Schweickert, Rainer; Melnykovska, Inna; Heitmann, Hanno

**Working Paper**

**Accession incentives for institutional change in post-socialist countries: cross-section and country evidence from NATO enlargement**

Kiel Working Paper, No. 1597

**Provided in Cooperation with:**
Kiel Institute for the World Economy (IfW)

Suggested Citation: Schweickert, Rainer; Melnykovska, Inna; Heitmann, Hanno (2010): Accession incentives for institutional change in post-socialist countries: cross-section and country evidence from NATO enlargement, Kiel Working Paper, No. 1597, Kiel Institute for the World Economy (IfW), Kiel

This Version is available at:
http://hdl.handle.net/10419/30050

**Standard-Nutzungsbedingungen:**
Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**
Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.
Accession Incentives for Institutional Change in Post-Socialist Countries – Cross-Section and Country Evidence from NATO Enlargement

Rainer Schweickert, Inna Melnykovska, Hanno Heitmann

No. 1597 | February 2010
Accession Incentives for Institutional Change in Post-Socialist Countries – Cross-Section and Country Evidence from NATO Enlargement*

Rainer Schweickert, Inna Melnykovska, Hanno Heitmann

Abstract:
This paper analyses the transformative power of NATO accession that gains in importance due to the enlargement fatigue of the EU, the EU’s rather weak neighbourhood incentives and the increasing importance of regional security as an incentive for compliance with the institutional standards of democracy and market economy. Econometric cross-country evidence from a hazard model reveals that the entry into NATO’s accession process is mainly driven by neighbourhood and strategic effects rather than foregoing institutional reforms in a candidate-country. While strategic interests also dominated the accession process of Macedonia initially, the case study results reveal the central role of the switch in NATO’s strategy from strategic interest only to a more balanced consideration of institutional reforms, which ‘turned Macedonia around’ in terms of institutional development. Clearly, after this turning point marked by the Ohrid agreement, the effectiveness of NATO’s accession conditionality could be revealed. The switch in NATO’s strategy, rather enforced externally than the result of a well structured debate among NATO members, is of special relevance for the peaceful transition of other post-socialist countries, e.g. Ukraine and Georgia.

Keywords: NATO Enlargement, Democratization, Institutions, Transition, Conflict, FYR Macedonia

JEL classification: F59, P30, 019

Rainer Schweickert
(corresponding author)
Kiel Institute for the World Economy
D-24105 Kiel, Germany
Tel.: +49-431-8814-494
E-mail: rainer.schweickert@ifw-kiel.de

Inna Melnykovska
Political Science
Institute of Social Sciences, University of Kiel
D-24098 Kiel, Germany
Tel.: +49-431-880-3636
E-mail: inna.melnykovska@politik.uni-kiel.de

Hanno Heitmann
Kiel Institute for the World Economy
D-24105 Kiel, Germany
Tel.: +49-431-8814-205
E-mail: hannoheitmann@yahoo.de

* This paper is an output from the project “NATO as Driver of Democratic and Market Economy Changes in Transition Countries. Case Studies: Poland, Macedonia and Ukraine” financed by the Fritz-Thyssen-Stiftung.

The responsibility for the contents of the working papers rests with the author, not the Institute. Since working papers are of a preliminary nature, it may be useful to contact the author of a particular working paper about results or caveats before referring to, or quoting, a paper. Any comments on working papers should be sent directly to the author.

Coverphoto: uni_com on photocase.com
Accession Incentives for Institutional Change in Post-Socialist Countries –
Cross-Section and Country Evidence from NATO Enlargement

Introduction

Since the collapse of the Warsaw Pact and the Soviet Union, western international organisations actively engaged in institutional change in post-socialist countries (Barany, 2004; Schimmelfennig, 2005a,b; Smith, 2001). As exemplified by the rapidly expanding Europeanisation (read: EUisation) literature, both the academic and the public debates were strongly biased towards analysing the EU’s strong accession conditionality effects (Schimmelfennig, 2007; Schimmelfennig & Scholtz, 2008). However, it is weakening rapidly due to the growing enlargement fatigue among EU member countries. The lack of an EU membership perspective as well as the priority of other than trade issues, implies that the transformative power of the EU is rather weak in its neighbourhood (Gawrich, Melnykovska & Schweickert, 2009; Pop-Eleches, 2007; Schimmelfennig & Sedelmeier, 2005).

Against this background, there is increasing interest in what may be labelled Westernisation, i.e. in an external influence on institutional change by other Western international organisations, above all by NATO. So far, it does not figure prominently in public debates that, after the end of the Cold War, NATO started to incorporate the concept of conditionality as an essential part of its enlargement strategy (Angelov, 2004). Arguably, NATO’s accession conditionality gains importance for the post-socialist countries that look for security guarantees in order to balance external threats endangering their territorial integrity.

---

1 Macedonia is used here as a provisional name for the Former Yugoslav Republic of Macedonia.
2 In particular, the both EU and NATO membership incentives supported the process of democratization in the post-socialist countries that were not yet democratic in the early 1990s and contributed to stabilization and consolidation in those post-socialist countries that were already democratic by the time of granting them membership perspectives (Armingeon & Careja, 2008).
3 We would argue that the label Westernization is also more appropriate in the sense that it does not reduce the convergence towards Western standards to the compliance with EU demands exclusively, but also by allowing to consider external effects through regional security, trade and investment relations as well.
According to Rupnik (2000), ‘democratic security’ offered by NATO was a precondition for successful institutional reforms and for the consolidation of young democracies. In the same vein, Gibler and Sewell (2006) argue that NATO’s effect on reducing external threats has acted as a precondition for any impact the EU might have had. Furthermore, a range of papers stress the influence of NATO’s conditionality on consolidation of democracy and free market transformation in post-socialist countries (see, e.g., Angelov, 2004; Epstein, 2005; Jureković, Malek, Reiter & Sandrisser, 1999; Rupnik, 2000; Schimmelfennig, 2007; Waterman, Zagorcheva & Reiter, 2001). In a panel analysis, Belke et al. (2009) show that the effect of NATO accession on institutional quality in post-socialist countries is positive and independent from an EU effect. Melnykovska and Schweickert (2009) are also able to show for the case of Ukraine that even in the absence of a clear membership perspective, NATO has a potential for fostering democratic and economic reforms depending on domestic perception of NATO conditionality.\(^4\)

However, the debate about NATO’s transformative power is still open. Reiter (2001), e.g., points at the strategic interest of NATO in enlargement including post-socialist countries and doubts that NATO enlargement can be seen as an enlargement of the community based on a common commitment to democratic and free market principles, but as an enlargement of the alliance securing its strategic interests. Indeed, we argue that the role of NATO’s accession conditionality in supporting institutional reforms is not obvious due to two factors. First, as we will show in Chapter 2, after the end of the Cold War the process of defining an enlargement strategy and refocusing from pure strategic interest to, at least, considering an important role for institutional reforms as a precondition for regional security was not straightforward. To provide more clarity on the interests behind NATO’s enlargement

\(^4\) More specifically, after the Orange Revolutions in Ukraine domestic perception of NATO demands became more positive, as political elite expected NATO’s membership perspective would be granted shortly and implemented institutional reforms as a ‘would-be’ membership candidate. As a result, the compliance with NATO demands clearly increased after the Orange Revolution.
strategy, we apply a hazard model in order to test for the determinants of entry into the NATO accession process (Chapter 3). We are able to show that the start of accession was rather driven by good relations with either the EU or the US, i.e. strategic interest, than foregoing reforms. This also supports the assumption that NATO’s accession effects revealed by econometric studies are rather exogenous (see, e.g., Schimmelfennig & Scholz, 2008).\(^5\)

Second, NATO could have not only direct, but also indirect effects on institutional change. Gibler and Sewell (2006) are able to show that reducing the level of external threat actually eases democratic reforms, while countries under threat tend to remain or become autocratic. Hence, the positive impact of NATO shown by Belke et al. (2009) may be due to these indirect effects as well as to the direct conditionality effects.

While the direct and indirect effects are difficult to disentangle statistically, we claim that the qualitative analysis of Macedonia’s case provides useful insights (Chapter 4). Macedonia played a central role in NATO’s strategic interest in the Balkans and, consequently, was granted entry into the Membership Action Plan (MAP) in 1999. At the same time, Macedonia also exemplifies a switch in NATO’s strategy. The inter-ethnic tension between the Macedonian majority and Albanian minority in 2001 made clear that institutional reform was a necessary precondition for a peaceful transition towards democracy and market economy.

Taking econometric cross-country evidence and case study results for Macedonia together reveals the central role of the switch in NATO’s strategy from strategic interest only to a more balanced consideration of institutional reform for turning an ongoing deterioration of institutional quality into a process of NATO accession. At the same time, the switch in NATO’s strategy seems to be rather enforced externally than the result of a well structured debate among NATO members.

\(^5\) Belke et al. (2009) allow for endogeneity, i.e. for institution reform easing entry into NATO accession.
NATO’s enlargement as a response to a changing European security landscape after the Cold War

Since the end of the Cold War, NATO has enlarged to 28 members, accepting 12 post-socialist countries. At the NATO Summit in Brussels in January 1994, NATO leaders welcomed ‘NATO expansion to the East’ and made future enlargement possible. The Madrid Declaration of 1997 invited the Czech Republic, Hungary and Poland to open accession talks. In 1999, they were the first former members of the Warsaw Pact to join NATO. More post-socialist countries (Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia) were invited to begin accession talks at the NATO Prague Summit in 2002 and joined NATO in 2004. At the Bucharest Summit of 2008, Albania and Croatia were invited to begin accession talks with NATO and entered NATO in 2009. Macedonia will be invited as soon as a mutually acceptable solution to the issue of country name has been reached with Greece.

NATO’s decision to enlarge originated from an urgent necessity to adapt to the post-Cold War security landscape. Enlargement generated a new rationale for NATO’s continued existence beyond the Cold War. NATO was established out of European division and was seen by the Western European states as a necessary means of resisting military threat by the Soviet Union. After the collapse of the Warsaw Pact and the Soviet Union, NATO was enforced to redefine its identity and to justify its continued existence amidst expectations of a ‘New World Order’ and the anticipated peace dividend it would yield (Smith & Timmins, 2000). Furthermore, NATO’s decision to enlarge was fostered by various exogenous factors, which are given below.

In assessing what lay behind the NATO initiatives on enlargement, one cannot ignore the coincidence of timing between the developments in NATO and those that were concurrently taking place in the EU. NATO activities in the Eastern Europe were the results of the internal development in the EU, favouring the incorporation of the Western European Union (WEU)
into the EU or strengthening of the Conference on Security and Cooperation in Europe (CSCE) in order to limit NATO hegemony on the issues of European security. The EU’s Copenhagen decision of June 1993 to invite Central and Eastern European countries (CEECs) for membership and the definition of clear conditions for joining gave an additional impulse to NATO’s enlargement strategy. Moreover, NATO enlargement was supported by the USA, because it was perceived by the Clinton administration as being closely bound up with the maintenance of US leadership within NATO (Holbrooke, 1995).

In addition, the geopolitical obstacle to enlargement disappeared after the joint Warsaw Declaration of 1993 agreed between Boris Yeltsin and Lech Walesa. It declared Poland’s intention to join NATO as one that ‘did not go against the interests of other states, including the interests of Russia’ (Warsaw Declaration, 1993). A similar statement during Yeltsin’s visit to the Czech Republic gave the chance for CEECs for actually joining. The May 1997 NATO-Russia agreement entirely removed the Russian obstacle to enlargement as Russia’s positive position abolished the fears of whether this move eastward would re-create the division of Europe or bring greater peace and stability to a fragmented region were solved (Asmus, 2002).

NATO enlargement also went in line with the ‘quest for security’ among the leaders of post-socialist countries that was accelerated by the final winding-up of the Warsaw Pact in July 1991 and by the anti-Gorbachev coup attempt in August 1991. In particular, the coup induced a sense of vulnerability to external and domestic threats among leaders of CEECs. In particular, Czechoslovakia, Hungary and Poland saw themselves as being in the ‘security vacuum’ between NATO and the Soviet Union. The multiethnic post-socialist countries, especially in the Balkans, feared being exposed to domestic threats of inter-ethnic conflicts. NATO enlargement was seen as a mean to secure CEECs from both external and domestic threats, to strengthen liberal forces in CEECs and make the reversal to the communist rule impossible (Epstein, 2005). Further, it was seen to assist political stability in post-socialist
countries and thereby contributing to the reconciliation of border relationships prone to conflict and damp down the potential for inter-ethnic conflicts (Hartley & Sandler, 1999). Thus, interest in NATO membership democratic leadership in CEECs pledged mutual support towards entry into NATO and the EU.⁶

To sum up, different to the Cold-War enlargement when strategic interests had clearly prevailed, the decision to enlarge after the end of the Cold War was driven by NATO’s internal necessity to adapt to the new security architecture. It was additionally fostered by exogenous factors. These included developments in the EU, the USA, the Soviet Union and the potential new member states.

However, the choice of the aspirants that were granted membership in NATO’s Eastern enlargement might have hung on the fulfilment of preconditions concerning institutional quality. Some studies argue that after the end of the Cold War NATO moved its focus from strategic issues to common institutions and values (Waterman, Zagorcheva & Reiter, 2001; Epstein, 2005). Furthermore, NATO introduced a package of tools that indeed enabled it to push for democratic and free market reforms in post-socialist countries (Melnykovska & Schweickert, 2009). In particular, NATO launched conditionality that was based on democratic and market values and required a minimum of institutional standards (Angelov, 2004).

In 1994, the program ‘Partnership for Peace’ defined the principles of NATO’s cooperation with post-socialist countries, among others: preserving democratic societies; maintaining the principles of international law; fulfilling obligations under the UN Charter, the Universal Declaration of Human Rights; refraining from the threat or use of force against other states; respecting existing borders and settling disputes peacefully; ensuring democratic control over their armed forces; facilitating transparency in national defence planning and budgeting.

---

⁶ E.g., to mutually support their efforts on the way to NATO and EU membership, Czechoslovakia, Hungary and Poland signed in February 1991 the Visegrad Declaration.
(NATO 1994). In 1995, NATO’s (1995) Study on enlargement specified its membership criteria (although no fixed or rigid list existed). The new NATO members were expected to conform to basic principles, like democracy, individual liberty and the rule of law; to demonstrate a commitment to OSCE norms, including the peaceful resolution of ethnic disputes; to promote stability and well-being by economic liberty; to establish appropriate democratic and civilian control of their defence force; to undertake necessary defence management reforms, such as transparent national defence planning, resource allocation and budgeting, appropriate legislation and parliamentary and public accountability.

After the first round of enlargement to Eastern Europe, a mechanism called Membership Action Plan (MAP) was approved at NATO’s Washington Summit of 1999 for nations wishing to join the NATO. MAP made the process of admission more formal and, at the same time, provided a way to cushion the disappointment of countries not being allowed in immediately. An important precondition named in MAP was the willingness to settle international, ethnic or external territorial disputes by peaceful means, to commit to the rule of law and human rights, to provide democratic control of the armed forces, and to establish market regulations for the defence industry. These demands clearly go well beyond a narrow focus on military and defence issues and target institutional reforms in a broad sense. The inclusion of democratic and free market conditionality in NATO’s post-Cold War enlargement raises the empirical question of whether the choice of new members was primarily driven by strategic interest or by institutional reforms in potential member countries.

---

7 A country’s participation in MAP entails the fulfilment of five different measures. Four measures on organization, resources, safeguards, and compatibility – like the acquis in the case of the EU – focus on the potential of (military) cooperation between the accession country and NATO. One measure deals with institutional reforms.
Choosing the good guys – strategy vs. reform

The discussion in Chapter 2 reveals that NATO has introduced demands for institutional reform on all stages of cooperation, but especially for the accession process formalised in MAP. This is in line with previous empirical results showing that entry into MAP has a positive effect on the quality of institutions, which is independent from pre-accession effects of the EU (Belke, Bordon, Melnykovska & Schweickert, 2009). Hence, the degree of compliance with NATO’s demands on institutional quality may have influenced the decision on the accession to NATO of a particular candidate. Thus, the question of endogeneity of entry into NATO accession process is still unsolved.

Pace and coverage of NATO enlargement was also driven by exogenous factors and strategic interest. NATO members consider the implications of granting MAP or inviting a particular country to the alliance for overall security and stability in the North Atlantic area at the time. Both, in the Study on NATO enlargement and in MAP, NATO reserves to itself the right to decide whether or not a candidate meets these requirements. The decisions to grant MAP or to extend an invitation to join NATO remain the political choice of its members. Furthermore, the language of NATO documents is deliberately imprecise, to allow wide discretion in interpretation of an achieved degree of compliance with NATO’s demands (Drent, Greenwood Huisman & Volten, 2001).

Overall, it is still unclear, whether strategic interest prevailed in the choice of the countries that were granted MAP or whether NATO’s conditionality was a filter that ‘let in’ only those countries that shared the common values and fulfilled the demands, including the demands on institutional quality. Evidence from single countries is also mixed in this respect. Poland and the Czech Republic were forerunners in institutional reforms among post-socialist countries.

---

8 According to the Study on Enlargement, ‘decision on enlargement will be for NATO itself… There is no fixed list of criteria…and enlargement will be decided on a case-by-case basis…on the judgment of whether doing so will contribute to security and stability in the North Atlantic area at the time such a decision is made’ (NATO 1995).
Thus, reforms and compliance with NATO’s demands may explain their early entrance into NATO. In addition, the entry of such new allies as the Baltic countries presented greater risks and costs to NATO’s security and can be hardly explained with NATO’s security preferences. However, Hungary, which demonstrated deficits with respect for minority rights, might have joined NATO during the first wave of post-Cold War enlargement due to its importance for NATO’s strategy in the Balkans. Poland’s early accession may also have been the result of a strong support of Germany, which wanted to shed its status of a ‘borderland’.

In order to assess the determinants of entry into NATO MAP, we conduct a quantitative analysis on the basis of a panel data set of 25 transition economies observed from 1992 to 2008. For each country, we collected the data that represent the degree of fulfilment of the requirement demanded by NATO and the strategic importance of these countries for the EU and the USA. Most of our variables are time varying. As a model framework, we use a version of a Cox (1972) proportional hazard duration model. Hazard duration models are developed to model the effect of covariates on the duration until an event occurs. Such a model allows us to analyse the factors that explain the duration until a country is granted a MAP. Though applications of hazard duration models have become increasingly popular in the fields of economics and social sciences (Box-Steffensmeier & Jones, 2004), the language used to describe the model is still influenced by applications in medical research: Until a subject fails, it is assumed to be subject to a hazard rate $h(t)$. It specifies the (limiting) probability that a subject fails at this point of time $t$, conditional on that it survived until $t$. In our context, however, the event to be analyzed is the ‘success’ in entering NATO MAP. Expressed in a different way, we model the duration until a MAP is granted. The interpretation of the hazard rate $h(t)$ is then the probability that a MAP is granted in year $t$ conditional upon this has not been the case in the years before.

---

9 For Czech Republic, Hungary and Poland no NATO MAP was set up. In order to deal with this fact in our empirical analysis, we assume the beginning of a formalised accession process with NATO’s official invitation to join the organisation. This was made in the Madrid Declaration in 1997.
Examples where hazard duration models are used in related field of research include Box-Steffensmeier and Jones (2004) who explain the duration of UN peacekeeping missions by whether missions occurs in response to a civil war or an interstate conflict. Oneal and Russet (1997) provide empirical evidence that interstate conflicts are reduced by democracy and economic interdependence. Beck, et al. (1998) as well as Box-Steffensmeier and Zorn (2001) point out, that the Oneal and Russet (1997) data can be viewed upon as duration data. Box-Steffensmeier and Zorn (2001) can confirm their findings by explaining the duration of peace spells using a Cox proportional hazard model with time varying covariates.

In a Cox (1972) proportional hazard model the hazard rate is split up into a baseline hazard \( h_0(t) \) with an unspecified functional form and an individual hazard \( \exp(X_i'(t)\beta) \) where \( X_i'(t)\beta \) are vectors of covariates and regression parameters:

\[
  h_i(t) = h_0(t)\exp(X_i'(t)\beta). \tag{1}
\]

The model is *proportional* in that the hazard which every subject \( i \) faces at time \( t \) is multiplicatively proportional to the baseline hazard. This implies that hazard functions of individuals differ only by a factor of proportionality. Hence the effects of covariates are the same over time and it is possible to estimate time invariant coefficients. We test the proportionality assumption using the Grambsch and Therneau (1994) test statistic and find no evidence that this assumption is violated in our analysis.

Cox (1972) shows that it is possible to estimate the regression coefficients via a method he called partial likelihood estimation. As a first step, the data are sorted by the ordered failure times. Assume that only one individual fails per failure time. The basic idea is, that for each failure time \( t_i \) one can express the conditional probability of a failure of individual \( j \), given the number of individuals \( R(t_i) \) in the risk set that have not failed yet at time \( t_i \) as

\[
  \Pr(t_j = T_j \mid R(t_i)) = \frac{h_j(t)}{\sum_{j \in R(t_i)} h_j(t)} = \frac{\exp(X_j'(t)\beta)}{\sum_{j \in R(t_i)} \exp(X_j'(t)\beta)}. \tag{2}
\]
Note that the term for the baseline hazard $h_0(t)$ cancels out in this expression. The partial likelihood function is derived on the basis of the conditional probabilities for the subjects that failed. Information from covariates of the censored subjects (the ones that did not fail until the end of the sample period) is only included in the denominator of equation (2). The likelihood function has to be modified in case of tied events, i.e. if the assumption of only one failure per time does not hold. This is true in our case, as we assume 1997 as the year when Poland, Czech Republic and Hungary start a formalised accession process. Nine MAPs were signed in 1999 for Estonia, Latvia, Lithuania, Slovak Republic, Slovenia, Albania and Macedonia. The MAP for Croatia was granted in 2002. We use the Efron approximation method to account for tied events.

Within the framework of a Cox proportional hazard model, the 'explained variable' is the duration until a NATO MAP is set up. We group the explanatory variables into strategic factors which capture international relations and institutional factors which matter for MAP conditionality (Table I). As international relations we consider proximity to NATO countries, basically the EU and the US as the two main power groups within the NATO. We took the voting history in the UN General Assembly as an indication of closeness to either the US or Russia (unvotes_us, unvotes_rus). In the case of the EU, we considered both political integration (eu_agreement) and trade relations (eu_trade). In addition, neighbourhood effects are accounted for by a time-varying neighbourhood dummy accounting for previous NATO enlargements (nbr) and a time-invariant dummy for belonging to the Western community, i.e. being a potential NATO member (west_christ). We assume that these variables capture the strategic interest in enlargement on both sides.

[Table I about here]

---

10 See Martinussen and Scheike (2006) for an excellent treatment on how the likelihood function is constructed if time variant covariates are included.

11 We carry out our analysis using the Stata software package. According to Box-Steffensmeier and Jones (2004) the Efron approximation is more exact in case of many tied events than the Stata standard option of Breslow approximation.
As an alternative explanation we include variables from MAP conditionality, which, to some extent, are also formulated in pre-accession cooperation. Of course, there are strong limitations to the quantification of conditionality in this case. We assumed that military expenditure (mil_exp) is a good proxy for fulfilling demands on military issues while democratic and economic reforms proxy for demands on institutional reforms. With respect to economic reforms, we formed two aggregates of indicators published by the European Bank for Reconstruction and Development (EBRD) which consider liberalization and restructuring respectively. Additionally, we provide information on the performance of single EBRD indicators. While ec_lib is an aggregation of the indicators for price and trade liberalization, ec_res rather accounts for NATO conditionality by aggregating price liberalization and large scale privatization which is at the heart of reform of the defence industry. The variable ec_lib has been shown to determine institutional reform in various studies (see, e.g., Di Tommaso, Raiser & Weeks, 2007; Belke, Bordon, Melnykovska & Schweickert, 2009).

Table II presents the results on the impact of international relations. The baseline model explains entry into MAP by voting with the US, integration into the EU, and NATO enlargement in the neighbourhood (column 1). The hazard ratios are given as percentage changes based on point estimates for the coefficients. The percentage change in the 'hazard' of being granted a MAP at any time \( t \) for a country whose vote matches in the UN General Assembly differ by 1 percent from the rest of the countries and which has the same values for all other independent variables is 27 percent. Note that, except for the dummy variables, we rescaled all variables to a \([0,100]\) interval. Unit changes can then be interpreted as percentage changes. This is not true for a unit change in a dummy variable as the variable nbr: The

\[ \text{Positive coefficients imply increasing the hazard rates. Hence, positive coefficients imply shorter survival times - which in our setup means earlier offer of a NATO MAP. The estimated vector of coefficients } \beta \text{ of the time varying covariates can be interpreted as the change in the log-hazard ratio for observations having a unit change in the value of the covariate at time } t \text{ compared to the value of the covariate for the remaining observations in the risk set at time } t. \text{ However, in our regression results we also show the percentage changes in the hazard ratios for a more accessible interpretation.} \]
percentage change in the hazard of being granted a MAP at any time $t$ for a country whose neighbour is granted a MAP or becomes a NATO member (unit change in nbr) and which has the same values for all other independent variables is 352 percent, i.e. it is 2.5 times higher than otherwise.

[Table II about here]

As can be concluded from Table II, other variables measuring international relations do not add additional explanatory power to the regression. Obviously, it is less important to vote against Russia than to vote with the US as revealed by the insignificance of the coefficient of unvotes_rus. At the same time, eu_trade is rather a substitute for the eu_agreement variable and west_christ remains insignificant.

Consequently, we proceed by using the baseline model as our starting point adding variables which account for a potential impact of institutional conditionality for entry into MAP. As can be seen in Table III, the results are rather mixed. Political freedom and military expenditure do not provide explanations for NATO accession. This is in line with the assumption that NATO does not require any convergence before a country is invited to enter the accession process. More specifically, it points at the exogeneity of the entry decision with respect to political institutional reforms.

[Table III about here]

The results for economic reforms are somewhat different. Both ec_lib and ec_res are significant independent of whether they are used as complements or substitutes for the eu_agreement variable. This would be consistent with the assumption that economic reforms path the way into both EU and NATO. Appendix table AI provides a more detailed picture by considering the single EBRD indicators. Five out of nine indicators reveal positive coefficients. However, only two indicators – price liberalization and large-scale privatization – provide explanations which go along with still significant coefficients for eu_agreement. Taken together with the results from Table III, it might be possible that some economic
reforms, which allow a restructuring of the defence industry, ease the decision for entry into NATO MAP which has an independent element not accounted for in EU integration. Overall, however, it seems that entry into NATO MAP is rather independent from foregoing institutional reforms but rather depends on strategic factors, i.e. good relations with NATO member countries and especially with the US. Also, being a NATO neighbour country increases the probability of an early NATO MAP as this allows territorial integrity of the NATO area in case of enlargement. This supports the assumption that NATO MAP effects on institutional quality are indeed exogenous. As will be argued in the following, Macedonia provides a case in point.

**NATO-Cooperation with Macedonia – Strategies and Implications**

*From peaceful independence to civil conflict 2001*

Contrary to other former Yugoslavian republics and despite tensions between Macedonians and the strong ethnic Albanian minority, Macedonia achieved its independence in a peaceful way. After the declaration of Macedonia’s independence, the mode of power-sharing in politics and in the economy kept the ethnic conflict under control. All governments included at least one ethnic Albanian party representing the interests of the Albanian community (Schneckener, 2003). Ethnic Macedonian politicians and business people entered the public sector and state-owned companies, and ethnic Albanians largely controlled the private sector and were engaged in black market activities. In addition, ethnic delimitation was not territorialised and, different to the situation in Kosovo, the majority of ethnic Albanians

---

13 In 1991, the Albanians, which made about 25 per cent of the total population and constitute the largest minority in Macedonia, boycotted the referendum on independence and threatened thereby the statehood of the young state. Furthermore, the newly created state institutions did not ease, but further intensified the interethnic tensions. E.g., although the Constitution of 1991 granted some basic rights to minorities, it discriminated them, by defining Macedonia as a ‘nation-state of the Macedonian nation’ (Constitution, 1991: Preamble). It also reduced or completely eliminated the privileges of minority groups to use their native languages as official ones at local administrations and to freely believe in their religions (Albrecht, 2004). Moreover, the Albanians were underrepresented in the government, parliament, police, military and public service. In addition, the political elite often aggravated inter-ethnic tensions in the society during election campaigns.
claimed to remain citizens of Macedonia. All these factors helped to maintain a peaceful coexistence for a while (Clément, 1997).

However, this mode of power-sharing did not solve the underlying inter-ethnic tensions and was therefore fragile. Since NATO air strikes in Kosovo 1999, Macedonia appeared to be in an extremely vulnerable frontline position, facing a huge influx of refugees and teetering on the brink of economic collapse (ICG, 1999). Finally, the spark of interethnic tensions was transmitted from Kosovo to Macedonia and the peace was broken. An armed conflict between ethnic Albanian extremists (UÇK) organized in the National Liberation Army (NLA) and the Macedonian army lasted from February to August 2001.

**NATO-Macedonian Relations until Crisis**

Since independence, integration into NATO was among the priorities of all Macedonian governments. In order to suppress the inter-ethnic conflict and to secure its independence, Macedonia enforced its integration into NATO as soon as this option became available. In 1995, Macedonia joined the program ‘Partnership for Peace’ (PfP). In such a way, it also committed to full acceptance of the values and standards of the euro-atlantic community outlined above.

However, the issue of institution building which is central to the demands within PfP remained on paper. In reality, the cooperation concentrated primarily on military issues (Yusufi, 2000). In 1995, Macedonia supported the Peace Plan for Bosnia-Herzegovina by allowing the transit of IFOR (International Fellowship of Reconciliation) forces through Macedonia’s territory. In 1996, the Partnership Status of the Forces Agreement (SOFA) was signed. In 1998, in the course of the conflict resolution in Kosovo, a NATO

---

14 The Republic of Macedonia Individual Program for 1996-1998 under the PfP was mutually accepted at the formal session of the North Atlantic Council in Brussels in 1996. In the following year, Macedonia became a member of the North Atlantic Cooperation Council.
The Macedonian elite were well aware of NATO’s strategic interests. Macedonian leadership expected a NATO membership perspective as a reward for concessions in military cooperation. The expectations were based on the presumption that NATO was so concerned about the success of its operation in the Balkans and the country’s security that it would let Macedonia in, despite not complying with the criteria for admission. The deployment of the NATO troops was thus perceived as a very important ‘achievement’ of the Macedonian

15 As has been shown by Melnykovska and Schweickert (2009), PfP demands also go beyond the security specific demands. In particular, for the case of Macedonia the PfP demands fulfilling of the responsibilities which emerge from the OSCE recommendations, regarding the democratization and improvement of the human rights and the security of the region; developing an anticorruption strategy and campaign; implementing the rule of law; improving the coordination between the intelligence sectors and the relations between the intelligence sectors and the departments for conducting the law; reforming the police and establishing the principle of professionalism and competency; implementing confidence building measures; implementing the border security project and integrating border management with the NATO, EU, and OSCE assistance; improving cooperation with Albania, KFOR and UNMIK regarding the border issues; conducting an operation for collecting of the illegally owned weaponry.
government. It was a kind of *de facto* international recognition and confirmation of its international existence that should ensure fast integration into NATO (Vankovska, 2001).

Similarly, the population expected granting NATO MAP and a perspective of NATO membership in exchange for the public acceptance of NATO missions using Macedonian territory. NATO was perceived as *the* guarantor of peace (Gligorov, 2006). The Albanian minority also supported the PfP initiatives as it saw the international presence as a safeguard against any government policy of repression (Atanasov, 2006). However, the decision on NATO missions in Macedonia was not a result of any broad based public decision and the public consensus remained very fragile. As soon as civil war was imported from Kosovo, NATO was blamed for the destabilization of the country and public attitude to NATO became negative (Vankovska, 2001).

**Quality of Institutions prior to the 2001 crisis**

As can be seen in Figure 1, the deterioration of institutions was moderated somewhat by entry into NATO MAP. Institutional performance was better than, e.g., in neighbouring Albania and Serbia. However, NATO conditionality did not help Macedonia to improve the quality of institutions as was the case in Croatia. Hence, spillovers from unstable Kosovo triggered the conflict in 2001, but the poor quality of institutions in Macedonia helped to provide the ground for the breakout of the inter-ethnic conflict. Institutional development was especially poor in the fields outlined below:

![Figure 1 about here](image)

*Failed integration of minorities.* The Macedonian state de-legitimized the idea of an ethnically neutral, citizen-based, liberal state, especially among a large Albanian majority (Hislope, 2002). The Macedonian leaders failed to establish communications among all ethnic groups. The party system was based on ethnic cleavages. The political elite profited from the
existence of ethnic divide, and were not interested in its elimination. Furthermore, ethnic cleavages were combined with informal practices of patronage.

**Failed civil and democratic control.** Due to institutional gaps and the lack of clarity in the existing legislation, the formal constitutional and law provisions were often undermined in practice (Yusufi, 2004). The civilian control of the military and the national security system was hardly democratic, i.e. exercised by both the executive and the legislative.\(^\text{16}\) The civilian control became ‘personalised’ and was exercised by the president in the first place (Danopoulos & Zirker, 1996). Despite a strong constitutional position of the Assembly, arrangements of legislative oversight did not exist (Boonstra, 2005).

**Lacking transparency and democratic accountability.** The activities of security and defence authorities were not open to public; civil personnel in the security sector was highly politicized and accountable to a political party rather than to the public. The lack of transparency allowed for the creation of paramilitary forces controlled by the Minister of the Interior, who was involved in the violation of human rights (Yusufi, 2004). The under-regulation and the lack of transparency encouraged speculation and scepticism about state governance and state capacities in the society that suffered from economic recession and finally undermined legitimacy of the political elite.\(^\text{17}\)

**Corruption and misallocation.** As a consequence of politization and patronage, corruption in the defence and security sector was wide-spread. The non-transparent conversion of military property became another source of corruption,\(^\text{18}\) security and military staff became involved in organised crime such as smuggling and trafficking of arms, drugs, and people and was engaged in widespread abuses (Yusufi, 2004). Parties used ministerial portfolios for

\(^{16}\) The main reason for discrepancy between formal institutions and practice were strong contacts between the army and the dominant political force – the VMRO-DPMNE (Drent, Greenwood Huisman & Volten, 2001).

\(^{17}\) In October 2000, a Brima-Gallup poll found that 62.2% of the respondents did not trust the parliament, 58.1%, the government, 61%, the attorney general, 59.6%, the courts, 62.3%, the banks, and 51.3% the police (UNDP 2000).

\(^{18}\) E.g., In April 2001, the media reported that Paunovski, the VMRO-DPMNE defence minister, had funnelled around $5 million in defence contracts to companies owned by his relatives.
patronage and material benefits and were often regarded as ‘sultanistic’ (Muhic, 2001). Overall, the Macedonian state itself encompassed a thoroughly corrupt set of institutions that has ‘stymied democratic development and alienated ordinary citizens’ (Hislope, 2002: 33). Furthermore, the financial resources were misallocated. Instead of being directed to modernization and professionalization of the army, more than 50% of the defence budget were spent for personnel costs.

Hence, under conditions of bad institutions, ethnic Macedonians became disgruntled and apathetic, while ethnic Albanian radicals played the ‘Kosovo card’. The unsecure borders and poor state control mechanisms made it easy to illegally transfer weapons from Kosovo or elsewhere and to establish paramilitary groups in Albanian-dominated parts of northern Macedonia.

**Switching strategy - Ohrid agreement and the role of NATO after the crisis**

Before 2001 NATO only had a strategic interest in establishing Macedonia as a hub for its operations in the Balkan and did not care about the stalemate concerning institutional reforms as long as ethnic tensions were under control. The fact that the Kosovo crisis spilled over to Macedonia and that the still poor institutional quality became evident triggered a switch in NATO’s strategy towards Macedonia. Four elements of the NATO response to the crisis became central for ‘turning Macedonia around’:

First, as a necessary short-term response, NATO intensified its military presence and launched short-term peacekeeping operations in Macedonia (‘Essential Harvest’, ‘Amber Fox’, and ‘Allied Harmony’).

Second, jointly with the EU and the UN, NATO pressed the main ethnic Albanian and Macedonian parties to sign the Ohrid Framework Agreement (Ohrid Agreement, 2001). This

---

19 Young Albanian nationalists hoped that the resulting exogenous shock would compel Macedonia’s institutions to redress their grievances. In this sense, the NLA strike against Macedonia can be framed as a radical response to an impotent civil society and a corrupt polity (Hislope, 2002).
agreement introduced constitutional changes and made far-reaching institutional reforms possible. According to this agreement, the Macedonian and Albanian leadership agreed to keep peace under five principles: to reject the usage of violence for political purposes; to secure Macedonia’s sovereignty and the unitary character; to ensure a multi-ethnic character of the Macedonian society; to guarantee a constitution that meets the basic needs of all citizens in accordance with international standards; and to develop local self-government that encourages the participation of the citizens in democratic life and promotes respect for the identity of communities. In such a way, the agreement marked out the road for further development of the Macedonian multi-ethnic democratic system by confirming the unitary character of the country.

Third, NATO integrated the provisions of the Ohrid Framework Agreement into the MAP process for membership. The reference to the Ohrid demands can be found in official documents relevant for NATO accession in the Annual National Programme for Macedonia. Thus, there is clear evidence that the Ohrid Framework Agreement was de-facto included in NATO accession conditionality. In 2005, e.g., the NATO Parliamentary Assembly stated that ‘…Reform of the armed forces is not the only criteria for obtaining NATO membership. Other more political factors are important as well. In particular, the FYR of Macedonia must focus on promotion of judicial reform and fully implement the 2001 Ohrid Agreement. The FYR of Macedonia needs to show that it possesses both stable institutions and a sound legal system’ (NATO Parliamentary Assembly, 2005).

Fourth, to make its demands on institutional reforms more credible, NATO applied the tool of punishment. Macedonia was not among the seven countries that were invited to NATO’s membership at the Prague Summit in 2002. There might be a few alternative explanations for this. The official reason given was that Macedonia failed to be invited to join NATO due to a

---

20 In the same vein, UK Parliament’s Committee on Foreign Affairs concludes that “…Macedonia’s membership in NATO is desirable but that rigorous standards for entry must apply; Skopje must fulfil all the terms of the Ohrid Framework Agreement” (UK Parliament, 2005).
name dispute with Greece (ICG, 2001). While this is certainly true, NATO partners might have put up more pressure on Greece to agree or to negotiate a compromise on this formal issue.

Another argument would be that the inter-ethnic conflict might have increased the costs of Macedonia’s accession and thus overweight the strategic benefits resulting from having Macedonia as a NATO member. In the same vein, Macedonia might have been left out because of the poor institutional quality that caused the inter-ethnic conflict in 2001. The assessment of ‘the readiness for NATO membership’ claimed that Macedonia fell below the threshold of accession in both political and economic criteria and thus was not adequately prepared for NATO membership (Drent, Greenwood Huisman & Volten, 2001). If this is true, it is clear evidence for the switch in NATO’s strategy towards stronger emphasis on institutional reforms which did not come ‘by design’ but due to the circumstances in 2001 that reveal the negative effects of poor institutions. However, if this argument should be taken seriously, it is difficult to understand why, e.g., Albania could enter NATO in 2009.21

Undeniable, the role of NATO in the Ohrid agreement was central.22 Macedonia’s ‘oasis of peace’ (compared to neighbouring countries) would have been impossible to keep without the ‘protectorate’ of NATO23 that prevented the inter-ethnic conflict from spreading (Atanasov, 2006b; Chivvis, 2008). NATO’s peacekeeping operations and the Ohrid framework Agreement were primarily implemented in order to stop the armed conflicts and establish a stable security environment. However, the effects of these short-term engagements on

21 Although NATO declared that Albania meets alliance standards with regard to democracy and the reform of its military, the Freedom House still ranks Albania as ‘partly free’ and reported about extended corruption.
22 This argument does not deny the role of the EU in this process. Indeed, Ohrid was the precondition for the EU to engage in a Stabilisation and Association Agreement (SAA). However, as argued by Gibler and Sewell (2006), any broad based and sustainable institutional development is hardly achievable in an environment of conflict or war. In this respect, NATO was the international organization which could actually deliver.
23 Besides the EU and NATO other international organisation operated in Macedonia. In September 1992, the OSCE sent a ‘Spillover Monitoring Mission’ whose task was monitoring of the border between the FYR of Macedonia and Serbia with a view to preventing any spillover of the conflict in former Yugoslavia. In parallel with this, in December 1992 the UN set up UNPREDEP, its first preventive mission. UNPREDEP also has a dual, civil and military, mandate covering traditional peacekeeping tasks related to the social and political situation, under the responsibility of a special United Nations representative, and early warning by means of observation and reporting, and the exercise of good offices (Clément, 1997).
institutional quality would be minimal or maybe even controversial without NATO accession process as a long-term mechanism of cooperation.24 While MAP conditionality until 2001 did only pay ‘lip service’ to demands for institutional development as a precondition for NATO membership, NATO seems to have learned about its own leverage on institutional development in Macedonia when playing the ‘accession card’. This is of special importance at the times when the EU shows a considerable extent of enlargement fatigue for the case of Macedonia.25

**Effects of NATO conditionality**

However, independent of the reasons for the impetus for institutional reforms following the 2001 crisis, it is possible to show the effectiveness of NATO conditionality once it was taken seriously. With its firm handling of the conflict management and with assisting in the negotiation of the Ohrid Framework Agreement as well as with linking its membership perspective to institutional reforms and fulfilment of the Ohrid provisions, NATO not only prevented Macedonia from war, but gave a strong incentive for all Macedonian elite groups and the population to jointly enforce institutional reforms that are required for the accession.26

---

24 E.g., the constitutional changes set out in the Ohrid Framework Agreement were fast passed, but only slowly implemented, because many Macedonians were reluctant to make concessions after what they regarded as a terrorist insurgency.

25 The issue of the country’s name is another example of different EU and NATO approaches to Macedonia. The EU failed to build the consensus between its member countries on the recognition of the country’s name. Furthermore, the difficulties that EU members had in adopting a common position in the CFSP framework (on their attitude to Greece's policy and recognition of the FYR of Macedonia) and the absence of adequate decision-making mechanisms, restricted their ability to act and to use all the CFSP mechanisms for the case of Macedonia and left the field open to other international organisations (Dimitrov, 2006). The issue of the country’s name is also the reason, why the stabilization measures adopted by the EU (reconstruction, a regional approach, conditionality) have been essentially economic rather than political and military (Clément, 1997). In contrast to the EU, NATO is actively engaged to find a mutually acceptable solution over the name’s issue between Macedonia and Greece (NATO, 2008b).

26 In addition to NATO conditionality, other international organizations, most notably the EU, might have had an impact on institutional reforms in Macedonia by applying tools of political dialogue, sanctions, preventive deployment or socio-economic stabilization (Albrecht, 2004). In the framework of its Stabilization and Association Process (SAP), the EU offered Macedonia a road sign to a ‘stable and prosperous future that can be strengthened with EU membership’. Similarly to NATO MAP, the EU Stabilization and Association Agreement (SAA) directly requested building European-style institutions, i.e. institutional compliance (Slaveski, 2006). In 2005, Macedonia was granted the status of an official accession candidate. However, the status of an official accession candidate at the time of ‘closed doors’ is less valuable and can even destabilize ‘multi-ethnic’
Indeed, Macedonia has made significant progress in institution building since the incipient civil conflict in 2001. The provisions of the Ohrid Framework Agreement are nearly completely implemented and essential reforms are underway, including the transfer of powers from the central government to local authorities as well as democratic and market oriented reforms which bring the country closer to European standards (Bieber, 2008; EU, 2008; ICG, 2006; NATO, 2008b, 2009). The agreement has brought political stability as it satisfied most of the demands for which the KLA claimed to be fighting for.

Reforms in the defence and security sectors were guided primarily by MAP (Boonstra, 2005). The Macedonian National Security and Defence Concept (2004) states that ‘the defence system should attach strong significance to and prepare special guidance and plans for the introduction of a system for planning, financing, programming, and budgeting in accordance with the NATO standards’. The Reform Program of the Armed Forces of the Republic of Macedonia for 2002-2007 was aimed at establishing an efficient and sustainable structure for the armed forces which should have the capacity to protect the country and prepare Macedonia for future NATO membership. Also, police and border management reforms as well as a new system of crisis management to coordinate security operations and the work of the intelligence agencies were established. All in all, the switch in NATO’s strategy after the 2001 crisis induced security and defence reforms that have gone beyond cosmetic improvements (Yusufi, 2004). The army has been fully professionalized, with appropriate representation from all ethnic communities, adequate downsizing and the modernization of its equipment. In addition, the Joint Ohrid/MAP conditionality brought about a substantial amount of institutional progress in fields beyond the military and security sector:

*Minorities’ representation improved.* According to the Ohrid Framework Agreement, two programs for minority integration into the army and the Ministry of Defence (MoD) were statehood of Macedonia (Seroka, 2008). Because the EU follows a strategy of neither total exclusion nor rapid integration (Türkes & Gökgöz, 2006) there is the fuzzy perception that the EU is unwilling to make a full commitment to Macedonia’s integration (Calic, 2007).
approved by the MoD in March 2005 to fulfil this requirement by 2013. As a result, in 2008 the Albanians share of staff in the army increased to 12 percent (ANP, 2008-2009). Similarly, more Albanians entered the police force.27

Civil and democratic control improved: The 2001 Defence Law brought some clarity on the responsibilities of the state bodies in exercising civil control. It establishes a precise division of authorities between the civilian (MoD) and the General Staff. Although the Assembly still plays de facto a secondary role in the political system, structures of legislative oversight for the defence and security forces were established in 2002.28 However, the disputable division of responsibilities and lines of subordination still exist.29 Although this might bare the potential for conflicts, the agreement of the legislative and the executive on the necessity of defence and security reforms on the way to NATO membership has promoted the institutional compliance of civil control with NATO’s standards. In addition, with the growing competencies of civilians, the resistance of the military to civil control diminished.

Transparency and accountability improved. Although the MoD regularly publishes the White Defence Book already since 1998, providing thereby the basis for transparency and accountability in the security and defence sector, the public attention has been lacking. Only after the 2001 conflict, public attention to defence and security issues increased. To a large extend the growing public attention is due to a large number of NGOs as well as media that began to specialise on security and defence issues and initiated public debates. Additionally, the attitude of the MoD towards the National Assembly as the main oversight body became more pragmatic. Officers and officials appear regularly before the parliamentary committee

27 The ethnic structure of the Ministry of the Interior as of 2008 is the following: Macedonians - 80%, Albanians - 15.6%, Serbs - 1.79%, Turks - 0.57%, Roma - 0.63%, others - 1.41%.
28 These structures included the Defence and Security Committee and the Committee for Supervising the Work of the Security and Counter-Intelligence Directorate and Security Services. While the former includes members with military expertise and uses independent researchers and journalists, the latter is less effective because membership is politised.
29 The government’s competencies in practice still depend on the current relationship between the president and the prime minister. The Minister of Defence performs his duties in a system of dual accountability, i.e., being subordinated as a member of the government to the Prime Minister and as the authority incorporating the General Staff subordinated to the president.
when they are asked to do so and inform the legislature to the best of their knowledge (Boonstra, 2005).

*Budgeting became more efficient.* The defence budget has been approved constantly reaching 2.8% of GDP in 2008 and therefore complies with NATO standard of 2% of GDP. Most importantly, resources have been reallocated in favour of a modernization of equipment as demanded by the Ohrid Agreement Framework.\(^{30}\) About 20% of the defence budget in 2009 will be continuously invested in the equipping and modernization of the army annually.

*Corruption decreased.* Aiming at ensuring a comprehensive approach in the fight against corruption in June 2007, the government adopted an Action Plan for fight against corruption for the 2007-2011 period and prepared a Financial Plan for the implementation of anti-corruption measures. In January 2008, the Government Council for the implementation of the Action Plan for Fight against Corruption was established. Furthermore, by August 2008 inclusive, there were a total number of 86 cases registered against 276 persons in the area of organized crime and corruption. These measures also decreased corruption in defence and security structures.

Recently, NATO has concluded on its Bucharest summit in 2008 that Macedonia fulfils the NATO requirements for membership and could join NATO after name dispute with Greece is settled (NATO 2008a,b). Moreover, the institutional progress, partly due to the quasi-integration of the Ohrid Framework Agreement into the accession process, has gone far beyond the military and security sectors.

**Conclusions**

So far, the analysis of accession conditionality of western international organisations other than the EU remains scarce. By focusing on NATO’s transformative power, we address this

\(^{30}\) The future defence budget for the 2007-2013 period stipulates that personnel expenses should be brought down to 50% of the available budget. See in ANP (2008-2009).
shortcoming. Especially, we provide more clarity on the interests behind NATO’s post-Cold War enlargement strategy. For this, we apply a hazard model in order to test for the determinants of entry into the NATO accession process, formalised by MAP. In addition, we test our statistical cross-country results for the qualitative study of NATO’s cooperation with Macedonia.

Doing this we are able to show that granting MAP was rather driven by such strategic interests as good relations with either the EU or the USA or being a NATO’s neighbour country than by foregoing institutional reforms in CEECs. Furthermore, some economic reforms on restructuring of the defence industry, which are not incorporated into the EU accession process, accelerate the decision for entry into NATO MAP. At the same time political freedom and military expenditure do not provide significant explanations for NATO accession. Hence, the impact of NATO MAP on institutional quality in post-socialist countries is rather exogenous and not blurred by the entry into MAP being determined by foregoing reforms. The case study of Macedonia confirms the empirical cross-country evidence. By granting MAP to Macedonia, NATO followed its strategic interests to secure cooperation of the Macedonian governments in NATO’s operation in the Balkans and overlooked the poor institutional quality in the country, even in the specific governance of defence and security sector.

Furthermore, the qualitative study provides important insights on how NATO’s strategy switched from strategic interests only to a more balanced consideration of institutional quality. The inter-ethnic conflict in 2001 highlighted the importance of institutional quality and brought NATO to stress demands on institutional reforms in political and economic dimensions of its cooperation with Macedonia. Through short-term peacekeeping operations, through assisting in the negotiation of the Ohrid Framework Agreement as well as through linking its membership perspective to democratic and free market reforms and to the fulfillment of the Ohrid provisions, NATO motivated Macedonia’s leadership and its
population to comply with the institutional standards of the euro-Atlantic community not only in the defence and security sector, but also concerning overall standards of respect for human and minority rights, democracy, the rule of law, market economy and peaceful resolution of disputes. This clearly reveals the potential of NATO triggering institutional reforms if defined and emphasized as preconditions for entry.

The big ‘carrot’ of regional security for countries fulfilling demands on institutional reforms has been of high relevance for a country like Macedonia but, arguably, it has potential to push for institutional reforms in other potential accession candidates, like Ukraine and Georgia, which, so far, do not benefit from strong EU accession incentives and, at the same time, face considerable geopolitical risks.
References


Ministry-of-Defence (2000) *Address by Minister of Defence of the Republic of Macedonia at the individual dialogue Between the Republic of Macedonia and NATO*.


Figure 1. Institutional development in post-communist countries in Eastern and Southeast Europe, 1996-2007

Table I. Overview of Variable Specifications and Data Sources

<table>
<thead>
<tr>
<th>International Relations</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>unvotes_us</td>
<td>share of country's vote matches with US in UN General Assembly</td>
<td>Erik Voeten and Adis Merdjanovic, &quot;United Nations General Assembly Voting Data&quot;, own calculations</td>
</tr>
<tr>
<td>unvotes_rus</td>
<td>share of country's vote matches with Russia in UN</td>
<td>see above</td>
</tr>
<tr>
<td>eu_agreement</td>
<td>Categorial variable indicating the level of cooperation with EU. 0 = no cooperation; 100 = membership</td>
<td>EU Agreement Database, own calculations</td>
</tr>
<tr>
<td>eu_trade</td>
<td>exports plus imports to/from EU15, as share of GDP</td>
<td>IMF Directions of Trade CD-ROM, own calculations</td>
</tr>
<tr>
<td>nbr</td>
<td>Dummy variable equals 1 for all years following setting up a NATO MAP or NATO membership in a neighbouring country</td>
<td>NATO website, own calculations</td>
</tr>
<tr>
<td>west_christ</td>
<td>Dominance of protestant or catholic Christianity (=1, otherwise 0).</td>
<td>CIA World Factbook online, own calculations</td>
</tr>
</tbody>
</table>

MAP conditionality

| freedom_h               | Average of Political Rights and Civil Liberties indicators published by Freedom House. 100 = best | Freedomhouse website, own calculations                                                   |
| mil_exp                 | military expenditure, share of GDP                                                  | WDI / Stockholm International Peace Research Institute                                    |
| ec_lib                  | Average of ec_price_lib and ec_trade_forex (see below)                              | EBRD website, own calculations                                                            |
| ec_res                  | Average of ec_price_lib and ec_is_priv (see below)                                  | EBRD website, own calculations                                                            |
| ec_gov_entp_restruc     | Enterprise restructuring                                                            | EBRD website, own calculations                                                            |
| ec_is_priv              | Large scale privatisation                                                            | EBRD single transition indicator, EBRD website                                             |
| ec_sc_priv              | Small scale privatisation                                                            | EBRD single transition indicator, EBRD website                                             |
| ec_price_lib            | Price liberalisation                                                                | EBRD single transition indicator, EBRD website                                             |
| ec_trade_forex          | Trade & Forex system                                                                | EBRD single transition indicator, EBRD website                                             |
| ec_compet_pol           | Competition Policy                                                                  | EBRD single transition indicator, EBRD website                                             |
| ec_bank_reform          | Banking reform & interest rate liberalisation                                        | EBRD single transition indicator, EBRD website                                             |
| ec_sec_markets          | Securities markets & non-bank financial institutions                                | EBRD single transition indicator, EBRD website                                             |
| ec_infrastr             | Overall infrastructure reform                                                       | EBRD single transition indicator, EBRD website                                             |
## Table II. Cox Model of NATO Accession and International Relations, 1992 – 2008

<table>
<thead>
<tr>
<th></th>
<th>0.24 **</th>
<th>0.23 **</th>
<th>0.23 **</th>
<th>0.21 *</th>
<th>0.25 ***</th>
<th>0.15 *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.09)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>unvotes_us</td>
<td>27%</td>
<td>26%</td>
<td>26%</td>
<td>23%</td>
<td>28%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.09)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>eu_agreement</td>
<td>0.03 ***</td>
<td>0.03 ***</td>
<td>0.03 *</td>
<td>0.03 *</td>
<td>0.05 ***</td>
<td>0.03 **</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.01)</td>
<td>(0.02)</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>nbr</td>
<td>1.51 **</td>
<td>1.56 **</td>
<td>1.35 *</td>
<td>1.54 **</td>
<td>1.28 *</td>
<td>1.41 **</td>
</tr>
<tr>
<td></td>
<td>(0.73)</td>
<td>(0.75)</td>
<td>(0.74)</td>
<td>(0.71)</td>
<td>(0.70)</td>
<td>(0.71)</td>
</tr>
<tr>
<td></td>
<td>374%</td>
<td>374%</td>
<td>365%</td>
<td>365%</td>
<td>359%</td>
<td>358%</td>
</tr>
<tr>
<td>unvotes_rus</td>
<td>-0.03</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eu_trade</td>
<td>0.01</td>
<td>0.04 **</td>
<td>0.04 **</td>
<td>0.04 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>west_christ</td>
<td>0.68</td>
<td>0.57</td>
<td>(0.70)</td>
<td>(0.72)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>98%</td>
<td>76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>207</td>
<td>207</td>
<td>196</td>
<td>207</td>
<td>207</td>
<td>201</td>
</tr>
<tr>
<td>Grambsch Therneau</td>
<td>0.54</td>
<td>0.68</td>
<td>1.10</td>
<td>0.58</td>
<td>0.62</td>
<td>0.92</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>R2 Pseudo</td>
<td>0.38</td>
<td>0.38</td>
<td>0.39</td>
<td>0.40</td>
<td>0.31</td>
<td>0.33</td>
</tr>
<tr>
<td>R2 Cox Snell</td>
<td>0.13</td>
<td>0.13</td>
<td>0.14</td>
<td>0.13</td>
<td>0.11</td>
<td>0.12</td>
</tr>
<tr>
<td>R2 Nagelkerke</td>
<td>0.43</td>
<td>0.43</td>
<td>0.43</td>
<td>0.44</td>
<td>0.35</td>
<td>0.37</td>
</tr>
<tr>
<td>R2 Royston</td>
<td>0.83</td>
<td>0.83</td>
<td>0.84</td>
<td>0.84</td>
<td>0.76</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Notes: Standard errors of coefficients put in parentheses; hazard ratios as percentages; *** p<0.01, ** p<0.05, *p<0.10; all exogenous variables are averaged over lags of 2 to 4 years.
Source: See Table 1; own calculations.
Table III. Cox Model of NATO Accession and MAP conditionality, 1992 – 2008

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>unvotes_us</td>
<td>0.24 ** (0.11)</td>
<td>0.24 ** (0.11)</td>
<td>0.29 ** (0.14)</td>
<td>0.25 * (0.14)</td>
<td>0.29 ** (0.13)</td>
<td>0.33 *** (0.12)</td>
<td>0.36 *** (0.12)</td>
</tr>
<tr>
<td></td>
<td>27%</td>
<td>27%</td>
<td>33%</td>
<td>29%</td>
<td>33%</td>
<td>39%</td>
<td>44%</td>
</tr>
<tr>
<td>eu_agreement</td>
<td>0.03 *** (0.01)</td>
<td>0.01 (0.02)</td>
<td>0.04 ** (0.02)</td>
<td>0.02 (0.02)</td>
<td>0.02 (0.02)</td>
<td>0.02 (0.02)</td>
<td>0.02 (0.02)</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>1%</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>nbr</td>
<td>1.51 ** (0.73)</td>
<td>0.93 (0.77)</td>
<td>1.35 * (0.79)</td>
<td>2.06 ** (0.82)</td>
<td>2.22 *** (0.82)</td>
<td>2.06 ** (0.82)</td>
<td>2.51 *** (0.82)</td>
</tr>
<tr>
<td></td>
<td>352%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>freedom_h</td>
<td>0.03 (0.02)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mil_exp</td>
<td></td>
<td>0.01 (0.31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ec_lib</td>
<td></td>
<td>0.13 * (0.08)</td>
<td>0.13 * (0.07)</td>
<td>0.13 * (0.07)</td>
<td>0.13 * (0.07)</td>
<td>0.13 * (0.07)</td>
<td>0.13 * (0.07)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>ec_res</td>
<td></td>
<td></td>
<td></td>
<td>0.06 ** (0.03)</td>
<td>0.08 *** (0.03)</td>
<td>0.08 *** (0.03)</td>
<td>0.08 *** (0.03)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>N</td>
<td>207</td>
<td>196</td>
<td>165</td>
<td>207</td>
<td>207</td>
<td>215</td>
<td>215</td>
</tr>
<tr>
<td>Grambsch Therneau</td>
<td>0.54</td>
<td>1.04</td>
<td>1.85</td>
<td>0.83</td>
<td>0.41</td>
<td>0.57</td>
<td>0.48</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>R2 Pseudo</td>
<td>0.38</td>
<td>0.40</td>
<td>0.43</td>
<td>0.48</td>
<td>0.45</td>
<td>0.47</td>
<td>0.42</td>
</tr>
<tr>
<td>R2 Cox Snell</td>
<td>0.13</td>
<td>0.13</td>
<td>0.16</td>
<td>0.16</td>
<td>0.15</td>
<td>0.15</td>
<td>0.14</td>
</tr>
<tr>
<td>R2 Nagelkerke</td>
<td>0.43</td>
<td>0.45</td>
<td>0.48</td>
<td>0.53</td>
<td>0.49</td>
<td>0.51</td>
<td>0.46</td>
</tr>
<tr>
<td>R2 Royston</td>
<td>0.83</td>
<td>0.85</td>
<td>0.86</td>
<td>0.90</td>
<td>0.88</td>
<td>0.90</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Notes: Standard errors of coefficients put in parentheses; hazard ratios as percentages; *** p<0.01, ** p<0.05, *p<0.10; all exogenous variables are averaged over lags of 2 to 4 years. Source: See Table 1; own calculations.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>unvotes_us</td>
<td>0.24 **</td>
<td>0.26 **</td>
<td>0.24 **</td>
<td>0.21 *</td>
<td>0.30 **</td>
<td>0.29 *</td>
<td>0.23 **</td>
<td>0.23 *</td>
<td>0.23 **</td>
<td>0.22 **</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.13)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>eu_agreement</td>
<td>0.03 ***</td>
<td>0.02 *</td>
<td>0.03 *</td>
<td>0.02</td>
<td>0.03 *</td>
<td>0.01</td>
<td>0.03 *</td>
<td>0.01</td>
<td>0.03 *</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>nbr</td>
<td>1.51 **</td>
<td>1.83 **</td>
<td>1.35 *</td>
<td>1.51 **</td>
<td>2.82 ***</td>
<td>1.08</td>
<td>1.54 **</td>
<td>1.40 **</td>
<td>1.48 **</td>
<td>1.76 **</td>
</tr>
<tr>
<td></td>
<td>(0.73)</td>
<td>(0.75)</td>
<td>(0.70)</td>
<td>(0.70)</td>
<td>(1.05)</td>
<td>(0.72)</td>
<td>(0.74)</td>
<td>(0.70)</td>
<td>(0.73)</td>
<td>(0.75)</td>
</tr>
<tr>
<td>v抢_12%</td>
<td>27%</td>
<td>30%</td>
<td>27%</td>
<td>23%</td>
<td>34%</td>
<td>33%</td>
<td>26%</td>
<td>26%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>v抢_12%</td>
<td>(0.11)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.13)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>n抢_12%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>v抢_12%</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>v抢_12%</td>
<td>352%</td>
<td>521%</td>
<td>287%</td>
<td>353%</td>
<td>1573%</td>
<td>196%</td>
<td>366%</td>
<td>304%</td>
<td>337%</td>
<td>482%</td>
</tr>
<tr>
<td>v抢_12%</td>
<td>(0.02)</td>
<td>3%</td>
<td>(0.02)</td>
<td>3%</td>
<td>3%</td>
<td>(0.02)</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>ec_is_priv</td>
<td>0.03 *</td>
<td>0.03 *</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>ec_sc_priv</td>
<td>0.03 *</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>ec_gov_entp_restruc</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
<td>0.05 *</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>ec_price_lib</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
<td>0.09 *</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>ec_trade_forex</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>ec_compet_pol</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>ec_bank_reform</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
<td>0.06 **</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>ec_sec_markets</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>ec_infrastr</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
<td>0.06 *</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>N</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
</tr>
<tr>
<td>Grambsch Therneau</td>
<td>0.54</td>
<td>0.47</td>
<td>0.51</td>
<td>0.26</td>
<td>0.51</td>
<td>0.61</td>
<td>0.92</td>
<td>0.54</td>
<td>0.67</td>
<td>0.62</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Notes: Standard errors of coefficients put in parentheses; hazard ratios as percentages;

*** p<0.01, ** p<0.05, *p<0.10; all exogenous variables are averaged over lags of 2 to 4 years.

Source: See Table 1; own calculations.