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# DO ELECTIONS SLOW DOWN ECONOMIC GLOBALIZATION PROCESS IN INDIA? IT'S POLITICS STUPID !

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## ABSTRACT

I investigate whether timing of the elections impact economic globalization process or not in India. In other words, do elections slowdown economic globalization process? The theoretical underpinning is that, policies of economic globalization lead to economic and social hardships in short run but benefit the economy in the long run. The motto behind slowing down the economic globalization process before elections is that it leads to polarization of voters and thus negatively affects the incumbent government. I make use of Axel Dreher's economic globalization index and construct '*instrumental electoral cycle*' to capture the scheduled and midterm election cycle.

Using time series data for India for the period 1970 – 2006, I find that scheduled elections are associated with slow down in economic globalization, whereas midterm elections are not. Replacing Dreher's economic globalization index with our modified globalization index does not alter the results. I also find that slow down in economic globalization process is responsive to the propinquity to a scheduled election year. Meaning, as incumbent government nears the scheduled elections, economic globalization process keeps slowing down, while this is exactly opposite during the early years of incumbent government in office. These results suggest that elections generate "electoral globalization cycle" in developing democratic country like India.

**Keywords:** Economic globalization; Election cycles; India

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## 1. Introduction

In electoral competition framework, there are different models which talk about the effect of elections on government behavior. The first such model, 'political business cycle' was formulated by Nordhuas (1975) and Lindbeck (1976). They argue that politicians manipulate the economic policies during the election period, by higher spending to increase economic growth on one hand and on the other hand, the incumbent government aims to keep the unemployment under control, leading to business cycles. While, Rogoff & Sibert (1988) and Rogoff (1990) advocates 'budget cycles' by increasing the spending on consumption and reducing taxes before the elections to highlight that the incumbent is competent enough to deliver public services. Recently, Khemani (2004) developed the 'career concern' model in which she argues that pressure of elections will be higher on politicians to provide better public services and increase developmental spending and reducing non-developmental expenditure, highlighting that fiscal manipulation would be low and selective on some of the taxes and spendings which directly effect the people. All these studies deal with government policies with specific reference to fiscal policy. However, instead of looking at only fiscal policies, I probe the effect of union elections on economic globalization process in India. I undertake this investigation for two specific reasons: one, since the advent of neoliberal policies in early 1990s in India, there is a structural change in many of the government polices. There is a transformation from 'inward looking polices' towards 'outward looking or liberalized policies'. These are driven by economic globalization process, which inturn affects basic government policies like fiscal and monetary policies. Therefore, one can assume that economic globalization process as a derivative of governments various economic policies. Two, the evidence on the effects of economic globalization process on socioeconomic conditions is mixed and hence its implications on elections are unknown. Thus, this study bridges this gap and addresses several questions: Does incumbent government manipulate the economic globalization polices just before the elections to avoid the defeat? Whether there exists 'electoral globalization cycle'? Do midterm elections affect economic globalization process? And what are the policy implications that we can derive from the results?

It is well proved fact that voters who are most hurt by the government policies which lead to strained economic situations are more likely to punish the incumbent governments in the elections (Burdekin, 1988; Lewis-Beck, 1991; Gleisner, R. F, 1992; Çarko lu, 1997; Wilkin et al. 1997; Fielding, 1998 & 2000; Lewis-Beck & Paldam, 2000; Chappell & Veiga, 2000; Lewis-Beck & Stegmaier, 2000; Youde, 2005; Nordhaus, 2006; Akarca & Tansel, 2006a & b; Duch & Stevenson, 2006; Mitchell & Willett, 2006 and Veiga & Veiga, 2006). Usually, voters relay more on the macroeconomic conditions of the country while voting (Lewis-Beck, 1988), though certain elections are found to be issue based elections. But in majority of the cases, it is the economic situation on the ground which matters the most and is the driving factor for the voters (Alvarez et al., 2000). These macroeconomic factors are inturn determined by the economic globalization policies initiated by the incumbent governments. There is empirical evidence to show that economic globalization policies lead to short term economic and social hardships, but provide economic benefits in the long run (Wolf, 1999 & Vadlamannati, 2008). Because the benefits of the economic globalization process tends to be isolated, but the costs

associated with it are strenuous in short run, those sections of the society who are worst hit by these policies would like to replace the incumbent government with those who are more likely to adapt policies which do not hurt the people. This forces the incumbent government to slowdown the economic globalization process as and when they near the scheduled election year. This would be the only option available with the government as it cannot completely reverse the economic globalization policies which were adopted 10 to 15 years ago as reversal of these policies would prove very costly for the country. Hence, economic globalization policies would be accelerated once the incumbent government gets back to the office post elections, thus creating 'electoral globalization cycles'. However, this is exactly opposite in the case of midterm elections. This is because the timing of midterm elections (which occur anytime after a previous election) is unanticipated and hence, it does not provide incumbent government the scope to manipulate and slowdown the economic globalization process.

### **Why India?**

I selected India to conduct this study in the first place for several reasons. India happens to be world's second largest developing country with a profound history of stable democracy. The Constitution of India allows the elections commission to conduct both union and state legislative elections for every five year term. The union elections are conducted for Lok Sabha (lower house of Parliament) once in five years. The participation in union and state elections in world's second largest democracy is quite high. The average turnout in Union elections in India is about 58.7% (Election Commission, 2004). India adopted the neoliberal economic policies in 1991 with a Structural Adjustment Program with World Bank. Moreover, India provides classic case of electoral globalization cycle as there were many instances where the incumbent government was forced to go slow on such policies as and when it neared the elections. In 1989 elections, the Congress government which introduced Economic Reforms Commission did not even initiate the reforms process despite enjoying full majority in the parliament. The Congress government after officially initiating neoliberal policies in 1991 almost halted the process as it neared 1996 Lok Sabha elections. Same is the case with BJP led NDA government in 1996 and present Congress led UPA government. This is because, though economic globalization process gave excellent economic growth in long run, its real benefits are not reaching to the poor. Thus, many argue that India's economic growth and development process resulting from globalization policies is not inclusive of the poor (Gupta, 1999). This is evident by comparing the growth in GDP and Per capita GDP with the pace at which poverty and inequality levels are reduced. On one hand, the rate of growth of reduction in poverty and inequality levels has been very low during the last two decades (Dutta, 1991) and on the other hand, India witnessed rapid surge in economic growth, industrial and services growth, urbanization and FDI inflows, highlighting that the development process tends to be 'exclusive'. Therefore, India provides an excellent case study to examine the existence of 'electoral globalization cycle'.

## **2. Election Cycles & Economic Globalization: Theoretical Underpinnings**

The literature presents conflicting findings on the implications of economic globalization process on socioeconomic development. The Liberal theorists argue that countries which are highly engaged in globalization process are likely to experience higher economic growth, greater affluence, more democracy, and increasingly peaceful conditions in the home country and elsewhere (Flanagan & Fogelman, 1971; Weede, 1995; Jacobsen, 1996). It is believed that globalization process is most likely to improving quality of life. It help promote economic development, providing trade and investment opportunities creating much needed employment generation and reduce income inequality and poverty thereby leading to decline in social unrest and economic insecurity. Thus, countries with higher levels of globalization process should suffer lesser degree of socioeconomic problems and have greater development. Higher globalization process also serves in attaining development goals for developing economies.

On the contrary, skeptics contend that higher levels of globalization process tend to generate greater economic and social inequalities. This leads to greater economic insecurity and social unrest in the society. Sometimes it also paves way for the risk of political instability and outbreak of riots, agitations, protests, conflicts and disturbances thereby (Boswell & Dixon, 1990; Barbieri, 1996; Rodrik, 1997, Rodrik, 1998; Rodriguez & Rodrik, 2000, Blinder, 2006; Summers, 2006; Krugman, 2007).

Taking both these perspectives into consideration evolves another set of group which take middle path arguing that globalization brings both good and harm. Their premise is largely based on the J-Curve model developed by Przeworski (1993) who advocated that reforms and globalization policies though beneficial for the country and society in the long run, they lead to economic and social hardships in the immediate short run. This theory argues that whatever might be the long-term implications of socioeconomic growth and high development, the immediate short term effect of economic globalization process is the structural adjustments in the economy which generates substantial economic and social costs in terms for increase in unemployment and inflation (Marer & Zecchini 1991), resource misallocation (Roland 1994), volatility in income distribution (Milanovic 1995), declining output (Kolodko 1999), and poor socioeconomic conditions (DeMelo, Denizer, & Gelb 1996). There are also other prominent studies like Wolf (1999) finds a significant J-curve relationship between neoliberal policies and economic growth and development. Similar such findings were apparent in the study related to reforms and globalization process and its impact on government repression by Vadlamannati & Soysa (2008). With specific focus on India, Vadlamannati (2008) finds similar such J-curve relationship between economic reforms and globalization with poverty levels, suggesting that economic globalization and internal reforms are associated with economic and social hardships in the short run, but are beneficial in long run<sup>1</sup>.

To control these economic and social costs in short run, sometimes the government resorts to policies which can be detrimental to the sizeable sections of the society. For example, to curtail high inflationary pressures, on one hand, the government hikes tax rates and on the other hand it can also increase interest rates. Similarly, in the process of

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<sup>1</sup> Similar such results are found by Vadlamannati & Irala (2008) for economic reforms and domestic private investments in India.

making the public sector efficient and improve the savings of public sector, government undertakes massive restructuring policies like privatization program which many times results in huge layoffs. To contain higher levels of fiscal deficits, the governments due to their coalition political compulsions resort to cutting the social sector development expenditure. Such hard policies intended for long-term benefits make a sizeable fraction of the population disaffected (Mygind 1999). Thus, the incumbent governments who implement these neoliberal policies face severe pressures from those groups and sections in the society which are widely affected by these liberalized economic policies. This creates short-run losers from economic globalization policies as the major opposers of government's neoliberal economic policies. Their main argument is that they do not believe the idea of the government which promises future gains and in return expecting political support to carry forward the neoliberal economic policies. Further, they believe that government often fails to keep the commitment which is made to the people during the previous elections that they would continue with the economic globalization policies until it yields benefits to the society in the long run<sup>2</sup> (Slantchev, 2005). Moreover, Rodrik (1994) argues that the consequences of neoliberal policies often involve the redistribution of income among different groups. If the efficiency gains from those policies are not substantial and income is not redistributed properly, this leads to either evade or slowing down of those policies. Precisely this is the reason why whenever the new form of policies are designed and adopted, there would be wide spread agitation to resist making substantial policy changes which in turn affect the vast sections of the population. This sometimes leads to angry mob protests, conflicts, strikes and lockouts and riots forcing the governments to roll back or reverse the policy decisions (Fields, 2003). This also means that governments that are vulnerable to the reactions of certain sections of the society, which constitute significant portion, are less likely to carry forward the economic globalization process at a rapid pace and might engage in piecemeal reform process.

According to the electoral competition theories the opportunistic politicians resort to manipulate economic policies during election times for political gain. Thus keeping the country's long term economic benefits on stake by manipulating the economic policies to reduce short term political losses (avoiding losing elections). In fact the 'political business cycle' theory is propounded by Nordhaus (1975) and Lindbeck (1976) argue that usually the incumbent governments keep growth high and unemployment low just before elections. To gain from these manipulations, the incumbent governments bank on uninformed voters who can provide them short term benefits. This model finds support in many studies in literature specially related developing countries. Studying the case of eight Latin American countries, Ames (1987) finds evidence of increased public spending during election years. Schuknecht (1996) examines fiscal policies in a sample of 35 developing countries from 1970 to 1992. He finds that while there is no election effect on

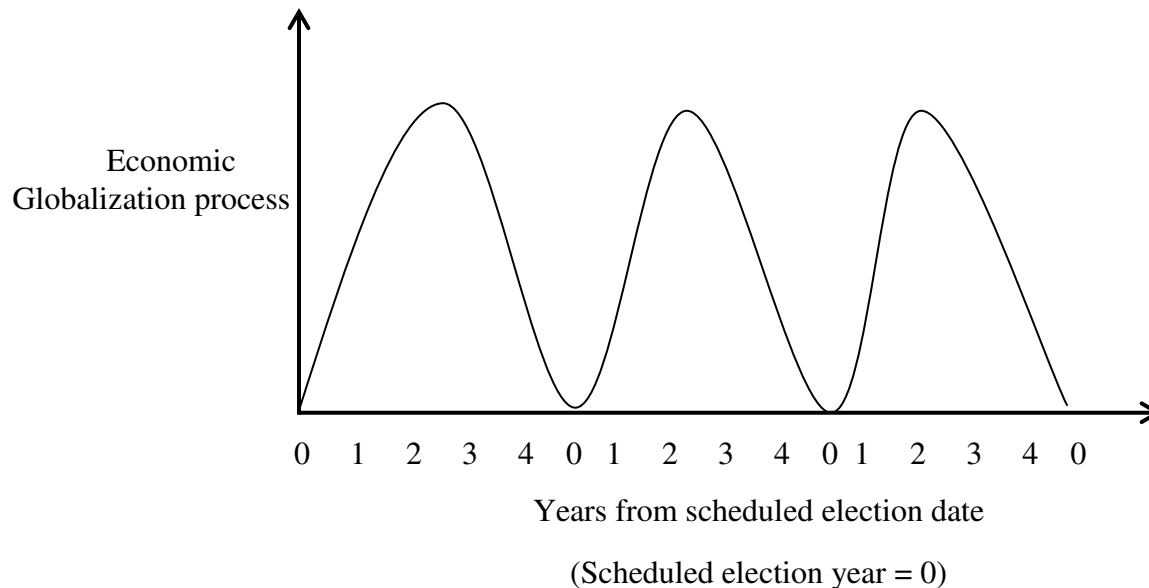
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<sup>2</sup> Sometimes as in the case of India, due to various political compulsions like coalition & regional politics, the governments are forced to sacrifice the reforms process. The best example could be the halt of privatization process in India by the UPA government in 2002 due to pressures from its allies. Keeping away the Bills on Insurance, Banking and allowing Retail FDI reforms due to pressure from Left Front, a key ally supporting the UPA government from outside the parliament. Promises are often made by the incumbent governments in India to bring labour reforms. But these reforms are not even initiated by any government fearing political backlash. There are numerous such examples in Indian context to show the backtracking from the promises made by the governments during the elections period to its public.

real output, there are election-related expansions and reductions of the fiscal deficit by almost 0.7% of GDP. In an another study by Schuknecht (1999) finds for developing countries, that governments resort to expansionary fiscal policies to improve their chances of re-election.

Moyo (1999) finds evidence of electoral cycles in public savings for a sample which includes both developed and developing countries. The study by Shi & Svensson (2000) examines fiscal policy electoral cycles for both developed and developing countries. They find evidence of political business cycles in government consumption and the fiscal deficit in a Rogoff-style model, with cycles of greater magnitude in developing countries. Testing the same, Block (2002) presents cross-country evidence of political business cycles for African countries. Using five monetary and fiscal instruments, his findings are consistent with the predictions of rational opportunistic political business cycle theory. In a regional study on India by Chaudhuri & Dasgupta (2005) finds that there is an increase in current expenditure and decline in developmental spending during the election years<sup>3</sup>. Contradicting these arguments, Khemani (2004) developed new model of ‘career concerns’ in which she argues that during the election years, there is a significant improvement in public services and political manipulation of all kinds of polices do not find support. Only development spending (capital expenditure) tends to increase, while nondevelopment spending (current expenditure) reduces. Nevertheless, these models demonstrate the manipulation of incumbent governments to persuade voters before the election period and thereby generate electoral cycles.

**Figure 1: ‘Electoral Globalization Cycle’**



Taking into account the earlier discussions on socioeconomic implications of economic globalization process and electoral cycles, I believe that a government that is responsive to its voters in the country is more likely to slowdown the economic globalization process

<sup>3</sup> There are also studies which have found contradicting results. For example, see: Golden Poterba (1980); Alesina & Roubini (1992); Besley & Case (1995); Reid (1998).

as the government nears scheduled elections. But the same responsive government once it takes over the office soon after the elections as an incumbent, is more likely to accelerate the economic globalization process. This brings us to our first two propositions:

**Hypothesis 1 (H1): Slowdown in economic globalization policies are associated with scheduled election years.**

**Hypothesis 2 (H2): Slowdown in economic globalization policies is greater as incumbent government nears scheduled election year.**

Based on the first two hypotheses, I assume that there is an ‘electoral globalization cycle’ which basically means slow down in economic globalization process is responsive to the propinquity to a schedule election year. Meaning, as incumbent government nears the schedule elections (election year being 0 in figure 1), economic globalization process keeps slowing down, while this is exactly opposite during the early years of incumbent government in office.

Here it is very important to make a distinction between scheduled elections and midterm elections. In Indian context, scheduled elections are those which are constituted by elections commissions based on Constitution of India for every five years. Whereas, midterm elections are those that occur one, two, three or four years after the previous election (either scheduled or midterm), that is, before the completion of the five year term of the elected government in office. Therefore, this distinction between the two becomes even more important to globalization policy choices because the timing of midterm elections is usually sudden and unanticipated. So it is not reasonable to expect incumbent governments to slowdown globalization policies to influence election outcomes. This leads to our final proposition:

**Hypothesis 3 (H3): Slowdown in economic globalization policies is NOT associated with midterm elections because of the unanticipated and uncertain timing.**

Each of these hypotheses is examined in the empirical analysis which would follow this section. The rest of the paper is organized as follows: Section 3 deals with research design with specific focus on measuring economic globalization process, creating instrumental electoral cycles for both scheduled and midterm elections, followed by data sources and identifying the empirical strategy to be employed. Section 4 presents discussion on the results derived from our empirical analysis. Final section concludes the study and highlights the scope for further research avenues.

### **3. Research Design**

#### **3.1. Measuring Economic Globalization: Why Dreher’s Index?**

There is a vast amount literature on estimating the effects of globalization on growth, development, poverty, inequality and so on. In all these studies globalization is measured



only partially with one or a few economic variables like the trade ratio, direct foreign investment, total capital flows, monopolization of exports, black market premiums and country specific globalization dummies etc. Such measures are generally known as openness of the economy. Subsequently more comprehensive measures of globalization were developed with the weighted average or principal components methods. The well known Sachs & Warner (1995) binary index of openness is based on the weighted averages of some economic variables. Others, while accepting economic variables are important to measure economic globalization, argued that bringing them under one umbrella was the major task. The well known Lockwood & Redoano (2005) discrete index of economic globalization from 1980-2004, is based on a few such economic variables. Similarly, Kearney, Andersen & Herbertsson (2005) using trade and finance variables have also developed such indices for 62 countries starting from 2000, to determine the annual rankings of countries using Kearney index.<sup>4</sup> In practice it is hard to maintain a distinction between openness which is proxied mostly with economic variables and economic globalization, which is much beyond just measuring trade openness. Thus the question to be addressed is how economic globalization should be measured.

We do not take into consideration both the indices mentioned above for various obvious reasons. First, Lockwood & Redoano (2005) globalization index covers only trade and other economic variables ignoring some of the most important facets of economic globalization: tariffs, restrictions and quotas. Thus, this index without these important measures becomes just another simple proxy like trade openness variable. Second, with respect to Kearney index, as highlighted by Rao et al. (2008), their weighting scheme is somewhat arbitrary in that they do not adjust for the size of the country on the basis of its population. Third, it is not possible to use both Kearney, Andersen & Herbertsson (2005) and Lockwood & Redoano (2005) indices in time series regressions because of the absence of time series data.

In light of all these observations, Axel Dreher (2006) is a welcome contribution because his comprehensive measures of globalization will help to decrease many disagreements on the measurement issue. Mainly Dreher's globalization index is formulated for 123 countries from 1970 to 2005 and recently updated. His overall globalization index includes three sub indices from the economic globalization, social globalization and political globalization; see Section 2 in the study of Dreher (2006) for details<sup>5</sup>. This is beyond the scope of this study to use the comprehensive globalization index. Rather, our focus is on economic globalization.

I select Dreher's economic globalization index simply because it overcomes all the three disadvantages highlighted above. The Dreher economic globalization index combines

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<sup>4</sup> Using mainly economic variables are: Edwards (1998), Dollar & Kraay (2004). Rodrick (1997), Crafts (2000), Bordo & Meissner (2007) & Rincon (2005) found that globalization positively affects growth. Chanda (2001) used capital account openness as proxy for globalization to find that it does not help developing countries in growth, while Alesina et al. (1994) find the opposite. Using FDI as proxy for globalization, Zhang (2001), Campos & Kinoshit (2002), Alfaro (2003), Chowdary & Mavrotas (2006) and Hansen & Rand (2006) find that globalization has positive effects on growth.

<sup>5</sup> These indices can be downloaded from <http://globalization.kof.ethz.ch/>

many economic indicators which also includes ‘trade and investment restrictions’ like: hidden import barriers, mean tariff rates, taxes on international trade (percent of current revenue) and capital account restrictions, which no other indices captures as comprehensively as Dreher’s index. Of course, the other indicator in this index includes ‘actual flows’, which captures: income (percentage of GDP); volume of trade (percentage of GDP); FDI inflows and inflows stock (percentage of GDP) and Portfolio investments (percentage of GDP). The other advantage of Dreher’s index is methodological as it uses widely available technique of the principal components method and Dreher index is most suitable for time series study as it dates back to 1970.

### **3.1. i. ‘Modified’ Economic Globalization Index**

The Dreher’s economic globalization index is measured on 0 – 100 scale, 0 meaning no or low economic globalization, while a score of 100 means full economic globalization. Sometimes, there can be problems while using this index as dependent variable. Since the economic globalization index coefficient is bounded between 1 and 100, using Ordinary Least Squares (OLS hereafter) regression might sometimes be problematic. This is because, often OLS assumes that the dependent variable to be unbounded. Thus, to counter this problem we follow Reuveny & Li (2003) method, which is a usual practice to transform the bounded variable into unbounded indicator. I transform the economic globalization index into unbounded measure by using the following formula:

$$\text{Unbounded Economic Globalization Index} = \frac{\text{Economic Globalization Index}}{100 - \text{Economic Globalization Index}}$$

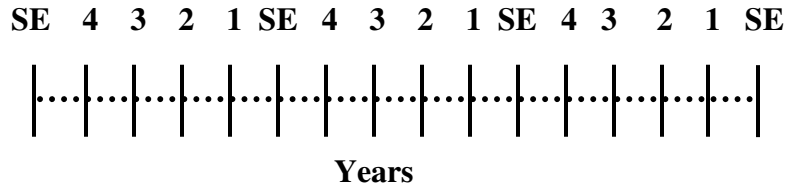
I however, make use of this unbounded transformed economic globalization index to assess the robustness of the main results.

### **3.2. Constructing Instrumental Electoral Cycles**

The need for constructing instrumental electoral cycle arises from the question whether timing of elections are endogenous to economic globalization process carried by the respective incumbent governments. Theoretically speaking, this may not be true because in India, union elections are fixed on five year basis. The constitution of India allows the elections commission to conduct union elections once in five year period. However, over the period of time, especially from 1980s, India also witnessed quite a few midterm union elections. These occur due to various reasons which include drifting away the Member of Parliament from ruling alliance, political instability because the governments sometimes do not possess the required numbers to prove its majority in the parliaments, shifting of political alignments within the alliance group and so on. Infact in our sample from 1970 to 2006, out of total 10 union elections, 5 happens to be midterm elections and rest are schedule elections. This means exactly 50% of the total union elections in our sample period are marked by midterm elections. The exact timing of these midterm union elections is sudden and unanticipated. Since these events are unexpected, it might not lead to slow down in economic globalization process, as the incumbent government

would not have ample time to plan and react to these midterm elections. One possible solution to address this problem is to distinguish between the effects of scheduled union midterm elections on the outcome of interest – economic globalization process. To this end, I employ the technique of Khemani (2004) in constructing what is called as “*instrumental electoral cycle*” for both schedule and midterm elections.

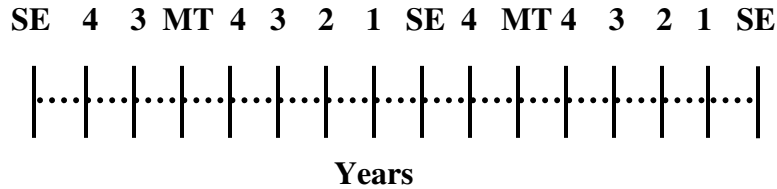
**Figure 1:** Schedule election cycle



Note: SE= Schedule Elections

The schedule election cycle is the one which follows a 5-year cycle and is renewed after every schedule election year, that is, it again begins with 4, 3, 2 and 1. The figure 1 best captures coding of this cycle.

**Figure 2:** Midterm election cycle



Note: SE= Schedule Elections; MT= Midterm Elections

The midterm election cycle also follows a 5-year cycle, but it is also renewed after every midterm election. Many times, the scheduled elections coincide with election years in midterm election cycle. The midterm election years are treated to be 4, 3, 2, 1 year before a scheduled election year. The year after any midterm election is again coded as 4 years before a scheduled election followed by 3, 2 and 1. The timeline of the midterm election cycle is captured in figure 2.

In our sample as highlighted earlier out of 10 election years, 5 are midterm elections which took place in 1980; 1984; 1991; 1998 and 1999. Amongst them, the high frequency political volatility period is a constant feature during post 1990s. Based on these discussions, we formulate the empirical model to estimate the direct effect of the electoral cycle on economic globalization polices of the incumbent government:

$$EG_t = \delta_1 + \sum_{\phi=1}^4 \psi_2 SEC^{\mathbf{T}}_t + \sum_{\phi=1}^4 \psi_3 MTC^{\mathbf{T}}_t + \psi_4 EG_{t-1} + \varepsilon_t \dots\dots\dots (1)$$

Where:  $t$  = time;  $\delta$  = Intercept for the equation;  $\psi$  = Regression Coefficients for variable “n”;  $\varepsilon$  = error term for country at time “t”. The hypothesis variables presented here are: **SEC** = Schedule election cycle; **MTC** = Midterm election cycle and  $F = 1, 2, 3 \text{ \& } 4$  for respective electoral cycles. This means for example:  $SEC_t^0$  is 1 if  $t$  is a scheduled election year in India;  $SEC_t^1$  is 1 if  $t$  is one year before a scheduled election year;  $SEC_t^2$  is 2 if  $t$  is two years before a scheduled election year;  $SEC_t^3$  is 3 if  $t$  is three years before a scheduled election year and  $SEC_t^4$  is 4 if  $t$  is three years before a scheduled election year in India.

The results from above specification (1) may suffer from omitted variable bias due to absence of other control variables. Thus, the same equation is also estimated including some observable country characteristics  $CV_t$ , including economic growth rate (GDP growth rate), economic development (proxied by log Percapita GDP), political constraints of the ruling government using political constraints index, official poverty rate; income inequality measured by Gini index and economic & political crisis dummy, which coded 1 if there is any economic and political crisis and 0 otherwise as control variables. The data for all these control variables comes from World development indicators (2006). This model allows to tests key hypothesis in this paper, which is: scheduled elections have a significant negative effect on economic globalization, but midterm elections do not. Thus, using these control variables, equation (1) would therefore be modified as follows:

$$EG_t = \alpha_1 + \sum_{\phi=1}^4 \Omega_2 SEC_t^F + \sum_{\phi=1}^4 \Omega_3 MTC_t^F + \Omega_4 CV_t + \zeta_t \dots\dots\dots (2)$$

To capture the effects of distance from election years on globalization process, we developed ‘full election cycle year dummies’. We formulate four dummy variables namely: 4-years before elections variables which take the value of 1 in the 4<sup>th</sup> year before every schedule election year and 0 otherwise. The second dummy includes 3-years before elections variable which has the value 1 in the 3<sup>rd</sup> year before every schedule election year and 0 otherwise. The third dummy variable is 2-years before elections variable include the value of 1 in the 2<sup>nd</sup> year before every schedule election year and 0 otherwise. Finally, 1-year before elections variable takes the value of 1 in the 1<sup>st</sup> year before every schedule election year and 0 otherwise. These variables allows to measure how the temporal distance from a scheduled election year affects economic globalization process vis-à-vis an election year. The model is specified as follows:

$$EG_t = \lambda_1 + \sum_{\phi=1}^4 \beta_2 SEC_t^F + \sum_{\phi=1}^4 \beta_3 MTC_t^F + \beta_4 CV_t + \beta_4 Dey1_t + \beta_4 Dey2_t + \beta_4 Dey3_t + \beta_4 Dey4_t + v_t \dots\dots\dots (3)$$

Where, **Dey1, 2, 3, 4...** are the distance from election year dummies. This empirical analysis covers the period 1970 to 2006 for India. The time-series data may exhibit

Heteroskedasticity and serial correlation problems as they often tend to cause biased standard errors for coefficients, producing invalid statistical inferences. To deal with these problems, we estimated for all the models the Huber-White robust standard errors. These estimated standard errors are robust to both Heteroskedasticity and to a general type of serial correlation (Rogers, 1993 and Williams, 2000). Additionally, to confirm the results do not suffer from serial correlation, we also perform Breusch-Godfrey Serial Correlation LM Test.

## **4. Empirical Results & Estimates**

### **4.1. Descriptive Statistical Analysis**

The sample of years that we examine in total make up of 37 observations. In Annexure 1, we present summary statistics for this sample for all the variables that we employ in the regression analysis. The mean value for number of economic globalization index is 22.00 per-years with a large standard deviation of roughly 9.07. Regarding GDP growth rate we can find that the median growth rate is 5.63%. Moreover, the variance in GDP growth rates is fairly low, with a standard deviation of 3.01% and growth rates ranging from -5.24% to 9.86%. With respect to percapita GDP, the mean value is log 5.72 with a standard deviation of just log 0.35. The statistics for Poverty rate and Gini index are frightening. The mean value for the both is 39.55% and 32.86% respectively. These numbers are significantly higher by any international standards. While the maximum value for Poverty rate is 56.00% and 38.00% for Gini index, the minimum value is 22.00% and 29.17% respectively.

In Annexure 2 we present the information about the swing and the degree of swing in economic globalization index during schedule election years in India covering the sample period. We classified the swing, which is net change in the economic globalization index in schedule election year to previous year, under four categories. These include: decline; marginal increase; gradual increase and greater increase. These categories are arrived by using simple bifurcation of swing numbers which states that when the percentage change of index from current year (election year) to previous year is negative and or zero, then it is classified as *decline*. Similarly, when the percentage change in the index is in the range of 0.01 – 0.1, then it is called *marginal increase phase*. When the change in index ranges between 0.2 – 1.0, it is known to be *gradual increase phase* and when the index range from 1.1 and above, it is termed as *greater increase*. Using this simple methodology, we find in annexure 2 that out of seven schedule election years in the period of 1970 to 2006, three times, there as decline in the economic globalization index growth. Once there was marginal increase which was during 1996 amidst political crisis and uncertainty, which is decimal. Twice there was gradual increase in 1984 and 1989, which was the era of single party dominant governments. But only once, we could see a greater increase in index, which was in 2004. This tells us that there is certainly some impact of scheduled elections on the slowing down of globalization index in election years, though it is not as comprehensive as we would have expected.

## 4. 2. Regression Estimates

The results of regression estimates in assessing the impact of schedule and midterm electoral cycle on economic globalization process in India are presented in table 1 and 2 (models 1 to 7). Addressing the problems of serial correlation and multicollinearity, specific tests are conducted and the results are displayed at the end of the each model in table 1 and 2. Further, the results of robustness check and sensitivity analysis are presented in annexures 4; 5 and 6. We also control for the problem of Heteroskedasticity using White Heteroskedasticity-consistent standard errors & covariance.

The regression results confirm the hypothesis offered on electoral cycles in economic globalization in the Indian context. Specifically, the results from the both the equations (1 & 2) show that schedule elections have a significant negative effect on the economic globalization process. Concentrating on results of equation 1 indicates the direct relationship between economic globalization process and electoral cycle. The coefficients reported in model 1 (table 1) indicate that the presence of schedule election year is leading to decline in economic globalization index by 0.28% with 10% statistical significance. Several studies include a lagged dependent variable to control for autocorrelation. A lagged dependent variable is also meant to control for the spill-over effects (Neumayer, 2005). There are two reasons for the inclusion of a lagged dependent variable specifically in this model. First, a methodological reason, that is to control for autocorrelation, endogeneity, and omitted variables (Beck & Katz, 1995). Second, a theoretical reason, that holds that governments tend to use past decisions as a baseline for their present decisions.

**Table 1:** Elections & Economic Globalization equation function

Dependent variable: Dreher's Economic Globalization Index

Variables	Model 1	Model 2	Model 3
Constant	-0.18 (0.63)	-1.06 + (0.76)	-0.36 (0.86)
Schedule Election year	-0.28 *** (0.15)	-----	-0.28 *** (0.16)
Mid-term Election years	-----	0.09 (0.15)	0.07 (0.15)
Economic Globalization (t-1)	1.08 * (0.03)	1.08 * (0.02)	1.07 * (0.03)
R-squared	0.986029	0.984817	0.986110
Adjusted R-squared	0.985183	0.983897	0.984808
Durbin-Watson statistic	2.198445	2.151341	2.228900
Log likelihood	-53.24673	-54.74492	-53.14216
F-statistic	1164.544	1070.222	757.2849
<b>Breusch-Godfrey Serial Correlation LM Test</b>			
F-statistic	0.719393	0.359689	0.868890
Probability. F	0.4026	0.5529	0.3585

Total number of Observations      37                      37                      37

**Note:** \* Significant at 1% confidence level; \*\* Significant at 5% confidence level \*\*\* Significant at 10% confidence level; + Significant at 15% confidence level. The models are controlled for Heteroskedasticity. White Heteroskedasticity-Consistent Standard Errors are reported in parenthesis.

The results of lagged dependent variable show 1% significant and positive relationship. This suggests that governments tend to use past decisions as a baseline for their present decisions. Using lagged dependent variables, we were also able to counter the problem of auto correlation<sup>6</sup>. In model 2, we replaced schedule elections cycle with the midterm election cycle. We found that it is neither negative nor significant, suggesting that midterm elections do not have any impact on slowing down of economic globalization process because of the uncertainty of occurrence associated with such elections. In model 3, we introduced both schedule and midterm election cycles and found that schedule election cycle having 10% significant and negatively associated with economic globalization process, while once again, we could not find any such relationship with midterm electoral cycle.

In all the three models (in table 1), we use lagged dependent variable, which help improve Durbin-Watson (DW hereafter) statistic and counter autocorrelation problem. To confirm the non existence of serial correlation problem, we also perform Breusch-Godfrey Serial Correlation LM Test (results shown at the end of table 1). We found that the all the models are free from the problem of serial correlation. But these results might suffer from omitted variable bias. Also, these results should be validated by including some of the important socioeconomic variables which formulate key determinants of economic globalization process. A step in this direction is the results captured in model 4 to 7 in table 2. Another prominent feature of this model is that we also capture the full cycle of schedule elections using distance from election year dummies highlighted in equation 3.

**Table 2:** Elections & Economic Globalization equation function

Dependent variable: Dreher’s Economic Globalization Index

Variables	Model 4	Model 5	Model 6	Model 7
Constant	-248.52 * (19.23)	-246.69 * (24.41)	-255.32 * (26.29)	-250.46 * (17.52)
Schedule Election year	-0.49 ** (0.21)	-----	-----	-0.69 * (0.22)
Mid-term Election years	-----	-0.24 (0.25)	-----	-----
1 year before Elections	-----	-----	0.42 (0.71)	0.30 (0.65)
2 years before Elections	-----	-----	0.97 *** (0.59)	1.59 * (0.52)

<sup>6</sup> We first ran these results without lagged dependent variables. We obtained DW stat of 0.80 value. After using the lagged dependent variable, we the DW stat significantly improved.

	-----	-----	0.69 +	0.05
3 years before Elections			(0.48)	(0.54)
	-----	-----	0.09	-0.62
4 years before Elections			(1.24)	(0.89)
Log (Economic Development)	41.38 *	41.28 *	42.34 *	41.30 *
	(3.05)	(3.72)	(4.19)	(2.91)
	-0.27 *	-0.26 *	-0.28 *	-0.29 *
GDP Growth rate	(0.08)	(0.09)	(0.09)	(0.08)
	-4.93 +	-6.16 +	-5.12	-4.20
Political Constraints Index	(3.38)	(4.12)	(3.70)	(3.26)
	0.63 *	0.61 *	0.65 *	0.64 *
Poverty Rates	(0.08)	(0.11)	(0.11)	(0.08)
	0.41 *	0.39 **	0.39 **	0.47 *
Gini Inequality	(0.14)	(0.14)	(0.15)	(0.13)
	-1.35 ***	-0.80	-0.81	-1.60 **
Economic & Political Crisis	(0.82)	(0.79)	(0.81)	(0.76)
R-squared	0.982914	0.980214	0.980935	0.986617
Adjusted R-squared	0.978790	0.975438	0.973602	0.980728
Durbin-Watson statistic	1.823487	1.524448	1.584861	2.099284
Log likelihood	-58.28612	-61.00085	-60.31421	-53.76759
F-statistic	238.3342	205.2402	133.7747	167.5486
<b>Breusch-Godfrey Serial Correlation LM Test:</b>				
F-statistic	0.187697	1.771908	1.130441	0.245338
Probability. F	0.6682	0.1939	0.2978	0.6249
Total number of Observations	37	37	37	37

**Note:** \* Significant at 1% confidence level; \*\* Significant at 5% confidence level \*\*\* Significant at 10% confidence level; + Significant at 15% confidence level. The models are controlled for Heteroskedasticity. White Heteroskedasticity-Consistent Standard Errors are reported in parenthesis.

The coefficients of schedule elections reported in model 4 of table 2 indicate that schedule election years are strongly associated with decline in economic globalization process. We find that for every single election year, the economic globalization index is reduced by 0.49%. Infact adding control variables lifted the statistical significance level of this variable to 5%. These results remain consistent across the board. In the model 5, we replace schedule elections with midterm electoral cycle. We find that though it has negative sign, it remains statistically insignificant, suggesting that midterm elections necessarily need not result in slow down of economic globalization process. We present full election cycle using distance from election year dummies in model 6 (see table 2). The results show some interesting findings. We find that all the variables, 4, 3, 2, and 1 year distance from election year is positive. But the coefficient values of these variables show some interesting trends. I find that economic globalization process would increase by just 0.09% during the first year of incumbent government in office. This increase is 0.69% during the second year of incumbent government in office. While, economic globalization process increase by more than 0.97% in the third year of incumbent government in office, but then it decreases by 0.45% in the fourth year in office, registering an insignificant increase in economic globalization index of 0.42% in the year before a scheduled election. This goes down even further in the election year resulting in



negative effect on economic globalization process. The coefficients plotted in graph 1 (see annexures) clearly depict a ‘cyclical movement’ in carrying out the economic globalization process by the incumbent governments. The graph shows a perfect inverted U-shaped kind of relationship between schedule elections and economic globalization process. We also estimated this equation by including schedule election variable with these full electoral cycle dummies (see model 7; table 2). We found almost similar such relationship between schedule elections and economic globalization process. The coefficients of this model are also captured in graph 2 (see annexures). These results confirm all the three hypothesis, H1; H2 & H3.

Within the control variables, we find that improvement in economic development has a greater positive influence on economic globalization process. Holding at its mean value, increase in economic development by its highest value (log 6.45) would increase economic globalization index by 41.38%. Strangely, we find opposite results with respect to economic growth. But, the coefficient value of the later is much lesser than that of former. With respect of socioeconomic variables, we find both poverty rate and income inequality (Gini) index are positively associated with economic globalization process. A 1% increase in both, increases economic globalization index by 0.61% and 0.41% respectively. The other political variables include, political constraints index, which is negatively associated with economic globalization process. Though this relationship is weak at 15% significance, increase in this variable lowers economic globalization index by 4.93%. While, for every economic and political crisis there is a corresponding decline in economic globalization index by 1.35%. Despite inclusion of these key control variables, our main hypothesis variables results do not alter. We also report correlation matrix in annexure 3. One can observe that there is no significant multicollinearity problem, though in couple of cases (poverty, inequality & economic development) the correlation is quite high. Also, the DW stat show fairly good results, but to ensure that the model do not suffer from serial correlation problem, we perform Breusch-Godfrey Serial Correlation LM Test (results shown at the end of the table 2). The results of the test confirm the absence of serial correlation problem.

### **4.3 Robustness Check**

We wanted to breakdown the sample into two periods, pre and post reforms period<sup>7</sup> to reconfirm these results. However, we could not do so because we were handicapped because the total sample period was very short and we could not breakdown into two periods as the results would be biased and not longer be valid. Despite this, we ran several tests of sensitivity. First, we ran the results by introducing schedule election year along with each of the full election cycle variables separately. The results are captured in annexure 4. The results show that schedule election variable in all models from 8 to 11 remains negatively significant. Despite introducing each full election cycle dummy variables separately, the results of schedule election year remain intact. Despite introducing election variables separately, we could still trace an inverted U-shaped curve on the coefficients of these variables. The results are also free from serial correlation

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<sup>7</sup> The official economic reforms program in India was started in 1991 with the help of World Bank’s Structural Adjustment Program.

problem as indicated by Breusch-Godfrey Serial Correlation LM Test. Second, in the next two models (12 & 13) captured in annexure 5, we introduced number of strikes and lockouts variable. This captures the anti-globalization protests. We witness that the main hypothesis variables results to be perfectly stable. Even in this case, we can see an inverted U-shaped curve on the coefficients of elections variables.

Third and the final robustness check include performing sensitivity analysis, this time by changing the dependent variable. We replace Axel Dreher's economic globalization index with our own 'modified economic globalization index'. The results are captured in annexure 6. We find that despite the change in dependent variable, the schedule election year variable has 5% significant negative effect on economic globalization process. While, consistent with our earlier findings, we could not find any statistical significant impact of midterm elections on economic globalization. It is also worth noting in models 16 and 17 (annexure 6) that full election cycle variables depict the trend of inverted U-shaped relationship with economic globalization process. Despite performing several robustness checks, we could gather three important findings. These include: one, schedule elections year significantly reduces economic globalization process. Two, there is no impact of what so ever of midterm elections on economic globalization process and finally, there is a clear U-shaped relationship between full election cycle and economic globalization process, suggesting that as incumbent government nears the schedule elections, economic globalization process keeps slowing down, while this is exactly opposite during the early years of incumbent government in office.

## **5. Conclusion & Summary**

Literature on political competition demonstrates how incumbent politicians might manipulate economic policies to persuade voters before an election, and thereby generate political budget cycles (Nordhuas, 1975; Lindbeck, 1976; Rogoff & Sibert, 1988; Rogoff, 1990; Khemani 2004 and Chaudhuri & Dasgupta, 2005). There are similar such studies with specific reference to India (Karnik, 1990; Sen & Vaidya, 1996; Khemani, 2004 and Chaudhuri & Dasgupta, 2005) but are generally related to fiscal policies. We extend this to the economic globalization polices adopted by the central governments in India. We formulate 'electoral globalization cycle' based on the premise that globalization process leads to short run losses but benefit the economy in long run. Because the benefits of the economic globalization process tends to be isolated and costs associated with it are strenuous in short run, those sections of the society who are worst hit by these policies would like to replace the incumbent government with those who are more likely to adapt policies which do not hurt the people. This often forces the incumbent government to slowdown the economic globalization process as and when they near the scheduled election period. Based on this theory, we offered and tested three related hypotheses on electoral cycle related to economic globalization process.

Using time series data on elections and Axel Dreher's economic globalization index, it demonstrated that economic globalization process responds to the timing of union elections in India. While there was a strong electoral cycle in economic globalization process, which experienced a marked decline in election years, the impact of midterm

elections is insignificant. This is perhaps due to its timing which is uncertain and unanticipated which gives no scope of the incumbent governments to slow down the economic globalization process. The results portrayed in the paper are strongly valid as we have nullified the problems of serial correlation and multicollinearity. We also addressed the issue of bounded dependent variable and converted the same into unbound variable. The results do not change using this unbounded economic globalization index. Thus, an incumbent's varying degree of concern for slowing down the globalization process for its short term political gains and fear against losing the elections increases as the union elections draw nearer - does seem to be a plausible hypothesis, and is well supported by the results in this paper. This is best exemplified by the estimated instrumental electoral cycle for economic globalization process wherein both the globalization process tend to increase during the earlier years of an incumbent's tenure in office, and decline in as scheduled elections draws near. Further, the statistically insignificant effect of midterm elections on the economic globalization process also provides evidence in favor of the hypotheses offered in this study.

### **Implications of the results & where do we go from here?**

The results in this paper highlight three important points. First, these results show that electoral cycles are not necessarily confined to fiscal and monetary policies alone. Rather, it can affect the most important policies like economic globalization process, which in turn drives various policies of the governments (like fiscal, monetary, public sector etc). Second, these results also suggest that elections can indeed act as a disciplining device for incumbent governments in the hands of the losers in the short run to influence the fate of the incumbent governments to halt the neoliberal policies. Finally, the effect of political manipulation of economic globalization policies by the incumbent governments shows how politicians are only concerned to maximize their short run political gains at the expense of minimizing the long run economic benefits generated from higher levels of economic globalization process. Taking these results into consideration, our next interesting step would be to probe whether similar such results can be replicated using time series cross sectional analysis for other democratic countries in the world.

## Annexures

### Annexure 1: Descriptive Statistics

	<b>Economic Globalization</b>	<b>GDP growth rate</b>	<b>Log (Per capita GDP)</b>	<b>Political Constraints</b>	<b>Poverty rate</b>	<b>Gini Index</b>	<b>Schedule Elections</b>
Mean	22.00	5.18	5.72	0.44	39.55	32.86	2.14
Median	15.94	5.63	5.68	0.42	39.00	31.88	2.00
Maximum	44.00	9.86	6.45	0.58	56.00	38.00	4.00
Minimum	14.60	-5.24	5.29	0.29	22.00	29.17	1.00
Standard Deviation	9.07	3.01	0.35	0.08	10.45	2.68	1.18
Probability	0.04	0.00	0.23	0.45	0.28	0.08	0.14
Sum Sq. Dev.	2960.65	326.89	4.38	0.21	3928.47	259.58	50.32
Observations	37	37	37	37	37	37	37

	<b>Mid-term elections</b>	<b>Economic &amp; Political Crisis</b>	<b>1 year before elections</b>	<b>2 years before elections</b>	<b>3 years before elections</b>	<b>4 years before elections</b>
Mean	2.51	0.13	0.16	0.14	0.11	0.11
Median	3.00	0.00	0.00	0.00	0.00	0.00
Maximum	4.00	1.00	1.00	1.00	1.00	1.00
Minimum	1.00	0.00	0.00	0.00	0.00	0.00
Standard Deviation	1.17	0.35	0.37	0.35	0.32	0.32
Probability	0.20	0.00	0.00	0.00	0.00	0.00
Sum Sq. Dev.	49.24	4.32	5.03	4.32	3.57	3.57
Observations	37	37	37	37	37	37

### Annexure 2: Economic Globalization during Election years

<b>Sl. No.</b>	<b>Schedule Election year</b>	<b>Swing in Economic Globalization Index</b>	<b>Net change in Index {t - (t-1)}</b>
1	1970	Decline	0
2	1977	Decline	-0.1
3	1980	Decline	-0.1
4	1984	Gradual Increase	+0.21
5	1989	Gradual Increase	+0.71
6	1996	Marginal Increase	+0.05
7	2004	Greater Increase	+1.6

**Note:** t = current years; Decline = negative change in index in t from t-1; Marginal increase in change in index range between 0.01 – 0.1; Gradual increase in change in index range between 0.2 – 1.0; Greater increase in change in index range from 1.1 and above.

### Annexure 3: Correlation Matrix

	<b>GDP growth rate</b>	<b>Log (Per capita GDP)</b>	<b>Political constraints</b>	<b>Poverty rate</b>	<b>Gini Inequality</b>	<b>Schedule Elections</b>	<b>Mid- Elections</b>
<b>Economic Globalization</b>							
<b>GDP growth rate</b>	1.00						
<b>Log (Per capita GDP)</b>	0.46	1.00					
<b>Political constraints</b>	0.05	0.14	1.00				
<b>Poverty rate</b>	-0.43	-0.86	-0.18	1.00			
<b>Gini Inequality</b>	0.26	0.80	0.01	-0.74	1.00		
<b>Schedule Elections</b>	-0.10	-0.07	0.09	0.08	0.06	1.00	
<b>Mid-elections</b>	0.02	0.15	-0.18	-0.17	0.15	-0.03	1.00
<b>Socioeconomic crisis</b>	-0.04	-0.15	-0.23	0.09	-0.37	-0.31	0.09
<b>1 year before elections</b>	0.22	-0.06	0.02	0.08	-0.06	-0.05	-0.32
<b>2 years before elections</b>	0.07	-0.03	0.03	0.00	-0.10	0.29	-0.17
<b>3 years before elections</b>	0.01	0.02	-0.06	-0.07	0.06	-0.18	0.22
<b>4 years before elections</b>	0.02	-0.00	0.24	-0.00	0.09	-0.11	0.22

	<b>Socioeconomic crisis</b>	<b>1 year before elections</b>	<b>2 years before elections</b>	<b>3 years before elections</b>	<b>4 years before elections</b>
<b>Socioeconomic crisis</b>	1.00				
<b>1 year before elections</b>	0.04	1.00			
<b>2 years before elections</b>	0.07	-0.17	1.00		
<b>3 years before elections</b>	-0.13	-0.15	-0.13	1.00	
<b>4 years before elections</b>	-0.13	-0.15	-0.13	-0.12	1.00

**Annexure 4:** Robustness check – 1: Elections & Economic Globalization equation function

Dependent variable: Dreher’s Economic Globalization Index

Variables	Model 8	Model 9	Model 10	Model 11
Constant	-248.43 * (19.76)	-251.23 * (17.73)	-248.63 * (20.65)	-247.35 * (17.19)
Schedule Election year	-0.49 ** (0.21)	-0.66 * (0.20)	-0.49 ** (0.23)	-0.54 ** (0.20)
1 year before Elections	0.10 (0.65)	-----	-----	-----
2 years before Elections	-----	1.56 * (0.50)	-----	-----
3 years before Elections	-----	-----	0.02 (0.47)	-----
4 years before Elections	-----	-----	-----	-0.87 (0.86)
Log (Economic Development)	41.39 * (3.08)	41.60 * (2.91)	41.40 * (3.26)	40.88 * (2.86)
GDP Growth rate	-0.27 * (0.08)	-0.29 * (0.07)	-0.27 * (0.08)	-0.26 * (0.09)
Political Constraints Index	-4.97 (3.55)	-4.91 + (3.22)	-4.92 (3.50)	-3.84 (3.03)
Poverty Rates	0.63 * (0.09)	0.64 * (0.08)	0.63 * (0.09)	0.63 * (0.07)
Gini Inequality Index	0.41 ** (0.15)	0.45 * (0.13)	0.41 * (0.14)	0.46 * (0.14)
Economic & Political Crisis	-1.36 + (0.86)	-1.56 ** (0.69)	-1.34 + (0.87)	-1.38 *** (0.83)
R-squared	0.982929	0.985946	0.982915	0.983681
Adjusted R-squared	0.978052	0.981930	0.978033	0.979018
Durbin-Watson statistic	1.820801	2.166064	1.824140	1.865997
Log likelihood	-58.27005	-54.67315	-58.28578	-57.43698
F-statistic	201.5293	245.5318	201.3551	210.9731
<b>Breusch-Godfrey Serial Correlation LM Test:</b>				
F-statistic	0.197479	0.450628	0.193503	0.081264
Probability. F	0.6603	0.5077	0.6635	0.7778
Total number of Observations	37	37	37	37

**Note:** \* Significant at 1% confidence level; \*\* Significant at 5% confidence level \*\*\* Significant at 10% confidence level; + Significant at 15% confidence level. The models are controlled for Heteroskedasticity. White Heteroskedasticity-Consistent Standard Errors are reported in parenthesis.

**Annexure 5:** Robustness check – 2: Elections & Economic Globalization equation function

Dependent variable: Dreher’s Economic Globalization Index

Variables	Model 12	Model 13
Constant	-244.66 * (20.31)	-252.81 * (27.72)
Schedule Election year	-0.47 ** (0.23)	-----
1 year before Elections	-----	0.33 (0.72)
2 years before Elections	-----	0.88 + (0.57)
3 years before Elections	-----	0.62 (0.52)
4 years before Elections	-----	0.16 (1.36)
Log (Economic Development)	40.73 * (3.24)	41.89 * (4.36)
GDP Growth rate	-0.27 * (0.08)	-0.28 * (0.09)
Political Constraints Index	-4.81 (3.50)	-4.96 (3.54)
Poverty Rates	0.64 * (0.09)	0.65 * (0.12)
Gini Inequality Index	0.41 * (0.14)	0.39 ** (0.15)
Economic & Political Crisis	-1.46 *** (0.86)	-0.88 (0.95)
Number of Strikes & Lockouts	-0.0004 (0.00)	-0.0002 (0.00)
R-squared	0.983070	0.980956
Adjusted R-squared	0.978233	0.972577
Durbin-Watson statistic	1.860615	1.596432
Log likelihood	-58.11641	-60.29358
F-statistic	203.2392	117.0690
Total number of Observations	37	37

**Note:** \* Significant at 1% confidence level; \*\* Significant at 5% confidence level \*\*\* Significant at 10% confidence level; + Significant at 15% confidence level. The models are controlled for Heteroskedasticity. White Heteroskedasticity-Consistent Standard Errors are reported in parenthesis.

**Annexure 6: Sensitivity Analysis - Elections & Economic Globalization equation function**

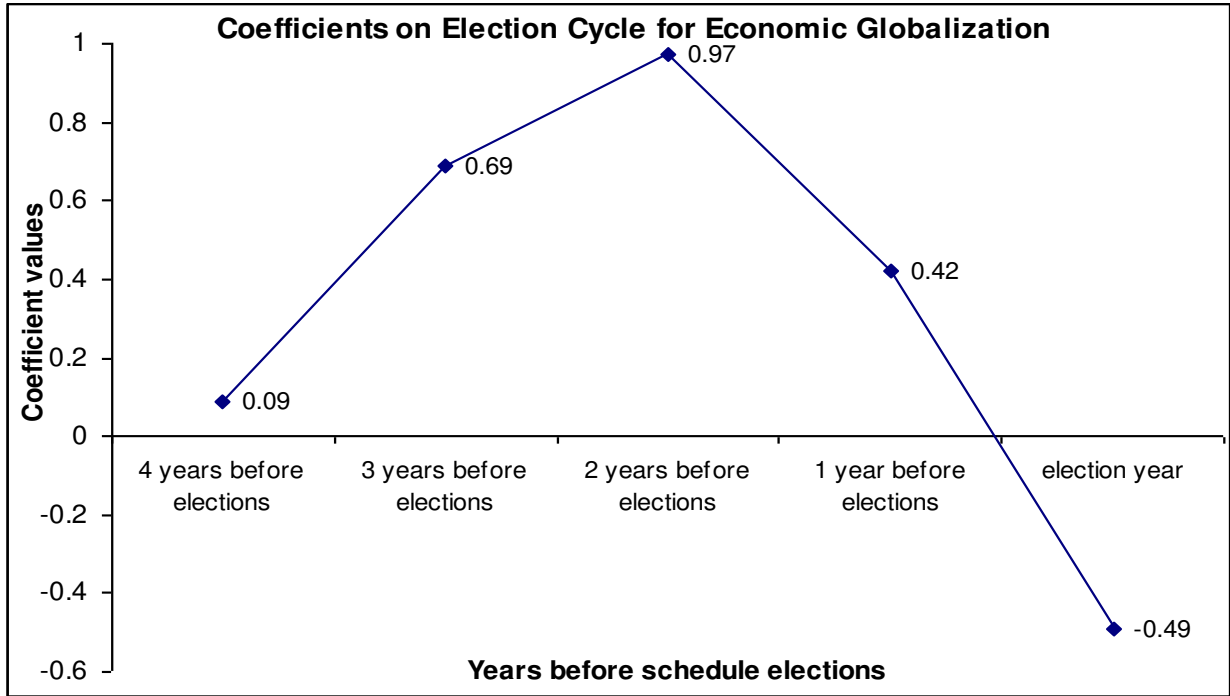
Dependent variable: Modified Economic Globalization Index

Variables	Model 14	Model 15	Model 16	Model 17
Constant	-5.22 * (0.57)	-5.18 * (0.71)	-5.29 * (0.71)	-5.16 * (0.48)
Schedule Election year	-0.01 ** (0.00)	-----	-----	-0.02 ** (0.01)
Mid-term Election years	-----	-0.01 (0.01)	-----	-----
1 year before Elections	-----	-----	0.001 (0.02)	0.002 (0.01)
2 years before Elections	-----	-----	0.01 (0.01)	0.03 ** (0.01)
3 years before Elections	-----	-----	0.005 (0.01)	-0.01 (0.01)
4 years before Elections	-----	-----	-0.01 (0.03)	-0.03 (0.03)
Log (Economic Development)	0.84 * (0.09)	0.83 * (0.11)	0.84 * (0.12)	0.82 * (0.08)
GDP Growth rate	-0.004 ** (0.00)	-0.004 *** (0.00)	-0.004 + (0.00)	-0.004 ** (0.00)
Political Constraints Index	-0.16 *** (0.09)	-0.19 **** (0.10)	-0.16 *** (0.10)	-0.14 + (0.09)
Poverty Rates	0.01 * (0.00)	0.01 * (0.00)	0.01 * (0.00)	0.01 * (0.00)
Gini Inequality Index	0.01 ** (0.00)	0.01 ** (0.00)	0.01 *** (0.00)	0.01 ** (0.00)
Economic & Political Crisis	-0.03 *** (0.02)	-0.01 (0.01)	-0.02 (0.01)	-0.03 ** (0.02)
R-squared	0.966560	0.961491	0.961514	0.971873
Adjusted R-squared	0.958489	0.952195	0.946712	0.959497
Durbin-Watson statistic	1.414022	1.178193	1.172264	1.497718
Log likelihood	75.36145	72.75005	72.76130	78.56216
F-statistic	119.7479	103.4381	64.95737	78.52964
Total number of Observations	37	37	37	37

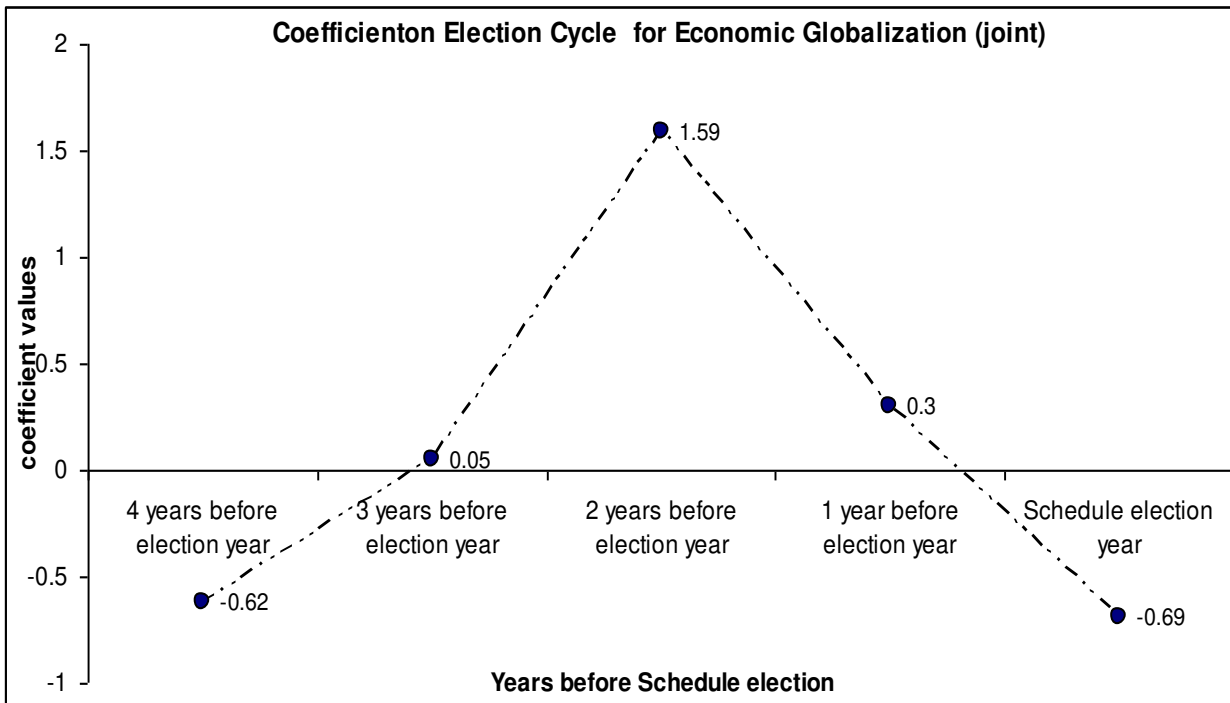
**Note:** \* Significant at 1% confidence level; \*\* Significant at 5% confidence level \*\*\* Significant at 10% confidence level; + Significant at 15% confidence level. The models are controlled for Heteroskedasticity. White Heteroskedasticity-Consistent Standard Errors are reported in parenthesis.



**Graph 1 for Model 6**



**Graph 2 for Model 7**



## 6. References

Alesina, Alberto; Vittorio Grilli & Gian M. Milesi-Ferretti (1994): Political Economy of Capital Controls, in: Leonardo Leiderman and Assaf Razin (eds.), *Capital Mobility: Impact on Consumption, Investment & Growth*, Cambridge University Press, Cambridge: pp. 289-321.

Andersen, T. M. and Herbertsson, T. T. (2005): Quantifying globalization, *Applied Economics*, 37(10), pp. 1089 — 1098.

Alesina A, Roubini N. (1992): Political cycles in OECD economies, *The Review of Economic Studies*, 59, 663-688.

Ali T. Akarca & Aysit Tansel (2006b): Social and economic determinants of Turkish voter choice in the 1995 parliamentary election, *Electoral Studies*, (26), pp. 633- 647.

Alvarez, R.M., Nagler, J., Willette, J.R. (2000): Measuring the relative impact of issues and the economy in democratic elections. *Electoral Studies*, (19), pp. 237–253.

Ames, B. (1987): *Political Survival: Politicians and Public Policy in Latin America*. University of California Press, Berkeley.

Akarca, A. T., Tansel A. (2006a): Economic Performance and Political Outcomes: An Analysis of the Turkish Parliamentary and Local Election Results Between 1950 and 2004. *Public Choice*, (129), pp. 77-105.

Boswell, Terry & William J. Dixon (1990): Dependency and Rebellion: a Cross national Analysis, *American Sociological Review* 55(4): 540–559.

Barbieri, Katherine (1996): Economic Interdependence: A Path to Peace or a Source of Interstate Conflict? *Journal of Peace Research* 33(1): 29–49.

Besley T, Case A. (1995): Does electoral accountability affect economic policy choices? Evidence from gubernatorial term limits, *Quarterly Journal of Economics*, 110, pp. 769-798.

Block S. (2002): Political business cycles, democratization, and economic reform: the case of Africa, *Journal of Development Economics*, 67, pp. 205-228.

Blinder, A. (2006): Off shoring: The Next Industrial Revolution? *Foreign Affairs*.

Beck, Nathaniel & Jonathan N. Katz (1995): What to Do (and Not to Do) with Time-Series Cross-Section Data, *American Political Science Review*, 89(3), 634-647

Burdekin, R. C. K. (1988): Economic Performance and the Determination of Presidential Elections in the U.S. *The American Economist*, (32) pp. 71-75.

Crafts, Nicholas (2000): *Globalization & Growth in Twentieth Century*, IMF Working Paper, WP/00/44. Washington, D.C.: International Monetary Fund.

Chanda, Areendam (2001): *Influence of Capital Controls on Long Run Growth: Where and How Much?* North Carolina State University, mimeo.

Campos, Nauro F & Kinoshita, Yuko (2002): FDI as Technology Transferred: Some Panel Evidence from Transition Economies, University of Manchester, vol. 70(3), pages 398-419.

Chaudhuri K, Dasgupta S. (2005): Political determinants of central governments' economic policies in India: Empirical investigation, *Journal of International Development*, 17, pp. 957-978.

Chappell, Henry W. Jr. & Veiga, Linda Goncalves (2000): Economics and elections in Western Europe: 1960–1997, *Electoral Studies* 19, pp. 183–197

Çarko lu, A. (1997): Macroeconomic Determinants of Electoral Support for Incumbents in Turkey, 1950-1995. *New Perspectives on Turkey*, (17), pp. 75-96.

Dreher, Axel, (2006): Does Globalization Affect Growth? Evidence from a new Index of Globalization, *Applied Economics* 38(10), pp. 1091-1110.

David Dollar, Aart Kraay (2004): Trade, Growth & Poverty, *Economic Journal*, 114(493), pp. 22–49.

Datta, Gaurav (1991): Has Poverty Declined Since Economic Reforms?, *Economic and Political Weekly*, December Issue, pp. 11-17.

De Melo, Martha, Cevdet Denizer, and Alan Gelb (1996): *From Plan to Market: Patterns of Transition*, Public Policy Research Paper No.1564, World Bank, Washington, DC.

Duch, Raymond M & Stevenson, Randy (2006): Assessing the magnitude of the economic vote over time and across nations, *Electoral Studies*, (25), pp. 528-547

Edwards, Sebastian, (1998): Openness, Productivity and Growth: What Do We Really Know?, *Economic Journal*, Royal Economic Society, vol. 108(447), pp. 383-98.

Fields, A. Belden (2003): *Rethinking Human Rights for the New Millennium*. New York: Palgrave Macmillan.

Flanagan, W. H. & E. Fogelman (1971): Patterns of Political Science in Comparative Historical Perspective, *Comparative Politics* 3(1), pp. 1–20.

Fielding, D. (1998): Social & Economic Determinants of Voter Behavior: Evidence from 1992 General Election in Scotland, *Scottish Journal of Political Economy*, (45), pp. 237-257.

Fielding, D. (2000): Social & Economic Determinants of English Voter Choice in the 1997 General Election. *Public Choice*, (102), pp. 271-295.

Gleisner, R. F. (1992): Economic Determinants of Presidential Elections: The Fair Model, *Political Behavior*, (14), pp. 383-394.

Golden D, Poterba J (1980): The price of popularity: the political business cycle reexamined. *American Journal of Political Science*, 24, pp. 696-714.

Gupta SP (1999): Trickle-down Theory Revisited: The Role of Employment and Poverty, VV Singh Memorial Lecture at 41<sup>st</sup>, Annual Conference of Indian Society of Labor Economics, November 18-20.

Hansen, Henrik & John Rand, (2006): On Causal Links between FDI and Growth in Developing Countries, *The World Economy*, Blackwell Publishing, vol. 29(1), pages 21-41.

Jacobsen, Monika S. (1996): Peace and Prosperity, or Democratic Chaos? *Internasjonal Politikk* 54(2): 237–254.

Khemani, S. (2004): Political cycles in a developing economy: effect of elections in the Indian states, *Journal of Development Economics*, 73, pp. 125-154

Karnik A. (1990): Elections and government expenditures: the Indian evidence, *Journal of Quantitative Economics*, 6, pp. 203-212.

Kolodko, Grzegorz W (1999): *Ten Years of Postsocialist Transition: The Lessons for Policy Reforms*, Macroeconomics and Growth Development Working Paper No. 2095, World Bank, Washington, DC.

Krugman, P. (2007): Trade and Inequality, Revisited, available online at <http://www.voxeu.org/index.php?q=node/261>

Lewis-Beck, M.S. (1988): *Economics and Elections: The Major Western Democracies*. University of Michigan Press, Ann Arbor.

Lewis-Beck, M. S., Stegmaier, M. (2000): Economic Determinants of Electoral Outcomes, *Annual Review of Political Science*, (3), pp. 183-219.

Lewis-Beck, M.S. (1991): Introduction. In: Norpoth, H., Lewis-Beck, M.S., Lafay, J.-D. (Eds.), *Economics and Politics: The Calculus of Support*. University of Michigan Press, Ann Arbor.

Lewis-Beck, M.S., Paldam, M. (2000): Economic voting: an introduction. *Electoral Studies*, (19), pp. 113–121.

Lockwood, Ben & Redoano, Michela (2005): *The CSGR Globalization Index: An Introductory Guide*, Centre for the Study of Globalization and Regionalization, Working Paper 155/04.

Lindbeck, A (1976): Stabilization policy in open economies with endogenous politicians. *American Economic Review*, 66, pp. 1-19.

Mitchell D. M & Willett K. (2006): Local Economic Performance & Election Outcomes, *Atlantic Economic Journal*, (34), pp. 219 – 232

Michael D. Bordo & Christopher M. Meissner (2007): Foreign Capital and Economic Growth in the First Era of Globalization, NBER Working Papers 13577, National Bureau of Economic Research.

Mygind, Niels (1999): *Societies in Transition*. Copenhagen: Copenhagen Business School. <http://www.econ.cbs.dk/institutes/cees/pub/sit/p1.html>.

Marer, Paul, and Salvatore Zecchini, eds. (1991): *The Transition to a Market Economy*, 2 volumes. Paris: OECD.

- Milanovic, Branko (1995): Poverty, Inequality, and Social Policy in Transition Economies, Policy Research Working Paper No. 1530, World Bank, Washington, DC.
- Moyo, D. (1999): The Determinants of Public Savings in Developing Countries, Working Paper, Oxford University.
- Neumayer, Eric (2005): Do International Human Rights Treaties Improve Respect for Human Rights? *Journal of Conflict Resolution*, 49(6), pp. 925–953
- Nordhaus W (1975): The political business cycle, *Review of Economic Studies*, 42, pp. 169-190.
- Nordhaus, William (2006): Electoral Victory and Statistical Defeat? Economics, Politics, & 2004 Presidential Election, *Quarterly Journal of Political Science*, (1), pp. 313–322
- Przeworski, Adam (1993): *Democracy and the Market: Political and Economic Reforms in Eastern Europe and Latin America*. Cambridge, MA: Cambridge University Press.
- Reid B. (1998): Endogenous elections, electoral budget cycles and Canadian provincial governments, *Public Choice*, 97, pp. 35-48.
- Rogoff K, Sibert A (1988): Elections and macroeconomic policy cycles, *Review of Economic Studies*, 55, pp. 1-16.
- Rogoff K (1990): Equilibrium political budget cycles, *American Economic Review*, 80, pp. 21-36.
- Reuveny, Rafael & Li, Quan (2003): Economic Openness, Democracy & Income Inequality: An Empirical Analysis, *Comparative Political Studies*, 36(5), pp. 575 – 601.
- Rincon, Hernan (2005): Financial Globalization, Economic Growth, & Macroeconomic Volatility, Borradores de Economía 430, Banco de la Republica de Colombia
- Rodrik, Dani (1994): The rush to free trade in the developing world: Why so late? Why now? Will it last? In: Haggard, S., Webb, S. (Eds.), *Voting for Reform: Democracy, Political Liberalization, and Economic Adjustment*. Oxford Univ. Press, Oxford.
- Rodrick, D. (1997): Trade, Social Insurance, and the Limits to Globalization, NBER Working Paper No. w5905. Available at: <http://papers.nber.org/papers/w5905>.
- Rodríguez, F. and Rodrik, D. (2000): Trade policy and economic growth: a skeptic guide to cross-national evidence, in Ben Bernanke & Kenneth Rogoff (eds.) *NBER Macroeconomics Annual 2000*, pp. 261– 324. Cambridge, Mass.: MIT Press.
- Rodrik, D. (1997): *Has Globalization Gone Too Far?* Institute for International Economics, USA
- Rodrik, D. (1998): Who Needs Capital-Account Convertibility? in “Should the IMF Pursue Capital-Account Convertibility”, *Essays in International Finance*, 207, Princeton University.
- Rogers, William H. (1993): Regression Standard Errors in Clustered Samples, *Stata Technical Bulletin*, 13, pp. 19-23.

Rao, B. Bhaskara & Tamazian, Artur & Vadlamannati, Krishna Chaitanya (2008): Growth Effects of a Comprehensive Measure of Globalization with Country Specific Time Series Data, MPRA Paper 7917, University Library of Munich, Germany.

Summers, L. (2006): *Financial Times*, October 29.

Shi, M., Svensson, J. (2000): Conditional Political Business Cycles: Theory and Evidence, Development Research Group, World Bank.

Schuknecht, L. (1996): Political business cycles and fiscal policies in developing countries, *Kyklos*, 49(2), 155–170.

Schuknecht, L. (1999): Fiscal policy cycles and public expenditure in developing countries, *Public Choice*, in press.

Sachs, Jeffrey & Warner, Andrew, (1995): Economic Reforms and the Process of Global Integration, *Brookings Papers on Economic Activity*, pp. 1-118.

Slantchev Branislav L. (2005): The Political Economy of Simultaneous Transitions: An Empirical Test of Two Models, *Political Research Quarterly*, 58, pp. 279 – 294

Schuknecht L (1996): Political business cycles and fiscal policies in developing countries, *Kyklos* 49, pp. 155-170.

Schuknecht L (2000): Fiscal policy cycles and public expenditure in developing countries. *Public Choice*, 102, pp. 115-130.

Sen K, Vaidya R (1996): Political budget cycles in India, *Economic and Political Weekly*, pp. 2023-2027.

Vadlamannati Krishna Chaitanya & de Soysa (2008): Do Economic Reforms care for Human Rights? Evidence from Transition economies, working paper 2008/03; USC, Spain.

Vadlamannati Krishna Chaitanya & Irala, Lokanandha (2008): FDI, Domestic Private Investments & Institutional Investors' Perception – The Role of Economic Reforms in India, working paper series 2008/03; USC, Spain.

Vadlamannati Krishna Chaitanya (2008): Impact of Economic Reforms on Poverty – Indian Experience, working paper series 2008/01; USC, Spain.

Veiga, Francisco José & Veiga, Linda Gonçalves (2006): The impact of local and national economic conditions on legislative election results, WPS: 6 / 2006, NIPE.

Wolf, H.C. (1999): Transition Strategies: Choices and Outcomes, Princeton Studies in International Economics No. 85, International Economics Section.

Weede, E. (1995): Economic Policy and International Security: Rent-Seeking, Free Trade and Democratic Peace, *European Journal of International Relations*, 1, 519–537

Williams, Rick L (2000): A Note on Robust Variance Estimation for Cluster-correlated Data, *Biometrics*, 56, pp. 645-46.

Wilkin, Sam, Haller, Brandon & Norpoth, Helmut (1997): From Argentina to Zambia: a World-Wide Test of Economic Voting, *Electoral Studies*, (16)3, pp. 301-316.

White, H. (1980): A Heteroscedasticity Consistent Covariance Matrix Estimator and a Direct Test of Heteroscedasticity, *Econometrica*, (48), pp. 817-838.

Youde, Jeremy (2005): Economics and government popularity in Ghana, *Electoral Studies*, (24), pp. 1–16

Zhang, Wei, (2001): Rethinking Regional Disparity in China, *Economic Change and Restructuring*, vol. 34(1-2), pp. 113-38.

**Datasets:**

Economic Globalization Index: <http://globalization.kof.ethz.ch/>

World Development Indicators (2006), World Bank (online) <http://ddp-ext.worldbank.org/WDI>

Election Commission of India, <http://www.eci.gov.in/index.htm>