Sovereign Defaults in Court*§

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Abstract

Sovereign debt is widely seen as non-enforceable and immune from legal action. This paper takes a different perspective, by documenting the changing environment for sovereign debt enforcement in courts. We construct a comprehensive dataset of lawsuits filed against defaulting governments since 1976 and find a strong increase in creditor litigation: case numbers, case volumes, and attachment attempts have all more than doubled over the past two decades. In recent years, almost 50% of sovereign debt restructurings involved creditor lawsuits abroad. Our empirical analysis also suggests that litigation has negative spillover effects on (i) government access to international credit markets, (ii) international trade, and (iii) delays in crisis resolution. We conclude that the legal remedies against sovereign defaults have greatly increased – with high costs inside and outside the courtroom.

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1 Introduction

A central assumption in international finance is that sovereign debt cannot be enforced.[1] Unlike corporations, a defaulting government cannot be liquidated and its debt is not backed by collateral, so that creditors have few options to force a government to repay. Recent developments, however, undermine this textbook view of (non-enforceable) sovereign debt. Since the 1970s, sovereign immunity has eroded and legal disputes have become an increasingly relevant feature of international sovereign debt markets. This has been particularly visible in the case of Argentina, which defaulted in 2001 and has since fought a legal battle with holdout creditors. Most recently, in October 2012, Argentina suffered a notable defeat, when the New York Second Circuit Court of Appeals ruled in favor of NML, a subsidiary of the US hedge fund Elliott, turning the case into the "sovereign debt trial of the century".[2]

This paper shows that Argentina is no exception but part of a more general trend. The environment of sovereign debt enforcement has undergone fundamental changes over the past decades and the legal consequences of defaulting are becoming increasingly important. We document these changes by shedding light on the phenomenon of creditor litigation against sovereigns, meaning situations in which banks or so-called "vulture funds" sue a defaulting government for repayment in courts in New York or London.

Litigation and debt enforcement have been analyzed in a large theoretical literature, which we discuss below. There is also a related policy debate, which has been ongoing for more than 20 years. For example, litigation has been a main motivation behind proposals for a statutory insolvency regime such as the IMF's Sovereign Debt Restructuring Mechanism (SDRM), which envisaged an "automatic stay" on legal action, as is already the case for corporations undergoing bankruptcy (see e.g. Rogoff and Zettelmeyer, 2002; Krueger, 2002; IMF, 2003; Bolton and Skeel, 2004). In the wake of the current European debt crisis, the discussion on debt restructuring and an international bankruptcy court has returned (Gianviti et al., 2010; Roubini, 2010; Weder Di Mauro and Zettelmeyer, 2010; Tirole, 2012; UNCTAD, 2012; Buchheit et al., 2013a; IMF, 2013; Mody, 2013). In addition, Eurozone governments agreed to introduce collective action clauses (CACs) in all sovereign bond issues from 2013 onwards, partly to "deter disruptive litigation by minority bondholders" in future crises (ECB, 2011, p. 81).[3] Against this backdrop, it is surprising that there is

[1] The literature surveys by Panizza et al. (2009), Wright (2011) and Aguiar and Amador (2013) all describe limited enforceability as *the* defining feature of sovereign debt. This unique characteristic of sovereign debt has motivated a large body of research (why do countries ever repay?) and proposals for a new international financial architecture. Reinhart and Rogoff (2009), for example, see the lack of an enforcement mechanism against foreign sovereigns as "perhaps the most fundamental 'imperfection' of international capital markets" (p. 53).

[2] See, for example, Financial Times, November 22, 2012, "Argentina angry at hedge fund court win." Although the outcome of Argentina's appeal is uncertain, the government may eventually be forced to repay USD 1.4bn to litigating creditors, or default again. See http://ftalphaville.ft.com/tag/pari-passu-saga/ for detailed information on the case.

[3] Further related policy initiatives include a 2010 UK law that bans creditor lawsuits against poor countries undergoing debt relief. Similar legislation has been implemented in Belgium and two Channel Islands, while US Congresswoman Maxine Waters initiated the "Stop Vulture Funds Act" in 2009. In

only little empirical research on litigation and debt enforcement. Much of the debate keeps referring to a few well-known anecdotes, while a comprehensive picture has been missing. One reason for this lack of evidence is that no institution is responsible for collecting representative data. This stands in contrast to other areas such as trade disputes, where case information is readily available from the WTO (and much more research exists).

The main goal of our analysis is to document the scope and characteristics of sovereign debt litigation in a systematic manner, and to assess the costs of legal disputes for defaulting governments. We see the need to better understand the evolving patterns of litigation and debt enforcement, because questions of enforceability and commitment are so crucial for our understanding of sovereign debt and default (Aguiar and Amador, 2013).

In the first part of the paper, we present a panorama of sovereign debt litigation over the past four decades: How frequent are legal disputes between creditors and sovereigns? Which countries are most affected? Who are the creditors filing suit? What amounts are involved? What is the outcome of these lawsuits? And how often do creditors attach sovereign assets? To answer these questions we code a comprehensive new dataset, which comes close to a census of all debt-crisis related lawsuits filed between 1976 and 2010 in the two most relevant jurisdictions: the US and the UK. Indeed, until this day, New York and London continue to be the primary locations for external sovereign borrowing and related legal disputes.[4]. To minimize coding errors and sample selection bias, we evaluated more than 10,000 pages of case material from electronic court records such as PACER[5], and verified each data entry across all sources available, including in previous data collections and research. For the US, this allowed us to identify the full set of initiated lawsuits following a default or restructuring, including those that are settled out-of-court or those which remain unresolved.

The coding results show the *rise of creditor litigation* in several dimensions. The total number of lawsuits is only 120 (not counting multiple lawsuits by the same creditor), but more than half of these cases have been filed since the year 2000. The likelihood that a debt crisis is accompanied by creditor litigation has increased from less than 10% in the 1980s to 50% in recent years. Since the mid-1990s the total amount under litigation has more than doubled, to more than USD 3 bn in 2010. On average, from 2000 to 2010, the claims under litigation corresponded to 3% of total debt restructured or 1.5% of debtor country GDP (averages from 2000 to 2010).

Also the duration of cases has increased, to an average of 6.2 years, and we observe more and more attachment attempts, meaning strategies to seize sovereign assets abroad.

addition, the African Development Bank established a "African Legal Support Facility" in 2009, to assist debtor governments facing litigation, while the Commonwealth Secretariat has set up a "Legal Debt Clinic" to serve the same purpose.

[4]Recent research confirms the continued dominance of English and New York law in foreign bond and loan markets. The IMF (2002) shows that about 80 percent of international bonds were issued under New York law as of 2002, with English law accounting for less than 20 percent. Das et al. (2012) provide similar figures for selected countries as of 2010, while Gulati and Scott (2012) show similar data based on a comprehensive historical overview of legal provisions in international sovereign borrowing.

[5]PACER stands for Public Access to Court Electronic Records (http://www.pacer.gov).

A main reason behind these trends is the proliferation of distressed debt funds or "vulture" funds, which typically sue for longer periods of time, initiate more attachment attempts, and litigate for larger amounts than other types of creditors, such as banks. Between 2000 and 2010 "vultures" filed nearly 75% of all lawsuits against foreign governments. Taken together, we observe a significant increase in both the occurrence and intensity of sovereign debt litigation. At the same time, we find that the legal enforcement of sovereign debt claims via courts remains very difficult.

Litigious creditors have therefore increasingly relied on indirect enforcement tactics that disrupt a country's trade and capital flows. They seize oil tankers, export revenues, presidential airlines, or financial assets such as a country's social security accounts held abroad or interest payments to other creditors. Bolton and Jeanne (2009) explain that the resulting externalities can be much larger than the value of the litigated claims. Creditors anticipate this and hope that the "nuisance value" of their legal action will force the government into an out-of-court settlement.

In the second part of the paper, we assess the potential spillover effects of litigation systematically. More specifically, we draw on related theoretical work to develop and test three hypotheses on the costs of creditor litigation in a broad panel of countries and years. First, we test whether litigation hinders government access to international credit markets, as modeled by Pitchford and Wright (2012).[6] Second, we test whether litigation reduces the gains from international trade as in Bulow and Rogoff (1989a) who assume that creditors can impose direct sanctions on a defaulting country by seizing (or threatening to seize) a portion of its exports. Finally, we test whether holdout litigation delays crisis resolution and undermines the negotiation process between governments and private creditors, as often assumed in the policy debate (e.g. Krueger, 2002; Roubini and Setser, 2004; Buchheit et al., 2013b; IMF, 2013) and in line with the models of Pitchford and Wright (2007, 2012). To bring the hypotheses to the data, we build on widely cited empirical papers such as Gelos et al. (2011) and Rose (2005) and extend their models by a previously omitted dimension: litigation.

Our results provide strong support for Hypotheses 1 and 3, on bond market access and negotiation delay. Legal disputes are associated with a significantly lower likelihood of issuing bonds internationally, after controlling for country and year fixed effects, macroeconomic and political conditions, and accounting for the fact that governments can abstain from borrowing voluntarily. Remarkably, between 2000 and 2010, we could not find a single instance in which a government facing litigation in London or New York also placed a sovereign bond in these jurisdictions. With regard to negotiation duration, we find strong indication that litigation causes delay. The likelihood for successful debt settlement (crisis exit) is 40% lower in months with ongoing legal disputes. We find somewhat weaker support on trade spillovers (Hypothesis 2): litigation can be associated with significantly lower international trade flows, but this finding is not robust to including time fixed effects.

[6] Market exclusion is a well-known cost of default (since at least Eaton and Gersovitz, 1981), but the literature has not agreed on which channel may explain the observed loss of market access during default.

Related literature: The paper builds on several literatures. First and foremost, we add to research on the "elusive" costs of sovereign default (surveyed by Panizza et al., 2009). Until this day, "estimates of the costs of sanctions are few and necessarily imprecise" (Bulow and Rogoff, 1989a, p. 175). This paper is an attempt to improve on this, by conducting the first broad-based test on the legal consequences of default, which have been a matter of debate since at least Alexander (1987). The results suggest that legal disputes with foreign creditors can trigger substantial direct and indirect costs for defaulting countries. This provides new support for theories assuming legal sanctions and costly creditor litigation such as Bulow and Rogoff (1989a,b); Schwartz and Zurita (1992) and, more recently, Bolton and Jeanne (2007, 2009); Adam and Grill (2013); Pitchford and Wright (2012) or Arellano et al. (2013). It should be emphasized, however, that our results do not necessarily imply that litigation reduces welfare, since we do not explore the ex-ante effects of stronger or weaker creditor rights.[7] Instead, we show that the "legal threat" to sovereign debt restructuring is increasingly relevant ex-post, which may affect the incentives to default or to settle with potential holdouts ex-ante (Sturzenegger and Zettelmeyer, 2006).

Second, we contribute to the debate on sovereign debt restructuring mechanisms and creditor coordination problems in times of distress. Many recent theory papers have analyzed the legal framework of sovereign debt restructurings and the implications of holdouts and litigation, in particular Miller and Zhang (2000), Ghosal and Miller (2003), Weinschelbaum and Wynne (2005), Gai et al. (2004), Haldane et al. (2005), Bolton and Jeanne (2007), Pitchford and Wright (2007, 2012), Engelen and Lambsdorff (2009), Bi et al. (2011), Lanau (2011) and Ghosal and Thampanishvong (2013). In contrast, the empirical evidence has been limited. Sturzenegger and Zettelmeyer (2006) provide a historical overview on the development of sovereign debt law and litigation. Miller and Thomas (2007) analyze the Argentine litigation episode from an economic perspective, while Alfaro et al. (2010) and Bradley et al. (2010) assess the market reaction to important court decisions. There is also a vast legal literature with detailed studies on prominent cases, such as *Elliott v. Peru*, and a discussion on their judicial implications.[8] Our contribution is to provide the first representative dataset on the issue, which may help to discipline future theoretical work and may facilitate an informed policy debate.

Third, we contribute to research on international economic disputes and enforcement problems involving sovereign states more broadly. There is a large body of work on trade disputes and litigation within the GATT and WTO, which shows interesting parallels to the debate on sovereign debt enforcement. For example, the recent paper by Maggi and Staiger (2011) assesses the role of an international court to enforce trade agreements, while Limão and Saggi (2008) propose the issuance of bonds as collateral against potential trade disputes. Importantly, the theoretical work in this area been accompanied by a rich

[7] Eaton (1990) and Scott (2006), argue that better enforcement may have a positive ex-ante effect, since governments will be less likely to overborrow and default. A similar argument is made by Dooley (2000), Shleifer (2003) and Pitchford and Wright (2007)

[8] See Hurlock (1984a,b), Goldman (2000), Wheeler and Attaran (2003), Fisch and Gentile (2004), Gelpern (2005), Blackman and Mukhi (2010), Broomfield (2010), Waibel (2011), and many others.

empirical literature on the determinants and effects of trade disputes and trade related litigation (e.g. Bown, 2004a,b; Grinols and Perrelli, 2006). In contrast, research on sovereign debt disputes has so far remained almost exclusively theoretical.[9]

The remainder of the paper is structured as follows. Section 2 summarizes the legal context and history of sovereign debt litigation based on the existing literature. Section 3 presents our database and main stylized facts. Section 4 develops and tests three hypotheses on the consequences of creditor litigation for market access, trade and restructuring delays. Section 5 concludes.

2 What do we know about sovereign debt litigation?

2.1 Historical background – The decline of sovereign immunity[10]

For most of history, private creditors lacked a direct enforcement device against foreign governments. It is difficult to force a government to repay, and sovereigns hold most of their assets domestically, which shields them from access by foreign creditors. In addition, there are legal principles protecting debtor governments, in particular the doctrine of "absolute" sovereign immunity, which states that a government cannot be sued in foreign courts. Lacking legal remedies, creditors had few other choices than to accept unilateral defaults and restructurings, or to seek support from their own governments, e.g. by lobbying for trade sanctions or for military interventions.[11]

A far-reaching shift in legal doctrine occurred after World War II, when the United States and a number of European countries started to adopt a more restrictive view on sovereign immunity, which excluded commercial activities like cross-border investment and trade.[12] The restrictive theory of sovereign immunity was codified into US law through the Foreign Sovereign Immunities Act of 1976 (FSIA). Shortly thereafter, the United Kingdom passed a similar law, the State Immunity Act in 1978, and many other countries followed suit. As a result, states and their public entities could now be held legally accountable for breach of commercial contracts, that is, they could be sued in foreign commercial courts.

The history of sovereign debt litigation since the FSIA can be described as a gradual erosion of government immunity. Debtor defenses collapsed, one after the other, making

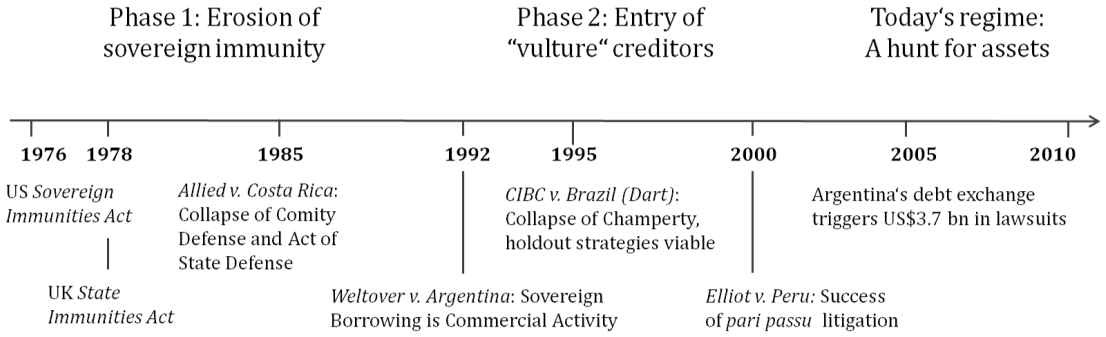
[9] Mitchener and Weidenmier (2010) take a historical perspective on sovereign debt enforcement, by analyzing military interventions ("gunboat diplomacy") to enforce repayments prior to World War I.

[10] This section is largely based on Fisch and Gentile (2004), Sturzenegger and Zettelmeyer (2006), Foster (2008), Alfaro et al. (2010), Blackman and Mukhi (2010) and Waibel (2011).

[11] Buchheit (2005) and Waibel (2011) explain that creditors have often asked their governments to intervene on their behalf, especially in the 19th and early 20th century. These attempts were often fruitless, however, except for a few prominent examples of "supersanctions" in the era of gunboat diplomacy, 1880-1913 (see the debate between Tomz (2007) and Mitchener and Weidenmier (2010)).

[12] One of the reasons for restricting sovereign immunity was that governments and their state-owned enterprises were becoming increasingly active in cross-border investment and trade during the 1940s and 1950s. Their legal immunity gave public firms an undue competitive advantage over private firms. In addition, Western governments were concerned that Soviet firms could not be held legally accountable for their commercial activities abroad (see McNamara, 2006).

Figure 1: Stylized evolution of litigation environment



creditor remedies in court more effective, at least at the margin. Figure 1 illustrates the evolution of the legal environment for sovereign debt litigation in a stylized form. We roughly categorize three main "eras" since 1976, which are structured around a set of high-profile decisions.

The first era of sovereign debt litigation was triggered by the 1980s debt crisis in developing countries. Lawsuits were mostly filed by banks and other buy-and-hold investors who aimed at enforcing better terms than those negotiated in the London Club process. The first well-known case that built on the FSIA was filed in 1982, when *Allied Bank* refused to participate in the debt restructuring agreement with Costa Rica. After several rounds of hearings, the New York Second Circuit eventually ruled in favor of Allied, but the US government pressured the bank to settle out of court, at the same terms as the other syndicate banks. Despite this outcome, the success of *Allied* set an important precedent: it showed that holdout strategies could work and that classic defenses such as sovereign immunity, the act of state doctrine or the principle of international comity were insufficient to protect a sovereign from lawsuits (see Fisch and Gentile, 2004, and Sturzenegger and Zettelmeyer, 2006, for a detailed explanation). In addition, the case confirmed that Costa Rican government assets in the US were attachable, because the government had explicitly waived its immunity.

During the remainder of the 1980s only about a dozen further creditor lawsuits were filed. The most prominent case was *Weltover v. Republic of Argentina*, decided in 1992, which gave a definitive blow to the defense of sovereign immunity. The Supreme Court confirmed the plaintiff's argument that issuing sovereign debt on international capital markets qualifies as a commercial activity, and that a subsequent suspension of payments causes a direct effect in the United States according to the provisions of the FSIA. Effectively, this decision granted US courts the jurisdiction over any sovereign loans or bonds issued under US law and concluded the demise of debtor defenses from suits.

From the early 1990s on, the sovereign debt litigation regime reached a watershed with the entrance of a new type of plaintiff: specialized distressed debt funds, or, as they would

later be called, "vulture funds". "Vulture funds" are often based in tax havens, such as Liechtenstein or the British Virgin Islands, and often act as temporary vehicles, being established solely to pursue a specific case. *CIBC v. Banco Central do Brazil* was the first major litigation success by a "vulture fund" against a sovereign debtor. The case was launched by the Dart family, which had acquired USD 1.4 bn of Brazilian long-term debt in the secondary market but refused to participate in Brazil's Brady deal of 1992, going to court instead. After a favorable judgment, Brazil agreed to settle a part of the past due interest, and the Dart family was able to sell its entire debt stake at a substantial profit.

The *CIBC* case gave an early example of how rewarding holdout strategies could be. In addition, *CIBC* played an important role for case law development because it weakened the so called champerty defense, which, until then, prohibited the purchase of debt with the primary intent of filing a lawsuit. Champerty could have undermined the key business model of "vulture funds": buying debt on secondary markets at a steep discount and then suing for full repayment. But the defense continued to be rejected in most subsequent cases and was effectively eliminated in 2004 (Blackman and Mukhi, 2010). This set the stage for the modern era of sovereign debt enforcement, in which "vulture" creditors can easily obtain favorable judgments, but devote most of their resources to seize attachable sovereign assets.

2.2 The current litigation environment - A hunt for assets

The current sovereign debt litigation environment is perhaps best described as a hunt for assets. Since 1992, immunity from *suits* is no longer the main hurdle. Instead, the legal battleground has moved to immunity from *attachment*, as creditors continue to face serious difficulties in executing judgments and collecting assets. The main legal obstacle from a creditor perspective is that sovereign immunity laws, like the FSIA, continue to protect many government assets from attachments. Recent court decisions in the US have confirmed that sovereign assets are only attachable if they are *located in the United States* and *used for commercial purposes*.[13] This narrows down the number of potential assets to seize considerably.

The heyday of debt enforcement seemed to have arrived in the late 1990s, when the hedge fund Elliott used a novel interpretation of the pari passu clause that could have rendered any further asset searches unnecessary (*Elliott v. Republic of Peru*). Pari passu is a standard clause contained in most sovereign debt contracts, although its exact meaning and relevance remains controversial until today. In corporate bond contracts, the clause is meant to ensure equal treatment of creditors in case of a liquidation. Since this situation does not arise in the sovereign context, the clause's interpretation has been subject to an ongoing debate (see Gulati and Scott, 2012). Back in the 1990s, Elliott argued that the clause prohibited Peru from paying its restructured creditors without making a payment to holdouts as well. Based on this strategy, Elliott succeeded in blocking an interest payment

[13] Similar constraints apply in the UK, France or Germany (Foster, 2008).

that Peru was about to make via the settlement provider Euroclear in September 2000. Rather than risking a default on its entire stock of Brady debt, Peru quickly settled at face value, transferring about USD 58 m to Elliott. Not surprisingly, the case encouraged a wave of similar pari passu litigation.[14] Ultimately, however, no other plaintiff succeeded in attaching interest or principal debt payments, at least until 2013.[15] As a consequence, judgment creditors were back searching for non-immune, attachable assets – and they have done so actively.

Since the early 2000s and Argentina's debt default, "vulture funds" have stepped up their collection efforts by trying to seize a variety of assets around the globe. Amongst other, "vultures" have attempted to seize Argentina's government airplane, its central bank assets and social security funds in the US, a sailing ship of the Argentine Navy (ARA Libertad), and even dinosaur fossils on exhibition in Europe (see Blackman and Mukhi, 2010; Foster, 2008). So far, however, most of these attempts have been unsuccessful, in the sense that attachments were ultimately rejected by US and European courts.

3 The dataset: sovereign debt litigation 1976-2010

3.1 Data sources and case selection

To identify the set of relevant cases we start with the list of 180 sovereign debt restructurings assembled by Cruces and Trebesch (2013). Their dataset captures the full sample of restructurings of medium and long-term sovereign debt owed to foreign commercial creditors, including banks and bondholders, by 69 debtor countries worldwide, between 1970 and 2010.[16] For each debt crisis event we then searched for litigation cases filed in foreign courts by commercial creditors. We focus on cases initiated in the US or the UK[17] and cover the time period after the enactment of the FSIA, from 1976 until 2010.

The database excludes litigation cases filed in domestic courts. We also exclude suits filed by retail investors, including class action suits, as these differ in many respects from suits filed by professional investors. Retail cases involve small amounts and mainly played a role in a single case: the recent Argentinean default. Furthermore, we are not aware of one single case in which retail creditors were successful in attaching assets or receiving a favorable settlement.[18]

[14] In particular, *Red Mountain Finance v. Democratic Republic of Congo*, *LNC Investments v. Nicaragua*, *Kensington International v. Republic of Congo*, *Export-Import Bank of China v. Grenada*, and the argument has also been prominently invoked in the lawsuits following Argentina's 2001/02 default.

[15] The pending Argentine pari passu case(s) might turn out as a creditor success eventually.

[16] We update this list by three recently completed HIPC buyback operations, namely Mozambique 2007, Nicaragua 2007 and Liberia 2009, and include the Congo 1988 restructuring as an additional case.

[17] For completeness, we also include three related arbitration proceedings, since arbitration tribunals are supra-jurisdictional in nature and usually have repercussions in US or UK courts for enforcement reasons; all of our results are robust to excluding these cases.

[18] In the US, we identify more than 70 lawsuits filed by groups or individual retail investors against Argentina, as well as 13 class action suits. Most of the individual cases involved negligibly small sums and did not move beyond the recognition of claims. After years of unsuccessful efforts, a large number of these lawsuits were abandoned after Argentina's second exchange offer in 2010. A separate search revealed that 13 retail cases were filed in Italian courts, while 648 individual retail investors filed suit in Germany

Our aim is to analyze litigation related to sovereign bonds and loans in default. As a consequence, we disregard lawsuits on sovereign liabilities that are not related to a debt crisis or restructuring as well as public liabilities that are detached from sovereign debt markets, such as procurement bills or unpaid checks by embassies abroad.[19] Our focus on debt crisis events implies that we drop a number of litigation cases that do not go back to a sovereign default or restructuring (one example is *Noga v. Russia)*.[20] Relatedly, we exclude lawsuits by investors seeking compensation for expropriation or otherwise perceived foul treatment by foreign governments.

For the statistical analysis, we organize the information in a creditor-debtor conflict pair dataset. This implies combining multiple legal actions between identical plaintiffs and defendants into one observation, even if these actions took place in multiple court actions or jurisdictions. As an example, NML Capital, a subsidiary of Elliott Management, filed more than 10 individual actions against Argentina in the Southern District of New York court, plus lawsuits in multiple other US federal district courts. These actions are at times consolidated (merged), or abandoned when new proceedings are initiated. For the purpose of analyzing the determinants of legal disputes, it does not appear sensible to treat these cases of "jurisdiction shopping" as separate observations. The creditor-debtor pair *NML Capital v. Republic of Argentina* therefore enters our database as a single observation only. This approach allows us to analyze the drivers of litigation without biases arising from the legal complexities of any specific case, or due to the tactics of individual maverick creditors.

Our main sources are electronic legal databases. For the United States, we relied on the comprehensive PACER archive maintained by the US court system, which allows identifying all cases filed against any given person or entity, even for those cases that are discontinued or resolved through out-of-court settlements, thus mitigating concerns of sample selection. To verify the set of US cases we also applied systematic searches in the more standard legal database Lexis Nexis and the press database Factiva.[21] For the United Kingdom, there is no official court record archive comparable to PACER. We therefore relied on a broad range of available UK-specific legal databases, including Lexis Nexis UK, Westlaw, Casetrack, Justis, and BAILII, and again applied our standardized search algorithms.

(on a total of EUR 270m in claims - the German legal system does not allow for groups or classes filing suit). Anecdotal evidence suggests that German retail investors were able to recover small amounts, see Frankfurter Allgemeine Zeitung, 27 April 2005).

[19] Besides lawsuits on sovereign bonds and loans we add a few cases in which trade credit or letters of credit were restructured into medium- and long-term loans or bonds as part of a formal sovereign debt exchange. Nigeria, for example, restructured letters of credit into sovereign medium-term loans during the 1980s, while Guyana exchanged debt of nationalized industries into long-term government bonds in 1992.

[20] Noga's claim has little to do with a default or restructuring of sovereign debt. Instead, it goes back to a bilateral commercial transaction outside of sovereign loan or bond markets – the delivery of foodstuffs to Russia in exchange for oil in 1991.

[21] For the legal databases, we employed a search for `COUNTRY w/25 (debt OR bond OR loan) AND (default OR payment OR insolvency OR attachment OR sovereign immunity OR FSIA)`. For Factiva, we searched for `COUNTRY near25 (debt and (vulture OR litigation OR lawsuit OR suit OR court decision OR holdout creditor OR southern district of New York OR district court OR high court OR ewhc OR default judgment OR summary judgment OR out-of-court OR out of court OR attachment))`.

To complement and cross-check the information retrieved in these electronic databases we draw on the case details provided in policy reports and the academic literature. In particular, we rely on the annual survey of litigation cases conducted by the IMF and World Bank in up to 40 HIPCs since 2002 (see IMF and World Bank, 2000-2011), as well as the case list by Singh (2003). Both were very helpful points of departure, but many of the cases in these lists turned out to be unrelated to sovereign debt crises and cross-checking with court records revealed inaccuracies and omissions. Further important case lists include the reports by Cleary Gottlieb Steen & Hamilton and Clifford Chance (1992), Buchheit (1999), the Emerging Market Traders Association (EMTA, 2009), the Institute for International Finance (IIF, 2009) and the case lists compiled by Sturzenegger and Zettelmeyer (2006), Alfaro et al. (2010) and Trebesch (2010).

3.2 Coding results: stylized facts on creditor litigation 1976-2010

Table 1 summarizes main results from our database. Overall, we identify 120 instances of litigation by commercial creditors against 25 debtor countries that restructured sovereign debt vis-à-vis their foreign private creditors. Of these, 102 cases were filed in the United States, mostly in the Southern District of New York court. Only 15 cases were filed in England and 3 are the arbitration cases mentioned above. The dominance of US cases is partly due to the fact that most Latin American defaulters issued their debt under New York law. Interestingly, we find that some creditors file suit in more than one jurisdiction. 15% of cases are brought forward in more than one jurisdiction: 4 plaintiffs filed a case in English courts that had already been initiated in New York, while another 4 cases started in the UK and were later continued in the US.

Case numbers: A first notable pattern in the data is the strong increase in litigation occurrence over time. This can best be seen in Figure 2, which shows the number of pending lawsuits for each year between 1976 and 2010.[22] This number has gone up from less than 5 throughout the 1980s, to more than 40 ongoing disputes in more recent years. In parallel, there has been an increase in the total amount of principal under litigation, from close to zero to nearly USD 3 bn in 2010 (excluding accrued interest).

The picture is very similar when matching individual lawsuits to the respective debt restructuring event.[23] Figure 3 shows the total number of debt restructurings per year, and the subset of these which were subject to at least one creditor lawsuit in the US or the UK. The share affected by litigation has increased substantially. During the 1980s about 5% of restructurings were accompanied by legal creditor action. This figure has increased to more than 40% during the 2000s. The resulting picture is also very similar if we construct

[22] The upward trend in case numbers is also clearly evident when showing the number of cases *initiated* in each year between 1976 and 2010. The resulting figure is, however, much more volatile.

[23] Cruces and Trebesch (2013) identify 180 sovereign debt restructuring events since 1976. However, a few countries implemented two sovereign debt restructurings in the same year. In case the court documents do not allows us to uniquely match a litigation case to one of the two events, we merge them into one observation per country and year. This leaves us with a final cross section of 176 relevant debt restructuring events. Note that debt crisis related lawsuits have been filed both before or after a debt restructuring operation is implemented.

the same graph using default years from S&P, instead of the Cruces and Trebesch (2013) data on restructuring events.

A further notable pattern in the data is the strong variation across crisis events. In total, only 30 out of the 176 restructurings were accompanied by a legal conflict (a share of 16%). Of these 30 restructurings, 16 involve only a single lawsuit, while the remaining suits are concentrated on a few crisis cases. Argentina accounts for a third of the case universe, with 41 commercial creditor lawsuits filed after the default of 2001. Peru's Brady debt exchange in 1997 was also accompanied by an unusually high number of court cases, triggering 13 lawsuits in the United States. Next come Iraq 2006, Liberia 2009 and Congo 2007 with 10, 9 and 7 cases, respectively, as well as Nicaragua 1995, Ecuador 1995, Nigeria 1983, and Zambia 1994 with three to four cases each. These numbers show that a "run to the courthouse" could generally not be observed in the context of sovereign debt crises, except for a few cases such as Argentina, Peru, Iraq and Liberia.

Countries and creditors involved: As to the type of countries, governments in Latin America and Africa were most affected, accounting for 79 and 27 creditor lawsuits, respectively. Most debt-crisis related cases are filed against middle-income countries in the emerging market world. Nearly 30% of all lawsuits were launched against HIPCs, or 34 out of 120 cases. Turning to creditor characteristics, the data show that distressed debt funds are the dominant type of plaintiff filing suit, and increasingly so. For the 114 cases for which we have information on the creditor, 63 were filed by funds, 30 were filed by banks and the rest by other commercial creditors such as suppliers or insurance companies. Since the year 2000, 75% of all cases were initiated by distressed debt funds. Table 2 shows that most of these litigious funds are not well-known, also because prominent creditors, such as Elliot or the Dart family, file suit through one of their subsidiaries such as NML capital, CIBC or EM Ltd., respectively. This opaqueness is a characteristic feature of "vulture" litigation.

Amounts: The volume of claims is not high compared to the volume restructured, but it is strongly increasing. For those deals for which we could collect details on the amounts litigated, the average claim is USD 60 m, with a median of USD 10 m. This compares to an average restructuring volume of USD 6.5 bn, with a median of USD 1.1 bn. Thus, on average, the litigated claims correspond to 3.1% of total debt restructured (with a median of 1.1%), or 0.8% of debtor country GDP. Interestingly, the litigated amounts shows a notable upward time trend, from 2.5% of restructured debt in the 1990s, to 4% in the 2000s (the latter corresponds to 1.5% of GDP). In absolute numbers, the largest suits were filed against Argentina after 2001, with a total of USD 3.7 bn[24](including arrears and accrued interest), or about 5% of the 2005 debt exchange. Next comes *CIBC v. Brazil*, with a total amount of USD 1.4bn. In relative terms, however, the scope of litigation is most relevant for poorer and smaller countries. Two HIPC examples are Nicargaua (in the 1990s) and

[24]This figure is from Argentina's 2011 SEC filing, which is available at http://www.sec.gov/Archives/edgar/data/914021/000090342311000486/roa-18k_0928.htm. The face value under litigation amounts to USD 2.87 bn, see Table 2 (for comparability we use this amount in the econometric analysis).

Liberia (in the 2000s) where lawsuits amounted to 5.9% and 4.3% of GDP, respectively. Similarly, the recent litigation cases against Dominica and Grenada accounted for more than 3% of GDP in each case, or 8% and 10% of total amounts restructured.

Case outcomes: We were able to code the process and outcome for 106 of the 120 lawsuits in the database. Regarding case outcomes, it is surprising that only 4 lawsuits were outright failures, in the sense that the court rejected the claim and discontinued the case. In contrast, creditor claims were full satisfied in 13 cases according to the legal records. 48 lawsuits, or nearly half the sample, were settled out of court with little details available, at least not from official sources.[25] Nearly half of these out of court settlements took place after creditors were granted an attachment order, which is when creditor activism can be particularly disruptive for debtor countries.

Recovery rates and returns for creditors: We could not gather representative information on recovery rates and creditor returns. Data on settlement amounts is not available from court documents – our most important and reliable source. Nevertheless, for a few cases, we could gather (noisy) information on financial outcomes from policy reports, the press and previous research. These case anecdotes should be taken with care, because they are often based on rumors only. But they do provide suggestive evidence that the recovery rates in out-of-court settlements are often high, at least as high as in the original exchange offer. Appendix 2 provides a few examples of settlements that were particularly lucrative for creditors, sometimes implying investment returns of more than 100%. In addition, we report anecdotes on a few failed litigation attempts. The available evidence confirms that sovereign creditor litigation is a high-risk, high-return strategy.

Duration of lawsuits: We find that sovereign debt lawsuits have become significantly more protracted since the start of "vulturing". During the 1990s the average case duration was 4.8 years, but this figure has increased to 6.2 years during the 2000s. A more systematic way to assess the duration of lawsuits across cases is to estimate an empirical survival function. The results of a non-parametric Kaplan-Meier estimation confirm that "vulture" lawsuits are particularly protracted: after 5 years (60 months) the probability of case survival is still above 75%, compared to less than 50% for other creditors. Even after 10 years, distressed debt funds continue to litigate with a probability of more than 50%. The likelihood of early settlement is generally low, particularly for cases initiated after the mid-1990s.

Attachment attempts: Finally, we identify an increasing number of attachment attempts. The share of lawsuits with attempted asset seizures has increased from below 20% in the early 1990s to nearly 50% in recent years. As expected, "vulture" funds are much more likely to initiate attachments: 56% of "vulture" cases involve at least one attempt to seize assets, compared to just 21% of cases filed by other creditors.

Taken together, these procedural data strongly indicate that creditor strategies have become more aggressive over time and that the direct costs of legal disputes have increased.

[25] Sometimes we could find guesstimates on settlement amounts and investor returns from the financial press or various policy reports, but these figures are hard to verify and often do not match across sources.

4 The spillover effects of litigation: empirical evidence

This section implements three empirical tests to assess the externalities of creditor litigation, that is, indirect costs beyond the immediate expenses such as settlement payments and legal fees. We build on theoretical papers to derive three hypotheses on the role of litigation for (i) government access to capital markets, (ii) international trade flows and (iii) delays in sovereign debt renegotiations. For each hypothesis, we gather case study evidence and test them systematically using cross-country panel regressions. We opt for a very conservative approach in our econometric analysis and closely follow the most influential empirical papers on the cost of default. More specifically, we use existing estimates and add variables on the occurrence and scope of creditor litigation. This facilitates the comparability of our results with the previous literature.

4.1 Theory and hypotheses

A widely discussed spillover effect of sovereign litigation is that it may disrupt government borrowing in international capital markets. The seminal paper by Eaton and Gersovitz (1981) suggests that foreign creditors can retaliate against a defaulting country by denying access to new borrowing. The assumption of financial exclusion has since been widespread in the sovereign debt literature,[26] but there is no agreement on the mechanism causing the observed loss of market access during debt crises (see Wright (2011) for a review). One explanation are direct legal sanctions, as suggested by Pitchford and Wright (2007, 2012), who generate prolonged exclusion in a debt bargaining game, and not as a result of an exogenous process as in previous papers. In their 2012 model, individual creditors can effectively veto a government's attempt to tap foreign debt markets, which results in a strategic hold-up effect: all creditors need to settle before the government can borrow again. This reasoning is similar to Benjamin and Wright (2009) and in line with Alfaro (2007), who argue that the threat of creditor attachment is severe and effectively imposes a "virtual blockade" on capital flows to the country. Also Sturzenegger and Zettelmeyer (2006) suggest that litigation can have adverse implications for market access and investments, partly due to the reputational damage that legal disputes can entail.

Appendix 1 exploits court documents and other sources to show how litigating creditors disrupted market access in Panama, Peru and Argentina. In these and other cases, creditors have succeeded in interfering with bond payments and other transactions flowing through international financial centers. The attachment attempts curtailed the planned issuance of new bonds or blocked contractually scheduled payments on performing debt, thus potentially forcing the sovereign into a default. Litigating creditors have also been lobbying for legislation that would deny foreign governments access to US capital markets in case of outstanding judgments in US courts (Securities and Exchange Commission, 2011). The

[26] Exclusion is costly since it weakens a country's ability to smooth consumption and to insure against bad shocks. See also the debate in subsequent papers by Bulow and Rogoff (1989b), Kletzer and Wright (2000), Amador (2003), Aguiar and Amador (2006), Kovrijnykh and Szentes (2007), Arellano (2008), Sandleris (2008), and Yue (2010).

anecdotes suggest that the disruption of market access has been a deliberate strategy of distressed debt funds to extract favorable settlements. To our knowledge, however, there has not yet been a systematic assessment on the link between legal disputes and sovereign access to capital markets. We therefore formulate and test the following hypothesis:

$H1$ Creditor litigation and attachment attempts results in a loss of access to international capital markets.

A second potential externality of creditor litigation is the disruption of trade, as famously proposed by Bulow and Rogoff (1989a). In their model, creditors react to a default by imposing legal sanctions which reduce a country's gains from trade in financial and goods markets. Trade financing could be cut off and countries may need to trade in roundabout ways to avoid seizures. Rose (2005) was the first to bring this idea to the data, showing that defaults are indeed associated with decline in trade, although he does not analyze the underlying channel.[27]

Case studies from Ecuador, the Republic of Congo, and Zambia in Appendix 1 illustrate how sovereign debt lawsuits can disrupt international trade. A frequently applied strategy by creditors was to seize or block the proceeds from commodity exports such as oil and copper. Creditor threats of seizing trade shipments go back to the 1980s, when Brazil prepared its 1987 moratorium by ordering "Brazilian oil tankers to sail from foreign ports to avoid sequestration" (Financial Times, 23 February 1987). A more recent case is Iraq after 2003, when the country faced pending lawsuits on defaulted Saddam-era debt in US courts. The threat of creditor attachments on its oil exports was perceived as being so severe, that the UN Security Council issued a special resolution to make Iraq's petroleum exports immune from "any form of attachment, garnishment, or execution" (UN Resolution 1483, 22 May 2003; Buchheit et al. (2013b)). Despite these examples, no paper has yet studied the link between trade flows and legal disputes systematically. This brings us to our second testable hypothesis:

$H2$ Creditor litigation and attachment attempts result in a decline in international trade.

The third potential externality studied is delay in crisis resolution. Creditor coordination problems have been an important concern in the policy debate on sovereign debt over the past 20 years (Roubini and Setser, 2004; Bolton and Jeanne, 2007). (Shleifer, 2003, p. 87), for example, emphasizes that creditor litigation may induce significant "delays [in] settlement, possibly prolonging recessions and raising the cost of IMF programs". Recent policy reports such as Gianviti et al. (2010), Buchheit et al. (2013b) and IMF (2013) also describe litigation and holdouts as a main stumbling block for quick and efficient debt workouts. Pitchford and Wright (2007) and Pitchford and Wright (2012) formalize these concerns in the framework of a dynamic bargaining model, in which delay arises because holdout creditors refuse to settle in order to extract better terms. Here, we aim to shed new light on whether this type of delay is empirically relevant.

[27] Diaz Alejandro (1983) and Mitchener and Weidenmier (2010) provide evidence that sanctions and military interventions ("supersanctions") by creditor countries had adverse effects on international trade.

Appendix 1 provides anecdotal evidence on how legal disputes contributed to delays in debt restructurings of the 1980s, 1990s and 2000s. One explanation is that "vulture" creditors often enter the scene only in the last stage of a restructuring process, just before a final agreement is reached with banks or bondholder groups.[28] The entry of professional distressed funds can alter the bargaining setting and disrupt the closure of the deal, even if such delays are not explicitly intended by the "vulture" investors themselves. The case studies show that holdout litigation can cause delay for a variety of reasons: (i) governments may refuse to continue negotiating if creditors litigate or threaten to litigate; (ii) minimum participation threshold may no longer be reached if too many investors decide to follow the strategy of "vulture" funds and other holdouts; (iii) and creditor committees may no longer be sufficiently representative. The deadweight losses resulting from these delays can be costly ex-post, both to the government and to the majority of creditors. Based on these insights and the received literature, we therefore formulate and test our third hypothesis:

$H3$ Litigation can result in delay in sovereign debt renegotiations and settlement.

In the empirical analysis we will rely on three measures of creditor litigation against sovereigns. The first variable, denoted as "any litigation", is a dummy capturing whether the government faced at least one sovereign debt lawsuit in a given year (in London or New York). The second measure captures the scope of litigation, computed as the share of litigated claims in total debt restructured. Third, we use an "attachment" dummy capturing whether the sovereign faces ongoing attachment proceedings and, thus, immediate threats of asset seizures.

4.2 Litigation and bond market access

4.2.1 Access: empirical approach and preliminary analysis

To test Hypothesis $H1$, we need a measure of government bond market access in international markets. For this purpose, we rely on the most comprehensive database on sovereign primary market issuance, namely the Dealogic dataset (formerly Bondware), which is used by the IMF and many other financial institutions to track global issuance patterns. Dealogic was also used by Gelos et al. (2011), a widely cited article on sovereign market access which focuses on the period 1980 until 2000.

A key challenge for any empirical analysis of market access is to disentangle (i) supply effects due to foreign credit rationing and (ii) demand effects, i.e. a lack of demand for foreign credit by the government. It is difficult to judge whether a country is "excluded" at a given point in time, or whether it freely chooses not to issue debt. As discussed in Gelos et al. (2011), this identification problem can be reduced by restricting the sample to capital-scarce countries, for which neoclassical growth theory predicts a high and continuous demand for foreign financing. We therefore focus on developing and emerging market

[28] Jay Newman, a senior portfolio manager of the distressed debt fund Elliott, made clear that their "approach has always been to look for countries with a good prospect of renegotiating debt," (The Sunday Times, 15 June, 2008).

countries and drop advanced economies who do not usually face credit constraints (at least before 2010).[29] For robustness, we also drop all developing countries classified as "net creditors" by the IMF's World Economic Outlook publication of 2000 or 2010, which includes oil exporters plus a few other resource-rich countries. Moreover, we check the results if we exclude years with a budget surplus, since this will reduce the government's demand to borrow in international markets.

To measure debt issuance, we retrieve data on 4,091 international sovereign bonds issued between 1980 and 2010 by central governments across 101 countries worldwide (most issuances are in London or New York). For robustness, we also retrieve bonds issued by public or publicly guaranteed firms (28,484 bonds worldwide), as well as on sovereign loans syndicated in international markets (2,564 loans by central governments and 12,192 loans by public or publicly guaranteed firms). We then aggregate the micro data on an annual basis.

The main dependent variable for market access is a dummy which takes the value 1 if the government placed a bond in international financial markets in that year and 0 otherwise.[30] Table 4 shows summary statistics on sovereign bond issuance with and without litigation. In non-crisis times, bond placements occur in only 13% of all country-year observations between 1980 and 2010. This low ratio is partly due to the fact that more than half of all sovereigns in our sample never tapped international bond markets between 1980 and 2010.

The probability of issuing bonds internationally is significantly lower in years with litigation, compared to years without lawsuits. In total, we observe litigation in 189 country-year events. Out of these, there are only 12 years with an external sovereign bond placement, a ratio of 6.3%. The difference is even more pronounced if litigation exceeds 1% of the debt under renegotiation (three issuance years out of 107 events with significant litigation) and in years with outstanding attachment proceedings (two issuance years out of 109). There are interesting time trends in the data, too. External bond issuances increase substantially in the recent decade, with a nearly 100% increase in the number of access events. But this is only true in the absence of litigation. Indeed, between 2000 and 2010, we could not identify a single case in which governments tapped external bond markets in a year in which they also faced creditor litigation.

We next look at post-crisis episodes, in particular on those 58 yearly cases in which creditors continued to litigate (with attachment proceedings) after the debt crisis formally ended. Out of the 58 post-restructuring spells with attachment attempts we find only one case with a successful bond placement (1.7%).[31] This is despite that fact that post-crisis

[29] Accordingly, we also drop territories in a union with an advanced country, e.g. Greenland (of Denmark), Puerto Rico (of the USA) or French Polynesia (of France).

[30] Contrary to Gelos et al. (2011), we explicitly include issuances that merely roll-over debt coming due (evergreening), i.e. access years in which the country is effectively repaying and not borrowing. This is because we are broadly interested in market access (and the loss of it) both for the purpose of refinancing as for new borrowing. However, we do exclude all bonds and loans issued in the context of a debt restructuring.

[31] The event was a USD 500 m bond that was issued by Ecuador in 1997, one year prior to its default at an interest rate above 10%

years are usually periods of heightened sovereign issuance activity, as shown in Table 4. Indeed, the probability of issuing a sovereign bond in the three years following a debt crisis is 18.4% in case of no litigation (excluding bonds issued in a debt restructuring). This is more than 10 times the probability of bond issuance than in post-crisis years with attachment litigation.

The stark differences in borrowing patterns with and without litigation are further illustrated in Figures 4 and 5. Figure 4 plots the distribution of bond issuances for the entire dataset, which shows that very few bonds have been issued while litigation was pending, and those that could be observed were comparatively small in size. Figure 5 focuses on the case of Argentina after its 2001 default. The country was among the most active emerging market sovereign bond issuers during the 1990s, but it has not placed a single sovereign bond in international markets between its moratorium of January 2002 and December 2013, a spell of 12 years. The private sector, in contrast, has re-accessed foreign bond markets on a regular basis starting in late 2003, when economic conditions improved.

Did Argentina's government voluntary abstain from foreign markets? Until the mid-2000s, the answer is probably yes. The country achieved substantial debt relief in its 2005 debt exchange (involving a 75% haircut) and also succeeded in borrowing on domestic markets as well as bilaterally, from countries such as Venezuela. But in recent years, the government has run substantial deficits and repeatedly signaled its willingness to return to foreign bond markets.[32]. Indeed, market observers, the financial press and US officials all share the view that "holdout lawsuits have effectively barred the Government of Argentina from international markets, just as its financing needs are expected to spike during 2009-2011" (US embassy cable of September 23 2008, released by Wikileaks).

Summarizing, the descriptive evidence suggests a strong negative correlation between sovereign bond issuances and the occurrence and intensity of sovereign debt litigation in US and UK courts.

To account for country-specific effects as well as time-varying determinants of market access, we next run fixed effects panel regressions following Gelos et al. (2011). As above, our main dependent variable is an "access" dummy capturing whether the country issued one or more sovereign bonds in a given year. In the robustness section, we also create alternative access measures, in particular (i) a dummy that also accounts for sovereign syndicated loans signed in that year (bond *or* loan placement), (ii) a dummy also capturing bond issuance by public or publicly guaranteed firms (sovereign *or* public sector access), (iii) a dummy measuring "full access", defined as 1 for those years in which sovereign bond issuances exceed 1% of GDP, and (iv) a continuous measure of sovereign bond issuance to

[32]See e.g. MercoPress, August 4, 2009, "Argentina pays bond and seeks to return to global capital markets", or Bloomberg, December 5, 2013, "Argentina's return to bond market seen in Blejer road map"

GDP (in per cent). We estimate the following equation:

$$\begin{aligned}&\text{logit}(Prob(Access_{it}=1)) = \\ &\beta_1 ShareLit_{it} + \beta_2 log(GDP/capita)_{it-1} + \beta_3 Debt/GDP_{it-1} + \beta_4 Reserves/Imports_{it-1} \\ &+ \beta_5 Short/Total_{it-1} + \beta_5 \delta GDP_{it-1} + \beta_6 Trade/GDP_{it-1} + \beta_7 PolRisk_{it-1} + \beta_8 IMF_{it-1} \\ &+ \beta_9 Default_{it-1} + \beta_{10} Default3Yr_{it} + \alpha_i + \theta_t + \epsilon_{it}\end{aligned} \tag{1}$$

where $Prob(Access = 1)$ denotes the probability that government i had foreign bond market access in year t. After a standard logit transformation we can estimate the corresponding coefficients. Specifically, we include measures of solvency (Debt/GDP), liquidity (share of short-term debt, reserves to imports), GDP per capita and the real growth rate, a measure of economic openness (imports plus exports to GDP) a proxy for political risk as well as crisis-related variables, in particular whether the country signed an IMF rescue program and whether the country is (or has been recently) in default. In addition, we include proxies for the severity of the debt crisis, in particular the size of haircuts from Cruces and Trebesch (2013) and a continuous credit rating measure by the Institutional Investor magazine (we use the rating residual to avoid multicollinearity). Table 3 in the Appendix describes the set of time-varying control variables, which are all lagged by one year.

For reasons of data availability we drop small countries with a population of less than one million (in 2010). This yields a final panel of 133 developing countries, of which only 66 issued a sovereign external bond in our sample. The inclusion of country fixed effects implies that our analysis focuses on this subset of 66 market access countries, which experience both spells of access and of non-access (exclusion) over our sample period. We also include year fixed effects, to account for shocks such as the Mexican crisis of 1995 or the global financial crisis after 2008. Identification thus comes from the within-country variation in litigation events after accounting for global trends.

4.2.2 Access: estimation results

Table 6 shows our main result: legal disputes are a significant predictor of foreign bond market issuances by developing countries.[33]. The plain litigation indicator is not significant, but the continuous measures of litigated claims to total debt restructured and the dummy for attachment attempts are significant throughout. This is true after controlling for country and year fixed effects, time varying macroeconomic and political conditions and current and lagged default. Litigation thus appears to play a role above and beyond the debt crisis effect per se. The relevance of our finding in non-crisis times is further confirmed in column (4) which excludes all default years according to Standard & Poor's (2006, 2011). The main results also holds when we restrict the sample to the period after 1992, when "vulture funds" entered the scene and bond issuance became the main vehicle of sovereign lending (column 5). Moreover, our findings hold if we drop resource-rich countries classified

[33]The results on Debt/GDP, the default dummies and ratings are also in line with Gelos et al. (2011)

as "net creditors" (column 6), and if we drop years in which the government had an overall budget surplus and may therefore not have wanted to borrow abroad (litigation remains significant at the 10% level, results not reported).

The estimated coefficients are economically large. The predicted probability of bond market access in our benchmark models in column (2) and (3) drops from 19.1% to 0.7% once a country faces litigation with attachment attempts.[34] At the average share of litigated claims (3.3% of restructured debt in this sample), the predicted probability of access is only 1.7% in a given year. This probability drops to virtually zero once we increase the scope of litigation by half a standard deviation above the mean (to 6.5% of restructured debt).

We next account for the fact that litigation does not occur randomly, but is more likely after "tough" defaults with high haircuts as shown in Schumacher and Trebesch (2014). Columns (7) and (8) address this potential selection effect into litigation. Column (7) includes the credit rating residual, which we obtain by regressing the Institutional Investor credit rating (ranging from 0 to 100) on the other macroeconomic control variables. In column (8) we then replace the binary default dummies (current and lagged) with a variable that captures the size of haircuts (in %), assigned for each year in the respective debt restructuring spell, as well as a 3-year haircut lag. The results confirm the main finding of Cruces and Trebesch (2013) in that higher haircuts are associated with a lower probability of regaining market access. Moreover, litigation remains significant with a slightly lower marginal effect. The same is true if we include ratings.

The remainder of Table 6 uses alternative dependent variables. In column (8) we show that the results are similar when using an access dummy that accounts for issuances by public or publicly guaranteed firms. This is important since sovereigns may issue debt via state owned companies to circumvent litigation. Column (9) also considers sovereign syndicated loan agreements. Litigation remains significant, but only at the 10% level and with a smaller marginal effect. Column (10) uses a dummy of "full access", while columns (11) and (12) use bond issuance to GDP as a dependent variable. In each case litigation remains a significant predictor. This is also true when dropping the three main countries affected by sovereign legal disputes, namely Argentina, Brazil and Peru (see column (12)).

In a last step, we run a placebo test using private sector foreign bond issuance to GDP, in the spirit of Figure 5. To construct this additional dependent variable, we again rely on Dealogic and retrieve details on all 4,764 externally issued bonds by corporations across 70 developing countries between 1980 and 2010, and counting only issuances by domestic firms not owned by a foreign mother company. Column (13) shows that our litigation measure is insignificant and has much smaller coefficient. We conclude that legal disputes over sovereign debt matter only for the governments market access, but not for external bond issuance of the private sector.

[34] This translates into an average marginal effect of -0.42, assuming $\alpha_i = 0$.

4.3 Litigation and international trade

4.3.1 Trade: empirical approach and preliminary analysis

To test Hypothesis *H*2, on the effects on international trade, we build on the widely-used empirical framework by Rose (2005) and Martinez and Sandleris (2011).[35] They employ a standard gravity model of international trade using the average value of annual real bilateral exports and imports (in logs) as the dependent variable and bilateral default indicators as main explanatory variable. Specifically, Rose (2005) exploits information on Paris Club renegotiations of official (government-to-government) debt between developing country debtors and about 20 creditor governments, which yields a country-pair measure of default. To test for the general decline in trade after default, Martinez and Sandleris (2011) control for an additional variable indicating if *any* Paris Club debt was rescheduled in a given year, not only via-a-vis the bilateral trading partner. Both studies find a strong and long-lasting negative correlation of sovereign defaults and trade, but neither of the two tests for a channel underlying the decline in trade.

Here we test the proposition of Bulow and Rogoff (1989a) that litigating creditors are capable of disrupting trade flows, thus contributing to the observed decline in trade volumes after a default. In line with Bulow and Rogoff (1989a) we focus the analysis on litigation cases that involve attempts to attach debtor country assets, also because litigation without the threat of asset seizures should not matter for trade in goods. Attachment attempts could disrupt trade directly, since they reduce the observable payment and export flows, or indirectly, due to the anticipated effects of legal action on future goods exchange. Empirically, we employ the same benchmark model as the aforementioned studies, but augment it with indicators for legal creditor action:

$$ln(Trade_{ij,t}) = \gamma AttachLit_{ij,t} + \beta X_{ij,t} + \sum_{n=0}^{N} \phi Restr_{ij,t-m} + \epsilon_{ij,t} \tag{2}$$

where $Trade_{ijt}$ denotes the mean of the export and import flows between countries i and j in year t, $AttachLit_{ij,t}$ is coded as 1 if one of the countries faces creditor litigation with attachment attempts in year t and 0 otherwise, $Restr_{ij,t}$ is an indicator which captures bilateral default (Paris Club restructurings) involving i and j, and N represents a number of lags of the default indicator. $X_{ij,t}$ is a vector of the standard gravity controls used in previous studies. $\epsilon_{ij,t}$ is an error term containing a time-varying random part which is zero in expectation and a country-pair specific constant.

The main coefficient of interest is γ, which captures the additional impact of creditor attachment attempts. If attachments disrupt trade we expect γ to be negative and significant.

As in section 4.2, we use the same data and estimations as previous papers. Specifically,

[35] Additional papers on the link between trade and default include Borensztein and Panizza (2009) and Kohlscheen and O'Connell (2006) who focus on trade credits, as well as Borensztein and Panizza (2010) and Zymek (2012) who use industry-level data.

we build on Rose (2005) and expand his dataset until 2007 for 207 countries and territories (building on Agronovsky and Trebesch, 2009). Bilateral trade volumes come from the IMF's Direction of Trade Statistics (as of May 2008), while the data on restructurings are taken from the Paris Club website (as of December 2008). We also include a control variable for the onset of an IMF program (from the IMF website), real GDP in levels and per capita from the World Development Indicators, colonial relationships from the CIA World Factbook, currency unions from Glick and Rose (2002), and regional trade agreements from the WTO (the latter three variables are taken from the original Rose dataset). Country- and dyad-specific factors such as distance, common borders, and further time-invariant variables are absorbed by the dyad fixed effects and thus not explicitly included. Our main explanatory variable (*AttachLit*) indicates whether litigating creditors filed enforcement proceedings or launched attachment attempts against the defaulting country in a given year.

Table 5 shows summary statistics on the relationship between litigation and international trade, where trade is measured as average imports plus exports between two countries (in per cent of their average GDP). In a first step, we divide the sample into normal times (non-crisis years) and crisis years (with at least one country in the dyad being in a debt crisis). For the sake of this Table, default is captured by Paris Club restructurings and includes the immediate post-default episode (three year lag). In line with Rose (2005) and Martinez and Sandleris (2011) we find that trade is significantly lower during and after sovereign defaults. The mean bilateral trading volume in normal times is ca. 0.5% of average GDP, compared to less than 0.2% in default episodes. In a second step, we compare years with and without pending attachment proceedings by litigating creditors. We find significant differences, as bilateral trade is less than half during years with attachment attempts. This result, however, may be due to the fact that most litigation cases occur during debt crises, when trade is generally lower. In a last step, we therefore focus on post-crisis episodes (outside default) and compare years with and without ongoing attachment attempts. The results confirm that trade is significantly lower if creditors continue to litigate aggressively in the aftermath of debt crises.

4.3.2 Trade: estimation results

The results from equation 2 are reported in Table 7. All estimates include country-dyad fixed effects, $N = 10$ lags for the restructuring indicator, and show standard errors clustered on country-pair level. The main insight is that legal creditor action is a significant predictor of trade flows. While the plain litigation dummy is not significant (column 1), the continuous measure on the share of debt litigated is significant with a sizable negative coefficient (column 2). As expected, the results are strongest when including the indicator of litigation with attachment attempts. Indeed, attachment attempts are associated with a decline in bilateral trade of about 11 percent over and above the impact of a default per se (column 3). This is an economically very large effect. All other findings are similar

to Rose (2005). In particular, we find that a debt rescheduling between two countries is associated with a 6 percent reduction in trade between these countries. Put differently, we find that legal disputes are a more important factor to explain trade during crises than default events per se.

In Column (4) we show that the result is robust when following the model by Martinez and Sandleris (2011), which includes a general restructuring indicator as well as the bilateral dummy used by Rose. Like Martinez and Sandleris (2011) we find the general restructuring variable and its lags to have more explanatory power, while the bilateral restructuring dummy turns insignificant. However, the dummy for attachment attempts is large and statistically significant in both models, so that we can confirm that countries facing seizure proceedings see a decline in their trade of more than 10%.

As before, we also account for the possibility that litigation is itself the consequence of particularly severe defaults with high haircuts. We therefore augment the specification by including the size of haircuts in years with a restructuring with private (not Paris Club) creditors as well as by adding a three-year haircut lag (using data by Cruces and Trebesch (2013)). Column (5) shows that the results on litigation hold and that creditor losses appear to be relevant: a one-percentage point increase in haircut size is associated with a 0.6% decline in trade - over and above the Paris Club restructuring effect.

The remainder of Table 7 shows results of additional robustness checks: column (6) includes decade fixed effects, column (7) restricts the sample to post 2000 years, column (8) drops Argentina, Brazil and Peru, the debtor countries facing most creditor litigation cases in our sample, while column (9) includes the Institutional Investor ratings (we again use residuals to account for multicollinearity). Our main finding holds when dropping the three most affected countries and when controlling for ratings, but we no longer find attachment attempts to be significant once we control for time trends or year effects. Nevertheless the sign and size of the coefficient remains large. In a final step, we check in how far the results hold in various subsamples. We find the model to be rather sensitive to the time period chosen. Most importantly, we find that the link between default and trade is no longer significant in the 2000s. However, attachment litigation continues to show a large marginal effect and remains significant, albeit only at the 10% level (column 7).

Overall, our results provide supportive evidence on *H2*, but the estimated coefficients are less robust than with regard to market access. In particular, we find litigation to turn insignificant once we account for time trends in the data.

4.4 Litigation and restructuring delay

4.4.1 Delay: empirical approach and preliminary analysis

To analyze delays in debt crisis resolution (*H3*) we draw on a new monthly dataset by Trebesch (2013), who codes the process of debt restructurings between sovereigns and foreign commercial creditors in the period 1970-2010 (based on qualitative sources and using the sample of Cruces and Trebesch (2013)). Our main period of interest is the debt

renegotiation period - from the start of talks between creditors and the government[36] until the final debt restructuring, which is observed for 131 restructurings in our sample.[37] We thus drop the starting phase of a debt crisis and, thus, years of unilateral default without negotiation. This helps us in several respects. First, the starting phase of default without negotiations can be very long (on average more than a third of total duration) and these initial delays may be intended by debtor governments that have no ability or willingness to resume payments.[38] Dropping years of unilateral default will also allow us to address concerns of reverse causality, since protracted defaults can motivate creditor lawsuits in the first place. One such example is the case of Peru in the early 1990s, where creditors filed suit with the explicit purpose of forcing the government to the negotiation table after five years of unilateral default.[39] We therefore focus on those (sub-)episodes in which both the government and creditor representatives clearly signaled their willingness to engage in serious debt restructuring talks. Nevertheless, we will also show that the results hold when using total restructuring duration, defined as the month from the start of the crisis (default or the announcement of a debt exchange) until the final restructuring.

When matching the duration data with our measures of litigation we automatically constrain the analysis to pre-restructuring litigation, meaning lawsuits or attachment proceedings that are initiated prior to the official closure of the debt restructuring. In line with Hypothesis *H3* we therefore disregard all lawsuits that are initiated only after the conclusion of the restructuring (43% of all), since they can no longer cause delays in concluding a debt settlement with the majority of creditors.

The resulting summary statistics show that negotiations take significantly longer to conclude when creditors litigate in London or New York. On average, the period from the start of negotiations until the key debt settlement takes 32 months without litigation, but 74 months with litigation, more than twice as long. These patterns are confirmed when plotting non-parametric Kaplan-Meier survival estimates. The resulting statistic reports the compound probability of not having finalized a restructuring for each month after the start of negotiation. Figure 6 shows that, at each point in time, negotiations involving creditor lawsuits show a lower probability of being concluded, with differences significant at the 10% level.

To assess the determinants of restructuring duration more systematically, we next estimate a semi-parametric Cox proportional hazard model which can deal with the problems of censored observations and multiple events. For this model, the hazard rate for

[36] The start of debt negotiations is the month of the first formal meeting with the bank advisory committee (for bank deals of the 1980s and 1990s) or the first meeting with bondholder representatives for the sake of debt restructuring (for bond deals).

[37] the final debt restructuring date is defined as the month of the official debt exchange/settlement (for bond deals) or the month of the final agreement (for commercial bank deals).

[38] Bi (2008) and Benjamin and Wright (2009) show that both countries and their creditors can benefit from waiting for a larger cake, thus postponing debt renegotiations until the economy recovery.

[39] Between 1990 and 1993, the Fujimori administration refused to start debt negotiations or resume payments, stating that it intended to wait until the economy had improved. The debt restructuring process was initiated only in late 1993.

the ith individual (or ith negotiation episode) can be written as

$$H_i(t) = h_0(t)\exp(\beta z) \tag{3}$$

where $h_0(t)$ is the baseline hazard function, z a set of covariates and β a vector of regression coefficients. A main advantage of the Cox model is that it is not necessary to specify a functional form of the baseline hazard rate $h_0(t)$. Instead, the shape of $h_0(t)$ is assumed to be unknown and is left unparameterized. Accordingly, we estimate reduced form models via partial likelihood and allow the functional form of the hazard function to be explained by the data. To avoid misleading inference due to repeated events (multiple restructurings of the same country), we rely on the variance correction method proposed by Lin and Wei (1989).

The Cox model is also advantageous since it allows us to include time varying litigation measures. The dummy variables on litigation and attachment proceedings can be switched on (and off) in those months in which they are initiated (or ended). More importantly, we can now measure the continuous share of claims in total debt restructured at monthly frequency, thus capturing the scope of debt under litigation at each point in time. We expect the scope of litigation to matter most for negotiation delays, since more (expected) holdouts will reduce creditor participation and potentially undermine any agreement reached between governments and creditor representatives. The share of debt litigated is therefore our main variable of interest.

All specifications include year fixed effects and a set of control variables, which is important since the same factors causing settlement delays could also cause litigation to occur. Specifically, we account for creditor characteristics, in particular a dummy for bond restructurings and a dummy capturing whether creditors organized themselves into a committee that was officially recognized by the debtor government (both from Trebesch, 2013). We also account for debtor country characteristics, in particular whether restructuring was under the umbrella of the HIPC initiative or otherwise supported by the World Bank's debt relief initiative for the poorest countries, as well as a (monthly) dummy variable capturing whether the country was currently under an IMF program (from the IMF website). We also include a proxy for global interest rates for risky borrowers (using the monthly Baa Corporate Bond Yield index by Moody's) and a variable on the number of previous restructurings since 1970 to explicitly account for restructuring experience.

Furthermore, in the robustness analysis, we control for the size of haircuts implied in each of the restructurings (from Cruces and Trebesch (2013)), for Institutional Investor country credit ratings (available at semi-annual frequency), for per capita GDP (annually at PPP, from the World Development Indicators) as well as for a monthly measure of economic growth forecasts, namely the ICRG indicator on the risk to real GDP growth. Table 3 in the Appendix describes each variable in detail.

4.4.2 Delay: estimation results

Table 8 shows the results for various specifications of the Cox proportional hazard model. A positive coefficient indicates that higher values of that variable are associated with quicker settlement relative to the baseline, while negative coefficients indicate longer negotiation duration.

The main finding is that our litigation indicators show a negative and statistically significant coefficient throughout. The baseline coefficient of -0.40 in column (3) implies that a one percentage point increase in litigated claims (to total debt restructured) can be associated with a 34% lower likelihood of successful renegotiation in any given month. The occurrence of pre-restructuring litigation per se (column 1) appears to lower the probability of settlement by 60%. Columns (4) and (5) show that litigation remains significant when dropping the three main countries affected by litigation (Argentina, Brazil and Peru) and when restricting the sample to crises starting after 1992 with a somewhat higher quantitative effect.

The results are qualitatively similar when we account for potentially important confounders. In column (6) we add the country credit rating variable, which has little impact on the estimates. Column (7) shows that litigation remains significant when controlling for haircut size, although the estimated litigation coefficient is notably reduced. In contrast, the litigation coefficient actually doubles when we control for income levels and growth prospects in column (8). This is surprising and may be due to the considerably smaller sample in this specification.[40] In a final step, we show that litigation also remains significant when considering total duration instead of only the duration of negotiations (see column (9)).

Taken together, the evidence supports Hypothesis *H3* suggesting that legal disputes do indeed result in delays in debt settlements. Nevertheless, our empirical approach does not allow us to fully rule out the possibility of reverse causality or of a confounding factor driving both delay and litigation intensity. Our main result should therefore not be interpreted as a causal effect, but rather as a strong conditional correlation.

5 Conclusion

This paper shows that legal disputes between creditors and governments have become a central ingredient of sovereign debt markets, in particular during crisis times. The process and outcome of sovereign debt litigation have undergone fundamental changes over the past decades, as debtor defenses collapsed and specialized holdout investors became the main type of plaintiff. Our case studies and econometric results also indicate that legal

[40] If our empirical model is misspecified, this result might also be driven by multicollinearity. Indeed, we find that the ICRG indicator of growth prospects is highly correlated with our measure of share litigated, with a correlation coefficient of 0.43. This suggests that legal action is more likely in good times, which is in line with the strategy of major distressed debt funds. Elliot manager Jay Newman, for example, explained in a 2008 interview that "we do not acquire the debt of countries that have no means to pay." (June 15, 2008, The Sunday Times).

disputes can have significant effects on the real economy, by impeding government external borrowing, reducing international trade, and delaying crisis resolution.

These insights have implications for theory. Most importantly, our findings are consistent with the idea that creditors can retaliate against defaults with legal action and by "throwing sand in the wheels" of the economy in defaulting countries. We thus provide empirical backing to models assuming legal sanctions or related deadweight costs of default, e.g. Bulow and Rogoff (1989a), Bolton and Jeanne (2007) and many others. Litigation also appears to be one channel explaining *why* governments are excluded from foreign credit markets in the aftermath of default (e.g. Eaton and Gersovitz, 1981; Arellano, 2008; Pitchford and Wright, 2012).

Looking forward, there are few reasons to assume that the ex-post cost of legal disputes will decrease anytime soon. Collective action clauses, in particular, are unlikely to prevent litigation and holdouts in future debt crises. Indeed, the newly introduced Euro-CACs are no "wonder-clause", but likely to disappoint the high hopes that some place on them, as explained by Gelpern and Gulati (2013), IMF (2013) and Zettelmeyer et al. (2013).[41] We therefore see the need for more research on sovereign debt disputes.

To conclude, one might ask: has the "legal threat" to defaulting affected sovereign lending or government willingness to pay? Answering this question is challenging and goes beyond the scope of this paper. What we can say with some certainty, however, is that the risk of litigation has influenced the way debt crises have been resolved in recent years, in particular the design of debt exchange offers and the treatment of holdout creditors. An important example is the Greek debt restructuring of 2012. At the time of writing, Greece continues to pay holdout creditors of 'old' English-law bonds in full and on time, i.e. 100% of face value. Reportedly, concerns of litigation in UK courts have been a main reason why Greece decided not to impose a haircut on its English-law holdouts, thus foregoing EUR 4.1 bn in additional debt relief (more than 2% of Greek GDP). On a broader level, Buchheit et al. (2013b) argue that the fear of litigation and holdouts is an important explanation why we have seen so few sovereign debt restructurings in Europe. To avoid a "messy" default á la Argentina, policymakers may have become more prone to official sector bailouts.

[41] Euro-CACs have high voting thresholds and their design will make it relatively easy for creditors to reject a restructuring, hold out or go to court. Besides, it takes time until any new contractual clause becomes effective in the entire outstanding debt stock. Even if the Euro-CACs were to be modified, we will have to wait 5 to 10 years until the new bonds become the dominant type of sovereign debt outstanding in the Eurozone.

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Figures

Figure 2: The rise of creditor litigation (case number and amounts)

The bars show the number of outstanding creditor lawsuits against sovereigns in US and UK courts for each year between 1976 and 2010 (pending cases, left axis). The blue line reflects the total amount under litigation in 2005 USD excluding accrued interest or penalty interest (face value, right axis). The figure shows a strong increase in case numbers and case volumes over the past decades.

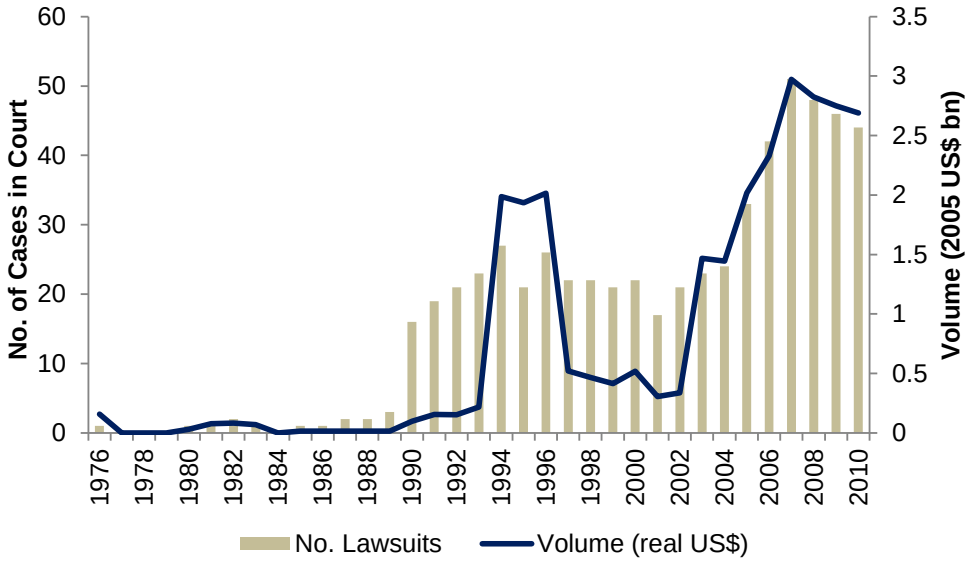


Figure 3: Restructurings with and without litigation

The figure shows the number of sovereign debt restructurings implemented in each year (left axis, light bars) and the subset of these restructurings that were affected by at least one creditor filing suit in a US or UK court (dark bars). The red line depicts the five-year moving average of the ratio of debt restructurings affected versus those not affected (share affected in %, right axis).

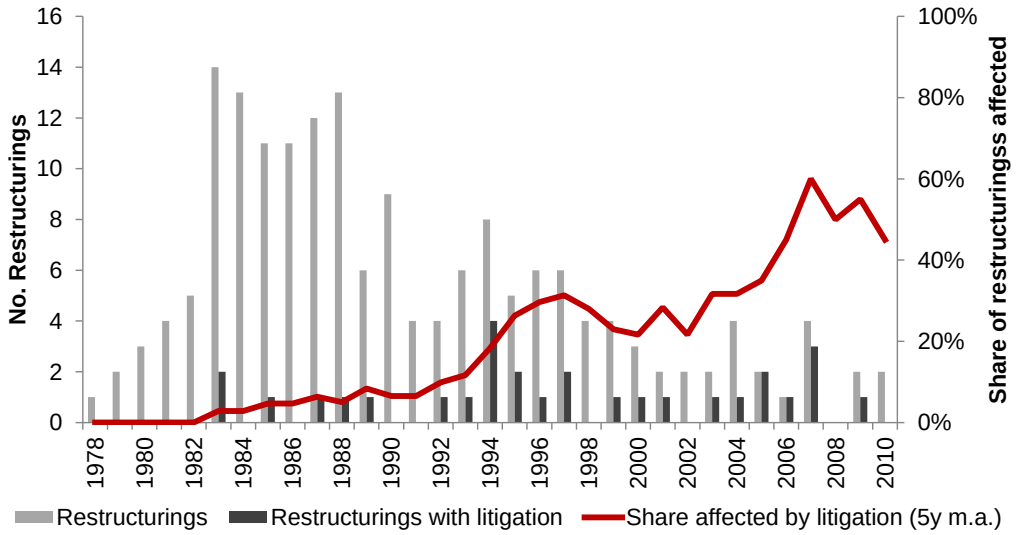


Figure 4: Bond market access with and without litigation

The figure shows histograms on the frequency and amounts of sovereign external bond issuances. The sample is divided into the subset of country-years with litigation (red bars, right axis) and without litigation (blue bars, left axis). The figure shows statistics only for those years with bond issuance.. The data show that only very few bonds are issued while governments face litigation (including crisis years and non-crisis years).

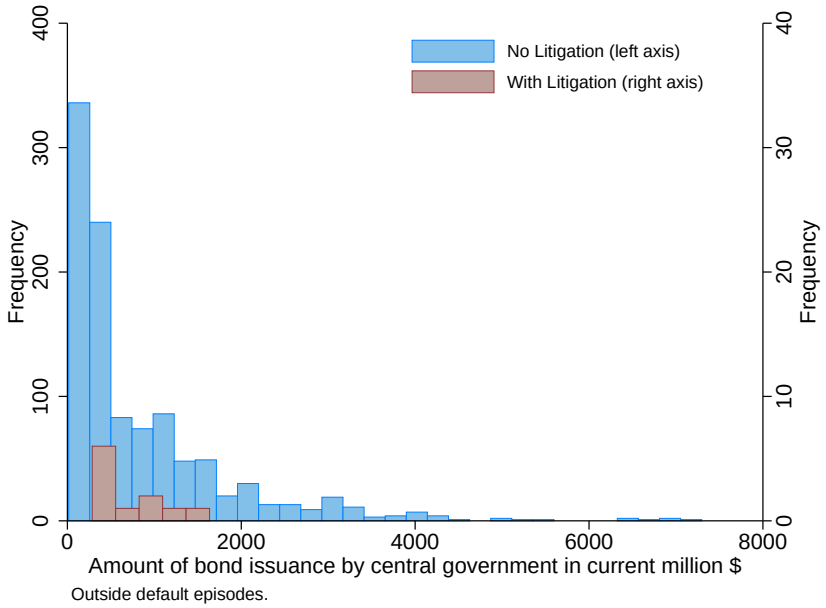


Figure 5: Foreign borrowing in Argentina: sovereign vs. corporate

The figure plots the volume of bonds placed by the Argentine government (dark bars) and private Argentine companies (light grey bars) between 1997 and 2013. Both the government and private firms were active borrowers in the 1990s. After the 2001 default, only the private sector returned to issuing bonds internationally. The loss of market access by the Argentine government coincides with more than 40 lawsuits filed by private creditors over the past decade.

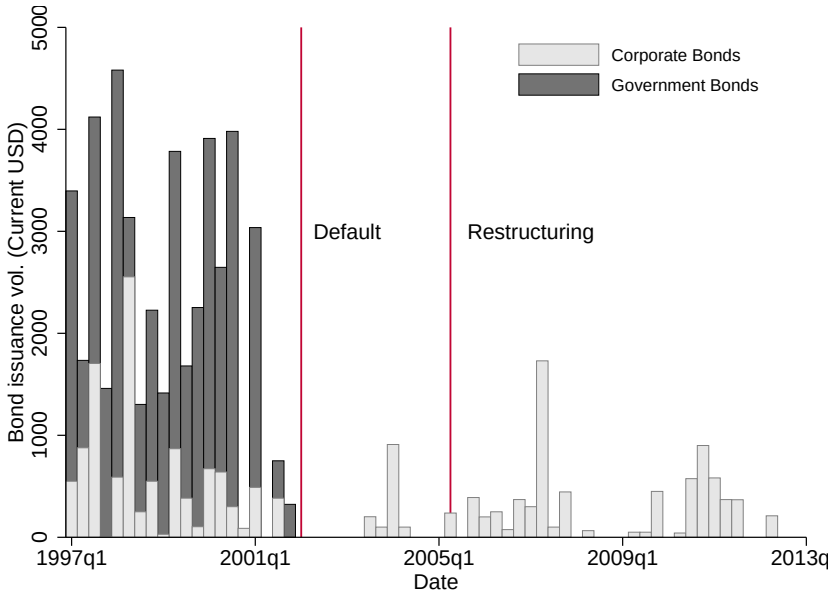
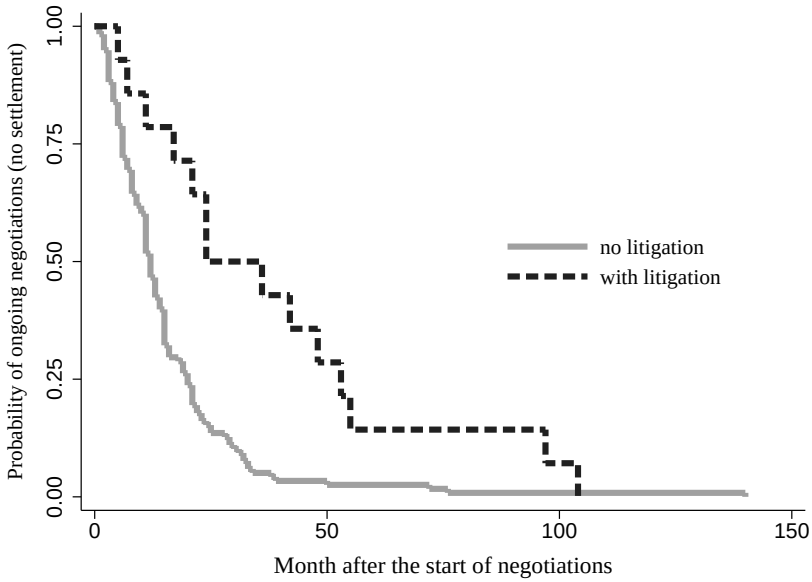


Figure 6: Duration of negotiations with and without litigation

This figure plots two survival functions of restructuring negotiations with and without creditor litigation. The vertical axis shows the Kaplan-Meier survival estimate for each function, which represents the unconditional joint probability that negotiations continue for each month after the start of the negotiations (horizontal axis). The estimates show that restructuring negotiations without creditor litigation are mostly concluded after three years, while those involving litigation have a more than 25% probability of exceeding four years. The differences are significant at the 10% level.



Tables

Table 1: Litigation cases by decade, region and type of creditor

		All Cases		Cases excluding Argentina 2001-10	
Total cases		120		79	
Debtor countries		25		25	
HIPC cases		21		21	
		Number	Percent	Number	Percent
Decade	1970	2	1.7%	2	2.5%
	1980	6	5.0%	6	7.6%
	1990	51	42.5%	51	64.6%
	2000	55	45.8%	16	20.3%
Region	Africa	27	22.5%	27	34.2%
	Americas	79	65.8%	38	48.1%
	Asia	12	10.0%	12	15.2%
	Europe	2	1.7%	2	2.5%
Type of creditor	Bank	30	25.0%	28	35.4%
	Fund	63	52.5%	26	32.9%
	Other	21	17.5%	19	24.1%
	Unknown	6	5.0%	6	7.6%
Jurisdiction	US	102	85.0%	61	77.2%
	UK	15	12.5%	15	19.0%
	Arbitration	3	2.5%	3	3.8%
Outcome	Judgment Satisfied	13	10.8%	13	15.5%
	OCS	48	40.0%	47	59.5%
	Failed	4	3.3%	3	3.8%
	Pending	41	34.1%	2	2.5%
	Unknown	14	11.7%	14	17.7%

Table 2: List of Creditor Litigation Cases, by Restructuring Event

Restruct. Event	Debtor	Plaintiff	Type of Creditor	Suit Filed	Outcome	Jurisdiction	Face Value (Mn USD)
2005	*Argentina*	*41 institutional plaintiffs (plus 13 class action suits)*	*fund, other*	*2002-2010*		*United States*	2868.6
		[For brevity, we omit the detailed information on the lawsuits filed against Argentina after its 2001/02 default.]					
1987	Argentina	Weltover, Springdale Enterprises, Bank Cantrada	other	18/10/1989	OCS	United States	1.3
1987	Argentina	Sayal	.	18/05/1992	OCS	United States	.
1994	Bulgaria	A.I. Trade Finance	other	15/03/1996	Judgment satisfied	Arbitration	12.0
1993	Bolivia	Woodstead Associates	.	17/05/1993	OCS	United States	0.9
1994	Brazil	CIBC Bank And Trust Company	fund	28/06/1994	OCS	United States	1400.0
1998	Cote d'Ivoire	Water Street Bank & Trust	fund	04/04/1994	OCS	United States	8.0
2003	Cameroon	Del Favero	other	.	.	United Kingdom	2.9
2003	Cameroon	Winslow Bank and Trust	fund	.	OCS	United Kingdom	9.9
1989	Congo, Dem. Rep.	Red Mountain Finance	fund	31/12/1997	OCS	United Kingdom	8.6
1988	Congo	National Union Fire Insurance of Pittsburgh	other	15/07/1987	Judgment satisfied	United Kingdom	.
2007	Congo	AF-CAP and Connecticut Bank of Commerce	fund	1985	OCS	United States	6.5
2007	Congo	National Union Fire Insurance of Pittsburgh and C ITOH Middle East	other	1990	OCS	United States	10.4
2007	Congo	Commisions Import Export	other	2000	pending	Arbitration	83.6
2007	Congo	Water Street Bank & Trust	fund	18/03/1994	OCS	United States	.
2007	Congo	FG Hemisphere Associates	fund	26/09/2001	OCS	United States	35.9
2007	Congo	Kensington International	fund	14/10/2002	OCS	United Kingdom	20.8
2007	Congo	Walker International Holdings	fund	.	OCS	United States	.
1983	Costa Rica	Libra Bank, Banque Rotschild, National Bank of Washington, and 5 further banks	bank	14/09/1981	OCS	United States	40.0
1983	Costa Rica	Allied Bank International	bank	02/1982	OCS	United States	5.2
2004	Dominica	The Export-Import Bank of The Republic of China	bank	07/2005	OCS	United States	11.3
1995	Ecuador	Weston Compagnie de Finance et D'Investissement	fund	26/04/1993	OCS	United States	20.8
1995	Ecuador	Water Street Bank & Trust	fund	14/07/1995	OCS	United States	6.0
1995	Ecuador	Banco del Pacifico and two further banks	bank	12/03/1996	Judgment satisfied	United States	9.7
1995	Ecuador	Asociacion Fe Y Alegria, HSBC, and 11 further banks	bank	07/12/1998	.	United States	.
2000	Ecuador	Libra Bank	bank	23/12/1998	OCS	United States	.
2000	Ecuador	Bank of America	bank	27/02/2001	unsuccesful	United States	5.0
2005	Grenada	The Export-Import Bank of The Republic of China	bank	29/03/2006	pending	United States	20.3
1992	Guyana	Green Mining and Export Services	other	1992	OCS	United States	14.1
1999	Guyana	Booker	.	18/09/2001	OCS	Arbitration	10.5
2006	Iraq	First City, Texas-Houston	bank	15/11/1990	OCS	United States	49.9
2006	Iraq	Commercial Bank of Kuwait	bank	26/09/1991	.	United States	33.0
2006	Iraq	The Bank of New York	bank	24/07/1992	.	United States	.
2006	Iraq	National Bank of Kuwait	bank	17/05/1993	.	United States	20.0
2006	Iraq	Alahli Bank of Kuwait, Lazard, and 14 further banks	bank	22/09/1995	.	United States	.
2006	Iraq	Arab American Bank	bank	11/12/1995	Judgment satisfied	United States	.
2006	Iraq	Midland Bank, Barclays, RBS, BNP, and 8 further banks	bank	05/1996	.	United Kingdom	.
2006	Iraq	Alahli Bank of Kuwait	bank	04/09/1996	OCS	United States	23.7
2006	Iraq	Hyundai Corporation, Hyundai Engineering & Construction	other	02/12/1997	unsuccesful	United States	.
2006	Iraq	Agrocomplect	other	23/01/2007	unsuccesful	United States	47.5
1985	Jamaica	A.I. Credit Corporation	other	.	.	United States	10.0
2009	Liberia	Taiyo Kobe Syndicate	bank	2008	OCS	United Kingdom	.

Table 2: List of Creditor Litigation Cases, by Restructuring Event

Restruct. Event	Debtor	Plaintiff	Type of Creditor	Suit Filed	Outcome	Jurisdiction	Face Value (Mn USD)
2009	Liberia	Colonial Bank	bank	2008	OCS	United Kingdom	5.8
2009	Liberia	Chase Manhattan, Citibank, Bank of Tokyo, UBS, and 10 further banks	bank	12/12/1990	OCS	United States	.
2009	Liberia	Meridien International Bank Limited	bank	10/01/1991	OCS	United States	12.1
2009	Liberia	Liberian National Petroleum Company	other	21/02/1991	.	United States	.
2009	Liberia	Continental Grain Company	other	30/06/1994	Judgment satisfied	United States	.
2009	Liberia	Hamsah Investments and Wall Capital	fund	15/02/2002	OCS	United States	6.5
2009	Liberia	Montrose Capital	fund	07/01/2005	.	United States	26.0
2009	Liberia	JP Morgan Chase	bank	18/05/2006	OCS	United States	.
1983	Nigeria	Texas Trading & Milling Corp.	other	1976	.	United States	56.0
1983	Nigeria	Verlinden	other	1980	.	United States	14.4
1983	Nigeria	Trendtex Trading Corporation	other	04/11/1975	.	United Kingdom	14.0
1995	Nicaragua	LNC Investments	fund	22/08/1996	OCS	United States	26.3
1995	Nicaragua	International Bank of Miami, ANZ Banking Group, Swiss Bank, and 8 further banks and funds	fund	22/07/1997	OCS	United States	175.0
1995	Nicaragua	GP Hemisphere Associates	fund	06/10/1999	Judgment satisfied	United States	30.9
1995	Nicaragua	Van Eck Emerging Markets Opportunity Fund and Greylock Global Opportunity Fund	fund	03/08/2000	Judgment satisfied	United States	13.0
2007	Nicaragua	14 Octobar Krusevac, and 4 further commercial creditors	other	04/04/2007	OCS	United States	9.3
1996	Panama	Water Street Bank & Trust	fund	12/04/1994	unsuccesful	United States	.
1996	Panama	Elliott Associates	fund	15/07/1996	OCS	United States	28.7
1997	Peru	Bank of America, Citibank, Chase Manhattan, Bank of Tokyo, and 9 further banks	bank	02/03/1990	OCS	United States	.
1997	Peru	European American Bancorp	bank	07/03/1990	OCS	United States	.
1997	Peru	Financial Overseas Holding	fund	08/03/1990	OCS	United States	.
1997	Peru	Bankers Trust Company	bank	09/03/1990	OCS	United States	.
1997	Peru	Morgan Guaranty Trust Company of NY	bank	15/03/1990	OCS	United States	.
1997	Peru	Wells Fargo Bank, DG Bank, and two further banks	bank	15/03/1990	OCS	United States	.
1997	Peru	Mellon Bank	bank	23/03/1990	OCS	United States	.
1997	Peru	American Home Assurance Company, National Union Fire Insurance, and 8 further insurance companies	other	30/03/1990	OCS	United States	.
1997	Peru	International Commercial Bank	.	18/05/1990	OCS	United States	.
1997	Peru	American Security Bank	bank	20/07/1990	OCS	United States	.
1997	Peru	Pravin Banker Associates	fund	07/01/1993	Judgment satisfied	United States	1.4
1997	Peru	Banco Cafetero (Panama)	bank	16/05/1994	Judgment satisfied	United States	5.0
1997	Peru	Elliott Associates	fund	21/10/1996	Judgment satisfied	United States	20.7
1994	Poland	Water Street Bank & Trust	fund	04/06/1994	OCS	United States	3.7
1993	Paraguay	Banque de Gestion Prive-SIB	bank	25/11/1991	OCS	United States	.
1997	Vietnam	Abbotsford Investments	fund	07/1995	OCS	United Kingdom	1.5
2001	Yemen	Cardinal Financial Investment Corporation	fund	2000	OCS	United Kingdom	8.2
1994	Zambia	Camdex International	fund	26/05/1995	OCS	United Kingdom	61.5
1994	Zambia	Plenum Financial and Investments	fund	21/09/1995	OCS	United States	.
1994	Zambia	AN International Bank	bank	30/08/1996	.	United Kingdom	.

This table shows a list of creditor lawsuits, organized by plaintiff-defendant pairs from our database. The "type of creditor" (bank, fund, etc.) reflects the primary business activity of the plaintiff. "Suit filed denotes the date when the plaintiff's action was filed with the court. "Outcome" shows the outcome of cases, distinguishing between out-of-court settlements (OCS), voluntary dismissals of the case, satisfaction of judgment, or rejections/discontinuations of the case. "Jurisdiction" is classified according to where the primary suit was conducted, i.e. where the subject matter was tried, irrespective of potential further proceedings related to mere enforcement of a judgment. Face value gives the nominal value of the debt under dispute in current USD, irrespective of potential accrued or past due interest or principal, penalties, legal costs etc.

Table 3: Summary statistics of variables used in the regressions

Variable	Mean	Std. Dev.	Min.	Max.	Source
Market access regressions					
Sovereign Bonds Access (dummy)	0.13	0.34	0	1	Dealogic
Sovereign Debt (Bonds and Loans) Access (dummy)	0.26	0.44	0	1	Dealogic
Sovereign Debt Issuance to GDP	0.64	2.53	0	72.66	Dealogic
Private Bonds to GDP	0.16	0.9	0	25.71	Dealogic
Sovereign Debt Placement > 1% GDP (dummy)	0.14	0.34	0	1	Dealogic
Any litigation (dummy)	0.04	0.2	0	1	Own dataset
Attachment attempt (dummy)	0.03	0.16	0	1	Own dataset
Litigation (claims to total debt restructured)	0.13	1.4	0	48.56	Own dataset
Debt/GDP	68.35	67.25	0.61	2092.92	Abbas et al. (2010)
Short term/total debt	21.8	53.74	0	1185	WDI
Reserves/Imports	83.36	1783.81	0	93981.02	WDI
GDP growth (real, yoy)	3.46	6.83	-51.03	106.28	WDI
Trade/GDP	63.93	49.76	4.95	986.65	WDI
Political Risk (ICRG)	58.79	13.34	8.5	89.12	ICRG
GDP/capita (log)	7.08	1.33	-1.25	11.37	WDI
IMF program (start)	0.15	0.36	0	1	IMF Website
Default (ongoing)	0.23	0.42	0	1	Standard & Poor's (2006, 2011)
Haircut size (for entire default spell)	8.54	23.26	-9.8	97	Cruces and Trebesch (2013)
II Rating Residual	0	9.33	-25.54	40.08	Institutional Investor
Trade regressions					
Real trade (Log, average)	14.02	3.77	-6.56	25.63	IMF Directory of Trade Statistics
Any litigation (dummy)	0.05	0.22	0	1	Own dataset
Litigation (average share of restructured debt)	0.1	0.87	0	32.39	Own dataset
Attachment attempt (dummy)	0.02	0.13	0	1	Own dataset
Debt restructuring (bilateral)	0.01	0.09	0	1	Paris Club
Debt restructuring (general)	0.11	0.31	0	1	Paris Club
IMF agreement pair	0.23	0.45	0	2	IMF Website
Real GDP (Log of product)	47.56	3.3	34.15	60.13	WDI
Real GDP/capita (Log of product)	16.27	1.93	9.04	21.67	WDI
Haircut (Average)	5.61	14.01	-5	94.85	Cruces and Trebesch (2013)
II rating (Residual, log of product)	0	0.52	-3.05	2.81	Institutional Investor
Current colony	0	0.02	0	1	Rose (2005)
Currency union	0.01	0.11	0	1	Rose (2005)
Regional trade agreement	0.02	0.13	0	1	Rose (2005)
Delay regressions					
Duration of negotiations (months)	38.87	36.11	1	140	Trebesch (2013)
Any litigation (dummy)	0.1	0.3	0	1	Own dataset
Attachment attempt (dummy)	0.05	0.21	0	1	Own dataset
Litigation (claims to total debt restructured)	0.14	0.88	0	7.95	Own dataset
IMF program (ongoing)	0.64	0.48	0	1	IMF Website
Recognized Creditor Committee	0.93	0.25	0	1	Trebesch (2013)
Bond restructuring	0.07	0.26	0	1	Trebesch (2013)
Previous restructuring	1.4	1.68	0	7	Trebesch (2013)
HIPC and World Bank supported restructuring	0.1	0.31	0	1	Trebesch (2013)
Global interest rate (Moody's corporate yields)	9.82	2.4	5.36	16.25	Moody's
Haircut size	39.32	24.92	-9.8	92.7	Cruces and Trebesch (2013)
GDP growth forecast (ICRG monthly index)	4.6	1.49	0.5	10	ICRG
GDP/Capita (Log)	7.36	0.94	5	9.02	WDI
II Rating	22.34	8.75	5.2	62.8	Institutional Investor

Table 4: Descriptive statistics on $H1$: Litigation and foreign credit

This table reports summary statistics on bond issuances by developing and emerging market borrowers between 1980-2010 in different subsamples. The second column reports the absolute number of observations in the subsamples denoted in the leftmost column. The second and third column show the total number of country-year events with bond issuances, and the mean amount of issuances, respectively. The fourth column reports the share of years with issuance for each subsample. Stars indicate significance levels of $t-$tests of this share against the following benchmarks: row 1, observations with litigation against observations without; row 2, observations with litigation exceeding 1% of the restructured debt against observations without; row 3, observations with litigation against without since 2000; row 4, observations with attachment against without; row 5, observations with attachment against without, excluding years in which a country was in default. All tests indicate that the probability of issuing new bonds in any of the subsamples with litigation is significantly smaller than in those observations without legal action. The lower part of the table reports summary statistics for two benchmark samples without litigation proceedings.

	Country-Year Events (total)	Years with bond issuance	Amount borrowed (m USD, average)	Share of years with issuance
Bond market issuances with litigation:				
Any Litigation	189	12	80.5	6.3%**
Share of litigation >1% of debt	107	3	32.7	2.8%***
Litigation in the 2000s (after 1999)	77	0	0.0	0.0%***
With attachment proceedings	109	2	10.1	1.8%***
Post-crisis years, with attachment	58	1	8.6	1.7%**
Benchmark years:				
Post-crisis years (3 year lag), no attachment	223	41	193.8	18.4%
Normal times (no default or post-default years)	4005	522	206.9	13.0%

$^{**}p < 0.05, ^{***}p < 0.01$

Table 5: Descriptive statistics on $H3$: Litigation and international trade

The table reports summary statistics on bilateral trade between 1970 and 2007. The second column shows the mean bilateral trade to GDP between country pairs for each subsample denoted in the left column. Bilateral trade is significantly lower during default episodes (years in default and three years after a restructuring). It is even lower in years with litigation involving attachment attempts, both during and in the aftermath of debt crises. The right column reports the respective $t-$tests.

	Bilat. Trade/GDP (%)	Difference > 0?	
Outside default episode	0.053	44.454	t-statistic
In default episode	0.018	0.000	p
Without pending attachment case	0.038	9.572	t-statistic
With pending attachment case	0.014	0.000	p
Without pending attachment case (outside crisis episode)	0.053	5.459	t-statistic
With pending attachment case (outside crisis episode)	0.016	0.000	p

Table 6: Estimation results on *H*1: litigation and foreign credit

This table shows results on the determinants of market access following equation 1 and including country and year fixed effects. Columns (1)-(8) show coefficients of a logit fixed effects model using a bond issuance dummy as dependent variable (by year). Columns (1)-(3) show the baseline results with three different measures of creditor litigation – a simple litigation dummy, a dummy for pending attachment attempts and the share of litigated claims to total restructured debt (in %). Column (4) focuses on non-crisis years by dropping all years in default according to Standard & Poor's (2006, 2011). Column (5) restricts the sample to the period after 1992, when distressed debt investors entered the scene and bonds became the main vehicle for sovereign borrowing. Column (6) drops countries coded as "net creditors" by the IMF (to mitigate concerns about demand effects (voluntary abstention from borrowing). To account for the severity of default, column (7) includes the credit rating residuals and column (8) controls for the size of haircuts for each year of the respective debt renegotiation spell. The right panel with columns (9)-(14) show results using alternative dependent variables. Column (9) uses a bond issuance dummy that includes government-owned companies and agencies. Column (10) uses an indicator that also includes sovereign syndicated bank loans. The "full access" dummy used in column (11) is coded as 1 if the volume of bonds issued in that year exceeds 1% of GDP (and 0 otherwise). The specifications in columns (12)-(14) show OLS regression results using bond issuance to GDP (in %) as dependent variable. Column (12) reports the results in the full sample, column (13) excludes Argentina, Brazil, and Peru and column (14) focuses on corporate bond issuance to GDP.

	Dependent variable: access dummy (bonds)								Other dependent variables					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Baseline (dummy)	Baseline (attach-ment)	Baseline (share)	Normal times	Post 1992	Without creditor countries	With credit ratings	With haircuts	Incl. ac-cess by public firms	Bonds or loans	Full ac-cess (> 1% GDP)	Issuance to GDP	Without Arg, Bra, Per	Access by private firms
Any litigation (dummy)	-0.511													
	(0.681)													
Attachment attempt (dummy)		-4.008***												
		(1.341)												
Litigation (claims to total debt restructured, in %)			-0.733***	-1.103*	-1.086**	-0.991***	-0.714***	-0.603**	-0.697***	-0.296*	-0.588**	-0.047***	-0.041***	-0.002
			(0.261)	(0.660)	(0.440)	(0.307)	(0.261)	(0.276)	(0.269)	(0.171)	(0.277)	(0.009)	(0.008)	(0.003)
GDP/capita (log)	0.663	0.312	0.285	0.562	0.280	0.241	0.373	0.231	1.850***	1.234***	0.110	0.684**	0.613**	0.188**
	(0.500)	(0.522)	(0.520)	(0.570)	(0.647)	(0.736)	(0.526)	(0.517)	(0.562)	(0.404)	(0.451)	(0.261)	(0.255)	(0.085)
Debt/GDP	-0.018**	-0.015*	-0.016**	-0.017*	-0.035***	-0.039***	-0.017**	-0.017**	-0.005	-0.005	-0.010*	0.001	0.001	0.000
	(0.008)	(0.008)	(0.008)	(0.009)	(0.010)	(0.012)	(0.008)	(0.007)	(0.008)	(0.004)	(0.006)	(0.001)	(0.001)	(0.000)
Reserves/Imports	0.000	0.000	0.000	0.001	0.000	-0.007	0.000	0.000	0.000	0.000	-0.001	-0.000***	-0.000***	0.000**
	(0.000)	(0.000)	(0.000)	(0.005)	(0.000)	(0.008)	(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.000)	(0.000)	(0.000)
Short term/total debt	-0.767	-0.610	-0.680	-0.563	-1.278**	-1.135**	-0.610	-0.687	-0.152	-0.558*	-0.233	-1.310**	-1.322**	-0.071
	(0.486)	(0.468)	(0.471)	(0.480)	(0.545)	(0.564)	(0.474)	(0.478)	(0.426)	(0.310)	(0.370)	(0.550)	(0.546)	(0.054)
GDP growth (real, yoy)	-0.007	-0.008	0.001	0.005	-0.012	0.038	-0.007	0.011	0.002	0.008	0.029	-0.022	-0.023	-0.007*
	(0.031)	(0.031)	(0.031)	(0.036)	(0.036)	(0.036)	(0.031)	(0.030)	(0.030)	(0.021)	(0.026)	(0.015)	(0.016)	(0.004)
Trade/GDP	-0.043***	-0.044***	-0.044***	-0.044***	-0.009	-0.038***	-0.045***	-0.047***	-0.031***	-0.014*	-0.025***	-0.009	-0.009	0.001
	(0.010)	(0.010)	(0.010)	(0.011)	(0.013)	(0.014)	(0.010)	(0.010)	(0.010)	(0.007)	(0.008)	(0.007)	(0.007)	(0.003)
Political Risk (ICRG)	0.002	0.002	-0.004	0.009	-0.038	-0.004	-0.002	0.006	0.054**	0.021	0.009	0.013	0.012	0.004
	(0.021)	(0.022)	(0.022)	(0.024)	(0.031)	(0.032)	(0.022)	(0.021)	(0.021)	(0.015)	(0.019)	(0.012)	(0.012)	(0.003)
IMF program (start)	-0.062	-0.101	-0.122	-0.289	-0.061	-0.298	-0.078	-0.204	-0.046	0.062	0.392	-0.024	-0.033	0.089
	(0.296)	(0.301)	(0.300)	(0.339)	(0.334)	(0.351)	(0.302)	(0.289)	(0.302)	(0.217)	(0.250)	(0.119)	(0.125)	(0.107)
Default (ongoing)	-1.755***	-1.908***	-2.004***		-1.271**	-2.453***	-2.013***		-2.983***	-1.761***	-2.209***	-0.459**	-0.412*	-0.210**
	(0.507)	(0.527)	(0.535)		(0.625)	(0.820)	(0.536)		(0.574)	(0.333)	(0.456)	(0.217)	(0.234)	(0.095)
Default (lag for years 1 to 3 after)	-0.827**	-0.782**	-0.857**	-0.857**	-0.649	-0.620	-0.809**		-1.160***	-0.786***	-1.208***	-0.218	-0.184	-0.036
	(0.383)	(0.391)	(0.381)	(0.411)	(0.417)	(0.470)	(0.384)		(0.423)	(0.298)	(0.357)	(0.168)	(0.174)	(0.048)
II Rating Residual							-0.032							
							(0.023)							
Haircut size (for entire default spell)								-0.036***						
								(0.012)						
Haircut size (lag for years 1 to 3 after)								-0.029***						
								(0.011)						
Constant												-3.344	-2.594	-1.258
												(2.214)	(2.153)	(0.913)
Pseudo R2 (McFadden)	0.32	0.34	0.33	0.24	0.20	0.43	0.33	0.32	0.36	0.23	0.23			
Adj. R2												0.08	0.08	0.02
Obs	954	954	954	746	663	773	949	988	964	1258	1146	1531	1455	1531
No. Countries	43	43	43	41	40	35	43	44	43	58	54	78	75	78
p>Chi2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$. Standard errors clustered on country.

Table 7: Estimation results on *H2*: litigation and international trade

This table shows the results from the trade gravity model of equation 2, including country fixed effects. The dependent variable is the annual average real bilateral trade between two countries. All regressions include lags of the debt restructuring and IMF agreement variables, although their coefficients are not reported for the sake of brevity. Columns (1)-(3) show results in the baseline model using three different measures of creditor litigation – a dummy for any litigation, the share of litigated claims to total debt restructured (in %), and a dummy for pending attachment attempts, which is the most relevant variable in the context of international trade as we explain in the paper. Column (4) adds a general indicator of debt restructurings, in addition to the bilateral restructuring measure. Column (5) accounts for the severity of the default by including the size of haircuts towards foreign banks and bondholders. Column (6) includes decade fixed effects to capture time trends. Column (7) restricts the sample to the period after 2000, and column (8) excludes Argentina, Brazil and Peru. The model in column (9) controls for the rating residual.

	(1) Baseline (dummy)	(2) Baseline (share)	(3) Baseline (attach-ment)	(4) Martinez/ Sandleris	(5) With haircuts	(6) Decade FE	(7) Post 2000	(8) Without Arg, Bra, Per	(9) With credit ratings
Any litigation (dummy)	-0.030								
	(0.030)								
Litigation (average claims to total debt restructured, in %)		0.023***							
		(0.007)							
Attachment attempt (dummy)			-0.111***	-0.115***	-0.095**	-0.036	-0.201*	-0.110***	-0.226***
			(0.041)	(0.042)	(0.041)	(0.041)	(0.115)	(0.041)	(0.044)
Debt restructuring (bilateral)	-0.057***	-0.056***	-0.058***	0.018	-0.030*	-0.060***	0.032	-0.058***	-0.002
	(0.016)	(0.016)	(0.016)	(0.019)	(0.016)	(0.015)	(0.027)	(0.016)	(0.016)
IMF agreement pair	-0.080***	-0.081***	-0.080***	-0.062***	-0.067***	-0.073***	-0.045***	-0.080***	-0.081***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.016)	(0.008)	(0.009)
Real GDP (log of product)	0.023	0.004	0.026	0.051	-0.005	0.271***	1.785***	0.025	0.229***
	(0.047)	(0.047)	(0.047)	(0.048)	(0.048)	(0.049)	(0.139)	(0.047)	(0.055)
Real GDP/capita (log of product)	0.617***	0.640***	0.613***	0.588***	0.635***	0.459***	-0.609***	0.613***	0.501***
	(0.061)	(0.061)	(0.061)	(0.062)	(0.061)	(0.061)	(0.168)	(0.061)	(0.071)
Current colony	0.597**	0.600**	0.595**	0.602**	0.577**	0.565**		0.595**	
	(0.261)	(0.262)	(0.260)	(0.259)	(0.262)	(0.242)		(0.260)	
Currency union	-0.129**	-0.131**	-0.128**	-0.128**	-0.109*	-0.127**		-0.127**	-0.123***
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)	(0.058)		(0.059)	(0.043)
Regional trade agreement	0.245***	0.243***	0.246***	0.246***	0.240***	0.260***	0.172***	0.242***	0.270***
	(0.048)	(0.048)	(0.048)	(0.049)	(0.048)	(0.047)	(0.033)	(0.049)	(0.039)
Debt restructuring (general)				-0.088***					
				(0.013)					
Haircut (Average)					-0.008***				
					(0.001)				
Haircut (Average, 3 year lag)					-0.003***				
					(0.001)				
Decade Fixed Effects						Yes			
II rating (residual, log of product)									0.503***
									(0.022)
Constant	2.474*	2.979**	2.420*	1.624	3.584***	-6.753***	-64.15***	2.426*	-5.169***
	(1.306)	(1.313)	(1.309)	(1.320)	(1.316)	(1.420)	(4.076)	(1.309)	(1.572)
Debt restructuring (bilateral) 10 Lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debt restructuring (general) 10 Lags				Yes					
IMF agreement pair 5 Lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.20	0.17	0.20	0.23	0.16	0.47	0.47	0.20	0.44
Obs	214072	214072	214072	214072	214072	214072	61250	213988	156036
Country pairs	11992	11992	11992	11992	11992	11992	10920	11989	10224
p>Chi2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$. Standard errors clustered on country dyad.

Table 8: Estimation results on *H3*: litigation and negotiation delays

The table reports coefficients from a Cox proportional hazard model described in equation 3. The left panel focuses on the duration of negotiations, ranging from the start of negotiations until the final debt exchange. All models are estimated using monthly data and include year fixed effects. Columns (1)-(3) show results in our baseline model and three different measures of creditor litigation – a dummy for any litigation, a dummy for pending attachment attempts, and the share of litigated claims to total debt restructured. Columns (4) restricts the sample to the period after 1992, while column (5) excludes Argentina, Brazil and Peru. Column (6) includes the haircut suffered by investors in the respective restructuring. Column (7) includes the country credit ratings. Column (8) controls for GDP per capita and includes a proxy for GDP growth forecasts. The last specification in column (9) uses total restructuring duration, from start of distress (month of default or announcement of debt restructuring) until the final debt exchange

	Negotiation Duration								Total Duration
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Baseline (dummy)	Baseline (attachment)	Baseline (share)	Post 1992	Without Arg, Bra, Per	With haircuts	With ratings	Growth & GDP/capita	Baseline (dummy)
Any litigation (dummy)	-0.91***								-0.94**
	(0.32)								(0.39)
Attachment attempt (dummy)		-0.98**							
		(0.46)							
Litigation (claims to total			-0.41***	-0.44***	-0.19**	-0.40***	-0.37***	-0.86**	
debt restructured, in %)			(0.09)	(0.14)	(0.08)	(0.09)	(0.12)	(0.42)	
IMF Program (ongoing)	0.07	0.04	0.08	-0.01	0.14	0.06	0.63	0.67*	0.67***
	(0.25)	(0.24)	(0.24)	(0.43)	(0.29)	(0.26)	(0.45)	(0.34)	(0.24)
Recognized Creditor	-0.86**	-0.71*	-0.74**	-0.95***	-0.36	-0.69*	-0.48	-0.63	-0.40
Committee	(0.42)	(0.38)	(0.37)	(0.28)	(0.41)	(0.38)	(0.33)	(0.52)	(0.35)
Bond restructuring	0.11	0.12	-0.10	0.21	0.16	-0.08	-0.04	-0.47	0.18
	(0.43)	(0.42)	(0.38)	(0.37)	(0.37)	(0.38)	(0.34)	(0.50)	(0.45)
Previous restructuring	0.13**	0.11**	0.11**	-0.13	0.12*	0.12**	0.00	0.05	0.18***
	(0.05)	(0.05)	(0.06)	(0.11)	(0.07)	(0.06)	(0.09)	(0.09)	(0.05)
HIPC and World Bank	-0.91	-0.91	-0.91	0.16	0.11	-0.87	0.32	-0.99	-1.34***
supported restructuring	(0.66)	(0.67)	(0.66)	(0.80)	(0.68)	(0.64)	(0.71)	(0.71)	(0.20)
Global interest rate	-0.04	-0.06	-0.07	0.11	-0.05	-0.10	0.17	0.06	-0.06
(Moody's corporate yields)	(0.19)	(0.19)	(0.19)	(0.49)	(0.18)	(0.20)	(0.42)	(0.29)	(0.16)
Haircut size					-0.03***				
					(0.01)				
Country Credit Rating							0.06*		
(II)							(0.03)		
GDP growth forecast								0.27**	
(ICRG monthly index)								(0.11)	
GDP/Capita (Log)								0.20	
								(0.17)	
Obs	2390	2390	2390	763	2390	2263	1171	1624	7230
Pseudo R2	0.07	0.06	0.07	0.19	0.09	0.07	0.14	0.11	0.08
Log Likelihood	-474.11	-475.17	-473.35	-85.01	-464.43	-451.80	-133.59	-236.86	-683.70
BIC	1220.49	1222.60	1218.97	302.76	1208.91	1173.96	436.75	688.11	1731.72
p>Chi2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PH-Test	0.91	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.50

Note: $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$. Standard errors clustered on country.

Appendix 1 Case studies on the cost of litigation

(i) Case studies on *H*1: disruption of market access

- **Argentina 2002-2013:** Argentina's 2002 default triggered dozens of creditor lawsuits and related attachment attempts. One important consequence of these ongoing legal disputes is that the government is effectively excluded from foreign bond markets, a major source of government financing during the 1990s (see e.g. Reuters, 07 November 2006; Euroweek, 20 July 2007; Dow Jones International News, 13 January 2009; The Economist, 20 October 2011). For more than 10 years now, Argentina has mostly borrowed domestically and did not place a single sovereign bond in financial centers such as London or New York (Securities and Exchange Commission, 2011, p. 155).

  Argentina's bond market access was first disrupted in the spring of 2005, when the government attempted to resolve its debt crisis with a global bond restructuring offer. The offer was accepted by bondholders worth USD 62.3bn and the exchange was scheduled to close on 01 April 2005. However, litigating creditors obtained attachment orders on those bonds tendered in the exchange (in the amount of USD 7bn), which prevented Argentina from exchanging the tendered bonds and making any payments on newly restructured bonds (see S.D.N.Y., 02 Civ. 3804, 29 March 2005). Settlement was only possible 3 months later, in June 2005. Since then, Argentina can expect to face similar attachment attempts on any new bond issuances it would attempt in New York (Euromoney, 01 July 2005).

  Most recently, in 2012, a group of creditors obtained a court order which, if upheld, will prevent Argentina from servicing its existing bonds (and, of course, also any new bonds issued). Specifically, the order blocks Argentina from using US-based payment agents to repay its bonds unless it also repays the litigating holdouts at the same rate (S.D.N.Y., 09 Civ. 1708, 23 February 2012; 2nd Circ., 12 Civ. 105, 26 October 2012). The former IMF first deputy managing director Anne Krueger expressed in her opinion to the court that the "ratability requirements would certainly delay the point at which the country could re-access the private international capital market, because the costs of any new borrowing would include payments under ratability to holdouts." (2nd Circ., 12 Civ. 105, 04 January 2013 (Amicus Brief by Anne Krueger)).

  Besides court action, litigious bondholders have also coordinated themselves to lobby for new laws that would legally restrict Argentina's bond market access. One example is the "Judgment Evading Foreign States Accountability Act" (introduced in the U.S. Congress under S.912 and H.R.1798 in May 2011). The Act would disallow debt issuances by foreign states that face U.S. court judgments totaling more than USD 100m (SEC 2011, Argentina Annual Report, 18-K). So far, Congress has not taken action on this and similar proposals.

- **Peru 1997-2000:** Between 1996 and 2000, Peru's bond issuance plans were severely disrupted by a series of judgments and attachment attempts. The dispute goes back to 1995, when Peru initiated its Brady debt restructuring and the distressed debt fund Elliott started to purchase Peruvian debt worth USD 20.6m on the secondary market. Shortly before the scheduled settlement of the Brady exchange in October 1996, "Elliott filed suit [...] in New York Supreme Court and sought [...] prejudgment attachment." (2nd Circ., 98 Civ. 9268/9319, 20 October 1999). As a result, the exchange and issuance of the new bonds were delayed, but the restructuring could

eventually be closed in March 1997.

However, even after the restructuring the lawsuit continued to endanger Peru's bond market access. In October 1999, Elliott obtained the right to collect the full amount claimed and it received an attachment order one month later (2nd Circ., 98 Civ. 9268/9319, S.D.N.Y. 96 Civ. 7916). The case became even more disruptive for Peru's capital market access when US-based banks were temporarily prohibited from transferring interest payments due on Peru's newly issued Brady bonds (S.D.N.Y. 96 Civ. 7916, 25 September 2000). Being unable to pay its creditors via the US, Peru missed a scheduled coupon payment in early September 2000 and also failed in its attempt to transfer payments through the Belgium-based Euroclear instead (Hof van Beroep te Brussel, A.R. Nr. 2000/QR/92, 26 September 2000; own translation).

To avoid an outright default, Peru therefore decided to settle with Elliott, which allowed the government to resume payments on the Brady bonds only days before the bonds grace period ended in late September (Reuters, 29 September 2000). During the legal dispute, Peru did not issue any new sovereign bonds, despite earlier plans to do so (15 January 1997, Reuters, Investment Dealers Digest, July 26, 1999, "Peru eyes Morgan and BancBoston to lead bond deal"). It was only in 2002 that Peru started to regularly place sovereign bonds in international markets again.

- **Panama 1996-1997:** In Panama litigating creditors explicitly targeted the proceedings from a sovereign bond issuance in 1997, thus disrupting a public offering that was about to be launched. The dispute goes back to the mid-1990s when the distressed debt fund Elliott purchased USD 28.8m of debt on the secondary market in 1995 (96 Civ. 5295, 96 Civ. 5514). Panama successfully closed its Brady deal in April of 1996, but Elliott refused to participate and filed two suits in New York in July 1996. Panama publicly announced to re-access international capital markets soon after the Brady restructuring (Reuters, 17 April 1996). It did so successfully in February 1997 with a debut USD 500 m bond placement (Emerging Markets Debt Report, February 10 1997 and LatinFinance, April 1997). However, the placement of a second global bond, planned for September 1997, was effectively blocked by litigation (Dow Jones Newswires, 18 September 1997). The reason were two judgments in favor of Elliott in May and September 1997 (N.Y. Sup. Ct. No. 603615/1996, 15 May 1997, S.D.N.Y., 96 Civ. 5514, 18 September 1997). To avoid disruptions, Panama appealed and even posted a *supersedeas bond* with the court over the full amount.[42] However, Elliott still threatened to obtain restraining and attachment orders specifically targeted at the September bond offering. The orders could have allowed Elliott to prevent bond settlement or to seize its proceedings (S.D.N.Y., 96 Civ. 5514, 23 September 1997; Dow Jones Newswires, 18 September 1997; Sturzenegger and Zettelmeyer 2007).

  In light of this situation, Panama dropped its appeal and settled with Elliott in early October (S.D.N.Y., 96 Civ. 5514, 07 October 1997). Some reports suggest a payment of up to USD 71 m, much more than the original judgment claims obtained by Elliott (Dow Jones Newswires, 06 October 1997; Cymrot (2002)).

[42] A supersedeas bond is collateral that must be posted with the court by the defendant if he appeals and does not want to satisfy the judgment before the final ruling.

(ii) Case studies on *H2*: disruption of international trade

- **Republic of Congo 2006-2007:** Since the early 2000s, several US-based debt funds have sued the Republic of Congo for repayment on its defaulted debt and launched a series of attachment attempts. The main target of seizures has been the crude oil trade, the country's main export and most important source of foreign exchange. In response to the lawsuits in New York and London, the Congolese government set up a network of subsidiary companies in several countries so as to conceal its oil transactions and prevent attachment. In early 2006, Congo's Prime Minister Isidore Mvouba openly admitted to the press that the government has been hiding oil revenues from the litigating creditors and resorted to "slightly unorthodox" accounting methods for this purpose (Global Insight Daily Analysis, 23 January 2006).

  However, Congo's strategy to shield its assets did eventually not succeed. In 2006 litigating creditors achieved a victory in a Houston court when garnishment orders on more than 500,000 barrels of oil were issued against several public and private companies dealing with Congo's oil exports in the US and abroad (TX.S.D., 02 Civ. 4261, 05 April 2006; Platts, 07 April 2006). The orders effectively blocked Congo from receiving royalties or export revenues from its oil trade. One plaintiff, Kensington International, a fund controlled by Elliott, went one step further. It filed corruption charges against one of Congo's main relationship banks, BNP Paribas in New York, claiming that the bank had helped to set up a money laundering scheme to shield oil revenues from attachment (05 Civ. 5101 S.D.N.Y.; Euromoney, September 2006). BNP denied these claims, but the development significantly hampered Congo's relationship with foreign banks and the execution of its international oil sales.

  In 2007 and 2008, after more than six years of legal disputes, Congo gave in and agreed to out-of-court settlements with FG Hemishphere, Walker International, Kensington and other litigating creditors (The Sunday Times, 15 June 2008). The payment amounts have remained confidential, but the terms are estimated to have been more favorable than the 85.8% haircut faced by creditors who agreed to participate in Congo's 2007 buy back, which was administered and financed by the World Bank's Debt Reduction Facility (American Lawyer, 1 September 2008)

- **Ecuador 1993:** Ecuador is a second case in which litigating creditors successfully attached revenues from the country's oil trade. The case was initiated by Weston Compagnie de Finance et d'Investissement, a Swiss investment fund, which purchased defaulted Ecuadorian debt on the secondary market and filed suit in April 1993 (S.D.N.Y., 93 Civ. 2698). Weston immediately obtained a pre-judgment attachment order, and successfully froze funds by Flota Petrolera Ecuatoriana, a state-owned company that is responsible for shipping the country's petroleum exports abroad. The funds remained frozen for more than four months in Flota's Citibank account in the United States (S.D.N.Y., 93 Civ. 2698; Reuters, 30 April 1993, LDC Debt Report, August 2, 1993). The seizure ended when Ecuador settled with Weston in late July of 1993 (LDC Debt Report, September 7, 1993).[43]

[43]The outcome of the settlement is undisclosed. Ultimately, however, the judge appears to have freed the funds and Weston seems to have backed away without receiving any cash, according to reports by LDC Debt Report of October 25, 1993 and November 1, 1993.This is in line with Buchheit (1999), who states that the case ended with a lifting of the pre-judgment attachment order.

- **Zambia 1995-1997:** In Zambia during the mid-1990s, a litigating creditor successfully seized revenues from the country's main international trade: copper. Camdex International, a distressed fund, had purchased defaulted Zambian debt on the secondary market and filed suit against the country's central bank in May 1995 in the UK. Four months later, Camdex obtained a summary judgment, and later on also attachment orders on revenues by Zambia Consolidated Copper Mines (ZCCM), a government-owned mining company and the "most important, if not the only, source of foreign exchange for the Zambian economy" (UK Queen's Bench Division, 24 May 1996 Judgment; see also: S.D.N.Y., 96 Civ. 7034). The attachment orders blocked the transfer of ZCCM's payments to Zambia's government accounts at Central Bank of Zambia (UK Court of Appeal (Civil Division), 17 January 1997). Ultimately, however, the UK orders were dismissed, and Camdex moved on to US courts, where it filed suit in 1996. The second, New York-based case ended with an out-of-court settlement in June 1997 (S.D.N.Y., 96 Civ. 7034, 04 June 1997).

(iii) Case studies on *H3*: restructuring delay

- **Costa Rica 1981-1983:** Costa Rica's first debt rescheduling in the early 1980s took more than two years to conclude, from the start of negotiations in September 1981 until September 1983. This delay is unusually long for a London Club deal of the early 1980s, when most governments successfully rolled over their debt in less than a year. Indeed, Costa Rica's debt restructuring is the one with the longest duration among 20 other sovereign debt restructurings that were concluded in 1982 and 1983 Trebesch (2013). An important reason for the unusual delay was a lawsuit filed by Libra Bank of London, National Bank of Washington and six further banks in November of 1981. The litigating banks sought an attachment order on assets of the state owned Banco Nacional de Costa Rica, which was granted in June of 1982 (S.D.N.Y., 81 Civ. 7624, 08 July 1983). In addition, a second lawsuit was filed in February 1982 by a group of 39 banks, this time headed by Allied Bank.

  Press reports at the time describe that the two lawsuits resulted in a deadlock in the negotiations and significantly "hampered" settlement efforts in late 1981 and throughout 1982 (FT, 30 Sept. 1981; NYT, 11 Dec. 1981; FT, 2 Nov. 1982; FT, 2 Nov. 1982; FT, 25 Jan. 1983; Latin American Weekly Report, 13 Nov. 1982; FT, 25 Jan. 1983; Latin American Weekly Report, 5 Febr. 1983; FT, 22 Febr 1983). Costa Rica eventually managed to reschedule its debt in September of 1983, but only after both lawsuits came to an end, at least temporarily. The government settled with all litigating banks in the Libra case shortly before the restructuring (Zaitzeff and Kunz, 1985, p.470), while the Allied lawsuit was rejected in the New York district court in July 1983 (S.D.N.Y., 82 Civ. 0664, 08 July 1983).[44]

- **Peru 1990-1994:** The implementation of Peru's Brady deal in the mid-1990s took more than five years, and this delay can be partly attributed to creditor lawsuits. A first lawsuit on USD 1.2 bn was filed in March 1990 by a group of major international banks, led by Bank of America (S.D.N.Y., 90 Civ. 1409). Shortly afterwards, more than 30 additional banks and other investors filed lawsuits (alone or as plaintiff groups). The initial purpose of these suits was to increase pressure on Peru to start

[44] One bank, Fidelity Trust Union, appealed this ruling and continued to litigate until 1985, eventually overturning the district court ruling and achieving a judgment in its favor (2nd Circ., 83 Civ. 7714, 18 March 1985; Finnigan (1986).

negotiations (American Banker 1990, 07 May 1990), but the litigation quickly turned into a major obstacle for a debt restructuring agreement, resulting in more, instead of less, delay (Reuters, 6 July 1993): Between 1992 and 1994, the government and Peru's Bank Advisory Committee (BAC) decided to postpone a compromise on the ongoing lawsuits five times in a row (Reuters, 13 September 1994). During this period, Economy Minister Jorge Camet took a strong stance and asked the litigious banks to drop their lawsuit as a condition for starting serious negotiations with the rest of the committee ("We would not want to sit down and negotiate with creditors with whom we have matters pending in court", Reuters, 6 October 1994). To resolve the deadlock, most banks finally agreed to discontinue their lawsuits as of December 1994 (Reuters, 16 December 1994, S.D.N.Y., 90 Civ. 1409, 15 December 1994). This was seen as removing the "final obstacle for talks on restructuring the country's commercial debt" (Reuters, 16 December 1994). Indeed, a few months later, in September of 1995, the London Club and Peru agreed on a principal agreement on debt restructuring, the first such compromise since the country's debt moratorium of 1985.

- **Dominica 2003-2006:** Dominica's debt restructuring of 2004 is regarded as one of the few "messy" sovereign bond exchanges of the past decade(Moody's, 2013). The deal took more than a year to finalize, despite the fact that Dominica adopted a very creditor-friendly stance and engaged with major its creditor banks and bondholders early on (Das et al., 2012). The government officially announced its restructuring plans in December 2003 and then launched a preemptive debt exchange offer in April of 2004, with the intention of avoiding a payment default. The restructuring was officially closed in mid-June of 2004. By that time, however, only 72% of creditor had agreed to participate, a rate which is lower than in most other restructurings since the mid-1990s. The offer was therefore unofficially opened again and negotiations with non-participating creditors continued (IMF Country Report No. 04/286).

  Three large commercial creditors, including the Export-Import Bank of Taiwan, could however not be convinced and continued to hold out (IMF Country Report No. 04/286; IMF Country Report No. 05/384). In accordance with the terms of the debt restructuring offer, Dominica stopped interest payments on its "old" creditors in June 2004, channeling the foregone payments into an escrow account instead.

  In reaction to the technical default, Exim Bank filed suit in New York in July 2005 (S.D.N.Y., 05 Civ. 6698), a step that was seen as considerably delaying Dominica's exit from its debt crisis. The IMF, which is typically cautious on matters of sovereign debt litigation, went as far as noting that the "debt restructuring [has] been stymied" by Exim's "problematic" litigation (IMF Country Report No. 06/291). In September 2006, more than two years after the official closure of the deal, Dominica and Exim Bank finally reached a settlement to end the dispute (S.D.N.Y., 05 Civ. 6698, 22 September 2006), a "significant progress" that brought Dominica's debt troubles to an end (IMF Country Report No. 07/1).

Appendix 2 Creditor returns to litigation

This Appendix lists selected litigation cases that have been (i) particularly lucrative for litigating creditors, or (ii) litigation failures, meaning that lawsuits resulted in a loss for the plaintiffs. The reported figures should be taken with care, as they are not based on official court documents only (our main source in the rest of the paper), but also on anecdotes and rumors mentioned in the financial press and previous research. Importantly, the returns do not account for procedural costs, in particular funding costs and legal costs.

(i) Selected litigation successes:

- In 1996, *Elliott* purchased USD 28.8m of *Panama*ian debt for USD 17.6 m and filed suit in New York (96 Civ. 7917, August 7, 1998). The final judgment amounted to USD 26.3 m (full principal amount less interim payments), which was paid in full (96 Civ. 5514, Pacer History). This implies a gross return of 60% on investment.
- In early 1996, *Elliott* bought *Peru*vian debt with face value of USD 20.7 m for USD 11.3m. (96 Civ. 7917, August 7, 1998). The final judgment amounted to USD 56.3 (96 Civ. 7917, September 9, 2000). Facing impending attachments, Peru settled at the full amount (Sturzenegger and Zettelmeyer, 2006), which implied a gross return of 400% for Elliott.
- In 1996, *Abbotsford Investment* bought USD 1.5 m of defaulted sovereign loans issued by *Vietnam*, which traded at 60-75 cents on the dollar (Financial Times January 25, 1996; Far Eastern Economic Review, December 14, 1995). Reportedly, Vietnam settled out of court at 100 cents on the dollar, thereby upsetting the London Club negotiations (Dow Jones Newswires, April 12, 1996). These press-reported figures imply a gross return of between 33 and 40%.
- During the 1990s, *Kensington* bought USD 13.5 m of a defaulted loan to the *Republic of Congo*, dating back to 1984. After multiple demands to obtain payments, Kensington filed suit in England in October 2002 and obtained a judgment over USD 56 m two months later (03 Civ. 4578 March 29, 2007). The case was continued in the US, and in February 2008, Kensington reported the judgment as fully satisfied (03 Civ. 4578, Pacer History).
- In 2000, *Cardinal* Financial Investment Corporation bought promissory notes issued by *Yemen* with a face value of USD 8.2 m on the secondary market, allegedly for 12 cents on the dollar (EWCA, Case No: A3/2000/0433). In 2001 Cardinal settled out of court, against a reported payment of USD 2.7 m. If both figures are correct, the gross return would have been 270% (sources: Singh, 2003; Alfaro, 2007; Gueye et al., 2007).
- In 2001, *FG Hemisphere* filed suit against the *Republic of Congo* in 2001. The original claim amounted to USD 35.9 m (IMF 2006). In 2002, FG was awarded a judgment amounting to USD 151.9 m (01 Civ. 8700, Pacer History). In April 2007, FG reported full satisfaction of the judgment (01 Civ. 8700, April 12, 2007).

(ii) Selected litigation failures:

- In 1986, *LNC Investment* bought bank loans by *Nicaragua* with face value totaling USD 26.3 m for a market value of USD 1.1 m (96 Civ. 6360, February 19, 1999). LNC filed suit in 1996 and obtained a judgment over USD 86.9m in 1999 (96 Civ. 6360, Pacer History). Ten years later, the case was settled under Nicargua's debt relief initiative (IMF 2008), and was subsequently designated as closed (96 Civ. 6360, Pacer History). It can be assumed that LNC received the same terms as other creditors participating in the donor-funded buyback, ca. 4.5 cent on the dollar. This implies a modest gross return of 7%, after 20 years of litigation.

- In the early 2000s, *SIFIDA and FH International* bought *Liberia*n debt with a face value of about USD 6.5 m (BBC, November 26, 2009). The creditors filed suit in New York in 2002 and soon thereafter, a judgment of USD 18.4 m was awarded (02 Civ. 1246, Pacer History). After multiple re-assignments of the claims, Hamsah Investment and Wall Capital continued the case, which was settled in December 2010 (02 Civ. 1246, Pacer History). Press reports suggest that the settlement terms were no better than the HIPC buy back terms of 3% of face value, despite 8 years of litigation (BBC, November 23, 2010).

- After *Argentina*'s default of 2001, *Vegas Game*, an Italian corporation, bought Argentine bonds worth USD 2.4 m for about 31 cents on the dollar (06 Civ. 13084, November 9, 2006; Bloomberg). After the restructuring offer in 2005, Vegas joined a large number of litigating creditors and filed suit. However, after three years of fruitless litigation, Vegas abandoned the case even before Argentina re-opened its offer at the original terms in 2010 (06 Civ. 13084, January 21, 2009).