



EUROPEAN CENTRAL BANK
EUROSYSTEM

Working Paper Series

Julian Schumacher, Christoph Trebesch,
Henrik Enderlein

Sovereign defaults in court

No 2135 / February 2018

Disclaimer: This paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

Abstract

For centuries, defaulting governments were immune from legal action by foreign creditors. This paper shows that this is no longer the case. Building a dataset covering four decades, we find that creditor lawsuits have become an increasingly common feature of sovereign debt markets. The legal developments have strengthened the hands of creditors and raised the cost of default for debtors. We show that legal disputes in the US and the UK disrupt government access to international capital markets, as foreign courts can impose a financial embargo on sovereigns. The findings are consistent with theoretical models with creditor sanctions and suggest that sovereign debt is becoming more enforceable. We discuss how the threat of litigation affects debt management, government willingness to pay, and the resolution of debt crises.

Keywords: Sovereign default, enforcement, government financing, debt restructuring regime

JEL codes: F34, G15, H63, K22

Non-technical summary

This paper provides novel empirical evidence that creditor lawsuits have become a significant cost of sovereign default. Based on a newly collected dataset, we show that creditor lawsuits against defaulting governments have proliferated, with far-reaching consequences for government willingness to pay and for government access to international capital markets. This finding stands in contrast to the common view that sovereigns are largely immune from legal action by foreign creditors. Unlike private corporations that undergo insolvency procedures, defaulting governments cannot be liquidated and to this day there is no supranational legal authority to enforce repayment. However, in recent decades, the legal standards of sovereign immunity have gradually eroded in global financial centers such as the United States and the United Kingdom. Creditors have successfully used courts in these jurisdictions to pressure foreign governments to improve the terms of debt restructurings, repay their claims in full, or even abstain from defaulting in the first place.

Our analysis builds on the first systematic collection of lawsuits filed against defaulting countries between 1976 and 2010. We identify 158 litigation cases against 34 defaulting sovereigns initiated in the US or UK. The data show that specialized distressed debt funds have become considerably more active in enforcing sovereign debt in court since the early 1990s. Hedge funds now account for two-thirds of new cases, pursuing more aggressive legal strategies compared to other types of creditors. As a result, sovereign debt lawsuits filed have become larger, less likely to be settled early on, and more likely to involve attempts to attach sovereign assets abroad.

Using the new dataset, we show that creditor lawsuits have significant consequences for government access to international capital markets. In years in which creditors litigate and attempt to seize debtor country assets, sovereign external debt issuance drops close to zero. The findings are robust when controlling for a host of macroeconomic, financial and political controls. Furthermore, the coefficients for legal disputes remain significant when focusing on post-crisis periods only, excluding net creditor countries, accounting for crisis severity and the size of haircuts, and in various sub-samples across space and time. Counterfactual exercises provide further assurance that legal risks impair sovereign access to external finance.

An extensive selection of case studies corroborate our findings on legal risks and market exclusion. The narratives show that litigious hedge funds regularly seek to block cross-border debt flows and succeeded not only in Argentina, the most well-known case in recent years. We

also explore the role of creditor lawsuits in the modern debt crises during the last 10 years. Threats of litigation played a role in almost all recent debt distress cases, with effects on sovereign ratings, bond pricing and for debt restructuring processes.

Taken together, our findings support the view that the risk of sovereign debt litigation has become consequential for sovereign debt management and payment behavior, even if lawsuits are filed by only few holdout creditors. At the same time, our results do not necessarily imply that litigation reduces welfare, as we do not explore the ex-ante effects of stronger or weaker creditor rights. But our evidence is consistent with the view that the risks of market disruptions due to legal action are increasingly relevant ex-post, thereby lowering the probability and size of creditor losses in this market.

1 Introduction

This paper shows that the legal consequences of sovereign default are far-reaching and that the risks associated with creditor lawsuits in foreign courts increasingly influence governments' willingness to pay as well as the resolution of debt crises. This is a fundamental shift from the previous status quo. Over the past centuries, sovereigns were largely immune from legal action and creditors had no credible legal recourse in case of default. Unlike corporations, governments cannot be liquidated and there is no supranational legal authority to enforce repayment. Since the 1970s, however, sovereign immunity has eroded and banks and specialized hedge funds have successfully sued defaulting countries in courts in the United States and the United Kingdom. The best known example is Argentina after 2001, where years of litigation culminated in a second default in 2014 and a payment of more than \$10 bn to holdout creditors in 2016 (Hebert and Schreger, 2017).

Our contribution is to study the scope and implications of sovereign debt litigation based on a comprehensive new dataset and case study archive. For the first time, we show systematic evidence that sovereign debt lawsuits have proliferated and are economically relevant. This contradicts the traditional view in international macroeconomics that there is no effective mechanism for the enforcement of sovereign debt, implying that governments cannot commit to repay. Seminal models in the literature start from the premise that sovereign debt is not enforceable, for example Eaton and Gersovitz (1981) or Grossman and van Huyck (1988) who assume that “sovereign debts [...] are above the law”.¹ In contrast, our results lend support to models in which creditors can retaliate against defaults via legal action (e.g. Bulow and Rogoff, 1989a; Bolton and Jeanne, 2009) or in which litigating holdouts can block governments from accessing international capital markets (e.g. Benjamin and Wright, 2009; Pitchford and Wright, 2012). The implication is that both investors and governments will need to take legal risks into account as an important component of the costs and benefits associated with sovereign default.

The dataset covers the near-universe of lawsuits filed against defaulting countries between 1976 and 2010 and goes beyond existing work in both coverage and precision. Previous studies mostly focused on well-known litigation episodes, such as in Peru or Argentina, and relied on

¹See also Eaton and Fernandez (1995) for a survey of the early literature. This assumption is retained in recent DSGE models of sovereign debt which can match empirically observed default frequencies. Arellano (2008), for instance, assumes that sovereign debt is “not enforceable.” Recent surveys by Panizza, Sturzenegger and Zettelmeyer (2009) and Aguiar and Amador (2013) describe limited enforceability as the defining feature of sovereign debt.

secondary sources. We extract and hand-code data from more than 10,000 pages of court records from the US and the UK, the two dominant markets for international sovereign debt issuance and related legal disputes.² The newly coded data allow us to quantify the magnitude of sovereign debt litigation rigorously, in particular (i) the number and volume of cases, (ii) the countries affected, (iii) the types of creditors filing suit, (iv) the scope of attachment attempts to seize sovereign assets abroad, and (v) the key developments and final outcomes of the disputes.

We identify 158 litigation cases against 34 defaulting sovereigns filed in the US or UK. This is a lower bound since we focus on lawsuits by institutional investors and avoid double counting.³ The data show that Argentina's legal dispute with holdouts is no exception, but part of a general trend. In recent years, 50% of debt crises involved litigation, compared to less than 10% in the 1980s and early 1990s. The claims under dispute have grown notably, from close to zero in the 1980s to an average of 3% of restructured debt, or 1.5% of debtor country GDP in the 2000s. Compared to corporate debt markets, these are large numbers. Indeed, we are not aware of many fields of law in which such a high share of disputed claims end up in court.⁴

Our case archive also shows that the market changed fundamentally in the early 1990s, with the entry of specialized distressed debt funds, which buy debt at a discount and then sue for full repayment. Hedge funds now account for two-thirds of new cases and they pursue more aggressive legal strategies compared to other types of creditors. As a result, the lawsuits filed have become larger, less likely to be settled early on, and involve more attempts to attach sovereign assets abroad, meaning legal proceedings that enable creditors to potentially seize assets or disrupt international debt payments. The industry is dominated by a small number of hedge funds. The court documents show that these litigating creditors rarely wait for the satisfaction of their claims *in court*. Instead, they attempt to pressure the defaulting government into an *out of court* settlement at profitable terms (the most famous tactic being the *pari passu* strategy, see Section 2).

²The IMF (2002), Das, Papaioannou and Trebesch (2012), and Gulati and Scott (2012) show evidence that in the past decades over 70 percent of international sovereign bonds were issued under New York law, while most of the remainder were issued under English law.

³Argentina alone saw 182 lawsuits, plus thousands filed by retail investors. We count only 50 creditor-debtor cases as we merge suits by the same creditor in different courts and jurisdictions. See Section 3.1. for details.

⁴The comparison between corporate and sovereign debt is not straightforward, since firm restructurings are subject to national bankruptcy rules and involve a stay on legal action. One helpful benchmark is the study by Franks, Sussmann and Vig (2017) on defaults and enforcement in the ex-territorial shipping industry. The market they explore is also characterized by weak contractual enforcement and the lack of supra-national bankruptcy laws. Compared to sovereign debt, however, legal disputes and attachment attempts are surprisingly rare and, on average, affect less than 0.5% of claims in default.

In the second part of the paper we use the dataset and legal records to study the economic consequences of creditor litigation. Motivated by theory, we focus, in particular, on the implications for government access to foreign credit. Models in the tradition of [Eaton and Gersovitz \(1981\)](#) typically assume sovereigns to be excluded from international capital markets following default. However, the mechanism behind this crucial assumption is often not specified and there are few empirical studies exploring the channels at work.⁵ Here, we conduct the first systematic empirical test on the link between creditor lawsuits and sovereign debt issuance abroad. The evidence supports the view that legal risks are an important driver of market access, over and above the default effect per se. Using a micro-level dataset of sovereign bond and loan placements in international capital markets since the 1980s, we show that external debt issuance drops close to zero in years with legal disputes and attachment attempts. Between 2000 and 2010, there was not a single instance in which a government facing a creditor lawsuit in London or New York also placed a sovereign bond in these jurisdictions. This includes years in which countries had cured a default long ago, and also includes large issuers that regularly borrow abroad in normal times, such as Argentina, Brazil or Peru. The findings on market access are robust when controlling for a host of macroeconomic, financial and political controls. Furthermore, the coefficients for legal disputes remain significant when focusing on post-crisis periods only, when excluding net creditor countries, when accounting for crisis severity and the size of haircuts, and in various sub-samples.

Two pieces of evidence provide additional support for the view that legal risks impair government access to external credit. First, we show that borrowing shifts from external to domestic debt markets in years with legal disputes, suggesting that governments do want to borrow but face worse credit conditions abroad. Second, we show that sovereign debt litigation is not a significant predictor of *corporate* access to international capital markets. This greatly reduces the range of time-varying and country-specific confounders that could bias our results. The decline in external borrowing during years of litigation can only be observed for sovereigns, while foreign investors continue to lend to firms in the debtor country.

To examine the mechanism at work, we conduct case studies on litigation and market exclusion. Across countries and cases, creditors have regularly used legal strategies to block international financial transactions and debt flows of sovereigns, with the intention to pressure the government

⁵From a theoretical perspective, it is not obvious why sovereigns in default should not be able to find creditors willing to buy their debt at sufficiently high yields or insure against autarky ([Bulow and Rogoff, 1989a,b](#)). In practice, however, market access during default is very rarely observed ([Gelos, Sahay and Sandleris, 2011](#); [Cruces and Trebesch, 2013](#)).

to settle out of court. As a result, government plans to reaccess foreign bond markets were canceled or delayed, including debt placements that had already been announced or marketed.

The last section contains an outlook on ongoing and future legal risks in this market, by focusing on the post-2010 period, when Argentina's dispute with holdouts intensified. We find that litigation and legal threats played a role in almost all recent debt distress cases and reportedly increased creditor bargaining power. Rating agencies have explicitly justified credit downgrades due to the risk of litigation and asset seizures, e.g. in Argentina, Belize, Congo, or Mozambique. Arguably, however, the most striking example of how legal risks can affect sovereign willingness to pay is Venezuela in recent years. Until mid-2017, the government has continued to service bond payments in full and on time, despite a lack of basic food and medicine and despite defaulting on most other creditors. According to press reports, legal risks were the main reason why bondholders were treated favorably.⁶ Other cases in which legal threats took center stage include the Republic of Congo (2017), as well as Ukraine (2015) or Belize (2013).⁷ We also observe a high willingness of sovereigns to settle with any remaining holdout creditors or to service their claims in full, as happened in Greece, which has been repaying €6.4 bn holdouts on foreign-law bonds without a haircut.

The paper builds on several literatures. The legal costs of default have been a matter of debate at least since the contributions by [Alexander \(1987\)](#) and [Bulow and Rogoff \(1989a\)](#), but we are not aware of previous attempts to quantify these costs across countries and time. Our evidence suggests that the legal consequences have become increasingly relevant ex-post, thereby raising the bargaining and enforcement power of creditors. This could have potentially a large effect on the market equilibrium. [Eaton \(1990\)](#), [Dooley \(2000\)](#) and [Shleifer \(2003\)](#), among others, expect stronger creditor rights to have a positive market impact, as governments become less likely to over-borrow and default strategically. In contrast, [Bolton and Jeanne \(2009\)](#) point out that creditor rights can become too strong, making sovereign debt “excessively hard to restructure” even from an ex-ante perspective.⁸ Related empirical work suggests that the increased risk of

⁶For example, the Economist writes: “The government is desperate to avoid defaulting on its debt, since that would lead to creditors seizing oil shipments and assets abroad.”, July 29, 2017.

⁷The Republic of Congo was forced into default in August 2017, when a creditor convinced a New York court to freeze a bond coupon payment to other bondholders. In Belize and Ukraine litigation threats reportedly contributed to a creditor-friendly restructuring with reduced haircuts.

⁸See [Appendix 3](#) for a short discussion on why litigation can occur in equilibrium.

litigation indeed provides governments with a commitment device, as repayment becomes more credible when debt is issued under foreign law with stronger enforcement.⁹

We complement theoretical research on creditor coordination problems and on reforming the international financial architecture. Despite many theory papers on the topic, there are only few empirical studies on holdouts, litigation and sovereign debt enforcement.¹⁰ [Sturzenegger and Zettelmeyer \(2006\)](#) and [Panizza, Sturzenegger and Zettelmeyer \(2009\)](#) provide an overview on the development of sovereign debt law and litigation.¹¹ [Miller and Thomas \(2007\)](#) and [Cruces and Samples \(2016\)](#) analyze the Argentine litigation episode from an economic perspective, while [Bradley, Cox and Gulati \(2010\)](#) and [Hebert and Schreger \(2017\)](#) analyze the impact of landmark court decisions in sovereign debt cases on financial markets. In a companion piece ([Schumacher, Trebesch and Enderlein, 2015](#)), we study the determinants of litigation using the dataset developed for this paper.

Our analysis also relates to the policy debate on sovereign debt and financial crises. In the official sector, holdout litigation is now seen as a serious obstacle for sovereign debt renegotiations and as a risk for the functioning of international payment systems ([Federal Reserve Bank of New York, 2004](#); [Republic of France, 2013](#); [United States of America, 2012](#); [IMF, 2013](#); [United Nations, 2014](#)).¹² In contrast, investors and other private sector actors claim that the holdout problem is being exaggerated and that lawsuits are rare and cause no significant externalities.¹³ Concerns about litigation and holdouts have long been a motivation behind proposals for a statutory sovereign insolvency regime (see [Haldane and Kruger, 2001](#); [Krueger, 2002](#); [Rogoff and Zettelmeyer, 2002](#); [IMF, 2003](#); [Bolton and Skeel, 2004](#)). For example, the IMF's Sovereign Debt

⁹[Bradley et al. \(2016\)](#) and [Chamon, Schumacher and Trebesch \(2016\)](#) show that foreign-law bonds typically trade at a premium compared to domestic bonds with weaker protection (see also [Carletti et al., 2017](#)).

¹⁰For models of creditor coordination problems in sovereign debt markets, see [Miller and Zhang \(2000\)](#), [Ghosal and Miller \(2003\)](#), [Weinschelbaum and Wynne \(2005\)](#), [Gai, Hayes and Shin \(2004\)](#), [Haldane et al. \(2005\)](#) and [Bi, Chamon and Zettelmeyer \(2016\)](#). The lack of empirical work stands out in comparison to other fields, such as trade, where the theoretical literature on trade disputes builds on a large body of empirical studies (e.g. [Bown, 2004](#); [Grinols and Perrelli, 2006](#); [Maggi and Staiger, 2013](#)).

¹¹In a historical perspective [Mitchener and Weidenmier \(2010\)](#) study military interventions (“gunboat diplomacy”) and fiscal house arrests to enforce repayments prior to World War I, while [Flandreau \(2017\)](#) shows evidence on the role of sovereign debt disputes in history.

¹²Our paper and data have been used on both sides of the debate. Amongst others, the governments of United States and France refer to us in their Amicus Briefs they issued in support of Argentina to the Supreme and Second Circuit court (see e.g. “Brief for the Republic of France,” Supreme Court No. 12-1494) as well as by litigating creditors (see reference to the Moody's analysis in “Brief for Aurelius,” Supreme Court No. 13-990.)

¹³For example, see the comments by hedge fund managers of Elliott or Greylock ([Financial Times April 20, 2013](#); [June 7, 2016](#)), or [Duggar \(2013\)](#) from the rating agency Moody's. They suggest that litigation was a problem only in Argentina and that holdouts can easily be dealt with (see also [Alfaro, 2015](#)). In the debate, [Sturzenegger and Zettelmeyer \(2006\)](#) occupy the middle ground, by concluding that litigation is on the rise, but that the economic consequences are not large.

Restructuring Mechanism (SDRM) envisaged an “automatic stay” on legal action similar to firms undergoing bankruptcy. The Eurozone crisis and the events in Argentina triggered a new round of policy initiatives and new legislation.¹⁴ Most notably, debt management offices worldwide reacted to the legal developments by changing their sovereign bond contracts and by agreeing on newly designed collective action clauses (CACs) that will reduce, but not eliminate legal risks.¹⁵ In 2016, the United States signed a bill that was designed to protect the (non-sovereign) territory of Puerto Rico from litigating hedge funds (see Section 5), while the UK passed a law in 2010 that bans creditor lawsuits against poor countries receiving debt relief by official donors.¹⁶ More generally, the IMF (2013, 2014) has suggested that the legal framework for sovereign debt restructurings requires an overhaul. Our data and results help to inform this discussion.

2 Background: the decline of sovereign immunity

For most of history, private creditors lacked a direct enforcement device against foreign governments.¹⁷ Unlike corporations, a defaulting government cannot be liquidated 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.¹⁸

¹⁴The policy debate on sovereign debt restructuring, holdouts and an international bankruptcy court has intensified in recent years (Gianviti et al., 2010; Roubini, 2010; Weder Di Mauro and Zettelmeyer, 2010; Tirole, 2012; UNCTAD, 2012; Buchheit et al., 2013; Mody, 2013).

¹⁵The IMF (2016) reports that 75% of newly issued sovereign bonds in emerging markets now contain enhanced CACs with aggregation. In the euro area, CACs were introduced after 2013, partly to “deter disruptive litigation by minority bondholders” (ECB, 2011, p. 81). For a discussion on why CACs are no panacea see PIMCO (2012) or Gelpern (2016).

¹⁶Related policy initiatives include a UN Security Council resolution that was initiated by the US to protect Iraq from asset seizures by litigating creditors after 2003, as well as legislation hindering creditor lawsuits enacted in Belgium and two Channel Islands. In addition, the African Development Bank established the “African Legal Support Facility” in 2009, to assist debtor governments facing litigation, while the Commonwealth Secretariat has set up a “Legal Debt Clinic” for the same purpose.

¹⁷This section is largely based on Fisch and Gentile (2004), Sturzenegger and Zettelmeyer (2006), Foster (2008), Blackman and Mukhi (2010), and Waibel (2011).

¹⁸Buchheit (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. However, these attempts were often fruitless, 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).

Figure 1: Stylized evolution of litigation environment and main cases



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 investments and trade.¹⁹ 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 of 1978, and many other countries followed suit. As a result, states and state-owned firms 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, making 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 wave of sovereign debt litigation was triggered by the 1980s debt crisis in Latin America and beyond. 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 a debt restructuring agreement with Costa Rica. After several rounds of hearings, the New

¹⁹One reasons for restricting sovereign immunity was that state-owned enterprises were becoming increasingly active across borders in the 1940s and 1950s and that their legal immunity gave them an undue competitive advantage over private firms. Western governments were also concerned that Soviet firms could not be held legally accountable for their commercial activities abroad (see McNamara, 2006).

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 v. Costa Rica* 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 sovereign loans and bonds issued under US law. Debtor countries were no longer shielded from creditor lawsuits.

From the early 1990s on, the market for sovereign debt litigation changed with the entrance of a new type of plaintiff: specialized distressed debt funds, or "vulture funds" as they would later sometimes be called. These 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 sovereign debt litigation success by a distressed debt fund. The case was launched by the Dart family, which had acquired \$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 Dart was able to sell its holdings 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 "vultures", namely buying debt on secondary markets at a steep discount and then suing for full repayment plus interest. But the Champerty defense was rejected in *CIBC* and in most subsequent cases, and it was effectively eliminated in 2004 ([Blackman and Mukhi, 2010](#)) following continued

lobbying activity by hedge funds²⁰. 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 attempts to seize sovereign assets abroad.

Since 1992, immunity from *suits* is no longer the main hurdle, while immunity from *attachment* remains relevant, meaning protection against asset seizures. Sovereign immunity laws, like the FSIA, continue to shield many government assets at home and abroad. Specifically, recent US court decisions restrict the pool of seizable assets to those *located in the United States and used for commercial purposes*.²¹

A novel and now dominant strategy of debt enforcement appeared in the late 1990s, when the hedge fund Elliott used a new interpretation of the *pari passu* clause in *Elliott v. Republic of Peru*. *Pari passu* is a standard clause contained in most sovereign debt contracts, although its exact meaning remains controversial. 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 and relevance for sovereign debt 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 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 bonds, Peru quickly settled at face value, transferring about \$58 m to Elliott. Not surprisingly, the case encouraged a wave of similar *pari passu* litigation. For several years, however, no other plaintiff succeeded in interrupting interest or principal debt payments.²²

As a consequence, judgment creditors were back searching for non-immune, attachable assets. Examples of attempted seizures include presidential airplanes, central bank assets and social security funds held in the US, a famous vessel of the Argentine Navy (the ARA Libertad), Argentina’s stake in the satellite launch firm SpaceX, and even Argentine dinosaur fossils on

²⁰From the mid-1990s onwards, changes to the Champerty law were an important political demand of hedge funds, including Elliott. Elliott also successfully proposed a retroactive amendment of New York’s General Obligation Law, thus enabling the recovery of interest-on-interests. See Wall Street Journal “New York is drawn in global debt war as U.S. fund seeks change in law to help suits.” June 11, 1999; Dow Jones Newswires, “Panama joins Brazil, Peru in opposition to NY state bill”, June 30, 1999 and “Deadbeat Countries May Soon Face More Lawsuits”, May 16, 2000.

²¹Similar constraints apply in the UK, France, or Germany ([Foster, 2008](#)).

²²In 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*.

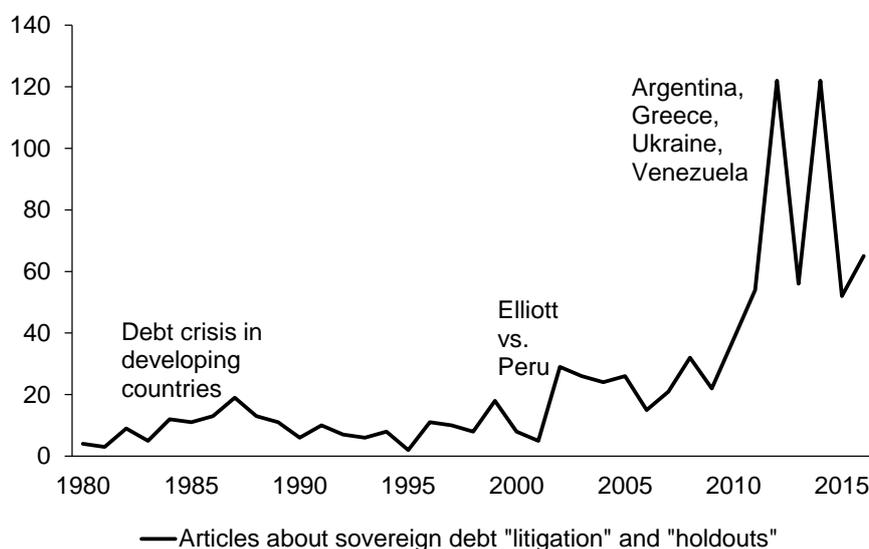
exhibition in Europe (see [Blackman and Mukhi, 2010](#); [Foster, 2008](#)). Most of these attempts have been legally unsuccessful, in the sense that they were ultimately rejected by US and European courts. Nevertheless, the attempts increased the “nuisance value” of the ongoing lawsuits, sometimes causing externalities that far exceeded the value of the litigated claims. In the Republic of Congo, for example, a small group of creditors holding less than \$500 m of debt succeeded in blocking the country’s entire oil exports for years, thereby disrupting a multi-billion industry (see [Appendix 1](#)).

Over the course of the last decade, *pari passu* litigation has returned as a powerful creditor strategy, especially in the Argentina context. In December 2011, the Southern District of New York ordered that Argentina was required “to rank its payment obligations pursuant to NML’s Bonds [the litigating creditor] at least equally with all the Republic’s other [...] [i]ndebtedness” (*NML Capital v. Republic of Argentina*, 08 Civ 6978), but at first denied motions to interrupt payments to the exchange bondholders. This obstacle was removed in February 2012, when the court clarified that all parties involved in “preparing, processing, or facilitating any payment on the Exchange Bonds [...] shall be bound by the terms of this order.” This meant that Argentina could no longer make payments via Bank of New York Mellon, the trustee for the exchange bondholders. The government continued to dispute the order, but it was confirmed by the 2nd Circuit Appeals Court in October 2012, and the Supreme Court refused to hear the case in June 2014, resulting in a default on all Argentine bonds in July 2014. The situation was only resolved in 2016, when the newly elected government under Macri agreed to a settlement with the holdouts, including large amounts of accrued and penalty interest (see [Section 4.5](#) and [Appendix 2](#) for further details).

The increased activism of litigating hedge funds has attracted public attention beyond the policy domain. [Figure 2](#) shows this by plotting the number of articles mentioning sovereign debt litigation and holdouts in the print edition of three leading newspapers, the Financial Times, the New York Times and the Wall Street Journal, for each year between 1980 and 2014.²³ The graph shows that litigation and holdout risks have become a standard theme in press articles on sovereign debt and default, in particular in the context of the debt crisis cases of Argentina, but also in Greece, Ukraine and, most recently, in Venezuela. In contrast, legal risks were very

²³Specifically, we use the electronic press database Factiva and apply the following search algorithm: “sovereign AND litigation NOT ECB OR sovereign AND holdout OR sovereign AND holdouts.”

Figure 2: Press Coverage on Sovereign Debt Litigation (FT, NYT, WSJ)



The figure plots the number of articles mentioning sovereign debt “litigation” and “holdouts” in the print edition of three major newspapers (Financial Times, New York Times, Wall Street Journal), yearly, between 1980 and 2016. In recent years, most mentions occurred in the context of the Argentine, Greek and Venezuelan debt distress, as well as the \$3 bn lawsuit Russia filed on Ukrainian Eurobonds in London.

rarely mentioned during the debt crisis of the 1980s and also received only limited attention in the 1990s.

3 The dataset: sovereign debt litigation 1976-2010

This section presents our database on sovereign debt lawsuits filed in the US and UK, compares it to previous work, and summarizes new facts, in particular on the number of disputes, the amounts affected, the countries and creditors involved, and the case processes and outcomes. The most important contribution of our dataset is that it comes close to a census of sovereign debt litigation events in the US and the UK. When starting this project, there was no single source providing a satisfactory, representative picture of the phenomenon and no database could be readily used for empirical analyses. Previous case lists typically include only the most visible lawsuits and mostly use secondary sources, which can be noisy, erroneous and incomplete, as a comparison of these sources with the original court documents showed.²⁴

²⁴Important earlier case collections include Buchheit (1999), Singh (2003), the IMF (2004), Sturzenegger and Zettelmeyer (2006), EMTA (2009), IIF (2009), Trebesch (2010), Enderlein, Trebesch and von Daniels (2012), as

For the US, we relied on the official court record database PACER²⁵, which lists all cases tried in US federal courts, including cases that are dropped or unreported in standard case law. For the UK, there is no official court archive comparable to PACER. We therefore draw on the main UK-specific legal databases, including Lexis Nexis UK, Westlaw, Casetrack, Justis, and BAILII. To complement and cross-check the information from electronic legal databases we draw on policy reports, news reports (in particular the database Factiva) as well as the academic literature. A detailed description of our sources and coding approach is shown in [Appendix 4](#).

The completeness of our data has advantages for quantitative work. In particular, it allows to construct a panel dataset measuring litigation occurrence (and non-occurrence) in each year, as well as years with and without attachment attempts. Compared to the most widely cited earlier work on the topic ([Singh, 2003](#); [Sturzenegger and Zettelmeyer, 2006](#); [Panizza, Sturzenegger and Zettelmeyer, 2009](#)) we identify four times as many lawsuits and correct errors and inaccuracies. We also gather many more details on each case, in particular on whether creditors gain an attachment order to seize assets.

A further advantage of our data structure is that we avoid the “tip of the iceberg” problem, a main obstacle in the quantitative analysis of litigation ([Priest and Klein, 1984](#)). Legal scholars typically observe only those cases brought to court, but not the underlying sample of harmful events, such as the total pool of traffic accidents. Here, we draw on well-established databases to observe the full sample of sovereign defaults and restructuring events that could potentially have resulted in legal action.

We are well aware, however, that we face the usual hurdles in quantitative legal research. In particular, we could not gather details on the amounts under dispute in 23 cases, and we lack details on creditor returns in most cases, since many cases settle out of court at unknown terms. The lack of settlement amounts is a recurring challenge in quantitative studies of civil lawsuits, since both the plaintiff and defendant have little incentives to reveal sensitive information.

3.1 Case selection

We selected the cases in our database by searching for all lawsuits filed against UN member state governments in the US or the UK, and covering the period 1976 (the enactment of the FSIA) until 2010. For completeness, we also include the five arbitration cases regarding sovereign

well as the litigation survey conducted by the IMF and the World Bank on highly indebted poor countries (HIPCs) since 2002 ([IMF and World Bank, 2000-2011](#)).

²⁵PACER stands for Public Access to Court Electronic Records (<http://www.pacer.gov>).

defaults in this period, because 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). We then cleaned the resulting case list to contain only lawsuits related to sovereign borrowing. Finally, we matched the cases to the dataset of 180 sovereign debt restructurings reported by [Cruces and Trebesch \(2013\)](#), and the list of government defaults by [Standard & Poor's \(2006\)](#).

To reduce noise, we restrict the sample in three respects. First, we exclude suits filed by retail investors. Compared to institutional investors, retailers typically litigate for small amounts and are much less likely to initiate attachment attempts and other types of aggressive legal action. Moreover, since 1976, retail litigation mattered importantly in only one case: the recent Argentinean default. Including retail cases does not change the results quantitatively (see [Appendix 4](#)).

Second, we focus on 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 (see [Appendix 4](#) for more details).

Third, we organize the information as creditor-debtor pairs to avoid double counting. This means that we combine multiple legal actions between identical plaintiffs and defendants into one observation, even if these actions took place in multiple courts 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, plus lawsuits in several other US federal district courts. The motivation behind this type of “jurisdiction shopping” is to try a variety of legal arguments and attachment attempts at the same time. For the purpose of our analysis, it does not appear sensible to treat these cases as separate observations. Once one of the legal strategies turns out to be promising, the different proceedings are frequently merged, such as the various different claims of NML that were eventually all settled after the *pari passu* argument proved effective. The creditor-debtor pair *NML Capital v. Republic of Argentina* therefore enters our database as a single observation only. More generally, Argentina saw a total of 182 lawsuits in the Southern District Court of New York alone, including 11 by NML, 8 by Aurelius and 7 by Gramercy. After merging such cases and eliminating retail investor cases, this reduces to 50 distinct legal challenges that enter our database.

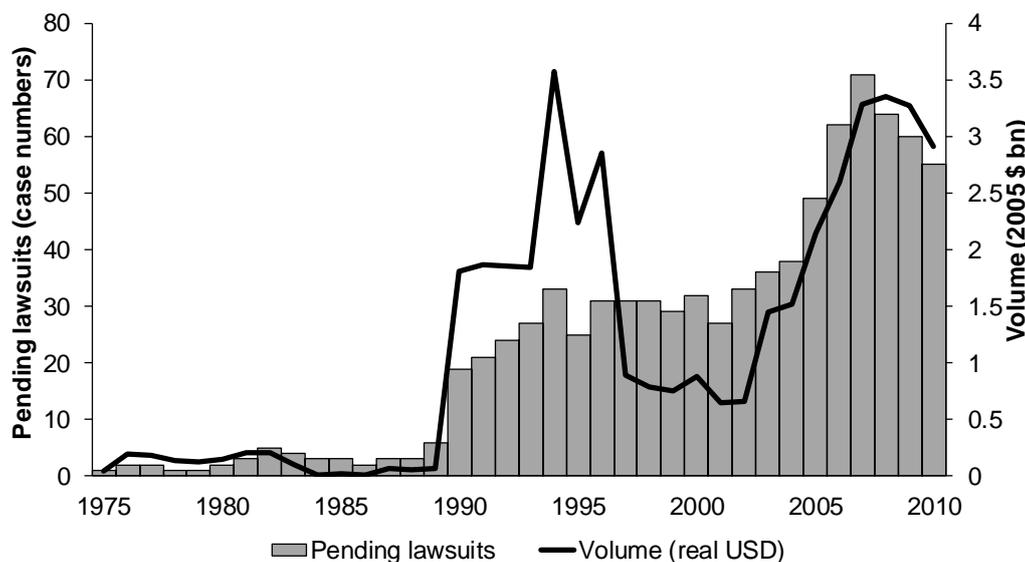
Table 1: Litigation cases by decade, region, and type of creditor

		All cases		w/o Argentina after 2001	
Total cases		158		108	
Incl. retail cases		241		111	
Debtor countries		34		34	
HIPC cases		47		47	
		Number	Percent	Number	Percent
Decade	1970s	2	1.3%	2	1.9%
	1980s	12	7.6%	12	11.1%
	1990s	61	38.6%	61	56.5%
	2000s	83	52.5%	33	30.6%
Region	Africa	54	34.2%	54	50.0%
	Americas	89	56.3%	39	36.1%
	Asia	13	8.2%	13	12.0%
	Europe	2	1.3%	2	1.9%
Creditor type	Fund	79	50.0%	37	34.3%
	Bank	38	24.1%	35	32.4%
	Other	31	19.6%	27	25.0%
	Unknown	10	6.3%	9	8.3%
Jurisdiction	United States	130	82.3%	80	74.1%
	United Kingdom	23	14.6%	23	21.3%
	Arbitration	5	3.2%	5	4.6%
Outcome	OCS	85	53.8%	59	54.6%
	Pending	26	16.5%	3	2.8%
	Unsuccessful	14	8.9%	13	12.0%
	Judgment satisfied	10	6.3%	10	9.3%
	Unknown	23	14.0%	23	21.3%

3.2 New facts on creditor litigation 1976-2010

Table 1 shows key summary statistics from our database. In total, we identify 158 litigation disputes initiated by foreign commercial creditors against 34 defaulting sovereigns (not counting retail cases and multiple lawsuits by the same creditor). Of these, 130 cases were filed in the United States. Only 23 cases were filed in England and five are the arbitration cases mentioned above. The dominance of US cases can partly be explained by the fact that most Latin American defaulters issued their debt under New York law. With a view to jurisdiction shopping, we find that 16% of all cases are brought to court in more than one jurisdiction. This is particularly the case for lawsuits that originate in the UK for which 32% of plaintiffs also file a suit in the US. In contrast, only 11% of cases that start in the US are also continued elsewhere. As explained, we merge these cases into the same creditor-debtor observation and assign the case to the jurisdiction where the first suit was filed.

Figure 3: The rise of creditor litigation



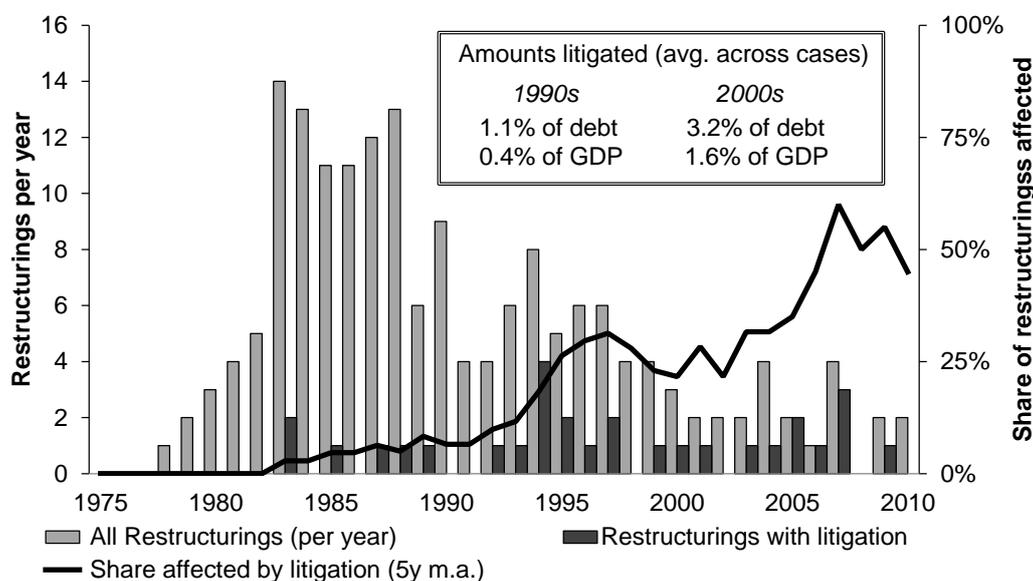
The bars show the number of outstanding creditor lawsuits against sovereigns in US and UK courts for each year between 1976 and 2010 (left axis). The black line reflects the total amount under litigation in 2005 Dollars excluding accrued interest or penalty interest (face value, right axis). The figure shows an increase in case numbers and case volumes over the past decades. Large country cases such as in Argentina, Brazil and Peru influence these aggregates importantly, so that we also show cross-country trends in Figure 4.

How common is sovereign debt litigation? We start by exploring the prevalence of litigation events over time. Overall, the data reveal a strong increase in litigation occurrence since the 1980s. This is evident in Figure 3, which shows the number of pending lawsuits for each year between 1976 and 2010.²⁶ This number has gone up from six or less throughout the 1980s, to more than 50 pending disputes in recent years. In parallel, there has been an increase in the total outstanding amounts under litigation, from close to zero to more than \$3 bn in 2010 (excluding accrued interest or penalties).

The trends in Figure 3 are influenced by a few outlier cases, in particular by Argentina, Brazil, and Peru, which had large restructurings and also witnessed large-scale litigation. As an alternative approach that is less affected by outliers we also examine the cross-section of restructuring events and match individual lawsuits to their respective crisis event. Figure 4 shows the total number of debt restructurings per year, and the subset of these which were subject

²⁶The upward trend in case numbers is also evident when looking at the number of cases *initiated* in each year between 1976 and 2010, although the resulting figure is more volatile. Note also that a similar figure was used in related work by Schumacher, Trebesch and Enderlein (2015) which refers to this paper for the underlying dataset.

Figure 4: 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 involved at least one creditor lawsuit in a US or UK court (dark bars). The black line shows the ratio of debt restructurings affected by litigation (in % of all restructurings, as five-year moving average, right axis).

to at least one creditor lawsuit in the US or the UK.²⁷ The key insight from this graph is that the share of debt crises involving litigation has increased substantially over the past decades.²⁸ During the 1980s only about 5% of restructurings were accompanied by legal creditor action. This figure increased to 30-50% after the year 2000.²⁹ Due to the small number of defaults in recent years, the average numbers are volatile. However, the upward trend in legal risks after the early 1990s is undeniable.

Amounts: The volume of litigated claims has increased over time. For those 135 lawsuits for which we could gather amounts, the average claim is \$60 m, with a median of \$12 m. These estimates are likely at the lower bound of the underlying numbers, since we use face value amounts whenever available, thus underestimating the true amounts in dispute, which can be a multiple of the face values (see [Appendix 4](#)). In the full sample of restructurings, the litigated

²⁷For 28 lawsuits defaults were still ongoing and the related debt restructurings had not been completed as of end-2010. These cases are not included in this graph. See [Appendix 4](#) for details.

²⁸The picture is very similar if we construct the same time series using default years from S&P, instead of the [Cruces and Trebesch \(2013\)](#) data on restructuring events.

²⁹Our case study archive on recent years suggests that the probability of litigation remains high, with roughly 50% of restructurings affected. See [Table 6](#) for details.

claims on average correspond to 1.8% of restructured debt between 1978-2010, or 0.4% of debtor country GDP (using World Bank WDI data for GDP in the year of restructuring). However, once we condition on the occurrence of *any* litigation, i.e. only considering restructurings that did involve legal disputes, the average share under litigation increases significantly, to more than 10% of restructured debt (median 4%), or 2.4% of GDP.³⁰ When comparing the 1990s to the 2000s, the litigated amounts to restructured debt increased on average from 1.1% to 3.2% in the full sample (or from 0.4% to 1.6% of debtor country GDP).

In absolute terms, the largest suits by volume were filed against Argentina after 2001, with a total of \$3.1 bn in face value claims by institutional investors (corresponding to about 5% of the 2005 restructurings),³¹ as well as against Brazil in 1994, with a total amount of \$1.4 bn. In relative terms, however, the scope of litigation is largest for poor and small countries. Two examples are Nicaragua (in the 1990s) and Liberia (in the 2000s) where lawsuits amounted to 7.7% and an extraordinary 41.6% of GDP, respectively.³² Similarly, the recent litigation cases against Dominica and Grenada accounted for more than 3% of GDP in each case, or 8% and 10% of the total amounts restructured.

Countries involved: The regional distribution shows that governments in Latin America and Africa were most affected, accounting for 89 and 54 creditor lawsuits, respectively. Most debt crisis-related cases have been filed against middle-income countries in the emerging market world. Around 30% of all lawsuits were related to debt treated under the HIPC initiative, or 47 out of 158 cases. In related work (Schumacher, Trebesch and Enderlein, 2015) we study the drivers of creditor litigation across countries.

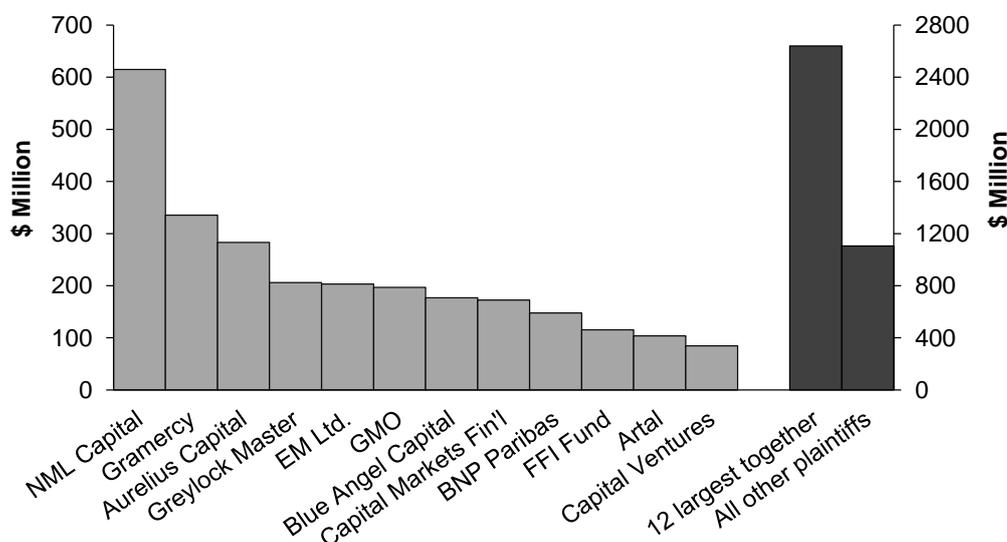
Argentina accounts for a third of the case universe, with 50 commercial creditor lawsuits filed after the default of 2001. Peru's Brady debt exchange in 1997 was also accompanied by a high number of court cases, triggering 13 lawsuits in the United States. Next come Iraq 2006,

³⁰Note that all summary statistics in this paragraph are computed for the cross section of completed restructurings (see Appendix 4). In contrast, the summary statistics of the regression dataset in Table 8 are computed in the cross-country panel including all years and countries, i.e. adding those that did not undergo a default or restructuring.

³¹The figure in Argentina's 2011 SEC filing is higher, namely \$3.7 bn, and includes the large-scale retail litigation (as we explain above, Argentina is the only case in which retail lawsuits played a significant role). For details, see http://www.sec.gov/Archives/edgar/data/914021/000090342311000486/roa-18k_0928.htm.

³²The litigated amount of the nine cases against Liberia sums to \$364 m compared to a nominal GDP of \$876 m in 2009, when the HIPC restructuring with commercial creditors was implemented. A single dispute with Japanese creditors of the Taiyo Kobe Syndicate accounts for 78% of this total (IMF and World Bank, 2000-2011). Moreover, note that this is still a conservative estimate of the total amount, since we use face values. For example, in the suit by *Montrose Capital LLC v Liberia* the face value amounted to \$26 m, while the claim was \$129.5 m.

Figure 5: Argentina - Largest litigating creditors by volume

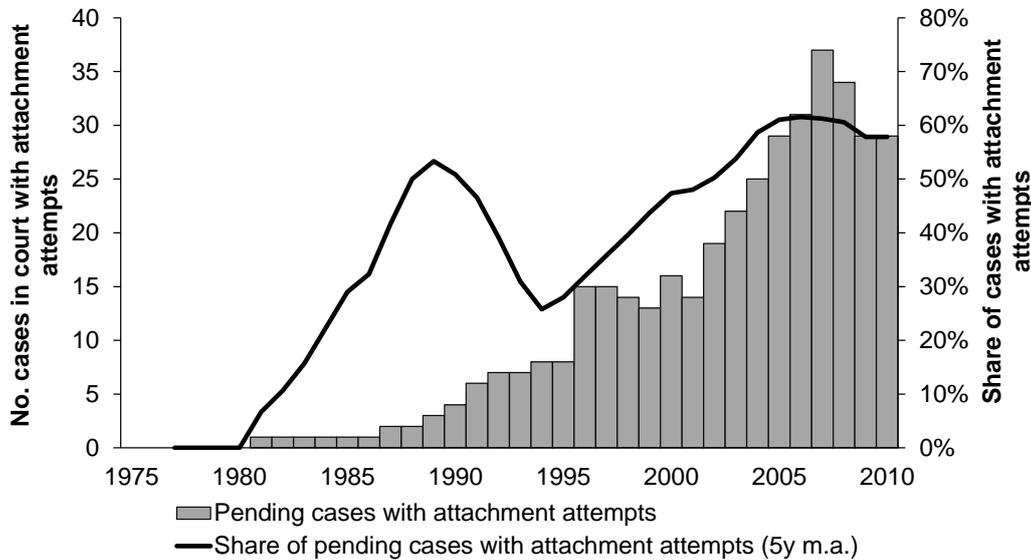


The graph shows the 12 plaintiffs with the largest claims (by face value of disputed bonds, excluding accrued and penalty interest; light grey bars, left axis). It also compares the sum of all claims by these plaintiffs with the sum of all other plaintiffs who filed lawsuits (dark grey bars, right axis).

Liberia 2009, and Congo 2007 with ten, nine and seven cases, respectively, as well as Nicaragua 1995, Ecuador 1995, Nigeria 1983, and Zambia 1994 with three to four cases each. Another 17 restructurings involved only one lawsuit by institutional investors, while most restructurings see none. The data thus show that “runs to the courthouse” have been relatively rare. However, the number of cases alone is not a very informative statistic, since a single lawsuit can suffice to cause large repercussions.

Creditor characteristics: Turning to creditor characteristics, we find that distressed debt funds have become the dominant type of plaintiff filing suit, which has large repercussions, as we discuss below. Of the 148 cases for which we have information on the creditor, 79 were filed by funds, 38 were filed by banks, and the rest by other types of commercial creditors such as suppliers, exporters or insurance companies. Since the year 2000, 65% of all cases were initiated by distressed debt funds. Table 7 shows that many of these litigious funds are not well-known, also because large creditors such as Elliott or the Dart family have filed suit through subsidiaries such as Kensington International, NML Capital, CIBC, or EM Ltd., respectively. This opaqueness is a characteristic feature of distressed debt litigation.

Figure 6: Cases with attachment attempts (in %)



The figure shows pending cases that involved enforcement proceedings by year, between 1975 and 2010, either as number of cases (bars, left axis) or as a share of all pending cases (line, right axis, as five-year moving average). Enforcement proceedings include both pre- and post-judgments actions. In recent years, more than 50% of creditors made at least one attempt to seize sovereign assets abroad.

Despite the limited information on creditors, all available evidence from court records and the press suggests that the holdout industry is highly concentrated, as the same players appear again and again. The legal documents on Argentina show, for example, that the 10 largest institutional plaintiffs account for more than 75% of all claims from that group, namely \$2.5 bn out of \$3.1 bn. The largest was NML Capital (owned by Elliott), with more than \$600 m in principal claims against Argentina. Figure 5 shows the distribution by investor in more detail.

Case duration and attachment attempts: The characteristics of lawsuits filed against sovereigns has changed notably over time. As Figure 6 shows, the share of lawsuits with attempted asset seizures or other enforcement actions has increased to more than 50% since the year 2000. One reason for this is the increased role of distressed debt funds, which are more likely to initiate attachments: 56% of hedge fund cases involve at least one attempt to seize assets, compared to 28% of cases filed by other creditors. Moreover, activist hedge funds have a history of initiating a chain of attachment attempts against the same debtor.³³

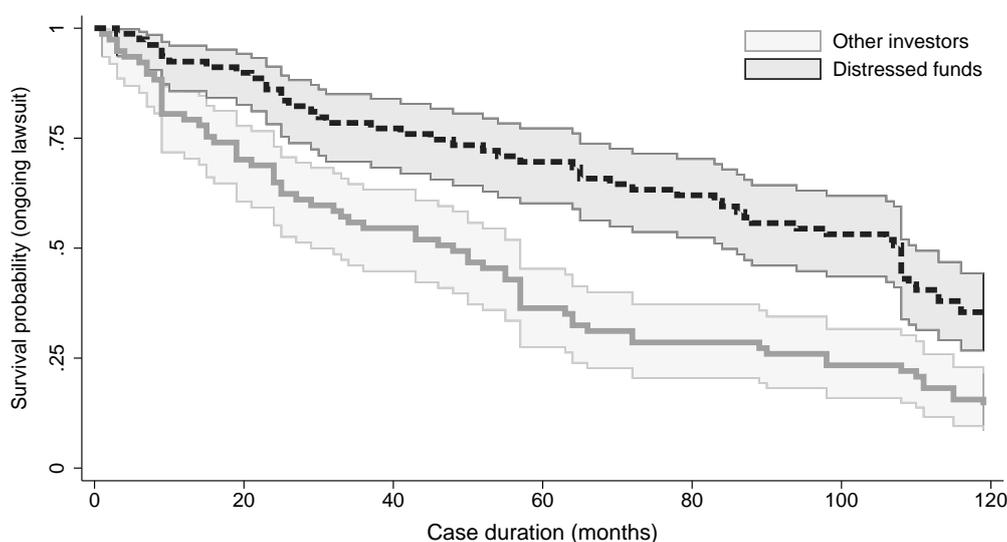
³³For example, FG Hemisphere initiated at least six attempts to seize payments to the Democratic Republic of Congo (in the US, UK (Jersey Islands), Australia, Canada, South Africa, and Hong Kong). Similarly, in a US-based case, LNC Investments targeted a variety of assets of Nicaragua in twelve different federal district courts.

In parallel, the cases have become more protracted. During the London Club bank debt renegotiation process of the 1980s and 1990s, commercial banks typically returned to the negotiating table quickly, dropping ongoing lawsuits. In contrast, today's hedge funds are more persistent and rarely agree to abandon their suits early on, also because settlements often include sizable accrued interest plus penalties. This is one reason why the average case duration increased from 4.6 years in the 1990s to more than 7.8 years during the 2000s. The differences across creditor types can also be seen in Figure 7, which shows a plot based on the non-parametric Kaplan-Meier estimator. The estimates confirm that lawsuits by distressed debt funds are particularly protracted: after 5 years (60 months) the probability of case survival is still around 70%, compared to circa 35% for other creditors. Even after 10 years, distressed debt funds continue to litigate with a probability of more than one third. The main takeaway from this procedural data is that litigation strategies have become more intense over time, thus likely increasing the costs on both sides.

Case outcomes: The majority of cases (85 lawsuits) were settled out of court with little details available, at least not from official sources. It is striking that only 14 lawsuits were outright failures, in the sense that the court rejected the claim and discontinued the case. Equally rare are outright court wins. In only 10 cases we find creditor claims to have been fully satisfied according to court records.

Creditor returns and recovery rates: Settlement amounts are typically not available from court documents, which is our most important and reliable source. We therefore do not have representative information on creditor returns and recovery rates. Nevertheless, we were able to collect settlements details from legal proceedings and other reliable sources for those cases listed in [Appendix 2](#), which distinguishes between litigation successes and litigation failures. The results suggest that sovereign debt litigation is a high-risk, high-return strategy. The recovery rates in out-of-court settlements are typically higher than those in the original exchange offer. Sometimes the returns reach 300% or more, but we also find cases in which creditor returns were zero or negative.

Figure 7: Duration of lawsuits by creditor - survival estimates



This figure plots Kaplan-Meier survival function estimates for the duration of creditor lawsuits, differentiating between cases filed by distressed debt funds and cases filed by other creditors, such as banks or insurance companies. The vertical axis shows the unconditional joint probability that creditors continue to litigate (no settlement) for each month after the start of the lawsuit (horizontal axis). The grey shaded areas show 90% confidence intervals.

4 Litigation and access to international capital markets

Our quantitative analysis in the following section shows that creditor litigation and legal threats have become a potent default sanction, over and beyond the direct costs described in the previous section. In particular, we estimate the externalities of creditor litigation, meaning indirect costs beyond the immediate expenses such as settlement payments and legal fees. This mechanism is relevant and consequential for governments' external financing.³⁴

We focus on the impact of litigation on government access to international capital markets and use micro data on primary market issuances by governments abroad, aggregated on a country-year basis. Because causality is hard to establish in cross-country panel regressions we conduct counterfactual exercises and complement our quantitative results with detailed case studies on the underlying mechanism. The cases show that litigating creditors regularly use legal strategies to block sovereigns from issuing or repaying debt through London or New York, thus undermining their access to credit markets.

³⁴Moreover, [Appendix 1](#) provides narratives on how lawsuits disrupted international trade flows.

4.1 Theoretical considerations

Theoretically, the link between legal disputes and access to international capital markets is straightforward. If litigating holdout creditors can seize sovereign assets abroad, or disrupt financial flows such as bond issuances or repayments, then these holdouts have a claim on any new money lent to the government. With perfect legal enforcement, any new lending would be directly transferred to the litigious old lenders. This is true both during default, when the debt has generally not been settled, as well as after defaults, in case any unsettled holdout claims remain outstanding.

Litigation can thus be understood as a tax on new debt issuance, which is increasing in the size of litigated claims. The model of [Bulow and Rogoff \(1989a\)](#) features asset-grabbing creditors that can reduce a country's gains from trade in financial and goods markets. Due to such legal action, external financing will be cut off and countries may need to trade in roundabout ways to avoid seizures.

[Pitchford and Wright \(2007, 2012\)](#) suggest an additional channel how creditor litigation can become a sanction of sovereign default. In these models, individual creditors can effectively veto a government's attempt to tap foreign debt markets. This results in a strategic hold-up effect, because all creditors need to settle before the government can borrow again, resulting in prolonged exclusion. Unlike in previous papers, this mechanism of exclusion is endogenized and embedded into a debt bargaining game. As suggested in [Benjamin and Wright \(2009\)](#), the threat of litigious holdout creditors is serious since these can impose a "virtual blockade" on capital flows to the country.

Consistent with theory, our hypothesis is that litigation, in particular creditor attempts to enforce judgments on sovereign assets or financial flows, reduce the probability of sovereign borrowing in international capital markets.

4.2 Descriptive findings

We measure market access to foreign credit by relying on the Dealogic dataset, the most comprehensive database on sovereign primary market issuance by emerging economies and most commonly used in the literature ([Gelos, Sahay and Sandleris, 2011](#); [Cruces and Trebesch, 2013](#)). Specifically, we retrieve data on 1,725 international sovereign bonds issued between 1980 and 2010 by central governments of developing countries worldwide, as well as 2,120 international

syndicated loans arranged by central governments. We then aggregate the micro data on an annual basis. The main dependent variable for market access is a binary indicator which takes the value 1 if the central government placed debt (bonds or loans) in international financial markets in that year and 0 otherwise.³⁵

Table 2 shows summary statistics on sovereign debt issuance with and without litigation. In non-crisis times, bond placements occur in 14% of all country-year observations between 1980 and 2010, or 28% when taking into account bonds and loans (more than half of all sovereigns in our sample never tapped international bond markets).

The market access probability declines close to zero during spells of litigation and attachment attempts. In total, we observe litigation events in 249 country-year observations. Out of these, there are only 12 country-years with an external sovereign bond placement. Similarly, out of 140 country-year observations with pending attachment proceedings in our dataset, we observe only two issuance events.

The same picture emerges when focusing on post-crisis episodes only, i.e. in years after exit from default, when restructurings with the large majority of creditors had been implemented and only holdouts remain (using data from [Cruces and Trebesch, 2013](#)). Table 2 shows that these post-crisis years are usually characterized by heightened sovereign issuance activity, with a 17.8% probability of tapping bond markets in the absence of a pending lawsuit (and hence also no enforcement proceedings). However, when legal disputes loom, this probability drops towards zero. In total, we count 24 country-years in which creditors continued lawsuits with enforcement action post-restructuring. In these 24 country-years, we observe only one successful bond placement (at unusually high yields).³⁶

There are noteworthy time trends, too. External bond issuances increased substantially in the last decade, with nearly a 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.

The stark differences in borrowing patterns with and without litigation are further illustrated in Figures 8 and 9. Figure 8 plots the distribution of bond issuances for the entire dataset, which

³⁵In contrast to [Gelos, Sahay and Sandleris \(2011\)](#), 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 and for new borrowing. However, we do exclude all bonds and loans issued in the context of a debt restructuring.

³⁶Ecuador issued a total of \$500 m in 1997, at a coupon above 10%.

Table 2: Descriptive statistics: Litigation and market access

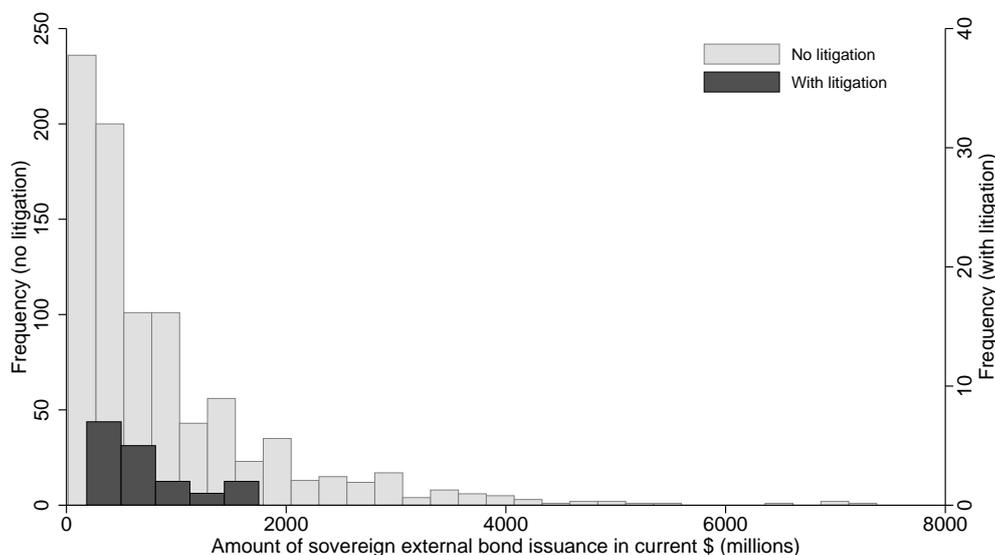
This table reports summary statistics on debt issuance by developing and emerging market borrowers between 1980-2010 in different subsamples with and without litigation. The upper panel considers total debt issuance (bonds and loans), the lower panel considers only bond issuance. The first column shows the number of observations per subsample. The second and third column show the number of country-year events with debt issuances in each subsample, and the average volume of issued debt, respectively. The fourth column reports the resulting share of years with debt issuance.

Asterisks indicate significance levels of t -tests (corrected for unequal variances across the samples) of the volume and share against the following benchmarks: rows “Any litigation” and “Litigation in the 2000s”, issuance in years with litigation against years without; row “Share of litigation >1% of GDP”, years with litigation exceeding 1% of GDP against years with no or little litigation; row “Attachment attempt”, issuance in years with attachment attempts against years without. All tests indicate that both the probability of issuing new debt and the issue volume in periods with litigation are significantly lower. For comparison purposes we also show issuance behavior in the “Full sample”, during “Normal times” and “Post-default” years.

	Country- year events (total)	Years with debt issuance	Amount borrowed (\$ mn, avg.)	Share of years with issuance
<i>Benchmark years (bonds):</i>				
Full sample	4,092	522	211.7	12.8%
Normal times (no default or post-default years)	3,220	458	249.2	14.2%
Post-default (3 years), no attachment or litigation	191	34	164.3	17.8%
<i>Litigation years (bonds):</i>				
Any litigation	249	12	61.1***	4.8%***
Share of litigation >1% of GDP	76	1	7.9***	1.3%***
Attachment attempt	140	2	7.9***	1.4%***
Litigation in the 2000s	110	0	0.0***	0.0%***
Post-default (3 years), with attachment	24	1	20.8**	4.2%***
<i>Benchmark years (bonds & loans):</i>				
Full sample	4,092	1,064	337.4	26.0%
Normal times (no default or post-default years)	3,220	913	388.4	28.4%
Post-default (3 years) no attachment or litigation	191	55	341.2	28.8%
<i>Litigation years (bonds & loans):</i>				
Any litigation	249	29	126.6***	11.7%***
Share of litigation >1% of GDP	76	2	8.2***	2.6%***
Attachment attempt	140	8	13.3***	5.7%***
Litigation in the 2000s	110	4	3.4***	3.6%***
Post-default (3 years), with attachment	24	4	45.8**	16.7%*

*** $p < 0.01$

Figure 8: Bond market access with and without litigation



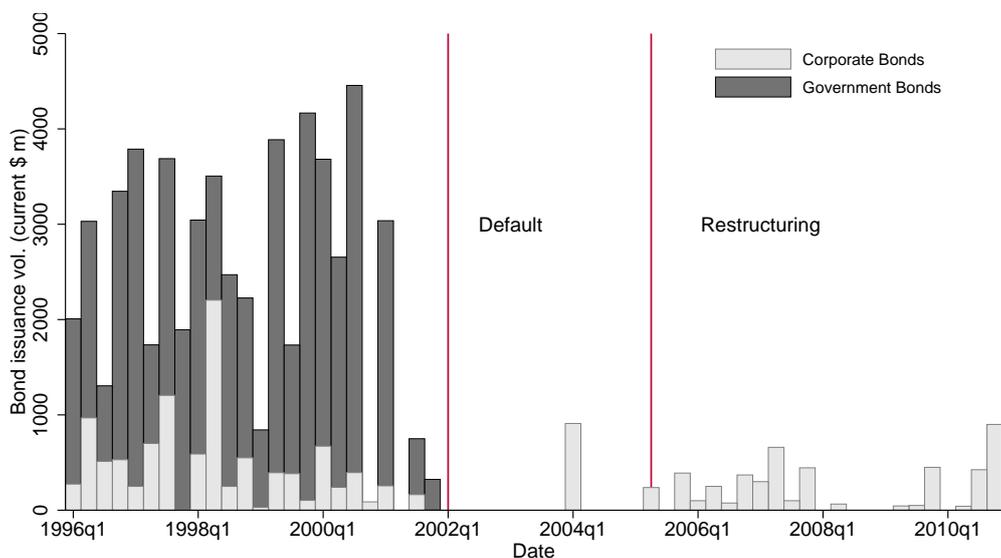
The figure shows histograms on sovereign external bond placements in non-default years (pre- and post-crisis). The sample is divided into the subset of country-years with litigation (dark bars, issuance frequency shown on right axis) and without litigation (light grey bars, left axis). The data show that only very few bonds are issued while governments face litigation.

shows that very few bonds have been issued while litigation was pending, and those that could be observed were comparatively small in size.

As a case study on market access and litigation, Figure 9 uses data from Argentina after its 2001 default. The country was among the most active emerging market issuers during the 1990s. But the figure shows that the government did not place a single sovereign bond in international markets between the moratorium of January 2002 and April 2016, a spell of 14 years. The private sector, in contrast, has re-accessed foreign bond markets on a regular basis starting in late 2003, when economic conditions improved. The government’s abstention from international markets may well have been due to a lack of demand for foreign capital until the mid-2000s. The country achieved substantial debt relief in its 2005 debt exchange (involving a 75% haircut), benefited from a commodity boom, and succeeded in borrowing on domestic markets as well as bilaterally, from countries such as Venezuela. Yet, from the late 2000s onwards, the government has been running deficits and repeatedly signaled its willingness to return to foreign bond markets.³⁷

³⁷See e.g. MercoPress, “Argentina pays bond and seeks to return to global capital markets”, August 4, 2009, or Bloomberg, “Argentina’s return to bond market seen in Blejer road map”, December 5, 2013.

Figure 9: Foreign borrowing in Argentina: sovereign vs. corporate



The figure shows the volume of bonds placed by the Argentine government (dark bars) and private Argentine companies (light grey bars) between 1997 and 2010 by quarter. 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 50 lawsuits filed by commercial investors over the past decade.

This only occurred after the newly elected Macri administration settled with the main litigating creditors in spring 2016.

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.

4.3 Empirical approach and identification challenges

There are three main possibilities to measure creditor litigation as an explanatory variable. The first is a binary indicator capturing whether the government faced one or more sovereign debt lawsuits in a given year in the UK or US, which we refer to as “any litigation”. The second measure captures the scope of litigation, computed as the ratio of the total case amounts to debtor country GDP per year. Third, we measure whether the sovereign faces pending enforcement proceedings and, thus, immediate threats of asset seizures or payment interruptions (“attachments attempts”).

For conceptual reasons, we mainly focus on the indicator for attachment and other enforcement attempts. The rationale is that the legal risk for primary market access and debt repayments

is most acute when creditors decide to execute their judgment orders and initiate enforcement attempts. Moreover, the attachment dummy is less prone to measurement error than the continuous indicator of litigation, since we have good information on attachment orders, while the amounts under disputes can be noisy.

Since we focus on realized litigation only, the estimated coefficients likely underestimate the true effect of legal risk on sovereign market access. This is because investors and sovereigns will not only consider any pending lawsuits (which we measure), but also the threat of asset seizures in case lawsuits are filed in the future (which is unobservable). The result is a flatter slope estimate of the relationship between legal sanctions and market access.

As main dependent variable we again use the binary “access” indicator capturing whether the country placed at least one sovereign bond or loan internationally in a given year. A binary measure makes interpretation easier and allows for comparability with existing papers, in particular [Gelos, Sahay and Sandleris \(2011\)](#). In the robustness section, we also use a continuous measure of sovereign debt issuance to GDP, with similar results.

We estimate the relation between litigation and market access in a linear probability model. A linear model returns coefficients that capture the average marginal treatment effect of litigation on market access rather than the marginal effect at specific values or predictions of the market access probability ([Angrist and Pischke, 2009](#)). Furthermore, a linear model circumvents incidental parameter and perfect separation problems when including both country and year fixed effects, which we do to avoid biases due to unobserved time trends or country characteristics. Nevertheless, for robustness, we also estimate the model in probit form. Our benchmark model can be written as follows:

$$P(\text{Access}_{it} = 1) = \beta_1 \text{LitigAttachment}_{it} + \beta_2 \text{Default}_{it} + \beta_3 \text{PostDefault}_{it} + \boldsymbol{\beta}^\top \mathbf{X}_{it-1} + \alpha_i + \theta_t + \epsilon_{it} \quad (1)$$

where $P(\text{Access}_{it} = 1)$ denotes the probability that government i accessed foreign credit markets in year t , and *LitigAttachment* represents our newly coded variables on creditor litigation, in particular the attachment dummy. *Default* and *PostDefault* are dummies capturing ongoing defaults and the three years after a restructuring, respectively. \mathbf{X} is a vector of macroeconomic, financial and political control variables known during year t . The main coefficient of interest is β_1 and represents the effect of attachment proceedings on market access.

As control variables 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 (sum of imports and exports relative to GDP), a proxy for political risk (ICRG index), and whether the country is undergoing an IMF adjustment program. For reasons of data availability we drop small countries with a population of less than one million (in 2010). All control variables are lagged by one year to mitigate endogeneity concerns.

We face two main identification challenges. First, it is notoriously difficult to disentangle supply from demand effects. In years in which we do not observe borrowing in international bond markets, the government could either be excluded due to legal threats or other factors, or it could have voluntarily chosen not to issue debt, e.g. because it is running a budget surplus or because it prefers to borrow domestically. Second, it is possible that confounding factors affect both litigation intensity and the government's ability to borrow abroad, e.g. a political crisis, reputation effects, or some other source of unobserved time-varying heterogeneity. In particular, one might expect that severe defaults with high haircuts, such as in Argentina, will be followed by a loss of access to credit markets, while also triggering more litigation.

We use various strategies to address these challenges. First, we restrict the sample to capital-scarce countries, for which neoclassical growth theory predicts a high and continuous demand for foreign financing. We therefore focus on 132 developing and emerging market countries and drop advanced economies which do not usually face credit constraints (at least in our sample period before 2010).³⁸ Furthermore, we check the results when dropping all developing countries classified as “net creditors” by the IMF's World Economic Outlook publication of 2000 or 2010, which includes oil exporters and a few other resource-rich countries.³⁹

Second, to address the issue of time-varying confounders, we run a placebo test using private sector foreign bond issuance as dependent variable in equation (1), in the spirit of Figure 9. To construct this additional dependent variable, we again rely on Dealogic and retrieve details on all 3,271 externally issued bonds and 26,647 international loans by corporations from the countries in our sample between 1980 and 2010, counting only issuances by domestic private firms that are not owned by a foreign parent company. If litigation and market access are driven by the same unobserved factor, such as a shock to country fundamentals, litigation and attachment attempts should also correlate with private sector issuance. Alternatively, observing a correlation

³⁸See [Appendix 4](#) for the list of countries included in the full sample and the benchmark regression sample.

³⁹This strategy is similar to [Gelos, Sahay and Sandleris \(2011\)](#). Accordingly, we also drop territories in a union with an advanced country, e.g. Greenland (of Denmark), Puerto Rico (of the US), or French Polynesia (of France).

of lawsuits only with sovereign access to foreign markets would support the view that legal enforcement itself is the driving factor of exclusion.

Third, we consider substitution effects from foreign to domestic borrowing, which should be unaffected by holdout litigation on external debt. If litigation really poses a significant constraint on sovereign market access abroad, but the government has financing needs, we would expect lending to shift from foreign to domestic markets in years with pending lawsuits or enforcement proceedings.

The inclusion of year and country fixed effects further helps to mitigate the identification challenges we face. The country fixed effects capture time-invariant country heterogeneity, such as a country's institutions or its general level of development. In the probit specification, adding fixed effects implies that we drop all countries that never accessed international debt markets. As a result, the variation of interest comes from repeated issuers (which are typically larger and richer), with spells of access and non-access over the sample period. The year fixed effects also take care of global factors, in particular trends in sovereign debt litigation, commodity price swings, and global market liquidity, as well as common shocks such as the Mexican or Asian crisis of 1995 and 1997/98 or the global financial crisis after 2008. We thus study within-country variation in litigation after accounting for time effects.

We also account for selection into litigation and potential reputation effects, in particular for the possibility that litigation is more likely in severe crises with high creditor losses (as found in [Schumacher, Trebesch and Enderlein, 2015](#)). We therefore add 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 with other explanatory variables). Table 8 describes the set of time-varying control variables.

4.4 Estimation results

Table 3 shows our main regression result: legal disputes are a significant and negative predictor of sovereign access to foreign capital markets over and above the effect of sovereign default per se.⁴⁰ All reported standard errors are clustered on the country level. The three main measures of legal risk are significant, i.e. the litigation indicator, the share of litigated claims to GDP,

⁴⁰As explained above, the dependent variable considers both bond and loan placements abroad. The results are similar if we just use the narrow bond issuance dummy.

and the indicator for attachment attempts (columns 1-3). The coefficients suggest that the probability of market access drops by 16 percentage points if the country faces litigation and by 23 percentage points if the investors move to enforce a judgment via attachment. For the continuous measure, a one-percentage point increase in debt under litigation is associated with a more than one percentage point lower probability of access.

Litigation and attachment attempts have significantly negative effects on governments' ability to borrow externally above and beyond any general default effects. In columns 4-6 we include indicators for contemporaneous default status and recently completed debt restructuring operations according to [Cruces and Trebesch \(2013\)](#). As expected, we find that being in default has strong negative effects on foreign market access, reducing the probability of issuing international bonds or loans by more than 15 percentage points. However, the significantly negative coefficient on all three litigation variables indicates that creditor legal action has a strong impact going beyond the general default effect.

The results also hold once we control for time varying macroeconomic and political conditions as well as current and lagged default (columns 7-9). Adding the control variables reduces the magnitude of the coefficients on the legal variables only marginally. The results still suggest a 14-24% drop in the probability of access.

In the remainder of the analysis we focus on the "attachment attempt" measure, as explained, but the picture is very similar if we implement the same tests using the two other litigation measures.

Table 3: Main estimation results: litigation and market access

This table shows results on the determinants of market access following equation (1), including country- and year-fixed effects. All standard errors are clustered on the country-level. The coefficients are estimated in a linear probability model using a binary debt issuance indicator as the dependent variable. Columns (1)-(3) show the baseline results with three different measures of creditor litigation – a simple litigation indicator, the share of litigated claims to GDP (in %), and an indicator for pending lawsuits with attachment attempts. Columns (4)-(6) add indicator variables for countries in default and the three years following a debt restructuring. Columns (7)-(9) show the full model including litigation variables, default indicators, and control variables.

	Dependent variable: debt issuance (indicator)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Litigation	Litigation/ GDP	Attachment	Litigation & Default	Litigation/ GDP & Default	Attachment & Default	Litigation & Con- trols	Litigation/ GDP & Controls	Attachment & Con- trols
Any litigation	-0.160*** (0.044)			-0.154*** (0.041)			-0.142*** (0.043)		
Litigation/GDP		-1.410** (0.659)			-1.467** (0.612)			-2.687*** (0.677)	
Attachment attempt			-0.228*** (0.062)			-0.224*** (0.058)			-0.240** (0.103)
Default (ongoing)				-0.155*** (0.041)	-0.191*** (0.042)	-0.156*** (0.042)	-0.223*** (0.060)	-0.233*** (0.062)	-0.230*** (0.061)
Post default (3 years)				-0.062 (0.038)	-0.094** (0.038)	-0.063 (0.039)	-0.103** (0.046)	-0.119** (0.047)	-0.102** (0.047)
L.GDP/capita (log)							0.262*** (0.053)	0.269*** (0.054)	0.254*** (0.050)
L.Debt/GDP							0.002 (0.016)	0.007 (0.015)	0.002 (0.014)
L.Reserves/Imports							-0.102** (0.048)	-0.106** (0.049)	-0.102** (0.048)
L.Short term/total debt							-12.349* (6.214)	-11.799* (6.249)	-12.332* (6.269)
L.GDP growth (real yoy)							0.346 (0.260)	0.345 (0.262)	0.335 (0.260)
L.Trade/GDP							-0.140 (0.125)	-0.116 (0.127)	-0.145 (0.125)
L.IMF program (start)							-0.011 (0.026)	-0.007 (0.026)	-0.009 (0.026)
L.Political Risk (ICRG)							0.004* (0.002)	0.004* (0.002)	0.004** (0.002)
Constant	0.259*** (0.032)	0.345*** (0.041)	0.258*** (0.032)	0.270*** (0.032)	0.363*** (0.041)	0.269*** (0.032)	-1.427*** (0.473)	-1.479*** (0.484)	-1.374*** (0.448)
R2	0.08	0.07	0.08	0.09	0.09	0.09	0.17	0.16	0.17
Obs	4092	3708	4092	4092	3708	4092	1599	1599	1599
No. Countries	132	132	132	132	132	132	80	80	80
p>χ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The results are robust to including additional control variables and also hold in different subsamples. To address concerns about unobserved confounding factors over time, the specification in column (1) in Table 4 interacts the attachment variable with an indicator for the years since 1990, when distressed debt funds became more active in the market and sovereign borrowing shifted from bank loans to bond issuance. The coefficient suggests that the correlation with market access has become particularly strong since the 1990s. Similarly, we find the coefficient to be only slightly smaller when we drop the three main countries affected by sovereign legal disputes: Argentina, Brazil, and Peru (column 2). The results also hold if we drop 14 resource-rich countries classified as “net creditors” (column 3).⁴¹ These countries may be more likely to voluntarily refrain from issuing debt on international markets, but the estimated coefficient does not differ in a meaningful way from the benchmark model.

We account for the severity of default, which could be a confounding factor driving market exclusion as well as investors’ decision about legal action, with two measures. First, in column (4), we include country credit ratings from the Institutional Investor magazine, which go back to 1979 for up to 100 sovereigns. Specifically, we compute the rating residual by regressing the credit rating (ranging from 0 to 100) on the other macroeconomic control variables contained in the model, and include that residual in the regression. The residual is thus a proxy for the remaining credit risk after controlling for economic factors. We find that the coefficient on the attachment indicator remains significantly negative, and even increases marginally in size. Second, in column (5) we replace the binary default indicators (current and lagged) with a variable that captures the size of the haircut (in %), assigned for each year in the respective debt restructuring spell, as well as a 3-year haircut lag. Again, the attachment indicator remains a significant negative predictor of market access with almost the identical marginal effect. Moreover, the results in column (5) confirm the finding of [Cruces and Trebesch \(2013\)](#) that higher haircuts are associated with a lower probability of market access. Finally, we replace the binary access indicator with a continuous variable defined as the annual volume of debt placement as a percentage of GDP (column 6). The results suggest that the annual issue volume drops by 0.7% of GDP with a pending lawsuit including attachment attempts. This is a very substantive effect given that the average annual issue volume, conditional on any access, is 2.2% of GDP.

⁴¹The countries in the benchmark regression sample classified as net-creditors are: Algeria, Angola, Azerbaijan, Bolivia, Botswana, China, Gabon, Indonesia, Iran, Malaysia, Nigeria, New Guinea, Russia, Venezuela.

Table 4: Confounding factors

The table presents results from alternative samples and including additional variables which may impact the estimates in Table 3. All specifications include country- and year-fixed effects, and standard errors are clustered on the country-level. Column (1) interacts the attachment variable with an indicator for the years since 1990, after which distressed debt investors became increasingly active in sovereign debt markets (alongside the year-indicators, this specification also includes the indicator for this period). Column (2) excludes Argentina, Brazil, and Peru from the sample, the countries with the highest number of lawsuits. Column (3) excludes 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 (4) includes the credit rating residuals and column (5) controls for the size of haircuts for each year of the respective debt renegotiation spell. Column (6) shows results with the annual debt issuance volume to GDP as dependent variable as a continuous measure of market access.

	Dependent variable:					Issuance/ GPD
	Issuance indicator					
	(1)	(2)	(3)	(4)	(5)	(6)
	Since 1990	Exclude ARG, BRA, PER	Exclude net credi- tors	With rat- ing resid- ual	With hair- cut	With hair- cut
Attachment attempt	-0.044 (0.108)	-0.158* (0.086)	-0.239** (0.104)	-0.256** (0.109)	-0.238** (0.098)	-0.007** (0.003)
Attachment x since 1990	-0.196*** 0.052					
Default (ongoing)	-0.230*** (0.061)	-0.202*** (0.064)	-0.217*** (0.061)	-0.244*** (0.063)		-0.006** (0.002)
Post default (3 years)	-0.101** (0.048)	-0.108** (0.049)	-0.107** (0.051)	-0.115** (0.050)		-0.003 (0.002)
L.GDP/capita (log)	0.254*** (0.050)	0.228*** (0.049)	0.301*** (0.056)	0.227*** (0.053)	0.263*** (0.056)	0.007*** (0.002)
L.Debt/GDP	-0.001 (0.014)	0.001 (0.014)	0.011 (0.011)	-0.015 (0.014)	-0.003 (0.017)	0.001* (0.001)
L.Reserves/Imports	-0.101** (0.048)	-0.111** (0.052)	-0.064 (0.064)	-0.142*** (0.048)	-0.094* (0.051)	-0.003** (0.002)
L.Short term/total debt	-12.462* (6.267)	-12.517* (6.308)	-11.087* (5.711)	-14.327** (6.233)	-11.980* (6.378)	-1.345** (0.531)
L.GDP growth (real yoy)	0.348 (0.260)	0.343 (0.280)	0.430 (0.296)	0.428 (0.288)	0.406 (0.262)	-0.018 (0.015)
L.Trade/GDP	-0.142 (0.126)	-0.134 (0.127)	-0.117 (0.160)	-0.168 (0.135)	-0.145 (0.138)	-0.010 (0.006)
L.Political Risk (ICRG)	0.004* (0.002)	0.004** (0.002)	0.005** (0.002)	0.004** (0.002)	0.004** (0.002)	0.000 (0.000)
L.IMF program (start)	0.009 (0.026)	-0.021 (0.026)	-0.012 (0.027)	-0.020 (0.028)	-0.018 (0.026)	-0.000 (0.001)
L.II Rating Residual				0.006** (0.003)		
Haircut					-0.002** (0.001)	
Post haircut (3 years)					-0.001* (0.001)	
Constant	-1.436*** (0.376)	-1.159*** (0.435)	-1.836*** (0.476)	-1.120** (0.479)	-1.468*** (0.488)	-0.030 (0.019)
R2	0.28	0.15	0.20	0.18	0.15	0.08
Obs	1599	1523	1310	1520	1599	1599
No. Countries	80	77	66	80	80	80
p > χ	0.00	0.00	0.00	0.00	0.00	0.00

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Next, in Table 5 we conduct a placebo test by replacing the dependent variable on sovereign market access with an indicator for private sector market access to international capital markets. Suppose a country-specific but time-varying unobserved confounding factor (such as political risk) drives both litigation and external credit supply to a country. Then this confounder would affect the government's and the private sector's market access at the same time. If this is true, the litigation variable in our empirical model should be a significant negative predictor of both private sector and public sector borrowing abroad. Column (1), however, shows that the coefficient for attachment attempts is close to zero and statistically insignificant (the same is true for the simple litigation indicator). This result reinforces our interpretation that the negative effect of creditor lawsuits is restricted to the sovereign debt context. Furthermore, it greatly narrows the range of potentially relevant confounders in our model. Any unobserved variable that could cause a significant but spurious litigation coefficient in our benchmark results with fixed effects (Table 3) needs to fulfill several conditions at the same time: it would need to be time-varying, country-specific, and influence sovereign borrowing, but not international capital flows to other sectors in the economy.

The second exercise of Table 5 tests for substitution effects between borrowing in foreign and domestic capital markets. This test sheds light on whether observed changes in market access are related to constraints on external credit supply owing to legal risks, or due to reduced government demand for external funds. For legal reasons, domestic credit flows are not directly affected by creditor litigation or enforcement attempts, as foreign creditors have very limited legal options when it comes to seizing assets in the defaulting country itself, and governments can enact domestic laws to prevent such actions. As a result, governments in need of cash but facing litigation abroad may try to raise more funds at home. To test for such a shift to domestic financing, we use the share of bonds issued domestically to total bonds issued as dependent variable - by country and year, again using micro data from Dealogic on issuances in domestic or external markets (where external is defined by location). Since the share of domestic bond issuance is a fraction bounded between 0 and 1, we run a fractional response model (Papke and Wooldridge, 2008). We find that legal disputes are indeed correlated with a shift to domestic borrowing. The average marginal effect of the attachment dummy on the share of domestic to total issuance is both significant (with a positive sign) and quantitatively large. The coefficient implies that the share of domestic borrowing increases from 20% to 85% in years with attachment proceedings. This suggests that the observed decline in foreign borrowing in years with litigation

is driven by supply effects, meaning tighter external financing conditions and/or a de facto embargo on external borrowing due to legal proceedings. The case studies that follow support this view, as bond or loan placements that had already been announced and pre-arranged, were canceled due to concerns that the credit flows would be seized by the courts of London or New York.

To summarize, international investors seem in principle willing to lend to a country facing litigation (as shown by private sector borrowing), but external credit to the government declines. Moreover, governments move to domestic credit markets when legal risks abroad intensify (in years with pending attachment orders).

In a last step, we show robustness checks when using alternative estimation methods. Column (1) of Table 9 shows that the main result is similar when applying a probit model that accounts for the binary character of our dependent variable but requires additional distributional assumptions, which are particularly concerning in our setting with country and year fixed effects (Angrist and Pischke, 2009). Column (2) shows results with bootstrapped standard errors to address concerns that the parametrically estimated standard errors are driven by individual outlier observations due to the relatively small number of positive observations in the benchmark regression sample (4.6% of observations in the benchmark regression sample). The results confirm the main conclusions: the effect is significant at a 95% confidence level. To assess the potential bias due to outliers more generally, we also estimate a quantile regression at the median. The estimates in column (3) show that the results remain very similar to the benchmark model. Attachment is a significantly negative predictor of market access, in addition to the general default effect.⁴² Column (4) repeats the median regression with bootstrapped standard errors.

4.5 Case studies: how litigation disrupts market access

This section complements the quantitative evidence above, by exploring the link between litigation and market access with case studies. Our aim is to understand how litigation affects international borrowing and whether the correlations we document above are consistent with qualitative evidence. To select cases, we started with the list of lawsuits in Table 7 and focused on countries that placed at least one sovereign bond in London or New York between 1980-2010. We then

⁴²The only difference to the main model is that we find the ratio of short-term to total debt to be a significantly positive determinant of market access, in line with the results by Gelos, Sahay and Sandleris (2011).

Table 5: Counterfactual exercises

This table presents results from two identification exercises. All standard errors are clustered on the country-level. Column (1) uses as dependent variable market access by private borrowers. Column (2) shows results with domestic bonds as a percentage of total borrowing as dependent variable. It is estimated as a fractional response model according to Papke and Wooldridge (2008) with a probit link function. The R^2 for this model is the McFadden Pseudo R^2 .

	Dependent variable:	
	(1) Corporate access	(2) Domestic/total borrowing
Attachment attempt	0.015 (0.083)	1.079*** (0.110)
Default (ongoing)	-0.114** (0.056)	0.230** (0.113)
Post default (3 years)	-0.042 (0.038)	0.201** (0.088)
L.GDP/capita (log)	0.149*** (0.049)	0.028 (0.067)
L.Debt/GDP	-0.004 (0.015)	-0.326** (0.143)
L.Reserves/Imports	-0.086** (0.035)	0.052 (0.051)
L.Short term/total debt	1.142 (6.381)	16.489** (7.311)
L.GDP growth (real yoy)	0.370 (0.307)	-0.004 (0.335)
L.Trade/GDP	-0.022 (0.110)	-0.063 (0.138)
L.IMF program (start)	0.009 (0.021)	-0.005 (0.052)
L.Political Risk (ICRG)	0.004** (0.002)	0.015*** (0.003)
Constant	-0.620 (0.424)	
R2	0.15	0.13
Obs	1599	414
No. Countries	80	47
p > χ	0.00	0.00

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

reviewed the legal strategies in each case and particularly focused on those cases with rich legal records.

Litigating creditors have tried to interfere with debt repayments, bond issuances and other transactions flowing through international financial centers in cases going back to the early 1980s and recurring ever since. We summarize a few of the most visible and successful attempts in this period: against Costa Rica, Panama, Peru and Argentina, which reveal how legal risks undermined government plans to return to international debt markets or a quick settlement of debt restructurings.

The crucial role of attacking government market access for litigating creditors is also evident from the lobbying activities of distressed debt funds over the past 20 years. Several interest groups have proposed legislative drafts to legally restrict bond market access by defaulting sovereigns that are sued in US or UK courts. One example is the “Judgment Evading Foreign States Accountability Act” (introduced in the US Congress under S.912 and H.R.1798 in May 2011) which would have prevented debt placements by foreign states that face U.S. court judgments totaling more than \$100 m. So far, however, Congress has not taken action on this and similar proposals.

Costa Rica 1981-1983: An early example of market access disruptions due to litigation is Costa Rica. The country’s rescheduling and placement of a new syndicated loan took more than two years to conclude (from 1981-83), more than twice the average duration of other London Club deals of the early 1980s (Trebesh, 2013). An important reason for the long delay was a lawsuit filed by Libra Bank of London and seven other banks in November 1981. The banks sought an attachment order on assets of the state-owned Banco Nacional de Costa Rica, which was granted in June 1982 (S.D.N.Y., 81 Civ. 7624, July 8, 1983). In addition, a second lawsuit was filed in February 1982 by a group of 39 banks led by Allied Bank. The lawsuits resulted in a deadlock in the negotiations and significantly hampered settlement efforts in late 1981 and throughout 1982.⁴³ Only after both lawsuits came to an end, at least temporarily, Costa Rica managed to arrange a new loan and to reschedule its debt in September 1983. The government settled with all litigating banks in the Libra case shortly before the restructuring (Zaitzeff and

⁴³Financial Times, “Seven international banks are seeking an attachment order on the assets of the state owned Banco Nacional de Costa Rica”, September 30, 1981, “An unnamed Swiss private investor is taking legal action to have Costa Rica formally declared in default”, November 2, 1982, “Costa Rica debt renegotiation nears collapse”, March 19, 1983; New York Times, “Costa Rica debt talks”, December 11, 1981.

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, July 8 1983).⁴⁴

Panama 1996-1997: In Panama, litigating creditors succeeded in disrupting an imminent sovereign bond offering. The dispute started in July 1996 when the distressed debt fund Elliott filed two suits in New York over \$28.8 m in debt that it had purchased on the secondary market a year earlier (96 Civ. 5295, 96 Civ. 5514). After Panama's Brady deal of April 1996 the country re-accessed international capital markets in February 1997 with a \$500 m bond placement.⁴⁵ However, the placement of a second global bond, planned for September 1997, was blocked by two judgments in favor of Elliott in May and September 1997 (N.Y. Sup. Ct. No. 603615/1996, May 15, 1997; S.D.N.Y., 96 Civ. 5514, September 18, 1997). To avoid disruptions, Panama appealed and, in an unusual step, posted a *supersedeas bond* with the court over the full amount.⁴⁶ However, Elliott still threatened to obtain restraining and attachment orders that could have allowed Elliott to seize the proceedings of the September bond placement (S.D.N.Y., 96 Civ. 5514, September 23, 1997; [Sturzenegger and Zettelmeyer, 2006](#)). In light of this situation, Panama dropped its appeal and settled with Elliott in early October for a reported sum of \$71 m, much more than the original claim obtained by Elliot (S.D.N.Y., 96 Civ. 5514, October 7, 1997; [EMTA, 2009](#)).

Peru 1990-2001: From the early 1990s on, Peru was confronted with several waves of creditor lawsuits, which delayed its re-access to capital markets by more than five years. The first lawsuit for \$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), followed by cases by more than 30 additional investors. Reportedly, the initial purpose of these lawsuits was to increase pressure on Peru to accelerate its restructuring efforts, but the litigation quickly turned into an obstacle that resulted in more, instead of less, delay.⁴⁷ After four years of deadlock, the banks finally agreed to discontinue their

⁴⁴One 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, March 18, 1985) [Finnigan \(1986\)](#).

⁴⁵Reuters "Panama signs debt deal, may issue debt in 1997", April 17, 1996; Euromoney "Panama - Doubled and still in demand", March 1, 1997

⁴⁶A supersedeas bond is collateral that must be posted with the court by the defendant if she appeals and does not want to satisfy the judgment before the final ruling.

⁴⁷Between 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. See American Banker, "US and Foreign Banks Suing Peru", May 7, 1990; Reuters, "Peru calls for debt talks with banks", July 26, 1993; LDC Debt Report, "Peru's

lawsuits in 1995, so that the London Club and Peru could agree on a principal agreement for a Brady restructuring.⁴⁸

Peru's debt issuance plans were again disrupted shortly before the conclusion of the Brady deal, this time by the distressed debt fund Elliott which filed suit in October 1996 (2nd Circ., 98 Civ. 9268/9319, October 20, 1999). As a result, the completion of the restructuring was delayed by another six months until March 1997. Elliott did not participate and its lawsuit and *pari passu* strategy continued. In October 1999, Elliott obtained the right to collect the full amount claimed, and received an attachment order one month later, effectively enabling it to try seizing any bond proceeds (2nd Circ., 98 Civ. 9268/9319; S.D.N.Y., 96 Civ. 7916). In September 2000 a related court order temporarily prohibited US-based banks to transfer interest payments on Peru's newly issued Brady bonds (S.D.N.Y., 96 Civ. 7916, September 25, 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, September 26, 2000). To avoid an outright default, Peru settled with Elliott only days before the bonds' grace period ended. As a result of the dispute with Elliott, Peru did not issue any new sovereign bonds for more than three years after the Brady deal, despite recurring plans to do so.⁴⁹

Argentina 2002-2015: The best known case of market exclusion due to legal disputes is Argentina after 2002, for which we show descriptive statistics above.⁵⁰ There is widespread agreement that the many lawsuits filed after the country's 2002 default effectively barred the government from tapping foreign bond markets.⁵¹ The first holdout disruption occurred in the spring of 2005, when Argentina was about to conclude its global bond restructuring. Litigating creditors had obtained attachment orders (in the amount of \$7 bn) on the bonds tendered in the exchange, so that it was not possible to exchange the tendered bonds for new securities (S.D.N.Y., 02 Civ. 3804, March 29, 2005). The deadlock lasted for more than three months and

8-Year-Old Crisis", September 13, 1993; Reuters, "Peru extends deadline for resolving debt lawsuits", September 13, 1994.

⁴⁸This compromise was achieved in December 1994 (S.D.N.Y., 90 Civ. 1409, December 15, 1994; Reuters, "Peru talks could be snagged by vote", December 16, 1994; Reuters, "Peru looks ahead to second-stage Brady talks", December 7, 1995).

⁴⁹See International Financing Review, "Peru - Bonds", September 13, 1997 and Investment Dealers Digest, "Peru eyes Morgan and BancBoston to lead bond deal", July 26, 1999.

⁵⁰For details on this case also see Buchheit and Gulati (forthcoming).

⁵¹See e.g. Reuters, November 7, 2006; Euroweek, July 20, 2007; Dow Jones Newswires, January 13, 2009; US Embassy Buenos Aires, September 23, 2008; The Economist, October 20, 2011.

the exchange could only be implemented in July when the 2nd U.S. Circuit Court of Appeals lifted the freeze.

After the restructuring, the government continued to face a high risk of attachments and asset freezes on any bonds issued in New York. As summarized by Euromoney, “there is no doubt that creditors such as Elliott Associates and Kenneth Dart will attempt to attach any money that Argentina receives for its new bonds while that money is sitting, no matter how briefly, in a New York bank.”⁵² These legal risks also affected the country’s credit ratings. In 2005, Fitch justified its low CCC rating following the restructuring offer with the possibility of “legal interference”, while in 2013 Moody’s downgraded Argentina’s restructured bonds to Caa1 due to the legal risks of the holdout litigation.

The dispute intensified further after 2012, when a group of creditors obtained a *pari passu* order that blocked Argentina from using US-based payment agents for processing coupon or principal payments on its outstanding bonds unless it also repaid the litigating holdouts at the same rate (S.D.N.Y., 09 Civ. 1708, February 23, 2012; 2nd Circ., 12 Civ. 105, October 26, 2012). This order effectively also prevented Argentina from issuing any new bonds. In August 2013, the order was upheld by the 2nd Circuit court, and Argentina’s appeal was rejected by the US Supreme Court in June 2014, followed by Argentina’s default. In March 2015, the Southern District Court of New York de facto extended the attachment order to *any* bond denominated in US\$, not only those issued in US markets. This implied that Argentina now also faced the risk of attachment on payments on bonds issued under Argentina law, at least where they were sold to foreign investors or in case their payments were arranged through US-based agents. Furthermore, the court effectively barred the planned sale of \$2 bn of Argentine-law bonds in London targeted to non-US investors. This offer was abruptly canceled after the US judge ordered the two main bookmakers, Deutsche Bank and JP Morgan, to appear in court.⁵³

Effectively, this meant that Argentina was excluded from global capital markets, except for local issues. This is probably the most complete financial embargo enforced by creditors in the context of a sovereign debt lawsuit. The dispute came to an end only in 2016, when the new government settled with the holdout creditors, so that the injunctions on the payment agents were removed and the country could resume debt payments in full. Within weeks after the

⁵²Euromoney, “Argentina: Sovereign finally closes debt restructuring”, July 1, 2005.

⁵³Wall Street Journal, “Plan to Sell Argentine Debt Collapses”, February 26, 2015.

settlement, the country issued a large new international bond of \$16.5 bn, the first issue since its default in 2001.

5 Outlook: legal risks after Argentina

This section presents an outlook by focusing on legal risks in recent crisis cases, in particular after 2010, when Argentina's dispute with creditors became severe. Table 6, summarizes the role of holdouts and litigation (if any) in all sovereign debt restructurings and defaults involving external creditors between 2005 and mid-2017 (Ecuador 2008 was the first case after Argentina). The table shows that large new lawsuits have been filed since 2010, e.g. against Greece, Grenada, and Ukraine, and summarizes creditor threats to initiate litigation as reported by major newspapers. We also find that government officials now frequently point to holdouts risks and litigation when explaining their policy choices, and the same is true for rating agencies when it comes to justifying up- or downgrades.

In addition to Table 6 we conduct eight case studies on countries in which legal risk played a particularly important role. In chronological order, we focus on Greece since 2011, Belize 2012-2013, Grenada 2012-2013, Ecuador 2014 (going back to the 2008 default), Ukraine since 2015, and the Republic of Congo since 2017. We also add the case of Venezuela since 2016, which has delayed some payments since November 2017 but continues to repay, as well as the case of Puerto Rico, which is not a sovereign nation but sold much of its debt to foreign creditors under New York law, so that there are many parallels to other cases in our sample. To summarize, the case studies illustrate that legal threats affected both government willingness to pay and the negotiation process between creditors and debtors in most recent crises.

Table 6: After Argentina: holdout and litigation risks in external debt crises, 2008-2017

Default/ Restructuring	Year	Risks of holdout litigation made public... by creditors?	Risks of holdout litigation made public... by officials?	by rating agencies?	Litigation and/or attachments?	Treatment of holdouts (if any)
Ecuador	2008-09	Yes , litigation filed, but only in 2014.	Yes , in a speech announcing the default in Dec. 2008, President Correa said he was prepared to “fight” the “vulture funds” and expected “judgments” and “embargoes”.	No.	Yes , but only 5 years after the default (lawsuit by GMO filed in 2014, retail case filed in 2013). No litigation in 2009, partly because the bond’s trustee remained passive, depriving creditors of legal options.	Holdouts not paid . Approx. 9% of defaulted bonds. Several rounds of informal settlements in 2009 and again in 2014 and 2015.
Seychelles	2008-10	No.	Yes , in its debt restructuring review, the government states that the bond’s CACs “were key” to “avoid prolonged exposure to litigation risk from hold-out creditors.”	No.	No.	No holdouts due to CACs.
Greece	2011-12	Yes , legal threats by (unnamed) hedge funds feature prominently in the press in late 2011 and early 2012. Vega Asset Management is the only large creditor to publicly threaten litigation.	Yes , in March 2012, Petros Christodoulou, the head of Greece’s debt management office, stated that the government did not plan to pay the holdouts and was “prepared for legal challenges”.	No.	Yes , €500 m claim filed by a Slovak bank in the ICSID arbitration tribunal in 2013, plus hundreds of cases filed by retail investors from Austria, Germany and Greece, among others in the European Court of Justice and the Austrian Supreme Court.	Holdouts on foreign-law bonds fully paid . 19 foreign-law instruments did not reach CACs voting thresholds, resulting in holdouts of €6.4 bn, or 3% of restructured debt. Domestic-law bonds fully restructured via CACs with aggregate (one-limb) voting.
Belize	2012-13	Yes , veiled threats by the bondholder committee, by hiring a legal council and agreeing “not to seek legal remedies” for 60 days.	Yes , the risk of creditor lawsuits are publicly debated by the government and opposition. A press release during the negotiations stated that the government hopes to avoid litigation but “remains prepared for any eventuality”.	Yes , in its downgrade release, Moody’s warns of risks due to holdouts and litigation if the CAC threshold of 75% is not met.	No. According to the Financial Times, the agreement of early 2013 drew “a line under a debt workout that at times looked like it would devolve into a fierce, ill-tempered legal battle.”	No holdouts due to CACs.
Grenada	2013-15	Yes , ongoing litigation on Exim-Bank debt. No evidence of threats by bondholders.	Yes , in its 2015 budget speech, Prime Minister Mitchell says that “assets of both the Airports Authority and the Ports Authority were under threat”.	No (unrated).	Yes , renewed legal action by Exim-Bank of Taiwan in 2013. Settled prior to the restructuring agreement in June 2015.	Settlement with Exim Bank of Taiwan. No bond holdouts due to CACs.
Ukraine	2014-15	Yes , threats to start litigation by a representative of the private bondholders committee in 2014, as well as by Russian President Putin and PM Medvedev. The latter announced in 2015 to “fight for a default on all Ukraine loans” in court.	Yes , numerous public statements in the wake of Russia’s lawsuit. The government considers the Russian Eurobond and related lawsuit as illegitimate.	Yes , Moody’s released a rating upgrade in Nov. 2015 based on the fact that the risk of bondholder litigation declined (“the restructuring avoided a disorderly succession of defaults on those bonds, which would have had negative legal repercussions.”)	Yes , Russia files a \$3 bn lawsuit in London in early 2016. More precisely, the bond’s trustee filed suit, so the bond could be sold to a private investor and litigation would continue.	The \$3bn Eurobond held by Russia has not been paid , but the lawsuit is still pending. No holdouts on privately-held bonds due to CACs.
Belize	2017	No, the restructuring terms were widely accepted by bondholders (no principal haircut).	No.	No.	No.	No holdouts due to CACs.

continues on next page

Table 6: After Argentina: holdout and litigation risks in external debt crises, 2008-2017 (continued)

Default/ Restructuring	Year	by creditors?	Risks of holdout litigation made public... by officials?	by rating agencies?	Litigation and/or attachments?	Treatment of holdouts (if any)
Mozambique	2015-to date	No, but rumors in the press that several creditors hired lawyers to prepare lawsuits in mid 2017.	No.	Yes , in its downgrade release of July 2016, Moody's focuses on legal challenges and says that "the negative outlook reflects rising litigation risks that could ultimately result in government defaults."	No lawsuits filed as of August 2017.	Restructuring not concluded.
Congo (Brazzaville)	2017-to date	Yes , litigation filed. The litigating creditor frequently gives interviews with threats towards Congo's government.	Yes , in press statements, the government denounces the litigation, and rating downgrades.	Yes , Fitch, Moody's and S&P each assign a default rating as a result of the New York court order freezing the coupon payment of the US bond trustee.	Yes , the default marks the culmination of a 20-year legal dispute with Commisimpex, which filed suit in the US, France and England, claiming \$1.1 bn or 3% of Congo's GDP.	Default just occurred, no negotiations started.

Sources: **Ecuador**: See case study as well as Financial Times, "Ecuador defaults on sovereign bonds", Dec. 13, 2008; BBC, "Ecuador entra en moratoria", Dec. 15, 2008 and Buchheit, Lee and Mitu Gulati (2009, "The Coroner's Inquest: Ecuador's Default and Sovereign Bond Documentation" Mimeo). **Seychelles**: Government of Seychelles, Debt Restructuring Review, June 8, 2011, retrieved from World Bank website. **Greece**: See case study as well as Financial Times, "Fund threatens to sue over Greek bond losses", Dec. 21, 2011; Reuters, "Greek deal holdouts face long wait to pay day", Mar. 14, 2012 and "Hedge funds prepare legal battle with Greece", Jan. 25, 2012; New York Times, "Hedge Funds May Sue Greece if It Tries to Force Loss", Jan. 19, 2012 and "Greek official warns debt holdouts", March 2, 2012; For an overview of litigation cases see Grund, Sebastian (2017) "Enforcing Sovereign Debt in Court A Comparative Analysis of Litigation and Arbitration Following the Greek Debt Restructuring of 2012" University of Vienna Law Review, Vol. 1, pp. 34-90. **Grenada**: See case study as well as "2016 Budget Statement" by Prime Minister Keith Mitchell; Financial Times, "Spice island is case study in debt traps", Nov. 20, 2014; Tsang (2014) "Ex-Im Bank v Grenada: Adding Clarity or Confusion?", Aug. 14, 2014. **Belize**: See case study as well as Ministry of Finance, "Debt Restructuring Question and Answer", Nov. 20, 2012; Financial Times, "Belize: undercooking the debt", Dec. 5, 2012, and "Belize does 'superbond' deal with lenders", Feb. 13, 2013; Reuters "Belize debtholders reject revised 'superbond' offer", Dec. 4, 2012; On the domestic political discussion on the risk of creditor lawsuits see Channel 5 Belize "P.U.P. hopes for successful bond renegotiation", Aug. 28, 2012 and "PM says negotiations continue with counter proposals", Nov. 30, 2012, as well as Amandala, "GOB rejects bondholders' offer", Nov. 20, 2012; "Moody's Changes Outlook on Belize Ratings to Negative", Aug. 21, 2012. Grenada: see case study, as well as "Grenada Budget Statement 2016", delivered by Prime Minister Mitchell to the House of Representatives, Nov. 25, 2015; **Ukraine**: See case study as well as Institutional Investor, "Ukraine struggles to restructure its sovereign debt", Jun. 22, 2015; "Moody's upgrades Ukraine's sovereign rating to Caa3", Nov. 19, 2015; On the lawsuit filed by Russia see Gelpern, Anna (2014) "Russia's contract arbitrage", Capital Markets Law Journal, 9(3), pp. 308326 and Weidemaier, Mark (2016) "Contract law and Ukraine's \$3 billion debt to Russia, Capital Markets Law Journal, 11(2), pp. 244250. **Mozambique**: Reuters, "Mozambique investors claim banks withheld crucial information", Apr. 27, 2016 and "Tuna' bond investors may sue Mozambique and banks -sources", July 29, 2016; Wall Street Journal, "Mozambique's \$726m tuna bond hits record low", Oct. 25, 2016; "Moody's downgrades Mozambique sovereign ratings to Caa3", July 8, 2016. **Congo**: Reuters, "With coupon funds frozen, Congo heads for Eurobond default", July 28, 2017 and "Republic of Congo Eurobond at record low after missed payment", Aug. 4, 2017; Euromoney, "Furious Republic of Congo slams S&P for downgrade", July 13, 2017; Law360 "Commisimpex Urges Enforcement Of \$770M Congo Award", May 8, 2017; Le Monde, "Affaire Commisimpex : l'état se resserre sur le Congo", Dec. 25, 2015; "Fitch Downgrades Republic of Congo's FC IDR to 'RD'", Aug. 2, 2017; Standard & Poor's, "Republic of Congo Foreign Currency Ratings Lowered To 'SD/D' After Missed Payment On U.S. Dollar Notes", Aug. 3, 2017; Moody's "Government of the Republic of the Congo Caa2 Negative: Update following downgrade", July 31, 2017.

Greece 2011-to date: The biggest recent success of holdout creditors (Argentina aside) followed the Greek debt restructuring of 2012. As of 2011 more than 10% of Greece's stock of bonds was governed under foreign law and could therefore not be exchanged via the retrofit CACs that were used for the Greek-law bonds prior to the March 2012 exchange. Large shares of the foreign-law bonds were reportedly purchased by distressed debt investors as the crisis deepened, often building blocking positions that would prevent a majority-imposed exchange of the bonds via existing CACs.⁵⁴ In 2011 and 2012 several hedge funds threatened to file suit against Greece should the government not service them in full.⁵⁵ When the exchange of the foreign-law bonds finally closed in April 2012, CACs had failed for most of the series. The result was a total of €6.4 bn in holdouts (see [Zettelmeyer, Trebesch and Gulati, 2013](#)). At the time of writing, Greece continues to pay these holdouts in full and on time, i.e. redeeming 100% of face value, with no haircut, and resulting in €4.1 bn less debt relief compared to a situation without holdouts (more than 2% of 2012 GDP). Concerns about litigation in the UK and elsewhere have been described as a main reason why Greece repaid the holdouts, also because the government intended to re-access bond markets soon after the restructuring.⁵⁶

Belize 2012-2013: Even though no lawsuits were filed, legal threats played a crucial role in the debt renegotiation process of Belize. In August 2012, the government halted coupon payments on its New York-law Eurobond and publicly announced to seek a principal haircut of 45%. Shortly afterwards, several distressed debt funds threatened to file suit in New York and a creditor committee, led by the hedge fund Greylock Capital and representing about 60% of outstanding debts, rejected the offer.⁵⁷ The rating agency Moody's downgraded Belize's bonds, emphasizing that the offer was unlikely to reach the 75% CACs threshold, thus increasing "the risk of holdouts and litigation." By September, the government agreed to resume partial payments, against the assurance that the hedge funds would not seek legal remedies for 60 days.⁵⁸ After this reprieve from legal action expired, the creditor committee also rejected a second, revised offer in November

⁵⁴While many foreign-law bonds issued under UK jurisdiction contained CACs, they only applied to the individual security level.

⁵⁵See Financial Times, "Fund threatens to sue over Greek bond losses", December 21, 2011; Reuters, "Hedge funds prepare legal battle with Greece", January 25, 2012; Reuters, "Bold hedge funds mull risky Greek debt battle", March 7, 2012.

⁵⁶See e.g. New York Times, "Greece Is in a Face-Off With Its Bond Holdouts", April 3, 2012; Reuters, "In about-face, Greece pays bond swap holdouts", May 15, 2012; New York Times, "Bet on Greek Bonds Paid Off for 'Vulture Fund'.", May 15, 2012.

⁵⁷See New York Times, Dealbook, "The Dance Between Belize and Its Bondholders, August 22, 2012.

⁵⁸Specifically, the co-chair of the creditor committee AJ Mediratta stated that "the Committee has agreed not to seek legal remedies for a period of 60 days [...] The Committee is recommending that other bondholders refrain

and hired an experienced legal council to “evaluate its options”, which observers interpreted as a “a clear warning shot that litigation could soon be in the cards.”⁵⁹ The reaction was a third, again improved offer to bondholders, now implying a principal haircut of only 10%. When the restructuring closed in February 2013, financial analysts agreed that the deal was a “victory for creditors” and that the improved terms could largely be explained by the risks of holdouts and litigation – combined with the government’s dependence on foreign capital.⁶⁰ Officials in Belize made clear that creditor lawsuits were a concern that influenced the negotiation process and outcome,⁶¹ while a press article concluded that the restructuring drew “a line under a debt workout that at times looked like it would devolve into a fierce, ill-tempered legal battle.”⁶²

Grenada 2013-2015: Similar to Argentina, Grenada faced a multi-year legal dispute involving the *pari passu* clause, which tilted increasingly in favor of the plaintiff. The lawsuits on the defaulted New York law loans were originally filed in 2006 by the Taiwanese government-owned Export-Import Bank. Grenada long refused to settle or accept the court’s judgment in favor of the creditor of 2007, but a new round of negotiations started in 2013, when Ex-Im Bank initiated a new lawsuit using similar legal arguments as Argentina’s holdouts. This resulted in a situation in which Grenada was unable to tap foreign capital markets in the foreseeable future, faced increasing difficulties in its renewed debt renegotiation attempt with other creditors, and “assets of both the Airports Authority and the Ports Authority were under threat,” as emphasized by Grenada’s Prime Minister.⁶³ Eventually, both sides agreed to a restructuring of the disputed debt in late 2014, involving a 50% haircut on principal, but also the recognition of past-due and accrued interest, which accounted for much of the outstanding claims.

Ecuador 2014: Ecuador did not face litigation immediately after its 2008/09 bond default and buy-back, also because the bond’s trustee remained passive, thereby undermining most creditor

from seeking legal remedies during this period.” Financial Times Alphaville, “Un-Belizeable debt restructuring”, September 20, 2012.

⁵⁹See Financial Times, “Belize: undercooking the debt.”, December 5, 2012. See also Reuters, “Belize debtholders reject revised ‘superbond’ offer - hire legal council”, December 4, 2012.

⁶⁰See e.g. the leading frontier sovereign debt firm Exotix, “Belize - A victory for creditors”, February 14, 2013.

⁶¹In November 2012, the head of Belize’s debt renegotiation team Mark Espot was asked whether the improved offer meant that “at least for now, any threat of a lawsuit from creditors is off the table?” Espot responded that “Litigation is always a risk, and that is something, he said, the government has always been mindful of. He clarified that 25% of bondholders can sue to invoke their collection rights, and government would resist that to the extent that it can.” Mandala, November 20, 2012.

⁶²Financial Times, “Belize reaches ‘superbond’ deal with its global lenders”, February 13, 2013.

⁶³See “2016 Budget Statement” by Prime Minister Keith Mitchell; Financial Times, “Spice island is case study in debt traps”, November 20, 2014.

options (Buchheit and Gulati, 2009). But legal threats influenced Ecuador's decision to reach out to remaining holdout creditors of that case a few years later, in 2014, just prior to a \$2 bn Eurobond placement in New York. According to news reports, Ecuador hired the hedge fund Greynlock Capital and the advisory firm Lazard to arrange settlements with creditors still holding bonds that the country defaulted on.⁶⁴ The decision to settle was a deliberate strategy to "help protect a new bond sale from any possible legal wrangling stemming from the default."⁶⁵ The strategy worked in the sense that several holdouts agreed to settle and the bond offer could be placed successfully in June 2014. Nevertheless, Ecuador faced litigation on its old defaulted bonds, as one remaining holdout, the US hedge fund GMO Trust, filed suit in New York in December of 2014 (Forbes, December 22, 2014). This lawsuit was settled out of court in April 2015, just prior to another planned bond issuance of Ecuador.⁶⁶

Ukraine 2015-to date: Legal threats and litigation also played a decisive role in Ukraine's debt restructuring of English-law bonds in 2015, which occurred in the midst of a deep recession and an ongoing military conflict with Russia. Ukraine's bonds were concentrated in the portfolios of few creditors, with four investment funds holding about 40% of all outstanding bonds. These four and other funds quickly formed a committee that could effectively block any proposed exchange offer (as in the Greek case described above, the English-law CACs required a 75% majority in each bond series individually). In June 2015, the representative of the bondholder committee openly warned that Ukraine could suffer the same fate as Argentina if it did not agree on a quick deal, pointing to the risk of "multiple litigations as creditors attach assets and attempt to block payment systems."⁶⁷ By August of 2015, Ukraine settled on a deal that was "much more favourable than expected" according to JP Morgan or "incredibly favourable to bondholders" according to Nomura.⁶⁸ Relatedly, a report by Morgan Stanley concluded that the terms of the Ukraine deal show "that the balance of power has shifted firmly to the side of the bondholders." Specifically, the exchange implied a 20 percent principal haircut, but the present value haircut was much lower than that since coupon rates were increased to 7.75% (not reduced, as is usually the case in distressed debt exchanges) and because participating creditors were also

⁶⁴Reuters, "Ecuador may try to print 10-yr as low as mid 6%", April 25, 2014.

⁶⁵Bloomberg, "Greynlock Says It Negotiated Ecuador Defaulted Bond Buyback", May 21, 2014.

⁶⁶See Economist Intelligence Unit "Ecuador issues \$750 m in global bonds", May 27, 2015.

⁶⁷See Institutional Investor Magazine, "Ukraine Struggles: The Fallout from Argentina's Default is Making it Harder for Ukraine to Restructure its Debt", June 22, 2015.

⁶⁸See JP Morgan "Ukraine: A restructuring deal is agreed", August 27, 2015; Nomura "Ukraine bondholders seeking better terms hold blocking stake", September 22, 2015.

offered a GDP warrant with attractive terms. As a result, the restructuring implied little or no debt relief, in particular if Ukraine's GDP recovers.

Litigation against Ukraine was also threatened, and initiated, by Russian government officials. The dispute arose over a \$3 bn credit that Russia had granted to Ukraine in end-2013, just weeks before the pro-Russian government under President Yanukovich was overthrown. Typically, government-to-government debt takes the form of bilateral loans that cannot be enforced in private courts. But Russia had structured the credit to Ukraine in the form of a marketable bond listed on the Irish Stock Exchange, governed by English law and owned by the Russian Federation. As a regular Eurobond, the Russia-held instrument was subject to the 2015 debt renegotiations initiated by the new Ukrainian government under President Poroshenko, but Russia did not take part in the restructuring and held out. Russia's President Putin refused to accept any haircut and repeatedly threatened to enforce the repayment of this bond.⁶⁹

In a remarkable statement, Russia's Prime Minister Medvedev explicitly threatened to adopt the same legal strategy that hedge funds used against Argentina, by forcing other performing Ukrainian bonds into default. Specifically, he was quoted as saying: "We will not put up with this. We will go to court. [...] We will fight for a default on all Ukraine loans."⁷⁰ Indeed, after Ukraine failed to make a payment on the bond in late 2015, the trustee of the Russian bond filed suit in London in February 2016. In March 2017, the High Court of England and Wales ruled in favor of Russia, dismissing all of Ukraine's defenses.⁷¹ Ukraine has appealed against this interim judgment and the High Court agreed to postpone the judgment until an appeal hearing in January 2018.

Puerto Rico 2015-to date: Puerto Rico is an unincorporated territory of the United States, which has issued much of its debt under New York law. Concerns about litigation in New York courts have therefore played a central role in the country's ongoing debt crisis, which affects more than \$70 bn in bond debt.⁷² To address the territory's debt crisis and counter legal threats,

⁶⁹In an interview in German television in 2014 he stated that triggering immediate payment on this bond would have painful consequences: "if we do it, the whole financial system will collapse. We have already decided that we will not do it. We do not want to aggravate the situation. We want Ukraine to get on its feet at last," see Financial Times Alphaville, "From Russia with bonds", November 17, 2014.

⁷⁰Reuters, "Russia's Putin threatens Ukraine with court over \$3 billion debt.", December 9, 2015.

⁷¹See [2017] EWHC 655 (Comm), March 29, 2017.

⁷²In 2016, the US Treasury Secretary Jack Lew summarized the situation as follows: "With no orderly restructuring framework to address its debts, Puerto Rico will face a series of cascading defaults. Litigation – which is already underway – will only intensify. This wave of litigation will be contentious and protracted, both among competing creditors and against Puerto Rico, and it could take many years to resolve." See Letter to Congress on Puerto Rico by Secretary Jack Lew, May 2, 2016.

the US Congress enacted the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA), which effectively establishes an insolvency regime tailored to the specific circumstances of Puerto Rico.

Remarkably, one of the explicit purposes of PROMESA was to “remove the damaging uncertainty of protracted litigation that threatens to further destabilize the economy” of Puerto Rico.⁷³ Specifically, upon enactment, the law imposed a temporary stay on all litigation against Puerto Rico, to allow time to negotiate a restructuring with creditors. By the time the stay expired, in early May 2017, creditors continued to reject the government’s restructuring offer so that no negotiated solution was found. Within 36 hours after the expiration, more than a dozen new creditor lawsuits had been filed against Puerto Rico, including by large hedge funds such as Aurelius, which successfully sued Argentina.⁷⁴

In response to the large-scale litigation, the Federal Oversight Board in charge of implementing PROMESA initiated bankruptcy proceedings according to the rules contained in the act (Title III). These rules imply that a judge in the Southern District Court of New York oversees the restructuring process and any litigation remains frozen. Nevertheless, a legal advisor to the hedge funds threatened a prolonged legal dispute: “Make no mistake: The Board has chosen to turn Puerto Rico into the next Argentina.”⁷⁵ Accordingly, Aurelius filed another lawsuit arguing that the bankruptcy proceedings under PROMESA violated the US constitutions and should be dismissed.⁷⁶

Venezuela 2016-to date: Venezuela is maybe the starkest example of how the threat of sovereign debt litigation can increase willingness to pay and shape policy choices in a crisis. As of mid-2017, the government has run into arrears vis-à-vis most of its creditors, including China and Russia, and has restricted imports of basic goods such as food and medical supplies. At the same time, the government has paid international bondholders in full and on time until December 2017, at increasingly high refinancing costs.⁷⁷ For example, in May 2017, the government agreed to sell \$2.8 bn in 5-year bonds at a yield above 40%, using the proceeds to repay maturing debt.⁷⁸

⁷³See Press Release by Secretary Lew: “The Puerto Rico Rescue We Need”, January 6, 2016.

⁷⁴Reuters, “Puerto Rico sued by spate of creditors, in latest blow to teetering island”, May 2, 2017.

⁷⁵Bloomberg, “Puerto Rico files for historic \$70 billion debt restructuring.”, May 3, 2017.

⁷⁶Reuters, “Aurelius hedge fund seeks to toss Puerto Rico’s bankruptcy filing”, August 7, 2017.

⁷⁷See Financial Times, “Dutiful Venezuela gives unexpected boost to bond investors.”, June 9, 2016; and “Venezuela: A nation in bondage”, November 10, 2016; see also Wall Street Journal, “Venezuelan default fears rise with billions in debt coming due soon”, August 2, 2017.

⁷⁸Specifically, Goldman Sachs agreed to buy newly issued \$2.8 bn in bonds for \$865 m, or 31 cents on the dollar. Reportedly, US-based fintech companies have lent to Venezuela at similar conditions. See Reuters, “Venezuelan

In December 2017, the government has started to delay payments on its PDVA bonds (by the state oil company), but it has not formally declared default and, as of January 2018, all arrears were eventually cleared (the press has termed this a “quasi-default”).

In the press, there is broad consensus that legal risks are the main reason why Venezuela continues to service foreign bondholders.⁷⁹ A default could trigger lawsuits that disrupt the country’s oil industry, which is largely nationalized and the regime’s main source of income and foreign reserves. Specifically, there is a high likelihood that litigious creditors would try to seize oil shipments and state-owned refineries abroad.⁸⁰ The legal risks are exacerbated by the fact that most of the country’s external bonds lack CACs and that well-known distressed debt funds have bought large amounts of the bonds.⁸¹ The expectation of aggressive enforcement by these investors may also explain why the price of Venezuela’s benchmark bond soared from 35 cents in early 2016 to above 50 in mid-2017, despite the worsening economic and political crisis.

Republic of Congo, 2017-to date: The default of Congo (Brazzaville) is the most recent creditor dispute with significant spillover effects beyond the courtroom, and many parallels to the Argentine case.⁸² In August 2017, the government was forced into a technical default after a New York court ordered to freeze a coupon payment that had been transferred by Congo to the US-based bond trustee. When bondholders did not receive the frozen coupon in July, the three major rating agencies downgraded Congo to default status. This development followed a 20-year legal dispute with creditors, in particular Commisimpex, which had filed a variety of litigation attempts in the US, England and France. Specifically, in 2000 and 2013, Commisimpex won two arbitration awards and tried to enforce these via US, English and French courts, receiving several judgments in its favor. The most recent judgment amount was \$770 m or nearly 3% of Congo’s GDP (the debt’s face value is just \$83.6 m).

opposition condemns Goldman for \$2.8 billion bond deal”, May 30, 2017; Wall Street Journal, “After Goldman Deal, More Bonds Left for Venezuela’s Fire Sale”, May 30, 2017.

⁷⁹See Reuters, “Argentina-style legal drama looms if Venezuela defaults on debt”, January 21, 2016; Financial Times, “Complete chaos in Caracas’ invites vulture fest.”, September 2, 2016; The Economist, “The mess one Marxist makes”, July 29, 2017.

⁸⁰This is reminiscent of the experience in Congo, where litigating hedge funds successfully interfered with oil exports for years (See [Appendix 1](#)).

⁸¹See [Buchheit and Gulati \(2017\)](#) and Financial Times, “Small print on Venezuelan debt will pique Wall Street’s interest”, June 17, 2016.

⁸²For details on the case see Reuters, “With coupon funds frozen, Congo heads for Eurobond default”, July 28, 2017 and “Republic of Congo Eurobond at record low after missed payment”, August 4, 2017; Law360 “Commisimpex Urges Enforcement Of \$770M Congo Award”, May 8, 2017, and Le Monde, “Affaire Commisimpex : l’etau se resserre sur le Congo”, December 25, 2015.

6 Conclusion

Sovereign debt lawsuits in court – even by just a few specialized investors – have economic consequences out of court that affect government willingness and ability to pay. The descriptive statistics, case studies, and econometric results in this paper present evidence on this relationship. Argentina’s experience is not unique and most recent debt crises have been accompanied by creditor litigation and legal threats.

With a view to theory, our findings suggests that sovereign debt is becoming more enforceable and that litigation is an important cost of default. Courts under a foreign legal authority increasingly act as a third-party enforcement mechanism in this market, in the spirit of [Bulow and Rogoff \(1989a\)](#). We show that courts can explicitly or implicitly impose an embargo on new borrowing or block debt repayments on performing bonds. By linking litigation to market exclusion, we bridge two strands of the literature, namely those papers suggesting that governments repay because of the threat of exclusion from credit markets and output losses (the “reputation” models e.g. [Eaton and Gersovitz, 1981](#); [Arellano, 2008](#)) and those suggesting that repayment occurs due to the threat of sanctions (e.g. [Bulow and Rogoff, 1989b](#); [Mitchener and Weidenmier, 2010](#)).

The shift towards stronger creditor rights could have beneficial effects for sovereign debt markets and may be a disciplining mechanism against excessive borrowing ([Shleifer, 2003](#)). In the short and medium run, however, creditor litigation is likely to make the resolution of debt crises more difficult ex-post. This is evident in Venezuela today, where [Buchheit and Gulati \(2017\)](#) see “a serious, potentially a debilitating, legal risk” for the ongoing restructuring process. Relatedly, [Buchheit, Gulati and Tirado \(2013\)](#) argue that, during the euro area sovereign debt crisis, concerns about holdouts and litigation increased the willingness of policymakers to arrange large-scale sovereign bailouts and pay bondholders in full.

Looking ahead, there are few reasons to assume that legal risks of sovereign default will decrease soon. Over the past years, more law firms have gained experiences in sovereign debt lawsuits, and recent holdout successes have drawn investor attention to this market. Moreover, recent policy measures that focused on CACs will be slow to become effective and will not fully shield sovereigns from legal action. First, it takes many years until a new type of bond contract, such as those with aggregation CACs, disseminates through the outstanding debt stock via new issuances. Second, CACs are no safeguard against litigation either in case investors focus on

creating blocking minorities in individual bond series or if they litigate based on other defaulted debts, such as loans (e.g. [Gelpern and Gulati, 2013](#); [Gelpern, 2016](#)). A case in point are the Euro-CACs that have been incorporated into euro area government bonds since 2013. While Euro-CACs have aggregation features that make it easier to bind in non-participating creditors across different bonds, it remains possible to hold out by buying blocking stakes in individual series.

References

- Abbas, Ali, Nazim Belhocine, Asmaa ElGanainy, and Mark Horton.** 2010. “A Historical Public Debt Database.” IMF Working Paper No. 10/245.
- Aguiar, Mark, and Manuel Amador.** 2013. “Sovereign Debt.” *Handbook of International Economics*, 4: 647–687.
- Alexander, Lewis S.** 1987. “The Legal Consequences of Sovereign Default.” Unpublished, Federal Reserve Board.
- Alfaro, Laura.** 2007. “Creditor Activism in Sovereign Debt: ‘Vulture’ Tactics or Market Backbone.” *Harvard Business School Case*, No. 9-706-057.
- Alfaro, Laura.** 2015. “Sovereign Debt Restructuring: Evaluating the Impact of the Argentina Ruling.” *Harvard Law Review*, 5(1): 47–71.
- Angrist, Joshua D., and Joern-Steffen Pischke.** 2009. *Mostly Harmless Econometrics: An Empiricist’s Companion*. Princeton University Press.
- Arellano, Cristina.** 2008. “Default Risk and Income Fluctuations in Emerging Economies.” *American Economic Review*, 98(3): 690–712.
- Benjamin, David, and Mark L. J. Wright.** 2009. “Recovery Before Redemption? A Theory of Delay in Sovereign Default.” Unpublished, UCLA.
- Bi, Ran, Marcos Chamon, and Jeromin Zettelmeyer.** 2016. “The Problem that Wasn’t: Coordination Failures in Sovereign Debt Restructurings.” *IMF Economic Review*, 64(3): 471–501.
- Blackman, Jonathan I., and Rahul Mukhi.** 2010. “The Evolution of Modern Sovereign Debt Litigation: Vultures, Alter Egos, and other Legal Fauna.” *Law and Contemporary Problems*, 73(4): 47–62.
- Bolton, Patrick, and David A. Skeel.** 2004. “Inside the Black Box: How Should A Sovereign Bankruptcy Framework be Structured?” *Emory Law Journal*, 53: 763–822.
- Bolton, Patrick, and Olivier Jeanne.** 2007. “Structuring and Restructuring Sovereign Debt: The Role of a Bankruptcy Regime.” *Journal of Political Economy*, 115(6): 901–924.
- Bolton, Patrick, and Olivier Jeanne.** 2009. “Structuring and Restructuring Sovereign Debt: The Role of Seniority.” *The Review of Economic Studies*, 76(3): 879–902.
- Bown, Chad.** 2004. “Trade disputes and the implementation of protection under the GATT: An empirical assessment.” *Journal of International Economics*, 62(2): 263–294.

- Bradley, Michael, James Cox, and G. Mitu Gulati.** 2010. “The Market Reaction to Legal Shocks and their Antidotes: Lessons from the Sovereign Debt Market.” *Journal of Legal Studies*, 39(1): 289–324.
- Bradley, Michael, Salvatierra De Lira, Irving Arturo, and G. Mitu Gulati.** 2016. “A Sovereign’s Cost of Capital: Go Foreign or Stay Local.” Unpublished, Duke University.
- Buchheit, Lee C.** 1999. “Sovereign Debt Litigation.” Memorandum for the International Monetary Fund, February 04, 1999.
- Buchheit, Lee C.** 2005. “The Role of the Official Sector in Sovereign Debt Workouts.” *Chicago Journal of International Law*, 6(1): 333–344.
- Buchheit, Lee C., and G. Mitu Gulati.** forthcoming. “Restructuring Sovereign Debt after NML v. Argentina.” *Capital Markets Law Journal*.
- Buchheit, Lee C., and Mitu Gulati.** 2009. “The Coroner’s Inquest: Ecuador’s Default and Sovereign Bond Documentation.” Duke Law Working Paper.
- Buchheit, Lee C., and Mitu Gulati.** 2017. *How to Restructure Venezuelan Debt?* Duke Law Working Paper.
- Buchheit, Lee C., Anna Gelpern, G. Mitu Gulati, Ugo Panizza, Beatrice Weder Di Mauro, and Jeromin Zettelmeyer.** 2013. *Revisiting Sovereign Bankruptcy*. Washington D.C:Brookings Institution.
- Buchheit, Lee C., G. Mitu Gulati, and Ignacio Tirado.** 2013. “The Problem of Holdout Creditors in Eurozone Sovereign Debt Restructurings.” Unpublished, Duke University.
- Bulow, Jeremy, and Kenneth Rogoff.** 1989a. “A Constant Recontracting Model of Sovereign Debt.” *Journal of Political Economy*, 97(1): 155–178.
- Bulow, Jeremy, and Kenneth Rogoff.** 1989b. “Sovereign Debt: Is to Forgive to Forget?” *American Economic Review*, 79(1): 43–50.
- Carletti, Elena, Paolo Colla, G. Mitu Gulati, and Steven Ongena.** 2017. “The Price of Law: The Case of the Eurozone Collective Action Clauses.” Unpublished, Duke University.
- Chamon, Marcos, Julian Schumacher, and Christoph Trebesch.** 2016. “Foreign Law Bonds: Can They Reduce Sovereign Borrowing Costs?” Unpublished, IMF.
- Cooter, Robert D., and Daniel L. Rubinfeld.** 1989. “Economic Analysis of Legal Disputes and Their Resolution.” *Journal of Economic Literature*, 27: 1067–1097.

- Cruces, Juan J., and Christoph Trebesch.** 2013. “Sovereign Defaults: The Price of Haircuts.” *American Economic Journal: Macroeconomics*, 5(3): 1–34.
- Cruces, Juan J., and Tim Samples.** 2016. “Settling Sovereign Debt’s ‘Trial of the Century’.” *Emory International Law Review*, 31(1).
- Das, Udaibir, Michael Papaioannou, and Christoph Trebesch.** 2012. “Sovereign Debt Restructurings 1950-2010: Literature Survey, Data, and Stylized Facts.” IMF Working Paper No. 12/203.
- Dooley, Michael P.** 2000. “International financial architecture and strategic default: Can financial crises be less painful?” *Carnegie-Rochester Conference Series on Public Policy*, 53(1): 361–377.
- Duggar, Elena.** 2013. *The Role of Holdout Creditors and CACs in Sovereign Debt Restructurings (Moody’s Report)*. New York:Moody’s.
- Eaton, Jonathan.** 1990. “Debt Relief and the International Enforcement of Loan Contracts.” *Journal of Economic Perspectives*, 4(1): 43–56.
- Eaton, Jonathan, and Mark Gersovitz.** 1981. “Debt with Potential Repudiation: Theoretical and Empirical Analysis.” *Review of Economic Studies*, 48(2): 289–309.
- Eaton, Jonathan, and Raquel Fernandez.** 1995. “Sovereign Debt.” *Handbook of International Economics*, 3: 2031–2077.
- ECB.** 2011. “The European Stability Mechanism.” *ECB Monthly Bulletin*, July 2011: 71–84.
- EMTA.** 2009. “Creditor Litigation in the Non-HIPC Sovereign Debt Restructuring Context.” Paper prepared for Club de Paris Meeting.
- Enderlein, Henrik, Christoph Trebesch, and Laura von Daniels.** 2012. “Sovereign Debt Disputes.” *Journal of International Money and Finance*, 31(2): 250–266.
- Federal Reserve Bank of New York.** 2004. “Memorandum of Law of Amicus Curiae in Support of Defendant’s Motion.” Submitted in *EM Ltd. vs. Republic of Argentina*, 03-2507 (Southern District Court of New York), January 12, 2004.
- Finnigan, James.** 1986. “Sovereign Defaults in United States Courts: The Interrelationship of the Articles of the IMF, the Act of State Doctrine and Comity Principles.” *Boston University International Law Journal*, 4: 153–199.
- Fisch, Jill E., and Caroline M. Gentile.** 2004. “Vultures or Vanguard? The Role of Litigation in Sovereign Debt Restructuring.” *Emory Law Journal*, 53: 1043–1114.

- Flandreau, Marc.** 2017. “Sovereign Debt Enforcement and Sovereign Immunity: Historical Evidence on the Role of Financial Engineering and Legal Innovation.” Unpublished, University of Pennsylvania.
- Foster, George K.** 2008. “Collecting From Sovereigns: The Current Legal Framework for Enforcing Arbitral Awards and Court Judgments against States and their Instrumentalities, and some Proposals for its Reform.” *Arizona Journal of International & Comparative Law*, 25(3): 666–731.
- Franks, Julian R., Oren Sussmann, and Vikrant Vig.** 2017. “The Privatization of Bankruptcy: Evidence from Financial Distress in the Shipping Industry.” Unpublished, London Business School.
- Gai, Prasanna, Somon Hayes, and Hyun Song Shin.** 2004. “Crisis Costs and Debtor Discipline: The Efficacy of Public Policy in Sovereign Debt Crises.” *Journal of International Economics*, 62(2): 245–262.
- Gelos, R. Gaston, Ratna Sahay, and Guido Sandleris.** 2011. “Sovereign borrowing by developing countries: What determines market access?” *Journal of International Economics*, 83(2): 243–254.
- Gelpern, Anna.** 2016. “The Rubble of Argentina’s Debt Settlement.” Economic Issues, Peterson Institute for International Economics.
- Gelpern, Anna, and Mitu Gulati.** 2013. “The Wonder-Clause.” *Journal of Comparative Economics*, 41(2): 311–652.
- Ghosal, Sayantan, and Marcus Miller.** 2003. “Co-ordination Failure, Moral Hazard and Sovereign Bankruptcy Procedures.” *Economic Journal*, 113(487): 276–304.
- Gianviti, Francois, Anne Krueger, Jean Pisany-Ferry, André Sapir, and Jürgen von Hagen.** 2010. *A European Mechanism for Sovereign Debt Crisis Resolution: A Proposal*. Brussels:Bruegel.
- Grinols, Earl L., and Roberto Perrelli.** 2006. “The WTO Impact on International Trade Disputes: An Event History Analysis.” *Review of Economics and Statistics*, 88(4): 613–624.
- Grossman, Herschel, and John van Huyck.** 1988. “Sovereign Debt as a Contingent Claim: Excusable Default, Repudiation, and Reputation.” *American Economic Review*, 78(5): 1088–1097.
- Gueye, Coumba, Alison Johnson, Matthew Martin, and Michel Vaugeois.** 2007. *Negotiating debt reduction in the HIPC initiative and beyond*. London:Debt Relief International.
- Gulati, Mitu, and Robert E. Scott.** 2012. *The three and a half minute transaction: Boilerplate and the limits of contract design*. Chicago:University of Chicago Press.
- Guzman, Martin.** 2016. “An analysis of Argentina’s 2001 default resolution.” CIGI papers No. 110.
- Haldane, Andrew, Adrian Penalver, Victoria Saporta, and Hyung Shin.** 2005. “The Analytics of Sovereign Debt Restructuring.” *Journal of International Economics*, 65(2): 315–333.

- Haldane, Andrew, and Mark Kruger.** 2001. “The Resolution of International Financial Crises: Private Finance and Public Funds.” Bank of Canada Working Paper 2001-20.
- Hebert, Benjamin, and Jesse Schreger.** 2017. “The Costs of Sovereign Default: Evidence from Argentina.” *American Economic Review*, 107(10): 3119–31453.
- IIF.** 2009. “Creditor Litigation in Low-Income Countries Benefiting from the Enhanced-HIPC and MDRI.” Paper prepared for Club de Paris Meeting.
- IMF.** 2002. *Global Financial Stability Report*. Washington D.C.:IMF.
- IMF.** 2003. *Proposed Features of a Sovereign Debt Restructuring Mechanism*. Washington D.C.:IMF.
- IMF.** 2004. *Recent Developments in Sovereign Debt Litigation and Implications for Debt Restructuring and Debt Relief Processes*. Washington D.C.:IMF.
- IMF.** 2013. *Sovereign Debt Restructuring. Recent Developments and Implications for the Fund’s Legal and Policy Framework*. Washington D.C.:IMF.
- IMF.** 2014. *Strengthening the Contractual Framework to Address Collective Action Problems in Sovereign Debt Restructuring*. Washington D.C.:IMF.
- IMF.** 2016. *Second Progress Report on Inclusion of Enhanced Contractual Provisions in International Sovereign Bond Contracts*. Washington D.C.:IMF.
- IMF and World Bank.** 2000-2011. *Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI) - Status of Implementation*. Washington D.C.:IMF and World Bank.
- Krueger, Anne.** 2002. *A New Approach to Sovereign Debt Restructuring*. Washington D.C.:IMF.
- Maggi, Giovanni, and Robert W. Staiger.** 2013. “Trade Disputes and Settlement.” Unpublished, Yale University.
- McNamara, Tom.** 2006. “A Primer on Sovereign Immunity.” Presentation to the Union Internationale des Avocats.
- Miller, Marcus, and Dania Thomas.** 2007. “Sovereign Debt Restructuring: The Judge, the Vultures and Creditor Rights.” *The World Economy*, 30(10): 1491–1509.
- Miller, Marcus, and Lei Zhang.** 2000. “Sovereign Liquidity Crises: The Strategic Case for a Payments Standstill.” *Economic Journal*, 110(460): 335–362.
- Mitchener, Kris James, and Marc Weidenmier.** 2010. “Supersanctions and Sovereign Debt Repayment.” *Journal of International Money and Finance*, 29(1): 19–36.

- Mody, Ashoka.** 2013. “Sovereign Debt and its Restructuring Framework in the Euro Area.” Bruegel Working Paper 2013/05.
- Panizza, Ugo, Federico Sturzenegger, and Jeromin Zettelmeyer.** 2009. “The Economics and Law of Sovereign Debt and Default.” *Journal of Economic Literature*, 47(3): 651–698.
- Papke, Leslie E., and Jeffrey M. Wooldridge.** 2008. “Panel Data Methods for Fractional Response Variables with an Application to Test Pass Rates.” *Journal of Econometrics*, 145(1-2): 121–133.
- PIMCO.** 2012. “Collective Action Clauses: No Panacea for Sovereign Debt Restructurings.” *PIMCO Viewpoint*.
- Pitchford, Rohan, and Mark L. J. Wright.** 2007. “Restructuring the Sovereign Debt Restructuring Mechanism.” Unpublished, UCLA.
- Pitchford, Rohan, and Mark L. J. Wright.** 2012. “Holdouts in Sovereign Debt Restructurings: A Theory of Negotiations in a Weak Contractual Environment.” *Review of Economic Studies*, 79(2): 1–26.
- Priest, George, and Benjamin Klein.** 1984. “The Selection of Disputes for Litigation.” *Journal of Legal Studies*, 13(1): 1–56.
- Republic of France.** 2013. “Brief for the Republic of France as Amicus Curia in Support of the Republic of Argentina’s Petition for a Writ of Certiorari.” Brief submitted in *Republic of Argentina vs. NML Capital*, 12-1494 (Supreme Court of the United States).
- Rogoff, Kenneth, and Jeromin Zettelmeyer.** 2002. “Bankruptcy Procedures for Sovereigns: A History of Ideas, 1976-2001.” *IMF Staff Papers*, 49(3): 470–507.
- Roubini, Nouriel.** 2010. “An Orderly Market-Based Approach to the Restructuring of Eurozone Sovereign Debts Obviates the Need for Statutory Approaches.” *RGE Analysis*, 15 Nov. 2010.
- Schumacher, Julian, Christoph Trebesch, and Henrik Enderlein.** 2015. “What Explains Sovereign Debt Litigation?” *Journal of Law and Economics*, 58(3): 585–623.
- Shleifer, Andrei.** 2003. “Will the Sovereign Debt Market Survive?” *American Economic Review – Papers and Proceedings*, 93(2): 85–90.
- Singh, Manmohan.** 2003. “Recovery Rates from Distressed Debt – Empirical Evidence from Chapter 11 Filings, International Litigation, and Recent Sovereign Debt Restructurings.” IMF Working Paper No. 03/161.
- Spier, Kathryn.** 2007. “Litigation.” *Handbook of Law and Economics*, 1: 265–345.

- Standard & Poor's.** 2006. *Default Study: Sovereign Defaults At 26-Year Low, To Show Little Change In 2007*. New York:Standard & Poor's.
- Standard & Poor's.** 2011. *Sovereign Rating And Country T&C Assessment Histories*. New York:Standard & Poor's.
- Sturzenegger, Federico, and Jeromin Zettelmeyer.** 2006. *Debt defaults and lessons from a decade of crises*. Cambridge:MIT Press.
- Tirole, Jean.** 2012. "The Euro Crisis: Some Reflexions on Institutional Reform." *Financial Stability Review*, 16: 225–242.
- Tomz, Michael.** 2007. *Reputation and International Cooperation: Sovereign Debt Across Three Centuries*. Princeton:Princeton Univ. Press.
- Trebesch, Christoph.** 2010. "Delays in Sovereign Debt Restructurings." Unpublished, Free University Berlin.
- Trebesch, Christoph.** 2013. "Do Countries Restructure in Good Times?" Unpublished, University of Munich.
- UNCTAD.** 2012. *Sovereign Debt Crises and Restructurings: Lessons Learnt and Proposals for Debt Resolution Mechanisms*. Geneva:UNCTAD, UN.
- United Nations.** 2014. "Towards the establishment of a multilateral legal framework for sovereign debt restructuring processes." Resolution No. A/RES/68/304.
- United States of America.** 2012. "Brief for the United States of America as Amicus Curiae in Support of the Republic of Argentina's Petition for Panel Rehearing and Rehearing En Banc." Brief submitted in *NML Capital et al. vs. Republic of Argentina*, 12-105 (Court of Appeals for the 2nd Circuit).
- Waibel, Michael.** 2011. *Sovereign Defaults Before International Courts and Tribunals*. Cambridge:Cambridge Univ. Press.
- Weder Di Mauro, Beatrice, and Jeromin Zettelmeyer.** 2010. "European Debt Restructuring Mechanism as a Tool for Crisis Prevention." *VoxEU*, 26.11.2010.
- Weinschelbaum, Federico, and Josef Wynne.** 2005. "Renegotiation, collective action clauses and sovereign debt markets." *Journal of International Economics*, 67(1): 47–72.
- Zaitzeff, Roger M., and Thomas Kunz.** 1985. "The Act of State Doctrine and the Allied Bank Case." *The Business Lawyer*, 40: 449–483.

Zettelmeyer, Jeromin, Christoph Trebesch, and Mitu Gulati. 2013. “The Greek Debt Restructuring: An Autopsy.” *Economic Policy*, 28(75): 513–563.

Table 7: List of creditor litigation cases filed 1976-2010

Debtor country	Plaintiff	Primary jurisdiction	Creditor type	No. claim-tiffs	Start date	End date	Attachment attempt	Outcome	Other jurisdictions	Face value (US\$ m)	Amount claimed (US\$ m)	Judgment amount (US\$ m)	Case citation
Argentina	Weltover Inc., Springdale Enterprises Inc., Bank Cantrada A.G.	United States	bank, fund	3	10/18/1989	3/8/1995	No	OCS	No	1.3	.	1.8	89 Civ. 06926
Argentina	Sayal S.A.	United States	fund	1	5/18/1992	12/4/1993	No	OCS	No	.	.	.	92 Civ. 03603
Argentina	Lightwater Corporation Ltd.	United States	fund	1	5/17/2002	4/25/2016	Yes	OCS	No	7.0	.	8.4	02 Civ. 03804
Argentina	Old Castle Holdings Ltd.	United States	fund	1	5/17/2002	4/28/2016	Yes	OCS	No	0.7	.	0.8	02 Civ. 03808
Argentina	Allan Applestein TTEE FBO D.C.A. Grantor Trust, et al.	United States	fund	2	5/31/2002	pending (2016)	Yes	Pending	No	1.3	.	1.3	02 Civ. 04124 et al.
Argentina	H.W. Urban GmbH et al.	United States	other	2	7/22/2002	pending (2016)	No	Pending	No	1.2	.	.	02 Civ. 05699
Argentina	Macrotecnic International Corporation	United States	fund	1	7/26/2002	pending (2016)	Yes	Pending	Yes	0.5	.	0.5	02 Civ. 05932
Argentina	EM Ltd.	United States	fund	1	4/10/2003	4/25/2016	Yes	OCS	No	203.4	.	.	03 Civ. 02507
Argentina	Latinburg S.A.	United States	fund	1	10/29/2003	pending (2016)	Yes	Pending	No	1.4	.	2.1	03 Civ. 08528
Argentina	NML Capital Ltd.	United States	fund	1	11/7/2003	4/25/2016	Yes	OCS	No	614.8	.	.	03 Civ. 08845 et al.
Argentina	Denchu Investment Corporation	United States	fund	1	12/1/2003	no action (2016)	Yes	Pending	No	9.6	.	23.2	03 Civ. 09538
Argentina	Hickory Sec., Ltd.	United States	fund	3	2/4/2004	pending (2016)	Yes	Pending	No	69.4	.	178.1	04 Civ. 00936
Argentina	Million Air Corporation	United States	other	1	2/9/2004	pending (2016)	Yes	Pending	No	0.3	.	0.5	04 Civ. 01048
Argentina	Mazoral S.A.	United States	fund	1	4/30/2004	pending (2016)	Yes	Pending	No	20.2	.	30.3	04 Civ. 03313
Argentina	Banca Arner S.A.	United States	bank	1	1/12/2005	11/28/2016	No	OCS	No	.	.	35.7	05 Civ. 00277
Argentina	FFI Fund Ltd. et al.	United States	fund	2	3/29/2005	4/25/2016	No	OCS	No	115.4	.	670.6	05 Civ. 03328
Argentina	Capital Ventures International	United States	fund	1	4/25/2005	4/25/2016	Yes	OCS	No	84.5	.	177.3	05 Civ. 04085 et al.
Argentina	Greylock Global Distressed Debt Master Fund Ltd. and Greylock Global Opportunity Master Fund Ltd.	United States	fund	2	4/28/2005	12/5/2016	No	OCS	No	205.9	.	.	04 Civ. 07643 et al.
Argentina	Montreux Partners, L.P.	United States	fund	1	4/28/2005	4/25/2016	No	OCS	No	5.0	.	48.4	05 Civ. 04239
Argentina	Meridian Investments & Business Corporation	United States	fund	1	6/1/2005	no action (2016)	Yes	Pending	No	10.8	.	16.4	05 Civ. 05197
Argentina	Los Angeles Capital	United States	fund	1	12/15/2005	4/28/2016	No	OCS	No	14.2	.	156.6	05 Civ. 10201 et al.
Argentina	GMO Emerging Country Debt L.P.	United States	fund	1	12/12/2005	7/13/2016	Yes	OCS	No	197.0	.	97.7	05 Civ. 10380 et al.
Argentina	ARTAL Alternative Treasury Management	United States	fund	1	3/8/2006	8/11/2016	No	OCS	No	103.8	.	167.7	06 Civ. 01839
Argentina	Blway International S.A.	United States	fund	1	4/25/2006	pending (2016)	Yes	Pending	No	1.3	.	2.4	06 Civ. 03198
Argentina	Cordoba Capital	United States	fund	1	8/3/2006	4/28/2016	No	OCS	No	10.3	.	99.6	06 Civ. 05887
Argentina	Teachers Insurance and Annuity Association of America	United States	other	1	8/16/2006	10/1/2010	Yes	OCS	No	58.0	.	104.8	06 Civ. 06221
Argentina	Ivelo Holding Corporation	United States	fund	1	9/15/2006	no action (2016)	Yes	Pending	No	8.0	.	13.5	06 Civ. 07100
Argentina	Vegas Game Import/Export S.A.S.	United States	fund	1	11/9/2006	6/3/2009	No	OCS	No	2.3	.	.	06 Civ. 13084
Argentina	Claren Corporation	United States	fund	1	12/1/2006	pending (2016)	No	Pending	No	4.0	.	7.5	06 Civ. 13675
Argentina	BNP Paribas	United States	bank	1	12/12/2006	7/11/2016	No	OCS	No	147.9	.	266.3	06 Civ. 14339
Argentina	Capital Markets Financial Services Inc.	United States	fund	2	12/19/2006	5/4/2016	No	OCS	No	172.5	.	188.1	06 Civ. 15301
Argentina	Caronte Limited S.A.	United States	fund	1	12/19/2006	no action (2016)	No	Pending	No	12.1	.	14.2	06 Civ. 15316
Argentina	Nakiga Holdings	United States	fund	1	12/20/2006	pending (2016)	No	Pending	No	0.5	.	.	06 Civ. 15337
Argentina	AgriTech S.R.L.	United States	other	3	12/22/2006	11/4/2016	No	OCS	No	.	.	105.8	06 Civ. 15393
Argentina	Wilton Capital	United States	fund	1	3/1/2007	4/25/2016	No	OCS	No	7.2	.	.	07 Civ. 01797 et al.
Argentina	Newbodem Investments S.A.	United States	fund	1	3/6/2007	12/21/2010	No	Unsuccessful	No	.	.	.	07 Civ. 01938
Argentina	Blue Angel Capital I LLC	United States	fund	1	4/2/2007	4/25/2016	Yes	OCS	No	176.9	.	573.4	10 Civ. 04782 et al.
Argentina	Aurelius Capital Partners LP and ACP Master, Ltd.	United States	fund	2	4/3/2007	4/25/2016	Yes	OCS	No	282.9	.	.	09 Civ. 08757 et al.
Argentina	Dralli LLC et al.	United States	fund	8	4/6/2007	no action (2016)	No	Pending	No	.	.	.	07 Civ. 04606 et al.
Argentina	Andraex Ltd.	United States	fund	1	6/12/2007	6/27/2016	Yes	OCS	No	2.6	.	5.3	07 Civ. 05593
Argentina	Hillside Ltd.	United States	fund	1	7/5/2007	no action (2016)	Yes	Pending	No	5.6	.	.	07 Civ. 06231
Argentina	Banca Nazionale Del Lavoro	United States	bank	1	9/12/2007	12/20/2016	No	OCS	No	23.0	.	.	07 Civ. 08000
Argentina	Romano Organizzazione	United States	fund	6	12/7/2007	pending (2016)	No	Pending	No	12.4	.	.	07 Civ. 11331
Argentina	HWB Victoria Strategies Portfolio et al.	United States	fund	8	12/19/2007	pending (2016)	Yes	Pending	No	55.2	.	133.2	07 Civ. 10657 et al.
Argentina	Gramercy Argentina Opportunity Fund, Ltd. and Gramercy Emerging Markets Fund	United States	fund	2	12/21/2007	2/7/2017	No	OCS	No	335.4	.	.	08 Civ. 01722 et al.
Argentina	Zylberberg Fein LLC	United States	fund	1	12/21/2007	pending (2016)	Yes	Pending	No	6.4	.	11.2	07 Civ. 11496
Argentina	UVA Vaduz	United States	fund	2	12/21/2007	pending (2016)	Yes	Pending	No	7.5	.	12.5	07 Civ. 11497
Argentina	Amber Reed Corp., Consulora Kilser S.A.	United States	fund	2	1/17/2008	pending (2016)	Yes	Pending	No	1.5	.	2.5	08 Civ. 00440
Argentina	Drawrah Ltd.	United States	fund	7	9/30/2009	pending (2016)	Yes	Pending	No	16.5	.	45.4	09 Civ. 08299
Argentina	A. Gandola & C. S.P.A.	United States	fund	3	11/5/2009	11/4/2016	No	OCS	No	.	.	.	08 Civ. 09506
Argentina	NW Global Strategy et al.	United States	fund	3	6/15/2010	pending (2016)	No	Pending	No	4.0	.	.	10 Civ. 04656

continues on next page

Table 7: List of creditor litigation cases filed 1976-2010 (continued)

Debtor country	Plaintiff	Primary jurisdiction	Creditor type	No. plain-tiffs	Start date	End date	Attachment attempt	Outcome	Other jurisdictions	Face value (US\$ m)	Amount claimed (US\$ m)	Judgment amount (US\$ m)	Case citation
Argentina	Olifant Fund Ltd.	United States	fund	1	12/23/2010	4/25/2016	Yes	OCS	No	5.0	.	.	10 Civ. 9587
Bolivia	Woodstead Associates, L.P.	United States	.	1	5/17/1993	9/21/1994	No	OCS	No	0.9	1.0	.	93 Civ. 03326
Brazil	GIBC Bank And Trust Company (Cayman) Ltd.	United States	fund	1	6/28/1994	3/19/1996	No	OCS	No	1,400.0	.	.	94 Civ. 04733
Bulgaria	A.I. Trade Finance Inc.	Arbitration	other	1	3/15/1996	10/27/2000	Yes	OCS	Yes	12.0	.	12.0	.
Cameroon	Winslow Bank and Trust	United Kingdom	fund	1	1996	2008	Yes	OCS	Yes	9.9	46.3	46.3	.
Cameroon	Del Favero S.P.A.	United Kingdom	other	1	1998	2009	Yes	.	No	2.9	4.6	4.6	.
Chad	Orascom Telecom Holding SAE	United Kingdom	other	1	3/4/2005	2009	Yes	.	No	.	.	7.9	[2008] EWHC 1841 (Comm), 2007 Folio 1440 (UK)
Congo	AF-CAP, Inc., Connecticut Bank of Commerce	United States	fund	1	1985	4/13/2007	Yes	OCS	Yes	6.5	13.6	13.6	03 Civ. 01963 et al.
Congo	National Union Fire Insurance of Pittsburgh and C	United States	other	1	1990	2/12/2008	Yes	OCS	Yes	10.4	45.6	31.5	04 Civ. 02440 et al.
Congo	ITOH Middle East E C	United Kingdom	other	1	7/15/1987	10/30/2002	Yes	Satisfied	Yes	.	26.7	26.7	88 Civ. 06142 et al.
Congo	National Union Fire Insurance of Pittsburgh	United States	fund	1	3/18/1994	4/18/1996	No	OCS	No	.	.	.	94 Civ. 01894
Congo	Water Street Bank & Trust Ltd.	Arbitration	fund	1	5/27/1994	3/5/2008	Yes	Unsuccessful	Yes	1.0	.	3.0	99/05206 (France)
Congo	Quinzy Capital Group International Ltd.	United States	.	1	9/16/1994	2/11/2002	No	Unsuccessful	No	.	6.8	6.8	94 Civ. 01916
Congo	Agrinvest International Incorporated	Arbitration	other	1	2000	pending (2016)	Yes	Pending	Yes	83.6	967.0	.	11 Civ. 6176 et al.
Congo	Commisimpex S.A.	United States	fund	1	2000	9/17/2007	Yes	OCS	Yes	26.1	26.1	26.1	00 Civ. 02987 et al.
Congo	Walker International Holdings Ltd.	United States	fund	1	9/26/2001	9/18/2007	Yes	OCS	Yes	35.9	152.0	152.0	01 Civ. 08700 et al.
Congo	FG Hemisphere Associates LLC	United Kingdom	fund	1	10/14/2002	7/25/2008	Yes	OCS	Yes	20.8	123.8	123.8	03 Civ. 04578 et al.
Congo	Kensington International Ltd.	United States	.	1	5/2005	12/12/2006	Yes	Unsuccessful	No	.	13.6	13.6	4238/04 (New York State)
Congo	Brant Point Ltd.	United States	.	1	5/2005	12/12/2006	Yes	Unsuccessful	No	.	13.6	13.6	4238/04 (New York State)
Congo (DR)	Private Export Funding Corporation	United States	fund	1	2/6/1992	4/22/1994	Yes	Satisfied	No	.	0.8	1.0	92 Civ. 00982
Congo (DR)	LNC Investments, Inc.	United States	fund	1	7/16/1996	12/8/1999	Yes	Satisfied	Yes	1.4	3.9	3.9	96 Civ. 05281 et al.
Congo (DR)	Red Mountain Finance, Inc.	United Kingdom	fund	1	12/31/1997	6/12/2002	Yes	OCS	Yes	19.5	22.5	22.5	97 Civ. 09557 et al.
Congo (DR)	FG Hemisphere Associates LLC	Arbitration	fund	1	6/17/2003	pending (2016)	Yes	Pending	Yes	29.7	100.0	99.4	03 Civ. 01314 et al.
Congo (DR)	Themis Capital, LLC and Des Moines Investments Ltd.	United States	fund	2	2/23/2009	pending (2016)	No	Pending	No	18.0	79.6	93.4	09 Civ. 01652 et al.
Congo (DR)	Triple A International, Inc.	United States	other	1	2010	4/18/2012	.	Unsuccessful	No	14.0	14.0	.	10 Civ. 15137
Costa Rica	Libra Bank Ltd. et al.	United States	bank	8	9/14/1981	9/1/1983	Yes	OCS	No	40.0	.	.	81 Civ. 7624
Costa Rica	Allied Bank International	United States	bank	1	2/1982	9/23/1985	.	OCS	No	5.2	5.2	.	82 Civ. 0664
Cote d'Ivoire	Water Street Bank & Trust Ltd.	United States	fund	1	4/4/1994	11/28/1994	No	OCS	No	8.0	.	.	94 Civ. 02376
Dominica	The Export-Import Bank of The Republic of China	United States	bank	1	7/26/2005	10/31/2006	No	OCS	No	11.3	11.5	.	05 Civ. 06698
Ecuador	Weston Compagnie de Finance et D'Investissement, S.A.	United States	fund	1	4/26/1993	9/30/1998	Yes	OCS	No	20.8	30.3	.	93 Civ. 00935 et al.
Ecuador	Water Street Bank & Trust Ltd.	United States	fund	1	7/14/1995	10/23/1995	No	OCS	No	6.0	9.0	.	95 Civ. 05253
Ecuador	Banco del Pacifico et al.	United States	bank	7	3/12/1996	3/11/2000	No	Satisfied	No	9.7	.	.	96 Civ. 01789
Ecuador	Asociacion Fe Y Alegria et al.	United States	bank	13	12/7/1998	6/18/1999	No	.	No	.	.	.	98 Civ. 08650
Ecuador	Libra Bank PLC	United States	bank	1	12/23/1998	1/11/2001	No	OCS	No	.	.	.	98 Civ. 09124
Ecuador	Bank of America, N.A.	United States	bank	1	2/27/2001	5/22/2001	No	Unsuccessful	No	5.0	0.6	.	01 Civ. 01730
Gambia	Bayer & Willis Inc.	United States	.	1	2/1/2002	9/15/2005	Yes	Unsuccessful	No	0.1	0.1	0.1	02 Civ. 00176
Grenada	The Export-Import Bank of The Republic of China	United States	bank	1	3/29/2006	6/2/2015	Yes	OCS	No	20.3	21.6	.	06 Civ. 02469
Guatemala	Banque Compafina, Estoril Associates, Inc.	United States	bank	1	2/3/1984	3/23/1984	Yes	Unsuccessful	No	1.1	1.1	.	87 Civ. 05860
Guyana	Green Mining Inc., Export Services Inc.	United States	other	2	1992	9/15/2000	No	OCS	Yes	14.1	.	.	99 Civ. 01779
Guyana	Booker PLC	Arbitration	.	1	9/18/2001	10/11/2003	No	OCS	No	10.5	19.2	.	.
Iraq	First City, Texas-Houston, N.A.	United States	bank	1	11/15/1990	9/10/2004	No	OCS	No	49.9	53.2	53.2	90 Civ. 7360
Iraq	Commercial Bank of Kuwait	United States	bank	1	9/26/1991	2/23/1994	No	.	No	33.0	44.0	44.0	91 Civ. 06500
Iraq	The Bank of New York	United States	bank	1	7/24/1992	2/16/1993	No	.	No	.	22.6	27.8	92 Civ. 05563
Iraq	National Bank of Kuwait, S.A.K.; National Bank of Kuwait (France), S.A.	United States	bank	2	5/17/1993	12/21/1994	No	.	No	20.0	.	.	92 Civ. 05563
Iraq	Alahli Bank of Kuwait K.S.C. et al.	United States	bank	16	9/22/1995	6/28/1996	.	.	No	.	.	142.2	95 Civ. 08127
Iraq	Arab American Bank	United States	bank	1	12/11/1995	4/18/2006	No	Satisfied	No	.	.	34.2	95 Civ. 10438 et al.
Iraq	Midland Bank PLC et al.	United Kingdom	bank	12	5/1996	5/1996	.	.	No	.	400.0	.	.
Iraq	Alahli Bank of Kuwait K.S.C.	United States	bank	1	9/4/1996	3/25/2004	Yes	OCS	No	23.7	36.0	39.8	96 Civ. 06690

continues on next page

Table 7: List of creditor litigation cases filed 1976-2010 (continued)

Debtor country	Plaintiff	Primary jurisdiction	Creditor type	No. plain-tiffs	Start date	End date	Attachment attempt	Outcome	Other jurisdictions	Face value (US\$ m)	Amount claimed (US\$ m)	Judgment amount (US\$ m)	Case citation
Iraq	Hyundai Corporation, Hyundai Engineering & Construction Co. Ltd.	United States	other	1	12/2/1997	2/6/2006	No	Unsuccessful	No	70.2	70.2	70.2	02 Civ. 07199
Iraq	Agrocomplex, AD	United States	other	1	1/23/2007	9/18/2009	No	Unsuccessful	No	47.5	47.5	.	07 Civ. 00165
Jamaica	A.I. Credit Corporation	United States	other	1	1987	1987	.	.	No	10.0	.	.	87 Civ. 03442
Liberia	Chase Manhattan et al.	United States	bank	14	12/12/1990	7/7/2000	.	OCS	No	.	.	.	90 Civ. 07930
Liberia	Meridian International Bank Limited	United States	bank	1	1/10/1991	3/21/2000	Yes	OCS	Yes	12.1	.	.	90 Civ. 06639 et al.
Liberia	Liberian National Petroleum Company	United States	other	1	2/21/1991	6/20/1991	.	.	No	20.0	27.3	20.0	91 Civ. 00699
Liberia	Continental Grain Company	United States	other	1	6/30/1994	4/16/2009	.	Satisfied	No	8.8	.	8.8	94 Civ. 04826
Liberia	Hamsah Investments Ltd., Wall Capital Ltd.	United States	fund	2	2/15/2002	12/17/2010	.	OCS	Yes	6.5	43.0	18.4	02 Civ. 01246
Liberia	Montrose Capital LLC	United States	fund	1	1/7/2005	5/4/2009	.	.	No	26.0	129.5	.	00075/05 (New York State)
Liberia	JP Morgan Chase Bank N.A.	United States	bank	1	5/18/2006	2/21/2007	.	OCS	No	.	.	.	06 Civ. 03803
Liberia	Colonial Bank	United Kingdom	bank	1	2008	4/2009	.	OCS	No	5.8	.	21.4	.
Liberia	Taiyo Kobe Syndicate	United Kingdom	bank	1	2008	4/2009	.	OCS	No	.	.	285.2	.
Nicaragua	LNC Investments, Inc.	United States	fund	1	8/22/1996	1/17/2008	Yes	OCS	Yes	26.3	26.3	87.1	96 Civ. 06360 et al.
Nicaragua	International Bank of Miami et al.	United States	bank, fund	11	7/22/1997	1/10/2000	No	OCS	No	175.0	.	.	97 Civ. 05378
Nicaragua	GP Hemisphere Associates LLC	United States	fund	1	10/6/1999	12/14/2007	No	Satisfied	No	30.9	.	126.0	99 Civ. 10302
Nicaragua	Van Eck Emerging Markets Opportunity Fund, Greylock Global Opportunity Fund	United States	fund	1	8/3/2000	7/18/2007	Yes	Satisfied	Yes	13.0	.	62.5	00 Civ. 05756 et al.
Nicaragua	14 October Krusevac et al.	United States	other	5	4/4/2007	7/10/2007	No	OCS	No	9.3	9.3	.	07 Civ. 00638
Niger	The Export-Import Bank of the Republic of China	United States	bank	1	4/29/1997	8/5/2002	.	.	Yes	72.3	.	86.5	97 Civ. 03090 et al.
Nigeria	Texas Trading & Milling Corp et al.	United States	other	4	1976	1/11/1982	No	.	No	56.0	.	.	500 F. Supp. 320 (1980) et al.
Nigeria	Verlinden B.V.	United States	other	1	1980	5/23/1983	.	.	No	14.4	4.7	.	79 Civ. 1150
Nigeria	Trendtex Trading Corporation	United Kingdom	other	1	11/4/1975	1/13/1977	No	.	No	14.0	14.0	.	[1976] 1 W.L.R. 868 (UK)
Pakistan	Unknown (filed by trustee)	United Kingdom	.	1	2000	2/22/2001	.	OCS	.	0.3	.	.	2000 Folio 963 (UK)
Panama	Water Street Bank & Trust Ltd.	United States	fund	1	4/12/1994	2/15/1995	No	Unsuccessful	No	.	.	.	94 Civ. 02609
Panama	Elliott Associates, L.P.	United States	fund	1	7/15/1996	2/6/1998	No	OCS	No	28.7	57.8	57.8	96 Civ. 0551 et al.
Paraguay	Banque de Gestion Prive-SIB	United States	bank	1	11/25/1991	11/18/1992	Yes	OCS	No	20.0	.	20.0	91 Civ. 7952
Peru	Bank of America National Trust & Savings Association, Chase Manhattan, Citibank, et al.	United States	bank	11	3/2/1990	12/15/1994	No	OCS	No	.	1,200.0	.	90 Civ. 01409
Peru	European American Bancorp	United States	bank	1	3/7/1990	12/19/1994	.	OCS	No	.	.	.	90 Civ. 01505
Peru	Financial Overseas Holding Ltd.	United States	fund	1	3/8/1990	12/15/1994	No	OCS	No	.	.	.	90 Civ. 01540
Peru	Bankers Trust Company	United States	bank	1	3/9/1990	12/19/1994	No	OCS	No	.	.	.	90 Civ. 01571
Peru	Morgan Guaranty Trust Company of NY	United States	bank	1	3/15/1990	12/15/1994	No	OCS	No	.	.	.	90 Civ. 01778 et al.
Peru	Wells Fargo Bank et al.	United States	bank	4	3/15/1990	12/19/1994	No	OCS	No	.	.	.	90 Civ. 01784
Peru	Mellon Bank, N.A.	United States	bank	1	3/23/1990	5/19/1994	No	OCS	No	.	.	.	90 Civ. 02010
Peru	American Home Assurance Company et al.	United States	other	10	3/30/1990	12/7/1990	No	OCS	No	.	.	.	90 Civ. 00748
Peru	International Commercial Bank LC	United States	.	1	5/18/1990	12/15/1994	No	OCS	No	.	.	.	90 Civ. 03416
Peru	American Security Bank, N.A.	United States	bank	1	7/20/1990	10/27/1992	No	OCS	No	.	.	.	90 Civ. 01692
Peru	Pravin Banker Associates Ltd.	United States	fund	1	1/7/1993	5/2/2000	No	Satisfied	No	1.4	2.2	2.2	93 Civ. 00094
Peru	Banco Cafetero (Panama) S.A.	United States	bank	1	5/16/1994	9/27/1999	No	Satisfied	No	5.0	7.2	8.0	94 Civ. 03569
Peru	Elliott Associates, L.P.	United States	fund	1	10/21/1996	10/23/2000	Yes	OCS	Yes	20.7	.	55.7	96 Civ. 07916 et al.
Poland	Water Street Bank & Trust Ltd.	United States	fund	1	6/4/1994	3/15/1995	No	OCS	No	3.7	.	.	94 Civ. 02428 et al.
Sierra Leone	Phillip Brothers	United Kingdom	other	1	8/3/1989	11/24/1994	Yes	.	No	12.0	12.0	8.9	[1994] 1 Lloyd's Rep. 111 (UK)
Sierra Leone	J&S Franklin Ltd.	United Kingdom	other	1	2002	2004	.	OCS	No	1.1	3.4	3.4	.
Sierra Leone	UMARCO	United Kingdom	other	1	2002	2008	No	OCS	No	0.6	0.6	0.6	.
Sierra Leone	Industrie Biscotti	United Kingdom	other	1	2003	2009	.	.	No	9.0	9.0	.	.
Somalia	Transamerican Steamship Corporation	United States	other	1	7/22/1982	5/8/1986	.	.	No	.	.	.	82 Civ. 2043
Sudan	Habib Bank Ltd.	United Kingdom	bank	1	6/6/2003	6/13/2006	.	.	No	14.1	101.9	101.9	[2006] EWHC 1767 (Comm) (UK)
Sudan	MFK Corporation Ltd., Yugoimport SDPR J.P.	United States	fund	2	2/27/2004	7/19/2006	No	.	No	29.2	57.5	57.5	04 Civ. 00326

continues on next page

Table 7: List of creditor litigation cases filed 1976-2010 (continued)

Debtor country	Plaintiff	Primary jurisdiction	Creditor type	No. plaintiffs	Start date	End date	Attachment attempt	Outcome	Other jurisdictions	Face value (US\$ m)	Amount claimed (US\$ m)	Judgment amount (US\$ m)	Case citation
Uganda	TransRoad Ltd.	United Kingdom	other	1	1988	11/2003	No	OCS	Yes	4.0	16.7	16.7	[1998] UGSC 7 (Uganda)
Uganda	Simba International Inc., Emco Works Ltd.	United States	.	2	8/14/1997	10/2/1997	No	OCS	No	.	.	.	97 Civ. 01834
Uganda	USCB Inc.	United States	other	1	6/9/2000	3/17/2003	No	.	No	.	.	.	00 Civ. 01345
Vietnam	Abbotsford Investments	United Kingdom	fund	1	7/1995	1/24/1996	No	OCS	No	1.5	1.5	.	.
Yemen	Cardinal Financial Investment Corporation	United Kingdom	fund	1	2000	7/2001	Yes	OCS	Yes	8.2	8.2	2.7	[2000] EWCA Civ 266, [2001] All ER (D) 355 (UK)
Zambia	Soundview Shipping Ltd.	United States	other	1	7/13/1989	10/19/1990	No	Unsuccessful	No	.	.	.	89 Civ. 02008
Zambia	International Aircraft Parts Inc.	United States	other	1	2/17/1993	10/26/1993	No	Unsuccessful	No	.	.	.	93 Civ. 00664
Zambia	Camdex International Ltd.	United Kingdom	fund	1	5/26/1995	6/5/1997	Yes	OCS	No	61.5	120.0	120.0	96 Civ. 07034
Zambia	Plenum Financial and Investments Ltd.	United States	fund	1	9/21/1995	6/14/1996	Yes	OCS	Yes	.	.	.	95 Civ. 08350
Zambia	AN International Bank PLC	United Kingdom	bank	1	8/30/1996	5/23/1997	Yes	.	No	.	19.0	19.0	.
Zambia	Expripter International Bank NV	United States	fund	1	1/28/1997	12/3/1998	.	OCS	Yes	.	.	.	97 Civ. 00648
Zambia	Barbados Trust Company Ltd.	United Kingdom	fund	1	1/30/2004	2/27/2007	No	Unsuccessful	No	0.8	3.6	.	[2006] EWHC 222 (Comm) (UK)
Zambia	Connecticut Bank of Commerce	United States	bank	1	2005	2007	.	.	No	0.9	0.3	0.3	.
Zambia	Donegal International Ltd.	United Kingdom	fund	1	3/8/2005	2007	Yes	OCS	Yes	15.0	55.0	15.0	[2007] EWHC 197 (Comm.) (UK)

This table shows the list of creditor lawsuits filed between 1976 and 2010, organized by plaintiff-defendant pairs. "Primary jurisdiction" is classified according to where the primary case was conducted, i.e. where the subject matter was tried, irrespective of potential further proceedings. The "creditor type" reflects the primary business activity of the plaintiff. "No. plaintiffs" counts the number of investors participating in the lawsuit. "Start date" denotes the date when the plaintiff's action was filed with the court. "End date" refers to the last substantive action in the lawsuit, such as a confirmation of payment or final dismissal. "Attachment attempts" record if the plaintiff filed motions for enforcement on debtor assets, injunctions on payments, etc. "Outcome" reports the final outcome of cases, distinguishing between out-of-court settlements (OCS), voluntary dismissals of the case, satisfaction of judgment, or rejections/discontinuations of the case. "Face value" gives the nominal value of the debt under dispute in current US\$, without accrued or past due interest or principal, penalties, legal costs etc. "Amount claimed" reports the damage as reported by the investor, which can include penalties, legal expenses, etc. "Judgment amount" refers to the damage as determined by the final judgment. "Case citation" includes, as applicable, the docket number of the case or legal citation of final judgment.

Table 8: Summary statistics of variables used in the regressions

Variable	Mean	Min.	Max.	Std. Dev.	No. Obs.	Source
Sovereign bond access (dummy)	0.13	0.00	1.00	0.33	4,092	Dealogic
Sovereign debt (bonds and loans) access (dummy)	0.26	0.00	1.00	0.44	4,092	Dealogic
Sovereign debt issuance to GDP (%)	0.64	0.00	72.66	2.53	3,707	Dealogic
Corporate bond access (dummy)	0.39	0.00	1.00	0.49	4,092	Dealogic
Domestic bonds/Total bonds issued (%)	0.28	0.00	1.00	0.42	646	Dealogic, Bloomberg
Any litigation (dummy)	0.06	0.00	1.00	0.24	4,092	New dataset
Litigation/GDP (%)	0.11	0.00	39.06	1.12	3,708	New dataset
Attachment attempt (dummy)	0.03	0.00	1.00	0.18	4,092	New dataset
Default (ongoing)	0.16	0.00	1.00	0.36	4,092	Cruces and Trebesch (2013)
Post-default time (3 years)	0.06	0.00	1.00	0.23	4,092	Cruces and Trebesch (2013)
Haircut size	8.94	-9.80	97.00	23.76	4,092	Cruces and Trebesch (2013)
GDP/capita (log)	7.08	-1.25	11.37	1.33	3,545	World Bank WDI
Debt/GDP (%)	68.35	0.61	2,092.92	67.25	3,009	Abbas et al. (2010)
Reserves/imports (%)	49.53	0.00	589.60	49.84	2,775	World Bank WDI
Short term/total debt (%)	0.22	0.00	11.85	0.54	2,903	World Bank WDI
GDP growth (real, yoy, %)	3.46	-51.03	106.28	6.83	3,401	World Bank WDI
Trade/GDP (%)	63.93	4.95	986.65	49.76	3,291	World Bank WDI
IMF program (start)	0.15	0.00	1.00	0.36	4,092	IMF
Political risk (ICRG)	58.79	8.50	89.12	13.34	2,613	ICRG
II rating residual	0.00	-24.72	41.61	9.62	1,520	Institutional Investor

Table 9: Alternative estimators

This table reports results from robustness checks mitigating concerns about the econometric specification of the benchmark model. Column (1) shows the implied average marginal effects of a probit model. Column (2) presents the benchmark model again, but with bootstrapped standard errors based on 1,000 draws. Column (3) shows the results of median regression (without country fixed effects), and column (4) presents the bootstrapped standard errors of this median regression model.

Dependent variable: debt issuance (dummy)				
	(1)	(2)	(3)	(4)
	Probit (marginal effects)	Boots- trapped SE	Median re- gression	Median reg./ boot- strapped SE
Attachment attempt	-0.202*** (0.076)	-0.240*** (0.062)	-0.259*** (0.057)	-0.259*** (0.048)
Default (ongoing)	-0.191*** (0.045)	-0.230*** (0.036)	-0.233*** (0.036)	-0.233*** (0.042)
Post default (3 years)	-0.073** (0.036)	-0.102*** (0.036)	-0.097** (0.043)	-0.097** (0.047)
L.GDP/capita (log)	0.158*** (0.043)	0.254*** (0.037)	0.269*** (0.014)	0.269*** (0.023)
L.Debt/GDP	-0.068* (0.041)	0.002 (0.025)	0.015 (0.012)	0.015 (0.017)
L.Reserves/Imports	-0.091*** (0.028)	-0.102** (0.042)	-0.181*** (0.026)	-0.181*** (0.064)
L.Short term/total debt	-8.322*** (3.151)	-12.332** (5.655)	6.131 (3.732)	6.131 (7.820)
L.GDP growth (real yoy)	0.307 (0.227)	0.335 (0.238)	0.467* (0.276)	0.467 (0.370)
L.Trade/GDP	-0.209** (0.082)	-0.145* (0.086)	-0.215*** (0.047)	-0.215*** (0.080)
L.IMF program (start)	0.002 (0.023)	-0.009 (0.025)	-0.035 (0.031)	-0.035 (0.035)
L.Political Risk (ICRG)	0.003** (0.002)	0.004*** (0.002)	0.006*** (0.001)	0.006*** (0.002)
Constant		-1.445*** (0.271)	-1.644*** (0.117)	-1.644*** (0.154)
R2	0.10	0.17	0.15	0.15
Obs	1599	1599	1599	1599
No. Countries	80	80	80	80
$P > \chi$	0.00	0.00	0.00	0.00

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix 1 Case studies on disruption of international trade

This Appendix summarizes case studies on attachment attempts on commodities and other exports. The narratives are intended as complementing those on bond market access in the main part of the paper. The cases here illustrate that the same type of legal tactics that work in international capital markets can also be consequential in international goods markets. Specifically, in these and other examples, creditors succeeded in attaching export proceeds on oil and copper, sometimes for more than a year.

- **Republic of Congo 2006-2007:** Since the early 2000s, several US-based debt funds sued the Republic of Congo for repayment on its defaulted debt and launched a series of attachment attempts on its crude oil exports, Congo's most important source of foreign exchange. Partly 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 seizures. 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.⁸³

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, April 5, 2006; Platts, April 7, 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.⁸⁴ 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 finally agreed to out of court settlements with FG Hemisphere, Walker International, Kensington and other litigating creditors. The payment amounts remained confidential, but the terms are estimated to have been far better than the 85.8% haircut faced by creditors who agreed to participate in Congo's 2007 buyback, which was administered and financed by the World Bank's Debt Reduction Facility.⁸⁵

- **Ecuador 1993:** Ecuador is a second case in which litigating creditors successfully attached revenues from a 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 (). The seizure ended when Ecuador settled with Weston in late July 1993.⁸⁶ 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 on October 25 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.

⁸³See Global Insight Daily Analysis, "Congo-Brazzaville Admits to Hiding Oil Revenues", January 23, 2006.

⁸⁴See 05 Civ. 5101 S.D.N.Y.; Euromoney, "How litigation became a priceless commodity", September 6, 2006.

⁸⁵See The Sunday Times, "Vultures' expose corruption", June 15, 2008; American Lawyer, "Vulture Culture; Kensington International litigated around the world to collect on bad debt from the Congo Republic", September 1, 2008.

⁸⁶See S.D.N.Y., 93 Civ. 2698; Reuters, "Ecuador says some assets frozen by Swiss creditor", April 30, 1993; LDC Debt Report, "Suits Against Ecuador, Peru Could Shake Up Debt Market", August 2, 1993.

- **Zambia 1995-1997:** In Zambia during the mid-1990s, a litigating creditor successfully seized revenues from the country's copper exports. 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, May 24, 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), January 17, 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, June 4, 1997).
- **Iraq 2003:** A further compelling case is Iraq after 2003, when the country faced lawsuits in US courts on defaulted Saddam-era debt. The threat of export seizures was perceived as so severe that the UN Security Council issued a special resolution to make Iraq's oil shipments immune from "any form of attachment, garnishment, or execution" (UN Resolution 1483, May 22, 2003). For more details see [Buchheit, Gulati and Tirado, 2013](#).

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 are not always based on official court documents (our main source in the rest of the paper), but also on 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:

- The biggest litigation success undoubtedly occurred in *Argentina in 2016*, when more than \$10 bn were transferred to holdout creditors. This was nearly three times the original principal of the defaulted bonds, because the settlement included a large chunk of past due interest, plus penalty interest, and legal fees. According to data released to the court by the Argentine government, the return on principal was more than 300% for the biggest hedge funds, in some cases approaching 1000%, depending on which bonds the funds held. The highest returns were on floating rate notes (FRANs) for which interest payments were linked to the market yields of other Argentine bonds. When the FRANs matured in 2005, the interest rate got frozen at 101% annually and the defaulted notes continued to accrue interest at those rates afterwards. As a result, Argentina settled at more than 10 times the original principal. The two main holders of defaulted FRANs were *Elliott* (through NML) and Bracebridge which received \$1,194 bn and \$1,146 bn for FRANs with a principal of just \$132 m and \$120 m, respectively. That is a more than 900% return and does not account for the fact that the bonds were bought at a deep discount. Elliott held many other types of bonds as well, amounting to a principal sum of \$617 m, for which it received a total settlement amount of \$2.42 bn. Much of Elliott's debt was bought in the early phase of the Argentine default in 2001 and 2002 when bonds were trading between 20 and 30 cents on the dollar ([Guzman \(2016\)](#) estimates that Elliott paid a total of \$177 m in secondary markets). Accordingly, the Wall Street Journal estimates that Elliott made 10 to 15 times its original investment, even after taking into account more than \$100 m legal and other expenses.⁸⁷ We arrive at a similar range, when combining the purchasing dates and amounts partially reported in court documents with bond prices of the time and so does [Guzman \(2016\)](#), who computes a total return of 1270% for Elliott. Other funds, such as Aurelius or Blue Angel also achieved exceptional returns.
- A smaller but similarly delayed litigation success was achieved by *Kensington*, which in the 1990s bought \$13.5 m of defaulted loans 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 \$56 m. The case was continued in the US, and in February 2008, Kensington reported the judgment as fully satisfied (03 Civ. 4578, Pacer History). This is a gross return of more than 400%
- In 1995, *Elliott* purchased \$28.8 m of *Panamaian* debt for \$17.6 m. In 1996, it filed suit in New York and was awarded a final judgment of \$26.3 m. Court documents confirm that Panama paid this sum in full (96 Civ. 5514, Pacer), while [EMTA \(2009\)](#) and the financial press reports a settlement of \$71 m, which likely includes accrued and post-default interest. This implies a gross return between 60% and 300%.
- In early 1996, *Elliott* bought *Peruvian* debt with face value of \$20.7 m for \$11.3 m. (96 Civ. 7917, August 7, 1998). The final judgment amounted to \$56.3 m (96 Civ. 7917, September 9, 2000). Facing impending attachments, Peru settled at the full amount ([Sturzenegger and Zettelmeyer, 2006](#)), a number publicly confirmed by the prime minister.⁸⁸ This implies a gross return of 400%.

⁸⁷Wall Street Journal, "After 15 Years, a Bond Trade Now Pays Off," March 2, 2017.

⁸⁸Reuters, "Peru PM Salas says Elliott row being resolved", September 29, 2000.

- In 1996, *Abbotsford Investment* bought \$1.5 m of defaulted sovereign loans issued by *Vietnam*, which traded at 60-75 cents on the dollar.⁸⁹ Reportedly, Vietnam settled out of court at 100 cents on the dollar, thereby upsetting the London Club negotiations.⁹⁰ These figures imply a gross return of between 33% and 40%.
- In 2000, *Cardinal* Financial Investment Corporation bought promissory notes issued by *Yemen* with a face value of \$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 \$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 \$35.9 m and in 2002, FG was awarded a judgment of \$151.9 m (01 Civ. 8700, Pacer History). In April 2007, FG reported full satisfaction (01 Civ. 8700, April 12, 2007), implying a gross return of more than 400%.

(ii) Selected litigation failures:

- In 1986, *LNC Investment* bought bank loans by *Nicaragua* with face value totaling \$26.3 m for a market value of \$1.1 m (96 Civ. 6360, February 19, 1999). LNC filed suit in 1996 and obtained a judgment over \$86.9m in 1999 (96 Civ. 6360, Pacer History). Ten years later, the case was settled under Nicaragua'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 gross return of 7% after 20 years of litigation.
- In the early 2000s, *SIFIDA and FH International* bought *Liberian* debt with a face value of about \$6.5 m. The creditors filed suit in New York in 2002 and soon thereafter, a judgment of \$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). The settlement was no better than the HIPC buy back terms of 3% of face value, despite 8 years of litigation.⁹¹
- After *Argentina's* default of 2001, *Vegas Game*, an Italian corporation, bought Argentine bonds worth \$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).

⁸⁹Financial Times, "Offer Saves Vietnam Assets", January 25, 1996; Far Eastern Economic Review, "Here Comes Trouble", December 14, 1995.

⁹⁰Dow Jones Newswires, "Lawsuit Seen Weakening Vietnam's Position In Debt Talks", April 12, 1996.

⁹¹See e.g. BBC, "Liberia agrees deal with 'vulture funds'", November 23, 2010.

Appendix 3 How can litigation occur in equilibrium?

This Appendix rationalizes how creditor litigation can be the result of optimal decisions by governments and creditors. Why do we observe litigation at all, when governments can anticipate “legal punishment” by creditors? One reason why litigation can occur in equilibrium is that governments can only make a single take-it-or-leave-it offer to all creditors at the same time. If there is heterogeneity among the creditors, some of them will find it optimal to go to court, while others will accept the restructuring. This section gives a simple formulation of our argument, building on earlier work, in particular Cooter and Rubinfeld (1989); Spier (2007); Bolton and Jeanne (2007); and Bolton and Jeanne (2009).

Suppose a government owes an aggregate debt of D . For some exogenous reason, e.g. a negative income shock, the government defaults and needs to restructure its debt, which implies an exchange offer to reduce the outstanding debt by a haircut $h \in [0, 1]$ to $(1 - h)D$. Crucially, the government can only make *one unique* offer h to *all* creditors, and not discriminate among them by offering individual haircuts.

The government proposes the haircut to n distinct creditors. These can either accept the haircut or they can reject and try to recover the full claim by legal means. Litigating involves legal costs, which differ across creditors. For instance, specialized distressed investors might have more experience in suing debtor governments and in locating attachable assets, and thus face lower costs of rejecting the offer. The individual litigation cost is defined as $c_i \in [\underline{c}, \bar{c}]$. $f(c)$ and $F(c)$ describe the density and cumulative distribution functions of c , respectively. Every creditor, denoted by subscript i , holds an identical part of the aggregate debt $d = D/n$.

Accepting the restructuring offer lowers the claim of individual creditors to the recovery value $(1 - h)d$, which is paid with certainty. Rejecting the offer means litigating against the government for full repayment. A lawsuit succeeds with probability $p \in [0, 1]$ to return the full claim d . If the lawsuit fails (probability $(1 - p)$), the creditor receives nothing. Independently of the lawsuit’s outcome, creditors have to pay the litigation cost proportional to their claims, $c_i d$. A creditor thus only goes to court if

$$pd - c_i d \geq (1 - h)d \quad (2)$$

Conditional on h and p , there can be a creditor for which equation (2) holds with equality. This marginal creditor, i^* , is indifferent between litigating and accepting the haircut so that:

$$c_i^* = p - (1 - h) \quad (3)$$

The intuition is that for this marginal creditor, the probability of winning has to exactly offset the loss from accepting the offer, in order to induce him to be indifferent between his two options.

In case $c_i^* < \underline{c}$, it is not optimal for any existing creditor to file suit, resulting in full participation. However, if there is a $c_i^* \geq \underline{c}$ such that equation (3) is fulfilled, there will also be a non-negative share of litigating creditors. This creditor group, with costs smaller than the marginal creditor i^* , is equal to $Prob(c_i \leq c_i^*) = F(c_i^*) \equiv \phi$. Put differently, ϕ is the share of creditors that will reject the restructuring offer and litigate instead, while $(1 - \phi) = Prob(c_i > c_i^*)$ is the share of creditors that accept the haircut.

Litigation is not only costly for creditors, but also inflicts a cost on the government. Besides legal fees, these might result from losing access to international capital markets, delay in crisis resolution, or as a result of asset seizures abroad (see main paper). The government incorporates these costs c_g as well as the creditors’ reaction when choosing the optimal haircut to offer its creditors. Its objective is given by maximizing the available resources:

$$\begin{aligned} \max_h \quad & y - D \left(\underbrace{\int_{\underline{c}}^{c_i^*} f(c)p \, dc}_{\text{Repayment to holdouts}} - \underbrace{\int_{\underline{c}}^{c_i^*} f(c)c_g \, dc}_{\text{Gov't cost of litigation}} - \underbrace{\int_{c_i^*}^{\bar{c}} f(c)(1 - h) \, dc}_{\text{Repayment to participants}} \right) \\ & = y - D(\phi(p + c_g) - (1 - \phi)(1 - h)) \end{aligned} \quad (4)$$

where y denotes the government's exogenous income. The second term in equation (4) represents the combined expected repayments resulting from litigating creditors (consisting of the probability of full repayment plus the litigation expenses) and participating creditors (who accept the haircut).

The cost from litigating creditors is unanimously increasing in the haircut h . This is the result of an increase in the share of holdout creditors ϕ if the offer becomes less attractive. Here, the government wants to *decrease* h , in order to avoid spending money on repaying an increasing share of holdouts.

The cost from repaying participating creditors is characterized by two opposing effects: on the one hand, the government wants to *increase* h in order to maximize its "savings" from repaying less to the participating creditors. But on the other hand, an increase in h will also decrease the share of creditors who accept the haircut ϕ , and thus reduce the share of debt to which the restructuring terms can be applied.

Solving a parametrized version of this problem for the optimal haircut h allows interior solutions in which a non-negative share of creditors litigates in equilibrium.

Appendix 4 Data Appendix

This Appendix describes the construction of our dataset in more detail and shows results showing that our data construction choices do not affect our main results. Section 4.1 discusses our litigation sample and the case selection criteria, section 4.2 describes the data sources of our litigation database, section 4.4 discusses data quality issues in our coding exercise, section 4.3 summarizes the variables used in the estimations, in particular coding conventions, data coverage, and how we deal with missing information, while section 4.5 describes how we construct our main explanatory variables on litigation for the panel dataset.

4.1 Case selection and sample

4.1.1 Case selection

We analyze the universe of lawsuits filed by sovereign debt investors in courts located in the United States, United Kingdom, or international arbitration tribunals in the period 1976 to 2010. The result is a final dataset of 158 cases against 34 countries.

Four criteria define our selection of cases:

- We analyze *lawsuits filed against sovereign governments*. Cases filed against sub-sovereign entities or public companies are only included if the sovereign government has extended a guarantee for the debt, thus assuming the liability and becoming the main defendant in the case.
- We take into account all *cases related to sovereign defaults* between 1975 and 2010. This means that we focus on cases in the context of debt distress, default and restructuring, while we disregard disputes over government liabilities that are unrelated to sovereign debt markets, such as for example procurement bills or unpaid checks by embassies abroad, as well as lawsuits by investors seeking compensation for expropriation.⁹² Our focus on the last four decades also implies that we disregard lawsuits related to historical defaults, for example the defaults on Russian Zarist bonds issued before 1917, or on Chinese and German bonds that have been in default since the 1930s.
- We consider *only cases related to marketable sovereign debt*. This includes all types of borrowing instruments, including bonds, loans, promissory notes, public guarantees, etc. In contrast, we exclude cases where individuals or organizations sue for reparations for misbehavior or perceived foul treatment by a foreign government, such as war crimes or other breaches of national or international law, which can result in financial claims that are not based on sovereign borrowing.
- We focus on *cases filed by hedge funds, banks and other professional investors*. This means that we do not include cases filed by retail investors as most of these cases are based on minor claims, often lack professional legal representation, and the vast majority of these retail cases occurred in the wake of Argentina's 2001/02 default. In the next subsection we discuss this point further and show that including retail cases does not alter our results.

4.1.2 Dealing with retail cases

In total, we identify 83 retail lawsuits filed against defaulting countries in the US or UK, which are not included in our main analysis. Specifically, we identified three cases against Bolivia as well as 80 retail cases against Argentina (of these 13 were class action suits).⁹³ Table A1 lists these cases, the

⁹²One example is the frequently cited *Noga v. Russia*, which goes back to the delivery of foodstuffs to Russia in exchange for oil in 1991. At the same time, we do include a few lawsuits on trade credit, trade payment arrears or letters of credit in a few instances, but only if they were restructured into sovereign debt instruments. 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.

⁹³We also found 13 retail cases against Argentina filed in Italian courts and 648 by investors in Germany (on a total of €270 m in claims). The reason for the high number of individual German cases is that the legal system does not allow for groups or classes filing suit.

involved volumes, and the docket number. Many of the Argentine retail cases involved small sums and were abandoned after the second exchange offer in 2010, but a few class action suits went on and were ultimately settled at favorable terms in 2016. Prior to that we are not aware of any retail lawsuits that were successful.⁹⁴

Removing retail investor lawsuits from the dataset has no substantive effect on our results and the way the litigation variables enter the regression sample. This is because the binary indicator in the cross-country panel for Argentina is positive for all country-year observations with retail investor lawsuits anyway, on account of institutional investors filing suit in parallel. Similarly, for Bolivia, the retail investor lawsuits overlap during the early 1990s with a lawsuit included in the benchmark sample (the retail investor lawsuits continued after the end of the commercial investor case).

The estimation results are therefore virtually unchanged in comparison to the benchmark sample. Column (1) in Table A4 shows the results of our benchmark model when expanding the sample from 158 cases (without retailers) to 241 (with retailers).

4.2 Data sources

4.2.1 Electronic court records

Our main source are administrative electronic court records (dockets). For the United States, we referred to the comprehensive PACER archive for the federal courts, and to the New York State Unified Court System's docket for the state level courts of New York. Given the international nature of sovereign debt claims, disputes with creditors are virtually always tried at the federal level, even if they are initially filed in the state court systems, making PACER the central source.

PACER allows identifying all lawsuits that have been filed, even those cases that are discontinued or resolved through out of court settlements. To broaden the search as widely as possible, we first collected all cases in which any sovereign country (identified as being a UN member state) is named as a party (defendant or plaintiff, the latter such that we also find counter-claims by the government). We then selected those cases dealing with marketable debt of the government using the case selection criteria outlined above.

For the United Kingdom, there is no official administrative electronic court record archive comparable to the US systems. We therefore relied on a broad range of available UK-specific legal databases, including Lexis Nexis UK, Westlaw, Casetrack, Justis, and BAILII, and again searched for all cases in which a sovereign government has been named as defendant or plaintiff.

4.2.2 Additional databases and previous case collections

To verify the set of cases identified in the official court records and complement the information with data on out of court settlements, we also applied systematic searches in databases of secondary sources. First, we relied on the standard legal database Lexis Nexis, which covers primary sources such as judgments, but also legal commentary. For the legal databases, we applied the following search code:

- COUNTRY w/25 (debt OR bond OR loan) AND (default OR payment OR insolvency OR attachment OR sovereign immunity OR FSIA)

Second, to capture any remaining cases that were not contained in the legal sources described above, we also searched the press database Factiva for news articles covering sovereign debt litigation claims. For the press database we applied the following search code

- 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))

⁹⁴One exception is a small settlement achieved by German investors against Argentina (see Frankfurter Allgemeine Zeitung, April 27, 2005).

Table A1: Retail cases

Retail cases not included in benchmark sample: First named plaintiff (volume in US\$ m), docket number.

Argentina:

Susana Etevob (.), 03 Civ. 01680; Eduardo Andres Franceschi (4.8m), 03 Civ. 04693; Jorge Marcelo Mazzini (8.2m), 03 Civ. 08120; Hernan Lopez Fontana (.), 03 Civ. 08531; Guillermo Franco (.), 03 Civ. 09537; Silvia Seijas (26.8m), 04 Civ. 00400 et al.; Cesar Raul Castro (63.9m), 04 Civ. 00506 et al.; Mario Alberto Cooke (.), 04 Civ. 00508; Elizabeth Andrea Azza (82.3m), 04 Civ. 00937 et al.; Marcelo Eduardo Prima (45.5m), 04 Civ. 01077; Eduardo Puricelli (41.3m), 04 Civ. 02117; Ruben Chorny (2.9m), 04 Civ. 02118; Michelle Colella (4.6m), 04 Civ. 02710; Alessandro Morata (22.2m), 04 Civ. 03314; Vanina Andrea Exposito (0.1m), 04 Civ. 03639; Hector Manuel Moldes (2.6m), 04 Civ. 06137; Maria Fausta Cilli (1.9m), 04 Civ. 06594; Elvira Dagmar Buczat (4.7m), 04 Civ. 07056; Paola Rosa (2.6m), 04 Civ. 07504; Giorgio Scappini (.), 04 Civ. 09788; Agostino Consolini (1.6m), 05 Civ. 00177; Moreno Legnaro (0.8m), 05 Civ. 00178; Maria Consiglia Daho (.), 05 Civ. 01033; Ana Laura Bonvecchi (3m), 05 Civ. 02159; Lino Luis Arrigoni (3m), 05 Civ. 02275; Carlos Alberto Martinez (2.4m), 05 Civ. 02521; Anna Ferri (1.4m), 05 Civ. 02943; Marcelo Ruben Rigueiro (7.9m), 05 Civ. 03089; Luigi Daelli (1m), 05 Civ. 03095; Jorge Bechara (1.7m), 05 Civ. 03825; Osvaldo Lorenzo Sauco (2.2m), 05 Civ. 03955; Carlos Alberto Marangoni (0.2m), 05 Civ. 04128; Jose Strugo (1.3m), 05 Civ. 04149; Massimo Bettoni (.), 05 Civ. 04299; Roberto Fedecostante (2.2m), 05 Civ. 04466; Paolo Lisi (1.2m), 05 Civ. 06002; Laura Rossini (1.6m), 05 Civ. 06200; Diana Klein (4.9m), 05 Civ. 06599; Sergio Lovati (.), 05 Civ. 08195; Emanuele Botti (4.9m), 05 Civ. 08687; Armando Ruben Fazzolari (0.2m), 05 Civ. 09072; Socrate Pasquali (3.1m), 05 Civ. 10636; Marcello Barboni (0m), 06 Civ. 05157; Klaus Wagner (3.5m), 06 Civ. 01091; Jose Pedro Angulo (4.4m), 06 Civ. 01590; Rafael Settin (2.1m), 06 Civ. 03068; Wolfgang Bolland (2.9m), 06 Civ. 03196; Abel Amoroso (1.6m), 06 Civ. 03197; Mohammad Ladjevardian (73.5m), 06 Civ. 03276; Andrea Jacinto Alzugaray (3.5m), 06 Civ. 03976; Josef Schwald (2.2m), 06 Civ. 06032; Renzo Beltramo (21.6m), 06 Civ. 07151; Maria Lauretta Dussault (4.7m), 06 Civ. 13085 et al.; Antonio Forgione (2.2m), 06 Civ. 15171; Patricio Hansen (0.3m), 06 Civ. 15293; Henry Brecher (.), 06 Civ. 15297; Fernando Crostelli (5.8m), 06 Civ. 15300; Hendrik Beyer (6.3m), 07 Civ. 00098; Renato Palladini (5.7m), 07 Civ. 00689; Thomas Herb (0.3m), 07 Civ. 02015 et al.; Pier Luigi Catto (13m), 07 Civ. 00937; Marcella Dolcetti (2.1m), 07 Civ. 02607; Franco Baccanelli (14.4m), 07 Civ. 02788 et al.; Marco Borgra (0.8m), 07 Civ. 05807; Ernst Ritoper (0.3m), 07 Civ. 06426; Alesia Milanese (1.5m), 07 Civ. 07248; Sylvia Dina Fernandez (0.9m), 07 Civ. 07351; Michael Heeb (2.9m), 07 Civ. 10656; Horacio Alberto Crespo (0.9m), 07 Civ. 11457; Rudolf Erb (1.4m), 07 Civ. 11495; Oscar Luis Cavero (.), 07 Civ. 11591; Alejandro Alberto Etcheto (0.9m), 08 Civ. 04902; Helmut Hagemann (0.8m), 08 Civ. 05436; Crista Irene Brandes (2.5m), 08 Civ. 06625; Michael Schmidt (8.4m), 09 Civ. 07059; Oscar Reinaldo Carabajal (0.7m), 09 Civ. 08275; Diocesi Patriarcato di Venezia (.), 10 Civ. 01598; Pablo Alberto Varela (0.3m), 10 Civ. 05338; Otavio Lavaggi (.), 04 Civ. 05068; Ebrahim Tadayon (7m), 06 Civ. 14299.

Bolivia:

David Shapiro (1.4m), 86 Civ. 09935; Steve Hirshon (.), 95 Civ. 01957; Salah Turkmani (0.3m), 97 Civ. 01563.

In a final step, to cross-check the information retrieved in the legal databases, we drew on the case details provided in policy reports and the academic literature, in particular the annual litigation survey conducted by the IMF and World Bank in highly indebted poor countries (HIPCs) since 2000 (see IMF and World Bank, 2000-2011), as well as the case lists by Buchheit (1999), Singh (2003), IMF (2004), Sturzenegger and Zettelmeyer (2006), EMTA (2009), IIF (2009) and Trebesch (2010); Enderlein, Trebesch and von Daniels (2012).

4.3 Variable definitions

The following paragraphs discuss (i) how we coded the main variables of our litigation dataset, (ii) the number of observations per variable, and (iii) how we deal with missing observations.

Debtor and plaintiff: We retrieved all debtor and plaintiff names as they appear in the court documents. For the purpose of our database, we followed the IMF/World Bank naming convention to standardize country names. Plaintiff names are not adjusted except where abbreviated. For at least 30 cases, a single lawsuit is filed by multiple creditors. In those cases, we used the first plaintiff in alphabetical order.

Start and end year of litigation: For 130 of the 158 cases we have the precise start and end date of the legal dispute from the court records. The start date is defined as the date when the plaintiff files the complaint with the court. The end date is the date of the final judgment or the last administrative filing. For the 28 cases for which we lack precise information on either the start and/or end date we use the best approximation available, namely the first (last) date for which we know that the lawsuit was pending. This information was also taken from court documents (e.g. when mentioning previous proceedings) and in rare cases also from press articles and policy reports. The descriptive statistics on the start and end dates are thus based on the full 158 cases.

Jurisdiction: In at least 25 cases (or 16% of all) the same plaintiff filed suit in more than one jurisdiction. These cases are counted as one observation to avoid double-counting.

Attachment attempts: We construct a binary indicator for attachment attempts for each lawsuit. The dummy is one whenever creditors entered a motion for an attachment or garnishment order and attempted to seize sovereign assets abroad. We have information on this variable for 134 cases. The descriptive statistics are based on these 134 observations.

Amounts: We collect information on the following measures of the financial volume of a lawsuit. Cases where the disputed claims are denominated in currencies other than US\$ are converted using IMF IFS exchange rates (current at the time of filing lawsuit):

- *Face value:* We have information on the face value of amounts under dispute for 111 cases, meaning the face value of the debt claims upon which the litigation is based. This is the most reliable and conservative measure of a lawsuit's volume, since components that are time-varying or subject to a discretionary legal decision are disregarded - in particular accruing interest, penalty interest, and fees. Using face values is also the most conservative choice and likely to underestimate the true amounts under dispute, which can be a multiple of face values. In Argentina, for example, \$2.9 bn face value were ultimately settled in 2016 at nearly \$10 bn.
- *Judgment amount:* For 91 cases, we could gather data on judgment amounts awarded in the final judgment, including variable components such as accrued or penalty interest. This information is noisier than the face value amounts since courts use various definitions when reporting judgment amounts, sometimes with fees and penalty interest, sometimes without. We nevertheless report these numbers for reasons of completeness. The judgment amounts can be interpreted as an upper bound for the amounts actually paid in out-of-court settlements, which are typically unavailable.

- *Amount claimed*: For 65 cases, we could also collect data on the amount creditors claimed in court. These are the least reliable measure of the volume of disputed debt, since they include entitlements that can be rejected as unfounded, such as penalties or compensation interest. Moreover, the claimed amounts can change over time, for instance, due to accruing interest. Nevertheless, judgment and claimed amounts are closely related in many cases.

To maximize the number of observations, we consolidate the information on amounts using the following hierarchy. As baseline, we use the face value of the debt whenever available (111 cases). If this is not the case we use the judgment amount instead (adding information for 19 cases) or, in exceptional cases also the amount claimed by the creditor (adding another 2 cases). This leads to 132 out of 158 cases for which we have information on amounts under dispute.

The descriptive statistics are based on these 132 cases, while in the regressions, we replace the volume variable (litigation/GDP) as zero (see the discussion below on “dealing with missing information”). The results with the litigation volume as main independent variable are very similar when using only the 111 cases for which we have face value amounts, i.e. dropping the cases with missing face value observations.

Case outcomes For all 158 cases, we classify case outcomes into four categories. These categories are standard and also used in related work, e.g. [Sturzenegger and Zettelmeyer \(2006\)](#) and by the [IMF and World Bank \(2000-2011\)](#). While our sample ends in 2010, we tracked the outcome of each case still pending in end-2010 until the end of 2016:

- *Judgment satisfied*: refers to cases in which the sovereign fully satisfied the judgment of the court, meaning that the full judgment amount was transferred and the court records show an entry for “satisfaction of judgment”. These cases can be interpreted as outright debt enforcement in court.
- *Out-of-court settlement*: This refers to cases where litigating creditors and sovereign agree to settle at terms usually unknown to the court. The court records then show an entry for a “stipulation and dismissal”. These cases can be interpreted as indirect debt enforcement in court.
- *Unsuccessful*: This refers to cases in which the litigation was unsuccessful for the plaintiff, meaning that no judgment or attachment order was reached, or that the court records show that the case was “dismissed”. This means that no transfers were made from sovereign to creditor. These cases can be interpreted as failed enforcement in court.
- *Pending*: This refers to cases which were still pending as of end-2016 and the final outcome remained unresolved.

Lawyers of plaintiff and defendant: We code the lawyers of plaintiff and defendant as they appear in the court documents. There is a large concentration of law firms, but only on the defendant side. In 61% of the 116 cases for which we have information the defending sovereign, the law firm Cleary, Gottlieb, Steen and Hamilton had been hired. On the creditor side, law firms are much more dispersed. The three most popular law firms, Dechert, Shearman Sterling, and Paul Weiss, each account for less than 5% of the 109 cases for which we have this information.

Type of creditor: For 148 cases, we have information on the type of creditor filing suit - either from the plaintiff’s complaint, in which a description of the entity filing suit is usually included, or from the first judgment describing the facts of the case. For a few cases we also consult Bloomberg Company Lookup (for public companies), and the plaintiff’s website to code this variable. Specifically, we categorize plaintiffs into one of three types:

- *Bank*: An entity described by the court as a banking institution, or which self-describes as a bank in the proceedings.
- *Fund*: Companies described by the court or according to self-representation as money-managing investment firms.

- *Other*: Describes other companies including insurance companies or those with a primary business activity outside of financial markets. This includes especially firms active in (commodity) trade, which litigate on the basis of promissory notes or letters of credit.

4.4 Data quality index

While we are confident about the sources and coding approach, some cases, especially against low-income countries, are hard to code. To be transparent about the quality and reliability of the data we therefore coded a data quality index for each case. This index is the sum of the following four binary indicators:

1. Start and end date available exactly (yes/no): Takes value 1 if we observe the precise start and end date of the lawsuit on a daily basis. For cases in which we observe these dates only at a monthly or annual level (or not at all), this indicator takes the value 0.
2. Amount available (yes/no): Takes value 1 if we observe the amount under litigation, and 0 otherwise.
3. Court documents available (yes/no): Takes value 1 if we could retrieve the original court documents, meaning the Pacer records (for US cases), or the complaint and/or judgment. If court documents are not available and the coding is based on secondary sources, this indicator is 0.
4. Multiple sources (yes/no): Takes value 1 if we have more than 1 source to corroborate our coding, and 0 if we rely on a single source only.

The resulting index ranges from 0 to 4, although all cases have a value of at least 1. The average score is 3.6, with a median of 4. Of the 158 cases in our sample, 105 cases have a score of 4, 43 have a score of 3, and only 10 have a score of 1 or 2. Table A2 presents summary statistics of the data quality index over time. The average data quality is relatively stable throughout the sample, with more variation in the 2000s due to a number of cases brought against poor and highly indebted countries for which we lack comprehensive court documentation and/or data on precise start- and end dates.

Table A2: Data quality index over time

Table

Decade of filing	Mean	Min.	Max.	SD	No. Obs
1970	3.50	3	4	0.71	2
1980	3.42	3	4	0.51	12
1990	3.54	2	4	0.62	61
2000	3.65	1	4	0.69	83
Total	3.59	1	4	0.65	158

To further address concerns about data quality we conduct a robustness check that drops all cases with data quality scores of 1 or 2 only. Specifically, in the panel regressions, we treat the 13 country-year observations with low data quality as non-existent, i.e. we code the litigation variables as zero. Column (2) of Table A4 shows the resulting estimation. The coefficients are almost identical to the benchmark result.

4.5 Preparing the data analysis

4.5.1 Linking lawsuits to defaults and restructurings

For Figure 4 we link each of the 158 lawsuits to a default or restructuring event using the case information in the official documents and on the debt instrument under litigation. To identify debt crisis events, we rely on two sources. First, the updated list by [Cruces and Trebesch \(2013\)](#), which covers all 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. In addition, the lists by [Standard & Poor's \(2006, 2011\)](#) covers cases of government defaults without differentiating between periods of

missed payments and debt renegotiations. For our purposes, this is helpful in case countries did not complete a debt restructuring within our sample period.

For 130 cases a restructuring had been concluded by 2010 (the end of our sample period) so it is straightforward to construct the share of debt under litigation. For the remaining 28 cases this is not the case, since their default was ongoing as of 2010 and had not (yet) resulted in a debt restructuring. Specifically, these cases of long-delayed debt renegotiations include the following poor and highly indebted countries: Zambia (6 lawsuits), Chad (1 case), the Democratic Republic of Congo (5), the Republic of Congo (3), Gambia (1), Niger (1), Sudan (2), Sierra Leone (4), Somalia (1), and Uganda (3), amounting to 28 in total. We deal with these poor country cases by dropping them from Figure 4.

In the large majority of cases, the timing of litigation, default and restructurings are closely linked. The median difference between the year of restructuring and start year of a related lawsuit is 0.5 years. In few cases, the start of litigation deviates significantly from the date of the related restructuring. An extreme example is Iraq, which defaulted in 1990 and only restructured in 2006. Our dataset contains a lawsuit by Bank of New York filed in 1992 (92 Civ. 5563), so we link it to the 1990-2006 default and, accordingly, to the 2006 restructuring. In other cases the defaults based on which creditors file suit date back years. For example, US hedge fund purchased restructured loans by Nicaragua in 1986, but filed a lawsuit only ten years later, in 1996 (96 Civ. 6360). Our main results are robust to excluding outlier cases where restructuring and start lawsuit deviate by more than ten years (in our benchmark regression model, the coefficient on the attachment indicator even increases marginally in size). We keep these cases in our benchmark sample to keep it as representative as possible of the underlying case universe.

4.5.2 Main explanatory variables: definition and missing data

This subsection briefly summarizes the main explanatory variables used in the regressions:

- The indicator on ***any litigation*** is 1 in those years in which a sovereign faces one or more pending creditor lawsuits. To construct this variable we use the start and end dates of each case and collapse these at a sovereign-year level. As explained, for 28 cases, we lack certainty on the exact start and/or end year. In those cases, we use the first/last year with any legal proceedings in the records. We therefore have no missing data in this variable, but introduce a measurement error from only observing the lower bound of the “true” duration of these lawsuits. The results are generally stable when ignoring the cases for which we lack exact duration data.
- The variable litigation volume as a share of GDP (***litigation/GDP***) is constructed by using the available information on case amounts (see Section 4.3) and then sum the amounts at a country-year level. As explained above, for the 26 cases in which we do not observe the amount. We set the variable to zero. In a last step, we divide this amount by the debtor country’s nominal GDP in that year using World Bank WDI data.
- The indicator ***attachment attempt*** is coded as 1 if one or more creditor attempt to seize assets of the respective sovereign. The definition is similar to the litigation dummy in that we collapse the start and end date of the lawsuit on a sovereign-year level, but only count cases in which an attachment was attempted. We observe the variable for 134 cases.

The regressions are based on panel from 1980-2010 covering 132 countries, thus resulting in 4,092 total observations (Table A3 lists the countries, with the 80 countries with observations on all main control variables included in the benchmark regression sample highlighted in bold).

Our three explanatory variables enter this sample as follows. For countries and years without litigation the three litigation variables are set to zero. In contrast, for all country-year observations with pending legal disputes the litigation variables enter as defined above, except when information on explanatory measures was missing (see the next subsection).

Dealing with missing information: As discussed, we lack information on attachment attempts and amounts under dispute (*litigation/GDP*) for a small subset of the 158 cases. We deal with this challenge as follows. Our descriptive statistics on attachment attempts and amounts include only the

Table A3: Country sample

Countries included (bold countries with sufficient observations for regression)

Afghanistan, **Albania**, **Algeria**, **Angola**, **Argentina**, **Armenia**, **Azerbaijan**, **Bangladesh**, **Belarus**, Benin, **Bolivia**, Bosnia and Herzegovina, **Botswana**, **Brazil**, **Bulgaria**, **Burkina Faso**, Burundi, Cambodia, **Cameroon**, Central African Republic, Chad, **Chile**, **China**, **Colombia**, **Congo**, **Costa Rica**, **Cote d'Ivoire**, Croatia, Cuba, Czech Republic, Democratic Republic of the Congo, **Dominican Republic**, **Ecuador**, **Egypt**, **El Salvador**, Eritrea, Estonia, **Ethiopia**, **Gabon**, **Gambia**, Georgia, **Ghana**, **Guatemala**, **Guinea**, Guinea-Bissau, **Haiti**, **Honduras**, Hong Kong, Hungary, **India**, **Indonesia**, **Iran**, Iraq, Israel, **Jamaica**, **Jordan**, **Kazakhstan**, **Kenya**, Kuwait, Kyrgyz Republic, Laos, Latvia, **Lebanon**, Lesotho, **Liberia**, Libya, **Lithuania**, Macedonia, **Madagascar**, **Malawi**, **Malaysia**, **Mali**, Mauritania, Mauritius, **Mexico**, **Moldova**, **Mongolia**, **Morocco**, **Mozambique**, Myanmar, Namibia, Nepal, **Nicaragua**, **Niger**, **Nigeria**, North Korea, Oman, **Pakistan**, Palestine, **Panama**, **Papua New Guinea**, **Paraguay**, **Peru**, **Philippines**, Poland, Qatar, **Romania**, **Russia**, Rwanda, Saudi Arabia, **Senegal**, Serbia, **Sierra Leone**, Singapore, Slovak Republic, Slovenia, Somalia, **South Africa**, South Korea, **Sri Lanka**, **Sudan**, Swaziland, **Syria**, Taiwan, Tajikistan, **Tanzania**, **Thailand**, **Togo**, Trinidad and Tobago, **Tunisia**, **Turkey**, Turkmenistan, **Uganda**, **Ukraine**, United Arab Emirates, **Uruguay**, Uzbekistan, **Venezuela**, Vietnam, Yemen, **Zambia**, **Zimbabwe**

134 (132) cases for which we have attachment (litigation/GDP) details. In the regressions, however, we replace the variables with zero when missing. This affects 31 country-year observations for the attachment indicator and 39 country-year observations for the litigation/GDP variable.

We check that the replacing missing information on the explanatory variables with zero values is negligible by means of two tests. First, we rerun the regressions by dropping these cases. Column (3) of table A4 shows the results. Dropping all cases with missing details does not have any meaningful impact on the estimated coefficients. Second, we conduct a “worst-case” placebo exercise with regard to the attachment attempt indicator. The potential bias in the estimated coefficient resulting from replacing missing observations with zero depends on the correlation of the true (but unobserved) attachment variable values with the market access variable. The bias in the estimated coefficient would be largest if for the missing cases, the correlation between attachment attempts and market access would be perfectly positive, i.e. the opposite of what we find in the observed sample. We therefore replace the (unobserved) attachment values with 0 when the market access indicator is 0; and whenever the market access indicator is 1, we replace the (unobserved) attachment values with 1. Again, the impact on the estimated coefficient turns out to be negligible (unreported, results available upon request).

Table A4: Robustness of main result to different coding conventions

This table reports robustness checks to different assumptions about the sample selection and variable definition. In column (1), we add 81 cases filed by retail investors, as described in Appendix Section 4.1. In column (2), we only consider cases with a high data quality (index values of 3 or 4), as described in Appendix Section 4.4. Column (3) drops all observations with missing information on the “attachment attempt” indicator, as described in Appendix Section 4.5.

Dependent variable: market access indicator			
	(1) With retail cases	(2) High data quality	(3) No missing values
Attachment attempt	-0.240** (0.103)	-0.238** (0.105)	-0.243** (0.103)
Default (ongoing)	-0.230*** (0.061)	-0.230*** (0.061)	-0.225*** (0.060)
Post default (3 years)	-0.102** (0.047)	-0.102** (0.047)	-0.090** (0.043)
L.GDP/capita (log)	0.254*** (0.050)	0.254*** (0.050)	0.256*** (0.050)
L.Debt/GDP	0.002 (0.014)	0.002 (0.014)	0.004 (0.013)
L.Reserves/Imports	-0.102** (0.048)	-0.102** (0.049)	-0.104** (0.049)
L.Short term/total debt	-12.332* (6.269)	-12.344* (6.267)	-11.619* (6.302)
L.GDP growth (real yoy)	0.335 (0.260)	0.336 (0.260)	0.335 (0.262)
L.Trade/GDP	-0.145 (0.125)	-0.145 (0.125)	-0.144 (0.125)
L.IMF program (start)	-0.009 (0.026)	-0.009 (0.026)	-0.006 (0.026)
L.Political Risk (ICRG)	0.004** (0.002)	0.004** (0.002)	0.004** (0.002)
Constant	-1.374*** (0.448)	-1.374*** (0.448)	-1.384*** (0.451)
R2	0.17	0.17	0.17
Obs	1599	1599	1585
No. Countries	80	80	79

Acknowledgements

The authors gratefully acknowledge financial support from the German Research Foundation (DFG) under the Collaborative Research Center 700. We also benefited from very helpful comments by Laura Alfaro, George-Marios Angeletos, Michael Bayerlein, Charles Blitzer, Patrick Bolton, Chad Bown, Elias Brumm, Lee Buchheit, Davide Cantoni, Russell Cooper, Till Cordes, Aitor Erce, Marcel Fratzscher, Manuel Funke, Anna Gelper, Sebastian Grund, Mitu Gulati, Sebastian Horn, Josefin Meyer, Marcus Miller, Gernot Mueller, Carmen Reinhart, Felix Salmon, Lucie Stoppok, Martin Uribe, Michael Waibel, Aviva Werner, Frank Westermann, Philip Wood, Mark Wright, and Jeromin Zettelmeyer, as well as from participants at the ASSA Meeting in Philadelphia, the NBER Summer Institute (IFM), the EEA Conference in Gothenberg, the CEPR meeting in London, the Government Debt Crises Conference in Geneva, the ECB Global Sovereign Debt Workshop, the IPES meeting in Boston, the RES Annual Conference in London, and at seminars at the ECB, Columbia University as well as Bonn, Osnabrueck, Zurich, and Munich. We thank Inga Karrer, Philipp Nickol, Said Khalid Scharaf and Lilly Schoen for excellent research assistance. Part of this project was conducted while Enderlein was visiting Harvard University, Schumacher was visiting Columbia University, and Trebesch was visiting the IMF. All remaining errors are our own.

Julian Schumacher

European Central Bank, Frankfurt am Main, Germany; email: julian.schumacher@ecb.europa.eu

Christoph Trebesch

Kiel Institute for the World Economy, Kiel, Germany; email: christoph.trebesch@ifw-kiel.de

Henrik Enderlein

Hertie School of Governance, Berlin, Germany; email: enderlein@hertie-school.org

© European Central Bank, 2018

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

All rights reserved. Any reproduction, publication and reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the authors.

This paper can be downloaded without charge from www.ecb.europa.eu, from the [Social Science Research Network electronic library](#) or from [RePEc: Research Papers in Economics](#). Information on all of the papers published in the ECB Working Paper Series can be found on the [ECB's website](#).

ISSN	1725-2806 (pdf)	DOI	10.2866/177790 (pdf)
ISBN	978-92-899-3240-0 (pdf)	EU catalogue No	QB-AR-18-015-EN-N (pdf)