

## The Political Participation and Government Size

### PARTICIPATION POLITIQUE ET TAILLE DU GOUVERNEMENT

Neda Samiei<sup>1</sup>

Mohammad Reza Jalilvand<sup>2</sup>

**Abstract:** This paper analyzes the effect of political participation on government size. First, the paper extends the model proposed by Mueller and Stratmann, which considers relation of political participation and government size. Second, we estimate this model with another index like democracy, voice and accountability, and Civil liberties index as political participation index. This model points that any increase in political participation is generally found to raise government size; however this increasing effect is low. Also, other considered indicators have a significant effect on government size. Our case study is the Asia and Pacific Ocean countries in during 2000 to 2008. Findings showed that when participation rate, democracy index, and voice and accountability index increase one percent, government size increases 0.065, 1.30, and 3.19 percent, respectively. Additionally, when civil liberties increases one percent, government size declines 1.29 percent. The paper provides a small expansion of Mueller and Stratmann model that considers the effect of the overall concept of political participation on government size by using indexes like democracy, voice and accountability, and Civil liberties index.

**Key words:** Government Size; Political participation; Generalized Method of Moments (GMM)

**Résumé:** Cet article analyse l'effet de la participation politique sur la taille du gouvernement. Tout d'abord, l'article étend le modèle concernant la participation politique et la taille du gouvernement proposé par Mueller et Stratmann. Ensuite, il évalue ce modèle avec d'autres indices comme la démocratie, le droit de parler et la responsabilité, et des indices de libertés civiles en tant que l'indice de la participation politique. Ce modèle indique que toute augmentation de la participation politique contribue généralement à élargir la taille du gouvernement, mais cet effet est faible. En outre, d'autres indicateurs estimés ont un effet significatif sur la taille du gouvernement. Notre étude de cas est menée sur les pays en Asie et dans l'océan pacifique au cours de 2000 à 2008. Les résultats ont montré que lorsque le taux de participation, l'indice de démocratie et l'indice du droit de parler et de la responsabilité augmente de 1%, la taille du gouvernement élargit de 0.065%, 1.30%, et 3.19%, respectivement. Par contre, lorsque les libertés civiles augmente de 1%, la taille du gouvernement baisse de 1,291%. L'article fait une légère expansion du modèle de Mueller et Stratmann qui évalue l'effet de la notion globale de la participation politique sur la taille du gouvernement à l'aide des indices comme la démocratie, le droit de parler et la responsabilité, et des indices de libertés civiles.

**Mots clés:** Taille du gouvernement; Participation politique; Méthode des Moments Généralisée (MMG)

## 1. INTRODUCTION

Nowadays, different in economic performance of countries is not only depend on differentiation of per capita income, physical and human capital growth, productivity, geographic circumstances and etc, but also is depend on factors such as political system, government behavior, public policies, culture, and religion. Recent mentioned factors were entered to economic analysis and considered the key factors in which led to different in countries economic performance. The current mean of democracy is only a political system that considered the participation of citizens in politics and governmental affairs as citizenship right. Max Weber described democracy as the political system in which people

<sup>1</sup> University of Isfahan, 17th Avenue, Imam Hosein Street, Golpayegan, Isfahan, Iran.

E-mail: nedasamiei@gmail.com

<sup>2</sup> University of Isfahan, 89 and 91 plaque, 9 Arasteh Avenue, Enghelab Street, Khoramabad, Lorestan, Iran.

E-mail: mrjd\_reza2006@yahoo.com

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participate in the governmental system actively and the key concept of participation is included in concept of citizenship. In Weber's view, citizenship means the ability to participate in decision making, policy setting, and leader selecting. The unique characteristic of democracy in comparison with other political systems is the presence of citizens in politics and participation in determining their own political destiny. Thus, in order to shaping a democratic system, a large number of people participate in distribution of power and policy setting. Oxford English Dictionary defined participation as "the act or fact of participation, constituting or having a part of something". Participation in social science is an umbrella term including different means for the public to directly participate in political, economic, management or other social decisions (Wikipedia, 2010). Participatory decision making infers as a level of proportionate decision making power and occurs in territory of human social activities, including economic (i.e., Participatory economics), political (i.e., Participatory democracy or par polity), cultural (i.e., Inter communalism) or familial (i.e., Feminism). According to above mentioned discussion, participation is active participation of human beings in all dimensions of life and it means people are trying to find a share of something and to profit it and/or participate in a special group and as a result cooperate with that group. According to Stuart Mill, only the governments can avoid all the requirements of the social government that all of its citizens participate with it. Political participation is a voluntary and optional activity that members of a community participate in selection of rulers and politicians and they contribute to public policy setting directly or indirectly. In other words, people lead government by selecting leaders and approving government policy. Encyclopedia of social sciences introduces political participation as the voluntary activities that members of a society perform directly or indirectly to select rulers in public policy setting. Sociology culture authors described political participation as participation in the political procedures that will lead to selection of political leaders and to determine public policy or it will affect these policies. Political participation affects the allocation of resources and should therefore be included in the traditional economic analysis of federalism. Turnout in elections has been shown to increase with income and decrease with the size of the constituency (Abercrombie et al, 2006). Researchers believe that political participation depends on four key factors: political motivations, social status, personal characteristics, and political environment. Of course, we should add skills, resources, and commitment to these factors. For example, the more a person is exposed to political motivations by discussing about policy, the more he/she will participate in policy actively. In sum, there are two evolutionary and instrumental theories in describing political participation:

(1) **Instrumental theory**; this theory consider participation as a tool for goal achievement. That is to defend or promote a person or group of people against coercion and tyranny. Thus, instrumental theorists argue that people are the best judge of their own interests; the government in which people contribute in affairs is more efficient. People who affect decisions should participate in decision making and the legitimacy of government is based on participation.

(2) **Evolutionary theory**; advocates of this theory argue that the ideal citizen is a participating citizen. Therefore, participation is considered as exerting social responsibility. Participation is a learning experience that not only notifies citizens about their rights, but also develops awareness of his duties and responsibilities.

Such view is found in writings of Aristotle, John Stuart Mill, De Tokvil, and Rousseau and also is an important part in the conservative and socialistic thoughts (firahi, 1998). Today, political experts discuss that political participation is one of indexes of democratic society. In other words, one of the democratic society elements is the amount of public participation in policy-setting process. Political participation is essential for democracy to function effectively. As a consequence, political participation has been studied extensively, mainly by investigating its antecedents, such as demographic characteristics which affect representation in democratic politics, features of social capital, or other elements of civic culture (Almond and Verba, 1963; Verba et al., 1978; Kabashima, 1988; Putnam, 1993, 2000). There is substantial evidence from many different countries that richer and better educated citizens are more likely to exercise their right to vote than their poorer and uneducated counterparts.<sup>3</sup> It is, therefore, reasonable to suppose that an expansion of actual electoral participation (turnout) also leads to more spending and higher taxation because any increase mostly reflects an increase in participation of poorer and less educated strata of society. All in all, although there are counter-arguments, this suggests that an increase in electoral participation leads to more spending and higher taxation. Aidt et al. (2010), for example, shows that an extension of the franchise can in some cases lead to retrenchment rather than to expansion of government spending. In sum, the theoretical literature suggests that political participation tends to increase the size of government.

### **1.1 Macro- and micro-consequences of political participation**

By focusing on the cognitive consequences of participation, we argue that political participation brings about political efficacy by promoting a better understanding of the complexities of the political system. Ikeda (2008) argued that the extent to which political parties are distinct from each other affects this relationship as a macro-environmental factor, namely, the more distinctive the parties are from each other, the stronger this micro-relationship between political participation and cognitive articulation will become. The consequences of political participation can be easily divided into macro- and micro-dimensions. In the macro-dimension, we see the possibility that an excess of participatory zeal makes

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<sup>3</sup> See Norris (2001) or the discussion in Mueller and Stratmann (2003).

democracy unstable and difficult to manage; for instance, too much competitive and antagonistic participation from opposing parties may cause aggressive conflicts that are difficult to resolve (Lane, 1962, ch. 26; Almond and Verba, 1963, ch. 15). However, in many countries the problem is the reverse, i.e. a paucity of participation which may lower democratic legitimacy (Rosenstone and Hansen, 1993; Dalton and Wattenberg, 2000; Putnam, 2000). This problem of legitimacy is directly related to the micro-dimension, namely, the benefits that citizens gain from political participation. We posit that there are three types of benefits:

- (1) Commitment: participation enables citizens to have more trust on the democratic system.
- (2) Emotional satisfaction: participation generates greater public satisfaction with democracy.
- (3) Cognitive awareness: participation enables citizens to understand the mechanisms of democracy better, and to be more aware of the players who are involved in democratic processes.

The first type of benefit, commitment-trust by participation-has been frequently studied by supposing the reverse causal relationship, namely, that trust causes participation. Newton (1999) pointed out that the relationship between social (interpersonal) trust and political/social participation is positive but weak in Europe and the US. Norris (1999) also found no discernible correlation between confidence in politics and voting participation in the US. Moreover, she found that trust in political institutions is negatively correlated with participation in political protest, but positively correlated with social trust. The second type of benefit, emotional satisfaction, has been studied by those examining post-materialist values (Inglehart, 1977, 1990). The logic of this tradition posits that post-materialistic values emphasize self-actualization, which is fulfilled through social or political participation, such as having a say in the government, or attaining freedom of speech in the public sphere, and that this fulfillment or self-actualization brings about satisfaction. Also in a different context of study, Schlozman et al. (1995) showed that both social and political participation accompanies community satisfaction, and leads to the gratifying feeling that one has an influence over government policy. Finally, what of the third type of benefit, we argue that participation not only gives rise to greater knowledge about democratic politics, but also that it enables people to recognize differences among players in democratic politics. Most often, it enables them to recognize differences between competing political parties. These perceived differences, in turn, promote smoother decision making when deciding which party to vote for. Moreover, participation may help people to understand that the result of an election has important consequences, and this may strengthen citizens' commitment to democracy.

## **1.2 Objectives of participation**

Participation activities may be motivated from an administrative perspective or a citizen perspective. From the administrative viewpoint, participation can build public support for activities. It can educate the public about an agency's activities. It can also facilitate useful information exchange regarding local conditions. Furthermore, participation is often legally mandated. From the citizen viewpoint, participation enables individuals and groups to influence agency decisions in a representational manner (Glass, 1979). Thus, nowadays real participation means organized participation. Organized participation is due to civil society, citizen right, and democracy. Participation should be broadly interpreted to include voting, lobbying, campaign contributions, bribes, demonstrations, etc. To achieve above purpose, in this paper we considered the Voice and Accountability indices of the mixed governmental indicators, Democracy index, and Civil Liberty index separately as an indicator of political participation and people freedom in government and their representations selection. The paper has eleven other sections. Sections 2, 3, and 4 describe the substitute indicators (Democracy index, Voice and Accountability index, and Civil liberties). Section 5 provides a review of other researchers about government size and political participation. Section 6 clarifies the econometric method and presents the data to be used in the estimation. Section 7 lays out the extended Mueller and Stratmann's model. Section 8 discusses the econometric results. The final section summarizes the main conclusions.

## **2. VOICE AND ACCOUNTABILITY INDEX**

Creating political accountability is an important goal of political participation in the context of democratic theory. This index was measured first time in 1996 by Kaufman et al. (2003) and was collected by World Bank. A range of -2.5 to 2.5 is assigned to countries and countries with higher rate have better situation. In the other hand, the Voice and Accountability in these countries are higher and more people can participate in selecting government and their representations consciously. This index represents concepts such as political rights, freedom of speech, political and social crowd, freedom of Press, amount of the rulers' representation of social categories, and political processes in electing that is called democracy indicator. In other word, Voice and accountability measures the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. This index affects government size by improving human capital as a factor in which increases government expenditures and somewhat is a redistribution factor. As be mentioned, in fact this index is a symbol of democracy index. Due to democracies is more sensitive than dictators in area of basic people needs, so they follow policies that improve human capital. Income inequality degree is caused by social selection that is affected by political regime. It is expected that the change from dictatorship to democracy, gives a high weight in mass decisions to preferences of poor people. The

vote right of poor people may guide the political process in their interests and forces government to redistribute income, and this will strengthen interest groups.

### **3. DEMOCRACY INDEX**

In the works of Bachrach and Botwinick (1992), Kitschelt (1996) participatory democracy is limited to measures of direct democracy. Democracy index indicates institutions and ways in which citizens can voice own independent views on policy and various politicians. Open source politics, and open politics seek to radically increase participation. Democracy Index is an index compiled by the Economist Intelligence Unit examining the state of democracy in 167 countries, attempting to quantify this with an Economist Intelligence Unit Index of Democracy which focused on five general categories: electoral process and pluralism, civil liberties, functioning of government, political participation and political culture. The five category indices, which all are listed in the report, are then averaged to find the democracy index for a given country. Finally, the democracy index, rounded to one decimal, decides the classification of the country, as quoted:

- (1) Full democracies—scores of 8-10.
- (2) Flawed democracies—scores of 6 to 7.9.
- (3) Hybrid regimes—scores of 4 to 5.9.
- (4) Authoritarian regimes—scores below 4.

### **4. CIVIL LIBERTY**

One of civil society determinants is individual freedom and providing infrastructure for citizens to participate in policy and governmental affairs, and also participation in party and guild union for meeting political, social, and economic demands. Civil liberties are rights and freedoms that protect an individual from the state. Civil liberties set limits on the government so that its agents cannot abuse their power and interfere unduly with the lives of private citizens. Common civil liberties include the rights of people, freedom of religion, freedom of participation and making politic decisions and freedom of speech, and additionally, the right to due process, to a trial, to own property, and to privacy. Voting is a right, not a duty. It was created to be a means through which ordinary citizens to make their preferences heard. In a nation with compulsory laws, for many the civil right becomes a requirement. Instead of a defense of democracy, it may be seen as an infringement on individual's liberties. The right to not vote could be as important as the right to vote. This index is classed in 1 (highest degree of freedom) to 7 (lowest degree).

### **5. LITERATURE REVIEW**

#### **5.1 The size of government**

Does centralization increase the size of government? Following Oates (1985), there has been a debate on this topic, based largely on contradictory empirical evidence. Oates' study followed a suggestion by Brennan and Buchanan (1980) that competition would tame Leviathan governments, and, therefore, limit the size of government. This approach assumes that competition forces revenue maximizing governments to lower tax rates or increase public service levels in order to attract citizens. In a model based on voting without mobility, Persson and Tabellini (1994) found that the effect of centralization on the size of government depends on the shape of the income distribution function, and the nature of government activity. Suppose government redistributes income along the lines of Meltzer and Richard (1981). In particular, a linear income tax is used to finance lump-sum transfers. The size of the transfer is decided by the median income earner; transfers are positive if and only if median income is below mean income. Then the size of government increases if median income falls relative to mean income. If there are two regions with different income distributions, under reasonable assumptions, Persson and Tabellini (1994) find that centralization decreases the size of government. The reason is that in the richer region, centralization implies that some voters (namely, the formerly 'poor' who are now relatively rich) will want less redistribution, while conversely, some voters in the poor region (the formerly 'rich' who are now relatively poor) will want more redistribution under centralization.

#### **5.2 Political participation**

The anatomy of political systems has been dissected in varied definitions. Some authors stress the contrasting characteristics of democracies and autocracies (or dictatorships) (e.g., Przeworski et al., 2000; Mulligan et al., 2004). Others focus on differences in the details of political institutions within these broad categories. For example, Wintrobe (1998) identifies and analyzes distinct types of dictatorship, while Persson and Tabellini (2003) compare democracies that use different election rules or democracies that can be classified as either parliamentary or presidential. Husted and Kenny (1997) and Aidt et al. (2006) study the allocation of voting rights and the extension of the franchise, while Mueller and Stratmann (2003) focus on differences in voter turnout rates in democratic elections. Downs (1957) argued that in

large two-candidate elections, the probability of being decisive was essentially zero and, given positive costs of voting, rational individuals should therefore abstain, unless they derive some non-monetary benefit from voting. Later on, game theoretic models have criticized this approach, since it ignores strategic interaction: If any one individual thought no one else voted, he or she would be decisive with probability one, and should therefore vote if the costs were not too large (Ledyard, 1984). Dahl (1971) made an important distinction between varying dimensions of democracy, two of which we call "political competition" and "electoral participation". This theory suggests that political institutions create incentives by fostering or hindering political competition and electoral participation. By political competition he mean the extent to which political power is, in fact, freely contested by political parties, pressure groups or other organized factions within a defined political structure. Moreover, in an environment of political competition the legislature enjoys autonomy and constitutional arrangements put constraints on the executive. Electoral participation, in contrast, is related to the rights of individual citizens to participate in the selection of their government through elections and referenda and the extent to which they exercise this right. The empirical evidence on the relationship between changes in the voting franchise and the growth in government expenditures is somewhat inconsistent. Peltzman (1980), in a cursory examination of the data, finds that total government spending did not surge following expansions of the voting franchise in Great Britain, Canada, and the United States. He concludes that the "data are too crude to rule out a connection between suffrage and the size of government ... [but do] suggest that the major changes in the size of government have little to do with extension of the franchise". Mueller and Murrell (1986), in a cross-sectional study of 28 countries, find that countries with higher voter turnout had higher government spending, but Murrell (1985) uses a somewhat smaller sample of OECD countries and finds no significant relationship between voter turnout and the share of public employment in total employment. Finally, the expansion of the voting franchise is unrelated to changes in the size of the governmental sector in the Brosio and Marchese (1988) examination of Italy between 1866 and 1914. Of course, these results may be different because of the use of different dependent variables. The number of government workers is more closely related to the amount of government services provided than is total government spending, which includes welfare spending. Among the studies that have examined the effect of income on participation, most have found a positive relationship. For instance, Ashenfelter and Kelley (1975), Durden and Gaynor (1987), and Greene and Nikolaev (1999) all found that election turnout increases with income. There are exceptions, for instance, Darvish and Rosenberg (1988) who find that turnout decreases with income. They interpret this finding to support the hypothesis that the costs of voting increase with income. Moreover, it may be that what is driving the results is education rather than income per se (Ashenfelter and Kelley, 1975; Powell, 1986). Moving beyond voting, political scientists have tried to measure the level of political participation, broadly defined to include voting, protests, campaign work, local board membership and campaign contributions. Arnstein (1969) discusses eight types of participation in A Ladder of Citizen Participation. These are broadly categorized as Nonparticipation, Tokenism, and Citizen Power. She defines citizen participation as the redistribution of power that enables the have not citizens, presently excluded from the political and economic processes, to be deliberately included in the future. Husted and Kenny (1997) examined the claim that expansion of the voting franchise has been an important factor in the growth of government and elimination other elements like poll taxes and literacy tests led to higher turnout, particularly among the poor, and a poorer pivotal voter by using a sample of biennial data from 1950 to 1988 for 46 states. They found that these changes, a fall in the income of voter relative to state income led to a sharp rise in welfare spending but no change in other spending. Also, they found strong support for prediction of pure redistribution, social insurance, and special interest group models that welfare spending rises as political power shifts from a state's richer citizens to its poorer citizens. Inman and Rubinfeld (1997a; 1997b) have argued that an optimal federalism should balance the benefits and costs stemming from economic efficiency and political participation. Small communities are likely to lead to economic inefficiency (since externalities might not be internalized and economies of scale not be exhausted), but at the same time increase political participation. If political participation is a valuable good, this should be weighed against the potential efficiency loss from decentralized decision making. Some increase in the size of the public sector is to be expected when taking into account past rising population and also to meet the broadening requirements of the welfare state in most countries. For instance, Alesina and Wacziarg (1998) show that the relative size of government can increase with population if public and private goods are highly substitutable. However, a larger public sector, as measured by the share of government expenditures in GDP, does not necessarily imply a better satisfaction of public requirements or, for that matter, a more efficient approach to providing the minimum required benefits of the welfare state. A similar model was presented by Larcinese (1999). He shows that richer voters have a higher incentive to be informed on political issues. Party competition in his model leads to candidates adopting positions corresponding to the ideal point of the expected median voter. Since information increases with income, the expected median has income larger than the population median. Lindert (1996) and Mueller and Stratmann (1999) found that voter turnout increases social spending. This is compatible with the idea that high turnout gives more power to the poor who benefit from spending on social programs. Thus, the idea that turnout can affect voting outcomes is not only reasonable but seems to be supported by evidence. By implication, the effect of different institutions on voter participation and, hence, on allocation, should be taken into account. Political discussion is one of the essential elements of political participation. By analyzing survey data from the US and the UK, Bennett et al. (2000) showed that discussion about politics increases civic knowledge of public affairs, even after controlling for relevant variables such as media exposure, political interest, and level of education. Similarly,

using principal component analysis, Delli Carpini and Keeter (1996, ch. 5), showed that a behavioral component that included political discussion with friends had a large impact on obtaining political knowledge, and, in turn, that political participation as well as consistency among opinions are boosted as a consequence of knowledge gain (Delli Carpini and Keeter, 1996, ch. 6). Political discussion, participation, and knowledge are therefore closely interrelated. Borck (2002) analyzes the effect of population size on political participation and allocative efficiency. Increasing population is generally found to reduce political participation. However, since participation is not evenly spread throughout the population, this will have consequences for allocation. Namely, he argues that increasing population size shifts power to the rich. He discusses the consequences for the optimal size of jurisdictions, the size of government, and the measurement of publicness. Borck started from the premise that political participation decreases with the size of the voting population, and increases with income. Both facts seem to be supported by the evidence. From these facts then follows the hypothesis that increasing population will increase the income of the decisive voter, if the reduction of participation falls on the poor at least as much as the rich. Then he showed that increasing population may have positive or negative welfare consequences. For instance with much skewed income distribution, voting may put “too much” weight on poor voters and centralization may help correct this – up to some limit. Conversely, if the distribution is symmetric, increasing population will raise the income of the decisive voter further above the mean and hence worsen the allocative inefficiency of voting. This may provide an additional economic argument for small jurisdictions. The smaller the jurisdiction, the larger political participation, and, more importantly, the more equally will participation be spread throughout the population. This increases efficiency if the tax system is not too progressive. If political participation is positively valued, as argued by Inman and Rubinfeld (1997b), the argument for small jurisdictions is even stronger. Lizzeri and Persico (2004) argue that universal suffrage is associated with more spending on public goods and less on targeted transfers because it is cheaper for politicians to please a broad constituency in this way. A similar argument is made by Mesquita et al. (2005). Whether this leads to larger government or just to a shift in the composition of government spending is uncertain, but one may conjecture that it will because transfers can be targeted effectively to relatively small segments of the population while public goods, by definition, cannot. Recent empirical studies on electoral participation have focused on the relationships between information and turnout. Lassen (2005) uses data from a natural experiment where a random fraction of the electorate is exogenously informed and finds that better-informed voters are more inclined to vote in a referendum setting. Degan and Merlo (2007) show that, since uninformed voters are more uncertain about the optimal candidate, their expected regret from voting is higher and therefore they are less likely to turn out. Fung (2006) presents another classification of participation based on three key questions: Who is allowed to participate, and are they representative of the population? What is the method of communication or decision-making? And how much influence or authority is granted to the participation? Ikeda and el al. (2008) examine how macro-environmental factors-specifically, how distinctive political choices are from one another- affect the cognitive consequences of political participation. Although there are two possible causal directions between political participation and cognitive factors, they instead focus on how this macro-environmental factor affects the association between these two variables. They hypothesize that political participation promotes the efficacious feeling that participation makes a difference by improving the cognitive articulation of the political system. Additional analysis shows that political participation has a compensatory effect on political efficacy for those who do not feel that their political position is well represented by the current party system. Aidt and Jensen (2008) studied the consequences of the extension of the voting franchise for the size of (central) government and for the tax structure in ten western European countries, 1860–1938. Their main hypothesis under investigation is that the impact of the franchise extension on the tax structure is conditional on tax collection costs. They found that the share of direct taxes (including the personal income tax) is positively affected by the franchise extension, but only if relative tax collection costs are below a given threshold. they used literacy as a proxy for the cost of levying a broad-based income tax and also showed that the gradual relaxation of income and wealth restrictions on the right to vote contributed to growth in total government spending and taxation. Sobbrío and Navarra provide (2010) an empirical investigation of electoral participation and communicative voting in 14 European countries. We estimate a multi-level voting process where individuals face a participation decision and a voting decision. Their main findings can be summarized as follows. First, individuals who are either independent or uninformed are less likely to turnout. However, being both independent and uninformed does not have any statistically significant effect on electoral participation. Thus, our results question the empirical relevance of the swing voter's curse theory in large elections. Second, the probability of voting as communicating is positively related with the level of education and the degree of dissatisfaction with the political system. Finally, political preferences and institutional features characterizing the functioning of the political system and of the media market have a significant effect both on electoral participation and on the voting decision. Afonso and Furceri (2010) analyze the effects in terms of size and volatility of government revenue and spending on growth in OECD and EU countries. The results of their paper suggest that both variables are detrimental to growth. In particular, looking more closely at the effect of each component of government revenue and spending, the results point out that i) indirect taxes (size and volatility); ii) social contributions (size and volatility); iii) government consumption (size and volatility); iv) subsidies (size); and v) government investment (volatility) have a sizeable, negative and statistically significant effect on growth. Rational choice models predict that political competition and political participation have opposite effects on the size of government. Aidt and Eterovic (2010) investigate these theories using data from a panel of 18 Latin American

countries during the 20th century. Their research builds evidence for the prediction that reforms enhancing political competition tend to limit the size of government, while reforms increasing political participation tend to increase the size of government. Furthermore, they find that reforms which remove literacy requirements from franchise laws are associated with governmental expansion, while changes in women's suffrage laws have no impact on the size of government. Their findings demonstrate the empirical relevance of the distinction between political competition and participation. By lifting property or income restrictions on the right to vote, individuals with lower incomes or less wealth are granted political voice, and the constituency of government is expanded with new voters who are poor relative to the average taxpayer. The Representation Theorem, then, predicts that an extension of the franchise increases the demand for redistribution (Tridimas and Winer, 2005). The Representation Theorem shows that the equilibrium platform can be characterized by optimizing a particular weighted sum of the enfranchised voters' utilities (Coughlin and Nitzan, 1981; Hettich and Winer, 1999, chapter 4).

## 6. DATA AND METHODOLOGY

In this paper, for studying the effect of political participation has been used of panel data for 51 Asia and Pacific Ocean countries during of 2000-2008. Data of government size, population, labor female and urban rate have been obtained from World Development Indicators (WDI), political variables like political participation or turnout, Civil liberties, and Political rights index are from Freedom House, Democracy index is an index compiled by the Economist Intelligence Unit, and finally, Voice and Accountability index has been collect from World Bank, and data of openness is from International Monetary Fund (IMF). At first, to establish the empirical relevance of the theoretical arguments, electoral participation is relatively straightforward to measure, either as the number of eligible voters (e.g., Aidt et al., 2006; Lindert, 1994) or as the number of voters who actually vote in elections or referenda (e.g., Mueller and Stratmann, 2003). But, because of being incomplete of data, here we have to consider other indexes like voice and accountability, democracy and civil liberties index that they show the characters of democracy regimes and they cause of political participation. Instead of using pooling method to cross section method, this allows us that we also studied dynamic changes. Using pooling method has other advantages; such as considering the dissimilar individual and more information, removing skews associated with cross-sectional regression that its results will be more accurate estimates, higher efficiency and less co-linearity. For estimating panel data is used of Generalized Method of Moments or GMM that has been expansion by Arellano- Band. Since in dynamic panel models, lag of dependent variable have correlate with error terms, they used lags of other variables (In the form of a recursive form) as an instrument for lag of dependent variable by two-step GMM method (Arellano & Bond, 1991).

## 7. THE MODEL

A variety of hypotheses about the determinants of government size have been proposed in a vast number of studies. The logic of the hypothesis is that political participation rates affect government policies. Thus, political participation should also be positively related to measure of government size (government public expenditure), GovS, in the Asia and Pacific Ocean countries. The specified model used in the study is according to Mueller and Stratmann (2003) model. Their basic governmental outlay model appears as follows:

$$\text{GovS} = \text{Inter} + \beta_1\text{GDP} + \beta_2\text{Pop14} + \beta_3\text{Pop65} + \beta_4\text{Partic} + \beta_5\text{Open} + \beta_6\text{Female} + \beta_7\text{Agr} + \beta_8\text{Urban} + \mu \quad (1)$$

Where GovSize which shows Government Size is General government final consumption expenditure (percent of GDP). According to 'Wagner's Law', they tested the relationship between size of government and national income, logarithm of GDP per capita. They included the fractions of the population, which are under 14 (Pop14-) and over 65 (Pop65+) in equation, since these are two major groups that are particularly dependent on government expenditure. Another variable is political participation which is measured by the ratio of total turnout in total population. Such studies as Cameron (1978) and Rodrik (1998) present that international trade have an effect on the government size. They examined this hypothesis by including the ratio of imports plus exports to GDP (Open) in the equation. Following Kau and Rubin (1982, 1999) the fraction of the labor force that is female is included as a proxy of a country at the capability of raising tax revenue that show with Female. When the rate of labor female is raised, the amount of government expenditure is increased. As additional variables to control for both demand or supply factors that might be related to the characteristics of the economy or its stage of development, they included the fraction of the workforce engaged in agriculture (Agr), and the fraction of the population living in urban areas (Urban). At least  $\mu$  is standard error so that it is  $\mu \sim \text{IID}(0, \sigma_\mu^2)$ . According to our hypothesis in this paper, we consider other indexes of political participation and other instrument variable like political rights, and then in order to GMM estimator, write the models as:

$$\text{GovS}_{i,t} = \text{Inter} + \beta_1\text{GovS}_{i,t-1} + \beta_2\text{GDP}_{i,t} + \beta_3\text{Pop14}_{i,t} + \beta_4\text{Pop65}_{i,t} + \beta_5\text{Participation}_{i,t} + \beta_6\text{Open}_{i,t} + \beta_7\text{Female}_{i,t} + \beta_8\text{Agr}_{i,t} + \beta_9\text{Urban}_{i,t} + \beta_{10}\text{Pri}_{i,t} \quad (2)$$

$$\text{GovS}_{i,t} = \text{Inter} + \beta_1\text{GovS}_{i,t-1} + \beta_2\text{GDP}_{i,t} + \beta_3\text{Pop14}_{i,t} + \beta_4\text{Pop65}_{i,t} + \beta_5\text{Democracy}_{i,t} + \beta_6\text{Open}_{i,t} + \beta_7\text{Female}_{i,t} + \beta_8\text{Agr}_{i,t} + \beta_9\text{Urban}_{i,t} + \beta_{10}\text{Pri}_{i,t} \quad (3)$$

$$GovS_{i,t} = \text{Inter} + \beta_1 GovS_{i,t-1} + \beta_2 GDP_{i,t} + \beta_3 Pop14_{i,t} + \beta_4 Pop65_{i,t} + \beta_5 Avi_{i,t} + \beta_6 Open_{i,t} + \beta_7 Female_{i,t} + \beta_8 Agr_{i,t} + \beta_9 Urban_{i,t} + \beta_{10} Pri_{i,t} \quad (4)$$

$$GovS_{i,t} = \text{Inter} + \beta_1 GovS_{i,t-1} + \beta_2 GDP_{i,t} + \beta_3 Pop14_{i,t} + \beta_4 Pop65_{i,t} + \beta_5 Cli_{i,t} + \beta_6 Open_{i,t} + \beta_7 Female_{i,t} + \beta_8 Agr_{i,t} + \beta_9 Urban_{i,t} + \beta_{10} Pri_{i,t} \quad (5)$$

Where:

*GovS* is a dependent variable representing all government expenditures, including consumption and transfers. Ideally, the state will provide only true public goods, with an absolute minimum of expenditure).

*GDP* is an independent variable representing the national income.

*POP14* is an independent variable representing the percent of population under 15 years.

*POP65* is an independent variable representing the percent of population above 64 years.

*Open* is an independent variable representing the summation of exports and imports as percent of GDP.

*Female* is an independent variable representing percent female in labor force.

*Agr* is an independent variable representing the value added in agriculture as percent of GDP.

*Urban* is an independent variable representing the percent of population living in urban areas.

*Democracy* is an independent variable representing the democracy index in ranging of -10 to +10.

*Avi* is voice and accountability index, Units of index: -2.5 worst governance, 0 averages, and 2.5 best governance.

*Cli* is civil liberties and its Units is: 1=most free; 7=least free.

*Pri* is the political rights index in ranging of 1 to 7, 1=most free; 7=least free.

## 8. RESULTS

In this section, we estimate and analyze relationship between government size, and political participation and other indicators. In essence, economic relations mainly are dynamic and one of panel data benefits is to allow researchers understand adjustment dynamics. These relations determine by lagged dependent variable between explanatory variables. But there is substantial problem in estimation of these models, that lag of dependent variable in the right side have relation with special cross effects of each country ( $\eta_i$ ). This problem causes that estimation of equations with fixed and random effect methods get biased and inconsistent. In this study, we use GMM method. In this method, lag of variables uses as instruments to two-step GMM estimator in order to prevent autocorrelation of lagged dependent variable and error. Now we present results of estimation for four equations by this method.

### 8.1 Results of estimation by using percent of Political Participation

Results of the effect of political participation on government size by applying participation index illustrated in Table 1. As shown in Table 1, it found that participation index affects government size and has a positive and significant coefficient in confidence level of 95 percent. As a result, when political rate increases one percent, government size will increase 0.065 percent. This finding is consistent with work of pervious researchers. GMM estimators consistency is depend on credibility of applied instruments. To test this consistency, we used the proposed statistic by Arellano & Bond (1991), Blundell & Bond (1998), and Arellano & Bover (1995). This test that named "Sargan", measures the overall credibility of applied instruments. In other words, Sargan test applies to determination of any correlation between tools and errors. Arellond and Bound (1991) found that one-step Sargan test rejected extremely when variances are homogeneity. Sargan test result shows applied instruments have needed credibility (there is no relationship between error elements and applied instruments). We used another test for investigating autocorrelation.

**Table 1: Results of Estimation by Using Percent of Political Participation (Turnout)**

D.GovS	Coefficient	Std. Err.	Z	P>  Z
Constant	0.199	0.194	1.03	0.305
GDP	0.003	0	6.97	0
Participation	0.065	0.018	3.63	0
Pop14	0.112	0.173	0.65	0.515
Pop65	-1.469	0.691	-2.13	0.033
Urban	-0.32	0.231	-1.38	0.167
Female	0.42	0.064	6.56	0
Agr	-0.23	0.054	-4.22	0
Open	-0.054	0.003	-13.78	0
Pri	-0.608	0.193	-3.15	0.002
Sargan test (p-value)	29.64			(0.3304)
Serial correlation test (p-value)	-0.27			(0.7843)



Arellano-Bond test is an autocorrelation test which assumes there is no second-order autocorrelation in errors related to first-order difference. Therefore, we cannot reject  $H_0$  (no second-order autocorrelation). This index is limited to turnouts who participate in elections. For this purpose, we tested impact of political participation on government size by other indicators which their impacts can be seen in following tables.

### 8.2 Results of estimation by using Democracy Index

Table 2 show results of the effect of political participation on government size by applying Democracy index. It found that Democracy index affects government size and has a positive and significant coefficient in confidence level of 95 percent. When Democracy index increases one percent, government size will increase 1.307 percent. According to Sargan test, there is no relationship between error elements and applied instruments. Therefore, applied instruments have needed credibility. Arellano-Bond test confirms there is no second-order autocorrelation in errors and we reject  $H_0$ .

**Table 2: Results of Estimation by Using Democracy Index**

D.GovS	Coefficient	Std. Err.	Z	P>  Z
Constant	0.310	0.159	1.95	0.051
GDP	0.003	0.000	7.14	0.000
Democracy	1.307	0.407	3.21	0.001
Pop14	0.132	0.205	0.65	0.518
Pop65	-1.108	0.565	-1.96	0.05
Urban	-0.463	0.176	-2.63	0.009
Female	0.380	0.077	4.91	0.000
Agr	-0.214	0.051	-4.20	0.000
Open	-0.055	0.006	-9.11	0.000
Pri	-0.523	0.219	-2.38	0.017
Sargan test (p-value)	28.34			(0.3934)
Serial correlation test (p-value)	-0.32			(0.7453)

### 8.3 Results of estimation by using voice and Accountability Index

According to Table 3, Voice and Accountability have correlation with Political rights Index, therefore, this variable was eliminated in estimation. Another index that we assumed as political participation is voice and accountability index. Results of the effect of this index on government size have been shown in Table 4. With survey results we can understand that and accountability index have a positive and significant effect and when and accountability index increases one percent, size of government increases 3.19 percent. Result of Sargan test show that applied instruments have the enough credibility and there is no second-order autocorrelation.

**Table 3: Correlation Test**

	Vai	Pri
Vai	1.0000	
Pri	-0.9129	1.0000

**Table 4: Results of Estimation by Using Voice and Accountability Index**

D.GovS	Coefficient	Std. Err.	Z	P>  Z
Constant	0.182	0.172	1.06	0.290
GDP	0.003	0.000	5.87	0.000
Vai	3.19	1.24	2.57	0.010
Pop14	0.102	0.226	0.45	0.651
Pop65	0.340	1.031	0.33	0.741
Urban	-0.450	0.166	-2.70	0.007
Female	0.421	0.073	5.73	0.000
Agr	-0.185	0.047	-3.92	0.000
Open	-0.053	0.005	-9.52	0.000
Sargan test (p-value)	25.89			(0.5248)
Serial correlation test (p-value)	-0.37			(0.7105)

### 8.4 Results of estimation by using Civil Liberties Index

Finally we consider civil liberties as political participation. According to literature, civil liberties set limits on the government. The less civil liberty index indicates the more civil liberty in community. Therefore we expected that civil liberties have been negative effect on government size, because increasing in civil liberty leads to higher demand for

public goods and as a result, government size will enhance. We estimated the effect of this index on Government size and found its coefficient is negative and significant. If we decrease civil liberties one percent, size of government will increase 1.291 percent. Credibility of applied instruments is confirmed by Sargan test and we cannot reject zero null hypotheses (H0) and Arellano-Bond test illustrate there is no second-order autocorrelation (see Table 5).

**Table 5: Results of Estimation by Using Civil Liberties Index**

<b>D.GovS</b>	<b>Coefficient</b>	<b>Std. Err.</b>	<b>Z</b>	<b>P&gt;  Z </b>
Constant	0.182	0.135	1.34	0.180
GDP	0.003	0.000	8.51	0.000
Cli	-1.291	0.247	-5.22	0.000
Pop14	0.234	0.197	1.19	0.235
Pop65	0.023	0.640	0.04	0.971
Urban	-0.246	0.172	-1.43	0.152
Female	0.358	0.084	4.26	0.000
Agr	-0.169	0.052	-3.25	0.001
Open	-0.059	0.006	-9.51	0.000
Pri	-0.425	0.235	-1.81	0.070
Sargan test (p-value)	26.77		(0.4765)	
Serial correlation test (p-value)	-0.41		(0.6836)	

## 9. CONCLUSION

This paper considered the relation of political participation and government size by using other indicators. We found that some determinant factors defined political participation, like democracy, political accountability, and freedom of citizens to participate in policy and governmental affairs. Each of these factors effect political participation and their effects are statistically significant. When political participation has the effect on government size, therefore, also we expected that these factors have the effect. For this reason, we consider Democracy index, Voice and Accountability index, and Civil liberties as political participation. Results of estimation indicate when we increase Democracy index and Voice and Accountability index one percent, size of government will increase 1.307 and 3.19 percent, respectively.

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