Political Corruption and Electoral Systems Seen with Economists’ Lenses
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Abstract

The ongoing process of democratisation lead to the growing importance of the electoral systems that regulate the procedures of gaining and legitimizing power in democracy. Taking it into account it is worth asking about the relationship between these particular ‘game rules’ contained into electoral law and the respect of the rule of law, being one of the basic norms of a democratic system. A question then may be raised about the existence and the character of the relation between electoral systems and the level of political corruption. It is worth noticing that besides the research conducted by political scientists and the representatives of various branches of social sciences the significant analysis of the issue have been presented by the economists.

In this article a brief overview of the economic studies on the relationship between level of political corruption and the electoral systems is presented so as to assess to what degree this approach may be treated as fruitful.

Keywords: corruption, electoral system, economics imperialism

JEL Classification: D72, D73

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1. Introduction

A natural consequence of the ongoing process of democratisation over the last two centuries has been the increase of importance of the rules that influence the way we choose representatives rendering power in the name of the sovereign that is the nation. The fundamental role is played here by electoral systems, which in modern democratic states based on the rule of representative democracy determine the way of gaining and legitimizing power. Taking into consideration their great weight the question arises whether these particular ‘game rules’ themselves have an influence on the respect of the rule of law, being one of the basic norms of a democratic system\(^2\). In other words – do the rules of the electoral law influence the scale of power abuses, which are committed by politicians holding public offices who are chosen according to these rules, and to what extent? A question then may be posed about the existence and the character of the relation between electoral systems and the level of political corruption, indicated in the title of this article.

The notion of corruption is here confined to the abuse of power by people holding public offices in order to gain undue advantages\(^3\). It needs to be noted, however, that this phenomenon may be and frequently is defined more broadly – the notion of corruption may also apply to instances of abuse of the professional or social function fulfilled by representatives of other professions, e.g. doctors, university teachers, policemen or office workers, as well as – which by economists is taken into account extremely rarely – entities working in the private sector\(^4\).

The evidence of the difficulty in defining the term on the legal and legislative level may be the verdict of the Polish Constitutional Tribunal from June 23\(^{rd}\), 2009 overruling part of the regulations of the Central Anticorruption Bureau Bill from June 9\(^{th}\), 2006. By act of this law the provisions determining in which situations we deal with the phenomenon of corruption included, inter alia, in this very act were declared not consistent with either the Constitution of the Republic of Po-

\(^2\) According to William Riker the capacity of the system to counteract abuse of power by politicians is the basis for the so-called ‘liberal’ view of democracy and is one of the basic conditions of the effectiveness of the democratic system. W. Riker, *Liberalism Against Populism*, W.H. Freeman, San Francisco 1982.

\(^3\) Some problems with the precise interpretation of the notion of ‘political corruption’ were aptly presented by M. Philp. M. Philp, *Defining Political Corruption*, “Political Studies” 1997, vol. 45, pp. 436-462.

land, nor the Convention for the Protection of Human Rights and Fundamental Freedoms (Article 1 point 3 of the initial text of the bill). After the verdict taking effect the statutory definition of corruption expanded greatly.

The relation between corruption and the shape of electoral systems in a natural way fits the field of research into political sciences. In this context prima facie it may seem surprising that in the last two decades research on the subject has been conducted and to a great extent has been inspired by economists themselves. It seems that the interest in the issue on the part of the representatives of economic sciences has been in a way a ‘by-product’ of their great involvement in defining and specifying economic consequences of corruption. On the other hand, however, the fact may also be interpreted as one of a great many manifestations of the imperialism of economics.

This article aims to present the economic approach to the comprehension of the relations between the rules that electoral systems are based on, and the level of corruption as well as the evaluation as to what degree this approach may be treated as fruitful.

2. Electoral systems: some basics

In the starting point it seems only natural to define what we understand under the term ‘electoral system’. For the needs of further analysis we may assume the general approach, according to which an electoral system consists in a set of rules formalizing the methods of the aggregation of voters’ preferences and on this basis allocating seats to the representative bodies. Norms building up an electoral system define, inter alia, the right to elect and to be elected, the rules of choosing candidates, the running and financing of electoral campaigns, the method of conducting voting, the method of converting votes into seats and the procedures allowing for the control of the propriety of the election. It needs to be emphasised in advance that when researching electoral systems from the economic perspective the analyses concentrate on this part of the above-presented rules which allows for the determination of the election result, that is on (1) electoral formula, (2) the type of ballot and (3) the procedures determining the size of voting districts.

The diversity of the applied electoral systems is immense. When classifying the presently used electoral systems, the thing taken into consideration most often is the level of projection of preferences expressed by the voters at ballot boxes, and in this way the rendered allocation of seats. When applying such a criterion one may distinguish two most general classes: the majority/plurality systems

the proportional representation ones (PR). In the case of the majority/plurality systems, elections are won by the party whose candidates win in the greatest number of constituencies, and as regards PR, the winning party is the one which gained the greatest support in the scale of the whole country.

The **majority/plurality systems** belong to the oldest and, at the same time, easiest solutions still successfully used today. It is one of the most popular methods of choosing members of the modern legislature – it is used in over 80 countries and dependent territories around the world\(^6\). The nature of the plurality systems is based on the fact that the seat is allocated to the candidate that received the most votes. In the simplest version, when in order to get the seat the simple majority of votes is enough, we deal with the **first-past-the-post system** (FPTP). Such a solution is at present used in, inter alia, Great Britain and in many countries once belonging to the British colonial empire\(^7\). When in order to get the seat one has to receive the support of the majority of voters we deal with the **majority system**. Such a solution usually leads to the necessity of organizing a second round of the election in which only a certain number of candidates with the greatest number of votes from the first round may take part. The majority system is in operation in, among other places: the French National Assembly, Vietnam, Iran or Belarus. Plurality systems are, in general, used in single-member districts, although the application of the plurality rule in the election in multi-member districts is also possible. The voter administers then as many votes as there are seats to be allocated in a given constituency. Such a modification is used rather rarely\(^8\). The **single non-transferable vote** (SNTV) system may be treated as a special case of the plurality system in which the voter is in possession of only one vote but in multi-member constituencies.

On the other pole of the presented spectrum there are the **proportional representation systems**, which are equally popular as the majority/plurality systems now\(^9\). The PR methods are to reflect voters’ preferences in the distribution of seats in parliament. An ideal situation is when the distribution of seats in the representative body ideally corresponds to the distribution of votes cast for particular parties taking part in the election. In practice this ideal is not possible to realize and the adopted solutions to a greater or lesser degree modify the result achieved directly on the basis of counting the votes. In the case of PR systems key importance has the so-called allocation formula, that is, a mathematical formula used for the conversion of votes into seats. Among the presently used allocation formulas, the most often applied ones are the largest remainder methods (e.g. Hare-Niemeyer

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\(^{6}\) All the data on the electoral systems are retrieved from the database the Electoral System Design provided online by the Institute for Democracy and Electoral Assistance (accessed 15\(^{th}\) December, 2014). As regards bicameral parliaments the electoral system for the lower chamber is taken into consideration.

\(^{7}\) The system based on the simple majority rule is in force e.g. in Canada, India and the United States.

\(^{8}\) The system is in force in only 9 countries and dependent territories.

\(^{9}\) Proportional systems are in force in election to parliaments in over 80 countries. They are used, inter alia, in most European countries and almost all the states in South America.
method) or the highest averages methods¹⁰ (e.g. the d’Hondt method or Sainte-Laguë method), however, with the first ones the votes are converted into seats more accurately¹¹. Unlike the majority/plurality systems, the proportional representations systems are used in multi-member constituencies, though the size of the constituency may vary – from two-member constituencies to a situation when we have one constituency for the whole country¹². Voting usually takes place for party lists. The lists as a rule are closed – the voter chooses only the list, and not a particular candidate¹³. For proportional representation systems it is typical to use electoral thresholds. The introduction of thresholds decreases the risk of excessive fragmentation of the parliament but it naturally decreases the proportionality of the system.

A relatively new, 20th century solutions, are the mixed voting systems¹⁴, in which some of the seats are distributed according to the proportional formula and some of the seats are allocated according to the majority one. The implementation of such systems was introduced as there was a need for a solution to avoid the disadvantages of the purely majoritarian and purely proportional systems. The mixed voting systems are conducted in two basic versions: if the distribution of seats in both parts happens independently from each other it is referred to as the parallel system. However, if the final allocation of seats is decided about on the basis of the proportional part, that is then the mixed member proportional (MPP) or personalised system¹⁵. The personalized system is far more complex and less frequently implemented¹⁶.

Advances in the process of democratization and the popularization of voting rights prompted the search for and introduction of systems that would allow for the fuller representation of the voters’ preferences. The most well-known solutions

¹⁰ The so-called quota methods may be treated as an option of this method (e.g. Hagenbach-Bischoff method used in Belgium) where part of the seats are allocated among these candidates who received a number of votes higher than the applied threshold. D. Nohlen, Prawo wyborcze i system partyjny. O teorii systemów wyborczych [Electoral law and party systems], Wydawnictwo Scholar, Warsaw 2004, pp. 106-107, 437-438.
¹¹ The highest averages methods lead to overrepresentation of those parties which got the most support. This effect is the greatest in the d’Hondt method.
¹² It happens in the case of, inter alia, Israel and Holland.
¹³ It is possible to use the so-called open lists, in the case of which the voter can point out the most preferable candidate from the party list (such a solution is used in the elections to the Polish Sejm) or the free lists in the case of which the voter may pick up more than one candidate (the number of candidates to choose may be equal to the numbers of seats in a given constituency) or even give more than one vote to the same candidate. See also A. Reynolds, B. Reilly, A. Ellis, Electoral System Design. The New International IDEA Handbook, International Institute for Democracy and Electoral Assistance Stockholm 2008, pp. 84-85, 90.
¹⁴ On the theoretical level these solutions were discussed already in the 19th century, however, for the first time the system was used in practice in Denmark after World War One. D. Nohlen, op. cit., pp. 169-170.
¹⁵ The solution referred to as the model is the one applied in elections to the German Bundestag. In this system every voter is in possession of two votes, one is for the candidate in a one-member district (the seats are allocated on the grounds of the plurality system) and the other for a closed party list.
¹⁶ The system is used only in 9 countries (according to data from Institute for Democracy and Electoral Assistance).
of this type are the following: alternative voting, single-transferable vote (STV) and the Borda method\textsuperscript{17}.

**Alternative voting**\textsuperscript{18} is a type of preferential voting organised in single-member districts, and the voter has a chance to indicate a given number of candidates that are arranged from the most to the least preferable, assigning them consecutive natural numbers (1 signifies the most preferable person). When reading the election results, first the votes for the most preferable candidates count – that is, the people whom voters gave the number 1. The seat is given to the candidate that receives an absolute majority of such a type of votes. If there is no such person then the candidates with the least number of 1s are eliminated and their votes are distributed among the candidates that were second. This procedure lasts until a candidate is chosen who is supported by an absolute majority of the voters.

A similar solution is **STV** although it is used in multi-member districts. With this system the voters can also arrange candidates crediting them with importance expressed in numbers. However, the basic condition in order to get a seat is to exceed the electoral threshold. Then if the applied criterion is not enough to distribute all the seats, a procedure is applied which takes into account other choices of the voters (candidates arranged second and other).

As regards the **Borda voting method**, the voter arranges all the candidates from the most to the least preferable ones crediting them with natural numbers (the maximum is the number of all the candidates running for a seat in a given district). The numbers are then added and the seat is given to the candidate that received the highest score from all the added up votes. If the voters can decide themselves how many candidates they arrange then we deal with the system called **approval voting**\textsuperscript{19}.

It needs to be emphasised, though, that apart from the undisputed advantage of the preferential voting systems, which is the possibility of fuller representation of the voters’ preferences, they are still used relatively rarely\textsuperscript{20}. The basic problem seems to be the fact that they are more complicated both for the voters and also from the perspective of deciding about the election result.

The most important information on the subject of the presently used electoral systems, together with an example of the countries in which they are applied, is presented in table 1.

\textsuperscript{17} The method had already been introduced at the end of the 18\textsuperscript{th} century by French mathematician Jean Charles de Borda.
\textsuperscript{18} The system is also referred to as instant run-off voting.
\textsuperscript{20} The approval voting system has not been used in parliamentary election in any country as yet.
3. Corruption and barriers to entering the political market. Myerson’s model

The pioneer of economic analyses of the correlations between electoral systems and the level of corruption is a Nobel prize-winner in economic sciences, Roger Myerson. In 1993 he proposed an approach which in time gained an almost canon-like significance, both for economists and representatives of other social sciences.
dealing with the problem in question\textsuperscript{21}. Like Anthony Downs\textsuperscript{22} and the representatives of the public choice approach, Myerson assumed that the actions of individuals on the political plane are a consequence of the same motives that govern their actions on the economic plane – in a particular institutional context in a rational way they aim for the maximization of benefits they are able to achieve with the use of the resources given\textsuperscript{21}. Politicians running for election strive for a seat and voters want their candidate or party to win in order to ensure their favoured policy be implemented.

Myerson also assumed that voters\textsuperscript{24}:

- recognise corruption as undesirable and attach the same importance to the problem;
- have varied opinions on the remaining issues presented in political offers of particular parties or candidates;
- possess knowledge on the level of corruption of particular politicians and political parties\textsuperscript{25};
- harbour a conviction that their vote counts.

As regards political parties, however, they strive for the maximisation of the category known as expected corruption profit, which in fact is convergent with the aspiration to maximize the number of votes a party gets\textsuperscript{26}. For the need of the model Myerson also assumed that for every party existing on the political scene there is a formation with the same programme for which the expected level of corruption equals zero (a ‘clean’ party). The subject of deliberation is then the situation when in the parliament there are representatives of two parties – left-wing ($L_1$) and right-wing ($R_1$) – corrupt to the same level (positive and similar corruption level). The seats in the legislature are also run for by the representatives of the corresponding non-parliamentarian formations $L_2$ and $R_2$. Their index of corruption equals zero.

Using the tools from the games theory, Myerson debates what result might be expected with the use of various electoral systems. He concludes that in a country with an electoral system based on the rule of plurality the ‘clean’ parties ($L_2$ and $R_2$) could enter parliament only when the voters decided that the problem of corruption is a more important issue for them than the ideological differences. It happens because with the plurality/majority voting systems the voters would be afraid that voting for a new formation is burdened with a risk of ‘losing’ your

\textsuperscript{23} The notion of resources here is a very wide one. Resources here are referred to as not only material goods but also human resources, access to information, business relations etc.
\textsuperscript{25} Myerson simply assumes that ‘every party has a publicly announced corruption level’. R. Myerson, \textit{Theoretical Comparisons…}, p. 685.
\textsuperscript{26} The corruption profit is expressed by Myerson as a simple product of the obtained seats and a variable qualifying the level of corruption due for deputies of a given party. Ibidem.
voice, that is, giving it to a party that will not get a place in the parliament and will not have a say in governing. A similar situation will happen in a system based on the SNTV rule. In the case of both of the analysed solutions, in order to vote for \( L_2 \) and \( R_2 \) the voter would need to recognize them as ‘serious’ contenders, i.e. ones that could be a serious competition for \( L_1 \) and \( R_1 \).

As regards the use of the proportional system, the chances for the ‘clean’ parties to enter the parliament are, according to Myerson, much higher. Even if the voter expects that all the other voters with similar political preferences would vote for one of the corrupt formations, he or she will have an incentive to vote for \( L_2 \) or \( R_2 \). By voting in line with their actual preferences they could influence the decreasing of the cost of corruption without giving up the benefit of implementing the policy that he or she supports. It needs to be emphasized, however, that such a conclusion may be drawn only when we assume that the voters recognize that both parties (\( L_1 \) and \( L_2 \) as well as \( R_1 \) and \( R_2 \)) will be ready for cooperation and the creation of a coalition government after the election. Moreover, it has to be pointed out that Myerson takes into consideration the electoral system close to the ideal of proportionality – without threshold, in multi-member voting districts, with the allocation formula allowing for a precise conversion of the votes into seats. In other words, he assumes that there are no barriers to entry on the political market or that they are very easy to get through. An assumption of this kind means that the example analysed by him assumes the character of an analytical construction as in the practice of the proportional electoral system there are always greater or lesser barriers to entry on the political market.

The main conclusion from the deliberations presented by Myerson boils down not to favouring the proportional system over the majority system (as more effective in curbing corruption) but rather to acknowledging that one of the key elements simplifying the effective fight with corruption is lowering the barrier to entry on the political market.

4. Corruption and the character of electoral lists, the level of threshold and the size of constituencies. Falsification attempts

Myerson’s model became a point of reference for a wide range of studies on the relation between electoral systems and corruption. In economic literature devoted to the subject, two major trends can be distinguished. On the one hand the researchers tried to expand the scope of the study, drawing attention to the remaining elements of electoral systems and showing their potential as regards curbing the abuse of power. On the other hand, there have been attempts of empirical falsification of the theses formed on the theoretical grounds.
Both of the above presented approaches may be found in the publications by Torsten Persson and Guido Tabellini. Unlike Myerson, these authors focused not so much on the very allocation formula and contrasting in this way the majority and proportional systems, rather they concentrated on the importance of the personalisation of choice in order to curb the abuse of power. Among the proportional systems they made a distinction between the systems in which voters have the possibility to choose a particular candidate (open or free lists) and voting for the closed party lists. The primary thesis reoccurring in the works by Persson and Tabellini comes down to the statement that the possibility to vote for one candidate, characteristic of the majority systems, proportional systems with open lists and applied to some part of the seats in the mixed voting systems is a factor increasing the chances to curb corruption. In the case of voting for the closed lists, the decision about the choice of particular candidates does not belong to the voter, they do not have a possibility to reject their support for those present on the party list that he or she refers to as more vulnerable to power abuse. The evaluation on the part of the voter pertains to the whole party. It needs to be added that the simplified supposition assumed by Myerson about the homogeneity of the level of corruption of all the members of the formation is legitimate only in this case.

Persson and Tabellini also attempted to falsify their statement on the basis of empirical data. They took into account only democratic countries, and the level of corruption was estimated on the basis of (1) the most popular quantitative index, the Corruption Perception Index (CPI), compiled annually by Transparency International, (2) the Control of Corruption Index (CCI) compiled by the World Bank and (3) the estimations from the International Country Risk Guide (ICRG) provided by The Political Risk Services. In line with the intention of the authors of the CPI, Persson and Tabellini emphasize that this Index cannot be used for analysis of the changes in the level of corruption over the same is true in the case of the second (CCI), thus in the panel analysis the researchers use only the third, ICRG. Despite problems with estimations of the corruption level, they conceded that the analysis of the gathered material makes it possible to prove the hypothesis of the influence of personalized election on the curb of corruption. What is more, it is also the basis to the claim that the size of corruption is influenced by the electoral threshold and the scale of multi-member districts. According to the authors the decrease in the level of corruption will benefit from lowering electoral thresholds and the increase in the number of seats in the districts. The conclusion seems

28 The level of democratization was assessed on the basis of the estimations by the Freedom House. Its reports are published on the official website: http://www.freedomhouse.org/report-types/freedomworld.
29 The official website of the World Bank providing its estimations on the subject of governing in the world (including the level of corruption index) is available at: http://info.worldbank.org/governance/wgi/.
to confirm Myerson’s theses since factors taken into consideration by Persson and Tabellini may well be treated as barriers to entry on the political market. From their research it follows at the same time that, from the point of view of the curb of corruption, the size of electoral district (the number of seats) is of less importance than personalization of the election. One may than expect that the level of corruption will be lower in countries with the majority system and one-member constituencies than in countries with the proportional system and multi-member districts.

The conclusions on the part of Persson and Tabellini were borne out by the research conducted by Jana Kunicová and Susan Rose-Ackerman\textsuperscript{31}, which is worth mentioning the more, since their model has been based on the CPI/CCI. It should be mentioned as well that they have considered a wide range of additional variables characterising the socio-political background. Among them the particularly significant turned out to be the one representing the type of government (presidential vs parliamentary systems). In contrary to the Myerson findings, their conclusion is that to diminish corruption the worst solution is the PR system with closed list accompanied with presidential system of government.

As regards Vincenzo Verardi, who in order to estimate corruption used the data from \textit{International Country Risk Guide}, he confirmed the thesis of the correlation between the size of constituencies and the level of corruption but he undermined the conviction of the greater significance of a personalized election in relation to the effect of lowering barriers to entry by the use of the proportional system. From his analyses it follows that the proportional systems are more favourable from the point of view of the fight against corruption than the majority systems\textsuperscript{32}. Let us notice that this conclusion is convergent to those of Myerson.

It also needs to be noticed that in 2006 Myerson himself ventured to evaluate the effectiveness of anti-corruption rules applied to one-member districts\textsuperscript{33}. In his study he included the following systems: majority, Borda, approval and negative voting\textsuperscript{34}. He tried to investigate which of the systems allows for the best way to reconcile counteracting corruption with the need for the election to be representative and he named the approval voting. Like the previous articles, his analysis is conducted on a purely theoretical level without the creation of econometric models and confronting the conclusions with the estimation of the level of corruption for particular countries. However, in the case of comparison of the above-mentioned electoral systems the attempts to confront theoretical conclusions with empirical ones from the beginning would be doomed to fail as the approval and negative voting systems have not been used in any country as yet.

\textsuperscript{34} The system of \textit{negative voting} is the opposite of approval voting – the voter designates the candidates that he or she rejects, ordering them from the most to the least preferable.
5. Conclusions

In the economic literature devoted to the analysis of the correlation between the shape of electoral systems and corruption there is no denying that such a relationship exists. Economists also agree that eliminating the abuse of power by people holding public offices benefits from lowering the barriers to entry on the political market and personalizing of the election. However, the consensus has still not been reached as regards the significance of particular rules building up an electoral system for the decrease of corruption, which makes it impossible to unambiguously state which electoral system would from this point of view be better.

It has to be emphasised that a characteristic element of the analysed publications is the drive for formalising and quantifying, equipping the analysed categories with a numerical measure. The approach can be referred to as a sign of the times since it is appropriate for the majority of the mainstream economics. Taking into consideration the data which is quantitative in character makes it more difficult, or even impossible, to make use of the well-developed methods of statistical inference and econometric analysis. It seems that as regards the analysis of corruption, the precision attained through the construction of quantitative indexes that aim to characterise such a difficult and complex phenomenon may only be osten-sible.

What is more, it also needs to be noticed that in the analysed works there is a visible tendency to concentrate only on the perception of the correlation between the shape of the electoral system and corruption without putting this relation in a bigger context (except for Kunicová and Rose-Ackerman). Although theoretical consideration on the subject allows for such a limitation of perspective, it calls for complementation as regards the attempts to actually change the current electoral law. Starting with the fundamental issues, the question might be posed as to whether in countries with a high level of corruption a reform of the electoral law could be a solution – according to the purport of Myerson’s analyses – i.e. lowering the barrier to entry on the political market. This issue seems to be more complex, as such a change of electoral system could lead to fragmentation on the parliamentary scene, which would make the process of appointing a government more difficult and – in the long run – it would make governing more difficult too. This kind of a simple cure for corruption would, in this way, prove to be more dangerous than the disease itself.

When referring to the works of economists researching the correlation between the ‘rules of the electoral game’ and the level of corruption one has to take into account the fact that their very improvement is only one of the elements that may contribute to the weakening of the incentives that induce politicians to abuse power.
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