Managing risks, side payments, and simultaneous institutional enlargements: Understanding how American security and Big Four economic agreements affected risks associated with NATO and EU enlargement

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Abstract: IO enlargement involves risky investments in future members under incomplete information. Sandler (2004) shows for club goods a logic of lowest common denominator emerges, where weaker states effectively reduce the quality of the collective good to their individual level. Such disturbances in a good's provision are attenuated when a club or IO provides diverse goods, but if it produces few goods reductions may be problematic. Heavily invested, better endowed partners should offset the economic and security risks of future partners using bilateral means, side-payments. NATO & EU enlargement after the cold war provides a set of a dozen states to study the relationship between a state's risk profile, bilateral (security/economic) investment, and IO membership. While institutional membership criteria focus on a state's potential to increase the IO's defense from threat and contribute to collective security (for NATO), as well as its democratic character (for the EU), risk management is also important. Partners consider political and investment risks of candidates. Most research treats both institutional processes as separate despite their simultaneous occurrence. This research contributes to the bargaining, institutional analysis and enlargement literatures in specifying a simultaneous model of institutional enlargement linking the two negotiation processes indirectly and accounts for the effects of risks and side payments. Results confirm security side payments positively affect the chances of receiving a NATO offer, yet have no effect on EU offers. Reduced political risk increases the probability of a NATO offer, while reduced investment risk increases the chances of an EU offer. Finally, results confirm the unobserved factors associated with both processes (such as credibility, etc.) are positively correlated though there is no direct link, theoretically or empirically.

Keywords: Enlargement, EU, NATO, rational institutionalism, bivariate probit model

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I.   Introduction and research puzzle

Enlargement of any international organization involves the acceptance of some risk on its part. The IO makes a risky investment in a candidate by offering membership after it has met membership criteria. Because the IO incurs different risks when enlarging, it is possible membership is offered to states lacking certain criteria, particularly, if the IO prioritizes some criteria over others. For example, a security prioritizing NATO waits to offer Romania and Bulgaria membership until round two though they were not significantly different in their military spending per capita before those admitted in the 1999 round. The principle reason why is because they were significantly worse political risks at the time than other candidates. However, possibilities exist to manage risks. In particular, leading states could convey signals about candidate quality through bilateral contracting thereby reducing the risks associated with a particular state[1]. Therefore, a key to understanding NATO/EU enlargement puzzle is identifying, what tools are best for managing the specific risks facing each institution? This research offers a novel response and it includes understanding the unique contributions of risks, side payments and the appropriate functional empirical specification of the theoretical processes.

Weak-link arguments about the collective provision of club goods (e.g. Sandler 2004) contend admitting new members to the club who fail to meet the criteria effectively reduce the institution's level to the lowest common denominator, the weakest link. A logic of the lowest common denominator may not affect substantially certain goods provided by the club when it provides multiple goods. However, clubs providing fewer goods or more costly goods (i.e. security) must take greater caution in admitting weaker members. Such recommendations are logical for economic markets where the costs of externalities are diffuse, but on the 'collective security' market[2] it may be too costly for the IO to exclude certain states (due to its mandate or the threats it faces).

Under such conditions (market uncertainty, candidate heterogeneity), more endowed partners can affect risk perceptions within the club and influence how current club members estimate a candidate's risk profile through bilateral cooperation, i.e. designing formal[3] and informal[4] side payments. In particular, because of the interest in NATO membership, US bilateral informal defense investment in the candidates in Central and Eastern Europe (CEE) is consequential. By contracting through informal means, the potential benefits are several and costs are fewer. Informal (defense and security agreement, DSA[5]) contracting attracts less public attention due to more limited agency involvement and may be useful in domains requiring secrecy, such as security and defense (Lipson 1991; Kimball 2017). Additionally, informal contracting with the most important supplier in the game is an important signal of socialization and credibility. Informal defense and security agreements also permit the informal influence and governance aspects Stone (2011) defends as crucial to international organizations. Such agreements serve as costly signals to shape beliefs about the

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[1] Imagine the most powerful player in the more preferred club decided increase its investment in each country, going from 2-3 contracts in 1999 to 5 confirmed investments by 2003 and were publically negotiating 9 more with completion anticipated by 2004 (based on US security agreements, Kavanagh 2014).

[2] An oligopoly with one major supplier of security in the West.

[3] Formal cooperation takes the form of a treaty agreement requiring legislative ratification.

[4] Abbott and Snidal (2000)

[5] Kimball (2017, 2018)

negative security externalities associated with particular candidates. Rationally designed agreements counter the strategic problems rationalists, such as Koremenos and colleagues (2001), identified (e.g. distribution of power, commitment, adjudication & enforcement, issue indivisibility, etc.). Because they address greater strategic issues[6], they provide information to current NATO members reducing risks associated with a particular candidate. Therefore, when institutions consider enlarging, aside from the criteria current members consider candidates that are objectively less risky (claim #1) and the presence of bilateral side payments with more powerful states (claim #2) conveying information reducing risk about a candidate. This research contributes an original quantitative model examining both of the aforementioned claims in testing the importance of both risk characteristics and risk management through side payments in the process of institutional enlargement.

Returning to the enlargement of institutions, why study the enlargement of the EU and NATO together? Asmus (2008) contends the institutions were pursuing complementary goals, "the goal is to tie these (CEE states) as closely to the West as politics and interests on both sides allow" (2008, 102). Wiarda argues anchoring the new states "into Europe and its two great clubs…were a means to the end of achieving peace and stability" (Wiarda 2002, 178). The end of the cold war led to a period of institutional enlargement and re-alignment because as the Warsaw Pact dissolved and some, but not all, of the newly independent states requested opening negotiations for accession to both NATO and the EU. Katchanovski (2011) notes of the 25 post-Soviet states emerging in this period, several had interests in joining one or both institutions[7]. In a rare quantitative study of both processes, he offers two nearly identical[8] separate regression models of NATO and EU enlargement examining 1997-2010.

Presenting separate models of the processes is problematic insofar as the processes are indirectly related because candidates were negotiating both processes *at the same time* and several partners were in both institutions, notably the UK, France, and Germany. Though the US is not a member of the EU, it favored enlargement believing the economic and democratic benefits of EU membership were essential for NATO as well. The US was not in favor of making membership offers in NATO conditional on attaining those EU criteria (Wiarda 2002). More importantly, candidates viewed membership in both institutions as the most preferred outcome though for most NATO membership was more vital than EU membership for state survival, given the uncertainties associated with the security dilemma and Russia's future behavior (Wiarda 2002). Finally, candidates have limited bureaucratic capacities and smaller foreign ministries. In particular, the budgeting aspects for candidates required accounting for the costs associated with implementing membership criteria. Thus, the processes were simultaneous but not directly linked by a formal mechanism. Any empirical model examining both processes must have the same characteristics and constitutes the third original contribution of this research.

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[6] Specifically, the US defense and security investment toolkit/playbook includes DSA such as a Status of Forces, technical/classified defense information sharing, military training and exchange, defense investment, RDT&E, among others but together they are a sort of public declaration of the quality and legitimacy of a candidate.
[7] 16 states began the process to join both institutions; the current study examines 12 of those states.
[8] A single variable distinguishes the models.

II.   Literature review

Despite an extensive literature examining both processes,[9] few have studied both EU and NATO enlargement at the same time (Wiarda 2002, Asmus 2008). Lasas (2010) offers a study of both processes based on a subset of CEE employing a qualitative research strategy and a constructivist framework. Smith & Timmins (2000) focus only on the security overlap issue and the limits of EU institutional capacities regarding defense and security. Quantitative models of enlargement are rare with the exception of Katchanovski, who presents a quantitative study examining both processes (2011), but he maintains a strict mathematical separation of the processes and includes states not seeking membership in both institutions.[10] The current literature is either incorrectly specified to the extent it does not consider 1) both processes as linked and simultaneous both theoretically and analytically or 2) lacking systematic analysis employing comparisons of small numbers of cases or single enlargement rounds. Despite such limits, enlargement research converges on several themes.

Theme 1: Differing but complementary[11] institutional mandates (domains, scope)[12]

The simultaneous adaptation of the institutions in the same geo-political space with both seeking to shape complex processes such as democratization, economic and institutional reform, and manage integration necessitated shared goals. Both institutional mandates evoke respect for international law, economic liberalization, and democracy, but NATO's article V collective defense provision differentiates NATO's central goal from that of the EU.[13] NATO's mandate implies candidates commit to credibly ensuring defense modernization, interoperability, and collective security. Military and security integration require partners have a sufficient level of trust because operational coordination in the field requires the sharing of a state's best military and intelligence capacities. Moreover, the treaty requires committing to long-term military planning as well as consistent defense investment.

The complexities of accomplishing such mandates notwithstanding the scope of the NATO treaty is more limited than that of the EU. Asmus argues "as NATO played a key role in taking the security issue off the table and opening its doors to the East, the EU assumed most of the burden of transforming post communist societies into liberal democratic ones," (2008, 97). NATO's precisely defined scope limits its intervention in other domains which shapes the complementary aspects[14] of their mandates. As a consequence, candidates viewed membership in both institutions

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[9] On the EU, Schimmelfennig & Sedelmeier (2005), Schwarz (2016); on NATO, Kay (1998), Crisen 2000, D. Reiter 2001.
[10] The model also covers a shorter timeframe and the choice of model (regression) is incorrect given the nature of the dependent variable ranging from 0-2 (i.e. a count favoring a Poisson model).
[11] Wagner shows "if strategic complementarity is sufficiently strong enough in treaty ratification" then, there will be a clustering of events due to spillover (2016).
[12] Inspired by Wiarda (2002), Asmus (2008)
[13] One clear way to separate the mandates is the EU considers "engaging in war" NATO's domain (Smith and Timmins 2000, 85).
[14] Defense and security are not in the policy areas considered the exclusive competences of the EU. Security and justice is a shared competence. See https://ec.europa.eu/info/about-european-commission/what-european-commission-does/law/areas-eu-action_en, Accessed: 5 march 2019.

sociopsychologically as signaling a "Good Housekeeping Seal of Approval" in that they were "as good as the rest" of Europe, politically, economically and militarily to "join the rich man's club" (Wiarda 2002, 180).

Theme 2: Distinctions between membership criteria (precision, scope of changes, complexity of criteria)

Criteria for membership in both institutions includes sets of both technical and general criteria set forth in various documents.[15] Due to both the wide scope and deep nature of EU integration, which covers financial, legal, and regulatory aspects in multiple domains, the *acquis communautaire* requires wide-ranging policy work for candidates necessitating substantial political capital, political will, and patience. The extensive corpus of the EU law also requires "second generation" legislation to implement, such as judicial reform, transparency legislation, and tax reform, etc., "necessary to complete and consolidate democratic transitions" (Wiarda 2002, 180). The lag time may be longer to change cultural and social behaviors regarding "democratic practices and understandings" (Wiarda 2002). In contrast, increasing defense and security capacities requires a less legislative activity, though there is conflict around budgeting as well as how to quantify existing criteria. Recalling, NATO's obsession with the 2% GDP military spending expectation, which often proved both debatable and too elusive for many current members to meet. NATO members also agreed upon criteria of "net contributing" to collective security not draining it though they failed to identify transparent indicators of it.

Wiarda makes clear all candidates have the capacity to enact legislation and carry out reform so eventually all will qualify for entry objectively, what will distinguish when a state enters is political criteria (2002). Simply put, the political risks associated with each candidate are important. Institutions sought to manage the political risks of enlargement including but not limited to risking conflict with Russia, the uncertainties involved with suboptimal new members generating security or economic externalities, and the effects of new members on distributional aspects within the institution[16] such as decision making power and budget sharing.

Theme 3: Differing institutional sensitivities to risk

Schwarz confirms political transformation as a necessary condition for EU membership in his study of eight candidates using a qualitative comparative approach (2016). Political transformation combined with the sufficient condition of solid reform policy is to be accompanied with either 1) economic transformation or 2) no conflict with Russia along with sufficient attention from the EU Council for a membership occurrence (Schwarz 2016). Schwarz is not alone in confirming the importance of economic performance in EU membership (Katchanovski 2011).[17] The EU is sensitive to economic risks when it comes to candidates despite the importance of political criteria, and it will value candidates with

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[15] Discussed in the research cited in footnote 9.

[16] Redistributing the decision making power within the EU in anticipation of new members has proved an important aspect of bargaining (recalling the EU's decision making apparatus is more decentralised than NATOs) which NATO effectively avoids with the consensus decision making rules and centralization of power in the North Atlantic Council. That notwithstanding, sharing the economic burden in NATO is one a recurrent debate.

[17] Piedrafita and Torreblanca present the rationalist model as one of the three main logics of EU enlargement along with a collective identity logic (termed democratic character herein) following a logic of appropriateness principle, and a deliberative framework where actors justify "policy positions in terms of some universally valid principles, rather than in terms of relative power or costs and benefits," (2005, 31).

better investment environments over others.[18] Though NATO prefers states that are not economically weak, managing political risk to implement the difficult security reforms needed to meet NATO criteria means it is less sensitive to economic performance than to political capacity. For example, Slovenia, Bulgaria and Estonia all had objectively better investment profiles than the Czech Republic in 1999 yet were not offered membership into NATO because they were more politically risky.[19] In contrast, when the EU first opened its doors in 2004, no country with an investment profile of less than 10 received an offer and, at that time, only Bulgaria was somewhat politically risky. One novel contribution of this research is to understand how both risk and side payments affect institutional membership.

If the above claims are correct, then the presence of options for managing institutionally specific risks with suitable side payments conveys crucial information about a candidate's quality, credibility, and may reduce the uncertainties associated the long term viability of a candidate as a partner. This should be particularly true for American defense and security commitments relative to economic investments for two reasons. First, the centralization of US influence on the defense and security market and, second, the influence of the US in aspects of NATO's defense planning generally and in European defense procurement. Each extra-treaty defense and security link to the US, should reinforce that signal. In contrast, economic agreements are more likely to vary and have more lag time for implementation and effects. Ceterus peribus, a nuanced understanding of side payments and sensitivities, such as the one presented here, suggests US defense and security investments via bilateral agreements send a clearer and more credible signal than economic investment in a noisy information context. The clarity of the informational signal is crucial because more than a dozen states are simultaneously engaged in both processes.

Theme 4: Security first[20], prioritizes NATO[21].

According to Wiarda protection from Russia is the primary reason[22] so many states sought membership in both institutions.[23] Candidates bordering Russia, such as the Baltic region and former members of the Soviet Union had greater needs for security according to Wiarda (2002). Katchanovski (2011) confirms the negative relationship between post-Soviet status and institutional membership. Specifically at issue is the reliance of those states on Russian energy resources has been deployed as a political weapon. Asmus contends until CEE can "liberalize its energy markets and diversify its

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[18] Schwarz confirms weak economic performance associated with the non-occurrence of membership in every path combined with bad reform policy was important in delaying the accession process (2016).

[19] Slovakia and Bulgaria's investment profiles were equal to that the Czech Republic in the same year (PRS Group, 2019) though only Slovenia and Slovakia were marginally lower political risks by less than 1 point and an over 5 point gap to the next less risky state politically, Estonia (75%).

[20] Drawing from political survival arguments (Bueno de Mesquita et al. 2000), Snider argues "the political arrangements and institutions that help leaders stay in office are not necessarily the ones that promote economic growth and prosperity." He concludes, "the increased chances of an economic crisis are the acceptable price to pay if it means avoiding a political crisis which challenges a leader's hold on power" (2007, 206).

[21] Smith & Timmons clarify NATO was both a deterrent for potential Russian aggression and a reassurance commitment for allies, i.e. the US would be there 'just in case' much like a caretaker over a child or an invalid. "It is precisely this kind of vague but vital military reassurance that CEE states are seeking from the West, specifically from the US, through NATO," (2000, 86).

[22] Other reasons put forth in order of importance according to the author include economic, guaranteeing fragile democracies, and, as previously identified, sociopsychological motives related to being viewed as functional equals in Europe (2002, 179).

[23] Realist and materialist approaches contend state survival through security trumps economic prosperity as a priority for states.

supplies, Moscow will continue to have the upper hand." (2008, 97). Moreover, "NATO and EU enlargement were accompanied with an unparalleled effort to engage Moscow… NATO rethought its military strategy and force posture in order to underscore that it had no offensive intentions," (Asmus 2008, 98). Notably, NATO expanded first into the countries least likely to provoke a crisis with Russia (Wiarda 2002, Asmus 2008, Katchanovski 2011). Wiarda astutely notes candidates differ from current members in their perception of the automaticness of the Article V collective defense pledge as, "naturally the CEE countries, fearing Russia, emphasize the language that seems to support the automatic response, while the US and Western countries tend to stress the language implying discretion," (2002, 179). Seeking reassurance and making commitments more credible in alliances by sinking costs and tying hands is common behavior, though sinking costs is a more informative signal than tying hands (Fearon 1997; Savun and Mattes 2010) when it comes to foreign policy.[24]

A synopsis of existing research identifies weaknesses, both theoretical (failure to study risks and the side payments managing them through information) and methodological (failure to properly empirically specify the relationship between the processes). The rich enlargement literature converges on several themes; the first highlights the complementarity of the institutional mandates and identifies the limits of their overlap. Distinctions between the membership criteria are covered in the second theme and it was determined EU criteria are larger in scope compared to those for NATO. Accepting differences in depth and scope of the criteria recognizes NATO's precisely defined scope limits legislative involvement and second generation legislative work, effectively making it less complicated to meet NATO's general criteria that are imprecise and lack transparency, at best, and impossible to measure, at worst. Then, a discussion of the differences in sensitivities to risk each institution faces due to mandate priorities concluded NATO is sensitive to political risks and the EU is sensitive to investment risks. In a noisy information environment, it was determined US defense and security side payments are particularly informative relative to economic side payments because of they convey signals shaping beliefs about credibility and the risks of adding a specific candidate. The final theme confirms most actors considered NATO enlargement the first priority, followed by economic integration via the EU. Even with so much published research on the enlargement of both NATO and the EU, until now, no one has produced a simultaneous model of joint institutional memberships accounting for both risk and the possibility of side payments for their management.

III.   Simultaneous model of NATO & EU membership

The managing risks model of institutional membership starts by identifying the essential criteria of interest for membership, i.e. the minimum entry price for candidacy. The simple NATO criteria reduce to its mandate: collective security and defense; herein, conceptualized as the capacity to contribute to security and increase defense by reducing threats to current partners. Aside from economic criteria, the most important aspect for the EU is the democratic character of the states.[25] Though there are risks involved in enlargement in both institutions, side payments exist. More

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[24] Meeting the criteria results in both tying hands and sinking costs for candidates.
[25] Schwarz identifies political transformation as a necessary condition (2016).

endowed partners can manage risks to the institution by offering bilateral side payments, which serve as credible signals conveying the quality of a candidate's security capacity and economy. Such side payments change the perceptions of risk for current members and should be positively associated with institutional membership. In addition to the presence of side payments, the managing risks model of enlargement contends the differing institutional mandates imply each institution is sensitive to distinctly different risks. Namely, NATO is sensitive to political risks, whereas the EU is sensitive to investment risks. Thus, the managing risks model identifies the following criteria drawn for each institution's mandate priorities corresponding to the causal factors identified to explain institutional memberships.

NATO	EU
1. **Low security risk to alliance (i.e. net contributor)**	1. Economic liberalism[26]/low investment risk
2. **Reduces external threat to current members**	2. **Political liberalism (democratic character)**[27]
3. Low political risk	

NATO's mandate includes defense from threat and collective security, its preference ordering over the risk categories differs from the EU that prioritizes economic liberalism above all. Each IO prefers to admit new members that not only meet the criteria (in bold above) but also minimize risks. Also of note is a candidate's geography relative to Russia shapes the defense of members from threat – some candidates increase defense (e.g. Poland, Hungary) while others provoke threats from Russia (e.g. Georgia, Ukraine).

Proposition 1: Applicant states meeting the simple criteria are more likely to receive membership offers.

P1a (net contributor): As a candidate spends more on its military per capita, then it is more likely to receive a NATO offer.

P1b (reduces threat): If a candidate, by virtue of their location, reduces threats to current NATO members, then it is more likely to receive a NATO offer.

P1c (democratic character): Increasing levels of democracy should increase a candidate's chances of receiving an EU offer.

Collective action scholars (Olson 1965, Sandler 2004) agree when the provision of a public good is suboptimal, side payments permit more powerful partners support weaker partners. Side payments are conceptualized as influence, money, votes, policy, service, etc. Milner contends they reflect bargaining power (1997)[28]. Rational institutionalist

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[26] Most statistical models of EU enlargement include wealth to predict enlargement despite the fact the legal reforms required to join the EU promote wealth producing endogeneity.

[27] The centralization of defense and security power under the Executive in most democracies facilitates the institutional and structural reforms required to accomplish the defense and security reforms required to meet NATO criteria. However, those structures are not the deliberative consensus based ideals preferred by the EU. So the centralization of delegation in the Executive is more efficient for managing defense are the least preferred structure for accomplishing the mandates of the EU, economic liberalisation. This delegation difference offers another reason why the EU enlargement process was slower and more painful.

[28] Zorn, Box-Stefensmeier, and Arnold (1997) provide a model explaining the timing of Senator support for the original NAFTA agreement highlighting the crucial role of side payments.

contend side payments within agreements induce flexibility and can promote compliance[29] (Koremenos et al. 2001). The presence of credible side payments explains why "risky/not credible" states received membership offers -- side contracts managed the uncertainty about the future for those candidates to convince the organization to offer membership despite remaining risks. Again, sensitivities to risk matter and the impatience of the organization to manage the short-term risk to its survival (by increasing the external threat perimeter for NATO) increased the willingness of states to offer and accept side payments. As signals of state quality, external contracts with powerful partners not only reveal information but they also shape risks to the organization. The informational environment was extremely noisy at the time since over a dozen states were in a "de facto" competition to meet deadlines before invitations were to be offered by the institutions. Due to the differences between the security and economic markets, investments by the largest security market player, the US, send convey greater information about candidate quality and credibility than economic investment agreements and, as a result, their effects on the processes should confirm those expectations.

Proposition 2: As the institutionally relevant number of side payments increases, then a candidate is more likely to receive a membership offer.

> P2a (security side payments): As the number of defense and security agreements with the US increases, then a candidate is more likely to receive a NATO offer.

> P2b (economic side payments): As the number of bilateral investment treaties with the four largest economic partners increases, then a candidate is more likely to receive an EU offer.

> P2c (better information hypothesis) : All else equal, US defense and security side payments should have a greater effect on the chances a candidate receives a NATO offer, than the effect of BITs with the big four member states on EU membership offers because US DSA are a less noisy signal of credibility and a stronger endorsement of reputation than BITs.

Through international contracting states incur risks and cooperation scholars are interested in entrapment or abandonments (Christenson and Snyder 1990, Snyder 2007, Kim 2011, Lanoszka 2018). When forming defense pacts, for example, states make probabilistic calculations of chances a partners fails to comply with obligations when invoked (i.e. risks of violation, Leeds 2003). However, the risks examined here are internal risks shaping the costs of investing in the state as a partner. The political science and economic literature treating risk is as large and diverse as the various measures of risk due to the complexity of capturing all aspects of risk.[30] Risks fall into one of several categories (Baas 2010, 139). 1) *state activities* such as expropriation/nationalism, breach of contract, corruption, bad governance, slow encroachment (by over regulation), conflicting regulations due to federal-local tensions, bureaucratic inertia etc.; 2) *market issues* including monetary stability concerns, currency convertibility issues and sovereign defaults, issues repatriating dividends; and 3) *aspects of the political environment* such as the risks of violence/instability, social factions

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[29] The managerial school of compliance (Chayes and Chayes 1993; von Stein 2017) argues some involuntary failures result from poor management or low capacity. In cases of high uncertainty regarding future compliance, side payments convey important signals.
[30] For investment risks, see Shanks (1986), Jacobson (2010), Baas (2010); on political risk, see Snider (2005), Jarvis & Griffiths (2007).

and grievances, acts of terrorism or sabotage (Baas 2010). Efforts to operationalize political risk tend to focus on the first and third category, while those interested in economic or investment risks examine market issues.

Proposition 3: Candidates with lower levels of political and economic risk are more likely to receive offers to join institutions.

> P3a: As a candidate's political risk decreases, then it is more likely to receive an offer to join NATO.

> P3b: Candidates with better quality investment profiles are more likely to receive an offer to join the EU.

Existing studies of NATO and EU enlargement treat the processes as entirely independent (Katchanovski 2011) is problematic insofar as no published model empirically links the processes correctly. Drawing on Greene's seminal work (2003), Kimball (2006) identifies the consequences of a misspecification of a simultaneous relationship can result in incorrect parameter estimates affecting inferences drawn from the research. Recalling, the absence of a formal institutional link, this research contends the link between the processes was indirect because they involved many of the same players, the institutional mandates overlap, and the negotiations processes occurred at the same time. The empirical strategy discussed below permits a test of the claim.

Proposition 4: The institutional membership processes for NATO and the EU were simultaneous but indirectly linked through the positive effects of the unmeasurable factors (i.e. reputation, resolve).

> H4: If the processes are simultaneous and indirectly linked and the unobserved factors affecting NATO membership offers also positively affect EU membership offers, then the test of the link (i.e. rho) should positive and statistically different from zero.

The managing risks model of institutional membership starts with each institution's simple criteria as it first proposition. According to NATO's criteria, candidates must be net contributors to collective security and reduce threats to current NATO members, while for the EU candidates must be democracies. After accounting for the institutional criteria, this model contends powerful partners provide side payments serving as endorsements and reducing the uncertainty around the risk assessments of candidates. The supply of such side payments positively affects both NATO and EU offers but they must be institutionally specific. Because the US is so central on the defense market, its defense side payments are more informative signals of quality than economic investment contracts whose benefits are uncertain and more diffuse. So all else equal, US defense investments are more consequential in the NATO membership process than economic investments in the EU process. Finally, if this argument holds, then a correctly specified model confirms the processes were simultaneous but not directly linked, however the indirect link is positive because unobserved factors increasing the chances a candidate received a NATO offer increased the chances it got an EU offer.

IV.   Research Strategy

The empirical strategy employed to examine the simultaneous enlargement processes relies upon a parsimonious approach while focusing on the central goals of this research: 1) clarifying the nature of the link between the processes

and 2) examining the extent to which risk as well as economic and defense side payments by major players influenced institutional membership. The research strategy employed here is a quantitative analysis.

The managing risks model highlights the distinct priorities of the different institutions. Because NATO values minimizing security risks more than economic risks, candidates that by virtue of their location and/or willingness to spend on security are better investments than others. NATO membership is more probable when a candidate reduces threats perceived by current members, make significant security investments, and represents less political risk. If bilateral US DSAs signal better DS quality to alliance members, then the number of DSA's signed with the US should be positively associated with NATO membership. As an institution, the EU prioritizes democratic character and investment potential among candidates over security characteristics due to its mandate specificity. Moreover, bilateral investment treaties with the big 4 can also reduce the associated economic risks associated with candidates for EU states.

[Insert Table 1]

Table 1 provides a summary of the expectation for the variables and the data sources. The dataset covers 12 European candidates of both institutions from the period of 1994 until 2016.[31] The dependant variables are NATO and EU membership, DV1 and DV2 respectively, both equalling 1 the year a state joins the institution and 0, otherwise. The first set of causal factors affect NATO membership offers, i.e. collective security efforts, potential to reduce threats, political risk, and US security side payments. The second set shape EU membership offers such as democratic character, investment risk, and the extent of investment side payments from the four largest economic partners[32]. Collective security efforts are operationalized based on military expenditures per capita based on US dollars provided by SIPRI. It ranges from 9.64$ to 409.66$ with an average of 141$ per capita. The annual democracy score for each state is from the Polity IV data (Marshall, Gurr and Jaggers 2017) captures the democratic character with a measure varying from 0 to 10 with an average value of 8.9 and a standard deviation of 1.4.

Data from the International Crisis Risk Guide offered by the PRS Group includes measures of both political risk and investment profile based the compilation of indices.[33] Political risk[34] is measured from 12 factors ranging from government stability, conflict, bureaucratic quality, investment profile, and socioeconomic conditions totaling to 100 points where higher values indicate less risk so it should be positively associated with NATO membership. Risk ratings below 50 are considered very high, those between 50-59.9% high risk, 60-69.9% moderate risk, 70-79.9% low risk. Political risk varies from 55.8% to 86.6% with an average of 73.6%. Investment profile is a 12-point portion of the political risk index capturing expropriation, repatriation, payment delays. Higher values indicate less investment risk associated

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[31] Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, i.e. E12. 1994 was chosen as it was the first year after the start of the Partnership for Peace, NATO's institution managing accession. Based on formal accession dates.

[32] All independent variables lagged. See appendix for details on the data.

[33] See https://epub.prsgroup.com/list-of-all-variable-definitions. Data from 1994-2016. Accessed: 25 Feb 2019.

[34] PRS data employed due to its transparency, ease of access, temporal coverage, and intent to measure distinct aspects of risk.

with a candidate, thus increasing the probability of EU membership.[35] Threat reduction is based on the distance from each candidate's national capital to Moscow relative to the average intercapital distance calculated from current NATO partners capital's to Moscow in a given year. If the intercapital distance between the candidate is larger than that of the current NATO partners[36], then the candidate is coded 1 for reducing threat to current NATO members[37].

On important contribution of this research is an examination of the role of potential side payments aiming to mitigate the risks associated with candidates. In particular, this research examines the effects of defense and security agreements as well as bilateral investment treaties ratification. The economic investment data is drawn from the bilateral investment treaty (BIT) data provided by Haftel and Thompson (2013) in of study of BIT ratification.[38] The measure employed is the total annual count of BIT by France, UK, Germany, and the US in an E12 state; calculated by the author based on "enter into force dates". The variable ranges from 0 to 6 with a mode of 0. DSA data are from a RAND study of US defense and security agreements in force since 1950-2005 (Kavanagh 2014) with updates provided by the author drawn from the official list of US Treaties in Force (2018). The measure captured the yearly sum of DSA ranging from 0 to 13 with an average of 1 and standard deviation of 2. Both measures of side payments are positively associated with institution membership.

Much of the contemporary literature treats the enlargement processes as separate despite their joint timing and involvement of key actors. Even research simultaneously examining both processes has quantitatively maintained a separate specification (Katchanovski 2011). Each separate outcome is observable in a given year, as either a state joined the institution or not. A probabilistic approach employing a probit model[39] is applicable, particularly because its extension the bivariate probit model[40] provides the appropriate econometric specification relative to the theoretical argument woven above, i.e. the processes are simultaneously observable and indirectly linked. This approach allows for all possible combinations of the outcome variables as Kimball notes and the "errors are assumed to be distributed bivariate normal ($\Phi2$) and rho (ρ) measures; 'the correlation between the disturbances of the equations, the omitted factors' (Greene, 2003: 717)" (2006, 378). Table 2 provides parameter estimates for stepwise separate probit models, models 1-5. Model 5 presents a probit model of EU membership accounting for NATO membership. Models 6-9 present stepwise bivariate probit models. Model 6 does not account for the effects of risks or the direct effect of NATO membership, whereas model 7 accounts for the direct and indirect effects of NATO membership but excludes the effects of investment and political risks[41]. Model 8 shows when the strong effects of risks are accounted for in the model, then the direct effect of NATO

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[35] There is moderate positive correlation between the variables (.553) and comparative testing shows each contribute distinctly to each model. The correlation between the measures of democracy and investment profile is under .5. Model 8 shows stable performance of risk measures even when controlling for the direct influence NATO entry on EU entry.

[36] Excludes intercapital distances for the US and Canada.

[37] Thanks to Christian Picard for data assistance.

[38] From Haftel and Thompson (2013), data cover: 1949-2007.

[39] See Long 1997 for the specification of the model. The small size of the dataset prevents the creation of cubic splines to account for temporal concerns. There are no identifiable knots in either dependent variable.

[40] Kimball (2006) provides a detailed explanation of the bivariate probit model and presents a novel application by examining the simultaneous processes of alliance formation and conflict initiation.

[41] The risk data limit observations to 250.

membership is indistinguishable from zero. Model 9 is the model presented the preferred specification.[42] The research strategy and data identified and collected as well as the statistical modeling approach determined, the following section offers and interprets the results.

V.   Results and discussion

This project brings three central claims to the table: 1) key players deployed side payments with E12 states to manage associated security and/or economic risks, 2) risks directly affect enlargement, specifically political risks for NATO and investment risk for the EU, and 3) the enlargement processes were simultaneous occurring and indirectly linked. Therefore, the best specification of the theoretical model accounts for side payments, risks, as well as specifies the special nature the processes (separate, but indirectly linked). Table 2 presents stepwise estimates of the single probit processes providing a preliminary test of the first two claims.

[Insert Table 2]

 Models 1 and 3 examine the first claim regarding side payments on both (separate) membership processes, whereas models 2 and 4 account for both side payments and risk regarding membership in both clubs (i.e. the second claim). Side payments, in the form of US bilateral DSA, increase the chances of NATO membership. However, BITs do not significantly influence EU membership, partially supporting the first claim. Models 2 & 4 confirm the importance of managing risks when it comes to institutional membership providing solid support for the second claim. Model 5 provides a test of the link between the two processes by controlling for the direct effect of NATO membership on the probability a state joins the EU[43]. NATO membership has a strong positive effect on EU entry and increasingly good investment profiles are positively associated with entry, though democratic character and side payments are unrelated to membership in the economic club. The effect of the presence of NATO membership on EU entry is to change the probability of joining the EU from 2.4% to 29%. When it comes to principles such as democratic character and security as well as threat reduction capacity, results of the separate process models fail to support the importance of criteria as much as risks when examining membership offers.

Models 6 through 9 examine the third claim about the relationship between the membership processes. Model 6 accounts for the effect of side payments while correctly specifying the relationship between the processes. When risk is excluded from the model, as it is here, only US side payments in the form of DSA are significantly related to NATO entry as again democratic character and the capacity to influence security are unrelated to joining either club. Rho is positive confirming the existence of an indirect positive link between the two processes, in other words the unobserved factors increasing a state's probability of joining NATO also positively affect a its chances of joining the EU. Model 7 continues the parsimonious stepwise approach by controlling for the direct effect of NATO membership on EU entry. Results confirm the importance of correct model specification, as NATO membership decreases the chances of EU membership once

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[42] See appendix.
[43] NATO entry preceded EU entry in all cases in these data.

correcting for the positive link between the unobservable factors affecting both entry processes simultaneously. Critically, the effect *reverses* relative to the single-process EU model indicating a failure to specify the correct theoretical relationship would produce incorrect inferences about the relationship. Models 6 and 7 demonstrate the stability of the positive relationship between US DSA side payments NATO membership across multiple model specifications, but those models fail to account for risk. Models 6 and 7 support two of the claims put forth; the importance of security side payments and an accurate specification of the relationship.

Notwithstanding, the central argument herein includes three interrelated factors: side payments, risk, and the correct theoretical specification of the relationship between the processes. Model 8 shows as political and investment profile risks decrease, then the probability of club entry increases. Consequentially, accounting for the effects of risk, not only improves the model, but also confirms candidates reducing threats to NATO partners are more likely to join the institution. Moreover, accounting for risk also makes the direct effect of NATO membership indistinguishable from zero effectively collapsing to model 9.[44] Models 8 and 9 are indistinguishable statistically but importantly confirm the absence of a support for a direct link between NATO entry and EU entry once the theoretical relationship is correctly specified supporting proposition four representing the third claim. Model results provide partial confirmation for the importance of side payments, as only security side payments influence NATO entry confirming H2c. The criteria advanced by both institutions as crucial for joining (i.e. democracy and military capacity) are not significantly related to either institution indicating risks and the tools for their management outperform criteria when it comes to explaining joining either institution. Finally, the results reported herein fully confirm the second and third claims of this research by providing evidence of the link between risks and enlargement, and confirming the nature of the relationship between the enlargement processes.

[Insert Table 3]

The results of misspecification of the processes are consequential to the extent models over or under estimate the effect of variables of interest on the outcome. Table 3 provides further detail on the consequences of poor specification. The predicted probability of both NATO and EU membership with variables placed at their means/modes is about 1 in 100. The overpredictions in the EU entry model are larger than those for the NATO entry model. The general result is to overestimate both the probability of entering the institutions AND the effect of the independent variable itself, sometimes by differences of magnitude. This is because the joint probability is evaluated on the binormal distribution and is affected by the magnitude of rho, thus reducing the predicted probability (Kimball 2006). The correct specification results in more constrained predicted probabilities. For example, the base probability of joining both NATO & EU is 1 in 100 or (1%) for the correctly specified model but using single process models the process over predicted at 2% for NATO and 5% for the EU. For example, if a candidate reduces threat for NATO, the single process model would raise is probability of being offered membership from 2% to 16% whereas the simultaneous process model is more modest about its positive influence suggesting it raises entry probability from 1% to just 1.8%.

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[44] Interpretations of model results are calculated using model 9.

[Insert Figures 1-3]

Figures 1-3 provide a different snapshot by looking at how the predicted probability of NATO entry changes as the number of DSA side payments varies form 0 to 13. Figure 1 compares predicted probabilities from model 2 with 'partial' predictions from only the NATO membership stage of model 9. For the single probit (the dark line) at the highest levels of DSA side payments, the probability of joining NATO is over 40% whereas even the partial probability (the grey line) corrects the prediction at the high end to 17%. Figure 2 is the same partial predicted probability from Figure 1, the grey line, compared to the corrected final predictions from model 9 (the broken line). The broken line indicates with proper specification, even at the highest levels of external support, the probability of joining both NATO and the EU is never higher than 2%. Figure 3a magnifies that corrected predicted probability showing ranges from extremely small at the lowest levels of external side payments (.0085%) to 1.7% when the US has sent signal strong signals of reducing security risks by with 13 DSA in force.[45] The functional form of the effect also shifts shape from strongly curvilinear and monotonic to curvilinear and partially non-monotonic suggesting large numbers DSA with the US may reduce the chances of membership. This is likely due to partners perceiving the candidate as too dependent on the US security investment to maintain a credible defense commitment.

Based on this research on institutional enlargement offers to E12 states, bargaining and institutionalist approaches tending to highlight managing risks find support and, there is limited support for criteria based explanations for the timing of institutional offers. That being said if a candidate reduces security threats to current NATO members, then it is more likely to get a NATO offer, a finding dependent on properly specifying the relationship between the processes. Results partially confirm proposition 1 on a candidate's threat reduction to current members. The first claim represented by proposition 2 also receives some support. Only US DSA's offer the correct mix of information and credibility to positively affect NATO membership confirming proposition 2a & c as BITs do not appear to be related to EU membership[46]. Proposition 3 examining the second claim regarding the effects of political and investment risks on membership offers receives strong and robust support across the models. And the last two models along the table 3 and the figures offer solid evidence confirming the third claim of this research in the form of proposition 4. The figures also demonstrate the informational effects of US DSA on membership offers.

VI.   Conclusions and policy implications

This research provides an original contribution to the literatures on bargaining, institutions, NATO/EU enlargement, and methodology by simultaneously testing competing explanations for enlargement in an empirical model of EU and NATO enlargement on a set of 12 CEE candidates from 1994-2016. This paper offers, then examines three central claims in a three-part model of institutional enlargement accounting for institutional criteria, side payment possibilities and the

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[45] Panel b of Figure 3 reports confidence intervals.
[46] Data need updating to 2016.

effects of risk. Aside from empirical support of the main argument proposed, this model offers additional leverage over some of the puzzles associated with enlargement.

The existence of side bargains containing DSA means economically risky candidates offering greater defense from threat were admitted with greater speed, if they signed "certain types" of DSA than objectively "better bets" that provided less defense or risked invoking threat. More importantly, this model contributes a valid explanation for prima facie oddities of enlargement, e.g. why Romania waited until the second round in NATO but not the EU.[47] Most scholars admit those receiving offers for the 1999 NATO round had the lowest 'perceived risk versus threat' levels of candidates. Importantly, NATO's first round offered a glimpse of the possible short-term externalities of enlargement.[48] Such that the second round of NATO enlargement was simultaneous with the EU's first round. This is consistent with the model because of the priority of security so NATO was the first mover to manage risk. Specifically, the US was a key partner in risk management through its defense investments. Simultaneous enlargement with the other institution permitted both to spread the economic consequences more broadly. Also, the managing risks models explains the large size groups admitted in 2004 to both NATO and the EU within a period of a few months. The institutions bundled memberships together with five states offered membership in both IOs and the EU adding eight members total. This is similar to why banks bundled risky/subprime mortgages and refinanced them in larger bundles using mortgage-backed securities organization incurring all the risk at once and redistributing costs widely. Importantly, the Lisbon 2004 EU and 2004 Istanbul NATO declarations concerned strategic problems facing the institutions increasing membership (notably, power delegation in the EU and redefinition mandates/obligations in NATO). The US capacity to reshape defense risk and make certain candidates more attractable as partners is consistent with the behavior expected by the model presented.[49]

Implications for policymakers begin with stopping functionally treating processes as separate because it is both theoretically and methodologically incorrect to do so. Second, the role of the US as a key partner because of its special place on the defense and security market should not be understated. Its role as a strategic signaler in the context of NATO's enlargement is important to the extent NATO was a priority for most states seeing EU enlargement as completing the process rather than the first priority. For those still waiting in the wings for offers, minimizing economic and political risks are necessary to receive offers but offers go first to states reducing threat to current members and those who have strong US DSA investments. In other words, the best thing candidates can do is start the process towards the US defense diplomatic playbook by attracting US defense investments to increase NATO chances while working towards minimizing political risks, then work on "second generation" legislation protecting the investment environment and adapting political cultures for EU entry.

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[47] For example, Ukraine's status despite its potential is related to the high risk of provoking Russian reactions.
[48] US Congressional Budget Office. 2001. "NATO burden-sharing after enlargement," CBO Papers: August 2001, Washington, DC: 30-31.
[49] The US acts at the mortgage-based security organization to reduce risks and absorb expected costs associated with riskier partners.

Future improvements to this research include extending the dataset to include other candidates (i.e. Kosovo, Bosnia-Herzegovina, Ukraine, and Georgia) plus the newest partners (i.e. Montenegro & North Macedonia). The specification of the EU membership model could be improved by including alternative measures of economic side-payments (e.g. inter-E12 BITs, FDI by big four) as well as a measure for democracy capturing its variations across candidates, specifically when it comes to how many actors are required to implement reforms across various policy sectors. Katchanavski finds the Freedom House Democracy Index a better predictor of membership than the Polity Democracy Index for both processes (2011, 315).

When institutions decide to invest in new partners, they undertake an analysis of risk. If risks can be managed through bilateral investment by better-endowed partners, then the signals sent by such investments convey meaningful information reshaping the risk perceptions held by other partners. Research confirms NATO and EU enlargement is affected by risks and risk management through US security and defense investment is positively associated with NATO membership. A better understanding of risks and tools for their management is an important contribution towards understanding bargaining in international institutions. Moreover, offering the appropriate theoretical and empirical specification of the processes along with the test of a model is a methodological contribution to the research on institutional enlargement as well as the comparative politics literatures on the EU and NATO. Finally, the research furthers our knowledge about the utility of rationally designed informal defense and security agreements[50] on the foreign policy behavior of states, thus highlighting the important contributions of an understudied defense policy tool.

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[50] See Koremenos (2008, 2010, 2013), Kimball (2017, 2018).

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Table 1: Expected effects of causal factors on institutional membership

Independent Var.	DV1 = NATO membership	DV2 = EU membership	Source
Military spending/capita	+		SIPRI 2018
Threat reduction (capital closer to Moscow than NATO ptr ave)	+		Author 2019
Political Risk score (lagged)	+		PRS Group 2019
US security side payments	+		Kavanagh 2014; USTIF 2018
Democratic character		+	Marshall, Gurr & Jaggers 2017
Investment profile (lagged)		+	PRS Group 2019
Big 4 bilateral investment treaties		+	Haftel & Thompson 2013

Big 4 = US, UK, France, Germany

Table 2: Single probit and Bivariate probit models of institutional membership

Model	1	2	3	4	5	6	7	8	9	support
NATO =										
Military spending/capita	-.00100	-.00258				-.00103	.00033	-.0019	-.0018	no
	(.0016)	(.0020)				(.0015)	(.0015)	(.0021)	(.0019)	
Threat reduction	.3433	1.0107				.5548	.5651	1.0384*	1.0293*	yes
	(.5518)	(.6591)				(.4714)	(.4312)	(.6070)	(.5993)	
Political Risk score		.1015**						.0897**	.0878*	yes
		(.0357)						(.0348)	(.0494)	
Side payments : # of US DSAs	.08115*	.06713				.0994**	.0825**	.0863*	.0864*	yes
	(.0463)	(.0556)				(.0406)	(.0428)	(.0498)	(.0494)	
Constant	-1.7448**	-9.1223**				-1.7837**	-1.8632**	-8.3560**	-8.2319**	
	(.2728)	(2.720)				(.2668)	(.2746)	(2.6070)	(2.3993)	
EU =										
Democratic character			.1380	-.0648	-.03344	.1082	.0731	.0288	.0312	no
			(.1624)	(.2174)	(.2744)	(.1635)	(.1048)	(.2426)	(.2363)	
Investment profile				.3899**	.40282**			.3792**	.3705**	yes
				(.1455)	(.1699)			(.1581)	(.1396)	
Side payments : # of B4 BITs			-.3703	-.2900	-.6558	-.3596	-.3004	-.6295	-.6116	no
			(.3631)	(.4468)	(.7283)	(.3847)	(.2841)	(.5970)	(.5595)	
NATO member					1.7370**		-.5280**	0.0909		n/a
					(.4464)		(.1957)	(.7422)		
Constant			-2.9271*	-4.9707**	-5.6506**	-2.6761*	-2.1712**	-5.7697**	-5.6797**	
			(1.5228)	(2.1662)	(2.750)	(1.5376)	(.9838)	(2.4347)	(2.2736)	
Rho						.8306**	.9902*	.8075**	.8345**	yes
						(.1043)	(.0454)	(.2576)	(.1148)	
Log-likelihood	-47.5914	-41.392	-44.360	-38.6152	-30.9744	-80.1602	-80.3661	-71.2511	-71.2591	
LR Chi-square or Wald Chi-sq	3.45	13.51	3.73	13.09	28.37	9.3	15.89	17.85	17.98	
Pseudo R2	0.035	0.14	0.023	0.145	0.314					
N	275	250	276	251	251	275	275	250	250	

Standard error in parentheses, *p>.10, **p>.05

Table 3: Standardized comparisons of over/under-prediction of the outcome of single probit models versus bivariate probit model*

Independent variable	Single models, P(NATO) or P(EU)	Simultaneous model, P(NATO, EU)	Error type
Base model (ave: ~threat, 1 DSA)	2 in 100	**1 in 100**	over
Threat reduction (=1)	16 in 100	1.8 in 100	over
Most DSA (=13)	10 in 100	1.8 in 100	over
Most political risk (=55)	0.61 in 10,000	1.7 in 10,000	under
Least political risk (=86)	24 in 100	1.8 in 100	over
PR +1SD (less risk)	6.6 in 100	1.5 in 100	over
PR -1SD (more risk)	0.58 in 100	0.47 in 100	over
Base model (ave: ~BIT)	5 in 100	**1 in 100**	over
Most investment risk (=2)	.0037/million	1.3/million	over
Least investment risk (=12)	74 in 100	2 in 100	over

*Based on calculating P (NATO join, EU join) using means and modes using model 9 from Table 2, single probits are models 2 (NATO) & 4 (EU).

Figure 1: Probability of NATO:
Probit model versus 'partial' prediction from bivariate probit model
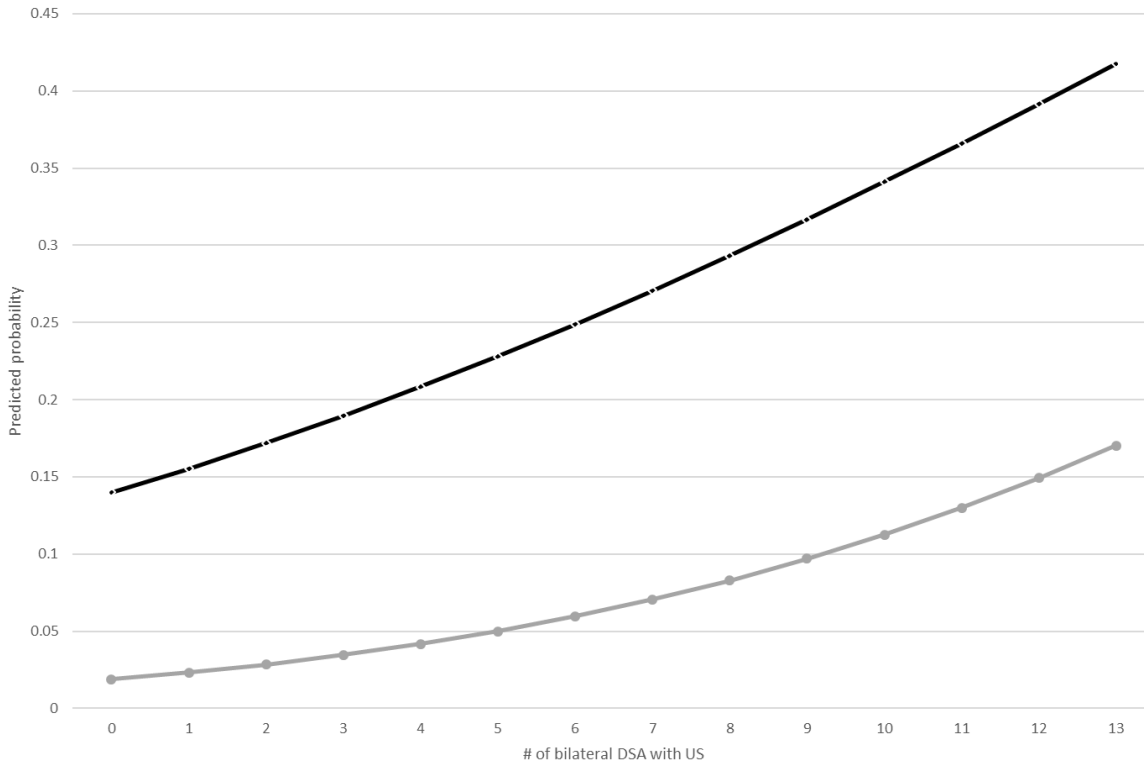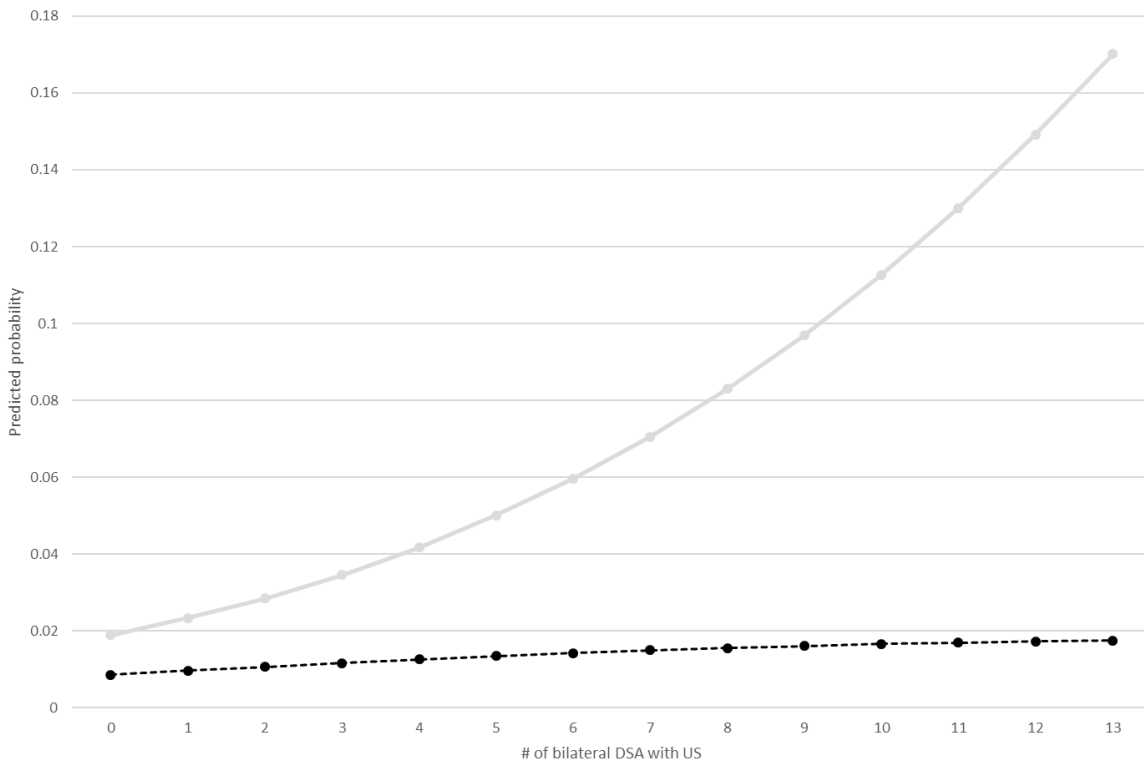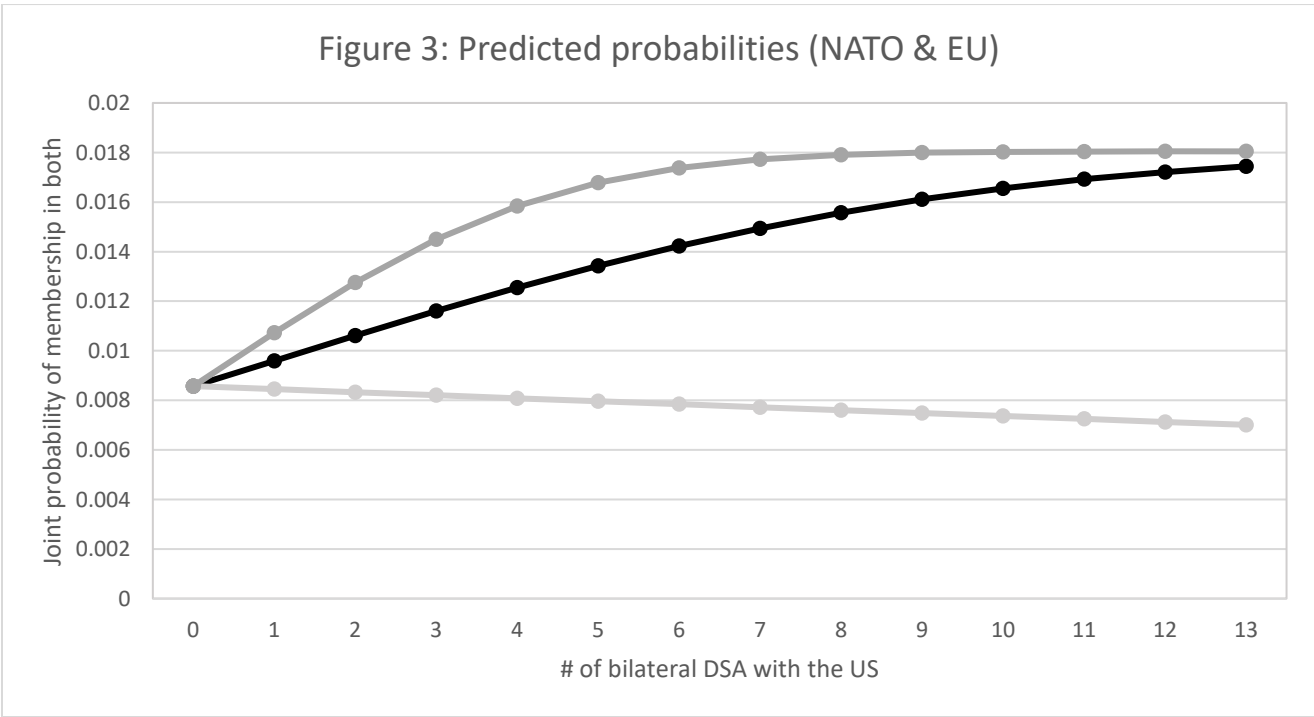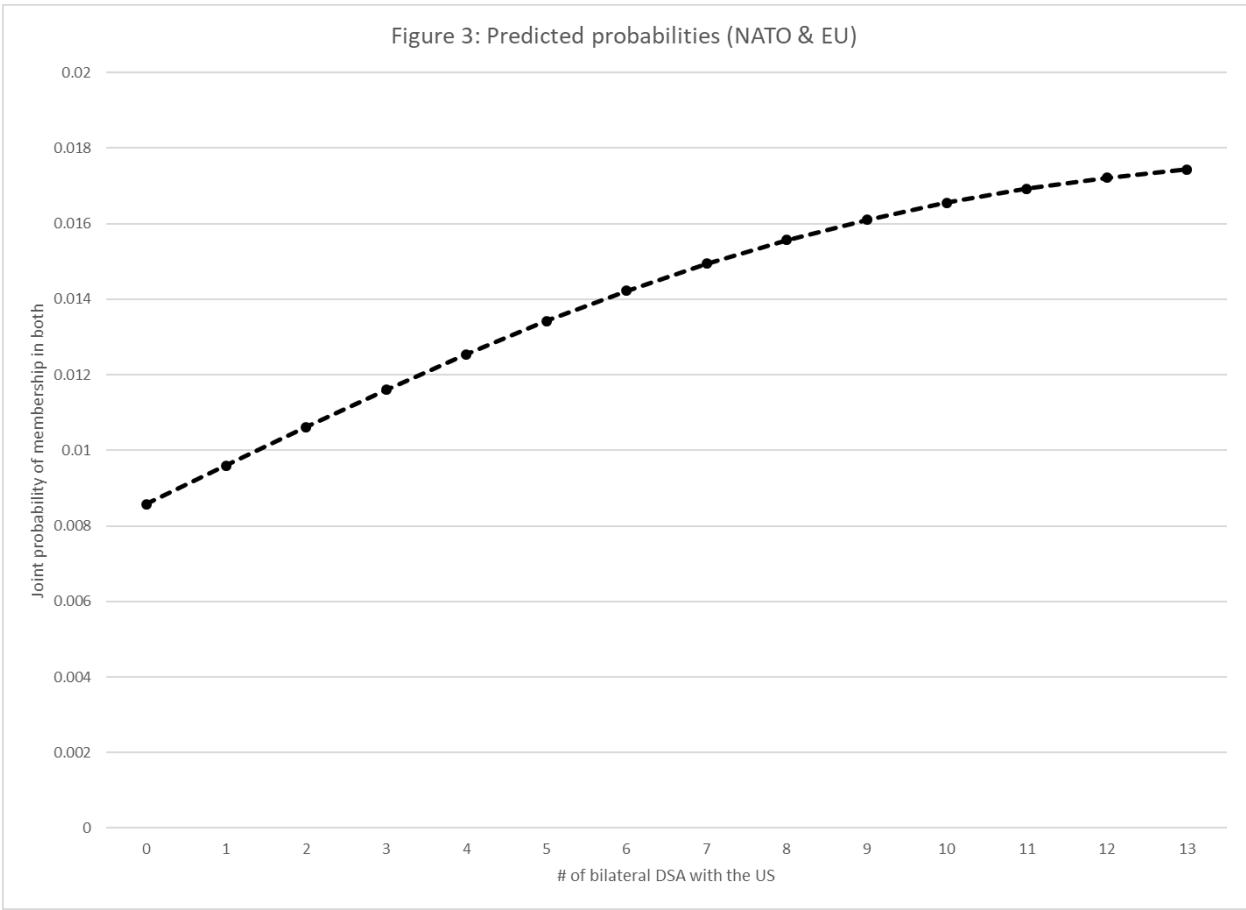

Figure 2: 'Partial' NATO predictions vs
'Final' NATO & EU joint probability predictions from bivariate probit model

Figure 3: Predicted probabilities (NATO & EU)

Figure 3: Predicted probabilities (NATO & EU)

Appendix

Details on data and model specification

Correlations

```
corr BITyrttl yrsumDSA_t1 PR_t1 IP_t1 polity2 NATOjoin_dicot EUjoin_dicot threatreduce sipri_milex_percapita
(obs=250)

        | BITyrttl yrsumD~1   PR_t1   IP_t1  polity2 NATOjo~t EUjoin~t threat~e sipri_~a
-------------+------------------------------------------------------------------------------
   BITyrttl |   1.0000
 yrsumDSA_t1 |  -0.0949   1.0000
      PR_t1 |  -0.0534   0.1463   1.0000
      IP_t1 |  -0.2955   0.1220   0.5522   1.0000
     polity2 |  -0.3170   0.0627   0.5449   0.5029   1.0000
 NATOjoin_d~t |  -0.0479   0.1206   0.1673   0.1236   0.0496   1.0000
 EUjoin_dicot |  -0.0662  -0.0500   0.1206   0.1851   0.0654   0.4080   1.0000
 threatreduce |  -0.0243  -0.0430  -0.2855  -0.1250  -0.0197   0.0371  -0.0482   1.0000
 sipri_mile~a |  -0.2871   0.0907   0.4116   0.5247   0.3416  -0.0479   0.0292  -0.2233   1.0000
```

Appendix table 1: States, risks by enlargement round (1994-2016)			Political risk	Investment profile
Enlargement year	NATO	EU	mean (sd)	mean (sd)
1999	Czech Republic, Hungary, Poland	none	78.2 (3.04)	9.69 (1.89)
2004	Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia	Czech Republic, Hungary, Poland, Estonia, Latvia, Lithuania, Slovakia, Slovenia	73.1 (4.29)	9.36 (1.6)
2007		Bulgaria, Romania		
2009	Albania, Croatia		68.18 (4.94)	7.7 (1.6)
2013		Croatia		

Data notes:

Threat reduction: Coded as binary, 1 if a candidate's intercapital distance was greater than NATO average intercapital distances = 2396 (n=14, before 1999), 2174 (n=17, 1999-2003), 2014 (n=23, 2004-2008), 2011 (n=25, after 2009)

States seeking entry in both excluded: (6) **Kosovo, Bosnia-Herzegovina and Montenegro** due to missing/incomplete data. **Georgia and Ukraine**'s risk data and military spending data were both marked unreliable. The, recently resolved, name issue complicates locating data for **North Macedonia** though its accession protocols, signed in Feb. 2019 (after the period covered here), are under ratification by partners. Montenegro entered NATO in 2017 and is currently negotiating EU entry. Georgia, Ukraine, and Bosnia-Herzegovina are recognized by NATO as aspiring partners.

States not eligible: Cyprus is not seeking membership in NATO though it joined the EU in 2004 so it is not eligible for the sample. Though Malta is in the EU and the Partnership for Peace; it has a policy of neutrality, thus does not seek NATO entry. NATO entry is still the subject of public debate in Serbia.

Other specifications of the model included subcomponents of the polity variable with the highest probability of influence, such as executive constraints, legislative veto, proposal power by executive, legislative power to remove executive, and executive independence; each was insignificant as was the polity score in the NATO model consistent with Katchanavski (2011). GDP per capita was insignificant in the EU model.

Exclusion testing of political risk in EU entry and investment risk in NATO entry

```
Seemingly unrelated bivariate probit        Number of obs   =      250
                                             Wald chi2(8)    =    19.37
```

```
Log likelihood = -69.905075            Prob > chi2    =    0.0130


------------------------------------------------------------------------------
                 |    Coef.   Std. Err.    z   P>|z|    [95% Conf. Interval]
-----------------+------------------------------------------------------------
NATOjoin_dicot   |
sipri_milex_percapita | -.0028217  .0021516  -1.31  0.190   -.0070388   .0013953
     threatreduce |   1.090202  .6260891   1.74  0.082   -.1369106   2.317314
      yrsumDSA_t1 |   .0922024  .0504105   1.83  0.067   -.0066004   .1910051
            PR_t1 |   .0725834  .0337531   2.15  0.032    .0064285   .1387384
            IP_t1 |   .1670776  .1090344   1.53  0.125    -.046626   .3807812
            _cons |  -8.583592  2.542071  -3.38  0.001   -13.56596  -3.601223
-----------------+------------------------------------------------------------
EUjoin_dicot     |
          polity2 |   .0202586  .2326309   0.09  0.931   -.4356896   .4762069
          BITyrttl |  -.5075788  .5359823  -0.95  0.344   -1.558085   .5429273
            IP_t1 |   .4284269  .1448348   2.96  0.003    .1445559   .7122979
            _cons |  -6.155328  2.318365  -2.66  0.008   -10.69924  -1.611415
-----------------+------------------------------------------------------------
          /athrho |   1.201592  .3791172   3.17  0.002    .4585359   1.944648
-----------------+------------------------------------------------------------
              rho |   .8341396  .1153317           .4288902   .9599009
------------------------------------------------------------------------------
LR test of rho=0: chi2(1) = 16.8159          Prob > chi2 = 0.0000

Seemingly unrelated bivariate probit      Number of obs   =     250
                       Wald chi2(9)    =    19.46
Log likelihood = -69.897119            Prob > chi2    =    0.0215


------------------------------------------------------------------------------
                 |    Coef.   Std. Err.    z   P>|z|    [95% Conf. Interval]
-----------------+------------------------------------------------------------
NATOjoin_dicot   |
sipri_milex_percapita | -.0028042  .0021543  -1.30  0.193   -.0070265   .0014181
     threatreduce |   1.101544  .6343533   1.74  0.082   -.1417651   2.344854
      yrsumDSA_t1 |   .0923477  .0503406   1.83  0.067    -.006318   .1910135
            PR_t1 |    .074268  .0362083   2.05  0.040    .0033011    .145235
            IP_t1 |   .1655112  .1096271   1.51  0.131    -.049354   .3803764
            _cons |  -8.698745  2.700039  -3.22  0.001   -13.99073  -3.406765
-----------------+------------------------------------------------------------
EUjoin_dicot     |
          polity2 |   .0094536   .247227   0.04  0.969   -.4751024   .4940096
          BITyrttl |  -.5074235  .5342542  -0.95  0.342   -1.554543   .5396954
            IP_t1 |   .4193684  .1613023   2.60  0.009    .1032218    .735515
            PR_t1 |   .0056375  .0446363   0.13  0.899    -.081848   .0931229
            _cons |  -6.386206   2.95599  -2.16  0.031   -12.17984  -.5925715
-----------------+------------------------------------------------------------
          /athrho |   1.201727  .3793267   3.17  0.002     .45826   1.945193
-----------------+------------------------------------------------------------
              rho |   .8341805  .1153695            .428665   .9599438
------------------------------------------------------------------------------
LR test of rho=0: chi2(1) = 16.662          Prob > chi2 = 0.0000
```