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FISCAL MANIPULATION IN NON-DEMOCRATIC REGIMES: THE CASE OF EGYPT

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#### Abstract

This paper's main objective is to examine whether fiscal policy in the pre-revolution Egypt has been systematically affected by the political budget cycle (PBC). According to the PBC theory, we should not find evidence of electoral manipulation of the economy, since politicians in non-democratic regimes do enjoy a wide range of tools that can be used to bias an election in their favor. We verify this hypothesis. Our analysis suggests that public revenues, rather than expenditures, are the ones that suffer from a political cycle. More particularly, we find that tax revenues are negatively affected ahead of election years, suggesting that incumbent governments may be resorting to tax cuts in exchange of political finance. The paper also sheds some light on political finance rules in Egypt, an institutional aspect that is necessary to avoid fiscal manipulation for political reasons.

JEL Classification: H2, H3, E62

Keywords: Political budget cycles, fiscal policy, Egypt

#### ملخص

هدف هذه الورقة الرئيسي هو دراسة ما إذا كانت السياسة المالية في مصر ما قبل الثورة تأثرت بشكل منتظم من قبل دورة الميزانية السياسية . وفقا لدورة الميزانية السياسية ، ينبغي لنا أن لانجد دليلا على تلاعب انتخابي للاقتصاد، حيث أن السياسيين في الأنظمة غير الديموقر اطية يتمتعون بمجموعة واسعة من الأدوات التي يمكن استخدامها لخلق تحيز في الانتخابات لصالحهم. نتحقق من هذه الفرضية. يشير تحليلنا إلى أن الإيرادات العامة، بدلا من النفقات، هي تلك التي تعاني من الدورة السياسية. على وجه الخصوص، نجد أن عائدات الضرائب تتأثر سلبا قبل سنوات الانتخابات، مما يشير إلى أن الحكومات الحالية قد تلجأ الى تخفيضات ضريبية في مقابل المال السياسي. تلقي الورقة بعض الضوء على قواعد التمويل السياسي في مصر، وهو الجانب المؤسسي الضروري لتجنب التلاعب المالي لأسباب سياسية.

#### 1. Introduction

Political budget cycles (PBC) refer to cycles during which some components of the government budget are influenced by the electoral cycle, thus inducing an increase in government spending or a decrease in taxes in an election year, leading to a larger fiscal deficit. Pre-electoral fiscal manipulation is a tool that governments possess to increase their chances for reelection.

Despite a large literature on political budget cycles, little attention has been paid to fiscal policy manipulation in non-democratic regimes. The question that arises normally from the above theory is the following. If politicians in democratic countries use fiscal policy tools to bias an election in their favor and ensure their victory, do politicians in non-democratic regimes need to resort to the same manipulations tools? And why would they do so when elections are non-competitive or are systematically manipulated to such an extent that the likelihood of government turnover due to an electoral loss is quite low?

Gandhi and Przeworski's (2007) argue that authoritarian rulers employ democratic political institutions to enhance regime stability. The answer to the above questions could be in this case that, even in non-democratic regimes, political motivations can have consequences for economic policy. Elections in this case have as a role to confer legitimacy to the regime and demonstrate political authority to opposition groups. This happens more particularly where political institutions and voter awareness make simply defrauding of the population unfeasible or too costly. Manipulating public spending and revenues then becomes an important determinant of the regime's legitimacy.

During the last three decades, Egypt was a model of what is called in the literature a "competitive authoritarian regime" (Levitsky and Way 2002), where elections were mostly non-consequential. After the 2011 revolution, the country aspires to adopt a democratic form of government but is still in the very early stages of democratic institutions building. It is widely acknowledged that the ability of a nascent democracy to maintain popular support depends substantially on the ability of its new policy makers to deliver a good economic performance. So if politicians under the authoritarian regimes resorted to fiscal manipulation to achieve political gains, are the new leaders in the young democracy likely to face the same trade-offs between political motivations and fiscal consolidation? And what are in this case the needed reforms to guarantee an efficient and apolitical management of public finance?

This article's main objective is to examine whether fiscal policy in the pre-revolution Egypt has been systematically affected by the PBC. According to the PBC theory, we should not find evidence of electoral manipulation of the economy, since politicians in non-democratic regimes do enjoy a wide range of tools that can be used to bias an election in their favor. We verify this hypothesis. We also give particular attention to the magnitude and composition (revenue vs. spending) of the public budget to see if there are specific components that are affected by the cycles. The paper's goal is to contribute to the on-going debates on the interplay of politics and fiscal policy, and provide some policy options aimed at minimizing potential disruptions of fiscal policy ahead of elections.

Our analysis suggests that public revenues, rather than expenditures, are the ones that suffer from a political cycle. More particularly, we find that tax revenues are negatively affected during election years, suggesting that incumbent governments may be resorting to tax cuts in exchange of political finance. These results provide some suggestive evidence that tax policy, rather than public spending (as commonly assumed), may be the driving force for PBCs in Egypt.

Shedding light on the political budget cycles in Egypt seems very timely at a moment when the country is undergoing a prolonged process of democratic transition that should exceed the political arena to cover the economic system. Since Egypt was one of the countries that fit into the description of an authoritarian regime with democratic electoral institutions, the analysis presented above will allow testing whether the management of public finance is affected by elections. If validated, the model can provide an evidence for political budget cycles in non-democratic regimes where elections matter. It also provides some suggestions of reforms that are needed to minimize the distortions in an economy that is already characterized by endemic corruption and rent-seeking.

The paper is organized as follows. The first section is dedicated to the review of the rich literature on political budget cycles in both non-democratic regimes and in new democracies. In the next section, we analyze the case of Egypt, a country with a long history of elections under an autocratic regime and that is, at the same time, suffering from persistently bad public finances reflected in high and increasing budget deficits and high levels of public debt. It focuses on the resources and expenditures as measured in the government's accounts, in an attempt to see if there are uncovered relationships between budget resources and allocation on one hand, and the electoral cycle on the other hand. To verify this relationship, we undertake an econometric analysis to test if the State budget is being manipulated ahead of elections for political motivations. Finally, section 4 discusses the institutional arrangements that are likely to shape the way of financing politics in Egypt. We focus on two institutional aspects that are needed to avoid fiscal manipulation for political reasons, namely the budget elaboration process and the rules controlling the use of private funds in election campaigns. The objective is to see the extent to which institutional arrangements are (or are not) conducive to good governance of public finances. It also presents policy recommendations to strengthen the independence of fiscal policy from short-term incentives of politicians.

### 2. "Voters Care about the Economy, Politicians Care about Power", A Literature Review

Economists and political scientists have long been intrigued by the coincidence of elections and economic policy cycles. Political business cycle (PBC) theories appeared to explain why, in election years, government spending increases while revenues fall, leading to a larger deficit in these election years. This comes in the form of governments' behavior in those politically-sensitive years during which public spending is not only increased, but is also directed towards projects with high immediate visibility, taxes are cut and transfers are raised. Nordhaus (1975) was the first to investigate, in democratic systems, a model of public choice where economic decisions are made within a political framework. Initially applied to the choice between inflation and unemployment, it was then extended to see whether voter behavior is sensitive to both these variables in their electoral choice. The model was then applied to other problems of choice, including the fiscal policy. The main idea is that, given their strive to remain in office as long as possible, politicians usually attempt to create the most desirable economic conditions right before elections, even if their policies will have negative consequences on the long run or require costly adjustments after the elections.

The question that arises normally from the above theory is the following. If politicians in democratic countries use fiscal policy tools to bias an election in their favor and ensure their victory, do politicians in non-democratic regimes need to resort to the same manipulations tools? And why would they do so when elections are non-competitive or are systematically manipulated to such an extent that the likelihood of government turnover due to an electoral loss is quite low?

In the 2000s, the theoretical interest shifted towards non-democratic politics, and the role of political institutions—including fiscal policy institutions—in autocratic regimes. The more intriguing question has then become the following: if elections results in non-democratic regimes depend more on practices ranging from vote buying, vote stealing and filling ballot

boxes to imprisoning political opponents, why would politicians need to resort to fiscal manipulation when they are sure of the elections results? In other terms, why would elections have any impact on public policies?

The first plausible explanation for fiscal manipulation in non-democratic regimes focuses on the legitimating quality of elections, both domestically and internationally (Hermet 1978). Holding elections is an effective political tool to reduce social and political pressures against the rulers in power. Hence, political manipulation of the economy may be simply less costly than electoral fraud, especially in societies with some level of political awareness. In such cases, employing subtle means to win the elections, such as fiscal manipulation, is more attractive than fraud. Apart from the elections forced on dictators by international financial institutions, opposition movements, or occupying forces, Geddes (2006)presents another justification of why dictators so often invest in parties and hold elections. She explains that dictators spend scarce resources on elections, because they serve as a counterbalance to other intra-regime factions or to the military.

Another motivation for fiscal manipulation in non-democratic countries can be found in the rulers' need to increase the regime's durability and stability. In his study on autocratic regimes' survival versus transitions, Brownlee (2002) studies the *neopatrimonial* regimes, which are those in which the leader treats the state as his private fieldom and gives only rhetorical attention to formal political institutions. He analyzes how but also why (under what conditions) neopatrimonial regimes break down or persist. His research is interesting in the sense that it provides an explanation for the non-transition in neopatrimonial regimes who manage to escape breakdown even in times of crises. Manipulating public policies here is one of the tools to ensure the regime's survival and resilience.

Gandhi and Przeworski (2007) present another view related to the regime's survival. They argue that when dictators use political institutions (such as elections) to incorporate potential opposition forces (such as other political parties), giving them a stake in the dictator's survival.

In their definitions of hybrid political regimes, Levitsky and Way (2002)introduced another type of political regime, *competitive authoritarianism*, in which formal democratic institutions are widely viewed as the principal means of obtaining and exercising political authority, but where rules violations are both frequent enough and serious enough that the regime cannot be described as democratic. In such systems, it is more likely that the regime uses fiscal policy manipulation rather than violence and intimidation to ensure electoral victory. Contrary to the previous regimes described by Brownlee, elections in these countries are regularly held and are generally free of massive fraud, but incumbents abuse state resources alongside with manipulating electoral results to ensure their victory. These regimes fall short of democracy, but they also fall short of full-scale authoritarianism. Hence, incumbents are more likely to use more subtle forms, including fiscal policy manipulation.

Given the above incentives, one would expect that political institutions (including the elections) in non-democratic regimes too would probably affect government policy, in support of the existence of PBCs in these countries as well. However, critiques to the PBC theory that also apply to non-democratic countries have emerged, based on the *rational expectations* theory, and the assumption that citizens cannot be fooled by governments' tactics. They argue that economic agents would surely recognize that incumbent regimes had this incentive and behave strategically so that such political manipulations become useless. Golden and Poterba (1980) criticized the work on the political business cycle, arguing that it has failed to consider the extent to which politicians can actually determine their popularity by manipulating economic policy. They suggest that politicians' power is quite limited, and that the long and uncertain lags in the use of macroeconomic policy, in addition to the

political risks weaken the underlying logic of the political business cycle hypothesis. Schultz (1995) also criticizes PBC models that do not differentiate between governments incentives to manipulate the economy that may vary at each election, depending upon their political needs at the time. He argues that governments who are likely to be re-elected have no gain in inducing cycles that are costly because of their impact on both the government's reputation and future macroeconomic performance.

However, a number of research work responded to the rational expectations theory, stating that political business cycle theories generally rely on nominal rigidities and voter myopia. Others underline the existence of a critical informational asymmetry between governments and the rest of society and explain that electoral cycles in taxes, government spending and money growth are driven by temporary information asymmetries which can arise if the government has more current information on its performance (Rogoff 1990; Rogoff and Sibert1988). Fiscal manipulation in this case occurs when voters are unable to observe all the details of the budget, or if they are able to observe only part of the projects undertaken by the government ("visible" expenditures). In that sense, the accumulation of debt that arises from the opportunistic behavior of politicians depends on how transparent the budget is. Since incumbent governments have a better understanding of the future of the economy than other economic actors, they usually use this advantage to enact economic manipulations.

Attempts to empirically study the PBC hypothesis started with a focus on industrialized—and democratic-countries, and were first interested to see the impact of elections on macroeconomic variables such as growth, employment or inflation. As early as 1978, Frey and Schneider constructed a simple model to study the interaction between the economy and the polity (government) in the USA. Using quarterly data from 1953 to1975, their results indicate that for the period considered, economic conditions influence presidential popularity, and that this in turn motivates the use of policy instruments-which then influence general economic conditions. Likewise, Tufte (1978) provides evidence that both the British and American governments pursue expansionary policies in election years. Beck (1987) tests the same hypothesis to see if there is a political monetary cycle in the USA. He finds no cycles in monetary instruments but a cycle in the money supply that disappears when fiscal policy is held constant. Grier (1989)also finds a significant four-year electoral cycle influence on monetary policy as measured by M1 money growth, even when controlling for the influence of interest rates, income, and budget deficits. Persson and Tabellini (2003) investigate the question in a dataset encompassing sixty democracies from 1960 to 1998 and find that taxes are cut before elections, painful fiscal adjustments are postponed until after the elections, while welfare-state spending displays no electoral cycle.

However, other empirical work shed some doubts on the theory. Golden and Poterba (1980) estimate reaction functions for various policy instruments in the United States. Their results do not support the PBC hypothesis as an explanation of macroeconomic policy, as they find that policy or economic conditions are similar in both election and nonelection years. Alesina and Roubini (1992)tested the theory on 18 OECD countries and reject the hypothesis of a political business cycle on output or employment.

While most of the empirical literature on electoral budget cycles has started with a focus on developed (and democratic) countries, certain research studies attempted to look at both developed and non-developed countries together. Persson and Tabellini (2003) find no preelectoral change of government expenditure or surplus in a large sample of both developed and less developed economies, and a similar finding is reported by Brender and Drazen (2005). However, they interpret their finding as an indication that political deficit cycles emerge only in contexts where voters and the media have not yet acquired the ability to efficiently monitor fiscal policy, suggesting that a distinction has to be made between "new" and "established" democracies. According to this interpretation, the PBC only reflects the experience of new democracies in the first few years after their transition to democratic regimes.

On the impact of the political cycle on specific fiscal variables, Medina and Lema (2004) empirically analyze the evidence of cycles in fiscal deficit and in expenditure in the Argentine provinces for the period 1985-2001; they present subnational evidence of electorally-motivated changes in the level of public expenditures, budgetary deficits and composition of public expenditures. Bugarin (2006) takes another perspective and analyzes, in Brazil, the effect of elections on subnational fiscal policy after debt renegotiations between local (state) governments and the Federal government. He shows that elections bring about new incentives for nonpayment of debt interests to the Federal government.

The 2000s have witnessed an increased interest in the case of non-democracies, which are most of the time also developing countries. The empirical evidence from non-democratic countries seems to be somehow different. For example, some studies suggest that elections and government changes can affect the exchange rate policy. Frieden, Ghezziand Stein (2000) explore whether major political events such as elections and changes in government affect the pattern of nominal and real exchange rates in Latin American countries. Their study finds strong evidence that devaluations tend to be delayed in the run-up to elections, and only occur immediately after the new government takes office, which supports the theory that elections and government changes can also affect the exchange rate policy.

Block(2002) results also provide evidence on this and on the manipulation of fiscal policy. Using annual observations (1980-1995) for 44 Sub-Saharan African countries, his crosscountry analysis reveals clear patterns of electorally-timed interventions in both key fiscal and monetary policy variables. Schuknecht (2000) takes a step further and empirically looks in more detail at the fiscal policy instruments with which governments try to influence the election. In his study on 24 developing countries for the 1973-92 period, he finds that the main vehicle for expansionary fiscal policies around elections is increasing public expenditure rather than lowering taxes, and that public investment cycles seem particularly prominent. In a different approach, Hyde and O'Mahony (2010) extend the analysis of PBCs to examine international influences on governments' decisions to engage in pre-electoral fiscal manipulation. Using data from 1990 to 2004 for 94 developing countries, they find that international scrutiny of the economy and elections affect pre-electoral fiscal manipulation and show that pre-electoral fiscal manipulation is more likely when international election monitors make direct election manipulation more difficult.

On the case of Egypt, some authors have looked at the interconnection between politics and the economic policies and outcome. Soliman (2011) provides a qualitative and descriptive analysis on how the distribution of public expenditures and certain categories of spending (namely the spending on security, defense, culture, religion and education) were modified in response to certain political situation in the 1990s. He argues that the Egyptian regime was much quicker and firmer in its response to security needs than its response to its economic development needs. Sowers (2012) looks at another domain where politics have an impact on public policy in Egypt. Drawing on fieldwork conducted in Egypt between 1997 and 2010, she explores the dynamics in the environmental policy domains in Egypt and traces attempts by environmental networks to affect public policy making and social protest under the authoritarian rule in Egypt.

The only research work we are aware of that has addressed a similar research question was done by Blaydes (2011), who investigates the existence of opportunistic electoral budget cycles in Egypt. Her qualitative analysis describes specific mechanisms by which the regime courts three important constituencies, namely the public sector employees, farmers, and the

urban poor. She also investigates the existence of quantitative evidence pointing to the existence of opportunistic electoral budget cycles in Egypt from 1981 to 2006, through the impact of elections on inflation, average daily calorie consumption, total reserves, claims on the government and the exchange rate. Her results suggest that political motivations have a number of tangible effects including election-year inflation, a pre-election drain on reserves, and even a higher level of per capita calorie consumption in election years. However, to the best of our knowledge, no attempts have been made to explore the potential impact of PBCs on public finance management in Egypt.

#### 3. Empirical investigations

In this section, we empirically investigate the case of Egypt in search of a possible opportunistic manipulation of fiscal policy. More specifically, did subsequent governments in Egypt use fiscal policy tools ahead of elections? And if that is the case, what is the mechanism through which they act to influence the elections results? The question is relevant and timely. It is relevant given the bad stance of public finances and the high and increasing public deficit and debt. And it is timely in this transitional period that Egypt is going through in order to know the real impediments to undertaking fiscal consolidation and adjustments. The hypothesis under consideration suggests that political factors (represented here by the parliamentary elections) in Egypt lead to an imbalance (in the form of larger deficits and spending and/or lower revenues) in the government's accounts. In other words, the question is to know whether fiscal policy in Egypt is politically manipulated. Reliance on such strategies would also have serious implications for the durability of authoritarianism and the possibility of a successful democratic transition in Egypt.

#### 3.1 Methodology

Theories about political economy tell us only generally how political processes might affect the economic outcome we care about. Less often still, theory will provide enough guidance for an exact dynamic specification. When this is the case, econometric theory is clear: analysts should start with a general model (the inclusion of particular X (and Y) as well as lags) before testing the model with restrictions (De Boefand Keele2008). When working with stationary data and weakly exogenous regressors, using an autoregressive distributed lag (ADL) model fits our exercise purpose. The general model comes in the following form:

$$\underline{\mathbf{Y}}_{t} = \alpha_0 + \sum_{i=1}^{p} \alpha_i \underline{\mathbf{Y}}_{t-i} + \sum_{j=1}^{n} \sum_{i=0}^{q} \beta_{jp} \underline{\mathbf{X}}_{jt-i} + \boldsymbol{\epsilon}_t \qquad Equation 1$$

where *p* refers to the number of lags of the stationary dependent variable  $Y_t$ , *q* the number of lags of  $X_t$ , and *n* the number of exogenous regressors included in the model. Starting from this model, we can test the appropriate restriction on the ADL model to be used.

#### 3.2 Data

We use various categories of fiscal variables produced by the Egyptian government for the budget sector. The best method was to use the variables in the form of quarterly seasonally-adjusted series. However, fiscal data that is available on a quarterly basis starts only in 2005. Annual data is available since 1987, which makes exactly the same number of observations as the quarterly data. However, using the higher frequency does not only make a short series but, more importantly, it covers only two elections (in 2005 and 2010) and, hence, cannot be representative of an electoral opportunism behavior. That is why we use annual data for the period 1987-2011 in our empirical tests.

We estimate the effects of political drives (proxied by the parliamentary elections) on fiscal policy using public finance variables, including the government's deficit, total revenues and

total expenditure. We also look at specific items within both the revenues (tax revenues) and expenditure sides (wages and subsidies)<sup>1</sup>. We consider these spending indicators as the most highly visible components of government spending, and hence the most likely to be manipulated by a government for electoral purposes.

Given the nature of government finances, we control for other potential sources of cyclical behavior in the economy that may affect the government's policy decisions, independently of political events, as well as for other factors that are expected to influence some of our fiscal variables. To this end, we use real GDP, which captures the intuition that higher levels of GDP should lead to smaller government deficits. We also include a variable representing international food prices because Egypt is a net importer of food, especially the items that are subsidized by the government such as wheat.

The political variable relates to the election calendar. The paper covers six parliamentary elections. Starting the 90s, parliamentary elections in Egypt take place every five years. We introduce a dummy variable to represent the elections. Following the opportunistic political cycles literature, this variable takes the value of one during the election year and the year before, and zero otherwise. The practice of using dummy variables to code elections is consistent with most of the recent studies of PBCs. The reason we code for the year preceding the elections is to test whether the manipulation starts in anticipation of elections being called.<sup>2</sup>

All data on the Egyptian economy is taken from national sources. Fiscal data comes from the Ministry of Finance (MOF), and data on GDP is produced by the Ministry of Economic Development (MOED). Variables are deflated by the GDP deflator and expressed in constant terms. The dates of parliamentary elections were obtained from Hilal(1997) and Helmy(2011). Finally, data on world food prices are retrieved from the GEM Commodities database produced by the World Bank on international commodity prices. All variables in the equation are expressed in a log-linear form.

#### 3.3 Estimations

The PBC hypothesis presented above suggests that elections in Egypt would lead to larger deficits in the balance of government accounts. Figure 1 below plots the fiscal deficit as a percentage of GDP in Egypt, for the years 1987 to 2011. A first impression that comes to one's mind when seeing the evolution of the deficit is that fiscal policy has been erratic, with some periods of fiscal deterioration and other periods of successful adjustments. But in all cases, the figures have always been on the negative side, which means that for more than the last three decades at least, the government's budget has not achieved any surpluses in one single year. The only years that have witnessed a significant fiscal consolidation (that, however, did not last) where the beginning of the 1990s, when Egypt embarked in an economic reform and structural adjustment program (ERSAP) under the IMF supervision. During those years, it is expected that the government has to achieve an improvement in the public finances position and, hence, it has a very little margin of maneuver to manipulate the fiscal variables. To capture the effect of the IMF program, we introduce a dummy variable for the years 1991-1998 which are the years for which Egypt had received funds or had a financial arrangement with the IMF.

As a first intuition from visual inspection, plotting the fiscal deficit over time does not particularly show an increase during or before elections. However, this is done without

<sup>&</sup>lt;sup>1</sup>We use food subsidies for data availability reasons. Prior to 2006, energy subsidies were not explicitly listed in the state budget. Their inclusion starting 2006 creates a break in the data series.

<sup>&</sup>lt;sup>2</sup>In our analysis, we test for different specifications of the elections variable.

controlling for other variables. We use econometric techniques to test whether or not our hypothesis can be verified.

Since we are using annual data, we chose to specify our ADL model of equation 1 when p = q = n = 1. This gives the following general specification:

$$Y_{t} = \alpha_{0} + \alpha_{1}Y_{t-1} + \beta_{0}X_{t-1} + \beta_{1}X_{t+}\epsilon_{t}$$

The definitions of the variables we use are given below:

Variables definitions

| DEF   | Overall public deficit of the budget sector, in constant terms                                      |
|-------|---|
| EXPEN | Total public expenditure of the budget sector, in constant terms                                    |
| REV   | Total public revenues of the budget sector, in constant terms                                       |
| TAX   | Total tax revenues, in constant terms   |
| WAGE  | Total wages and salaries of public employees, in constant terms                                     |
| SUBS  | Total food subsidies (reported as subsidies to GASC), in constant terms                             |
| GDP   | Real GDP growth   |
| FOOD  | World food prices, 2000=100, constant 2000\$  |
| ELEC  | Dummy variable which takes the value of 1 in the election year and the year before, 0 otherwise     |
| IMF   | Dummy variable which takes the value of 1 in the years with IMF financial arrangement, 0 otherwise. |

Unit root testing is carried out in order to determine the degree of stationarity. Using the Augmented Dickey-Fuller (ADF) test, all series are found to be non-stationary. Once expressed in first differences, all the series turn out to be stationary.

We first estimate the effects of our independent variables on government deficit, expenditure, revenues and some of their respective components. We start with the general specification which includes one lag for each of the dependent and independent variables. The inclusion of a lagged dependent variable on the right hand side was particularly important to uncover electoral cycles and to capture the policy dynamics because fiscal variables usually show certain inertia. As we proceeded with our tests and according to the results, we started imposing restrictions on the parameters of the ADL by removing the lagged variables which are found to be significant only for some of our regressions.

Contrary to expectations, we find no evidence that Egyptian governments spend more in election years. As we can see from Table 1, both the public deficit and expenditure are not affected by the elections. The same applies for specific expenditure components that are likely to be manipulated, namely food subsidies and public wages. None of them is particularly affected during elections years.

On the contrary, the regressions reveal a statistically significant revenue cycle where revenues are found to be negatively affected by elections. A closer look into some of the State revenues' components reveals that the tax revenues are the one affected during the election years, suggesting that the government may be resorting to tax cuts for political purposes (Table 2). Our results provide some suggestive evidence that tax policy, rather than public spending (as commonly assumed), may be the driving force for PBCs in Egypt. These results are surprisingly similar to what Persson and Tabellini (2003) find for a sample of countries with democratic political institutions and competitive elections.

With these first results in hand, we go one step further to look into the specific categories of tax revenues that are likely to be affected by the political cycle.<sup>3</sup> As shown in Table 2, our estimations suggest that taxes on international trade and taxes on income and business profits are both negatively and significantly affected during the elections years, while the coefficient of the variable representing taxes on goods and services is not statistically significant.

Equation 2

<sup>&</sup>lt;sup>3</sup> Due to lack of disaggregated data and the shorter times series for detailed items of the budget, we apply the average relative shares of tax categories to the total tax revenues of years 1987-1990 to get the breakdown of tax revenues for those missing years.

Surprisingly, the coefficient of taxes on trade is higher than the one associated to the income taxes. However, this is compensated by the higher share of income taxes (45-50%) in the total tax revenues.

#### 3.4 Results interpretation

Our results suggest that in Egypt, elections only cause a contraction in fiscal resources, while public expenditures are not affected by the electoral cycle. On one hand, specific components of public expenditure, namely food subsidies and wages are also not particularly affected during elections. Our first interpretation of these results is that the politicians do not resort to increased expenditure through commitments that are hardly reversible. Increasing subsidies or wages are not measures that can be reversed after the elections years. Taken together, subsidies, wages and interest payments represent around 75 percent of the total expenditure, which leaves a tiny margin of maneuver to the government to play with. Besides, government can resort to inflation to reduce real wages but this would also have a high political cost in a context of high inflation.

Being cautious about the possibility of reversing the measures taken during elections can be particularly important in competitive authoritarian regimes where the incumbent government believes in its high chances to "win" the elections and remain in power.

On the other hand, the results point to a political revenue cycle, where government total revenues and tax revenues decrease before elections. This is broadly in line with results found, among others, by Klašnja (2008) for transition countries, by Persson and Tabellini (2003), and Brender and Drazen (2005) for established democraties, by Katsimi and Sarantides (2010) for OECD countries, as well as by Barberia and Avelino (2011) for Latin American countries.

One interpretation for this political revenue cycle is that tax policy decisions are more discretionary and easily reversible from a year to another. There is also a possibility for the distribution of benefits from tax breaks to be manipulated around election times in order to target narrow interest groups in return for campaign support. This is supported by the evidence on the nature of the taxes that are affected by the elections cycle, as both taxes on trade and on income and business profits can be easy manipulated by offering tax breaks to small groups of producers and importers, while cutting taxes on goods and services have a more widespread effect that is difficult to direct towards specific geographic areas, sectors, or groups. Using specific tax cuts rather than spending on popular consumption can be a smarter way to support the incumbent government since the released funds can be used to finance election campaigns, without the need to resort to public funds. When initial levels of fiscal deficits are already high, it might be difficult to increase spending in election years because those measures are hardly reversible afterwards. Consequently, the incumbent government may resort to confer tax breaks to the elite and to business that are close to the regime in exchange of financing their campaigns, leaving no impact on public spending.

#### 4. Policy Implications and Political Financing

In light of the foregoing, we present in this part the institutional arrangements that are likely to shape the way of financing politics in Egypt. As we concluded from the previous sections of this paper, there are two main channels through which money can be used in politics. The direct way is through increased spending ahead of election periods and the second one is to lower taxation. Lowering taxation before elections can be only a mean for applying expansionary measures, but it can also be one of the regime's tools to use the released private funds in financing its election campaigns. We argue that putting in place the necessary rules and enforcing them are the best way to avoid the fiscal manipulation for political reasons. Looking at the rules controlling the use of private funds in elections campaigns in Egypt, we find several points of weaknesses that could allow for political manipulation of the State budget. Transparency and disclosure are cornerstones in controlling the role of public finance in politics, whether directly through public expenditure or indirectly through lower taxation and the opportunity cost they represent. The purpose is to orient policy makers, reformminded legislators and the public in general who are concerned with the influence of politics on public finance. We argue that the need for more disclosure and enforcement are at the heart of any reform effort.

The rules of financing electoral campaigns in Egypt are defined in Law 38 of 1972 on the Egyptian Parliament, more particularly in article 11 of the law. The law indicates the need to comply with a specific ceiling (set at each election) that the applicants should not exceed for their elections' expenses. It prohibits the use of public funds, properties and state-run enterprises for election campaign purposes, and it also prohibits the use of *foreign* private funds to finance the election campaigns or to influence votes. Nevertheless, there is no provision regarding the use of private funds from domestic sources. In general, there are six main channels to control the influence of politics on public finances managements (ODG 2003), in particular when it comes to financing electoral campaigns. These are contribution limits, contribution bans, spending limits, campaign time limits, public disclosure and public finance. Of course, potential risks of playing around the rules remain and could manifest in the form of disguised income and over-spending, underground campaigns, dishonest reporting on large donors or private funding, to name only a few. This is why the adoption and implementation of any of the six channels mentioned above requires adequate rules of transparency and disclosure, as well as a strengthened enforcement of these rules, which may be achieved through the improvement of legal framework and addressing the institutional weaknesses of enforcement bodies. Of course, a more challenging control is the one regarding in-kind contributions<sup>4</sup>, which in many cases cost a considerable amount of money while being easily overlooked.

It is clear that limits and prohibition on the use of money in politics, known as *political finance*, cannot work without adequate rules of disclosure, and without appropriate measures of enforcement. There should be a system in place that ensures that candidates and parties report in details on their electoral campaign receipts and spending, and for these reports to be available for public scrutiny. Disclosure measures should provide answers to questions like: Who gives money? To whom the money goes? For what purpose and in exchange for what? These measures should also be comprehensive and enforceable enough to limit the influence of finance on politics and vice-versa.

#### 5. Conclusion

The use of public funding for political purposes can come in a more unexpected and indirect form than the traditional increases in public spending. In countries like Egypt where most of the expenditure items are not squeezable and where increases are not easily reversible, at least in the short term, incumbent governments may rely on other indirect means to achieve political gains. Our analysis suggests that resorting to private funds in exchange of tax breaks or lower taxation of large donors for example, can be one of the alternative sources of financing campaigns ahead of elections.

Political finance is a vital issue for Egypt, both on the political front as an emerging democracy and on the economic front as a country that suffers from unbalanced and unsustainable public finances situation. Hence, it is important for policy makers, reformoriented legislators, political leaders and scholars to promote and adopt measures to ensure a more coherent and effective disclosure and monitoring of public and private funds in order to limit their influence on Egypt's politics and public finances management.

<sup>&</sup>lt;sup>4</sup>See Blaydes (2011) for examples of unofficial income transfers to voters commonly used in Egypt during elections campaigns.

Adopting rules to control the role of money in politics seems to be very timely for Egypt which is about to draft and adopt a new constitution in 2012 that should carry foundational principles for democracy. It should also put the seeds for a more sustainable fiscal policy and public finances management.

#### References

- Akhmedov, A., and E. Zhuravskaya.2004. Opportunistic political cycles: Test in a young democracy setting. *The Quarterly Journal of Economics*119(4): 1301–38. MIT Press.
- Alesina, A., and N. Roubini.1992. Political cycles in OECD economies. *Review of Economic Studies*. 59 (4): 663–88.
- Barberia, L., and G. Avelino.2011. Do political budget cycles differ in Latin American democracies?*Economía*11(2): 101–34.
- Beck, N. 1987. Elections and the Fed: Is there a political monetary cycle?*American Journal* of *Political Science* 31 (1): 194–216.
- Blaydes, L. 2011.*Elections and distributive politics in Mubarak's Egypt*. New York: Cambridge University Press.
- Block, S. 2002. Political business cycles, democratization, and economic reform: The case of Africa. *Journal of Development Economics* 67 (1): 205–28.
- Brender, A., and A. Drazen.2005. Political budget cycles in new versus established democracies. *Journal of Monetary Economics* 52(7): 1271–95.
- Brownlee, J.M. 2002. ...And yet they persist: Explaining survival and transition in neopatrimonial regimes. *Studies in Comparative International Development* 37 (3): 35–63.
- Bugarin, M. 2006. Subnational debt renegotiation and elections: Experimentation and reputation in the Brazilian fiscal federalism. *Brazilian Review of Econometrics* 26: 67–104.
- De Boef, S., and L. Keele.2008. Taking time seriously. *American Journal of Political Science* 52 (1): 184–200.
- Drazen, A. 2001. The political business cycle after 25 Years. NBER Macroeconomics Annual 2000, Vol. 15.
- Drazen, A., and M. Eslava.2005. Electoral manipulation via expenditure composition: Theory and evidence. NBER Working Paper No. 11085.
- Frieden, J., P. Ghezzi and E. Stein.2000. Politics and exchange rates in Latin America. Inter-American Development Bank, Research Network Working paper #R-421.
- Frey, B., and F. Schneider.1978. An empirical study of politico-economic interaction in the United States. *Review of Economics and Statistics*60(2): 174–83.
- Gandhi, J., and A. Przeworski.2007. Authoritarian institutions and the survival of autocrats. *Comparative Political Studies*40(11) : 1279-301
- Geddes, B. 2006. Why parties and elections in authoritarian regimes? Paper presented at the annual meeting of the American Political Science Association, available online at

http://www.daniellazar.com/2008/06/29/why-parties-and-elections-in-authoritarianregimes/

- Golden, G., and J. Poterba.1980. The price of popularity: The political business cycle reexamined. *American Journal of Political Science* 24 (4): 696–714.
- Grier, K. 1989. On the Existence of a Political Monetary Cycle. American Journal of Political Science, 33(2):376-389

- Hilal, A. 1997.<*Tatawor 'al-nizam 'al-syassi 'al-masri (1803-1997)*>.(The evolution of the Egyptian political system 1803-1997). Cairo: Centre for Studies and Political Research, p.211.
- Helmy, N. 2011.<L'ordonnancement contextuel des principes d'actions et les choix stratégiques des acteurs po. analyse praxéologiques des débats parlementaires sur l'application de la sharia en 82, 85 et 2005>.PhD dissertation (*unpublished*),Institutd' Etudes Politiques (IEP) de Grenoble.
- Hermet, G. 1978. State-controlled elections: A framework. In *Elections without choice*, ed. G. Hermet and A.Rouquié, 1–18. London: The Macmillan Press, Ltd.
- Hyde, S., and A. O'Mahony.2010. International scrutiny and pre-electoral fiscal manipulation in developing countries. *The Journal of Politics* 72(3): 690–704.
- Katsimi, M., and V. Sarantides.2010. Do elections affect the composition of fiscal policy? CESIFO Working paper No. 2908.
- Klašnja, M. 2008. Electoral rules, forms of government, and political budget cycles in transition countries. *Panoeconomicus* 55(2): 185–218.
- Kim, J., and C-K.Park.2006. Top-down budgeting as a tool for central resource management. *OECD Journal on Budgeting* 6(1): 87–125.
- Levitsky, S. and L. Way. 2002. The Rise of Competitive Authoritarianism. *Journal of Democracy*, 13(2). 51-65
- Medina, L., and D. Lema.2004.Electoral budget cycles: The case of the Argentine provinces.Unpublished Working Paper,*available online at*

http://mpra.ub.uni-muenchen.de/21504/1/MPRA paper 21504.pdf

- Ministry of Economic Development, Egypt, stastics and data available online at <u>http://www.mop.gov.eg</u>
- Ministry of Finance (MOF), Egypt, the Financial Monthly, several issues
- Nordhaus, W.D. 1975. The political business cycle. Review of Economic Studies 42: 169–90.
- OCDE. 2002.<Transparence budgétaire : Les meilleures pratiques de l'OCDE>.*Revue de l'OCDEsur la gestion budgétaire* 1(3): 1–10.
- Office of Democracy and Governance (ODG).2003.*Money in politics handbook: A guide to increasing transparency in emerging democracies.* Washington: Technical Publication Series.
- Persson, T., and G. Tabellini.2003. Do electoral cycles differ across political systems? Working Paper 232, IGIER (Innocenzo Gasparini Institute for Economic Research), Bocconi University.
- RogoffK., and A. Sibert. 1988. Elections and macroeconomic policy cycles. *Review of Economic Studies* 55(1): 1–16.
- Rogoff, K. 1990.Equilibrium political budget cycles. *The American Economic Review* 80 (1): 21–36.
- Schuknecht, L. 2000.Fiscalpolicy cycles and public expenditure in developing countries. *Public Choice* 102(1-2): 115–30.Springer.
- Schultz, K. 1995. The politics of the political business cycle. *British Journal of Political Science* 25(1): 79–99.

- Soliman, S. 2011. The autumn of dictatorship: Fiscal crisis and political change in Egypt under Mubarak. Stanford University Press
- Sowers, J. 2012. Environmental politics in Egypt: Greening authoritarianism. Studies in Middle Eastern Politics, *forthcoming*. Routledge.
- Tufte, E. 1978. Political control of the economy. Princeton: Princeton University Press.
- The World Bank.GEM Commodities database, available online at

http://data.worldbank.org/data-catalog/commodity-price-data

The World Bank.World Development Indicators (WDI) database, available online at

http://data.worldbank.org/data-catalog/world-development-indicators

The World Bank.2005.Budget construction and decentralization. Egypt Public Expenditure Review, Policy Note 6, December, Washington D.C.

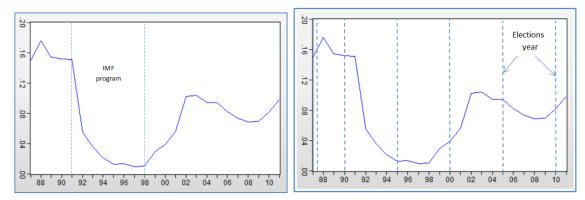


Figure 1: Fiscal deficit in Egypt, 1987-2011 (in percentage of GDP)

|                      | Dependent variable (X) |             |             |             |  |  |
|----------------------|------------------------|-------------|-------------|-------------|--|--|
| Independent variable | DEF                    | EXPEN       | SUBS        | WAGE        |  |  |
| GDP                  | 0.254059*              |             |             |             |  |  |
|                      | (-2.072630)            |             |             |             |  |  |
| REV                  |                        | 0.491633*   |             |             |  |  |
|                      |                        | (2.801036)  |             |             |  |  |
| IMF                  | -0.528985*             | -0.088104*  |             |             |  |  |
|                      | (-3.108700)            | (-2.360559) |             |             |  |  |
| ELEC                 | 0.173756               | -0.005330   | 0.130337    | -0.006224   |  |  |
|                      | (1.444748)             | (-0.178346) | (1.037768)  | (-0.258931) |  |  |
| FOOD                 |                        | 0.006264    | 0.447585*   |             |  |  |
|                      |                        | (1.538254)  | (2.131388)  |             |  |  |
| X(-1)                |                        | . ,         | 0.734041    | 0.004820    |  |  |
|                      |                        |             | (5.965285)* | (3.281122)* |  |  |
| R-Squared            | 0.390812               | 0.373406    | 0.527422    | 0.004881    |  |  |

Table 1: Estimations Results for the Deficit and Expenditures Variables

Notes: T-statistics in parentheses; \* Statistically significant at the  $\alpha < 0.05$  level

| Table 2: Estimations Results for Revenues and Their Tax Components |
|--|
|--|

|           | REV        | TAX         | Taxes on Goods &<br>Services | Taxes on Trade | Taxes on income &<br>profits |
|-----------|------------|-------------|------------------------------|----------------|------------------------------|
| GDP       | 0.993412*  | 1.105411*   | 1.231284*                    | 0.597519       | 1.574464*                    |
|           | (0.419278) | (3.487581)  | (2.577866)                   | (1.006427)     | (2.856902)                   |
| IMF       | 0.068746   | 0.104206*   | 0.095738**                   | 0.108129**     | 0.085002                     |
|           | (0.042185) | (3.549362)  | (1.992167)                   | (1.810140)     | (1.665123)                   |
| ELEC      | -0.079014* | -0.049569*  | -0.020023                    | -0.123933*     | -0.083462**                  |
|           | (0.041507) | (-1.966787) | (-0.423460)                  | (-2.108602)    | (-1.904545)                  |
| R-Squared | 0.289462   | 0.425551    | 0.148376                     | 0.307629       | 0.237100                     |

Notes: T-statistics in parentheses. \* Statistically significant at the  $\alpha < 0.05$  level \*\* Statistically significant at the  $\alpha < 0.1$  level