Democratization, New Leaders, and the Need for Economic Reform: Can Preferential Trading Agreements Help?*

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Abstract

Can international institutions help leaders commit economic reform? In this article, we examine how leaders use preferential trading agreements with major powers (European Union and the United States) to promote liberal economic policies. We argue that under democratization, new leaders benefit the most from credible commitment. Using original data on treaty negotiations, our empirical analysis shows that under democratization, leader change greatly increases the probability that the government of a developing country begins treaty negotiations. We also demonstrate that preferential trading agreements are accompanied by liberalization in different sectors of the economy, and this effect is most pronounced if it follows a leader change. These findings support the notion that international institutions enable credible commitment to economic reform.

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1 Introduction

International relations scholars argue that domestic politics exerts substantial influence on international cooperation (McGillivray and Smith, 2006; Smith, 2009). To explain why a leader joins or forms an international institution, it is therefore necessary to understand how this decision impinges on domestic politics. Unfortunately, the empirical evidence on the role of international institutions in a leader's political calculus remains scant. Many scholars argue that states benefit from membership in international institutions, such as the European Union (EU) or the World Trade Organization (WTO), in the form of credible commitment (Büthe and Milner, 2008; Mansfield and Pevehouse, 2006; Moravcsik, 2000). However, these studies do not empirically verify the presence of the posited causal mechanism: an individual leader ties her hands, thus mitigating time-inconsistency problems that impede such reforms as democratization or liberalization.

In this article, we examine how individual leaders can use international institutions for political gain. We focus on why developing countries form preferential trading agreements (PTAs) with the United States (US) or the European Union (EU).[1] Our theoretical argument can be summarized as follows. First, *democratization* increases the demand for economic reform because the public benefits from improved economic performance (Milner and Kubota, 2005; Weyland, 2002).[2] Second, it is difficult for *new leaders* to implement economic reforms because their rule is not secure and vested distributional interests oppose liberalization (Cheibub, 1998; Haggard and Kaufman, 1997; Hellman, 1998). Finally, a PTA with a major power can help a new leader promote economic reform in two ways: (i) by enabling a credible commitment to reform policies and (ii) by allowing the government to use the promise of foreign market access to compensate domestic opponents for their losses (Büthe and Milner, 2008; Ethier, 1998; Fernandez and Portes, 1998).[3]

Based on these three propositions, we expect that (i) the combination of democratization and leader change increases the probability of PTA negotiations and (ii) PTA negotiations induce economic reform in developing countries. We test this argument in two main ways.[4] First, we use

[1]We will discuss the reasons why the EU and the US form PTAs in the theory section.

[2]Our definition of economic reform is not limited to trade policy, as explained in greater detail in the theory section.

[3]In the theory section, we also explain why the EU and the US have incentives to form these PTAs.

[4]We also present extensive additional evidence on several ancillary implications of our theory.

original data on the onset of PTA negotiations to verify that leader change has a substantively large and statistically significant effect on the probability of PTA negotiations under democratization. Second, we examine structural breaks in economic reform data for developing countries to demonstrate that PTA negotiations and signature are both associated with liberalization shifts in economic policy. This effect is maximized given recent leader change.

Beyond these main tests, we provide ample additional evidence in support of our theory. First, we consider the alternative hypothesis that new leaders negotiate PTAs under democratization simply because they want to expand trade. If this were true, one would expect new leaders under democratization to also form other PTAs. By expanding our analysis to all PTAs in existence, we find that leader change has a *negative* effect on PTA formation in general. Second, we show that when a PTA is associated with economic reforms, these reforms are generally consolidated and will not be reversed. Third, we conduct a matching analysis to address concerns regarding endogeneity and non-random treatment effects. Fourth, we examine an ancillary implication of our theory: democratization should prompt economic reforms in general, yet it should not be associated with PTA negotiations. Finally, we summarize results from another research project showing that the EU and US offer foreign aid to facilitate economic reforms when they form a PTA with a developing country.

Our theoretical and empirical analysis offers several broader contributions to international cooperation theory and political economy. First, we provide a direct empirical test of the role of domestic politics in international institutionalization. While previous research has advanced various theoretical arguments and tested them indirectly by investigating differences between various regime types (Mansfield and Pevehouse, 2006; McGillivray and Smith, 2004), we provide a direct test that focuses squarely on how individual leaders respond to domestic hardship. Second, we contribute to the study of PTA formation. While previous research has presented various theoretical rationales from multilateral bargaining power to foreign direct investment (Büthe and Milner, 2008; Mansfield and Reinhardt, 2003; Manger, 2009), international political economists have yet to connect this logic to actual decisions made by strategic politicians under domestic political pressures. Third, we refine the general logic of credible commitments in international politics. While previous scholarship has provided compelling evidence that enhanced credibility is an important benefit of membership in international institutions (Büthe and Milner, 2008; Mansfield and Pevehouse, 2006), it has not been clear who the relevant audience is and exactly who benefits the most from these credible commitments. Finally, we present original data on PTA negotiations. While previous research on international institutionalization has largely focused on signature and ratification (Koremenos, Lipson, and Snidal, 2001; Mansfield, Milner, and Rosendorff, 2002), we also capture the negotiation phase.

2 Leaders, Domestic Politics, and International Institutions

International relations scholars have recently begun to emphasize the importance of individual leaders as strategic actors in world politics (Goemans, 2008; Mansfield and Pevehouse, 2006; McGillivray and Smith, 2006; Wolford, 2007). While there are many issues that leaders must decide on, few have drawn as much attention as political and economic reform (Keefer, 2007; Milner and Kubota, 2005; Stone, 2008; Vreeland, 2003). For any leader, one of the most important and controversial policy choices available is to dismantle previously entrenched structures of redistribution and discrimination in favor of liberalization (Geddes, 1994; Milner and Kubota, 2005; Schamis, 1999; Weyland, 2002). Following decades of reform attempts in developing countries upon the demise of import substitution as a development strategy, political economists have debated why leaders sometimes succeed in reform, only to fail in other instances (Geddes, 1994; Haggard and Kaufman, 1997; Keefer, 2007; Przeworski, 1991; Rodrik, 1996; Schamis, 1999). According to this literature, a critically important determinant of successful reform is the ability to compensate or suppress the losers and mobilize the winners (Brooks and Kurtz, 2007; Haggard and Webb, 1994; Weyland, 2002).

As to the role of international institutions in the reform process, the literature emphasizes that they provide a credible commitment device for leaders in need (Drazen, 2002; Mansfield and Pevehouse, 2006; Mansfield, Milner, and Rosendorff, 2002).[5] For example, Moravcsik (2000) argues that young European democracies joined the European Convention for the Protection of Human

[5]Mansfield and Pevehouse (2006) note that such credible commitments also carry reputational benefits.

Rights and Fundamental Freedoms in the aftermath of the Second World War to establish a credible commitment to democratic consolidation. With respect to economic reform, the problem is particularly difficult because partial reforms may be difficult to finish, as "the short-term winners have often sought to stall the economy in a *partial reform equilibrium* that generates concentrated rents for themselves, while imposing high costs on the rest of society" (Hellman, 1998, 205). If a leader can join an international institution, such as a PTA, to increase the reputational and other costs of reneging on reforms, the probability of successful reform increases (Chayes and Chayes, 1995; Guzman, 2008; Tomz, 2007). Thus, if a leader believes he or she needs the reform to stay in power, international institutions can in certain circumstances enable reform where it is otherwise impossible.

Another reason why international institutions can promote economic reform is that they allow leaders to compensate or coerce domestic constituencies. Vreeland (2003) shows that in developing countries, governments have used IMF conditionalities to promote redistributive reforms that benefit the capitalists. His argument is that the cost of saying no to the IMF can be very high, so that domestic constituencies often have no choice but to implement the policy conditions negotiated between the leader and the IMF. Similarly, Mattli and Plümper (2004) argue that the prospect of EU accession allows candidate governments to implement economic reforms at home. Their main insight is that the benefits of EU accession allow the government to pass policies that would otherwise be unacceptable to influential interest groups.

Although the theoretical connection between new leaders and international institutions is reasonably clear in the extant literature, there are few systematic empirical analyses. McGillivray and Smith (2004) demonstrate that leader turnover has a larger impact on trade in autocracies than in democracies, but they do not focus on individual leaders' actual policy decisions. Dreher and Jensen (2009) show that new leaders vote with the US in the United Nations General Assembly to establish friendly reputation and thus secure higher inflows of foreign aid, but they do not analyze economic reform decisions. As mentioned above, Mattli and Plümper (2004) and Vreeland (2003) establish a connection between economic reform and international institutions. However, Mattli and Plümper (2004) focus only on EU accession while Vreeland (2003) focuses only on the IMF and argues that leaders actually implement economically harmful reforms. Thus, these studies do not capture the possibility that a wide range of international institutions could facilitate economically efficient reforms in developing countries.

These exceptions and the large literature on international conflict notwithstanding, most empirical scholarship has not endogenized the role of leaders in exploiting international institutions for credible commitment (Mansfield and Pevehouse, 2006; Mansfield, Milner, and Rosendorff, 2002; Hafner-Burton, 2005). Instead, these articles focus on how states use international institutions for credible commitment in general, abstracting away from the microanalytics of credible commitment in the crossfire of domestic and international pressures.

The PTA literature also downplays individual leaders' decisions. Fernandez and Portes (1998) review the economic literature on reasons why countries form trade treaties. They recognize the importance of credible commitment to economic reform, but they do not explore when and how leaders would benefit from such commitments the most. Similarly, Ethier (1998) emphasizes the value of credible commitment without examining individual leader strategy. Mansfield, Milner, and Rosendorff (2002) argue that democracies use trade treaties to reveal their liberalization preference to domestic audiences, but they focus on political institutions at the expense of individual leader strategy. Mansfield, Milner, and Pevehouse (2008) focus on veto players. Büthe and Milner (2008) and Manger (2009) argue that a PTA can increase FDI inflows, but they also do not theorize individual leaders' incentives in various circumstances.

Our contribution to the literature on domestic politics and international institutions is twofold. First, we develop and empirically test a theory of the circumstances under which the domestic political benefits of joining PTAs are maximized. Second, we show that an association exists between PTA formation and a broad range of important economic reforms. These findings provide a nuanced explanation for when and how individual leaders benefit from joining international institutions that promote economic reform, and how such decisions exert influence on domestic economic outcomes.

3 Theory

Our theoretical argument links domestic politics to the idea that international institutions allow credible commitment. The theory has four building blocks. First, democratization increases the demand for economic reform. Second, new leaders are often unable to implement economic reforms under democratization because their power is insecure. Third, PTA negotiations with a major power can help leaders to promote economic reforms. Finally, we argue that both the EU and US may expect substantial benefits from a PTA with an interested developing country. The combination of these propositions implies that under democratization, new leaders have particularly strong reasons to initiate PTA negotiations with the EU and the US. The main implications of the theory are summarized in Table 1. According to the table, a PTA can be expected to induce economic reforms when democratization coincides with leader change.

[Table 1 about here.]

3.1 Democratization and Economic Reform

Our first claim is that democratization increases the demand for economic reform.[6] By *democratization*, we refer to the enactment of political institutions that induce competition for office (Cheibub, Gandhi, and Vreeland, 2010). We define *economic reform* broadly as policies that liberalize profitable activities in various sectors of the national economy. This definition is not limited to trade reform, and in fact an important contribution of our theory is to highlight the effects of a PTA on services, financial policies, and intellectual property rights.

This claim is based on the idea that economic reforms can remove allocative and dynamic inefficiencies (Rodrik, 1992, 1996). Thus, they increase the productivity of the national economy, allowing faster economic growth. The provision of economic wellbeing to broad constituencies is necessary for political survival in democratic systems, so the government has greater incentives to implement economic reforms, despite the fact that vested distributional interests incur some additional cost (Geddes, 1994; Haggard and Kaufman, 1997; Mansfield and Pevehouse, 2006; Przeworski,

[6] To be sure, many other factors may also increase the demand for economic reform. For parsimony, we focus on democratization.

1991; Rodrik, 1992).[7] By contrast, autocratic rulers need only satisfy narrow elite constituencies, so they have fewer incentives to implement risky economic reforms that may hurt influential political and economic interests (Bueno de Mesquita et al., 2003; Weyland, 2002).[8] As Milner and Kubota (2005) empirically demonstrate, such incentives appear to have considerable empirical relevance in explaining trade policies.[9] More generally, a recent review of the empirical literature by Milner and Mukherjee (2009, 165) shows that "democracy positively influences trade and capital account openness."[10]

Demand for economic reform does not imply that democratizing states can easily implement liberalizing policies. As Keefer (2007) shows, newly democratized states have ineffective national institutions that are susceptible to clientelism and corruption. Similarly, Clague et al. (1996) demonstrate that transitional democracies do not generally perform well in generating economic growth. According to Hellman (1998), liberalization attempts in transitional democracies often become entrapped into a "partial reform equilibrium" that ultimately benefits elite interests at the expense of the broader public. Thus, demand for economic reform does not automatically translate into liberalizing policies. Instead, democratization creates political pressures to improve national economic performance.

The South African experience following the end of the apartheid regime is illustrative. In 1994, President Nelson Mandela faced a serious problem: the South African economy was geared towards satisfying the needs of the white minority. The apartheid regime had maintained most enterprises in direct state control, and the productivity of the economy was too low to satisfy the expectations of the recently emancipated black majority. Thus, President Mandela engaged in extensive economic reforms, especially in regard to privatization. They were also later deemed as highly successful in an OECD (2003) Peer Review. Our theory is intended to capture cases that resemble the South

[7] To be sure, this assumption depends on the rationalist notion that citizens expect benefits from economic reform and are willing to weather the potential costs in the short run. Following Geddes (1994) and Rodrik (1992), we adopt this premise.

[8] As Olson (1993) argues, this does not imply that autocrats have no incentives to implement economic reforms. Yet it seems reasonable to assume that *ceteris paribus* these incentives are stronger in democratic societies.

[9] To be sure, some benefits from trade reform to the citizens are redistributive by the Stolper-Samuelson theorem. In this article, we examine reform more broadly so that the redistributive effects of trade reform are not as clear.

[10] We discuss these and other relevant findings in somewhat greater detail in the section on additional evidence below.

African experience.

3.2 New Leaders and Economic Reform

What role does individual leader strategy play in this theoretical argument? We argue that new leaders are dependent on credible external commitments to economic reform, whereas established leaders are (i) better able to implement economic reforms by domestic means and (ii) may even have fewer reasons to use liberalization as a political strategy. By a *new leader*, we refer to an individual leader that has been recently elected in office and faces an uncertain political future. By an *established leader*, we refer to an individual leader who has held power for a long time and whose rule is stable.[11]

Why expect that new leaders may face different incentives than established leaders? First, leaders with a long tenure are able to commit to economic policies and reform efforts if they, for whatever reason, chose to implement them.[12] Established leaders are not in immediate danger of losing power, so their long time horizons allow credible intertemporal exchanges and promises. By contrast, new leaders have yet to consolidate their rule, so their credibility is limited. Lack of credibility is harmful to the economic benefits that reform brings, because economic reforms cannot reassure investors unless the government is able to credibly commit to them in the long run (Mansfield and Pevehouse, 2006).[13] Additionally, lack of credibility may also prevent the new leader from bargaining efficiently with domestic constituencies on the distribution of the gains from reform ().

Previous research offers support for this assumption. For example, Clague et al. (1996) demonstrate that autocratic leaders that have survived in office for many years can credibly commit to contracts and property rights – core elements of any liberalization program. Similarly, Cheibub (1998) and Li (2009) find that established leaders have fewer incentives to expropriate the assets of foreign investors for temporary political gain. For these reasons, we argue that if an estab-

[11] To be sure, some new leaders may be consolidated while some established leaders may face stiff political competition. All else constant, however, new leaders are in greater danger of losing office (Licht, 2010).

[12] As Licht (2010) argues, this argument may not hold in established democracies. For present purposes, established democracies are unimportant because they have the institutional means to credibly implement reforms.

[13] For time consistency, see Kydland and Prescott (1977).

lished leader decides to allow democratization (perhaps under public pressure), he or she does not generally depend on external assistance to implement politically expedient economic reforms. For example, Schamis (1999, 238) argues that in Latin America, strong leaders have been able to implement economic reforms with the support of elite constituencies who expected to benefit, both during democratization eras and in other times. In such circumstances, it is improbable that an established leader would have to reach out for external assistance to implement a reform policy.

Second, scholars of economic reform argue that new leaders may find it particularly difficult to commit to liberalization. Haggard and Kaufman (1997, 277) emphasize that new leaders are in a particularly difficult position when they have inherited past problems, confronting "a difficult and politically unpleasant menu of economic policy choices" that was prompted by decisions made by the previous government. Although the public may initially support reform efforts, "the transition itself raises expectations that government will respond to new political constituencies ... policy reform is difficult precisely because economic problems are more acute and demands for short-term economic relief more widespread" (Haggard and Kaufman, 1997, 277). Even in the absence of a genuine crisis, they contend, "new democratic governments faced a different, but not necessarily less serious, agenda of policy reforms" (Haggard and Kaufman, 1997, 278). In such circumstances, new leaders may not have much time to exploit their initial popularity to push through economic reform programs, unless they find a way to somehow credibly commit to liberalization and a distribution of gains that satisfies their key constituencies (Mansfield and Pevehouse, 2006).

Finally, established leaders may often prefer not to respond to democratization pressures by implementing any economic reforms in the first place, unless the situation is exceptionally severe. Their power depends on serving entrenched distributional coalitions that benefit from state intervention, so they might respond to demands for democratization by offering further concessions to their winning coalition and preventing additional democratization (Bueno de Mesquita et al., 2003; Milner and Kubota, 2005; Przeworski, 1991).

3.3 Preferential Trading Agreements and Economic Reform

If new leaders find it difficult to implement economic reforms, how are they to respond to the pressures that democratization induces? We argue that a PTA with a major power can help the leader in two ways. First, it can allow a credible commitment to reforms because backtracking may result in punishment by the major power. Second, the promise of market access can help the leader to compensate influential domestic opponents for their losses. We focus on major powers, specifically the EU and the US, because these two economic giants include a wide range of reform provisions in their agreements: from financial and service liberalization to to privatization and improved regulations for foreign direct investment (Horn, Mavroidis, and Sapir, 2009; World Bank, 2005). Thus, a PTA with the EU or the US is an ideal policy instrument for facilitating economic reform.[14]

How can a PTA enable credible commitment to reform? A PTA can increase the cost of reneging in several ways. First, it explicitly codifies legally binding rules that operate as a reference point for international and domestic actors with an interest in compliance (Büthe and Milner, 2008; Ethier, 1998; Mansfield, Milner, and Rosendorff, 2002; Mansfield and Pevehouse, 2006). Second, a PTA often contains enforcement mechanisms, such as a dispute settlement procedure that can issue legal rulings on trade and other policies (Kono, 2007; McCall Smith, 2000). Third, reneging on international commitments often carries adverse reputational consequences (Simmons, 1998; Tomz, 2007). Fourth, in the case of the EU and the US, the developing country is negotiating with a major power that can relatively easily retaliate policy violations and inflict substantial damage on the country in question. For these reasons, a PTA should *ceteris paribus* reduce the incentive of a developing country to renege on previous commitments to economic liberalization. Finally, already during the negotiations, the promise of a PTA, with provisions for market access to large markets in advanced industrialized countries, can endow governments with incentives to implement economic reforms that major powers, such as the EU or the US, demand.

The institutional design of US and EU PTAs offers ample support for this notion. Consider, for

[14] Developing countries are the appropriate sample for studying credible commitment to economic reform, because they generally face greater obstacles and commitment problems than consolidated democratic regimes in industrialized countries (Geddes, 1994; Rodrik, 1992; Keefer, 2007).

example, intellectual property rights. We coded the design provisions of the PTAs in our dataset that relate to intellectual property rights (IPRs). Based on a sample of 41 agreements, we found that an EU or US PTA contains 5.2 legal provisions that specifically refer to IPRs. What is more, every single one of them has at least one reference to IPR protection. Given that the vast majority of other PTAs have few such provisions, this observation highlights the distinctive nature of EU and US PTAs. Similarly, in this sample an EU or US PTA had on average 6.9 legal provisions that refer to FDI liberalization. Again, the importance of FDI for the design of EU and US PTAs demonstrates the relevance of the credible commitment argument. Finally, the inclusion of service liberalization also supports this notion. Of the 41 agreements, only ten do not contain provisions for services liberalization. Of the 31 that do, 20 contain a full chapter with detailed provisions for services liberalization.

Practitioners also seem familiar with the logic of credible commitment. For example, the Eastern Enlargement of the European Union was preceded by Association Agreements between the union and future membership candidates (Vassiliou, 2007). Similarly, the International Trade Administration of the US Department of Commerce emphasizes that "Trade agreements are also a tool for promoting fair competition and encouraging foreign governments to adopt open and transparent rulemaking procedures as well as non-discriminatory laws and regulations ... Trade agreements may include commitments on topics such as ... [i]mproving intellectual property right protection, [e]nhancing labor rights, [g]overnment procurement, [o]pening service sectors to competition, [e]nhancing rules on foreign investment, [e]nvironmental standards, [i]mproving customs facilitation."[15]

The second reason why a new leader could promote reforms through a PTA with a major power is the promise of market access. By beginning negotiations, the leader can offer foreign market access to the domestic constituencies who may expect to lose from economic reforms. Although the domestic constituencies may lose from the economic reforms *per se*, they have incentives to consent to these economic reforms when the value of the foreign market access that they acquire in exchange is high enough. Since the leader may also expect to benefit from opening foreign markets

[15]"U.S. Free Trade Agreements." [http://www.export.gov/FTA]. Accessed February 23, 2010.

to domestic exporters, both in the form of increased exports and through political support from exporters, she can use PTA negotiations for a double dividend (Gilligan, 1997). Or as Pastor and Wise (1994, 475) put it, "the set of potential supporters can widen as various interest groups accept the costs from one government action in order to obtain the benefits of another part of the policy package."

An example of such dynamics can be found in Mexico. When President Carlos Salinas came into power in 1988, he was faced with democratization demands and a relatively weak and unstable national economy. While implementing various liberalization policies, such as privatization and deregulation, President Salinas engaged in negotiations for the North American Free Trade Agreement (NAFTA) (Manger, 2009). In addition to trade liberalization, NAFTA requires extensive changes in FDI regulations, competition policy, services, and the financial system in Mexico. As Krugman (1993, 18) writes, "for his government, NAFTA is a sort of pledge – a pledge to foreign investors that Mexican reform will continue (and that the U.S. market will remain open to goods produced in Mexico). It is also a pledge to the Mexican population that better times are coming." Similarly, Cameron (1997, 122) argues that "US negotiators relied on market power ... if Mexico wanted access to the largest market in the world, the Mexican government would have to be willing to make the deal attractive to US investors and the US Congress by opening up new markets in financial services, providing protection for IPR ... and liberalizing investment rules." Consistent with our theoretical argument, NAFTA combined economic reform with preferential access to the vast US market.

The dual benefits of a PTA for economic reform has an important empirical implication: we expect both *negotiations* and *signature* to facilitate economic reform. Negotiations allow domestic bargains that garner political support for economic reform, whereas signature allows the credible commitment by virtue of being a legally binding, formal treaty (Büthe and Milner, 2008; Ethier, 1998; Fernandez and Portes, 1998). In the empirical analysis, therefore, we consider both negotiations and signature. Since the initiation of PTA negotiations is always a temporally prior decision, we emphasize it.

On a final note, it is important to note that a PTA with a major power is by no means the only policy instrument that allows a leader to promote economic reform. While we have argued that domestic policy instruments are difficult to use for new leaders, one may nonetheless expect that a multilateral forum, such as the WTO, could allow a developing country to implement economic reforms. We do not disagree with the substantial value of the multilateral trade regime for economic reform, yet we argue there are good reasons to believe that multilateralism also has its limitations. First, multilateral negotiations carry high transaction costs and may last for many years (Kahler, 1992; Keohane, 1984). Thus, the time to agreement may be too long for a new leader under heavy domestic pressure to improve the performance of the national economy. This problem is further amplified by the contentious nature of recent multilateral trade talks and the consensus rules that the WTO uses (Steinberg, 2002). Second, the beneficial reform effects of the WTO are maximized during accession negotiations. However, most developing countries have already joined the WTO, and so conditional accession is no longer an option that their leaders can use to promote economic reform. In sum, we believe that a PTA with a major power is a *complementary* strategy to multilateral commitments. In the empirical analysis, we also account for the effect of WTO membership and accession.

3.4 The Incentives of Major Powers

While our theory focuses on the incentives of developing country governments, PTA negotiations require mutual assent. Thus, an essential scope condition of our theory is that the EU and the US also have incentives to engage in PTA negotiations. Indeed, given the bargaining asymmetry that characterizes the PTAs in focus, the importance of major power incentives is paramount. What are the reasons why the EU and the US would generally want to negotiate PTAs with developing countries?

We argue that the EU and the US may expect net benefits from PTAs because the policy commitments enshrined in these treaties create profit opportunities for major corporations. As both Büthe and Milner (2008) and Manger (2009) argue, PTAs generally increase FDI inflows to countries that are potential FDI recipients. They do so by enabling a credible commitment to liberal policies, by protecting IPRs, and by liberalizing important areas of the service sector. Thus, PTAs can be thought of as removing obstacles to profitable investments in developing countries. Both the EU and the US have a high number of major corporations that are in a position to invest in newly liberalized markets, and so these major corporations have incentives to lobby for PTAs that allow developing countries to implement economic reforms that are otherwise unfeasible. For example, NAFTA had a very large effect on inward FDI from the US to Mexico. In fact, as Manger (2009) argues, the effect was so large that it induced major European corporations to lobby for a EU-Mexico PTA, so as to avoid the competitive disadvantage vis-á-vis major US corporations due to preferential FDI treatment. Similarly, Cameron (1997, 119) argues that a primary reason why the US engaged in NAFTA negotiations with Mexico was "to support the Salinas reforms to encourage growth and political stability in Mexico."

To be sure, this observation does not imply that the EU and the US do not pay any cost for PTA negotiations. However, for our purposes it suffices that the EU and the US are generally willing to engage in PTA negotiations, so that the leader of a developing country can at least sometimes initiate PTA negotiations in view of implementing economic reforms that are otherwise infeasible. Even if the EU and the US were constrained to some degree, with positive probability the leader of a developing country is able to find a set of economic reforms that benefit both sides. This prospect of mutual gain, we argue, enables PTA negotiations.

4 Empirical Implications

To test our theory, we test two falsifiable hypotheses against quantitative data. First, we have argued that new leaders are particularly inclined towards responding to political turmoil by using international institutions for enhanced credibility.

Hypothesis 1. Leader change increases the probability of initiating PTA negotiations under democratization.

This hypothesis is the cornerstone of our theory. If there is no interactive effect of leader change and democratization on the probability that a developing country engages in PTA negotiations with the EU or the US, the other hypothesis that we will present lose importance.

Why focus on PTA negotiations, as opposed to signature or ratification? The reason is that PTA negotiations are by logical necessity the first move in PTA formation. A developing country simply cannot sign and ratify a PTA unless it first agrees on the contractual terms in negotiations with the foreign country. Thus, if a leader is to achieve credible commitment through a PTA, the decisive move is to initiate the negotiations.

To illustrate, comparative historical evidence for this hypothesis is readily available. The Association Agreements that Eastern European countries have formed with the EU in the years following the collapse of the communist rule were negotiated in a completely new political environment with extremely high leader turnover rates. In many fragile Eastern European democracies, the prime minister was replaced multiple times within one year. This included not only the most difficult cases, such as Romania and Bulgaria, but also such countries as Estonia that were strongly inclined towards the West from the very beginning.

Our second hypothesis is that PTA negotiations prompt economic reform in the developing country especially upon leader change. While there are many reasons why leaders may engage in PTA negotiations, we have argued that, especially for PTA negotiations with major powers that are in a position to demand economic reforms, credible international commitments are critically important. It is also reasonable to expect that PTA negotiations associated with leader change are particularly prone to inducing economic reform.

Hypothesis 2. PTA negotiations and signature increase economic reform in developing countries.

Again, if this hypothesis fails, our theory that heavily emphasizes the importance of economic reform is falsified.

Importantly, this hypothesis is not limited to cases of democratization and leader change (though we will investigate such cases). If we are correct to argue that a PTA with a major power is a vehicle of credible commitment, it follows that PTA formation should be associated with economic reform, *regardless* of the exact circumstances that prompted it. We are not claiming that democratization and leader change are the exclusive reasons for economic reform, and so it would be inappropriate not to investigate the association between PTA formation and economic reform in other instances.

For qualitative evidence on the importance of leader change for economic reform, consider Jordan's decision to initiate PTA negotiations with the United States in 1999. In that year, King Abdullah II ascended to the throne following his father's tenure of 47 years. By all indicators, Jordan was in a state of economic disarray. Thus, King Abdullah II sought assistance from the United States to reform the economy. Through pervasive liberalization, Jordan's economic growth dramatically increased and made the small country one of the most competitive in the region. As His Majesty King Abdullah II (2000, 75) himself wrote in the *Washington Quarterly*, "I envision a reform program that addresses the political, economic, social, and judicial structures and processes. Any reform program that builds on the previous accomplishments will meet the challenges of the future."

What about the role of democratization? Let us return to the case of Nelson Mandela in South Africa that we already discussed in the theory section. Recall that in that case, President Mandela implemented a major privatization campaign to reduce the country's reliance on state enterprises that were geared towards fulfilling the needs of the white minority. One strategy that President Mandela used was to engage in PTA negotiations with the EU in 1995. In addition to trade liberalization, the resulting Agreement on Trade, Development and Cooperation (1999) requires changes in the regulation of the services sector, beyond the WTO commitments of South Africa, changes in competition policy, and capital movements liberalization.

5 Democratization and New Leaders: Research Design

To test our theory, we first conduct an analysis of the relationship between leader change, democratization, and the initiation of PTA negotiations.[16] Our unit of analysis is the undirected dyad-year. Each dyad-year comprises a developing country i and a major power j, which is either the EU or the US. We analyze 140 developing countries (as classified by the World Bank) and years 1990-2007.

[16] Reform effects are analyzed separately.

The dataset is unbalanced since some countries, such as those from the former Soviet Union, enter the dataset only after 1990. We end up with $4,441$ observations.

In the main text, we report results from a standard regression analysis. While we recognize issues of endogeneity and selection bias, we do not use matching for the main analysis because we would lose a substantial proportion of the data by preprocessing it. To boost confidence in our findings, we also report results from various matching analyses below. The technical details for these analyses can be found in the supplementary appendix. To foreshadow, the matching research designs provide robust statistical support for our theoretical argument: in many cases, accounting for the non-random assignment of the key independent variables actually *strengthens* the substantive effects.

Following Cleves et al. (2008, 248), we estimate a survival model that can be written in the log-time metric as follows:

$$\begin{aligned} ln(\tau_{ij}) \quad = \quad & \beta_0 + \beta_1 LeaderChange_{i,t} + \beta_2 Democratization_{i,t} \\ & + \beta_3 LeaderChange_{i,t} * Democratization_{i,t} \\ & + \beta_4 Controls_{i,t} + \beta_5 Controls_{ij,t} + \varepsilon_{ij,t}, \end{aligned} \tag{1}$$

where $ln(\tau_{ij})$ is the logarithmized survival time (until the initiation of PTA negotiations) between developing country i and major power j. Generally, year is denoted by t. In the model, leader change and democratization in country i, as well as their interaction, are the main explanatory variables. The model will also include a battery of control variables, some specific to developing country i and some to the undirected dyad ij. Finally, each β_k is a coefficient and $\varepsilon_{ij,t}$ is the error term.

5.1 Dependent Variable

Our dependent variable, $ln(\tau_{ij})$, is the logarithmized time in years t that country i 'survives' without initiating PTA negotiations with major power j. To code the beginning of PTA negotiations, we opted for the official year that the negotiations started. Although we are aware that countries may hold informal talks before the actual bargaining begins, it would be impossible to track systematically this information given the large number of countries in our dataset. Indeed, it seems safe to assume that a very large number of countries are continuously engaged in preliminary trade talks on some level, and so it is not clear that such informal consultations capture the reform commitment incentives that we a re interested in. We collected the data on the initiation of PTA negotiations using official EU and US sources, as well as the secondary literature. A list of PTA negotiations and signatures is provided in Table 2. A full description of the sources for the negotiations data will be posted as a supplementary appendix upon publication of this article.

[Table 2 about here.]

There are two main reasons why we decide to focus only on EU and US PTAs. First, these PTAs are the most far-reaching trade agreements in terms of scope (Horn, Mavroidis, and Sapir, 2009). Beyond tariff reductions, the EU and the US are concerned with key trade-related sectors such as liberalization of the financial market, strict rules on intellectual property rights, transparency and anti-corruption laws, and free movement of capital. Second, the EU and the US are major powers with the ability to punish developing countries for failure to comply with treaty obligations. Indeed, the US and the EU have been important advocates of conditional agreements.[17] As stated in the *Global Economic Prospects* of the World Bank (2005), the US and the EU open their domestic markets for developing countries, in exchange for liberalization of service markets in developing countries and for acquiescence to rules governing investment and intellectual property rights. In this sense, EU and US PTAs are ideal commitment devices for economic reform in developing countries.[18]

No developing country has signed more than one PTA with the EU or the US, respectively, over the period of investigation, so a dyad drops from our dataset immediately after the first negotiation

[17]By contrast, China and many other countries have formed shallow trade agreements that do not hold potential for credible reform commitments.

[18]While we cannot capture nuanced distinctions between different PTAs, the use of a binary dependent variable appears warranted. Additionally, we note that since we are primarily interested in negotiations, counting or characterizing provisions would require the implausible assumption that the bargaining phase is characterized by perfect foresight and complete information.

round begins. In other words, we are dealing with a single-spell analysis. Our model explains 60 negotiation onsets during the period under investigation. We include both bilateral and multilateral trade agreements, such as the EU-GCC PTA and the US-CAFTA PTA. However, since observations are not independent in the case of multilateral negotiations, we also estimate the model without any multilateral agreements. In this case, the number of negotiation onsets decreases to 46.

We also estimate the model without stable democracies, as the credible commitment argument is weaker for them, given that they have had time to develop effective political institutions that reduce the importance of individual leaders (Keefer, 2007; Licht, 2010). We consider a democracy *stable* if it has continuously democratic for 10 years. By using such a lax criterion for democratic stability, we basically stack the deck against our theoretical argument, as the set of remaining countries turns out to be quite different from the full sample. A list of the 57 countries meeting these criteria in at least one year can be found in the supplementary appendix.

5.2 Explanatory Variables

To test the first hypothesis, we need an independent variable that measures leader turnover. *LeaderChange* is a dummy variable that scores 1 if a new leader came into office in developing country i in year t, and 0 otherwise. For instance, this variable scores 1 if a new prime minister is elected in a parliamentary democracy; a new president is inaugurated in a presidential democracy; or a new dictator seizes power in an autocratic country. For these data, we rely on the Archigos dataset compiled by Goemans, Gleditsch, and Chiozza (2009).

We do not lag *LeaderChange* because we focus on the instantaneous effect of leader change on the initiation of PTA negotiations. Of course, this measure is potentially problematic: in some years, PTA negotiations may be initiated already in months preceding leader change. To ensure that our results are not driven by this coding decision, we verified for every positive observation of the dependent variable in our dataset that there was indeed a leader change in the twelve months preceding the initiation of PTA negotiations. Thus, for every instance of new PTA negotiations, *LeaderChange* scores 1 if and only if there was a leader change in the preceding twelve months. To be sure, we verified that all our results continue to hold if we also include leader changes in the previous year.

We interact $LeaderChange$ with $Democratization$ to test our first hypothesis. $Democratization$ is a binary variable that records whether a country has allowed competitive elections within the last five years (assuming it had not previously allowed them). For this variable, we use a dichotomous measure for competitive elections. Data comes from (Cheibub, Gandhi, and Vreeland, 2010).[19] To operationalize regime change, we follow previous research on democratization (Gleditsch and Ward, 2000; Mansfield and Pevehouse, 2006). Specifically, the variable $Democratization$ equals 1 if a developing country changes from a non-democratic polity to a democracy, as measured by Cheibub, Gandhi, and Vreeland (2010), between years $t-5$ and t. It equals 0 otherwise.[20]

Some developing countries were not independent states during the Cold War, and so we were unable to calculate the variable $Democratization$ for them. To avoid losing PTA negotiations in the early 1990s, we filled in the missing values for the 1980s as follows. First, we use the democracy score of the Soviet Union for countries that were previously members of the Soviet Union. Second, we use the democracy score of Yugoslavia for Bosnia, Croatia, Macedonia, Serbia, and Slovenia. Third, we use the democracy score of Czechoslovakia for Czech Republic and Slovakia. Finally, we use the democracy score of Ethiopia for Eritrea. As a robustness test, we ensured that this coding decision does not drive our results by allowing the missing data to disappear from our dataset.

We add several standard control variables to capture alternative explanations for PTA negotiations. First, we add $GDPperCapita$ to capture the income level of a developing country. This is useful because a high income is positively correlated with the probability of PTA formation. Second, $GDPGrowth$ measures economic growth in a developing country. Third, we add total GDP to measure the economic importance of a developing country.[21] Fourth, $Trade$ is the logarithmized value of exports plus imports from developing country i to the EU or the US, depending on the dyad, in year $t-1$ in constant \$US. Since a PTA is nominally a trade agreement, we use this

[19] We use data from Polity IV and from Freedom House as alternative measures of democracy. Our main results do not change, as reported in the supplementary appendix.

[20] Our main results hold if democratization is measured over a period of 3 and 7 years.

[21] We use GDP instead of $Population$, another widely used indicator of economic importance, because the former measure is available for a larger number of number of countries than the latter measure. However, since GDP appears three times on the right-hand side of our equation, we replace it with $Population$ (WDI data) as a robustness test, and this has no effect on any of our main results.

common proxy for trade relations. Data for these four variables are from the IMF.

We include several political variables in the baseline model. Most of these variables are lagged by one year to avoid endogeneity problems. First, *Alliance* scores 1 if a developing country is an ally of the United States in year $t-1$ and 0 otherwise. As Gowa (1994) shows, military alliances are positively associated with good trading relations. These data are from the Correlates of War. Second, *Democracy* is a dummy variable that scores 1 if a developing country i is a democracy at time $t-1$, as measured in Cheibub, Gandhi, and Vreeland (2010). Previous research has shown that democratic pairs of countries sign PTAs more frequently than autocratic or mixed pairs (Mansfield, Milner, and Rosendorff, 2002). Third, $YearsOffice$, measures the number of years that the executive stays in office. We obtain it from the Database of Political Institutions (Keefer, 2007). This measure allows us to separate the effect of leader turnover from executive tenure. Fourth, we include *Distance* as another control of the importance of a developing country. The data for *Distance* are from the 2005 CEPII dataset. Finally, we add the number of PTAs negotiated by countries other than country i with the EU and the United States in the same geographic region by time t (Mansfield, 1998). This captures the possibility that country i reacts to other agreements negotiated with the EU or the United States (Manger, 2009). We label this variable $Diffusion$. Descriptive statistics for all variables are summarized in Table 3.

[Table 3 about here.]

5.3 Model Specification

To estimate our servival model, one possible specification is the Cox proportional hazards model.[22] However, the Schoenfeld residuals test clearly indicates that the proportional-hazards assumption is violated. Particularly troubling is the fact that one of our main explanatory variables, *Democratization*, deviates significantly from the proportional-hazards assumption, as shown in the supplementary appendix. Thus, we opted for a parametric model. By the Bayesian Information Criterion (BIC), we selected the exponential model.[23]

[22]Survival analysis is the appropriate approach because we are dealing with right-censored data [BECK 2008].

[23]See the supplementary appendix for technical details.

Following common practice, we base our significance tests on Huber (robust) standard errors (Beck, 2008, 486). These standard errors can account for possible heteroskedasticity, serial correlation, or intra-group correlation in the data. To control for heterogeneity among countries, we include regional dummy variables following a 2003 World Bank classification for eight different regions. Sub-Saharan Africa represents the omitted reference category in the estimations.[24]

We verify the robustness of our model specification by using other accelerated failure-time models, such as the Weibull and Gompertz distributions. We also estimate our main model using a logistic regression with splines and the Carter and Signorino (2010) approximation to the hazard rate, i.e. adding t, t^2, and t^3. In these cases, both splines and the time measure the number of years without a failure (without negotiation). Finally, we estimate the main model using random effects by dyad, or the shared-frailty model. Our main results do not change by using these different specifications.

6 Democratization and New Leaders: Results

Our empirical analysis offers strong evidence in support of our theoretical argument. We find that for all three samples – full, excluding stable democracies, and excluding multilateral agreements – leader change has a substantively large (small) effect on the probability of PTA negotiations if a developing country has (not) recently democratized. This effect is statistically distinguishable from zero and clearly dominates the effect of standard control variables, such as income levels and distance.

The statistical results are reported in Table 4 as hazard ratios. The first column gives the full sample, whereas the second and third columns give the models excluding stable democracies and multilateral agreements, respectively. As the table shows, *LeaderChange* has a positive effect on the hazard rate for PTA negotiations, and this effect increases under democratization. The total interactive effect cannot be directly read off the table, however, so we turn to a marginal effects

[24]We cannot use dyad fixed effects because many developing countries do not initiate PTA negotiations and because we deal with nonrepeated events. If we use dyad fixed effects, many dyads drop due to collinearity and our estimation does not converge.

graph.[25]

[Table 4 about here.]

The total substantive effect of leader change, with and without democratization, is given in Figure 1. We show it for each of the three samples. The figure shows that leader change has a positive effect on PTA negotiations, with or without democratization, but the expected effect is many times higher under democratization. Consistent with our theoretical argument, leader change is a particularly critical factor in explaining PTA negotiations under democratization. If we exclude stable democracies, leader change without democratization is also no longer statistically distinguishable from zero.

[Figure 1 about here.]

The confidence intervals are much wider under democratization because both leader change and democratization are relatively rare events, so that their interaction is a very rare event in the sample. To verify that our results are fully robust, we replicated our empirical analyses using alternative democratization measures (Polity IV, Freedom House) and different time periods (three or seven years, instead of five). The results from these analyses can be found in the supplementary appendix. It turns out that in every case, our main results continues to hold. For the other democratization measures notably Polity IV, the results are actually even stronger. This is understandable, given that the Cheibub, Gandhi, and Vreeland (2010) measure applies a very stringent criterion for democratization.

The substantive effects are strikingly large. The baseline hazard rate for initiating PTA negotiations in a given year, holding other variables at their means, is only 0.008, or less than one per cent. Under leader change and democratization, the increase (first difference) is as high as 0.04. Thus, the hazard rate is five time as high under leader change and democratization. It is safe to say that the combination of leader change and democratization is a central explanatory variable for PTA negotiations with the EU or the US.

[25] First, hazard ratios are not linearly additive. Second, the covariance of two coefficients cannot be seen, so confidence intervals for the marginal effect of leader change under democratization cannot be construed.

The control variables do not contain any major surprises. Following previous research, high income levels and small distances are powerful predictors of PTA negotiations. By contrast, neither regime type nor population seem to consistently predict the initiation of PTA negotiations. Population and military alliances also do not predict PTA negotiations.

In sum, these results demonstrate that leader change under democratization is a major determinant of the timing of PTA negotiations between a developing country and the EU or the US. While standard models largely focus on country characteristics to explain who engages in PTA negotiations, we capture some of the temporal variation by uncovering the effect of a discrete event, leader change, on the initiation of PTA negotiations.

7 Preferential Trading Agreements and Economic Reforms

Leader change under democratization explains PTA negotiations, but it remains to examine the association between PTA negotiations and economic reform. In this section, we report the results from a structural-break analysis of data on reform indicators for developing countries that have negotiated or signed a PTA. The technical details of the estimation and additional robustness tests can be found in the supplementary appendix.

7.1 Estimation Technique

We conduct a structural-break analysis because it is very difficult to examine the causal effect of PTA negotiations on economic reform using standard regression techniques. An obvious problem is endogeneity, as major powers have incentives to negotiate a PTA with a developing country that is willing to implement economic reforms. Additionally, developing-country leaders may negotiate a PTA exactly because they believe it is easy to implement. A selection bias also exists in that the developing countries failing to negotiate PTAs are systematically different from others. Finally, both economic reforms and PTA negotiations increase systematically over time, so uncovering causality is further complicated. Nevertheless, we can analyze structural breaks in reform data to investigate the existence of an association or correlation between PTA negotiations and economic reform. A structural-break analysis has the advantage of being relatively flexible and largely independent of the typical judgment calls in regression analysis, such as the choice of control variables and the estimation procedure for standard errors. Thus, we can be reasonably certain that the associations that we do observe were not derivative of invalid statistical model specification.

How can structural breaks be used to test our theoretical argument? We obviously cannot analyze countries that never engaged in PTA negotiations, so our test focuses on the subsample of countries that did engage in PTA negotiations. Within that sample, there are several outcomes that would falsify our theory. First, it could be that there are few structural breaks in the data. Second, we exclude consecutive structural breaks, except for the first one, so one possible outcome is that structural breaks begin already before PTA negotiations. Third, since we have data on negotiations and signature, we can observe whether the negotiation phase is also relevant to economic reform. Finally, we can compare the frequency of structural breaks with and without leader change (conditional on democratization versus no democratization).

To analyze structural breaks in time-series data, we use a technique called *rolling regression*. This technique can be used to identify structural breaks as follows.[26] First, we form an estimation sample of T consecutive years (in our case ten years, such as 1980-1989). For this estimation sample, we regress the value of a reform indicator, such as privatization, on time. Thus, we are constructing a linear trend in the reform indicator.[27] Second, we use the estimated trend over these years to predict the value of the reform indicator in the following year (in our case the eleventh year, such as 1990). If the prediction is precise, there is no structural break in the data. If the prediction is poor, there is a structural break in the data, as the historical trend fails to explain the following year. We repeat this exercise to predict the value of several reform indicators for as many years as possible. For example, if we have data for years 1970-2007, we first use 1970-1979 as our estimation sample to predict the value of a reform indicator in 1980. We then use 1971-1980 to predict the value of that indicator 1981. Finally, we will use years 1997-2006 to predict the value of the indicator in 2007. If we identify an upward structural break in the data during PTA negotiations or immediately after

[26]See chapter 9 of Zivot and Wang (2003) for a general introduction to rolling analysis in the context of financial time series. We used the `rollreg` command in Stata for the analysis (Baum, 2005).

[27]We also tried a quadratic specification but found that it does not really improve model fit. Additionally, a quadratic specification is problematic in that it allows a continuous approximation of a structural break, thus hiding useful information.

signature, we code it as a structural break.

7.2 Economic Reform Data

We use data on three forms of economic reform. First, we explore financial liberalization. Here we use a new indicator, KAOPEN (Chinn and Ito, 2008), that includes four major categories on the restrictions on external accounts: the presence of multiple exchange rates; restrictions on current account transactions; restrictions on capital account transactions; and a requirement to surrender export proceeds. This index ranges from -1.80 to 2.54 in our sample. High values of this variables imply less stringent restrictions, or financial liberalization.

Second, since intellectual property rights (IPR) are a key issue in trade policy, we also emphasize reforms in IPR legislation. We measure the number of legislative acts protecting IPR approved by the national legislature in developing country i in year t, labeled $IPRLegislation$. High values of this variable imply strict IPR regulations. The data are compiled by the authors from the World Intellectual Property Organization dataset.

Finally, we measure privatization as the total amount of proceeds in (trillions of) dollars gained by the privatization of companies every year t and divide it by the GDP. Data are from the World Bank Privatization Dataset (Kikeri and Perault, 2009).

The descriptive statistics for the rolling analyses are found in Table 5. For each developing country that has negotiated or signed a PTA, we report data availability for each of the three reform indicators. If a cell is empty, the data were inadequate for a rolling analysis. Perhaps the most important consequence of missing data was that we completely lost the following PTA negotiations in Eastern Europe around the year 1990: Bulgaria, Estonia, Latvia, Lithuania, and Romania. These missing cases stack the deck against finding evidence for our hypothesis, as post-communist countries were clearly among the most ambitious reformers in the aftermath of the Cold War (Vassiliou, 2007).

[Table 5 about here.]

7.3 Results

The results of the rolling analysis offer evidence in support of our second hypothesis. First, for the majority of developing countries that have engaged in negotiations with the EU or the US, we found a positive structural break for at least one reform indicator during the negotiations or within five years from signature. Second, if we divide the sample into developing countries that engaged in PTA negotiations immediately after a leader change versus all others, we find that the proportion of developing countries that implemented reforms during negotiations or after signature is substantially higher when there was a leader change.

Let us begin with IPR legislation. We were able to conduct the analysis for 49 dyads. We found clear evidence of a structural break for 20 of the 49 dyads. Of these, 11 structural breaks were found during the negotiations and the other 9 within five years from signature. As an illustration, Figure 2 shows the reform patterns for EU-Algeria (signature), EU-Poland (signature), US-Jordan (negotiations), and US-El Salvador (signature).

[Figure 2 about here.]

What about capital accounts? We only found enough data to estimate the rolling model for 37 dyads. Of these, six indicated a structural break during the negotiations, so it seems that the association between PTA formation and capital account liberalization is weaker than for the other two reforms that we have investigated. As an example, Figure 3 shows reform patters for EU-Chile (negotiations), EU-Egypt (negotiations), US-Colombia (negotiations), and US-Ecuador (negotiations).

[Figure 3 about here.]

Finally, we consider privatization. We found enough data to estimate the rolling model for 37 dyads. Of these, 11 indicated a structural break during the negotiations and another 9 within five years of signature. The findings are illustrated in Figure 4: EU-Macedonia (signature), EU-South Africa (negotiations), US-Costa Rica (signature), US-Oman (negotiations).

[Figure 4 about here.]

In total, we found that 30 of the 51 dyads with some available data showed a structural break for at least one of the reform indicators. The fact that a structural break was found in approximately 60 percent of the cases, despite missing data for some of the most probable reformers in Eastern Europe after the collapse of the Soviet Union, is strongly consistent with our theoretical argument.

We also investigated conditional patterns. First, and most importantly, does leader change mediate the association between PTA formation and economic reform? We found that if PTA negotiations were associated with leader change, a structural break was found in 10 out of 15 dyads. Un the absence of leader change, a structural break was found in 20 out of 36 dyads. The frequency of structural breaks with leader change was therefore 0.67, instead of 0.56 in the absence of leader change, a substantial difference. Unfortunately, we were unable to find reliable reform data for most instances of democratization and leader change using the stringent Cheibub, Gandhi, and Vreeland (2010) definition. However, of the four cases that were amenable to a structural-break test – Hungary, Poland, Slovakia, and Slovenia – three (excluding Hungary) showed a structural break in the reform data. Thus, the frequency was as high as 0.75.

Second, we compared the EU and the US. We found that an EU PTA was associated with economic reform in 16 out of 25 cases whereas a US PTA was associated in 14 out of 26 cases. This is a remarkable observation given that we lost most of the Eastern European countries that formed an EU PTA in the early 1990s.

Finally, we verified that our results were not only driven by negotiations for WTO accession. In our data, only 8 dyads joined the WTO while negotiating a PTA. Of them, six implemented economic reforms. Thus, WTO membership appears to also drive economic reforms. But even in the absence of WTO accession, in 24 out of 43 cases we found a structural break. Consequently, it seems as though the multilateral approach to economic reform does not seem to be the only way governments of developing countries use international institutions to promote economic reforms.

8 Additional Evidence

In this section, we provide additional evidence for our theoretical argument. First, we show that trade liberalization is not sufficient to explain the effect of leader change under democratization on

PTA negotiations with the EU and the US. Second, we report results from a matching design that helps address omitted variable bias and endogeneity. Third, we examine an ancillary implication of our theory: democratization without leader change should induce reform without PTA negotiations. Finally, we discuss findings from another research project that demonstrates the powerful effect of PTA formation on foreign aid by the EU and the US in key sectors, such as services.

8.1 Trade Liberalization or Economic Reform?

An important element of our theoretical argument is that new leaders should form PTAs to promote economic reform across different economic sectors, as opposed to simply focusing on trade liberalization. While we cannot directly test trade liberalization as an alternative explanation, one way to scrutinize it is to examine whether the combination of leader change and democratization has a positive effect on PTA formation in general. If trade liberalization is the primary motivation for engaging in PTA negotiations, the combination of leader change and democratization should increase the likelihood that a developing country initiates forms a PTA with other countries as well (not on the EU and the US).

In view of this hypothesis, we estimated our main model again but used all PTAs instead of those with the EU and the US only. The supplementary appendix provides the technical details. In sum, we found that the combination of leader and democratization has a *negative* effect on the likelihood of PTA formation with other countries. This is exactly the opposite of what the trade liberalization theory would predict, so it seems improbable that the combination of leader change and democratization increases the likelihood of PTA negotiations with the EU or the US simply due to trade liberalization aims.

8.2 Reform Consolidation

Our theory is based on the idea that PTAs can not only help leaders implement economic reforms, but also consolidate them. Given that reform reversals are a common occurrence, an important ancillary implication of our theory is that PTA formation should help leaders implement reforms that will not be reversed in the future. Of the data that we used, cumulative IPR legislation and privatization revenue are not suitable for investigating reform consolidation because they do not capture possible reversals. However, we can use data on capital account liberalization to investigate the durability of economic reforms associated with a PTA. Of the six PTAs associated with capital account liberalization, we found that the only one that saw a temporary reform reversal was EU-Egypt. After Egypt signed the PTA in 2000, the KA index temporarily decreased decreased in 2002. However, it immediately rebounced back to the highest possible value in 2003. Thus, the stability of capital account liberalization associated with PTA formation is consistent with our focus on credible commitments.

8.3 A Matching Design

It might be argued that our treatment variable, i.e. the interaction between leader change and democratization, is not randomly assigned. In other words, units receiving treatment and those excluded from treatment may differ not only in their treatment status but also in other characteristics. If these characteristics affect both the probability of experiencing jointly a leader change and democratization, as well as the probability of entering into a PTA negotiation with the EU and the US, our results are compromised by endogeneity and/or selection bias. To avoid these biases, we implemented the coarsened exact matching (CEM) that "is a non-parametric method of controlling for some of or all the confounding influence of pre-treatment control variables in observational data" (Blackwell et al., 2009, 526). Matching drops observations from the data to achieve a better balance between the treated and the control groups, "meaning that the empirical distributions of the covariates $(X_1, X_2, \ldots, X_k)$ in the groups are more similar" (Blackwell et al., 2009, 526). The technical details can be found in the supplementary appendix: suffice it to note here that our main findings remain unchanged, as the estimation table and marginal effects figure in the supplementary appendix show.

8.4 Democratization and Economic Reform

An ancillary implication of our theory is that democratizing countries should engage in economic reform. While we are not in a position to analyze this issue empirically within the confines of this manuscript, we have already noted in the theory section that the extant literature on democratization and economic reform offers ample empirical evidence in support of this notion. In a recent review, Milner and Mukherjee (2009) evaluate the effect of democratization on trade liberalization and capital account openness. In regard to trade liberalization, they conclude that "most studies report that democratization or higher levels of democracy has a statistically positive effect on trade openness" while "large-n empirical evidence for the positive or negative effect impact of trade openness on democracy is relatively weak" (167, 171). In regard to capital account openness, they write that "statistical tests ... show that democratization and higher levels of democracy clearly have a positive impact on capital account liberalization in developing countries since the mid-1970s" while there is little evidence for the effect of capital account liberalization on democracy (174).

The evidence in regard to privatization and IPRs is scarce. However, the few studies that do exist generally indicate a positive association between democratization and these economic reforms. For example, Biglaiser and Danis (2002, 83) analyze panel data on privatization in 76 developing countries, 1987-1994, and conclude that "democracies privatize more than authoritarian regimes." Similarly, Piquero and Piquero (2006) use data on software piracy in 82 countries, 1995-2000, and find that democracies achieve lower piracy rates than autocracies. While these results are preliminary and additional research is needed, it is notable how well they accord with our basic thesis.

8.5 Foreign Aid for Economic Reform

Our theoretical argument is based on the idea that the government a developing country uses a PTA to advance economic reforms that are also profitable for the EU and the US. In other research, we have examined the effect of PTA formation on foreign aid given by the EU and the US to a developing country. In that research, we showed that forming a PTA with the EU or the US has a very large temporary effect on foreign aid inflows. Additionally, we used sectoral foreign aid data from the AidData project to verify that the effect of PTA formation on foreign aid inflows is by far the largest in sectors that hold considerable potential for economic reform.[28] For example, very

[28] See `http://www.aiddata.org`.

large foreign aid effects can be seen in banking services and trade adjustment assistance. These findings are consistent with our theoretical argument here, as they indicate that the EU and the US can use foreign aid to advance economic reforms associated with PTA formation.

9 Conclusion

We have investigated the possibility that developing countries engage in PTA negotiations with a major power, namely the EU or the US, to implement economic reforms. We have argued that new leaders facing difficult circumstances under democratization are particularly dependent on the credible commitment and domestic side payments that international institutionalization, and dealings with major powers in particular, allow. Thus, we have predicted that new leaders engage in PTA negotiations especially under democratization, in view of implementing economic reforms that benefit their core constituencies.

We tested this theoretical argument in several ways. First, we verified that leader change has a very substantial effect on the probability that a developing country engages in PTA negotiations. Second, we investigated how democratization conditions the effect of leader change on PTA negotiations. These empirical analyses offer evidence in support of our theoretical argument. What is more, the results survive an extensive array of robustness tests. Third, we examined the association between PTA negotiations and economic reform through a rolling analysis of structural breaks in the data. We found that PTA negotiations and signature are usually associated with core economic reforms, from intellectual property rights to capital account liberalization and privatization, and that this association is particularly strong for PTA negotiations that follow leader change in a developing country. Finally, we conducted numerous additional analyses to further probe our theoretical argument and exclude competing hypotheses.

This article contributes to our collective understanding of several core questions in international political economy. First, we provide direct empirical evidence that individual leaders can use international institutions as a vehicle of credible commitment. While scholars have provided a theoretical rationale for this expectation, previous research has failed to empirically isolate the effect of individual leader preferences and strategy (Mansfield and Pevehouse, 2006; Moravcsik, 2000).

Second, we contribute to the study of trade treaties (Büthe and Milner, 2008; Manger, 2009) and demonstrate that they may have important implications for economic reform well beyond trade liberalization. In addition to these theoretical contributions, we offer some insight into how leader change can be incorporated into statistical models of international political economy and present new data on PTA negotiations.

References

Baum, Christopher F. 2005. "Stata: The Language of Choice For Time-Series Analysis?" *Stata Journal* 5 (1): 46–63.

Beck, Nathaniel. 2008. "Time-Series-Cross-Section Methods." In *Oxford Handbook of Political Methodology*, ed. Janet M. Box-SteffensMeier, Henry E. Brady, and David Collier. New York: Oxford University Press.

Biglaiser, Glen, and Michelle A. Danis. 2002. "Privatization and Democracy: The Effects of Regime Type in the Developing World." *Comparative Political Studies* 35 (1): 83–102.

Blackwell, Matthew, Stefano Iacus, Gary King, and Giuseppe Porro. 2009. "Coarsened Exact Matching in Stata." *Stata Journal* 9 (4): 524–546.

Brooks, Sarah M., and Marcus J. Kurtz. 2007. "Capital, Trade, and the Political Economies of Reform." *American Journal of Political Science* 51 (4): 703–720.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge: MIT Press.

Büthe, Tim, and Helen V. Milner. 2008. "The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through International Trade Agreements?" *American Journal of Political Science* 52 (4): 741–762.

Cameron, Maxwell A. 1997. "North American Free Trade Negotiations: : Liberalization Games Between Asymmetric Players." *European Journal of Internationa Relations* 3 (1): 105–139.

Carter, David B., and Curtis S. Signorino. 2010. "Back to the Future: Modeling Time Dependence in Binary Data." *Political Analysis* 18 (3): 271–292.

Chayes, Abram, and Antonia Handler Chayes. 1995. *The New Sovereignty: Compliance with International Regulatory Agreements*. Cambridge: Harvard University Press.

Cheibub, José Antonio. 1998. "Political Regimes and The Extractive Capacity Of Governments: Taxation in Democracies and Dictatorships." *World Politics* 50 (3): 349–376.

Cheibub, José Antonio, Jennifer Gandhi, and James Raymond Vreeland. 2010. "Democracy and Dictatorship Revisited." *Public Choice* 143 (1-2): 67–101.

Chinn, Menzie D., and Hiro Ito. 2008. "A New Measure of Financial Openness." *Journal of Comparative Policy Analysis: Research and Practice* 10 (3): 309–322.

Clague, Christopher, Philip Keefer, Stephen Knack, and Mancur Olson. 1996. "Property and Contract Rights under Democracy and Dictatorship." *Journal of Economic Growth* 1 (2): 243–276.

Cleves, Mario, William W. Gould, Roberto G. Gutierrez, and Yulia Marchenko. 2008. *An Introduction to Survival Analysis Using Stata*. College Station: Stata Press. 2nd Edition.

Drazen, Allan. 2002. "Conditionality and Ownership in IMF Lending: A Political Economy Approach." *IMF Staff Papers* 49: 36–67.

Dreher, Axel, and Nathan M. Jensen. 2009. "Country or Leader? Political Change and UN General Assembly Voting." KOF Working Paper 217.

Ethier, Wilfred J. 1998. "The New Regionalism." *Economic Journal* 108 (449): 1149–1161.

Fernandez, Raquel, and Jonathan Portes. 1998. "Returns to Regionalism: An Analysis of Nontraditional Gains from Regional Trade Agreements." *World Bank Economic Review* 12 (2): 197–220.

Geddes, Barbara. 1994. "Challenging the Conventional Wisdom." *Journal of Democracy* 5 (4): 104–118.

Gilligan, Michael J. 1997. *Empowering Exporters: Reciprocity, Delegation, and Collective Action in American Trade Policy*. Ann Arbor: University of Michigan Press.

Gleditsch, Kristian S., and Michael D. Ward. 2000. "War and Peace in Space and Time: The Role of Democratization." *International Studies Quarterly* 44 (1): 1–29.

Goemans, H.E. 2008. "Which Way Out? The Manner and Consequences of Losing Office." *Journal of Conflict Resolution* 52 (6): 771–794.

Goemans, H.E., Kristian Skrede Gleditsch, and Giacomo Chiozza. 2009. "Introducing Archigos: A Data Set of Political Leaders." *Journal of Peace Research* 46 (2): 269–283.

Gowa, Joanne. 1994. *Allies, Adversaries, and International Trade*. Princeton: Princeton University Press.

Guzman, Andrew T. 2008. *How International Law Works: A Rational Choice Theory*. New York: Oxford University Press.

Hafner-Burton, Emilie M. 2005. "Trading Human Rights: How Preferential Trade Agreements Influence Government Repression." *International Organization* 59 (3): 593–629.

Haggard, Stephan, and Robert R. Kaufman. 1997. "The Political Economy of Democratic Transitions." *Comparative Politics* 29 (3): 263–283.

Haggard, Stephan, and Steven B. Webb, eds. 1994. *Voting for Reform: Democracy, Political Liberalization, and Economic Adjustment*. New York: Oxford University Press.

Hellman, Joel S. 1998. "Winners Take All: The Politics of Partial Reform in Postcommunist Transitions." *World Politics* 50 (2): 203–234.

His Majesty King Abdullah II. 2000. "Prospects for Moving Forward." *Washington Quarterly* 23 (4): 73–76.

Horn, Henrik, Petros C. Mavroidis, and André Sapir. 2009. "Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements." Bruegel Blueprint Series VII.

Kahler, Miles. 1992. "Multilateralism with Small and Large Numbers." *International Organization* 46 (3): 681–708.

Keefer, Philip. 2007. "Clientelism, Credibility, and the Policy Choices of Young Democracies." *American Journal of Political Science* 51 (4): 804–821.

Keohane, Robert O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton: Princeton University Press.

Kikeri, Sunita, and Matthew Perault. 2009. "Privatization Trends: A Sharp Decline but No Widespread Reversals in 2008." World Bank.

Kono, Daniel Y. 2007. "Making Anarchy Work: International Legal Institutions and Trade Cooperation." *Journal of Politics* 69 (3): 746–759.

Koremenos, Barbara, Charles Lipson, and Duncan Snidal. 2001. "The Rational Design of International Institutions." *International Organization* 55 (4): 761–799.

Krugman, Paul R. 1993. "The Uncomfortable Truth about NAFTA: It's Foreign Policy, Stupid." *Foreign Affairs* 72 (5): 13–19.

Kydland, Finn, and Edward Prescott. 1977. "Rules Rather Than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85 (3): 473–490.

Li, Quan. 2009. "Democracy, Autocracy, and Expropriation of Foreign Direct Investment." *Comparative Political Studies* 42 (8): 1098–1127.

Licht, Amanda A. 2010. "Coming into Money: The Impact of Foreign Aid on Leader Survival." *Journal of Conflict Resolution* 54 (1): 58–87.

Manger, Mark S. 2009. *Investing in Protection: The Politics of Preferential Trading Agreements between North and South.* New York: Cambridge University Press.

Mansfield, Edward D. 1998. "The Proliferation of Preferential Trading Arrangements." *Journal of Conflict Resolution* 42 (5): 523–543.

Mansfield, Edward D., and Eric Reinhardt. 2003. "Multilateral Determinants of Regionalism: The Effects of GATT/WTO on the Formation of Prefential Trading Agreements." *International Organization* 57 (4): 829–862.

Mansfield, Edward D., Helen V. Milner, and B. Peter Rosendorff. 2002. “Why Democracies Cooperate More: Electoral Control and International Trade Agreements.” *International Organization* 56 (3): 477–513.

Mansfield, Edward D., Helen V. Milner, and Jon C. Pevehouse. 2008. “Democracy, Veto Players, and the Depth of Regional Integration.” *Journal of Conflict Resolution* 31 (1): 67–96.

Mansfield, Edward D., and Jon C. Pevehouse. 2006. “Democratization and International Organizations.” *International Organization* 60 (1): 137–167.

Mattli, Walter, and Thomas Plümper. 2004. “The Internal Value of External Options: How the EU Shapes the Scope of Regulatory Reforms in Transition Countries.” *European Union Politics* 5 (3): 307–330.

McCall Smith, James. 2000. “The Politics of Dispute Settlement Design: Explaining Legalism in Regional Trade Pacts.” *International Organization* 54 (1): 137–180.

McGillivray, Fiona, and Alastair Smith. 2004. “The Impact of Leadership Turnover on Trading Relations between States.” *International Organization* 58 (3): 567–600.

McGillivray, Fiona, and Alastair Smith. 2006. “Credibility in Compliance and Punishment: Leader Specific Punishments and Credibility.” *Journal of Politics* 68 (2): 248–258.

Milner, Helen V., and Bumba Mukherjee. 2009. “Democratization and Economic Globalization.” *Annual Review of Political Science* 12: 163–181.

Milner, Helen V., and Keiko Kubota. 2005. “Why the Move to Free Trade? Democracy and Trade Policy in the Developing Countries.” *International Organization* 59 (1): 107–143.

Moravcsik, Andrew. 2000. “The Origins of Human Rights Regimes: Democratic Delegation in Postwar Europe.” *International Organization* 54 (2): 217–252.

OECD. 2003. “South Africa: Peer Review of Competition Law and Policy.” OECD Country Studies, May 2003.

Olson, Mancur. 1993. "Dictatorship, Democracy, and Development." *American Political Science Review* 87 (3): 567–576.

Pastor, Manuel, and Carol Wise. 1994. "The Origins and Sustainability of Mexico's Free Trade Policy." *International Organization* 48 (3): 459–489.

Piquero, Nicole Leeper, and Alex R. Piquero. 2006. "Democracy and Intellectual Property: Examining Trajectories of Software Piracy." *Annals of the American Academy of Political and Social Science* 605: 104–127.

Przeworski, Adam. 1991. *Democracy and the Market: Political and Economic Reform in Eastern Europe and Latin America.* New York: Cambridge University Press.

Rodrik, Dani. 1992. "The Limits of Trade Policy Reform in Developing Countries." *Journal of Economic Perspectives* 6 (1): 87–105.

Rodrik, Dani. 1996. "Understanding Economic Reform." *Journal of Economic Literature* 34 (1): 9–41.

Schamis, Hector E. 1999. "Distributional Coalitions and the Politics of Economic Reform in Latin America." *World Politics* 51 (2): 236–268.

Simmons, Beth A. 1998. "Compliance with International Agreements." *Annual Review of Political Science* 1: 75–94.

Smith, Alastair. 2009. "Political Groups, Leader Change, and the Pattern of International Cooperation." *Journal of Conflict Resolution* 53 (6): 853–877.

Steinberg, Richard H. 2002. "In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO." *International Organization* 56 (2): 339–374.

Stone, Randall W. 2008. "The Scope of IMF Conditionality." *International Organization* 62 (4): 589–620.

Tomz, Michael. 2007. *Reputation and International Cooperation: Sovereign Debt Across Three Centuries.* Princeton: Princeton University Press.

Vassiliou, George, ed. 2007. *The Accession Story: The EU from 15 to 25 Countries.* New York: Oxford University Press.

Vreeland, James. 2003. *The IMF and Economic Development.* New York: Cambridge University Press.

Weyland, Kurt. 2002. *The Politics of Market Reform in Fragile Democracies: Argentina, Brazil, Peru and Venezuela.* Princeton: Princeton University Press.

Wolford, Scott. 2007. "The Turnover Trap: New Leaders, Reputation, and International Conflict." *American Journal of Political Science* 51 (4): 772–788.

World Bank. 2005. *Global Economic Prospects: Trade, Regionalism, and Development.* Washington DC: World Bank.

Zivot, Eric, and Jiahui Wang. 2003. *Modeling Financial Time Series with S-Plus.* New York: Springer.

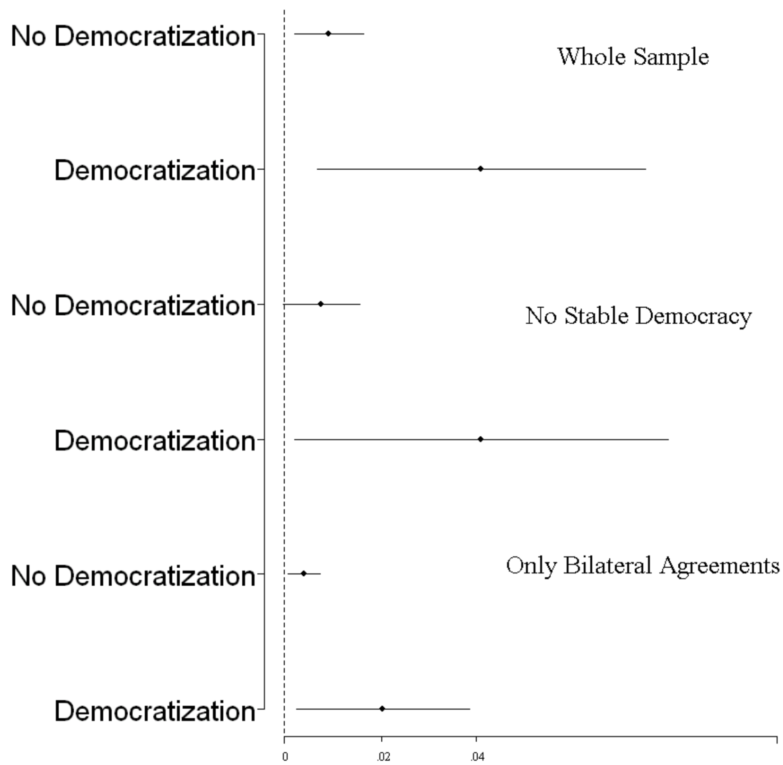

Figure 1: The effect of leader change on PTA negotiations with and without democratization in the three samples (first difference, holding other variables at their mean values). The confidence intervals are for the 95 per cent significance level.

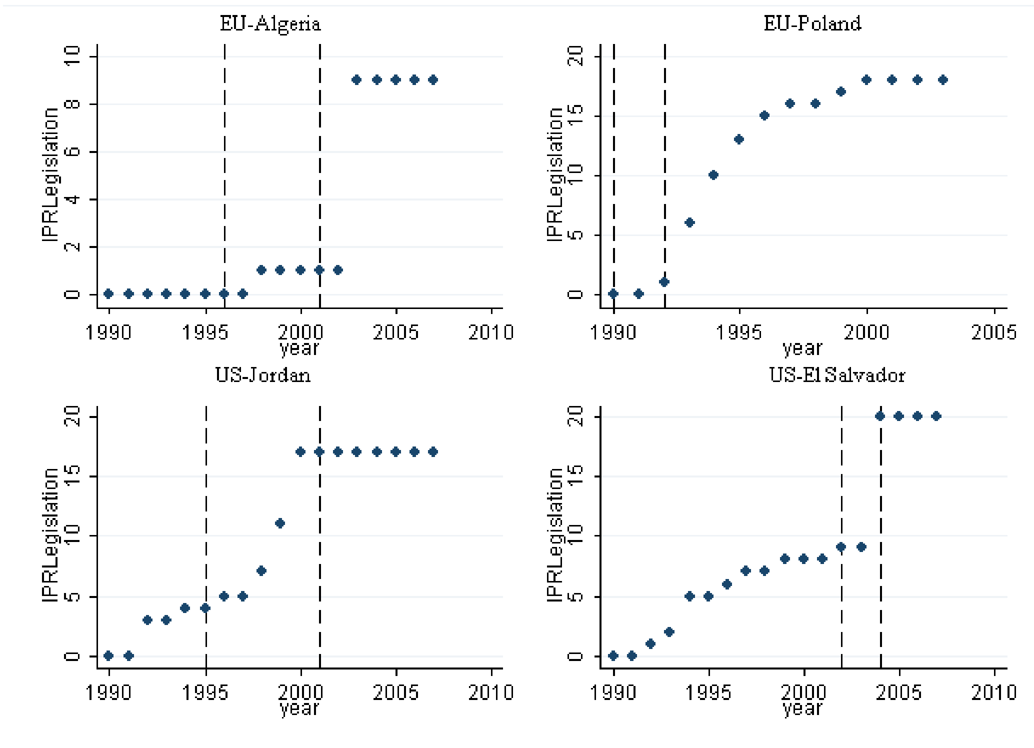

Figure 2: PTA formation and cumulative IPR legislation in four developing countries.

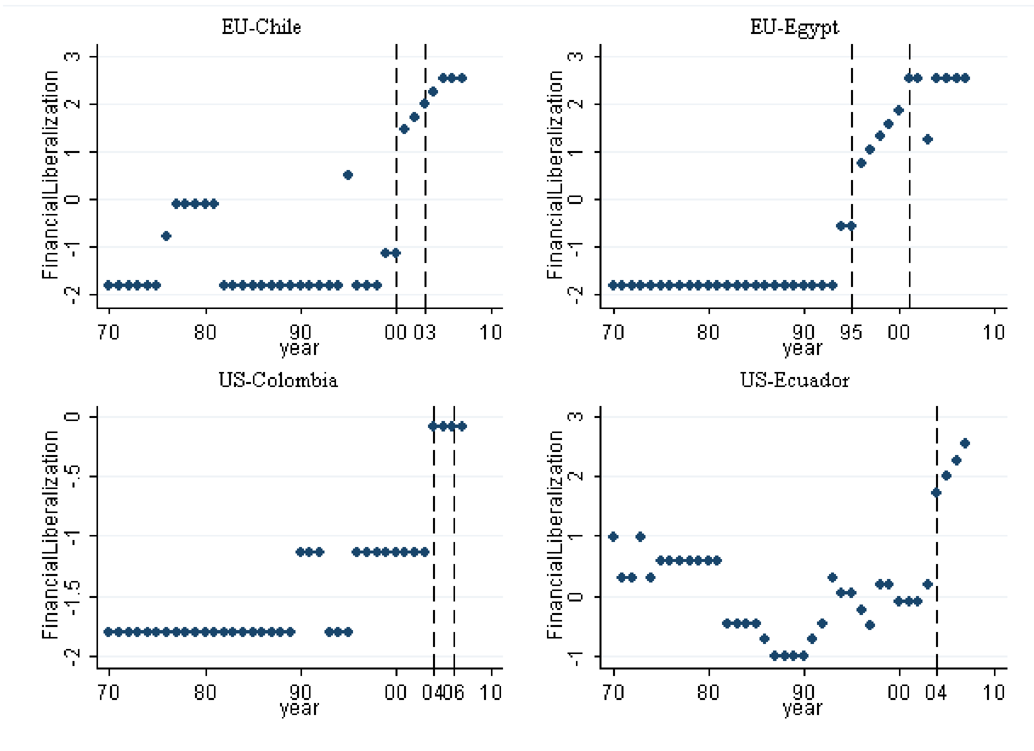

Figure 3: PTA formation and capital account liberalization in four developing countries.

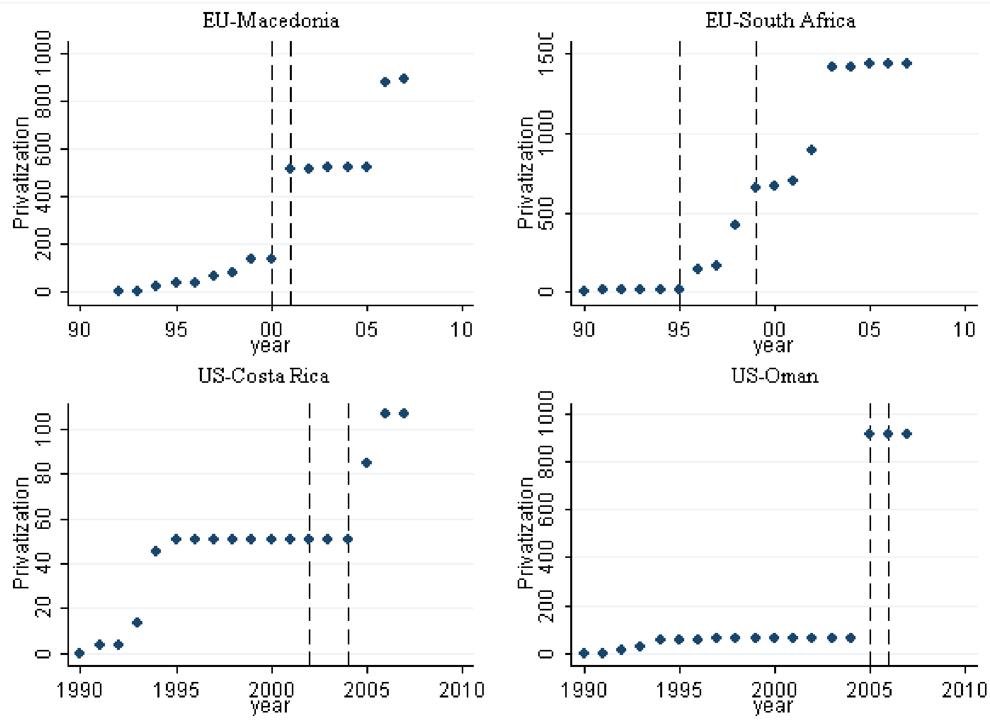

Figure 4: PTA formation and cumulative privatization revenue in four developing countries.

		Leader change	
		Yes	**No**
Democratization	**Yes**	PTA, reform	Reform, no PTA
	No	No PTA, no reform	No PTA, no reform

Table 1: Expected policy outcomes in four different scenarios.

Major Power	Developing Country	Negotiation	Signature
EU	Albania	2002	2006
EU	Algeria	1996	2001
EU	Bosnia	2005	2008
EU	Bulgaria	1992	1993
EU	Chile	2000	2002
EU	Croatia	2000	2001
EU	Czech Rep.	1990	1992
EU	Egypt	1995	2001
EU	Estonia	1994	1995
EU	Hungary	1990	1992
EU	India	2007	–
EU	Jordan	1995	1997
EU	Korea	2007	2009
EU	Kuwait	2000	–
EU	Latvia	1994	1995
EU	Lebanon	1995	2002
EU	Lithuania	1994	1995
EU	Macedonia	2000	2001
EU	Mexico	1995	2000
EU	Morocco	1992	1995
EU	Poland	1990	1992
EU	Qatar	2000	–
EU	Romania	1992	1993
EU	Saudi Arabia	2002	–
EU	Slovakia	1990	1992
EU	Slovenia	1993	1997
EU	South Africa	1995	1999
EU	Syria	1997	2004
EU	Tunisia	1994	1995
EU	Turkey	1994	1995
EU	Ukraine	2007	–
US	Bahrain	2004	2004
US	Bolivia	2004	–
US	CAFTA-DR	2002	2004
US	Chile	2000	2003
US	Colombia	2004	2006
US	Ecuador	2004	–
US	Jordan	1999	2001
US	Malaysia	2006	–
US	Mexico	1990	1992
US	Morocco	2003	2004
US	Oman	2005	2006
US	Panama	2004	2007
US	Peru	2004	2006
US	SACU	2003	–
US	Singapore	2000	2002
US	Thailand	2004	–
US	United Arab Emirates	2004	–
US	Vietnam	1995	2000

Table 2: Preferential trading agreements.

Variable	Mean	Std. Dev.	Min	Max	No. of Obs.	Source
PTA Negotiation	.01	.11	0	1	4178	Authors
Leader Change	.13	.34	0	1	4178	Archigos (2009)
Democratization	.10	.30	0	1	4483	Cheibub et al (2010)
DemocratizationLeaderChange	.02	.15	0	1	4483	–
GDPpc	2.66	4.14	.03	32.79	4178	IMF 2009
GDP	2.33	1.59	.10	7.88	4483	WDI 2009
GDPGrowth	3.32	6.76	-52.6	80.7	4178	Armed Conflict Dataset
Trade	8.26	5.36	0	16.58	4178	IMF 2009
Regime	.43	.50	0	1	4441	Polity IV
Tenure	7.78	8.94	0	47	4228	DPI (2007)
Alliance	.40	.49	0	1	4178	COW
Distance	8.86	.53	6.58	9.70	4178	CEPII 2005
Diffusion	4.03	4.53	0	19	4228	Authors

Table 3: Descriptive statistics for the regression analysis.

VARIABLES	(1) PTANegotiation	(2) PTANegotiation	(3) PTANegotiation
	Full Sample	No Stable Democracies	No Multilateral PTAs
LeaderChange	2.64***	2.09*	2.67***
	(0.83)	(0.83)	(0.97)
Democratization	1.07	1.00	1.23
	(0.69)	(0.77)	(0.94)
LeaderChange*Democratization	2.76	3.07	2.57
	(2.48)	(2.87)	(2.32)
GDPpc	1.06***	1.09***	1.02
	(0.02)	(0.02)	(0.03)
GDP	1.42***	1.36**	1.48***
	(0.15)	(0.19)	(0.18)
GDPGrowth	0.99	0.99	1.00
	(0.01)	(0.01)	(0.01)
Trade	0.95	0.97	0.96
	(0.02)	(0.04)	(0.04)
Regime	0.78	0.82	0.87
	(0.32)	(0.42)	(0.44)
Alliance	0.84	0.79	0.56
	(0.28)	(0.33)	(0.21)
Distance	0.20***	0.22***	0.22***
	(0.05)	(0.06)	(0.07)
Tenure	0.97***	0.97***	0.97
	(0.02)	(0.02)	(0.03)
Diffusion	1.13***	1.11***	1.09***
	(0.03)	(0.03)	(0.03)
East Asia	2.22	1.65	5.43**
	(1.45)	(1.38)	(4.47)
West Europe	1.23	1.62	3.74
	(0.78)	(0.109)	(3.03)
East Europe and Central Asia	0.36*	0.44	1.43
	(0.20)	(0.26)	(1.03)
Latin America	0.81	1.50	1.76
	(0.45)	(0.101)	(1.06)
Mena	1.54	1.57	3.88
	(0.94)	(0.106)	(3.14)
Observations	4441	3412	4521
No. of Failures	61	45	46

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: The effect of leader change on the initiation of PTA negotiations.

Developing Country	IPR Legislation	Financial Liberalization	Privatization
Albania	1990-2007		1988-2007
Algeria	1970-2007	1970-2007	1988-2007
Bahrain	1970-2007	1970-2007	1988-2007
Bolivia	1990-2007	1970-2007	1988-2007
Bosnia	1970-2007		1988-2007
Bulgaria			
CAFTA-DR	1980-2007	1970-2007	1988-2007
Chile	1970-2007	1970-2007	1988-2007
Colombia	1970-2007	1970-2007	1988-2007
Croatia	1970-2007		1988-2007
Czech Rep.	1970-2003		
Ecuador	1980-2007	1970-2007	1988-2007
Egypt	1990-2007	1970-2007	1988-2007
Estonia			
Hungary	1970-2003		
India	1970-2007	1970-2007	1988-2007
Jordan	1990-2007	1970-2007	1988-2007
Korea	1970-2007	1970-2007	
Kuwait			
Latvia			
Lebanon	1990-2003	1970-2007	1988-2007
Lithuania			
Macedonia			1988-2007
Malaysia		1970-2007	
Mexico	1970-2007	1970-2007	
Morocco	1970-2007	1970-2007	1988-2007
Oman	1990-2007	1970-2007	1988-2007
Panama	1980-2007	1970-2007	1988-2007
Peru	1990-2007	1970-2007	1988-2007
Poland	1970-2003		
Qatar			
Romania			
SACU	1990-2007	1970-2007	1988-2007
Saudi Arabia	1980-2007	1970-2007	
Singapore	1970-2007	1970-2007	1988-2007
Slovakia	1970-2003		
Slovenia	1970-2003	1996-2003	1988-2007
Syria	1990-2007	1970-2007	1988-2007
South Africa	1970-2007	1970-2007	1988-2007
Thailand	1970-2007	1970-2007	1988-2007
Tunisia		1970-2007	1988-2007
Turkey	1980-2007	1970-2007	1988-2007
Ukraine	1970-2007		1988-2007
United Arab Emirates	1990-2007		
Vietnam	1970-2007	1970-2007	1990-2007

Table 5: Descriptive statistics for the rolling regression.