Effect of Socio-economic Conditions, Coalition, and Party Identification toward Voter Choice in Indonesian Legislative Election

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ABSTRACT

The 2004, 2009, and 2014 Indonesian legislative election were held with unique political conditions on each of them. This research uses the data within these elections to test the external validity of several voting theories from other literatures, particularly on socio-economic determinants, coalition, and party identification effect toward voter choice. The results are as follow: Indonesian voter doesn't really take current local economic growth into consideration; there is no evidence that they hold all parties in governing coalition accountable equally; there are only weak evidences for poor economic performance to only benefit extreme opposition parties; they do vote against governing parties due to strategic voting and there exist cost of ruling effect for them; being in a coalition do affect individual party's vote shares significantly; they doesn't seem to consider social and economic situation significantly yet in general; and Party Identification effect is still significant on affecting voter choice.

Introduction

On democratic countries such as Indonesia, millions of its peoples go through election places to vote for their preferred politician or political party on each election period. Young, old, poor or rich; as long as one is an eligible subject within those countries, they would have the rights to vote for their own government. Each of these voters may belongs to different social or demographical group, yet their votes still have the same weight in the front of constitution – one vote count for each person. Looking at these facts, one may wonder and ask: what caused these people from different groups to vote on certain party or candidate in an election? This is especially true when facing a large country like Indonesia who accommodate hundreds of ethnic groups across its archipelago.

The purpose of this research is to answer the question: "How do Socio-economic Conditions, Coalition, and Party Identification affect Voter Choice in 2004, 2009, and 2014 Indonesian Legislative election?" Based on previous findings across the world, voters would cast their votes to the incumbent parties for good governance, while otherwise for a bad one. Less fortunate people would tend to vote for more left winged parties, while the rich tends to vote for right winged one as it is more of their interest to do so. Voters may also vote for a political party they identified themselves the most with, or attempt several methods to balance power between governing and opposition parties. There are many other things that have been proven to be considered and done by the voters to maximize their utility from their ability to vote.

This research is done by testing the external validity of several previously generalized findings in specific region - Indonesia. It specifically tests on relationship between voter considerations, socio-economic indicators, coalition, and Party Identification (PID) - particularly on whether Indonesian voters 1) take current economic condition to evaluate the current government (incumbent parties), 2) hold all parties in the governing coalition equally accountable, 3) use said evaluation to determine whether they will instead vote for opposition parties each equally, 4) show tendencies to vote against incumbent parties - either to balance power, trying new parties, or because of disappointment on current government, 5) decision are affected by political maneuver such as formation of coalitions, 6) take actual social and economic to their consideration in voting, and 7) Identify themselves strongly with their preferred political party, resulting in perceptual and attitudinal biases.

Answering questions above are relevant not only for predicting election outcomes, but it may also be used to find the source of instabilities of an election. If current economic growth rate is rather significant in affecting electability, incumbents will have an incentive to create policies which are advantageous for a short-run economic growth rate on the year the election is held. If not all parties

in governing coalition are being hold accountable for economic downturn, it may lead to moral hazard on related parties, which can lead to governmental breakdown. If voters vote strategically to balance power, it will create faster political cycle, impeding the growth of their country. If forming big coalitions result in either of them winning the election, it can be expected that the winning coalition to repeat this process in the future. If actual social and economic situation affect voter's choice significantly, conflict of interest may happen more often between current government and its citizen. This will increase the number of swing voters more than ever, resulting in more incentive to campaign and frailer political stability. By contrast, if biases caused by PID are significant, incumbents may behave more irresponsibly in managing the country, and opposition may need to rely on extraordinary non-economic macro-shocks (i.e. corruption scandal, successful religious propaganda, war, etc.) to compete with them.

1. Theoretical Framework

While it may be interesting to include bunch of different socio-economic indicators into the research, studying their relationship with election outcomes will face two basic data-related problems (Akarca and Tansel 2007), especially on relatively young countries. First is on how scarce time-series data on this subject. They are only collected at the rate of one observation per certain period of time, which is usually four to five years. Second, socio-economic indicators which are used to represent economic performance, interests, and ideology of political candidates are often crosscorrelated to each other and/or autocorrelated across periods. These two problems makes it next to impossible to find proper data on a single country for time-series analysis, unless they are a country such as United States who has been doing their election regularly for centuries.

Many literatures on this topic has tried to work on the first problem by pooling elections from more than one nation with different demography, culture, political system, technology and development. Examples include paper from Chappell and Veiga (2000), Pacek and Radcliff (1995), Lewis-Beck (1988), and many others. They created cross-national datasets to increase the number of observations and conclude their analysis from them. While such studies provide some understanding of world trends on direction and significance of socio-economic indicators toward electability, its applicability to each unique, different countries remains questionable at best with varying estimates on each study.

Adopting above method to a smaller scale (cross-provincial analysis) may be a better approach to analyze a young, archipelagic country with vast variation of social and economic situation such as

Indonesia. However, although cross-provincial data is relatively better to describe each individual country, it still bears the same weaknesses with every other cross-national analysis. These weaknesses are described under 5 assumptions below, in which the estimations are required to abide upon them to reliably describe voter's consideration. First, the election must be fairly contested. The effect of campaigning for each major parties being observed should counteract with each other, resulting in no significant change of public opinion caused by it when the election was held. Second, there should be no significant instance(s) of non-economic macro-shocks other than the one explained in the model. Third, there should be no significant bandwagon/mobilization effect to the voter nor momentum to the candidate (Denter and Sisak 2015) should there be polls before election. Fourth, voters must not put significant preference to candidate him/herself personally, but only identify them through the parties they are from. Lastly, the effect of voter characteristics should not differ significantly by provinces (i.e. there should be no province desiring scholarship much more than building infrastructures from the others, resulting in large variance of aggregated utility functions across provinces). Only when all of these assumptions are fulfilled will the result of these chain of literatures be able to provide reliable estimations.

For the second problem, since making a lab-level environment is impossible in this area, the solution can only be found by testing each of the collected variables from crosscorrelation one by one. After many trials and errors, Growth rate of GRDP, Net Enrollment Ratio (NER) in school, Unemployment Rate, and Migration Rate have been chosen to be the key indicators. The preliminary analysis have found a quite low correlation between each of them, with an average of 0.2 as their correlation coefficient.

The last thing to note is on how three election periods of 2004, 2009, and 2014 each provide unique, different political situation. The 2004 Election could be said to be the first, fairly contested election of Indonesian Election, as 1999 Election are too politically unstable[1]. By 2009 election, the governing party (Partai Demokrat) gained an overwhelmingly positive support from their subjects and

[1] The 1999 election is forced to be held due to the fall of Soeharto 31-years dictatorship, caused by the biggest tragedy that ever happen in the country: May 1998 Riots of Indonesia. It was incidents of mass violence, demonstrations, and civil unrest of racial nature throughout Indonesia due to increasing unemployment and food shortage (more information can be found from McGlynn et al. (2007) book). This result in his resignation as a president and chaos ensuing the following year until 1999 election was held. The instability still continues even after then, marked by 1999 elected President Abdurrahman Wahid conflict with Dewan Perwakilan Rakyat (People's Representative Council or DPR). With authority of Majelis Permusyawaratan Rakyat (People's Consultative Assembly or MPR) as the highest Indonesian Institution at that time and two memorandums of DPR, he is forced to be removed from his presidency and be exchanged with Megawati Soekarnoputri in less than two years after his inauguration. Only by 2004 election onward do these instabilities subside and let Indonesian politician complete their service without interruption.

completely crushed every other parties, winning presidential election by landslide and also having most votes in legislative election. Interestingly, the situation has completely been turned around by 2014 election. Then, the main incumbent party, Demokrat, took a nosedive on their electability and were completely being overwhelmed by Partai Demokrasi Indonesia Perjuangan (Indonesian Democratic Party 'Struggle' or PDIP)[2]. There was also a big political maneuver in this year, where all parties involved in the election are split into two big coalitions, Koalisi Indonesia Hebat (Great Indonesia Coalition or KIH) and Koalisi Merah Putih (Red and White Coalition or KMP), which makes an analysis of coalition effect in Indonesia possible.

With all of its conditions stated and all of its problems remedied, this research will then state its hypotheses, which are mostly based from Akarca and Tansel (2007) findings to answer the research questions. The expected results of this research are as follow:

1. Voters take current economic condition to evaluate current government for their re-election. It is expected to be positively correlated to current government's vote share, while negative for opposition.
2. Voters only hold primary party(s) in governing coalition responsible for their economic well-being. It is expected that only governing coalition leader are affected from previous evaluation, while there is no effect for minor governing parties.
3. Only extremist opposition(s) is expected to benefit from incumbent's bad performance and suffer from a good one.
4. Voters tends to vote against incumbent parties due to cost of ruling effect and strategic voting effect. It is expected for current incumbents to have relatively less political inertia than other parties in the current election.
5. Political maneuvers such as forming a coalition affect individual party's vote share significantly. It is expected for coalition to increase individual party's vote share of their group.

[2] As an incumbent in both presidential and legislative election of 2009, Demokrat gained 20.85% of total eligible vote in DPR election – 6% more than Golkar which is in the second place. Their presidential candidate, Susilo Bambang Yudhoyono also won a landslide victory, beating two other candidates and acquiring a whole 60.8% eligible votes from all of Indonesia in one turn. By 2014, Partai Demokrat are attacked and charged with several corruption scandals since the beginning of the year (For more information, refer to news article by Tempo (2014)). The result is a staggering decrease of more than half of their voting proportion (a total of 10.19% votes) from previous year's legislative election. They don't even have the power anymore to nominate their own people for presidency and instead require to join a coalition. In contrast, PDIP revolved their strategy around the sudden boom of popularity of Jakarta Governor named Joko Widodo during that year. This strategy successfully brings PDIP votes to the former peak, resulting in the election of Joko Widodo as Indonesian president and becoming the party with the most votes on 2014 DPR election (getting around 18.95% of votes).

6. Voter's decision is found to also depend on their socioeconomic characteristics. It is expected for this characteristics to make difference in their vote.
7. Voters are still significantly biased as the result of PID although its effect tend to decrease among countries. It is shown by strong political inertia - a significant relationship of previous election vote share to current vote share.

2. Related Literatures

The topic of voting determinant and voting behavior have been an ever-expanding literature across the world. Several of this research hypotheses had also been proven in several countries or combination of them. Effects of economic conditions on election are for example analyzed in Abrams and Butkewicz (1995), Akarca and Tansel (2006), Blackley and Shepard (1994), and Gleisner (1992). By those studies, the first, second, third, and fourth of above hypotheses have already been proven, albeit with respective conditions. On Socio-economic determinants, Fielding (1998) and Fielding (2000) gave findings on 1992 General Election in Scotland and 1997 General Election in England respectively, proving their significance. Examples for PID studies include *The American Voter* by Campbell et al (1960) whom first describe PID as central component of political behavior, paper from Greene (1999) on Social Identity approach of PID, and paper by Green, Palmquis and Schickler (2002) on more evidences of PID as Social Identification and how modern election doesn't escape from partisan attachment of their voters. Findings on coalition effects are also in a great number, such as journal by Gamson (1961) about theory of coalition and Slinko (2006) paper about how large a coalition should be to have a chance to influence an election.

On less relatable literatures, it was proven that education, religion and political preferences have an evident effect in affecting voter's political choice (Hau 2016) on Dutch election. Nannestad and Paldam (1994) found that in two party/block systems, voters in most countries are found to be sociothropic, myopic, and it cost the average of 2% vote to govern. Peters and Welch (2014) paper finds that corruption charge is an important determinant of vote loss. On Sigelman and Sigelman (1982) analysis, it is found that bias caused by ageism, racism, and sexism do exist, and ageism being the most significant one.

Regarding Indonesia as a subject of analysis, there are many qualitative research and survey on this topic such as voter's preference in choosing candidate (Poltracking 2014), yet there is almost no quantitative or rigorous statistical analysis among them. One of the few literature available there that correspond to this research's statistical nature is Higashikata and Kawamura (2015) paper, where

they found 2 things. First is that there exist PID within districts which formerly stood behind Islamic parties, in which they continued to give preference to those particular parties in some elections. Second is on positive correlation between higher per capita economic growths with support to the incumbent parties, although the result remain tentative because they haven't included 2014 data yet. This research aims to fill a gap in literature of economic voting in Indonesia left by them. By studying on how the votes are transferred from incumbents to oppositions as well, which are rarely studied in other countries likewise, this research also try to expand economic voting literature in general.

3. Political Background

Indonesia is a relatively young republic who declared their independence around 70 years ago, on 17th of August 1945. They follow the Montesquieu's Trias Politica down to the word for its separation of power: Dewan Perwakilan Rakyat (People's Representative Council or DPR), Dewan Perwakilan Daerah (Regional Representative Council or DPD), and Majelis Permusyawaratan Rakyat (People's Consultative Assembly or MPR) function as legislative, President functions as executive, and Supreme Court function as Judicial authority. Only the president and legislatures are voted directly by the whole citizen of Indonesia with different methods of election, while the Supreme Court personnel are requested by legislature and inaugurated by the president.

Indonesian Presidential election uses simple majority rule; whoever gets more than 50% legitimate votes in a turn will win the election. In case of nobody is getting 50% in the first turn, the election would then enter the second turn where all but two candidates with highest popularity in the first turn become eliminated. The election will commence once more with only two candidates to choose from on the second turn. In contrast, Indonesian National Legislative Election for DPR have a much more complicated method compared to their Presidential Election. It use an open-list proportional representation system like in Japan, Brazil, and Chile (Carnegie Endowment 2013). The DPR will first be divided into electoral districts (one province may have one or more electoral districts), and each district compete for between three to ten seats with the grand total of 560 seats (in 2009 onwards) for DPR. When Indonesian voter votes in National Legislative Election, voters receive a DPR ballot containing a list of each party's candidates who are running for candidacy. Voters then select a candidate he prefers, and that vote counts for both the candidate and the party. The election Commission will then calculate the 'quota' for each district, which is calculated by the total number of legitimate votes divided by number of seats competed in that district. Then, there are two rounds of allocation system to determine the winning candidates. In the first round, for each quota a party fulfills, that party wins a seat on the DPR. After the first round is over, there will definitely be votes remaining

from quota that isn't fully satisfied. In the second round, the parties are then listed in decreasing order of their remaining votes after being reduced by quotas. The unallocated seats are then distributed one by one from the top to bottom until all seats are distributed.

With exception of several major one, Indonesian political parties has always been changing over time[3]. Since 1999, only 6 parties are major enough to hold on: Partai Persatuan Pembangunan (United Development Party or PPP), Golongan Karya (Work Group or Golkar Party), PDIP, Partai Amanat Nasional (National Mandate Party or PAN), Partai Bulan dan Bintang (Moon and Star Party or PBB), and Partai Kebangiktan Bangsa (Nation Resurrection Party or PKB). The rest of major parties nowadays are mostly new parties, which is formed due to schism between them.

As for each party's political leaning, an article from Galena (2016) has explained extensively on how unique Indonesia is in evaluating a political decision[4]. This unique situation result in difficulties on classifying each Indonesian party into left or right in their practice, because they keep on changing their stance depending on what is sought by current voters. For example, PDIP with Jokowi, the current president as their representative who are officially left-winged should have fought for equal right and obligation, given proper facilities for the poor, self-sustaining economy, limiting rights of employer, etc. But look at what have been done by the President from 2014 onwards: 1) raising fees for low-class public transportation, 2) Importing more livestock from Australia, 3) Welcoming more FDI, etc. Meanwhile, right winged Demokrat who should have been fighting for free-market, ease of business, pulling in FDI has instead, since 2004 to 2014: 1) Create Bantuan Langsung Tunai (Direct Cash Aid or BLT) for the poor, 2) limiting import, 3) limiting export of raw materials and organizing manufactures of said materials, etc. Either of them doesn't seem to properly follow their ideology, and all decisions in their hand just tend to be a popularity contest.

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[3] In 1999, there are 48 political parties which compete in the legislative election, yet more than 85% of the votes are distributed between only 6 major political parties which exist until now. By 2004, half of those parties have gone and only 24 of them exist. From that 24 parties, 16 are eligible to compete in the election and only 10 of them passed the parliamentary threshold. Only by 2014 the number is reduced into only 12.

[4] Galena (2016) stated that in a matured democracy, there should be at least three things to be considered before voting for a certain candidate. Ordered from the most to least important are ideology, vision and mission, then candidate's character (with bias from race, religion, and such included). When U.S. Presidential candidate debate with each other, ideology (Democrat versus Republic) always come out as priority. This is followed with what vision and mission they have, and only after considering all of that U.S. Voters look at the candidate personally and derive their bias afterwards. Yet in Indonesia, the order is completely upside down. Indonesian voter tends to look at candidate's character first, followed with their planning. Only after then they will look at their ideologies, which most of them tend to not really care or understand any of it (except for Partai Keadilan Sejahtera (Prosperous Justice Party or PKS) fanatics). These also lead to a popular campaigning strategy used by practically all Indonesian parties nowadays: 'pencitraan' or imagery. This strategy creates fake image of great persona within their candidate(s) and show them to the voters by means of media. This strategy has proven to be effective for a while before all of the parties follow suit.

4. Methodology

This research follows the model by Akarca and Tansel (2007) by using Ordinary Least Square (OLS) method with vote share as dependent variable while lagged vote share and several socio-economic variables as independent variables. The model is then modified by removing, adding, and changing some socio-economic variables without violating any rules in the theoretical framework. It is done so for the sake of data availability, different political length of service, and originality.

The regression would be done thrice in different way. First, this research will regress each party in each period with provinces as its number of observations. These regressions aim for specific results on each period. The basic, modified model is as follow:

$$V_{ijt} = a_i + b_i V_{ijt-5} + c_i G_{jt} + d_i S_{jt} + e_i U_{jt} + f_i P_{jt} + g_i N_{jt} + e_{ijt} \quad (1)$$

$i = 1, 2,\ldots, l$

$j = 1, 2,\ldots, n$

Where

t : the year the election was held,

l : the number of parties participating in at t,

n : the number of provinces,

V_{ijt} : the vote share of party i in province j at t,

V_{ijt-5} : the vote share of party i in province j in election held at approximately 5 years before t,

G_{jt} : the growth rate of real GRDP in province j at t,

S_{jt} : the Net Enrollment Ratio (NER) in province j at t,

U_{jt} : the unemployment rate in province j at t,

P_{jt} : the Net Migration Rate in province j between year t and t-5 if the rate is positive, zero otherwise,

N_{jt} : - 1 times the Net Migration Rate in province j between year t and t-5 if the rate is negative, zero otherwise,

e_{ijt} : the error term of party i in province j at t.

a_i , b_i , c_i , d_i , e_i , f_i , g_i (i = 1, 2,…,l) are parameters to be estimated. All of the variables are measured in percentage points for parity. Henceforth, G is referred as growth rate, S as education rate, and P and N as positive and negative migration rates.

Each independent variables relate to the research question by looking at how they affect vote shares of each party in the election. The motivation of including each of the variable is as follow:

- V_{ijt-5} is used to see PID effect on each party. Strong PID effect is expected due to strong political inertia, therefore the coefficient is likely to be close to unity. However, this coefficient is expected to be significantly less than one for incumbents and close to or greater than one for oppositions due to two reason. First is about strategic voting effect, where voters tend to vote against incumbent to balance the power between parties. Second is because of cost of ruling effect which is due to several reasons. One of the example is on how it is almost impossible for the ruling parties to hold every promises they made to their supporter, resulting in their disappointment and refusal to choose the same candidate in the next election. In cross-section study, it is not possible to separate these effects since each observation's incumbents and their time spent in power are the same, unlike in a time series study.
- Growth rate is used to measure the impact of government's recent economic performance on election outcome. This research expect to find positive coefficient on this variable for incumbents and negative for opposition parties due to rationality of voters to reward good economic performance and punish a bad one. It can also be expected for government to be more populist at the end of their first term should this variable is found to be significant.
- S is used to measure which parties benefit (or suffer) from voter's rate of education. This may relate to many things, such as we can expect smarter population to choose left parties instead of right one in political compass (Hau 2016). It can also be expected for incumbent's vote share to be positively correlated to this variable, as higher S may also indicate a good governance of incumbents, resulting in voters rewarding them for that.
- U is used to see whether change in Unemployment Rate has anything to do with voting decision. It can expected for negative change in unemployment rate to have positive result for incumbent while negative for opposition parties. Surprisingly, unemployment rate doesn't correlate much with GRDP, only slightly higher in earlier year (2004) where the effect of 1998 crisis still haven't fully subsided yet.
- P and N may be considered to gain some insight as to which parties are preferred by recent immigrants. This also stand for overall attractiveness of social and economic conditions of the province. This means that the better social and economic conditions a province have, the more people would want to migrate there (Pull effect), while otherwise would result in people wanting to migrate out (push effect). Consequently, these variables also reflect the net

satisfaction of residents in a province Pull effect equal to overall satisfaction, while push effect means overall dissatisfaction.

Second regression pools all major surviving parties since 1999, in all periods, and in all province with enough data within all periods into a single regression analysis. From six surviving parties, only five parties remain competitive until 2014 election, namely Golkar, PDIP, PKB, PAN, and PPP. The regression is done by adding few dummy variables to segregate each party characteristic during each period. This regression particularly aim to segregate incumbency, extremist and coalition effects in relation with fourth and fifth hypothesis. This regression may also prove seventh hypothesis further, while providing a general take on sixth one. The pooled model is as follow:

$$V = a + h\,Pos + i\,KMP + j\,KIH + b\,V_{t-5} + c\,G + d\,S + e\,U + f\,P + g\,N + \varepsilon \qquad (2)$$

Where

V : the vote share,

Pos : dummy variable to describe the position of related party in the period they are being regressed on. Incumbent as 1, 0 otherwise,

KMP : dummy variable to segregate the effect of coalition in 2014 for all parties in said period, 1 for siding with KMP, 0 otherwise,

KIH : dummy variable to segregate the effect of coalition in 2014 for all parties in said period, 1 for siding with KIH, 0 otherwise,

V_{t-5} : the vote share in election held at approximately 5 years before t,

G : the growth rate of real GRDP,

S : the Net Enrollment Ratio (NER),

U : the unemployment rate,

P : the Net Migration Rate between year t and t-5 if the rate is positive, zero otherwise,

N : - 1 times the Net Migration Rate between year t and t-5 if the rate is negative, zero otherwise,

e : the error term.

a, h, i, j, b, c, d, e, f, g are the parameters to be estimated, and all of the variables are also measured in percentage points for parity.

Third regression is done in two parts, each with their own robust regression. One pools every incumbent party data and the other pools every extreme opposition party data in all period

while discarding neutral parties' data. It aims to test the individual effect of growth rate towards incumbents and their extreme opposition in relation to the first hypothesis. By comparing the coefficient between these two regressions, third hypothesis may also be supported.

This regression is done separately instead of creating another interaction on second regression due to incumbents and extreme oppositions in Indonesia are always between the parties with most vote shares (Demokrat, Golkar, and PDIP). The rest of the parties with smaller vote shares usually sides with neither of them and prefer to be 'mercenaries' or neutral altogether. This results in interactions between growth rate and incumbent-extreme opposition to always behave positively to either - incorrectly presenting the true effect of growth rate on them.

The modified model is as follow:

$$V_k = a_k + l_k G_{k+} \varepsilon \qquad (3)$$

Where

k : incumbent or extreme opposition party

a_k and l_k are the parameters to be estimated, and all of the variables are still measured in percentage points for parity.

5. The Data

The Socio-economic variables data was collected from Badan Pusat Statistik (Indonesian Central Bureau of Statistics or BPS). Some of them can be collected from official governmental site, *http://www.bps.go.id/* publicly, while the other are required to be requested directly to their office. BPS collected and summarized their data for public use from several national surveys, such as Survei Sosial Ekonomi Nasional (National Social Economic Survey or Susenas), Population Census, Survei Penduduk Antar Sensus (In-between Census Population Survey or SUPAS), Survei Angkatan Kerja Nasional (National Labor Force Survey or Sakernas) and their own government-authorized surveys.

Details on this research's socio economic data is as follow:

1. Growth rate (G) data is released every third of a year as an official government data by BPS.
2. Education Rate (S) is collected from Susenas. The sample size of 2009 Susenas is 68,800 households, while in 2014 the sample size is 75,000 households.

3. Unemployment Rate (U) is collected from Sakernas. The sample size of 2009 Sakernas is around 69,824 households, while in 2014 sample size is around 200,000.
4. The Migration rate (P and N) is collected from 2010's Population Census and 2015's SUPAS. Population Census data is collected from all population, while SUPAS use 652,000 samples/observations distributed to 40,750 census blocks.

Vote data is compiled from Decrees of Komisi Pemilihan Umum (General Electoral Commissions or KPU), the authority in declaring electoral results in Indonesia. Other than 2014, province-level data need to be requested directly from their office. Following the requests, this research has successfully collected vote share data (V) with exact number of eligible vote for entire population of Indonesia with an exception of 2009 period. Due to unknown reason, KPU as the highest authority in Indonesian election results was unable to provide complete 2009 province-level data of legislative election during the process of this research. Considering the time-constraint of this thesis and how the vote proportion of the incomplete data is declared to be accurate by the KPU themselves, this research has decided to use this incomplete data for the analysis.

6. Empirical Results and Discussions

The results are obtained by fitting cross-provincial data into the model using the method of Ordinary Least Squares (OLS) with the help of computer program named Eviews 9. Results of first regression are given in appendix A. Other than the estimates of parameters and their t-statistics in absolute value, R^2, adjusted R^2, F-values for judging the fit of the equation, and White's chi-square statistics' probability value to check for heteroscedasticity in the residuals are listed in the table.

Most of the datasets have passed the heteroscedasticity test of 5% except for few datasets - Demokrat, PAN, and PPP data in period 2014. To remedy this problem and to make sure that the results are not driven by outliers, all of the equations is also estimated using robust regression suggested by Li (1985) in Appendix B. This method eliminates outliers and downweights observations with larger residuals which is the cause of heteroscedasticity.

Due to data availability, 2004 would only list Golkar, PDIP, PKB, PPP, PAN, and PBB out of 24 parties over 26 provinces to regress from. The 2009 regression lists Demokrat, Golkar, PDIP, PKS, PAN, PPP and PKB out of 44 parties over 32 provinces, and 2014 lists Demokrat, Golkar, PDIP, PKS, PAN, PPP, PKB, Partai Gerakan Indonesia Raya (Great Indonesian Movement Party or Gerindra), and Partai Hati Nurani Rakyat (Citizen's Conscience Party or Hanura) out of 12 parties over 33 provinces. Second regression result of pooled data are given in Appendix C and its robust regression on Appendix D. It

pools only surviving major parties since 1999 such as Golkar, PDIP, PKB, PAN, PBB, and PPP over 26 provinces which have complete data on each period. Third regression results of individual growth rate effect towards incumbent and opposition are given in Appendix E and its robust regressions on Appendix F. It pools 2004's PDIP, 2009's Golkar, 2014's Golkar, PAN and PPP data as incumbent data while 2004's Golkar, 2009's PDIP, and 2014's PDIP and PKB data as extreme opposition data.

6.1. First Regression Results

The incumbent effects in this year's election is quite hard to measure due to the effect of forced election being held in 1999 and because of the still-unstable political condition. For the sake of this research, PDIP is assumed as 2004's current incumbent, due to them being the one who has the most votes in 1999 legislative election and also being the one who completed the presidential service.

6.1.1. 2004 Result Analysis

6.1.1.1. Previous vote effect

This research expected to see three effects from this coefficient. First, looking at the great significance of previous vote shares on determining the current vote shares (except for PBB), it is an undeniable evidence that Indonesia is still significantly affected by PID effect. It is further proven with how strongly correlated they are relative to other observed socio-economic variables such as education, unemployment, and migration rate. These could only mean that 2004 data supports the seventh hypothesis in Indonesia: voters are still significantly biased as the result of PID by 2004. For second and third effect about cost of ruling and strategic voting, it is unfortunate that this period's data failed to show them. This is most likely due to change of incumbent mid-period and political instabilities[5].

6.1.1.2. Growth rate effect

Although each of them are statistically insignificant, the coefficients behavior are still within expectation; positively correlated to incumbent party (PDIP) vote shares

[5] In 1999 election, three coalitions has been formed: PDIP coalition, Golkar Coalition, and Islamic Coalition which consist of rest of Islamic Parties who called themselves 'Poros Tengah' or 'Middle Pivot'. This 'Middle Pivot' coalition won the 1999 presidential election and elected Abdurrahman Wahid from PKB as the President Unfortunately, Abdurrahman Wahid only hold the office for less than two years before being replaced with Megawati from PDIP, as stated in previous footnote. It is believed that coefficient of previous vote in 2004 became unable to show the second and third effects due to this reason.

and negative for the extreme opposition party (Golkar). The number varied for each other party but quite close to zero due to the reason of most of them being neutral parties towards incumbent. This shows us that 2004 data disagreed to first hypothesis: Indonesian voter doesn't really take current local economic growth to evaluate current government.

6.1.1.3. Education rate effect

Looking at the result, it shows that only in Golkar's vote shares do education rate be statistically significant. Their vote shares decrease by 0.27% for each percent increase in them, while PDIP as a major incumbent only gains 0.07% of vote share, which is far from being statistically significant. Although its coefficient behavior are still within expectation with positive correlation to incumbents vote shares and negative to opposition, the 2004 data shows us that Indonesian voters don't really care about education rate in choosing their preferred political party.

6.1.1.4. Unemployment rate effect

Just like previous analysis, unemployment rate effect's coefficient behavior are within expectation - negatively correlated to incumbent vote shares and positively correlated to opposition, yet all of them are statistically insignificant. This proves that although 2004 data agreed to the notion of rewarding incumbent for good governorship and punish them for a bad one, unemployment rate effect is not significant enough to affect voter's decision. Interesting thing to note on this variable is on the transfer of vote between PDIP and Golkar, which is almost at the same amount for each percentage increase of unemployment (For each percentage point increase in unemployment, PDIP lose 0.31% vote while Golkar gains 0.30% vote in exchange), which may relate the third hypothesis.

6.1.1.5. Migration rate effect

The results indicate that the Indonesian voter decision are generally not affected by the number of migrating people in 2004. It is shown by all of the coefficients being statistically insignificant, except for PKB pull effect.

6.1.2. 2009 Result Analysis

This year's election is also quite peculiar, in which the incumbent of legislation is Golkar, while the incumbent of presidential election is from Demokrat. By these facts, this research has assumed Golkar to be the major incumbent while Demokrat as minor incumbent in this year due to this research goal being estimation of legislative election

vote shares. PDIP, PKS, and PKB behaved as their extreme opposition during this time. Do note that Indonesian political parties change their political preferences frequently depending on voter's demand, therefore their 'official' ideological leaning is of no significance in dictating their stance on incumbents.

6.1.2.1. Previous vote effect

Continuing the results from 2004, the results show significant effect of PID due to strong political inertia as expected. However, unlike 2004 data, the incumbent (Demokrat and Golkar) coefficient is significantly less than one while their oppositions' and neutral parties' coefficients are close to one (except for PKB). From this evidence, this year's data successfully prove the existence of cost of ruling and strategic voting effects toward incumbents, as hypothesized on fourth hypothesis.

6.1.2.2. Growth rate effect

Continuing the findings from 2004 analysis, all of the coefficients also behaved according to expectation. Surprisingly, the coefficients are both statistically significant for PKS and PAN while not for any of the incumbents. This has disproven the first hypothesis once more - Indonesian voter doesn't really take current local economic growth to evaluate current government in 2009. There are also no evidence on second hypothesis due to insignificance of growth rate effect to each of the incumbents vote share.

6.1.2.3. Education rate effect

The effect of education rate becomes more relevant in 2009 data, with Demokrat, PKS and PPP coefficients becoming statistically significant. Interestingly, Demokrat vote shares correlate with education rate the most significantly than the rest of the data, being statistically significant on α = 10%. Overall, the coefficients' behavior continue to be within our expectation; positive correlation with incumbents while negative with extreme oppositions vote shares.

6.1.2.4. Unemployment rate effect

Coefficients of Unemployment rate behave on the contrary to expectation during this year, although they are still statistically insignificant. Demokrat and Golkar as incumbent have a positive correlation with unemployment rate, while some of the extreme oppositions have negative correlation with it. This could only be explained by two reason. First is due of government policy during this period which hugely

improve unemployment benefit during 2004 (BLT, which is mentioned in political background), and second maybe due to inaccurate data of 2009 result which is already the best data available to be used.

6.1.2.5. Migration rate effect

During this year, only PKS coefficients in push and pull effect being statistically significant, while the rest aren't. Continuing the 2004 result, this results indicate that the Indonesian voter decision are generally not affected by the number of migrating people in 2009.

6.1.3. 2014 Result Analysis

During this year's election, many events occurred. Demokrat as major incumbent was attacked relentlessly by numerous corruption scandal, while Golkar, PAN, and PPP as minor incumbents remains untouched. This attacks had successfully destroyed Demokrat electability during this year. There was also the case which have never happened before in Indonesia: the creation of true, 2 blocks of coalition between all relevant parties who participates in the election. The coalitions are named Koalisi Indonesia Hebat (Great Indonesia Coalition or KIH) who is led by PDIP, and Koalisi Merah Putih (Red and White Coalition or KMP) who is led by Gerindra[6]. This is also the year when 'pencitraan' or 'imagery' strategy is being extensively used by every parties, with the first party being PDIP and result in Jokowi Effect[7]. As such, the result in this year is may not be so accurate, looking at how several of its basic assumption has been compromised.

6.1.3.1. Previous vote effect

Looking at this period's coefficients, the result still shows significant effect of PID. Except for PPP, each incumbent shows significantly less than one coefficient, while

[6] Koalisi Indonesia Hebat is formed by PDIP, PKB, Partai Nasional Demokrat (National Democrat Party or PND), Partai Hati Nurani Rakyat (Citizen's Conscience Party or Partai Hanura), Partai Keadilan dan Persatuan Indonesia (Indonesian Justice and Unity Party or PKPI), and PPP (since 7 October 2014) during the national election. Koalisi Merah Putih is formed by Partai Gerakan Indonesia Raya (Great Indonesian Movement Party or Gerindra Party), PKS, PBB, and Partai Persatuan Indonesia (Indonesian Unity Party).

[7] PDIP imagery strategy capitalized the charisma and persona of Joko Widodo to gain more vote shares from Indonesian voters. It is hugely successful and result in the Jokowi Effect, a term coined to describe the wildly popular Jakarta Governor Joko Widodo by media coverage. The effect has boosted Jakarta's stock markets and even appreciate Indonesian currency - Rupiah, all over the world. This strategy of PDIP may weaken the result of 2014 analysis, as it constitute towards personal popularity instead of a party which compromise the fourth basic assumption of the research.

their extreme opposition being close to one. New parties coefficients such as Gerindra and Hanura are also significantly less than one - only explainable maybe by interferences from outside the model. These interferences are believed to come from the formation of KMP and KIH coalition, as explained in the beginning of this year's result. If these two parties' data are overlooked, this year's data also proved the existence of cost of ruling and strategic voting effects toward incumbents.

6.1.3.2. Growth rate effect

Continuing from 2009, except for PKS, growth rate effect coefficient are statistically insignificant while their behavior are still within expectation. This add up on disproving the first hypothesis in 2014, together with 2004 and 2009 election. There are yet any evidence on second hypothesis due to insignificance of growth rate effect to each of the incumbents vote share.

6.1.3.3. Education rate effect

Education rate effect has returned to 2004 level and became insignificant once more in 2014 election. This is shown by only Gerindra are significantly affected by education rate, while the rest aren't. Overall, the coefficients' behavior continue to be within expectation, just like previous year's result.

6.1.3.4. Unemployment rate effect

Unemployment rate returns to its track and behaves as expected once more, although still statistically insignificant. This proves yet again that although 2014 data agreed to the notion of rewarding incumbent for good governorship and punish them for a bad one, unemployment rate effect is not significant enough to affect voter's decision.

6.1.3.5. Migration rate effect

During this year, Gerindra becomes the most affected party by migration, and only their coefficients are statistically significant over the rest. While continuing its insignificance in affecting voter' decision, there are an interesting anecdote to be seen by this year's Gerindra push and pull effect – both correlate negatively to them, which usually shouldn't be possible. While each percentage point of negative migration rate reduce only 0.25% of their vote share, the positive migration rate are vastly significant for them, in which 1.74% of votes are lost for each percentage point increase of positive migration rate. This could only happen due to them being a new party on Indonesian election. They don't have neither

PID nor being able to govern properly, resulting in both negative modifier for both coefficient.

6.2. Second Regression (Pooled Data) Result

6.2.1. Incumbency Effect (Pos)

While it has been proven individually on 2009 and 2014 data, pooled regression test whether this effect is significant generally over all parties and all periods. The result by dummy variable shows that it cost around 2.14% as an incumbent in average generally, just around Nannestad and Paldam (1994) findings. Although this research is unable to differentiate between cost of ruling and strategic voting effects toward incumbents, it is clear that they both exist, proving the fourth hypothesis in general situation.

6.2.2. 2014 Coalition Effect (KMP and KIH)

This pooled data estimation has proven the fifth hypothesis: Political maneuvers such as forming a coalition affect individual party's vote shares significantly. This is shown by how entering either coalition is estimated to increase of any party's vote share in general. Entering KMP would raise party's vote share by 3.62%, while entering KIH would raise party's vote share by 4.5% on average. This difference may be one of the explanation on why KIH wins over KMP in 2014 election.

6.2.3. Previous Vote effect

Looking at the pooled regression result, it is proven that even in general, strong political inertia and PID effect do happens in every period on every party, proving the seventh hypothesis even further.

6.2.4. Socio-Economic Indicator effect

It seems that actual social and economic situations are not being considered significantly yet by Indonesian voter, rejecting the sixth hypothesis. This is shown by neither growth rate, education rate, unemployment rate, nor migration rate are particularly significant in the pooled regression.

6.3. Third Regression (Individual Effect of Growth Rate) Results

Looking at the robust regression result, it is shown once more that although growth rate's coefficients behave as expected for either incumbent or extreme opposition, they are still not statistically significant in affecting Indonesian voter choice in general - effectively

rejecting the first hypothesis in Indonesia. Even so, by comparing the coefficient between each regression, it shows us the almost-perfect transfer of votes between incumbent and extreme opposition parties due to economic performance, which may prove the third hypothesis to be correct.

7. Conclusion

This research of 2004, 2009, and 2014 Indonesian National Legislative Election results and the socio-economic and political conditions surrounding it have led to these conclusion, namely:

1. Indonesian voter doesn't really take current local economic growth into consideration,
2. There is no evidence that Indonesian voter hold all parties in governing coalition accountable equally due to the insignificance of growth rate effect,
3. There are only weak evidences for poor economic performance to only benefit extreme opposition parties,
4. Indonesian Voters do vote against governing parties due to strategic voting, and there exist cost of ruling effect for them,
5. Being in a coalition do affect individual party's vote shares significantly,
6. Indonesian voter doesn't seem to consider social and economic situation significantly yet in general,
7. PID effect is still significant on affecting Indonesian voter choice.

This research conclusions apparently have rejected few hypotheses from previous findings, namely the first, second and sixth hypothesis. The third hypothesis also wasn't fully proven in this research due to only weak evidences are found in the analysis. However, this does not mean that this research completely reject them; they are just not significant enough to be stated as truly affecting Indonesian voter choice. Overall, they do have the same voting behavior with others like previous findings – rewarding incumbent for good governance and otherwise for a bad one, affected by actual socio-economic situations, etc. The only difference is that they are still much more affected by PID and coalition effects compared to the others. From these premises, it can be concluded once more that Indonesian voters have not been able to cast away their Political Identity yet and is still myopic in their voting decision.

Lastly, although this research may seem rather robust, the problem of its basic assumptions are still there, resulting in less accurate estimations. To remedy this problem, it is important to include

more election periods to create time-series analysis in future research. It is also advisable to add several macro-shocks during each period as variable as well, provided that there are enough, proper data with clear parameters to work on in the future.

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Appendix A: Coefficient Estimates and Summary Statistics: OLS Regressions

1. **2004 Results**

Independent Variables	Coefficient					
	Golkar	**PAN**	**PBB**	**PDIP**	**PKB**	**PPP**
Constant	22.12* **(5.46)***	5.05 **(1.46)**	0.03 **(0.01)**	-1.26 **-(0.18)**	-0.13 **-(0.11)**	4.27 **(2.03)**
Vijt-5	0.37* **(6.77)***	0.60* **(4.19)***	0.13 **(0.81)**	0.55* **(5.94)***	0.80* **(26.73)***	0.51* **(6.33)***
Gjt	-0.19 **-(1.35)**	0.09 **(0.84)**	0.20 **(1.13)***	0.32 **(1.69)**	-0.01 **-(0.38)**	0.14* **(2.05)***
Sjt	-0.25* **-(2.81)***	-0.01 **-(0.15)**	0.05 **(0.69)**	0.06 **(0.45)**	0.03 **(1.20)**	-0.07 **-(1.30)**
Ujt	0.41 **(1.49)**	-0.20 **-(0.92)**	0.11 **(0.67)**	-0.28 **-(0.62)**	0.02 **(0.28)**	0.03 **(0.23)**
Pjt	0.86 **(0.96)**	0.34 **(0.45)**	-0.63 **-(1.00)**	-0.33 **-(0.22)**	-0.65* **-(2.48)***	0.21 **(0.40)**
Njt	-2.20 **-(1.07)**	-1.03 **-(0.62)**	-1.90 **-(1.39)**	-0.49 **-(0.15)**	-0.67 **-(1.18)**	-1.37 **-(1.27)**
	Equations					
R-squared	0.86	0.58	0.13	0.76	0.97	0.72
Adjusted R-Squared	0.82	0.45	-0.14	0.69	0.97	0.63
F-Statistics	19.51	4.47	0.47	10.26	126.30	8.26
White's Test - Prob. > Chi Square	0.83	0.99	0.98	0.37	0.72	0.88

**Significant with α = 10%*

2. 2009 Results

Independent Variables	Coefficient						
	Demokrat	**Golkar**	**PDIP**	**PKS**	**PAN**	**PPP**	**PKB**
Constant	3.12	-2.33	9.78	6.14	2.90	3.07	-2.92
	(0.49)	**-(0.25)**	**(1.49)**	**(2.34)**	**(0.88)**	**(1.15)**	**-(0.85)**
Vijt-5	0.06	0.40*	0.83*	0.73*	0.97*	0.76*	0.40*
	(0.18)	**(3.15)***	**(8.01)***	**(6.03)***	**(7.50)***	**(6.73)***	**(4.46)***
Gjt	0.18	0.61*	-0.22	-0.02	0.35*	0.07	0.13
	(0.81)	**(2.44)***	**-(0.95)**	**-(0.24)**	**(2.86)***	**(0.81)**	**(1.04)**
Sjt	0.26*	0.15	-0.16	-0.07	-0.03	-0.09*	0.09
	(2.19)*	**(1.00)**	**-(1.32)**	**-(1.35)**	**-(0.53)**	**-(2.08)***	**(1.35)**
Ujt	0.27	0.20	-0.01	-0.07	-0.17	0.04	0.09
	(0.72)	**(0.52)**	**-(0.02)**	**-(0.43)**	**-(0.95)**	**(0.33)**	**(0.49)**
Pjt	-0.84	0.78	-0.20	0.14	-0.42*	0.24	-0.27
	-(1.84)	**(1.50)**	**-(0.43)**	**(0.74)**	**-(1.72)***	**(1.52)**	**-(1.10)**
Njt	0.51	-1.50	-1.22	0.23	-0.57	-0.04	-0.75
	(0.33)	**-(0.89)**	**-(0.81)**	**(0.36)**	**-(0.76)**	**-(0.08)**	**-(0.95)**
	Equations						
R-squared	0.31	0.50	0.75	0.74	0.72	0.75	0.48
Adjusted R-Squared	0.14	0.38	0.89	0.67	0.65	0.69	0.35
F-Statistics	1.87	4.14	12.39	11.71	10.73	12.38	3.83
White's Test - Prob. > Chi Square	0.50	0.66	0.93	0.85	0.27	0.23	0.43

**Significant with α = 10%*

3. 2014 Results

Independent Variables	Coefficient								
	Demokrat	Golkar	PDIP	PKS	PAN	PPP	PKB	Gerindra	Hanura
Constant	21.75*	0.85	9.54	3.09	0.72	1.75	10.3	1.40	2.37
	(2.50)*	(0.05)	(1.06)	(1.29)	(0.10)	(0.36)	(2.66)	(0.29)	(0.62)
Vijt-5	0.31*	0.33	0.91*	0.54*	0.47*	0.46*	0.75*	0.00	0.11
	(1.87)*	(1.43)	(10.09)*	(7.57)*	(2.95)*	(3.30)*	(6.26)*	-(0.02)	(0.77)
Gjt	-0.21	0.34	-0.25	-0.29*	0.45	0.08	-0.28	0.22	0.01
	-(0.39)	(0.36)	-(0.46)	-(1.98)*	(0.98)	(0.27)	-(1.21)	(0.79)	(0.03)
Sjt	-0.23	0.15	-0.08	0.01	0.03	0.00	-0.08	0.13*	0.02
	-(1.64)	(0.62)	-(0.56)	(0.22)	(0.26)	(0.02)	-(1.42)	(1.91)*	(0.41)
Ujt	-0.37	-0.28	0.50	0.12	0.00	0.27	-0.09	0.27	0.17
	-(1.05)	-(0.46)	(1.39)	(1.08)	(0.00)	(1.43)	(0.59)	(1.46)	(1.20)
Pjt	1.41*	-0.51	0.33	-0.25	0.34	-0.35	-0.18	-0.87*	0.02
	(2.14)*	-(0.43)	(0.50)	-(1.41)	(0.61)	-(1.03)	(0.67)	-(2.58)*	(0.07)
Njt	-0.75	-1.17	0.95	-0.31	-1.00	0.27	1.13*	0.19	0.10
	-(0.58)	-(0.48)	(0.72)	(0.35)	-(0.92)	(0.40)	(1.74)*	(0.28)	(0.19)
	Equations								
R-squared	0.25	0.14	0.80	0.80	0.40	0.41	0.77	0.34	0.07
Adjusted R-Squared	0.08	-0.05	0.76	0.76	0.26	0.27	0.72	0.19	-0.13
F-Statistics	1.46	0.75	17.61	17.74	2.89	2.96	14.58	2.29	0.36
White's Test - Prob. > Chi Square	0.04	0.94	0.57	0.24	0.00	0.02	0.68	0.90	0.23

**Significant with α = 10%*

Appendix B: Coefficient Estimates and Summary Statistics: Robust Regressions

1. **2004 Results**

Independent Variables	Coefficient					
	Golkar	**PAN**	**PBB**	**PDIP**	**PKB**	**PPP**
Constant	22.94* (5.41)*	3.93 (1.36)	0.32 (0.11)	-1.79 -(0.20)	0.04 (0.03)	4.17 (1.94)
Vijt-5	0.38* (6.70)*	0.57* (4.72)*	0.04 (0.34)	0.54* (4.44)*	0.81* (27.69)*	0.53* (6.45)*
Gjt	-0.23 -(1.53)	0.05 (0.58)	0.09 (0.62)	0.31 (1.23)	-0.01 -(0.26)	0.11 (1.61)
Sjt	-0.27* -(2.89)*	-0.01 -(0.10)	0.04 (0.69)	0.07 (0.40)	0.03 (1.01)	-0.07 -(1.31)
Ujt	0.30 (1.05)	-0.13 -(0.74)	0.12 (0.87)	-0.31 -(0.51)	0.03 (0.41)	-0.01 -(0.08)
Pjt	1.23 (1.31)	0.36 (0.56)	-0.31 -(0.60)	-0.34 -(0.17)	-0.69* -(2.69)*	0.36 (0.68)
Njt	-1.47 -(0.68)	-0.41 -(0.29)	-1.31 -(1.17)	0.14 (0.03)	-0.71 -(1.27)	-0.65 -(0.59)
	Equations					
Rn-Squared Statistic	109.26	34.83	2.08	35.18	813.77	49.29

**Significant with α = 10%*

2. 2009 Results

Independent Variables	Coefficient						
	Demokrat	**Golkar**	**PDIP**	**PKS**	**PAN**	**PPP**	**PKB**
Constant	3.29	-0.82	2.10	6.11*	2.72	2.64	3.34*
	(0.49)	**-(0.10)**	**(0.81)**	**(3.66)***	**(0.78)**	**(1.12)**	**(2.11)***
Vijt-5	0.07	0.42*	0.74*	0.69*	0.90*	0.65*	0.41*
	(0.21)	**(3.91)***	**(18.31)***	**(8.95)***	**(6.69)***	**(6.54)***	**(9.92)***
Gjt	0.23	0.33	-0.14	-0.11*	0.35*	0.05	-0.02
	(0.93)	**(1.54)**	**-(1.51)**	**-(1.81)***	**(2.68)***	**(0.68)**	**-(0.30)**
Sjt	0.24*	0.16	0.00	-0.08*	-0.03	-0.08*	-0.03
	(1.91)*	**(1.27)**	**-(0.02)**	**-(2.50)***	**-(0.40)**	**-(1.91)***	**-(1.05)**
Ujt	0.28	0.03	-0.18	0.00	-0.15	0.10	-0.09
	(0.71)	**(0.08)**	**-(1.27)**	**(0.03)**	**-(0.77)**	**(0.87)**	**-(1.07)**
Pjt	-0.76	0.34	0.05	0.29*	-0.40	0.24	0.01
	-(1.58)	**(0.76)**	**(0.26)**	**(2.39)***	**-(1.58)**	**(1.68)**	**(0.13)**
Njt	0.84	-1.43	0.21	0.70*	-0.55	-0.01	0.08
	(0.50)	**-(0.99)**	**(0.36)**	**(1.69)***	**-(0.69)**	**-(0.03)**	**(0.23)**
	Equations						
Rn-Squared Statistic	9.55	26.31	422.8	202.4	51.47	72.93	114.38

**Significant with α = 10%*

3. 2014 Results

Independent Variables	Coefficient								
	Demokrat	**Golkar**	**PDIP**	**PKS**	**PAN**	**PPP**	**PKB**	**Gerindra**	**Hanura**
	-0.11	-0.06	11.64	2.91	-1.96	-2.76	9.79	2.65	2.99
Constant	**-(0.02)**	**-(0.01)**	**(1.57)**	**(1.24)**	**-(0.33)**	**-(0.64)**	**(2.32)**	**(0.66)**	**(0.78)**
	0.10	0.45*	0.96*	0.60*	0.11	0.88*	0.78*	-0.14	0.06
Vijt-5	**(0.82)**	**(3.71)***	**(12.83)***	**(8.60)***	**(0.84)**	**(7.21)***	**(5.94)***	**-(0.47)**	**(0.39)**
	0.19	0.06	-0.25	0.32*	0.28	0.36	-0.28	0.15	0.06
Gjt	**(0.46)**	**(0.11)**	**-(0.54)**	**-(2.20)***	**(0.72)**	**(1.43)**	**-(1.08)**	**(0.64)**	**(0.27)**
	0.15	0.08	-0.13	0.01	0.15	0.03	-0.08	0.15*	0.01
Sjt	**(1.38)**	**(0.67)**	**-(1.18)**	**(0.40)**	**(1.60)**	**(0.45)**	**-(1.23)**	**(2.58)***	**(0.19)**
	-0.22	0.18	0.44	0.01	-0.17	0.11	-0.08	0.19	0.17
Ujt	**-(0.79)**	**(0.56)**	**(1.48)**	**(0.15)**	**-(0.68)**	**(0.67)**	**-(0.48)**	**(1.30)**	**(1.25)**
	-0.38	-0.23	0.59	-0.29*	0.21	-0.47	-0.18	-1.75*	-0.01
Pjt	**-(0.75)**	**-(0.37)**	**(1.09)**	**-(1.67)***	**(0.45)**	**-(1.58)**	**-(0.62)**	**-(6.27)***	**-(0.03)**
	-0.78	0.07	-0.33	-0.32	-0.97	0.04	1.09	-0.25	0.10
Njt	**-(0.78)**	**(0.06)**	**-(0.30)**	**-(0.91)**	**-(1.07)**	**(0.07)**	**(1.54)**	**-(0.45)**	**(0.20)**
	Equations								
Rn-Squared Statistic	4.35	17.22	170.14	119.23	9.49	58.64	76.42	46.28	2.01

**Significant with α = 10%*

Appendix C: Coefficient Estimates and Summary Statistics of Pooled Data: OLS Regression

Dependent Variable: V
Method: Least Squares
Date: 07/20/17 Time: 18:14
Sample: 1 390
Included observations: 390

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.175352	1.448144	2.192705	0.0289
POS	-2.747726	0.785996	-3.495853	0.0005
KMP	3.712323	1.080850	3.434635	0.0007
KIH	4.868978	0.942342	5.166888	0.0000
VT_5	0.658958	0.022137	29.76695	0.0000
G	0.034018	0.053148	0.640065	0.5225
S	-0.015488	0.030163	-0.513495	0.6079
U	-0.072408	0.088698	-0.816349	0.4148
P	0.143167	0.254982	0.561478	0.5748
N	-0.116378	0.407536	-0.285565	0.7754

R-squared	0.727628	Mean dependent var	10.96691
Adjusted R-squared	0.721177	S.D. dependent var	8.616265
S.E. of regression	4.549708	Akaike info criterion	5.893310
Sum squared resid	7865.941	Schwarz criterion	5.995006
Log likelihood	-1139.195	Hannan-Quinn criter.	5.933623
F-statistic	112.7943	Durbin-Watson stat	1.639796
Prob(F-statistic)	0.000000		

Appendix D: Coefficient Estimates and Summary Statistics of Pooled Data: Robust Regressions

Dependent Variable: V
Method: Robust Least Squares
Date: 07/20/17 Time: 18:15
Sample: 1 390
Included observations: 390
Method: M-estimation
M settings: weight=Bisquare, tuning=4.685, scale=MAD (median centered)
Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.767382	0.959776	1.841453	0.0656
POS	-2.144646	0.520929	-4.116964	0.0000
KMP	3.623592	0.716347	5.058432	0.0000
KIH	4.505983	0.624550	7.214773	0.0000
VT_5	0.685326	0.014672	46.71059	0.0000
G	0.027648	0.035225	0.784905	0.4325
S	-0.017169	0.019991	-0.858860	0.3904
U	-0.010323	0.058786	-0.175596	0.8606
P	0.054168	0.168993	0.320534	0.7486
N	0.261710	0.270100	0.968936	0.3326

Robust Statistics

R-squared	0.491359	Adjusted R-squared	0.479313
Rw-squared	0.885355	Adjust Rw-squared	0.885355
Akaike info criterion	638.0163	Schwarz criterion	679.4781
Deviance	3553.462	Scale	2.394386
Rn-squared statistic	2533.022	Prob(Rn-squared stat.)	0.000000

Non-robust Statistics

Mean dependent var	10.96691	S.D. dependent var	8.616265
S.E. of regression	4.628807	Sum squared resid	8141.824

Appendix E: Individual effect of Growth Rate towards Incumbent and Extreme Opposition: OLS Regressions

- **Incumbents**

Dependent Variable: V
Method: Least Squares
Date: 07/18/17 Time: 15:26
Sample: 1 130
Included observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.48056	1.219940	9.410756	0.0000
G	0.274706	0.199256	1.378659	0.1704

R-squared	0.014632	Mean dependent var	12.84449
Adjusted R-squared	0.006934	S.D. dependent var	8.166866
S.E. of regression	8.138503	Akaike info criterion	7.046355
Sum squared resid	8478.110	Schwarz criterion	7.090471
Log likelihood	-456.0131	Hannan-Quinn criter.	7.064280
F-statistic	1.900702	Durbin-Watson stat	1.080566
Prob(F-statistic)	0.170404		

- **Extreme Oppositions**

Dependent Variable: V
Method: Least Squares
Date: 07/18/17 Time: 15:28
Sample: 1 104
Included observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.58413	1.628196	10.18559	0.0000
G	-0.181464	0.258876	-0.700969	0.4849

R-squared	0.004794	Mean dependent var	15.69406
Adjusted R-squared	-0.004963	S.D. dependent var	10.36796
S.E. of regression	10.39366	Akaike info criterion	7.539312
Sum squared resid	11018.86	Schwarz criterion	7.590165
Log likelihood	-390.0442	Hannan-Quinn criter.	7.559914
F-statistic	0.491357	Durbin-Watson stat	0.989616
Prob(F-statistic)	0.484919		

Appendix F: Individual effect of Growth Rate towards Incumbent and Extreme Opposition: Robust Regressions

- **Incumbents**

Dependent Variable: V
Method: Robust Least Squares
Date: 07/18/17 Time: 15:27
Sample: 1 130
Included observations: 130
Method: M-estimation
M settings: weight=Bisquare, tuning=4.685, scale=MAD (median centered)
Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	10.70920	1.057110	10.13064	0.0000
G	0.248532	0.172660	1.439429	0.1500

Robust Statistics

R-squared	0.014650	Adjusted R-squared	0.006952
Rw-squared	0.021504	Adjust Rw-squared	0.021504
Akaike info criterion	124.2720	Schwarz criterion	130.8551
Deviance	5678.218	Scale	6.846963
Rn-squared statistic	2.071955	Prob(Rn-squared stat.)	0.150029

Non-robust Statistics

Mean dependent var	12.84449	S.D. dependent var	8.166866
S.E. of regression	8.189580	Sum squared resid	8584.860

- **Extreme Oppositions**

Dependent Variable: V
Method: Robust Least Squares
Date: 07/18/17 Time: 15:28
Sample: 1 104
Included observations: 104
Method: M-estimation
M settings: weight=Bisquare, tuning=4.685, scale=MAD (median centered)
Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	16.04840	1.659626	9.669892	0.0000
G	-0.255480	0.263873	-0.968195	0.3329

Robust Statistics

R-squared	0.009390	Adjusted R-squared	-0.000322
Rw-squared	0.012282	Adjust Rw-squared	0.012282
Akaike info criterion	95.95456	Schwarz criterion	102.0493
Deviance	9558.406	Scale	10.15105
Rn-squared statistic	0.937402	Prob(Rn-squared stat.)	0.332947

Non-robust Statistics

Mean dependent var	15.69406	S.D. dependent var	10.36796
S.E. of regression	10.43735	Sum squared resid	11111.70