A Hung Parliament in the North: Outside Options after the 2003 Election en Route to the Annan Plan Referendum of 2004

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Abstract

The Turkish Cypriot elections in December 2003 ended with no single political party attaining an absolute majority of seats, whereupon both supporters and opponents of the Annan Plan were each represented with 25 Members of Parliament (MPs), leading to a hung parliament. The aim of this study is to understand the outside options of parties in this hung parliament setup, and identify who were the winners and losers of the formed coalition and the alternative possible coalitions. The methods chosen to evaluate the possibilities are the Shapley-Shubik Power Index and the Casajus Value, which enable a quantification of negotiation power of parties by means of outside options. The results show that the Democratic Party (DP) is the real winner of the coalition. Outside options explains why the National Unity Party (UBP) preferred not to join a coalition with the Republican Turkish Party (CTP) and how the Peace and Democracy Movement's (BDH's) unwillingness to join a coalition with the DP and the CTP seemed to be a wrong decision. Moreover, outside options illuminates on how the CTP's power would be reduced in a grand coalition suggested by President Denktash. This study forms a new and original contribution to the literature on the Annan Plan and the Cyprus dispute, providing a better understanding of the political conditions prior to the referendum by using cooperative game theory.

Keywords: outside options, hung parliament, Cyprus dispute, Annan Plan, Turkish Cypriot politics, cooperative game theory, coalitions analysis

Introduction

A serious attempt for settling the Cyprus dispute was made by the former Secretary General of the United Nations, Kofi Annan, whereby he submitted a plan to Turkish Cypriot and Greek Cypriot communities in November 2002 based on the outcome of the

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intercommunal negotiations under the mediation of the United Nations (Yakinthou, 2009). With the so called Annan Plan I, he suggested a federation of the Turkish Cypriot and Greek Cypriot communities with a bizonal structure (Taki, 2009). In the Turkish Cypriot community, the opposition together with the vast majority of trade unions supported intercommunal negotiations based on the Annan Plan, whereas the government, the president and some NGOs were against it (Kaymak, 2009). Elections held in the northern part of the island on 14 December 2003 led to an indefinite result: Those in favour of the Plan and those against it had an equal number of seats in the parliament, leading to what political science describes as a hung parliament. After a long process of talks between the parties, the leading party supporting the Plan formed a coalition government with a smaller party against the Plan and intercommunal talks restarted with the presence of a new negotiation team. The intercommunal talks resulted in referenda – held separately on both sides of the island – on 24 April 2004.

This paper is interested in the nature of coalition formation and power sharing during the process of coalition formation. These aspects are even more thought-provoking when there is a hung parliament. The process of coalition formation involves sharing ministries between coalition partners, which provides the ground for a junior coalition partner to demand more ministries than its share in the parliament. In order to analyse the structure of government construction and the power of parties, the use of concepts of cooperative game theory are adopted.

This paper makes use of a formula to predict the number of ministries a party may acquire, based on the probability of being a key party to a coalition (i.e. turning a losing coalition without a parliamentary majority to a winning coalition with a parliamentary majority). This is one aspect of power sharing. A second aspect is how the outside options of the parties are utilised, since options to join other coalitions influence the negotiation power of parties as well. Based on the case study, this paper examines these two aspects with regard to the Democratic Party's (henceforth DP) self-defined role as a key party to coalitions.

The following hypotheses will be tested:

- It was better for the Republican Turkish Party (henceforth CTP) to form a
 coalition with the DP than with the National Unity Party (henceforth UBP),
 since it would have to sacrifice more ministries for the latter case.
- Based on its number of ministries and its role in intercommunal negotiations, the DP was the real winner of the coalition government formed after the elections.
- 3. It was better for the UBP to remain as the opposition rather than align with the CTP, because the UBP's outside options would imply that this party shall gain only 1/4 of the ministries in a coalition with the CTP, although it had only 1 MP less than the CTP.

- 4. Leaving only the Peace and Democracy Movement (henceforth BDH) in the opposition reduced the CTP's outside options more than it did for the two rightwing parties combined, although the CTP was the party with the highest number of MPs.
- 5. In line with Sözen (2005), it was a wrong decision for the BDH not to join a three party coalition with the CTP and the DP, because its outside options gave this party a strategic role which could be used to claim for ministries.
- 6. A grand coalition of all parties would have reduced the CTP's power.

The remainder of the paper is structured along these lines: the section below discusses the concept of hung parliaments in the literature followed by a section on coalition building and outside options in which the power of the parties and their outside options are analysed before the article ends with a conclusion.

Hung Parliaments in the Literature

The term 'hung parliament' can be defined formally as follows: A hung parliament occurs when no party or no political alliance of parties has enough seats in a parliament to form a non-minority government based on the majority of the votes, or when the two parties or the two political alliances have an equal number of seats in a parliament without a third party or a third group of political alliance. In the main, hung parliaments are generally observed in the UK, Australia, Germany's federal parliament, most recently between 2005 and 2009, and in some of its Bundesländer. The latter is known as the case of Hessische Verhältnisse (Hessian Situation), after the state parliament elections of 1982, 1983 and 2008 in Hessia.² A hung parliament is followed by an early election or a minority government or in some cases a coalition based on the majority of the votes. A review of the literature indicates that hung parliaments are mainly analysed in the framework of the UK and in Australian elections.

In fact, the term 'hung parliament' appeared initially in UK political culture. Blick and Wilks-Heeg (2010) write that in British politics, the parliament was always 'hung' prior to the existence of parties in the modern sense, for example, at the end of the nineteenth century and at the beginning of the twentieth century. Until the 1970s, the term 'balanced parliament' was used to describe the situation of a hung parliament but after the UK general elections of February 1974, the term 'hung parliament' replaced the

² For further information see 'Schon Wieder Hessische Verhältnisse' [Hessian Situation Again]. Available at: [http://www.faz.net/aktuell/politik/wahl-in-hessen/landtagswahl-schon-wieder-hessische-verhaeltni sse-12586024.html], last accessed on 22 February 2016.

term 'balanced parliament'. Blick and Wilks-Heeg clarify the emergence of the term as an adaptation from the US legal system's 'hung jury', which explains a situation in which the jurors disagree on a decision and need to call a second round of meetings to reach a unified decision. The metaphor was used to indicate that the UK parliament had to be dissolved as the government in control was a minority government (Blick and Wilks-Heeg, 2010).

The dissolution of parliament is not the only possible implication of a hung parliament. Based on historical events from the election history of the UK, Kalitowski (2008) lists four possibilities:

- 1. A single-party minority government supported by other parties in exchange to an agreed programme.
- 2. A single-party minority government without the properties described above.
- 3. A government based on the majority of the votes.
- 4. Dissolving the parliament.

It should not be forgotten that the outcome of a hung parliament is also dependent on the constitutional and legal framework within which a parliament operates. A well-functioning, stable government is important for the political stability of a country; however, it is not clear whether or not a hung parliament will lead to an instable political system or an increased participation of citizens in the processes of democracy. Controversial opinions on the issue of hung parliaments are also captured by Kalitowski (2008). The author distinguishes between two clusters of opinions: One cluster considers that a hung parliament may create an effect of instability on an otherwise stable system, whereas another cluster argues that a hung parliament can increase the political interest of the public and may result in an increased participation in the processes of democracy.

Political compromises can also be seen in step with the second cluster of opinions. Based on the case of the UK 1974 general election, Rogers (2010) argues that a hung parliament is suitable for developing political compromises along with taking responsibility for the economy as both equate to two sides of the same coin. The author claims that a hung parliament is even better than a parliament with a single party majority because it can represent the voters more equitably, and provide a boost of confidence to the markets.

The latter point is subject to economic theory. For instance, in the economic theory, the concept of bargaining observes situations in which parties negotiate the share of power. A basic example is the problem of how to divide a dollar between two players when the outside option is described as 'the best option available elsewhere' (Cunyat, 1998, p. 2) – which can be taken by one of the two parties as a result of discontinuing the negotiations. The outside option principle declares that a player's bargaining power can

increase his or her bargaining power if and only if the outside option is attractive enough (Mutoo, 2000).

Cooperative game theory offers different solution concepts by focusing on the issue of outside options. As mentioned above, an outside option is the best option available for any negotiating party elsewhere (Cunyat, 1998). Furthermore (in terms of opportunity costs) a negotiating party with a high outside option is expected to make his/her conditions more easily acceptable than a negotiating party with a low outside option. This is because his/her opponent may recognise that if the conditions are rejected, the opponent could, for example, go elsewhere to create a coalition and power share. These are alternative options that negotiating parties can adopt to enhance their mediation authority. Outside options are important in cases where two political parties, negotiating for a coalition government, are not restricted to form alliances only with each other as there may be other parties willing to form coalitions with them.

In the literature there are different concepts of outside options, which are driven by cooperative game theory. By way of illustration in the classification of coalition values, two distinguished concepts are attributable to Aumann and Dreze (1974) and Owen (1977). Whereas the Aumann–Dreze value considers only a player's own coalitions while determining the payoff, the Owen value considers associations outside of a player's own coalitions. As Casajus (2009) formulates, both values are insensitive to outside options. A recent contribution by Casajus (*ibid.*) is based on the following main idea: 'Splitting a structural coalition affects players who remain together in the same structural coalition in the same way' (*ibid.*, p. 50). The solution concept proposed by Casajus is based on the Shapley value and can be seen as a balance between outside options and contributing to one's own coalition (Casajus, 2009).

To be more precise, the point of departure is the Shapley value which is a mathematical solution concept from cooperative game theory. It 'tells us how market power is reflected by payoffs' (Wiese, 2010, p. 6) by asking how to distribute the value generated by the grand coalition among the members. The members may differ in their contributions to the grand coalition; therefore, the expected payoffs they receive are expected to differ as well. The Shapley value distributes the worth generated by the grand coalition among the members, where players with similar marginal contributions obtain the same payoff and a player with zero marginal contribution does not obtain anything from the worth of the coalition (Wiese, *ibid.*). Codenotti gives the following interpretation to the Shapley value (Codenotti, 2011): 'Given any "ordering" of the players, where each order is equally likely, the Shapley value φt measures the expected marginal contribution of player t over all orders to the set of players who precede her'.

The contribution of Casajus (*ibid.*) is based on the Shapley value but it considers the outside options of the players. The players obtain their Shapley payoffs, which needs to be

component efficient – meaning that summing up the payoffs of parties within a component (i.e. a coalitional structure) corresponds to the worth generated by that component. Splitting a coalitional structure affects the remaining players in that coalitional structure in the same way (Casajus, *ibid*.). Belau (2011) describes the Casajus value as 'the Shapley value made component efficient' by considering the coalitional structures rather than the grand coalition of all players – which makes it suitable for analysing coalition formation in a hung parliament.

Coalition Building and Outside Options

A specific use of the Shapley value is the voting systems. The Shapley value applied to the voting systems is called the Shapley–Shubik Index or sometimes known as the Shapley–Shubik Power Index (Shapley and Shubik, 1954). In the coalition formation process in a parliament, a coalition is either winning (and is assigned the worth 1) or losing (and assigned the worth 0); that is to say, the game is a 0-1 normed game.

Consider the election results of northern Cyprus on 14 December 2003. The only agenda of the election was the political plan for the resettlement of the Cyprus issue suggested by Kofi Annan based on the outcomes of the intercommunal negotiations. In consequence the election can be seen as a 'virtual referendum' (Kaymak, 2009, p. 156). As described earlier, the election results suggested a hung parliament with pro-Annan Plan MPs numbering 25 and anti-Annan Plan MPs also totalling 25. The referendum, therefore, needed to be decided in the parliament; President Denktash – being a lawyer – considered that 'the entire referendum exercise violated the TRNC Constitution in calling for its dissolution' (Kaymak, 2009, p. 157) – later on, the Turkish Cypriot Supreme Court disagreed with the opinion of Denktash. Hence, the aim of parties that were pro-Annan Plan was to restart negotiations and ensure a referendum on the settlement of the Cyprus dispute as suggested in the Annan Plan.

The pro-Annan Plan parties represented in the parliament were the CTP (19 seats) and the BDH (6 seats). The two anti-Annan Plan parties represented in the parliament were the UBP (18 seats) and the DP (7 seats). The Solution and EU Party (CABP-liberal), the Nationalist Peace Party (MBP-nationalist) and the Cyprus Justice Party (KAP-nationalist) did not obtain enough votes to be represented in the parliament, and the Patriotic Unity Movement (YBH) boycotted the elections.³ A government requires a simple majority of 26 seats in the parliament.

For the official election results see 'Yüksek Seçim Kurulundan İlan' [Notice of the Supreme Election Board]. Available at: [http://ysk.mahkemeler.net/16/20140109115630980.pdf], last accessed on 4 February 2016.

Based on the four parties (CTP, BDH, UBP and DP), there are $4! = 1 \cdot 2 \cdot 3 \cdot 4 = 24$ possible permutations, in which a coalition government can be established. Permutations are often associated with the metaphor of four players entering a room one after the other. For one player, there is only one rank order. For two players, there are two rank orders – either player 1 enters first or player 2. Based on these considerations, there are 24 different permutations for four players.

Reaching a simple majority is an important point for coalition building. Within all possible rank orders, there is always a party which 'completes' a coalition to secure a simple majority; namely, adding that party to a losing coalition would make it a winning coalition. In cooperative game theory, the player which turns a coalition from a losing coalition to a winning coalition is known as the pivotal player (or pivotal party). The pivotal player will be assigned a worth of 1 whereas the remaining players will be allocated a 0.

The consideration of all possible orderings is counterfactual. The importance of counterfactual scenarios is reflected in the calculation of Shapley–Shubik index value for this simple voting game. It is calculated by means of summing up the values (either 0 or 1) that a party adds to all possible coalitions (known as the marginal contribution of that party) and dividing this number by the sum of all possible coalitions (in this case, it is 24). To be more precise, in a simple voting game ('simple' meaning 'non-weighted') the Shapley–Shubik index value of a party is the probability of that party being a pivotal player in a coalition (Mann and Shapley, 1964).

The CTP with 19 MPs had the Shapley–Shubik index value of 10/24, having secured the largest share among the four parties. The DP, with only 7 MPs, had the Shapley–Shubik index value of 6/24, which is also the Shapley–Shubik index value for the UBP with 18 MPs. Although the press considered the 6 MPs of the BDH to be a victory, this party was measured as a pivotal party for only two coalitions: 2/24. It was no surprise that the chairman of the DP, Serdar Denktash, was criticised by the nationalist front⁴ immediately after the elections for stating that his party 'will be the key to the formation of any coalition'.

The DP was formed by prominent members of the UBP in 1992 after disagreements between the UBP's board and Rauf Denktash (Lacher and Kaymak, 2005). Due to the fact that it was the UBP's largest opponent, the DP implicitly tried to become the bigger party of the centre-right in the general elections of 1993 (UBP: 29.9%, DP: 29.2%) and 1998 (UBP: 40.4%, DP: 22.6%) (Sözen, 2005). After failing to reach this target, the party went to the 2003 parliamentary elections under the leadership of Serdar Denktash with a strong opposition to the Annan Plan. He changed the party's post-election strategy to be

⁴ Yenidüzen, 16 December 2003, Iss. No. 6883.

the key to the formation of any coalition.⁵ It can be argued that the DP did not fulfil this target, but compared to the great difference between the number of MPs of the UBP and DP, 18 and 7 respectively, the DP still had the same Shapley–Shubik value as the UBP, its bigger opponent, so it could claim the same number of ministers as the larger party.

<u>Thesis 1</u>: Although the DP and UBP have the same Shapley value, the number of MPs of the UBP is almost three times more than that of the DP. Also, it should be noted that the CTP could not form a government with the BDH to enjoy a majority in the parliament. In a coalition government with the UBP, the CTP would have to sacrifice more ministries because the UBP would be able to claim more ministries on account of its number of MPs. Thus, a coalition with the DP may be considered a clever move from the CTP's perspective as well as the best possible option.

Although the Shapley-Shubik power index is important in order to understand coalitions and the power of political parties, it does not consider outside options. So far we know the probabilities for each party to become a pivotal player. However, parties also have outside options – besides a certain coalition government, a party may be a pivotal player in another coalition government. Outside options will be deliberated by using the Casajus value.

To proceed with the calculation of outside options by means of Casajus, some assumptions should be made. Initially, the three parties supporting the Annan Plan (CTP, BDH and CABP) made an agreement prior to the elections to the effect that coalition governments would not be formed with any parties that were against the Annan Plan.⁶ That said, prior to the election a similar arrangement was not observed between the coalitions of that time – the UBP and DP. Nonetheless, immediately after the election, Serdar Denktash (DP) indicated to Dr Dervish Eroglu (chairman of the UBP and later president) that he ought to act as though he had 25 MPs:⁷ 25 MPs correspond to the combination of the MPs of UBP (18) and DP (7). This point was made a short time before Serdar Denktash commented that his party would be the key to any coalition. In consequence, the parties could not attach themselves to the initial deals and promises made, simply because neither a coalition between the UBP and DP, nor a coalition between the CTP and BDH could form a winning coalition due to the extraordinary seat distribution. Furthermore, as these parties governed together for many episodes in their

⁵ See S. Denktash: 'Sandiktan Koalisyon Çikacak' [A Coalition will come out of the Election Box]. Available at: [http://www.habervitrini.com/gundem/serdar-denktas-sandiktan-koalisyon-cikacak-110555/], last accessed on 4 February 2016.

⁶ Yenidüzen, 28 November 2003, Iss. No. 6866.

⁷ Yenidüzen, 18 December 2003, Iss. No. 6885.

history (UBP-TKP: 1985–1986 and 1999–2001, DP-CTP: 1993–1996), it was not hard to imagine a left-right coalition.

Sözen (2005) describes the outcome of the CTP–DP coalition as 'a very unstable coalition government' (p. 466) since the two parties had only 26 out of 50 MPs. Mehmet Ali Talat and Serdar Denktash were appointed as main Turkish Cypriot mediators for the Annan Plan negotiations – this altered the position of the Turkish side,⁸ leaving behind the self-determination policies of Rauf Denktash (Faustmann, 2009). Indeed, there were signs of change in Turkish foreign policy even before the Turkish Cypriot elections of 2003. The newly elected Turkish government of Justice and Development Party declared the plan as negotiable, and supported a policy change towards a federal solution (Bahceli and Noel, 2009).

Following the referendum a wave of resignations meant that the government would lose its majority in the parliament and call for an early election in February 2005: the upshot leading to the victory of the CTP (see Sözen, 2005).

During the course of the analysis of outside options, the situation, whereby some MPs switch from one party to the other or remain independent, is not reflected upon. This may seem unrealistic but can only be understood if the high tension of the era is considered; even though there is anecdotal evidence that an MP from the UBP thought of resigning after the election but then chose not to.

The following assumptions will be made:

Assumption 1: A coalition government between the CTP and the UBP or the CTP and the DP.

Assumption 2: Any coalition government with three parties.

Assumption 3: The grand coalition suggested by Rauf Denktash.

Considering the first assumption, the following coalition function can be defined:

$$v(S) = \begin{cases} 1, CTP \in S, DP \in S \\ 1, CTP \in S, UBP \in S \\ 0, otherwise \end{cases}$$

The coalition function above can be interpreted as follows: A coalition formed by any two parties is observed. If this coalition has a majority in the parliament, it is assigned the worth '1' – it is a winning coalition and can pass laws, for instance, the referendum law which was necessary for the Annan Plan referendum. Any other coalition is assigned the

⁸ The term 'Turkish side' refers to both Turkish Cypriots and Turkey.

worth '0' because it does not have a majority in the parliament – hence, any other coalition is a losing coalition. The CTP could form a two party coalition with the UBP or the DP to reach a majority in the parliament.

The game 'S' can be considered as the 'gloves' game with the CTP having the only 'left' glove and the UBP and DP having a 'right' glove each. This is similar to a market situation, where only a pair of gloves (i.e. a left and a right glove) is meaningful for the market – and the left glove is the scarcer of the two sides. This observation can be justified for a number of reasons: To begin with, according to the constitutional arrangements, the party with the highest number of MPs is appointed first to form the government; in this case it is the CTP. Second, after the election the UBP's chairman, Dr Dervish Eroglu, said that his party would not be involved in any coalition where the UBP does not hold the position of prime minister. Conversely, the DP's chairman, Serdar Denktash, announced his priority list of coalition governments: The list of the grand coalition proclaimed the following: a coalition between the CTP and UBP and a coalition between the CTP, BDH and the DP. But later this list is extended by a coalition with the CTP which is subject to a condition stipulating that the BDH is not involved.

None of the cases involve a coalition in which the DP claims the position of the prime minister – therefore, the CTP is viewed as the only player with the 'left' glove, namely the position of the party forming the government under a prime minister from its own parliamentary group. A two party coalition with the BDH would fail to secure the necessary majority in the parliament, and so it is not considered. A minority government with the BDH was subsequently rejected by the CTP's chairman, Mehmet Ali Talat. The right-wing parties did not consider at any point the BDH as a possible two party coalition partner. Further justification comes in Talat's interview with *Yenidüzen* when he states that no other party but the CTP would form the government. His message seems to validate the CTP as the only player holding a 'left' glove in a 'gloves' type of game.

It is known that the Shapley values in this coalitional structure would be the following:

$$Sh_{CTP}(v) = \frac{4}{6}, Sh_{UBP}(v) = \frac{1}{6}, Sh_{DP}(v) = \frac{1}{6}$$

The Casajus value on V^{part} is the solution function Ca given by

⁹ Yenidüzen, 27 December 2003, Iss. No. 6892.

¹⁰ Yenidüzen, 20 December 2003, Iss. No. 6886.

¹¹ Yenidüzen, 6 January 2004, Iss. No. 6899.

¹² Yenidüzen, 27 December 2003, Iss. No. 6892.

¹³ Yenidüzen, 24 December 2003, Iss. No. 6889.

$$Ca_i(v) := Sh_i + \frac{v(\wp(i)) - \sum_{j \in \wp(i)} Sh_j(v)}{|\wp(i)|}$$

Wiese interprets this formula in the following manner:

'According to this value, the players obtain the Shapley value which then has to be made component-efficient. If the sum of the Shapley values in a component happens to equal the component's worth, the Casajus value equals the Shapley value. If the sum of a component's Shapley values exceed the component's worth, the difference, averaged over all the players in the component, has to be "paid" by every player' (Wiese, 2010, p. 112).

The Casajus payoffs yield for the CTP-DP coalition:

$$Ca_{CTP}(v) = \frac{4}{6} + \frac{1 - \left(\frac{4}{6} + \frac{1}{6}\right)}{2} = \frac{3}{4}$$

$$Ca_{DP}(v) = \frac{1}{6} + \frac{1 - (\frac{4}{6} + \frac{1}{6})}{2} = \frac{1}{4}$$

$$Ca_{UBP}(v) = \frac{4}{6} + \frac{0 - \frac{4}{6}}{1} = 0$$

Thesis 2: In reality, the government was formed as a coalition between the CTP and the DP, whereupon the CTP had 6 ministries plus the prime ministry and the DP had 4 ministries. 14 According to the Casajus values, the CTP should have 8.25 (rounded to 8) ministries and the DP should have 2.75 (rounded to 3) ministries. Thus, the DP had a bigger share than its Casajus value. Although the CTP could not improve its position as explained in *Thesis 1*, the DP is the real winner of this coalition – it had the same outside option value as the UBP, its largest opponent, and made use of it to claim one more ministry.

The active role of the DP during the intercommunal negotiations was a further gain for this party. This was a strategy which the CTP did not use as a junior partner in the government with the DP back in 1993 to shape the negotiation process. According to

¹⁴ Yenidüzen, 12 January 2004, Iss. No. 6898.

Özgür (2000), the CTP's passive role in the foreign policy of the 1993 government led to the joint declaration of the DP and the UBP stating that federal solution is not the only possible solution for the Cyprus dispute.

Since the UBP and the DP have the same Shapley value, the calculation is similar for a coalition of the CTP-UBP coalition – only the roles of the UBP and the DP would change:

$$Ca_{CTP}(v) = \frac{3}{4}, Ca_{UBP}(v) = \frac{1}{4}, Ca_{DP}(v) = 0$$

<u>Thesis 3</u>: Although the CTP and the UBP had almost the same number of MPs, the CTP would claim 3/4 of the ministries in the government, thereby reducing the share of the UBP by sharing ministries corresponding to their outside options. This may explain why the UBP began coalition talks with the CTP via a letter containing 18 questions on the Annan Plan, 15 to which the CTP replied: 'You should have asked Mr. Annan', and ended the talks. 16 The recent coalition experience of the CTP and UBP also indicated that some prominent members of the UBP were not satisfied with being the minor party in the coalition government with CTP. This was especially the case regarding foreign policies of the government, where they felt that UBP's opinions were not reflected well. 17

Considering the second assumption, specifically, the formation of any coalition government with three parties, the following coalition function can be defined:

$$v(L) = \begin{cases} 1, CTP \in L, DP \in L, UBP \in L \\ 1, CTP \in L, BDH \in L, UBP \in L \\ 1, BDH \in L, DP \in L, UBP \in L \\ 1, CTP \in L, DP \in L, BDH \in L \\ 0, otherwise \end{cases}$$

This coalition function can be interpreted as follows: In the game 'L' only three party coalitions are considered. From the parties represented in the parliament, any coalition with three parties which reaches a parliamentary majority is assigned the worth '1' since these coalitions are winning coalitions in the sense that they can pass the necessary laws. Any other coalition will be assigned the worth '0' since it cannot reach a parliamentary majority.

¹⁵ Yenidüzen, 3 January 2004, Iss. No. 6896.

¹⁶ Yenidüzen, 4 January 2004, Iss. No. 6897.

¹⁷ See, for example, the speech of the UBP MP, Zorlu Töre, criticising the UBP's chairman, Hüseyin Özgürgün, for giving up the UBP's ideals on the Cyprus dispute. Available at: [http://www.kibris sondakika.com/tore-akinci-ve-mehmetali-talati-elestirdi], last accessed on 18 February 2016.

The Shapley payoffs are known:

$$Sh_{CTP}(v) = \frac{10}{24}, Sh_{UBP}(v) = \frac{6}{24}, Sh_{DP}(v) = \frac{6}{24}, Sh_{BDH}(v) = \frac{2}{24}$$

The Casajus payoffs yield for the CTP-UBP-DP coalition:

$$Ca_{CTP}(v) = \frac{10}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{6}{24})}{3} = \frac{32}{72}$$

$$Ca_{DP}(v) = Ca_{UBP}(v) = \frac{6}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{6}{24})}{3} = \frac{20}{72}$$

$$Ca_{BDH}(v) = \frac{2}{24} + \frac{0 - \frac{2}{24}}{1} = 0$$

Thesis 4: In a counterfactual three party coalition with the UBP and DP, the CTP would have a lower outside option than the combined outside options of the UBP and DP. Even though the latter two would not form a government with a parliamentary majority, they would need a third coalition partner. And even supposing the CTP would leave them on their own, it would not form a coalition with the BDH either. The outside option of the CTP in this case would reflect this phenomenon – the calculations above reflect the CTP's position as the party with the largest number of MPs still remaining in the minority in this government regarding the allocation of the ministries (the CTP's Casajus value corresponding to 5 out of 11 ministers).

The Casajus payoffs yield for the CTP-UBP-BDH coalition:

$$Ca_{CTP}(v) = \frac{10}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{36}{72}$$

$$Ca_{UBP}(v) = \frac{6}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{24}{72}$$

$$Ca_{BDH}(v) = \frac{2}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{12}{72}$$

$$Ca_{DP}(v) = \frac{6}{24} + \frac{0 - \frac{6}{24}}{1} = 0$$

The Casajus payoffs yield for the UBP-BDH-DP coalition:

$$Ca_{DP}(v) = Ca_{UBP}(v) = \frac{6}{24} + \frac{1 - \left(\frac{6}{24} + \frac{6}{24} + \frac{2}{24}\right)}{3} = \frac{28}{72}$$

$$Ca_{BDH}(v) = \frac{2}{24} + \frac{1 - \left(\frac{6}{24} + \frac{6}{24} + \frac{2}{24}\right)}{3} = \frac{16}{72}$$

$$Ca_{CTP}(v) = \frac{10}{24} + \frac{1 - \frac{10}{24}}{1} = 0$$

The Casajus payoffs yield for the CTP-BDH-DP coalition:

$$Ca_{CTP}(v) = \frac{10}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{36}{72}$$

$$Ca_{DP}(v) = \frac{6}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{24}{72}$$

$$Ca_{BDH}(v) = \frac{2}{24} + \frac{1 - (\frac{10}{24} + \frac{6}{24} + \frac{2}{24})}{3} = \frac{12}{72}$$

$$Ca_{UBP}(v) = \frac{6}{24} + \frac{1 - \frac{6}{24}}{1} = 0$$

<u>Thesis 5</u>: Considering the three party coalitions, the CTP would have the largest outside option in a coalition with either the BDH and the UBP or the BDH and the DP; however, this would be lower than its outside option in a two party coalition with either the DP or the UBP (the cost of having one more party in the government is paid by a reduction in the number of ministries assigned to the CTP, which is reflected in the calculations above). The real winners in the three party coalitions would be the minor parties – the BDH and the DP – by increasing the majority vote of the government in the parliament and in the parliamentary committees where the decisions are taken. The most realistic three party coalition would be the CTP–BDH–DP coalition, which was

initially supported by the CTP and opposed by both the DP¹⁸ and the BDH.¹⁹ But while the opposition of the DP can be justified by its outside option and claim for ministries being higher in a two party coalition, the BDH's opposition can be considered as a wrong movement. Without considering outside options, the BDH has a Shapley–Shubik power index of 0.083, whereas the outside options in three party coalitions would yield the BDH an outside option of at least 0.167 if it is involved in that coalition – an improvement rejected by the party, which also caused the party to lose its votes in the 2005 elections (Sözen, 2005). Based on the calculations above, the BDH's outside option value would have corresponded to 1 out of 11 ministries, the rest shared by the CTP (6) and DP (4) in a three party coalition.

Considering the third assumption, the Casajus payoffs are equal to that of the Shapley value by definition since the coalitional structure or partition coincides with the set of all players (i.e. Casajus value for the grand coalition is the Shapley value).

<u>Thesis 6</u>: Considering the three party coalitions and their Casajus payoffs, the CTP was free to choose between the DP and the UBP without reducing its Casajus payoff; that is to say, without its outside option being reduced. Also, the CTP's Casajus payoff (being equal to its Shapley payoff) in the case of a coalition of four parties, would be lower than its Casajus payoffs in any coalition in which it participates. The suggestion of President Denktash to build a coalition government based on all four parties would eventually reduce the CTP's power in a coalition.

To sum up, the outside options play an important role in analysing the political conditions which led to the Annan Plan referendum in the Turkish Cypriot political scene – due to the indefinite outcome of the hung parliament. The commitments of political blocks could not hold, and even though the government of the Republic of Turkey was in favour of the Annan Plan (Bahceli and Noel, 2009), there was huge uncertainty – which accounted for the reason why the minor parties gained importance: The flexibility of both the BDH and the DP could influence the government formation one way or the other. The importance of the CTP–DP government can therefore be viewed as an attempt to reduce the uncertainty and the tension of bipolarisation in society, though paradoxically, the final version of the Annan Plan was more of a disagreement between the communities than an agreement.

¹⁸ Yenidüzen, 6 January 2004, Iss. No. 6899.

¹⁹ Yenidüzen, 10 January 2004, Iss. No. 6903.

Conclusion and Future Research

In this paper, the outside options in a hung parliament have been analysed. The case study was based on the outcome of Turkish Cypriot elections in 2003, which was an important milestone en route to the Annan Plan referendum in 2004. The distribution of seats was interesting from the perspective of cooperative game theory because the election ended in a hung parliament where both supporters and opponents of the Annan Plan each had 25 MPs. The Shapley–Shubik power index was used together with the Casajus outside option value to calculate the power and outside options of parties.

A hung parliament may have different outcomes (Kalitowski, 2008) and among the possible outcomes, a political consensus between parties of different views is possible. The concept of outside options allows minor parties to make demands for more ministries. Therefore, if used properly as a strategic tool, it may result in a minor party becoming the real winner of a government. In effect, being the real winner does not merely consist of the number of ministries but also comprises of yet more strategic positions – in the case study, this was the role of Serdar Denktash in the intercommunal negotiations for the Annan Plan. Clearly, even within a political bipolarisation such as the Annan Plan era in Turkish Cypriot society, the role of flexible minor parties is very decisive in the pursuance of reaching a consensus. Outside options gain importance in a hung parliament because they may influence the dissolution of political commitments and blocks.

At this point, we can question what generic rules govern the dynamics in a hung parliament. Since changing aspects are expected to embrace different dynamics across cultures, the political culture of the Cypriot communities shall remain as the research context. In a complementary paper, the effect of Turkish foreign policy on the referendum, post 2002, will be measured for causality. Counterfactual considerations regarding the possibilities of a pro-Annan Plan majority versus a contra-Annan Plan majority will be modelled to deliberate on how this might have altered the political situation. A further point to be emphasised is the structural similarities in the political culture of Turkish Cypriot and Greek Cypriot communities.

References

Aumann, R. and Dreze, J.H. (1974) 'Cooperative Games with Coalition Structures', *International Journal of Game Theory 3*, pp. 217–237.

Bahceli, T. and Noel, S. (2009) 'The Rise of the AK Party and Ankara's Changing Role: Paving the Way for the "Yes", in Varnava, A. and Faustmann, H. (eds), *Reunifying Cyprus – The Annan Plan and Beyond*. London/New York: I.B. Tauris, pp. 236–247.

Belau, J. (2011) 'Outside Options in Probabilistic Coalition Situations', Ruhr Economic Papers No. 236.

- Blick, A. and Wilks-Heeg, S. (2010) 'Governing without Majorities: Coming to Terms with Balanced Parliaments in UK Politics', *Democratic Audit General Election Briefing*, No.1, pp. 1–10.
- Casajus, A. (2009) 'Outside Options, Component Efficiency and Stability', *Games and Economic Behavior*, Vol. 65, No. 1, pp. 49–61.
- Codenotti, B. (2011) 'Computational Aspects of Game Theory'. Available on-line at: [http://www.old.iit.cnr.it/staff/bruno.codenotti/lecture6p.pdf], last accessed on 29 February 2016.
- Cunyat, A. (1998) 'Strategic Negotiations and Outside Options'. Available on-line at: [http://147.156.1.4/~acunat/surveyengl.PDF], last accessed on 3 December 2015.
- Faustmann, H. (2009) 'The Role of Security: Perceptions of Advantage and Disadvantage', in Varnava, A. and Faustmann, H. (eds), *Reunifying Cyprus The Annan Plan and Beyond*. London/New York: I.B. Tauris, pp. 224–235.
- Kalitowski, S. (2008) 'Hung-up over Nothing? The Impact of a Hung Parliament on British Politics', *Parliamentary Affairs*, Vol. 61, No. 2, pp. 396–407.
- Kaymak, E. (2009) 'The Turkish Cypriot Views on Annan V', in Varnava, A. and Faustmann, H. (eds), Reunifying Cyprus The Annan Plan and Beyond. London/New York: I.B. Tauris, pp. 145–162.
- Lacher, H. and Kaymak, E. (2005) 'Transforming Identities: Beyond the Politics of Non-Settlement in North Cyprus', *Mediterranean Politics*, Vol. 10, No. 2, pp. 147–166.
- Mann, I. and Shapley, L.S. (1964) 'The A Priori Voting Strength of the Electoral College', in Shubik, M. (ed.), *Game Theory and Related Approaches to Social Behavior*. New York: Wiley, pp. 151–164.
- Mutoo, A. (2000) 'A Non-Technical Introduction to Bargaining Theory', *World Economics*, Vol. 1, No. 2, pp. 145–166.
- Owen, R. (1977) 'Values of Games with A Priori Unions', in Henn, R. and Moeschlin, O. (eds), *Essays in Mathematical Economics & Game Theory*. Berlin et al: Springer-Verlag, pp. 76–88.
- Özgür, Ö. (2000) Yanilmayi Çok İsterdim [I Wanted To Be Mistaken]. Lefkosa: Isik Kitabevi.
- Rogers, C. (2010) 'The Economic Consequences of a Hung Parliament: Lessons from February 1974', *The Political Quarterly*, Vol. 81, No. 4, pp. 501–510.
- Shapley, L.S. and Shubik, M. (1954) 'A Method for Evaluating the Distribution of Power in a Committee System', *American Political Science Review*, Vol. 48, No. 3, pp. 787–792.
- Sözen, A. (2005) 'The Turkish Cypriot Legislative Election of February 2005: The Rise of CTP/BG', South European Society and Politics, Vol. 10, No. 3, pp. 465–475, DOI: 10.1080/13608740500282363.
- Taki, Y. (2009) 'The Plan, The Public Discourse and the Role of the Mass Media in Getting to "No", in Varnava, A. and Faustmann, H. (eds), Reunifying Cyprus – The Annan Plan and Beyond. London/New York: I.B. Tauris, pp. 180–193.
- Wiese, H. (2010) 'Applied Cooperative Game Theory', lecture notes. Available on-line at: [http://www.wifa.uni-leipzig.de/de/itvwl/mikro/lehre-teaching/bachelor-wiwi/cooperative-game-theory-10-ects.html], last accessed on 3 December 2015.
- Yakinthou, C. (2009) 'Consociational Democracy and Cyprus: The House that Annan Built?', in Varnava, A. and Faustmann, H. (eds), *Reunifying Cyprus The Annan Plan and Beyond*. London/New York: I.B. Tauris, pp. 25–39.

Newspaper Archive

Yenidüzen, 28 November 2003, Iss. No. 6866.

Yenidüzen, 16 December 2003, Iss. No. 6883.

Yenidüzen, 18 December 2003, Iss. No. 6885.

Yenidüzen, 20 December 2003, Iss. No. 6886.

Yenidüzen, 24 December 2003, Iss. No. 6889.

Yenidüzen, 27 December 2003, Iss. No. 6892.

Yenidüzen, 3 January 2004, Iss. No. 6896.

Yenidüzen, 4 January 2004, Iss. No. 6897.

Yenidüzen, 6 January 2004, Iss. No. 6899.

Yenidüzen, 10 January 2004, Iss. No. 6903.

Yenidüzen, 12 January 2004, Iss. No. 6898.