

6-2003

A Bounded Rationality Analysis of the Cyprus Problem

Birol Yesilada

Portland State University, yesilada@pdx.edu

Jacek Kugler

Claremont Graduate University

Harry Anastasiou

Portland State University

Ahmet Sozen

University of Bahcesehir

Brian Efird

Sentia Group, Inc.

Let us know how access to this document benefits you.

Follow this and additional works at: https://pdxscholar.library.pdx.edu/polisci_fac



Part of the [International Relations Commons](#)

Citation Details

"A Bounded Rationality Analysis of the Cyprus Problem After the EU Membership," (with Brian Efird and Jacek Kugler), paper presented at the 2004 Annual Conference of the American Political Science Association, Chicago, IL. September, 1-5, 2004.

This Working Paper is brought to you for free and open access. It has been accepted for inclusion in Political Science Faculty Publications and Presentations by an authorized administrator of PDXScholar. For more information, please contact pdxscholar@pdx.edu.

A BOUNDED RATIONALITY ANALYSIS OF THE CYPRUS PROBLEM

by

Birol Yesilada, Portland State University
Jacek Kugler, Claremont Graduate University
Harry Anastasiou, Portland State University
Ahmet Sozen, University of Bahcesehir
Brian Efirid, Sentia Group Inc.

Working paper not for citation

Paper prepared for presentation at the ISA-Budapest Conference in Budapest, Hungary,
June 26-28, 2003.

Introduction

The time frame for a final decision on the Cyprus problem is narrowing very rapidly. The latest peace plan proposed by the U.N. Secretary General Kofi Annan, known as the Annan Plan, to solve the problem between the Greek Cypriot (G/Cs) and Turkish Cypriot (T/Cs) communities underwent the last refinements in February 2003 to bridge the gap between the two sides. Yet, despite intense domestic (especially in the Turkish north) and international pressures on the two sides to sign the agreement the Turkish Cypriot leadership rejected the proposal as being insufficient in meeting their demands. Despite the apparent low in negotiations between the two sides, there is still an opportunity to revive the Annan Plan as the basis for negotiated settlement before Cyprus joins the European Union (EU) in 2004. The U.S., the E.U., and the U.N. have all given signals that they are willing to tackle the problem before Cyprus joins the EU in 2004. Given the gravity of the present situation, we provide an expected utility analysis of the problem in an attempt to determine areas of mutual cooperation between the two sides that could resolve the apparent deadlock.

A Brief Background to the Problem

There have been many works in recent years that presented extensive background to the Cyprus problem (e.g., Anastasiou 2000, Attalides 1979, Doob 1986, Loizos 1979, Necatigil 1993, Tamkoc 1988, Theophylactou 1995, Yesilada and Sozen 2002). It will suffice for the purposes of this paper to note that the problem has been going on since the civil war started in 1963 and culminated in the territorial division of the island in 1974 when the Turkish troops landed on Cyprus following an Athens supported coup against the Greek Cypriot president Makarios. Since then two sides have been meeting under the auspices of the U.N. and the U.S. to resolve their differences and to settle the problem once and for all. However, all efforts have failed to solve the Cyprus problem. It is against this background and the implications of EU membership of Cyprus that the recent Annan Plan provides a unique opportunity to tackle this problem again.

It can be argued that ever before in the history of the Cyprus problem has there been so much effort and energy invested by political leaders, civil society and the international diplomatic community to forge a settlement. But equally important is the fact that never before has there been such a confluence of favorable conditions for arriving at a comprehensive settlement of this protracted problem. For these reasons it is important for all concerned to be fully aware of the gravity of another failure in settling the Cyprus problem. The consequences of a failure will not only have a grave impact on Greek Cypriot/Turkish Cypriot (G/C-T/C) interests, but also on Greek-Turkish relations, on the region in general and on security interests of the Western Alliance at a critical time. If the two sides miss this historic opportunity for a settlement, it is highly probable that a series of events will follow that have profound policy implications for the U.S. and the rest of the Western world. These are:

1. The UN will withdraw its peace-making efforts.

2. The division of Cyprus will become permanent. Greek Cypriots (G/Cs) will continue on the EU membership road while the Turkish Cypriots (T/Cs) move closer to integration with Turkey.
3. If both sides say “NO” to the plan, Cyprus’s EU membership may become doubtful.
4. T/Cs and G/Cs will become permanently alienated from each other.
5. Greek-Turkish relations will suffer a major setback and diminish the progress made in recent years.
6. Turkey’s membership in the EU would become more difficult if not impossible.
7. The ESDI-NATO relations may be strained.
8. Finally, in this worst-case scenario, the prime losers will be those G/Cs and T/Cs who had spent their lives hoping for peace and reconciliation on their Island.

On the other hand, an agreement by the two sides for settling the Cyprus problem entails enormous benefits that for the first time in the history of the Cyprus problem outweigh the entire relative “losses” that each side will incur in reaching the compromises required by the Annan Plan. The gains emanating from an agreed settlement are:

1. A united Cyprus will enter the EU, thus engrafting the G/C and T/C societies and their future development in a broader system of stability, security and well being, a dimension that was absent from all previous efforts at settling the Cyprus problem.
2. The conflict-preventive and peace-building institutions and political culture of the EU will become instated in all of Cyprus as a determining factor in T/C-G/C relations and Greek-Turkish relations.
3. The people of Cyprus will stand to benefit economically from EU membership.
4. The new generation will be freed from the shackles and burden of a problem of the past that they had no part creating, but which was transferred on their shoulders by the previous generations. The new generation will thus re-orient its energy outward, creating a new society with new possibilities and a future within the EU framework.
5. Relations between Turkey and Greece will greatly improve, setting the basis for progress on other outstanding issues, such as those related to the Aegean.
6. Turkey’s advancement toward the EU will be greatly enhanced and speeded up.
7. Cyprus, and consequently Turkey, will provide the first much needed example of Muslim societies and states operating securely, freely and cooperatively within western, secular democratic institutions at local, national and regional levels.
8. The EU framework will be extended and deepened in the Eastern Mediterranean region, bringing the EU conciliatory and stabilizing institutions and political culture at the doorstep of the troubled Middle East as envisioned in the Barcelona Declaration.
9. T/Cs, G/Cs, Turkey and Greece will offer the world a success story in peace and reconciliation, at a time when the world is in dire need for hope.

The issues that seem to be at the heart of the problem are: the future political system of Cyprus, territorial adjustment, freedom of movement, freedom of settlement, freedom of property rights (in each other's state), guarantorship, and Turkey's EU membership prospects (as a potential tradeoff issue).

Expected Utility Analysis

In this analysis we use a game theoretic, bounded rationality model, called the Expected Utility model, to analyze the political debate in Cyprus within a domestic and international context. The model is concerned with explaining how policy positions of competing interests evolve over time. It leads to predictions about policy outcomes and identifies strategic opportunities for altering them. We refer the reader to Bueno de Mesquita, Newman, and Rabushka (1985 and 1996); Bueno de Mesquita and Stokman (1994); Kugler and Feng (1997); and Bueno de Mesquita (2002) for details on the mathematics behind this approach, and provide only a brief summary here.

The Expected Utility model is based in part on Black's (1958) median voter theorem and Banks' (1990) theorem about the monotonicity between expectations and the escalation of political disputes. The model predicts behavior as a consequence of rational desired outcomes of the parties and their strategic interactions, not as an extension of past behavior. This approach simulates the shifts in position of individual stakeholders over time in response to the pressure that occurs during bargaining. The model is driven by a game in which actors simultaneously make proposals and exert influence on one another. They then evaluate options and build coalitions by shifting positions on the issue in question.

The logical flow of the model assesses how decision makers evaluate whether or not they will challenge policy if their expected value for action is positive or negative. A stakeholder's probability of success depends upon its ability to influence, as well as its anticipated chance of success at convincing others to support the position advocated. The utility for success is the policy gain the stakeholder receives by acting and changing the policy outcome more in line with their desired position. The probability of failure is related to the constellation of opposing stakeholders, while the utility of failure is based on the policy consequences from a failed policy challenge.

Using this process, the model provides a complete mapping of the relationships and perceptions of each stakeholder *vis-à-vis* every other stakeholder. The policy proposals and the subsequent responses begin to give insights into the process, anticipating policy dynamics and outcomes. In some cases, there are individual stakeholders who can apply a veto to any settlement, despite forecasted agreement by other parties. This is not the case in this analysis. The model thus provides a forecast of the likely settlement of policy issues as a function of competition, confrontation, cooperation, and negotiation. Data for the issues analyzed with this approach come from experts on the particular topic addressed.

The model depends entirely on the policy acumen of experts.¹ In this sense it is a marriage of the old and the new. It takes four key types of information from experts: who

¹ Expert information obtained from Harry Anastasiou, Ahmet Sozen, and Birol Yesilada based on three decade long research on the position of individual parties in the Cyprus problem including survey information in 1998-2003.

are the stakeholders that can influence the policy outcome, what policy position do they currently advocate, what is their relative potential influence over the process, and finally how important is the issue to the policymaker. The approach uses only these data and then provides specific advice that helps policy analysts understand which policy options are likely to be successful, the sequence and timing of interventions, the nature of interactions among stakeholders, and the types of coalitions that will form.

Feder (1995) provides a systematic assessment of the performance of expert-generated data with the Expected Utility model using a large number of cases. He finds that while experts may disagree with the predictions of the model, their data tend to vary only slightly and do not produce appreciable differences in the model forecasts. This congruence suggests that the results of the model are robust.

Note that without a guideline for the long-term interests of a nation, many actions can initially be seen as optimal that produce detrimental results over time. Differentiating between successful and unsuccessful approaches is often only possible with the benefit of hindsight. The Expected Utility model allows policymakers and policy analysts to anticipate likely consequences ahead of time.

Analysis of the Cyprus Problem

We have chosen seven issues that are crucial to the negotiations. Six of them are internal to the Cyprus problem. They are: future political system, guarantorship, freedom of movement, freedom of settlement, freedom of property rights, and territorial division. The external issue that we believe is critical for Turkey's willingness to go an extra mile in settling the Cyprus problem is the status of this country's candidacy in the EU. Among the internal issues, the political system ranges from a unitary model to two separate and independent states. In between, one finds the 1960 consociational unitary model, federation, and confederation (each differentiated by weak and strong forms). The guarantorship refers to external powers guarantee the future stability of the new Cyprus – similar to the way it was envisioned under the 1960 London and Zurich agreements. Different ideas represent preferences of different actors. The next three issues pertain to degree of freedoms associated with the EU's freedoms – movement, settlement, and property rights. Each ranges from no freedom to full freedom. The final internal issue is how much territory will the Turkish side keep with the settlement. The present situation is 34 percent while some on the Greek side argue that the Turkish Cypriots are entitled to no more than 20 percent territory because the Turks made up only 18 percent of the population of the island in 1960. The Turkish EU candidacy presents a unique connection to the Cyprus problem because it is generally viewed that unless the latter is resolved Turkey will not be able to join the Union (Yesilada 2002). At present, the E.U. will review Turkey's progress toward meeting the Copenhagen criteria in December 2004 and will decide if this country is ready to begin accession talks. We view this issue (beginning accession talks and not outright membership) as a potential tradeoff in the Cyprus negotiation and will test its linkage to the other seven issues.

Issue 1: Turkey's E.U. Membership

As explained above, we want to treat this issue as a potential tradeoff in the Cyprus problem. However, before that could be pursued, we need to determine if there is any way that the different actors could come together on a common position on Turkey's future membership in the E.U. If there is no convergence of views than the tradeoff is unlikely. Table 1 presents the position of actors on this issue and Figure 1 presents the expected utility forecast.

Table 1: Measurement Scale for Turkey's EU aspirations

0 = Never

25=Present situation (review in 2004)

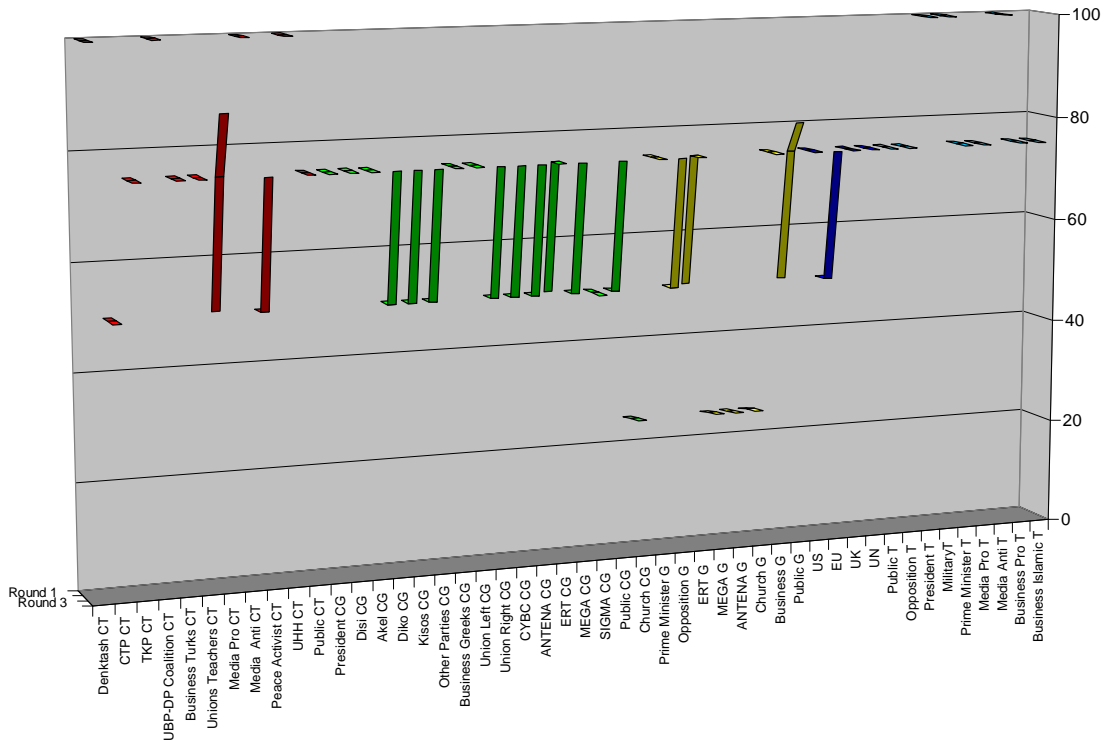
50=Give a DATE for accession talks to start simultaneously with settlement of the Cyprus problem

75=Start accession talks simultaneously with settlement of the Cyprus problem

100=Start accession talks now regardless of the Cyprus problem

Figure 1: Forecast of the Turkish-E.U. Issue

Forecast: Round 1 = 75
 Round 2 = 75
 Round 3 = 75



The forecast shows that there is a convergence around the option of starting accession talks with Turkey simultaneously with settling the Cyprus problem. The only main opponent of this view is the Greek Orthodox Church that supports the present plan – review Turkey in December 2004.

Issue 2: Political System

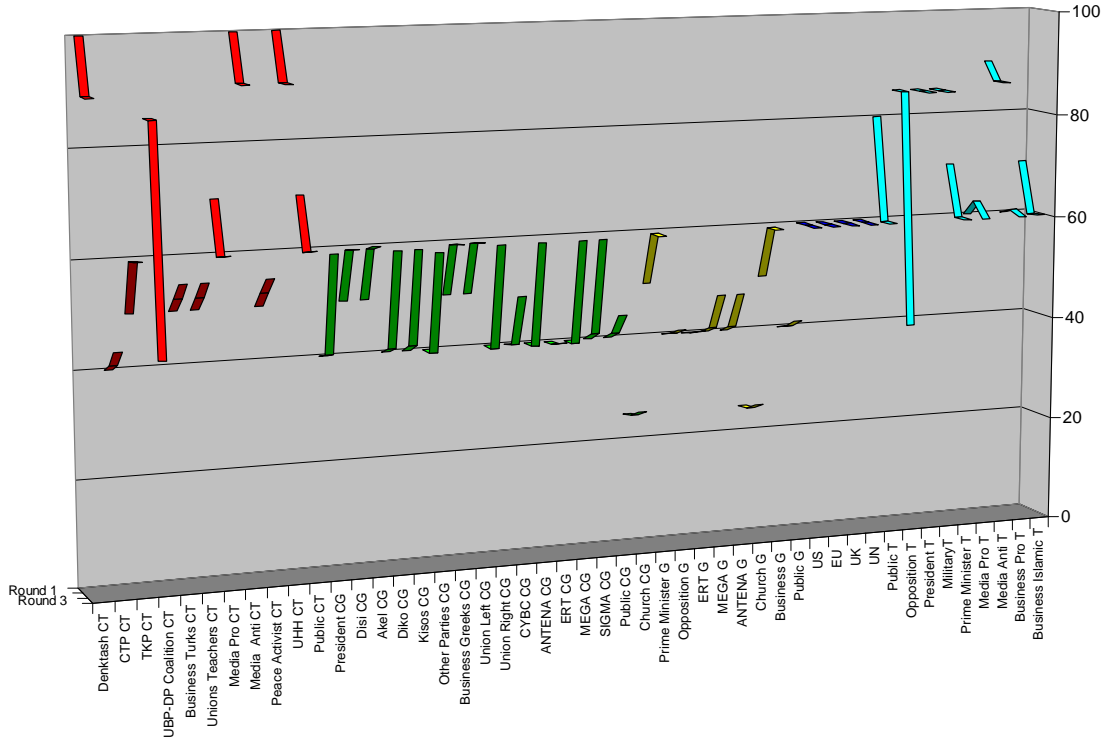
Data for the Cyprus problem are presented in Appendix 1-7 (actors and positions on issues 1-7). Both Greek and the Greek Cypriot actors are dissatisfied with the political system as it is presently constructed. These actors favor a shift in the form of Cypriot government, with the preferred outcome ranging from a return to a unitary nation on one extreme, to the more moderate desires for a consociational system or a strong bi-zonal federation. Turkish and Turkish Cypriot actors, on the other hand, support a divided Cypriot political system, with preferences ranging from a partitioned state to a weak bi-zonal federation. Thus, on the surface it appears that there should be room for compromise by seeking some form of bi-zonal federation. Table 2 outlines the scale of policy preferences held by competing actors over the governance of Cyprus. Figure 2 presents our forecast based on the EU analysis.

Table 2: Measurement Scale for the Future Political System for Cyprus

- 0 = Unitary State
- 25 = Consociational democracy
- 40 = Strong Federation
- 50 = Weak Federation
- 70 = Confederation
- 85 = Weak Confederation
- 100 = Two States (Status Quo)

Figure 2: Outcome of the Political System

Forecast: Round 1 = 60, Round 2 = 60, Round 3 = 60



The forecast of the political system is something in between a weak federation and confederation. Although the Greek Cypriots and Greece oppose the idea, almost everyone, except the Church and the right-wingers in the TRNC and Turkey, converge around this position that is backed by the four major external powers (EU, US, UK, and UN). It is quite similar to the proposals found in the Annan Plan.

Issue 3: The Guarantorship

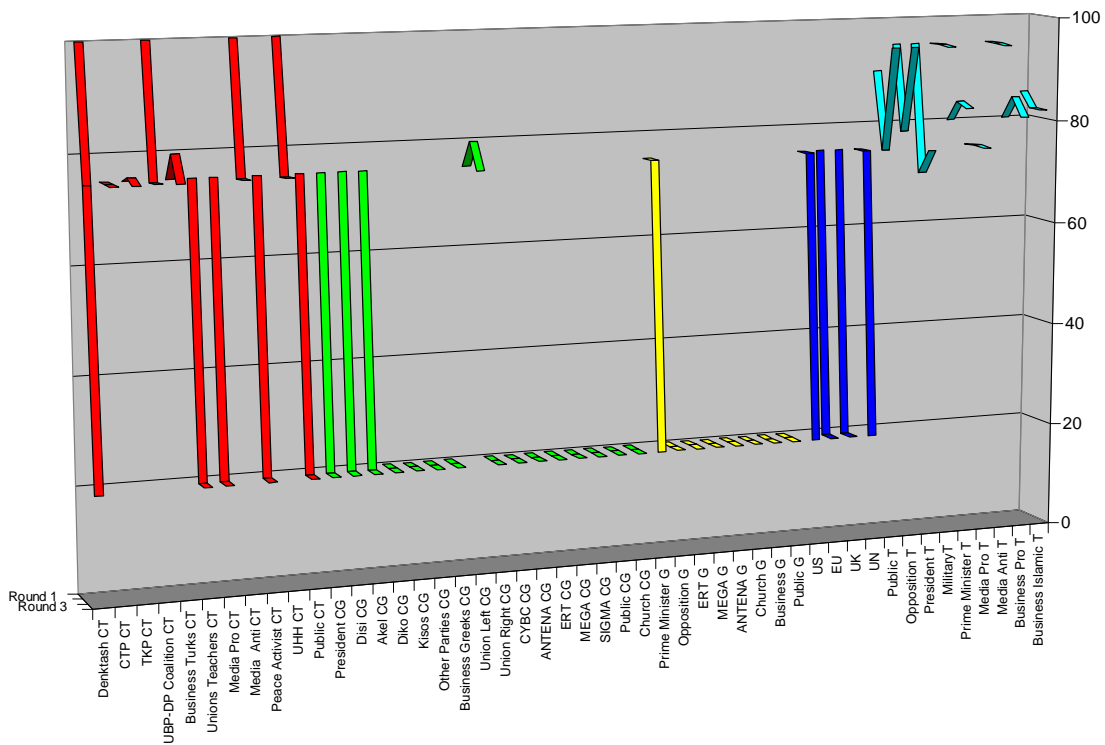
As the history of the talks show, the two sides differ significantly on this issue. While the Turkish Cypriots prefer the 1960 arrangement they are willing to consider other formulations as long as Turkey’s guarantorship, therefore security for the Turkish Cypriots, does not become watered down. The Greeks on the other hand increasingly view the E.U. as the appropriate guarantor of security. Table 3 and Figure 3 present relevant data and information on our forecast.

Table 3: Guarantorship Issue and Different Options

0 = No Guarantee
 10 = UN Guarantee
 20 = EU Guarantee
 50 = NATO Guarantee
 75 = Annan Plan
 100 = 1960 Arrangement

Figure 3: Forecast of the Guarantorship Issue

Forecast: Round 1 = 75, Round 2 = 75, Round 3 = 20

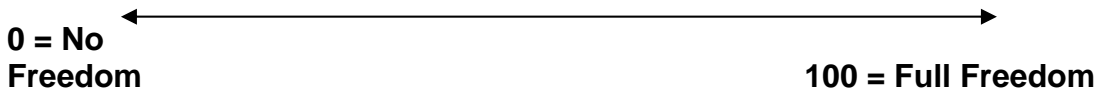


It is important to note that if the settlement is reached during the first or second rounds, the outcome is the proposals found in the Annan Plan where both Greece and Turkey play important role in guarantorship. However, as the bargaining moves into the third round, the forecast shows the E.U. guarantorship as the most likely outcome.

Issue 4: Freedom of Movement

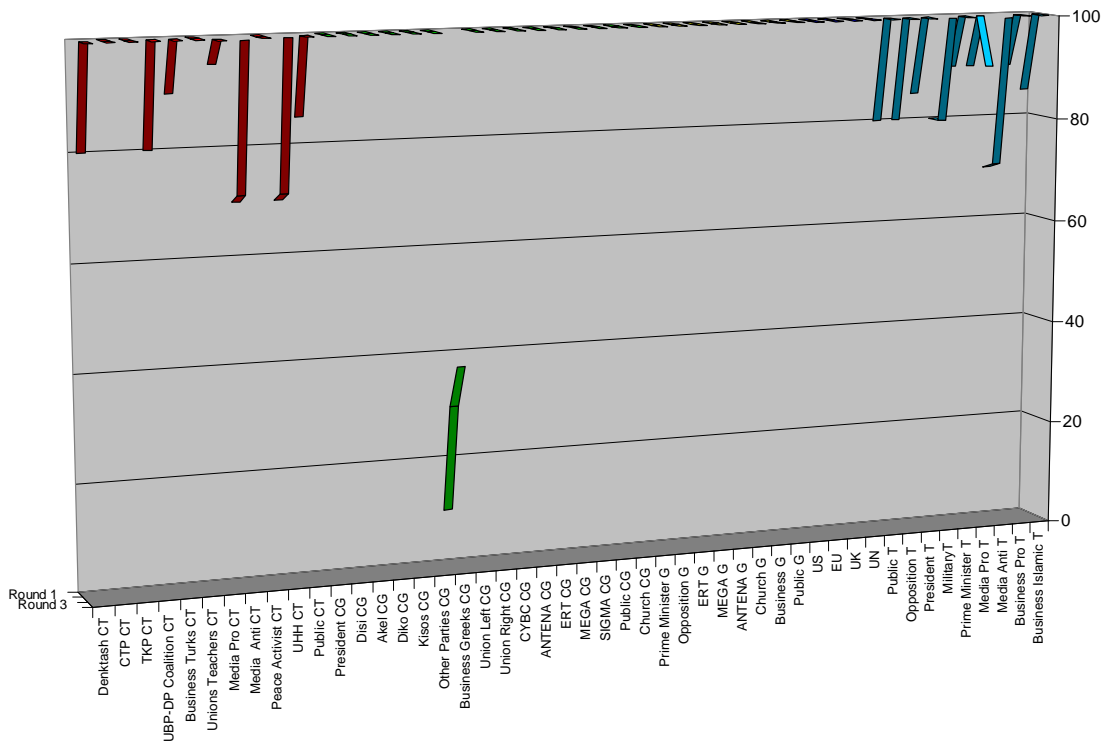
Freedom of movement across borders is a fundamental right of E.U. citizens. While both communities in Cyprus favor membership in the E.U., the Turkish Cypriots were more concerned about their security under the conditions of total freedom of movement of individuals across borders. However, recent opening of the borders by the TRNC government on April 23, 2003 proved that freedom of movement for Cypriots did not result in acts of violence. Rather, people seem to be having a great time enjoying this new acquired freedom to the total shock of their respective governments who expected acts of violence. In our forecast the expected utility analysis predicted this outcome of total freedom of movement (see Table 4 and Figure 4).

Table 4: Freedom of Movement Scale



Forecast: Round 1 = 100, Round 2 = 100, Round 3 = 100

Figure 4: Expected Utility Analysis of Freedom of Movement

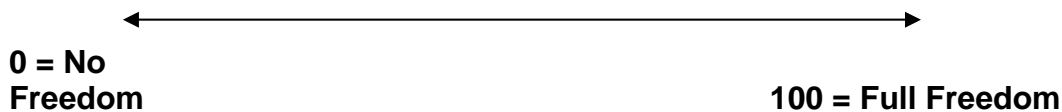


The forecast of total freedom of movement is sustained through three rounds of bargaining indicating strong consensus among the parties. In fact, since the opening of the borders by the TRNC, Greek and Turkish Cypriots are enjoying free movement throughout the island.

Issue 5: Freedom of Settlement

Freedom of settlement is another fundamental right of E.U. citizens. However, given the history of the Cyprus problem it is unlikely that the Turkish Cypriots will be willing to accept this as part of the settlement. Rather, it is likely that there will be some restrictions on both communities in this area. The Annan Plan recognized the sensitivity of this issue and provided limitations on how many people will be permitted to settle in the other side's state (Annan Plan 2002). The limit presented was up to 20 percent of the total population of each state over a period of time. Table 5 and Figure 5 provide the data and our forecast on this issue.

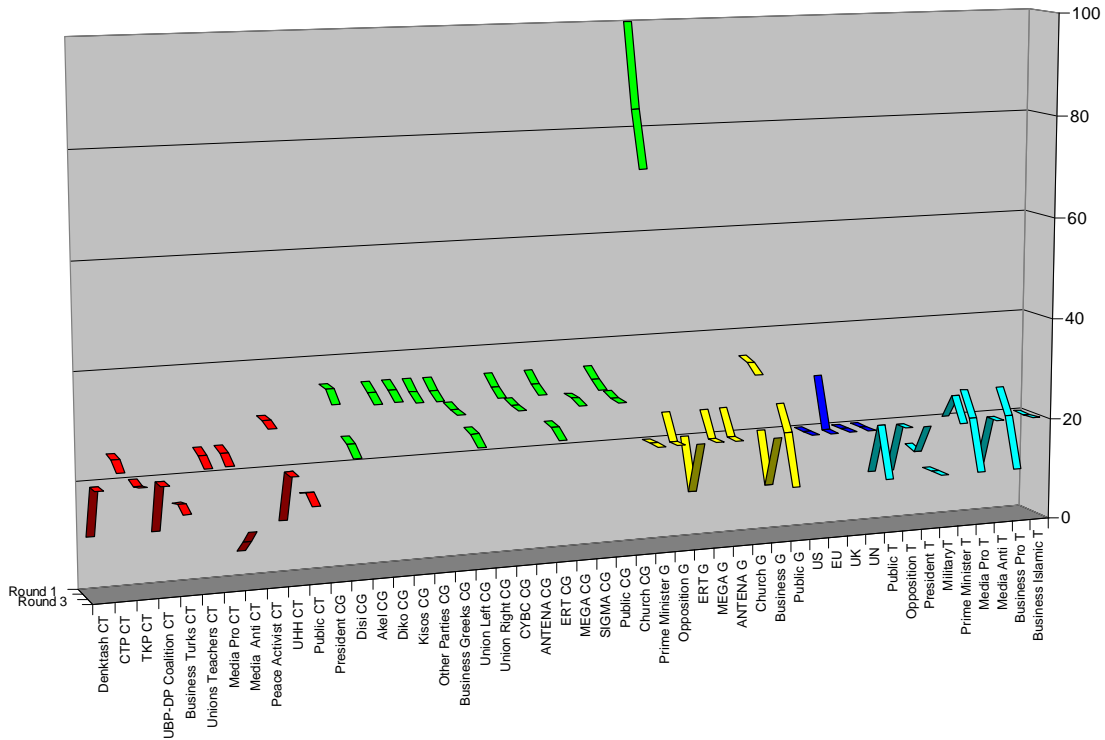
Table 5: Freedom of Settlement Scale



Forecast: Round 1 = 20, Round 2 = 20, Round 3 = 20

The result is consistent with the limitations found in the Annan Plan. The outliers are the Turkish military and the Greek Orthodox Church. Amongst these two actors the Turkish military maintains a consistent position of 10 percent limit to freedom of settlement.

Figure 5: Expected Utility Analysis of Freedom of Settlement



Issue 6: Freedom of Property

This topic is one of the most sensate issues in the Cyprus problem. Following the 1974 war, over 250,000 Greek Cypriots left their homes and took refuge in the south. In return about 45,000 Turkish Cypriots left their homes and took refuge in the north. Since then the problem of who is the rightful owner of the Greek homes in the TRNC has been a heated topic. The problem is more complicated since tens of thousands of settlers from Turkey migrated to the TRNC and now reside in homes once owned by Greek Cypriots. Thus, we need to consider the ownership of what was left behind as well as the right of every Cypriot citizen to own property anywhere in the E.U., but in particular across the dividing line in Cyprus, in any property ownership agreement. Table 6 and Figure 6 provide preliminary results on this issue.

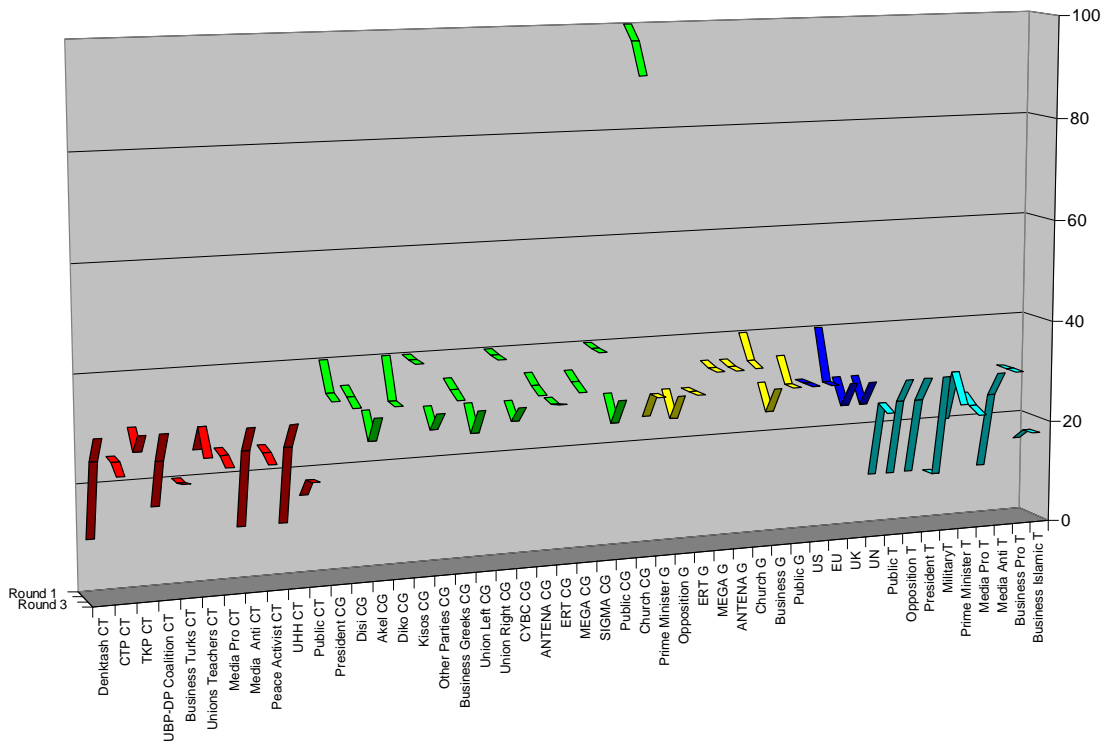
Table 6: Freedom of Property Scale



Forecast: Round 1 = 30, Round 2 = 30, Round 3 = 30

Once again the forecast shows restriction on the right to own property across the border if settlement is to be found.

Figure 6: Expected Utility Analysis of Freedom of Property

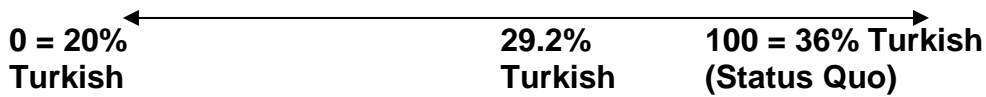


Issue 7: Territorial Adjustment

The Turkish Cypriots have always assumed that they will need to return some territory back to Greek Cypriot control in return for other concessions from the other side. However, how much has always been a tricky subject. Over the years, at least three U.N.

sponsored plans proposed that the Turkish side keeps around 29 percent of total land. This means giving back 5-8 percent land to the Greek side. The Annan plan also provided for this arrangement but the maps outlining the details received no favorable review from the Turkish Cypriot leadership. Turkey also backed the Turkish Cypriots because the bulk of fresh water resources of the TRNC would be turned over to the Greek Cypriots. The water issue is coupled with two other sensitive matters: security and relocation of the Turkish Cypriots who will be asked to leave their homes. Given the complexity of this matter, we anticipated a more complicated bargaining over territory. Table 7 and Figure 7 provide the issues scale and expected utility forecast of the subject.

Table 7: Territorial Adjustment Scale

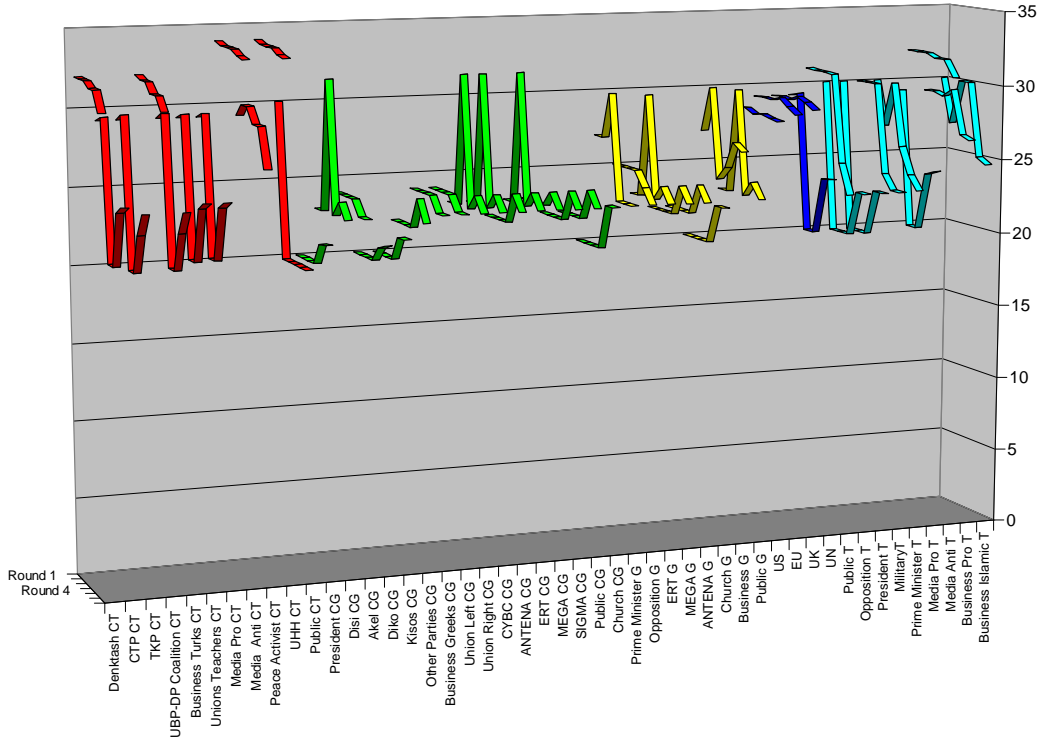


Forecast:

- Round 1 = 29
- Round 2 = 27
- Round 3 = 30
- Round 4 = 24
- Round 5 = 23

There is no clear outcome in this area. In the early rounds the bargaining seems to favor the Turkish Cypriot position. However, as negotiations proceed, the Greek Cypriots seem to gain the upper hand. Without a more consistent outcome it is difficult to predict what will be the final compromise in a settlement. It will depend on which round of negotiating around other issues results in a peace agreement.

Figure 7: Expected Utility Analysis of Territorial Adjustment



Conclusions and Policy Implications

The results of the study suggest that many of the key issues in the Cyprus problem can be solved around the Annan Plan. Some issues are easier to solve than others. For example, freedom of movement is already expanding without any major difficulty. We also see willingness among the actors to set limitations on the freedom of settlement and the freedom of property rights even though such restrictions seem, at least on the surface, to violate EU’s three freedoms. Nevertheless, all of the main external actors favor the restrictions found in the Annan Plan. Therefore, the issues are also ready for finalization. Our forecast for the future political system also suggests that the Annan Plan has the necessary foundation for a stable formula. The two separate states can work together under a weak federal/confederal common state of Cyprus. However, guarantorship and territorial adjustment are more difficult to resolve. No stable outcome is possible unless some tradeoff can be worked out to bring the outliers into the median. One such outlier with very strong influence in the Turkish camp is the military. It consistently plays a hardliner position and, given its power and influence, can play the role of a spoiler. Yet, Turkey needs a very strong signal from the E.U. that its efforts at reform and willingness to be part of the Union will be rewarded. Increasing number of Turks believe that the E.U. candidacy is used as a ploy to acquire concessions from Turkey without giving her

the membership in the E.U. Our analysis suggests a bold and risky policy recommendation that links solving the Cyprus problem to Turkey's E.U. membership. The E.U. should start accession talks with Turkey simultaneously with resolution of the Cyprus problem. If this option is brought to the bargaining table, it is highly likely that the Turkish military and other hardliners will join the larger group of players in the median. For future analysis, we will look at tradeoff between these three sensitive issues, territorial adjustment, guarantorship, and Turkey's E.U. membership, to further investigate the problem.

APPENDIX: CYPRUS FORECASTS (MAY 2003)

The list includes all major actors in the Greek (CG) and Turkish (CT) parts of Cyprus, Greece, and Turkey. In addition, other foreign actors with vested interest in the Cyprus problem are included.

Participants and Resources

Issue 1: Turkey's EU Membership

0 = Never

25=Present situation (review in 2004)

50=Give a DATE for accession talks to start simultaneously with settlement of the Cyprus problem

75=Start accession talks simultaneously with settlement of the Cyprus problem

100=Start accession talks now regardless of the Cyprus problem

Actor	Weight	Power	Position	Saliency
Cypriot Turks				
	5			
President Denktash		150	100	90
CTP		30	50	90
TKP		10	75	90
UBP-DP coalition		10	100	80
Business Turks		15	75	80
Unions - Teachers		15	75	85
Media Pro		10	50	60
Media Anti		10	100	85
Peace Activist		5	50	75
UHH		10	100	90
Public Opinion		10	75	80
Greek Cypriots				
	15			
President		100	75	75
Disi		15	75	80
Akel		40	75	80
Diko		50	50	80
Kisos		20	50	80
Other Parties		5	50	75
Business Greeks		15	75	70
Union Left		10	75	75
Union Right		5	50	75
CYBC		15	50	75
ANTENA		5	50	80
ERT		10	50	65
MEGA		5	50	80
SIGMA		10	50	90
Public Opinion		20	50	75
Church		20	25	80

Greece	45			
Prime Minister		100	75	80
Opposition Parties		30	50	80
ERT		15	50	65
MEGA		10	25	60
ANTENA		10	25	60
Church		20	25	60
Business		30	75	75
Public Opinion		30	50	60
Foreign Actors	400			
US		300	75	90
EU		50	50	85
UK		25	75	85
UN		25	75	95
Turkey	70			
Public Opinion		20	75	75
Opposition Parties		20	75	80
President		15	100	90
Military		100	100	90
Prime Minister		30	75	80
Media Pro		10	75	80
Media Anti		10	100	90
Business Pro		20	75	80
Business Islamic		5	75	85

Forecast Issue 1: Turkey's EU Membership

EU Membership Stakeholder	Round 1	Round 2	Round 3
Denktash CT	100	100	100
CTP CT	50	50	50
TKP CT	75	75	75
UBP-DP Coalition CT	100	100	100
Business Turks CT	75	75	75
Unions Teachers CT	75	75	75
Media Pro CT	50	75	87
Media Anti CT	100	100	100
Peace Activist CT	50	50	75
UHH CT	100	100	100
Public CT	75	75	75
President CG	75	75	75
Disi CG	75	75	75
Akel CG	75	75	75
Diko CG	50	50	75
Kisos CG	50	50	75
Other Parties CG	50	50	75

Business Greeks CG	75	75	75
Union Left CG	75	75	75
Union Right CG	50	50	75
CYBC CG	50	50	75
ANTENA CG	50	50	75
ERT CG	50	75	75
MEGA CG	50	50	75
SIGMA CG	50	50	50
Public CG	50	50	75
Church CG	25	25	26
Prime Minister G	75	75	75
Opposition G	50	50	75
ERT G	50	75	75
MEGA G	25	25	26
ANTENA G	25	25	26
Church G	25	26	26
Business G	75	75	75
Public G	50	75	81
US	75	75	75
EU	50	50	75
UK	75	75	75
UN	75	75	75
Public T	75	75	75
Opposition T	75	75	75
President T	100	100	100
MilitaryT	100	100	100
Prime Minister T	75	75	75
Media Pro T	75	75	75
Media Anti T	100	100	100
Business Pro T	75	75	75
Business Islamic T	75	75	75
<i>Forecast</i>	75	75	75

Issue 2: Political System Type Position Scale

- 0 = Unitary State
- 25 = Consociational Democracy
- 40 = Strong Federation
- 50 = Weak Federation
- 70 = Confederation
- 85 = Weak Confederation
- 100 = Two States (Status Quo)

Actor	Weight	Power	Position	Salience
Cypriot Turks		5		
President Denktash		150	100	90
CTP		30	40	70
TKP		10	50	70
UBP-DP coalition		10	85	70
Business Turks		15	50	60
Unions - Teachers		15	50	60
Media Pro		10	70	80
Media Anti		10	100	90
Peace Activist		5	50	60
UHH		10	100	95
Public Opinion		10	70	80
Greek Cypriots		15		
President		100	40	85
Disi		15	50	80
Akel		40	50	85
Diko		50	40	95
Kisos		20	40	95
Other Parties		5	40	70
Business Greeks		15	50	75
Union Left		10	50	80
Union Right		5	40	80
CYBC		15	40	65
ANTENA		5	40	80
ERT		10	40	60
MEGA		5	40	80
SIGMA		10	40	90
Public Opinion		20	40	70
Church		20	25	85
Greece		45		
Prime Minister		100	50	90
Opposition Parties		30	40	70
ERT		15	40	60
MEGA		10	40	70
ANTENA		10	40	70
Church		20	25	80
Business		30	50	60

Public Opinion		30	40	55
Foreign Actors	400			
US		300	60	90
EU		50	60	90
UK		25	60	90
UN		25	60	95
Turkey	70			
Public Opinion		20	80	60
Opposition Parties		20	85	70
President		15	85	80
Military		100	85	85
Prime Minister		30	70	60
Media Pro		10	60	60
Media Anti		10	90	90
Business Pro		20	60	60
Business Islamic		5	70	60

Forecast Issue 2

Political System Type

Stakeholder	Round 1	Round 2	Round 3
Denktash CT	100	90	90
CTP CT	40	42	45
TKP CT	50	60	60
UBP-DP Coalition CT	85	85	42
Business Turks CT	50	53	56
Unions Teachers CT	50	53	56
Media Pro CT	70	60	61
Media Anti CT	100	91	91
Peace Activist CT	50	53	56
UHH CT	100	91	91
Public CT	70	60	61
President CG	40	41	60
Disi CG	50	60	61
Akel CG	50	60	61
Diko CG	40	41	60
Kisos CG	40	42	60
Other Parties CG	40	40	59
Business Greeks CG	50	60	60
Union Left CG	50	60	61
Union Right CG	40	40	60
CYBC CG	40	41	50
ANTENA CG	40	40	60
ERT CG	40	40	41
MEGA CG	40	40	60
SIGMA CG	40	42	60

Public CG	40	41	45
Church CG	25	25	27
Prime Minister G	50	60	60
Opposition G	40	41	42
ERT G	40	41	42
MEGA G	40	41	48
ANTENA G	40	41	48
Church G	25	25	27
Business G	50	60	60
Public G	40	41	42
US	60	60	60
EU	60	60	60
UK	60	60	60
UN	60	60	60
Public T	80	60	60
Opposition T	85	85	40
President T	85	85	85
MilitaryT	85	85	85
Prime Minister T	70	60	60
Media Pro T	60	63	60
Media Anti T	90	86	86
Business Pro T	60	61	60
Business Islamic T	70	60	60
<i>Forecast</i>	<i>60</i>	<i>60</i>	<i>60</i>

Issue 3: Guarantorship Position Scale

- 0 = No Guarantee
- 10 = UN Guarantee
- 20 = EU Guarantee
- 50 = NATO Guarantee
- 75 = Annan Plan
- 100 = 1960 Arrangement

Actor	Weight	Power	Position	Saliency
Cypriot Turks		5		
President Denktash		150	100	90
CTP		30	75	60
TKP		10	75	70
UBP-DP coalition		10	100	85
Business Turks		15	75	75
Unions - Teachers		15	75	80
Media Pro		10	75	80
Media Anti		10	100	95
Peace Activist		5	75	90
UHH		10	100	100
Public Opinion		10	75	85
Greek Cypriots		15		
President		100	75	75
Disi		15	75	85
Akel		40	75	85
Diko		50	20	90
Kisos		20	20	90
Other Parties		5	20	75
Business Greeks		15	20	70
Union Left		10	75	75
Union Right		5	20	85
CYBC		15	20	80
ANTENA		5	20	85
ERT		10	20	70
MEGA		5	20	85
SIGMA		10	20	90
Public Opinion		20	20	70
Church		20	20	95
Greece		45		
Prime Minister		100	75	95
Opposition Parties		30	20	75
ERT		15	20	70
MEGA		10	20	75
ANTENA		10	20	75
Church		20	20	90
Business		30	20	65
Public Opinion		30	20	65
Foreign Actors		400		

US		300	75	90
EU		50	75	90
UK		25	75	90
UN		25	75	95
Turkey	70			
Public Opinion		20	90	60
Opposition Parties		20	95	80
President		15	95	80
Military		100	95	90
Prime Minister		30	80	60
Media Pro		10	75	60
Media Anti		10	95	95
Business Pro		20	80	60
Business Islamic		5	85	60

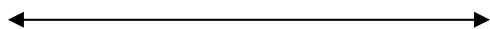
Forecast Issue 3

Guarantorship

Stakeholder	Round 1	Round 2	Round 3
Denktash CT	100	75	20
CTP CT	75	75	75
TKP CT	75	76	75
UBP-DP Coalition CT	100	75	75
Business Turks CT	75	80	75
Unions Teachers CT	75	20	20
Media Pro CT	75	20	20
Media Anti CT	100	75	75
Peace Activist CT	75	20	20
UHH CT	100	75	75
Public CT	75	20	20
President CG	75	20	20
Disi CG	75	20	20
Akel CG	75	20	20
Diko CG	20	20	20
Kisos CG	20	20	20
Other Parties CG	20	20	20
Business Greeks CG	20	20	20
Union Left CG	75	80	75
Union Right CG	20	20	20
CYBC CG	20	20	20
ANTENA CG	20	20	20
ERT CG	20	20	20
MEGA CG	20	20	20
SIGMA CG	20	20	20
Public CG	20	20	20
Church CG	20	20	20
Prime Minister G	75	75	20

Opposition G	20	20	20
ERT G	20	20	20
MEGA G	20	20	20
ANTENA G	20	20	20
Church G	20	20	20
Business G	20	20	20
Public G	20	20	20
US	75	75	20
EU	75	20	20
UK	75	20	20
UN	75	75	20
Public T	90	75	95
Opposition T	95	79	95
President T	95	70	75
MilitaryT	95	95	95
Prime Minister T	80	84	83
Media Pro T	75	75	75
Media Anti T	95	95	95
Business Pro T	80	84	81
Business Islamic T	85	82	82
<i>Forecast</i>	75	75	20

Issue 4: Freedom of Movement Position Scale



0 = No Freedom

100 = Full Freedom

Actor	Weight	Power	Position	Saliency
Cypriot Turks				
	5			
President Denktash		150	80	80
CTP		30	100	70
TKP		10	100	70
UBP-DP coalition		10	80	65
Business Turks		15	90	60
Unions - Teachers		15	100	80
Media Pro		10	95	60
Media Anti		10	70	90
Peace Activist		5	100	80
UHH		10	70	95
Public Opinion		10	85	60
Greek Cypriots				
	15			
President		100	100	95
Disi		15	100	95
Akel		40	100	95
Diko		50	100	95
Kisos		20	100	95
Other Parties		5	100	95
Business Greeks		15	100	95
Union Left		10	100	95
Union Right		5	100	95
CYBC		15	100	95
ANTENA		5	100	95
ERT		10	100	95
MEGA		5	100	95
SIGMA		10	100	95
Public Opinion		20	100	95
Church		20	100	95
Greece				
	45			
Prime Minister		100	100	95
Opposition Parties		30	100	95
ERT		15	100	95
MEGA		10	100	95
ANTENA		10	100	95
Church		20	100	95
Business		30	100	95
Public Opinion		30	100	95
Foreign Actors				
	400			
US		300	100	90

EU	50	100	90
UK	25	100	90
UN	25	100	95
Turkey	70		
Public Opinion	20	80	60
Opposition Parties	20	80	80
President	15	85	80
Military	100	80	90
Prime Minister	30	90	60
Media Pro	10	90	50
Media Anti	10	70	85
Business Pro	20	90	60
Business Islamic	5	85	60

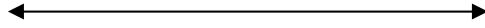
Forecast Issue 4:

Freedom of Movement

Stakeholder	Round 1	Round 2	Round 3
Denktash CT	80	100	100
CTP CT	100	100	100
TKP CT	100	100	100
UBP-DP Coalition CT	80	100	100
Business Turks CT	90	100	100
Unions Teachers CT	100	100	100
Media Pro CT	95	100	100
Media Anti CT	70	72	100
Peace Activist CT	100	100	100
UHH CT	70	72	100
Public CT	85	100	100
President CG	100	100	100
Disi CG	100	100	100
Akel CG	100	100	100
Diko CG	100	100	100
Kisos CG	100	100	100
Other Parties CG	100	100	100
Business Greeks CG	10	30	39
Union Left CG	100	100	100
Union Right CG	100	100	100
CYBC CG	100	100	100
ANTENA CG	100	100	100
ERT CG	100	100	100
MEGA CG	100	100	100
SIGMA CG	100	100	100
Public CG	100	100	100
Church CG	100	100	100
Prime Minister G	100	100	100

Opposition G	100	100	100
ERT G	100	100	100
MEGA G	100	100	100
ANTENA G	100	100	100
Church G	100	100	100
Business G	100	100	100
Public G	100	100	100
US	100	100	100
EU	100	100	100
UK	100	100	100
UN	100	100	100
Public T	80	100	100
Opposition T	80	100	100
President T	85	100	100
MilitaryT	80	80	100
Prime Minister T	90	100	100
Media Pro T	90	100	91
Media Anti T	70	71	100
Business Pro T	90	100	100
Business Islamic T	85	100	100
<i>Forecast</i>	<i>100</i>	<i>100</i>	<i>100</i>

Issue 5: Freedom of Settlement Position Scale



0 = No Freedom

100 = Full Freedom

Actor	Weight	Power	Position	Salience
Cypriot Turks				
	5			
President Denktash		150	10	90
CTP		30	25	60
TKP		10	20	60
UBP-DP Coalition		10	10	80
Business Turks		15	15	60
Unions - Teachers		15	25	80
Media Pro		10	25	70
Media Anti		10	5	90
Peace Activist		5	30	80
UHH		10	10	95
Public Opinion		10	15	75
Greek Cypriots				
	15			
President		100	35	95
Disi		15	30	95
Akel		40	25	95
Diko		50	35	95
Kisos		20	35	95
Other Parties		5	35	80
Business Greeks		15	30	75
Union Left		10	25	80
Union Right		5	35	90
CYBC		15	30	80
ANTENA		5	35	85
ERT		10	25	70
MEGA		5	30	80
SIGMA		10	35	90
Public Opinion		20	30	85
Church		20	100	95
Greece				
	45			
Prime Minister		100	20	95
Opposition Parties		30	25	90
ERT		15	20	80
MEGA		10	25	85
ANTENA		10	25	85
Church		20	35	85
Business		30	20	75
Public Opinion		30	25	70

Foreign Actors		400		
US		300	20	85
EU		50	30	90
UK		25	20	85
UN		25	20	95
Turkey		70		
Public Opinion		20	10	70
Opposition Parties		20	10	80
President		15	15	70
Military		100	10	90
Prime Minister		30	20	60
Media Pro		10	25	60
Media Anti		10	10	90
Business Pro		20	25	60
Business Islamic		5	20	60

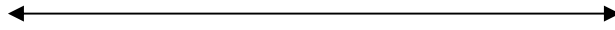
Forecast Issue 5

Freedom of Settlement

Stakeholder	Round 1	Round 2	Round 3
Denktash CT	10	20	20
CTP CT	25	25	23
TKP CT	20	19	20
UBP-DP Coalition CT	10	20	20
Business Turks CT	15	16	14
Unions Teachers CT	25	24	23
Media Pro CT	25	24	23
Media Anti CT	5	8	10
Peace Activist CT	30	30	29
UHH CT	10	20	20
Public CT	15	16	14
President CG	35	35	33
Disi CG	25	24	22
Akel CG	35	34	32
Diko CG	35	34	32
Kisos CG	35	33	32
Other Parties CG	35	33	32
Business Greeks CG	30	29	29
Union Left CG	25	24	23
Union Right CG	35	33	32
CYBC CG	30	29	29
ANTENA CG	35	33	32
ERT CG	25	25	23
MEGA CG	30	30	29
SIGMA CG	35	33	32
Public CG	30	29	29
Church CG	100	84	73

Prime Minister G	20	20	20
Opposition G	25	20	20
ERT G	20	10	20
MEGA G	25	20	20
ANTENA G	25	20	20
Church G	35	34	33
Business G	20	10	20
Public G	25	20	10
US	20	20	20
EU	30	20	20
UK	20	20	20
UN	20	20	20
Public T	10	20	10
Opposition T	10	20	20
President T	15	14	20
MilitaryT	10	10	10
Prime Minister T	20	25	20
Media Pro T	25	20	10
Media Anti T	10	20	20
Business Pro T	25	20	10
Business Islamic T	20	20	20
<i>Forecast</i>	<i>20</i>	<i>20</i>	<i>20</i>

Issue 6: Freedom of Property Rights Position Scale



0 = No Freedom

100 = Full Freedom

Actor	Weight	Power	Position	Saliency
Cypriot Turks				
	5			
President Denktash		150	10	90
CTP		30	25	60
TKP		10	30	70
UBP-DP coalition		10	15	90
Business Turks		15	20	60
Unions - Teachers		15	25	80
Media Pro		10	25	60
Media Anti		10	10	90
Peace Activist		5	25	60
UHH		10	10	95
Public Opinion		10	15	70
Greek Cypriots				
	15			
President		100	40	75
Disi		15	35	75
Akel		40	30	80
Diko		50	40	90
Kisos		20	40	85
Other Parties		5	30	70
Business Greeks		15	35	75
Union Left		10	30	75
Union Right		5	40	75
CYBC		15	30	70
ANTENA		5	35	75
ERT		10	30	60
MEGA		5	35	70
SIGMA		10	40	90
Public Opinion		20	30	75
Church		20	100	90
Greece				
	45			
Prime Minister		100	25	90
Opposition Parties		30	30	80
ERT		15	30	60
MEGA		10	35	60
ANTENA		10	35	60
Church		20	40	65
Business		30	30	75
Public Opinion		30	35	85

Foreign Actors	400			
US		300	30	85
EU		50	40	80
UK		25	30	80
UN		25	30	90
Turkey	70			
Public Opinion		20	10	60
Opposition Parties		20	10	80
President		15	10	90
Military		100	10	90
Prime Minister		30	20	60
Media Pro		10	25	60
Media Anti		10	10	90
Business Pro		20	30	60
Business Islamic		5	15	60

Forecast Issue 6

Freedom of Property Rights

Stakeholder	Round 1	Round 2	Round 3
Denktash CT	10	25	30
CTP CT	25	25	23
TKP CT	30	26	30
UBP-DP Coalition CT	15	24	30
Business Turks CT	20	20	20
Unions Teachers CT	25	30	25
Media Pro CT	25	24	23
Media Anti CT	10	25	30
Peace Activist CT	25	24	23
UHH CT	10	25	30
Public CT	15	19	19
President CG	40	35	34
Disi CG	35	34	32
Akel CG	30	25	30
Diko CG	40	32	32
Kisos CG	40	40	40
Other Parties CG	30	26	30
Business Greeks CG	35	34	32
Union Left CG	30	25	30
Union Right CG	40	40	39
CYBC CG	30	27	30
ANTENA CG	35	33	32
ERT CG	30	29	30
MEGA CG	35	33	32
SIGMA CG	40	40	39
Public CG	30	25	30
Church CG	100	97	91

Prime Minister G	25	30	30
Opposition G	30	25	30
ERT G	30	30	30
MEGA G	35	34	34
ANTENA G	35	34	34
Church G	40	35	34
Business G	30	25	30
Public G	35	30	30
US	30	30	30
EU	40	30	30
UK	30	25	30
UN	30	25	30
Public T	10	25	24
Opposition T	10	25	30
President T	10	25	30
MilitaryT	10	10	30
Prime Minister T	20	30	24
Media Pro T	25	23	22
Media Anti T	10	25	30
Business Pro T	30	30	30
Business Islamic T	15	17	17
<i>Forecast</i>	<i>30</i>	<i>30</i>	<i>30</i>

Foreign Actors		400		
US		300	28.5	10
EU		50	29.2	20
UK		25	29.2	20
UN		25	29.2	60
Turkey		70		
Public Opinion		20	31	70
Opposition Parties		20	30	75
President		15	30	70
Military		100	30	85
Prime Minister		30	30	65
Media Pro		10	29.2	60
Media Anti		10	32	80
Business Pro		20	29.2	50
Business Islamic		5	30	60

Forecast Issue 7

Territorial Boundaries

Stakeholder	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Denktash CT	32	32	32	32	32	30
CTP CT	29	30	20	20	24	24
TKP CT	29	30	20	20	23	24
UBP-DP Coalition CT	32	32	32	31	31	30
Business Turks CT	29	30	20	20	23	24
Unions Teachers CT	29	30	20	20	24	24
Media Pro CT	29	30	21	21	24	24
Media Anti CT	34	34	34	34	33	33
Peace Activist CT	29	30	30	29	29	26
UHH CT	34	34	34	34	33	33
Public CT	30	20	20	20	20	20
President CG	20	20	20	20	21	22
Disi CG	23	23	32	23	24	23
Akel CG	24	24	24	24	23	23
Diko CG	20	20	20	20	21	21
Kisos CG	20	20	20	20	22	22
Other Parties CG	22	22	22	22	24	23
Business Greeks CG	24	24	24	24	23	23
Union Left CG	24	24	24	24	23	23
Union Right CG	23	23	32	23	24	23
CYBC CG	23	23	32	23	24	23
ANTENA CG	22	22	22	22	24	23
ERT CG	23	23	32	23	24	23
MEGA CG	23	23	23	23	24	23
SIGMA CG	22	22	22	22	24	23
Public CG	22	22	22	22	24	23

Church CG	20	20	20	20	23	23
Prime Minister G	27	27	30	23	23	23
Opposition G	25	25	25	25	24	23
ERT G	23	23	30	23	24	23
MEGA G	22	22	22	22	24	23
ANTENA G	22	22	22	22	24	23
Church G	20	20	20	20	23	23
Business G	27	30	24	25	27	26
Public G	23	23	30	23	24	23
US	29	29	28	28	28	28
EU	29	29	29	29	29	29
UK	29	29	29	29	29	29
UN	29	29	20	20	24	24
Public T	31	31	31	31	25	23
Opposition T	30	20	20	20	23	23
President T	30	20	20	20	23	23
MilitaryT	30	30	30	24	23	23
Prime Minister T	30	27	30	26	24	23
Media Pro T	29	29	20	20	24	24
Media Anti T	32	32	32	32	32	31
Business Pro T	29	29	29	30	27	26
Business Islamic T	30	27	30	30	25	25
<i>Forecast</i>	29	27	30	24	23	23

References

- Anastasiou, Harry. 2000. "Negotiating the Solution to the Cyprus Problem: From Impasse to post-Helsinki Hope." *The Cyprus Review*. Vol. 12, no. 1 (Spring): 11-33.
- Attalides, Michael A. 1979. *Cyprus: Nationalism and International Politics*. New York: St. Martin's Press.
- Banks, Jeffrey. 1990. "Equilibrium Behavior in Crisis Bargaining Games," *American Journal of Political Science* 34:599-614.
- Black, Duncan. 1958. *The Theory of Committees and Elections*. Cambridge: Cambridge University Press.
- Bueno de Mesquita, Bruce, David Newman, and Alvin Rabushka, (eds). 1985. *Forecasting Political Events: The Future of Hong Kong*. New Haven: Yale University Press.
- Bueno de Mesquita, Bruce, David Newman, and Alvin Rabushka, (eds). 1996. *Red Flag Over Hong Kong*. Chatham, N.J.: Chatham House Publishers.
- Bueno de Mesquita, Bruce, and Frans N. Stokman, (eds). 1994. *European Community Decision Making: Models, Applications, and Comparisons*. New Haven: Yale University Press.
- Bueno de Mesquita, Bruce. 2002. *Predicting Politics*. Columbus: Ohio State University Press.
- Denktas, Rauf R. 1992. *The Cyprus Problem and the Remedy*. Nicosia: TRNC Press.
- Doob, Leonard. 1986. "Cypriot Patriotism and Nationalism." *Journal of Conflict Resolution*. Vol. 30, no.2 (June):383-96.
- Ertekin, Necati Munir. 1977. *Inter-Communal Talks and the Cyprus Problem*. Nicosia: TFSC Press.
- Feder, Stanley. 1995. "Factions and Policon: New Ways to Analyze Politics," in H. Bradford Westfield (ed.), *Inside CIA's Private World*. New Haven: Yale University Press, pp. 274-292.
- Kugler, Jacek, and Yi Feng, (eds.) (1997). "Special Issue: The Expected Utility Approach to Policy Decision Making: Assessments, Forecasts, and Strategies." *International Interactions*, Vol. 23, Nos. 3-4, pp. 233-394.
- Loizos, Peter. 1981. *Heart Grown Bitter*. Cambridge. Cambridge University Press.
- Necatigil, Zaim. 1993. *The Cyprus Question and the Turkish Position in International Law*. Oxford: Oxford University Press.
- Tamkoç, Metin (1988). *The Turkish Cypriot State: The Embodiment of the Right of Self-Determination*. London: K. Rüstem & Brother.
- Theophylactou, Demetrios A. 1995. *Security Identity and Nation Building: Cyprus and the European Union in Comparative Perspective*. Avebury. Ashgate Publishing Limited
- Yesilada, Birol and Ahmet Sozen (2002). "Negotiating a Resolution to the Cyprus Problem: Is Potential EU Membership a Blessing or a Curse?" *International Negotiation Journal* Vol. 7, no. 2, pp. 261-285.
- Yesilada, Birol (2002), "Turkey's Candidacy to Join the European Union," *The Middle East Journal* Vol 56, no. 1 (Winter):94-112.

