their hospitality, and keep

away PAS vote canvassers. In some contested constituencies, *pengundi hantu* (“phantom voters”) arrive to cast ballots for the UMNO candidate. These voters do not live in the constituency in question, arriving on election day in some cases on buses from factories owned by UMNO cronies in different states.⁸ Irregularities in voter registration rolls are common (Lim 1995; Loh 1999; Netto 1992), as are charges that members of the military are coerced by their superiors into voting for BN candidates. Laws exist that ban campaigning before the official campaign period, but the incumbent regime violates these laws with impunity. While imperfections in the process of elections do not extend to the level that makes elections entirely non-competitive, their recurrence undermines the freedom and fairness of Malaysian elections.

For these reasons, the BN has always attained a two-thirds majority in the *Dewan Rakyat* (the lower house of parliament), enabling it to amend the constitution at will. On only one occasion did the government only attain a simple majority of seats after the 1969 elections, and it used the pretext of racial rioting to suspend democratic government for two years, installing a National Operations Council (NOC) which only relinquished power to the parliament on the condition that it would pass a number of repressive anti-democratic laws. These laws did not change the regime so much as clarify the rules under which the government demands that citizens live. The regime frequently manipulates political institutions for its own ends, as in the case of Prime Minister Mahathir Mohamad’s elimination of the independence of the Malaysian judiciary in the late 1980s (Khoo 1999).

In addition to undemocratic practices during the electoral process, more overt methods of political repression and government restrictions on information characterize the rule of the BN. Even before the BN took power in 1971, the Alliance, its predecessor, routinely jailed members of opposition parties under the Internal Security Act of 1960 and placed strict limitations on the

rights of opposition parties to assemble or publish political documents (Parmer 1967). Under the NOC, the Sedition Act of 1971 officially banned public speech—including among MPs—which questioned so-called “positive discrimination” in favor of Malays; this Act remains in effect today. In doing so, the government prohibited discussion of the most significant political issues in Malaysia, those which opposition parties might profitably employ to attract popular support (Bass 1970; Crouch 1994: 18; Munro-Kua 1996). The BN has continued these repressive policies since the re-formation of Parliament in 1971, and has periodically strengthened laws preventing the discussion of government activity and sensitive politics under the guises of “Official Secrets” and political stability.⁹

Finally, Malaysia’s political economy provides the foundation upon which the regime operates. Deep linkages between the government and the corporate sector have led to extensive cronyism in Malaysian politics (Gomez and Jomo 1999; Searle 1999: 81-102). This cronyism has enabled successive Malaysian governments to marshal corporate wealth for political gain, and to distribute patronage to supporters of the regime (mostly Malay, but in some notable cases Chinese and Indian as well). Money politics does not itself entail authoritarianism—in the region, democratic Thailand, the Philippines, and post-Soeharto Indonesia have more serious problems of money politics than authoritarian Malaysia—but Malaysia’s particular relationship between politics and business ensures government protection to favored enterprises while encouraging business figures to join politics as BN parliamentarians. Since many politicians and business figures are one and the same, it is unlikely that influential corporate figures are at much of an informational disadvantage regarding future economic performance. But fiscal policy manipulation during elections does not target corporate leaders, it targets the Malaysian masses, who do operate with such a disadvantage as required in models of PBCs with rational

expectations. Corporate figures with close ties to the BN should in fact support fiscal policy manipulation as a strategy for ensuring the BN's electoral victory, as it enables them to benefit from continued BN dominance. The long history of corporate involvement in Malaysian electoral politics is strong evidence that this is the case (Gomez 1994, 2002).

As an authoritarian regime with democratic electoral institutions, Malaysia presents an ideal test for this study. Additionally, the regime in Malaysia has proven stable since independence. The ruling coalition has resisted domestic and international pressure for democratization, never approaching true democracy yet consistently holding elections according to institutional rules. Despite the name changes of 1974 from the Alliance to the BN, the coalition of ethnic parties that ascended to power in 1957 has remained essentially unchanged, the main differences being the inclusion of a largely Chinese but officially non-communal party (Gerakan) and an ever-changing roster of parties from Sabah and Sarawak. The Malaysian regime's long-term stability, combined with its political characteristics, accordingly minimizes the potential for confounding political factors to affect the empirical results of this analysis.

One significant hurdle in the study of the coincidence of elections and spending in Malaysia is the presence of endogenous election timing. In Malaysia, as in the United Kingdom, governments may hold elections any time within five years after they take power. The longest span between elections has been twenty-one quarters (1969:Q1 to 1974:Q3), and the shortest is only fifteen quarters (1978:Q3 to 1982:Q2), so there is clear variation in election timing. While fiscal policy does not exogenously affect the government's decision to call elections, early elections may signal to voters that the economy about to do poorly and so the government wishes to garner political support (Smith 1996, 2003). At the very least, then, both the calling of elections and fiscal policy are the product of the same desire to demonstrate legitimacy. Ideally,

the estimation strategy should control for the factors that cause both spending and elections in order to isolate the effect of elections themselves on spending. Unfortunately, the baseline need to establish legitimacy is unobservable. Below, I employ two indirect tests, one based on the durability of the need to establish legitimacy, the second developed from Smith's model of early elections, to control for proxies for the determinants of early elections.

Estimation

The arguments presented above suggest that, controlling for other explanatory variables that predict government spending, elections in Malaysia lead to larger deficits in the balance of government accounts.¹⁰ Figure 1 below plots the quarterly average difference between Malaysian governmental revenue and expenditure, in millions of Malaysian ringgit in 1987 prices, for the years 1967 to 1999.

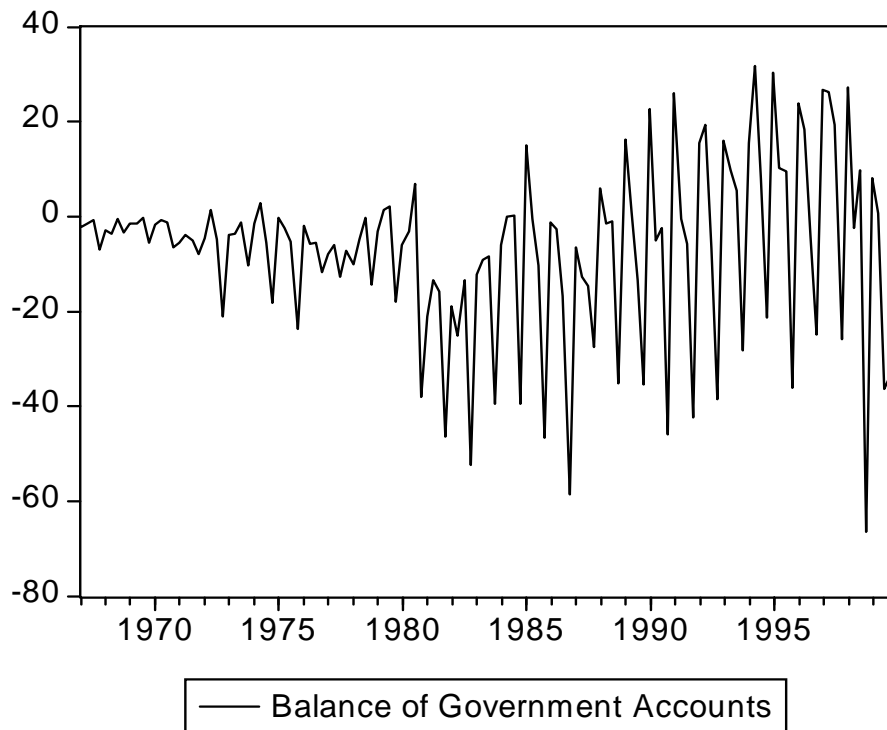


FIGURE 1
Balance of Government Accounts, Malaysia 1967-1999

In the figure, values less than 0 represent quarters with an average fiscal deficit, while values greater than 0 represent quarters with an average fiscal surplus. Visual inspection reveals seasonal fluctuations in the balance of government accounts, as well as an increase in its variance due to the ever-increasing fluctuations between deficits and surpluses over time. There is also a large increase in the deficit that corresponds to the Asian financial crisis of 1998.

I discuss a statistical model that captures seasonality of the dependent variable in the Appendix. The Asian financial crisis presents a more challenging problem. The Asian financial crisis of the mid-1997 through 1998 had its roots in the heavy foreign debt exposure of private firms in many rapidly industrializing states in East and Southeast Asia. After the devaluation of the Thai baht in mid-1997, speculative attacks turned to the other currencies of the region. As

these countries devalued their currencies, foreign creditors faced an increasing inability of debtors firms and financial institutions to repay their loans, contributing capital flight and further exchange rate pressures. Currencies of the four major victims of the crisis—Indonesia, Malaysia, South Korea, and Thailand—entered a downward spiral that resulted in the near-collapse of their economies. This necessitated a number of extraordinary policy decisions among international lending agencies and national governments.¹¹ Malaysia’s response to the rapid withdrawal of foreign portfolio capital from the economy after the floating of the ringgit was initially to tighten the budget and raise interest rates to attract capital back into the country, a policy undertaken at the behest of then-Finance Minister and Deputy Prime Minister Anwar Ibrahim. When this proved ineffective, Mahathir and his allies reversed course and opted for an expansionary set of macroeconomic policies, an exchange rate peg, and the imposition of selective capital controls in September 1998. Additionally, as part of the adjustment package, the Malaysian regime responded to the crisis by providing emergency funds for failing banks with high levels of *bumiputra* investment.¹² All of this points to an irregularly high fiscal deficit in 1998. Even more importantly for this analysis, the Asian financial crisis preceded parliamentary elections in 1999, meaning that the observable effect of elections in period t on the governmental deficit in period $t-1$ may be confounded by an inordinately large deficit preceding an election for other reasons. Because the statistical estimator employed here models Malaysian budgets as a time series with quarterly seasonal effects, exclusion of data from 1998 necessitates exclusion of any subsequent data.

The variable of theoretical interest, *ELECTCURR*, is a dummy variable “1” in quarters with parliamentary elections, and “0” in other quarters. The practice of using dummy variables to code elections in Malaysia has an obvious drawback in its inability to distinguish between

elections that take place at the beginning of a quarter and elections that take place near the end of a quarter. This coding convention, however, is consistent with the most recent studies of PBCs. I also include four additional dummy variables, *ELECTPREV(1-4)*, that test whether the regime increases spending in anticipation of elections being called.

In addition, other independent variables include GDP, government revenue, and openness to trade (for data sources, see the Appendix). The definitions are given below in Table 2.

TABLE 2
Variables

Variable	Definition
<i>GOVSUR</i>	Average quarterly balance on government accounts in constant prices
<i>GDP</i>	Average quarterly gross domestic product, in constant prices
<i>REVENUE</i>	Average quarterly government revenue, in constant prices
<i>OPEN</i>	Sum of exports and imports divided by GDP
<i>ELECTCURR</i>	Dummy variable: 1 in quarters with elections; 0 else
<i>ELECTPREV(T)</i>	Dummy variables: 1 <i>T</i> quarters before an election; 0 else
<i>ELECTNEXT(T)</i>	Dummy variables: 1 <i>T</i> quarters after an election; 0 else
<i>ELECTPREVNEXT(T)</i>	Dummy variables: 1 in the quarter with an election and in the previous and following <i>T</i> quarters; 0 else

Including the variable *GDP* as a regressor captures the intuition that higher levels of GDP should lead to smaller government deficits. With *REVENUE* as a regressor, I control for the potential confounding effect that the larger the government's revenue in a quarter, the smaller the government's deficit in that quarter. Using *OPEN* as an independent variable reflects the argument that economic openness leads governments to increase social protection (Cameron 1978; Rodrik 1998). As the data take the form of time series, non-stationarity in each of the economic variables is an important concern, and augmented Dickey-Fuller tests reveal unit roots in all of them. Transforming the variables using natural logarithms and first differences eliminates this problem.¹³

Estimates of the effects of these independent variables on government deficits, reporting robust standard errors, appear in Table 3. These results show consistent, statistically significant support for the hypothesis that Malaysian governments spend more in quarters when they face elections.

TABLE 3
Estimation Results

Independent Variable	Model 1	Model 2	Model 3
Constant	0.013965 (0.137551)	0.001733 (0.191759)	0.097763 (0.246086)
GDP	-0.52245 (0.531436)	-0.15149 (0.558302)	-0.11259 (0.568021)
REVENUE	—	0.300089 ** (0.113548)	0.302594 ** (0.113275)
OPEN	—	—	-0.0001 (0.000176)
ELECTCURR	-0.09415 ** (0.032603)	-0.09078 ** (0.03048)	-0.08898 ** (0.029243)
SAR(4)	0.907175 *** (0.064505)	0.935742 *** (0.06165)	0.935869 *** (0.061678)
Adjusted R ²	0.786141	0.799536	0.798385
Log-likelihood	67.33687	71.70535	71.88884

Standard errors in parentheses. * = statistically significant at the $\alpha < .05$ level.
** = statistically significant at the $\alpha < .01$ level. *** = statistically significant at the $\alpha < .001$ level.

Each model controls for a different series of independent variables. An interpretation of the coefficient on *ELECTCURR* of Model 2, for example, shows that the existence of a parliamentary election in a period is associated with an average decrease of -0.091 in the dependent variable, the quarter-on-quarter change in the natural logarithm of the government surplus. The small size of this effect makes sense given that variable's transformations.¹⁴ The statistical significance of the results for *ELECTCURR* is consistently well above the 99%

confidence level across these models, and the size of these coefficients is fairly stable across specifications. As predicted in the discussion of fiscal policy manipulation during electoral periods presented above, the Malaysian government systematically spends more in quarters when it faces elections. This finding remains consistent when adding dummy variables that test for spending increases in up to four quarters preceding elections. In these models (not reported), the variables that correspond to the quarters before elections are never significant. This is evidence that spending increases do not foreshadow the calling of elections, but rather only exist in quarters with elections. I revisit this finding in the discussion of causality below.

The interpretations of the other coefficients included here are even less straightforward due to the transformations necessary for both dependent and independent variables. *GDP* has the expected sign but is statistically indistinguishable from zero. When *REVENUE* enters in Model 2, it is highly significant in the expected direction, confirming the expectation that governments run lower fiscal deficits they have greater revenues. The estimated coefficients and standard errors for *OPEN* indicate that we cannot reject the null hypothesis that Malaysia's volume of trade with foreign countries does not determine the size of the government deficit. This may signify the pooriness of this measure of trade openness, or the fact that Malaysian governments do not provide the same sort of social insurance against the volatility of international markets that OECD states provide (cf. Cameron 1978).¹⁵

Two Indirect Tests of Causality The empirical models presented so far cannot distinguish between increases in spending during elections and increases in spending due to an external factor, such as the need to establish legitimacy, that also causes elections. Imagine that there is some factor that leads the Malaysian regime to call elections *and* increase spending—for example, the need to increase legitimacy for some unobserved reason. That need should precede

elections, and persist in their wake, while elections are temporally bound to only occur within one quarter. If this were the case, then we should see increased spending around elections, not just during elections, as the findings have so far indicated. The results in Table 4 show indirect evidence that this is not the case. Models 4 and 5 add quarterly dummy variables (*ELECTPREV* and *ELECTNEXT*) for one and two quarters before and after an election. Models 6 and 7 adopt a different definition, with additional dummies coded as “1” in the quarter of an election as well as the preceding and subsequent one and two quarters (*ELECTPREVNEXT*).

TABLE 4
Estimation Results with Additional Time Dummies

Independent Variable	Model 4	Model 5	Model 6	Model 7
Constant	-0.00254 (0.195967)	-0.00719 (0.206505)	-0.00233 (0.194879)	0.002811 (0.199606)
GDP	-0.09941 (0.549353)	-0.07638 (0.579226)	-0.10762 (0.542352)	-0.12508 (0.532011)
REVENUE	0.307139 ** (0.112497)	0.323994 ** (0.113346)	0.306204 ** (0.11226)	0.309229 ** (0.111924)
ELECTPREV(2)	—	-0.04665 (0.039976)	—	—
ELECTPREV(1)	0.033467 (0.032812)	0.08052 (0.053484)	—	—
ELECTCURR	-0.0906 ** (0.030684)	-0.09039 ** (0.030881)	-0.11623 ** (0.043169)	-0.11619 ** (0.043334)
ELECTNEXT(1)	0.01783 (0.050802)	0.017975 (0.051112)	—	—
ELECTNEXT(2)	—	-0.03359 (0.059975)	—	—
ELECTPREVNEXT(1)	—	—	0.025604 (0.030238)	0.065662 (0.051968)
ELECTPREVNEXT(2)	—	—	—	-0.04011 (0.041222)
SAR(4)	0.936883 *** (0.063242)	0.939438 *** (0.065198)	0.936819 *** (0.063304)	0.937844 *** (0.065333)
Adjusted R ²	0.79778	0.796595	0.796595	0.79969
Log-likelihood	72.23938	71.88971	71.88971	72.80392

Standard errors in parentheses. * = statistically significant at the $\alpha < .05$ level.
 ** = statistically significant at the $\alpha < .01$ level. *** = statistically significant at the $\alpha < .001$ level.

The results do not support any finding of increased spending before or after elections, suggesting that there is no unobserved factor that occurs alongside elections which leads to increases in spending and which also might be causing elections. This is one piece of indirect evidence that *ELECTCURR* is capturing the effect of elections themselves.

Another indirect test proceeds from the logic of election timing in Smith (1996), where governments hold early elections when they anticipate future poor economic performance. If that is the case, the government should attempt to ease the impact of future poor economic performance through additional spending as well. Therefore, we can isolate the amount of spending caused by elections themselves from the amount caused by the related need to increase legitimacy—which also causes elections—by controlling for the future state of the economy. Table 5 does this by repeating Model 2 with a series of lead terms, modeling current spending as a function of current variables and future economic performance.¹⁶

TABLE 5
Estimation Results with Expectations of Future Economic Performance

Independent Variable	Model 8	Model 9	Model 10	Model 11
Constant	-0.00147 (0.186459)	-0.00149 (0.186964)	-0.00017 (0.189231)	0.006121 (0.210666)
GDP	-0.14559 (0.566578)	-0.14505 (0.579724)	-0.17064 (0.582406)	-0.04703 (0.615243)
GDP(+1)	0.303763 (0.453812)	0.303816 (0.455683)	0.25377 (0.471997)	0.240969 (0.451119)
GDP(+2)	—	0.001915 (0.419719)	-0.00106 (0.425697)	0.117921 (0.456226)
GDP(+3)	—	—	-0.26313 (0.358832)	-0.2862 (0.369152)
GDP(+4)	—	—	—	0.553472 (0.525241)

REVENUE	0.294451 *	0.294455 *	0.291208 *	0.278452 *
	(0.113878)	(0.114295)	(0.115508)	(0.113483)
ELECTCURR	-0.09038 **	-0.09035 **	-0.08839 **	-0.08892 **
	(0.02951)	(0.030207)	(0.027634)	(0.028539)
SAR(4)	0.933787 ***	0.933779 ***	0.934618 ***	0.94045 ***
	(0.062871)	(0.062956)	(0.064092)	(0.066899)
Adjusted R ²	0.798556	0.796757	0.795524	0.796357
Log-likelihood	71.93927	71.93928	72.11306	72.89425

Standard errors in parentheses. * = statistically significant at the $\alpha < .05$ level.
 ** = statistically significant at the $\alpha < .01$ level. *** = statistically significant at the $\alpha < .001$ level.

The results are again consistent with the results in Table 3. The coefficient estimates for *ELECTCURR* and *REVENUE* are nearly identical, as are the standard errors for *ELECTCURR*. Estimates for *GDP* remain insignificant, and all leads of *GDP* are insignificant as well. There is no evidence that the Malaysian government increases spending in anticipation of future economic downturns when it is also holding elections, and the estimated effect of elections themselves on spending remains consistent.

Other Robustness Checks Despite these strong results on the effect of elections on fiscal spending, we might worry about time series effects such as autocorrelation that remain even after controlling for seasonal effects. To check, Table 6 (see the Appendix) builds on Model 3 and progressively adds autocorrelation terms for up to four periods preceding each observation of the dependent variable. The results from these time series regressions show more support for the hypothesis that Malaysian government spend more during elections. Inclusion of one autoregressive term lowers the size of the coefficient for *ELECTCURR* by around .03, but most subsequent autoregressive terms have no notable effects on the coefficient estimate. Very encouragingly, while standard errors of the estimate of *ELECTCURR* rise across specifications, they remain well below the $\alpha < .05$ level. Also encouraging are the consistent expected results

for *REVENUE* and lack of statistically significant results for *GDP*. Further model specifications (not reported) employing moving averages do not substantively change these results.

The non-stationarity of *GOVSUR* is another potential source of biased inference. A correlation between time period and variance in the balance of government accounts persists after removing the unit root with logs and first differences, suggesting residual heteroskedasticity and non-stationarity. A possibility in cases of such correlation between time and variance is that the underlying data generation process is characterized by autoregressive conditional heteroskedasticity—that is, the variance of a particular observation is conditional on previous observations' variances and estimated variances. The correct estimator in this case is a generalized linear model known as a Generalized Autoregressive Conditional Heteroskedastic (GARCH) model (Bollerslev 1986; Engle 2001). I also explored the data using this model with a number of different lag terms, reporting results in Table 7 (see the Appendix). The results of this alternative estimation strategy are reassuring. The effects of *ELECTCURR* remain statistically significant at the $\alpha < .01$ level when controlling for *REVENUE*. Also, parameter estimates for other independent variables remain consistent as well, with the exception of *OPEN*, which is significant in Model 18. Accordingly, the results are robust to the most important alternate specifications of the dependent variable, accounting for different parameterizations of the data's lag structure and explicitly modeling the non-stationary variance of the average balance of Malaysian government accounts. These results are strong indicators that the Malaysian government, though a non-democratic regime throughout this period, increases budgetary expenditures in during elections.

Discussion and Conclusion

National account data from Malaysia support the contention that elections in non-democratic regimes have predictable effects on macroeconomic policy. The theory here predicts accurately the manipulation of fiscal policy during elections, which I have argued stems from the regime's desire to maximize votes in order to protect political legitimacy and demonstrate political authority to opposition groups. The electoral-economic connection in Malaysia is strong, and elections are accordingly important determinants of fiscal policy choice in this rapidly developing non-democratic state. The consequences of this connection are relevant for a number of avenues of research, as well as for the formulation of policy by groups such as international lending agencies. Before discussing the implications of these findings, though, a few words are warranted on external validity and the model's predictions in "non-competitive" authoritarian regimes.

The model offered here predicts political budget cycles in non-democratic regimes where elections matter. Two kinds of evidence can help us to understand the wider applicability of the Malaysian case. First, do we see evidence of electoral manipulation of the economy in other competitive authoritarian regimes? Blaydes (2006) finds evidence of political manipulation of the economy during elections in Egypt under Hosni Mubarak, and Grier and Grier (2000) and Gonzales (2002) have found similar evidence in Mexico under the PRI. Both Egypt under Mubarak and Mexico under the PRI share with Malaysia many of the hallmarks of electoral or competitive authoritarianism: a dominant party or coalition that holds regular elections and which permits extensive political competition in the electoral arena.¹⁷ My approach complements their empirical findings, but builds upon their theoretical work by specifying the conditions under which we should find electoral manipulation in non-democratic regimes: where political institutions and voter awareness make simply defrauding of the population unfeasible or

potentially very costly. In such circumstances, manipulation of the budget allows the regime to demonstrate its legitimacy, both to its supporters and to the potential opposition.

A second piece of evidence can also bolster our confidence in the theory and Malaysian evidence offered here. An implication from this model is that in non-democratic regimes where elections are truly non-consequential, we should *not* find evidence of electoral manipulation of the economy.¹⁸ On this, the evidence is less clear, as the cross-national literature has not thought to test for PBCs in countries where intuition suggests that they should not exist. The lack of affirmative evidence is not itself evidence that such regimes do not manipulate economic policy for electoral gain. But recent elections in Zimbabwe, a competitive authoritarian regime that has moved in a distinctly authoritarian direction since the mid-1990s, witness far more political violence and intimidation to frighten the regime's opponents than budgetary spending to establish political legitimacy (see Venter 2003). Similar examples include the 2006 election in Belarus that returned Alexander Lukashenko with over 84% of the popular vote (*The Times (London)*, March 21, 2006), and the 2004 legislative elections in Turkmenistan, where President-for-life Saparmurat Niyazov's Democratic Party won all available seats (*Agence France-Presse*, December 20, 2004). In such authoritarian elections that differ dramatically from competitive or electoral authoritarianism, we should expect intimidation and fraud during elections rather than increased government spending, and this is consistent with anecdotal evidence. Future research into the "menu of manipulation" (Schedler 2002) that authoritarian regimes employ will enable researchers to understand more precisely the conditions under which non-democratic regimes choose different strategies when their citizens enter the voting booth.

An unfortunate problem for the use of time-series econometrics to establish the causal link between elections and macroeconomic policy cycles is regime durability. Only in cases

where available data can provide at least one hundred uninterrupted observations can researchers be confident in such estimations as the ones provided above (Chatfield 1996). This amounts to a restriction to cases where an authoritarian regime maintained the necessary institutional characteristics along with its grip on power for at least twenty-five years. Panel data approaches encounter this problem as well if they estimate fixed country effects. Some Eastern European states, in particular the former Yugoslavia, may have been durable enough for such analyses, but data availability from these states is limited. How, then, should researchers ascertain validity outside of the few durable regimes such as Malaysia, Egypt, and Mexico before 2000? One suggestion proceeds from Robert Keller and Ann Mari May's hallmark study of the Nixon administration's manipulation of economic policy in months preceding the 1972 US Presidential elections (Keller and May 1984). Focused studies of particular elections in relevant non-democratic regimes should indicate further instances or absences of economic policy manipulation associated with elections under non-democratic regimes with different institutional and socio-economic characteristics, contributing to the universe of cases from which to test the theory proposed here.

One might ask whether or not the findings here are surprising. After all, the Malaysian government advertises itself as a parliamentary democracy, and many researchers have found PBCs in other democratic countries—is this not just an example of a democratic government (or a government that approaches democratic practices) behaving as we should expect? It is important to recall, however, that the Malaysian regime has progressively distanced itself from actual democratic practices in favor of authoritarian controls to *ensure* electoral victories. It then employs these victories as evidence that the government is popular. It is not at all obvious that the autocratic governments like Malaysia should manipulate official economic policy—note

again that these are not off-budget slush funds, but the government's actual macroeconomic position—for electoral gain.

The findings of this study suggest a number of conclusions regarding political science's approach to the study of non-democratic regimes and the formation of economic and investment policies. In the realm of economic policy making, this study indicates that electoral considerations can determine in at least some states the fiscal policies of authoritarian regimes. While Malaysia chose not to seek funds from the IMF during the Asian Crisis, international lending agencies and private banking institutions alike may fail to attend to the electoral influences on the fiscal policy decisions of autocratic governments facing economic hardships. In non-democratic states similar to Malaysia, the model predicts electoral effects on macroeconomic policy similar to those found here. Failure to understand implications of this model, that the willingness of certain non-democratic states to adhere to external pressures regarding their fiscal policies may vary due to electoral considerations, may include unsuccessful policy demands placed on authoritarian states or perceived non-compliance of authoritarian regimes to international financial agreements.

The second conclusion is related to the status of the political business cycle in cross-national research. This study has adopted the logic of the PBC and the refinements of its supporters and critics to demonstrate the possibility of electorally motivated fiscal policy cycles in a certain class of non-democratic regimes. However, it is important to recognize the differences between the PBC model adopted here and the PBC as first formulated in Nordhaus (1975). The PBC is vulnerable to a rational expectations critique, depending critically on an informational asymmetry between the government and its population and comparatively unsophisticated voting behavior. Nordhaus studied economic outcomes such as inflation over

which the government has only indirect control and which rational investors can arbitrage away, while I have studied fiscal policy, an economic outcome over which the government has direct control. The PBC has at times been at the forefront of political research, and with varying levels of success, but the present study makes explicit the institutional characteristics that are relevant for understanding when and how electorally motivated economic policy manipulation will take place.¹⁹

With reference to studies of Malaysian politics, another, more unique, conclusion emerges from this study. Observers of Malaysian politics have long known that the federal government uses development grants (and the threat of withholding them) as carrots (and sticks) during elections. Anecdotal evidence of such behavior from the regime is widespread, but we know relatively little about the government's position on this expenditure. Specifically, no study of development expenditure in Malaysia has asked whether the government simply reallocates existing, already budgeted development funds to shore up support, or actually manipulates the government's overall fiscal position during elections. The evidence presented here is consistent with the latter interpretation. Rather than changing the division of the development funding pie, the government increases the size of that pie.

A final conclusion regards the ways in which political scientists conceive of the domestic politics of non-democratic regimes. The research in this study follows a particular conception of the electoral considerations of authoritarian regimes that focuses on the legitimacy goal of non-democratic states and the means that incumbent regimes in these states employ to attain such a goal. This study has demonstrated robust support for its primary hypothesis, lending at least partial credence to the theoretical argument from which it precedes. Support for the theoretical argument, then, suggests that other conventional conceptions of authoritarian governance may

not be attentive to all of the relevant political determinants of policy making in areas other than macroeconomic policy. More thorough study of the political economy of policy making in non-democratic states has lagged behind similar studies in democratic regimes, but this study shows that there is interesting work to be done.

Appendix

Estimators and Functional Forms I identify using standard techniques a four-period seasonal effect, and also check that no other autoregressive or moving average effects influence the temporal distribution of Government Deficit (see also above). The functional form of a seasonal autoregressive estimator is

$$(1) \quad \begin{aligned} Y_t &= \beta * X_t + u_t \\ (1 - \phi L^k)u_t &= \varepsilon_t \end{aligned}$$

where $L^n x_t = x_{t-n}$. See Mills (1990: 164-198) for a discussion of the identification of seasonality in time-series data.

Equation (2) describes the model of the balance of government accounts employed in the estimations.

$$(2) \quad GOVSUR_t = \beta_0 + \beta_{1t...kt} * X_{1t...kt} + \beta_{k+1t} * ELECTCURR_t + \varphi_{t-4} + \varepsilon_t$$

In this equation, the variables X_1 to X_k correspond to the vector of k confounding independent variables included in each specification; φ_{t-4} is the seasonality term, lagged four quarters; and ε_t is a disturbance term.

Estimation Results with Autocorrelation Terms Table 6 builds on the results for Model 2 in the text (Table 3), progressively adding autocorrelation terms to check for time-series effects in the formation of government budgets.

TABLE 6
Estimation Results with Autocorrelation Terms

Independent Variable	Model 12	Model 13	Model 14	Model 15
Constant	0.003023 (0.13107)	0.006769 (0.096721)	-0.00671 (0.006503)	0.135313 (1.359767)
GDP	0.024875 (0.276733)	0.175924 (0.215561)	0.333964 (0.267249)	0.193698 (0.231836)
REVENUE	0.308436 ** (0.097141)	0.27908 ** (0.089972)	0.209269 ** (0.076874)	0.3043 ** (0.099512)
ELECTCURR	-0.06747 * (0.028284)	-0.06561 * (0.025278)	-0.0491 * (0.02353)	-0.06027 * (0.024528)
AR(1)	-0.58503 *** (0.091413)	-0.8026 *** (0.075257)	-0.97802 *** (0.029002)	-0.62755 *** (0.08606)
AR(2)	—	-0.3764 *** (0.084578)	-0.96733 *** (0.037856)	-0.21147 † (0.118976)
AR(3)	—	—	-0.96329 *** (0.051746)	0.046092 (0.133053)
AR(4)	—	—	—	-0.31355 ** (0.09777)
SAR(4)	0.951301 *** (0.053723)	0.956764 *** (0.05873)	-0.19415 † (0.115305)	0.995967 *** (0.036349)
Adjusted R ²	0.865234	0.882442	0.87828	0.898072
Log-likelihood	94.57561	101.8265	99.00632	108.4345

Standard errors in parentheses. † = statistically significant at the $\alpha < .1$ level. * = statistically significant at the $\alpha < .05$ level. ** = statistically significant at the $\alpha < .01$ level. *** = statistically significant at the $\alpha < .001$ level.

GARCH Estimation GARCH models do not require stationarity in the variance of the dependent variable, an important assumption in time-series least squares regressions. Instead, GARCH models estimate the variance of the dependent variable as a function of the past

variance of the dependent variable and the estimated past variance of the dependent variable. I further correct for residual heteroskedasticity by reporting Bollerslev-Wooldridge robust standard errors—analogueous to White’s heteroskedasticity-consistent standard errors in the context of a GARCH model (Bollerslev and Wooldridge 1992).

Equation (3) describes the mean equation, and Equation (4) describes the variance equation.

$$(3) \quad GOVSUR_t = \beta_0 + \beta_{1t...kt} * X_{1t...kt} + \beta_{k+1t} * ELECTCURR_t + \phi_{t-4} + \varepsilon_t$$

$$\varepsilon_t | \psi_{t-1} = N(0, h_t)$$

$$(4) \quad h_t = \alpha_0 + \alpha_1 \varepsilon_{t-1}^2 + \alpha_2 h_{t-1}$$

The mean equation is identical to (2) above, except for now ε_t is distributed with zero mean and variance h_t conditional on previous information ψ_{t-1} . The variance equation models h_t as a function of variance of the previous observation ε_{t-1}^2 and of the estimated variance of the previous observation h_{t-1} .²⁰ Table 7 shows parameter estimates from a specification including those for the seasonality term and the estimated variance equation.

TABLE 7
GARCH (1,1) Estimation

Independent Variable	Model 16	Model 17	Model 18
C	-0.04447 (0.124528)	-0.03963 (0.188206)	0.045779 (0.114911)
GDP	-0.24547 (0.268467)	-0.21387 (0.334772)	-0.15918 (0.311278)
REVENUE	—	0.295913 *** (0.078585)	0.246977 ** (0.081136)
OPEN	—	—	-0.7374 * (0.338274)
ELECTCURR	-0.03129 (0.03919)	-0.07648 ** (0.023627)	-0.15885 *** (0.040674)
SAR(4)	0.93049 ***	0.954104 ***	0.941208 ***

	(0.031772)	(0.033209)	(0.044312)
Variation Equation			
C	0.01505 *** (0.00286)	0.014213 (0.009145)	0.011802 * (0.005036)
ARCH(1)	0.566006 *** (0.130422)	0.304882 ** (0.096699)	0.472174 *** (0.130453)
GARCH(1)	-0.26337 *** (0.058032)	-0.31417 (0.415509)	-0.16305 (0.130669)
Adjusted R ²	0.77427	0.793348	0.789858
Log-Likelihood	74.24653	80.67327	76.56034

Standard errors in parentheses. * = statistically significant at the $\alpha < .05$ level.
 ** = statistically significant at the $\alpha < .01$ level. *** = statistically significant at the $\alpha < .001$ level.

Although the significance of *ELECTCURR* drops out in the Model 16, its coefficient remains consistent and highly statistically significant in Models 17 and 18.

Data Sources I derived the variables *GDP*, *REVENUE*, *OPEN*, and *GOVSUR* come from the International Monetary Fund's International Financial Statistics database. I adjusted the variables using the implicit GDP deflator to obtain figures in constant 2002 ringgit. Because of data limitations, an average quarterly GDP level based on annual GDP is a proxy for quarterly GDP from 1967-1990. The dates of Malaysian general elections were obtained from Stern (1997).

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¹ In many countries, some individual races are competitive, but the likelihood that the opposition will win enough seats to unseat the ruling party remains almost nonexistent.

² A more extensive review of the literature can be found in Clark et al. (1998: 88-92).

³ I do not offer support for this assumption along explicit theoretical grounds, as it is not the focus of this study and it appears to have anecdotal empirical support in cases including Brazil (Geddes and Zaller 1989) and China (Chen, Zhong, and Hillard 1997).

⁴ It is certainly possible for an incumbent government under a system of competitive authoritarianism to employ many tactics of electoral manipulation. The case of Malaysia provides an example of a regime that uses fiscal policy to complement other, more unpleasant, methods of electoral subterfuge.

⁵ See e.g. Bennett (2000) for a review of the effects of differing levels of political information on political behavior.

⁶ On Malaysia's electoral system, see Puthucheary and Norani (2005).

⁷ Students of Southeast Asian politics variously refer to the political system of Malaysia as "semi-democracy" (Case 2002: ch. 4), "pseudodemocracy" (Case 2001); "neither authoritarian nor democratic" (Crouch 1993), "statist democracy" (Jesudason 1993), "authoritarian populism" (Munro-Kua 1996), or "soft authoritarianism" (Means 1996).

⁸ In fact, the Malay opposition party PAS has resorted to many of UMNO's tactics as well. In response, the government has begun to gerrymander districts in PAS strongholds in order to split the Islamist vote.

⁹ After public concern with corrupt business-government relations rose in the mid-1980s, the government amended the Official Secrets Act of 1972 to declare that the press may no longer discuss government tenders and privatization contracts, even after their completion (Jomo 1994: 277-281; Means 1991: 122).

¹⁰ Spending is the variable of interest, but deficits allow us to capture the fact that the possibility of spending is contingent on revenue, especially with revenue as a regressor.

¹¹ A good economic summary of the crisis is Radelet and Sachs (1998).(2000)

¹² A pro-government review of how the regime handled the crisis may be found in Tourres (2003). A more balanced account is Jomo (2001).

¹³ ADF tests of the logged and first-differenced time series strongly reject the null hypothesis that there is a unit root in any transformed variable. The t-statistics for the transformations of *GOVSUR*, *GDP*, *REVENUE*, and *OPEN* obtained from the tests are -5.45776, -3.59217, -7.77708, and -5.83539, respectively. The critical t-statistic for 99% confidence is -3.48755.

¹⁴ The *size* of the coefficient on *ELECTCURR* are not robust to the inclusion of the data points that surround the Asian financial crisis in the late 1990s—including this data almost doubles its value. This is consistent with the supposition that the data points that correspond to the Asian financial crisis caused a massive increase in the Malaysian government deficit directly preceding a parliamentary election, thereby obscuring the average effect of elections on governmental deficits.

¹⁵ *OPEN* may also be overly colinear with *GDP*, which is the denominator for calculating *OPEN*—and note also *GDP* is also insignificant. To check, I explored Model 3 using other measures of trade openness, including (1) the sum of exports and imports, (2) “real openness,” defined as the sum of exports and imports divided by the consumer price index, (3) the balance

of foreign trade, and (4) logs and first differences of these variables. The variable is never significant at anywhere close to conventional levels, and *GDP* remains insignificant as well, but the coefficients and standard errors on *ELECTCURR* and *REVENUE* remain almost unchanged.

¹⁶ Here, actual future economic performance is a proxy for expected future economic performance.

¹⁷ All three also banned certain groups from contesting elections as parties: in Malaysia, the Communist Party; in Mexico under the PRI, religious parties; and Egypt, the Muslim Brotherhood.

¹⁸ I thank an anonymous reviewer for highlighting this point.

¹⁹ A new twist on the institutional determinants of economic policy manipulation in democracies is Kayser (2005).

²⁰ I estimate here a GARCH(1,1) model. I choose this functional form by employing a likelihood ratio test in the most general model that includes all hypothesized regressors. The LR-test statistic is 2.494, which cannot reject the null hypothesis that no additional information is obtained using a GARCH(2,1) specification ($\chi^2(1) = 0.1142$).