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The Market Reaction to Legal Shocks and their Antidotes:  
Lessons from the Sovereign Debt Market

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*Abstract:*

*In October 2000 a hedge fund holding an unpaid debt claim won an enormous victory against the debtor, the Republic of Peru, through an opportunistic interpretation of the common pari passu clause by a Brussels court. This development was met by charges from policy makers and practitioners that the court's decision (its novel interpretation of the pari passu clause) would lead to a dramatic increase in the risks of holdout litigation faced by sovereign debtors. Over the ensuing years, multiple reform solutions were proposed including the revision of certain contractual terms, the filing of amicus briefs in a key case, and the imposition of an international bankruptcy regime for sovereigns. The question, looking back, that this Article empirically investigates is whether the capital markets actually perceived a significant increase in risk at the time of the October 2000 Brussels court decision. Equally important is whether markets discriminate among competing versions of the pari passu clause based on their relative risks for holdouts. And, to the extent the markets did react to the increase in legal risk, did any of the antidotes that were implemented to reduce the supposed increased holdout risk work? We offer evidence that bond prices did respond to this legal shock, that markets do discriminate based on the relative holdout risk posed by differing forms of the pari passu clause, and provide surprising evidence regarding the efficacy of the government-sponsored antidote, the advent of collective action clauses.*

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## I. Introduction

This Article examines the market reaction to a series of legal events concerning the judicial interpretation of the *pari passu* clause in sovereign debt instruments.<sup>1</sup> More generally, the Article provides insights into the reactions of investors (predominantly financial institutions), issuers (sovereigns), and those who draft bond covenants (lawyers), to unanticipated changes in the judicial interpretation of certain covenant terms.

The first event – the initial shock – occurred in September of 2000, when a Brussels court, ruling in *Elliott v. Peru*<sup>2</sup> (“Elliott”), granted the hedge fund Elliott Associates (“Elliott”) an injunction against Peru, prohibiting it from paying its favored creditors unless pro rata payments were made to all the creditors who ranked *pari passu* according to the terms of their contracts.<sup>3</sup> Concerned that the injunction would force it to default on

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<sup>1</sup> The term *pari passu* is from Latin and means “in equal step.” *Pari passu* terms are ubiquitous in sovereign debt issuances and more generally in cross border transactions. See Lee C. Buchheit & Jeremiah Pam, *The Pari Passu Clause in Sovereign Debt Instruments*, 53 Emory L. J. 869, 871 (2004). Buchheit and Pam, two practicing lawyers in the sovereign debt field, explain at the outset of their article:

Here is a typical formulation of the *pari passu* clause in a modern cross-border credit instrument:

The Notes rank, and will rank, *pari passu* in right of payment with all other present and future unsecured and unsubordinated External Indebtedness of the Issuer.

The Latin phrase *pari passu* means “in equal step” or just “equally.” The phrase *pari passu* was often used in equity jurisprudence to express the ratable interest of parties in the disposition of equitable assets. As explained by an English commentator in 1900:

There is no special virtue in the words “*pari passu*,” “equally” would have the same effect, or any other words showing that the [debt instruments] were intended to stand on the same level footing without preference or priority among themselves, but the words *pari passu* are adopted as a general term well recognized in the administration of assets in courts of equity.

*Id.* (internal citations omitted).

In our dataset of over 300 issuances, every offering document contained a *pari passu* clause. Further, as if to indicate its great importance, a version of the *pari passu* clause often showed up on the cover page of the offering document and most of the time was one of the terms described in the “summary of key terms” section at the front of the offering document. See also Stephen Choi & Mitu Gulati, *Contract as Statute*, 104 Mich. L. Rev. 1129, 1134 & n.12 (2006).

<sup>2</sup> Elliott Associates No. 2000QR92 (Court of Appeals of Brussels, 8<sup>th</sup> Chamber, September 26, 2000).

<sup>3</sup> The “favored” creditors at the time were the holders of Peru’s Brady bonds. These were the creditors who had entered into a restructuring agreement with Peru and taken the Brady instruments in exchange for their old bonds. Only a handful of creditors did not enter the exchange. Elliott was holding some of the paper that was not submitted in that exchange. We are unaware of whether there were other creditors who also

its obligations, Peru settled with the holdouts for \$55 million, a tidy profit in view of the fact that it had earlier purchased the bonds for approximately \$11 million.<sup>4</sup>

*Elliott* was the first instance in which a court had enforced a *pari passu* clause in a sovereign debt instrument, even though such clauses have been a staple of the boilerplate of sovereign debt issues for about a century.<sup>5</sup> The decision had the potential for disrupting the international flow of funds. Prior to *Elliott*, international creditors facing a defaulting sovereign debtor had no legally enforceable options for gaining bargaining power vis-à-vis the debtor or rival holders. *Elliott* changed this.<sup>6</sup> Prior to *Elliott*, the *pari passu* clause seemed largely meaningless and, hence, harmless in the context of sovereign debt instruments. Outside the sovereign debt offering, the *pari passu* clause bars non-proportional payments among creditors in the liquidation of the debtor's estate. Since sovereigns cannot liquidate, it was unclear to even the leading commentators at the time what the function of the *pari passu* clause was in the sovereign context.<sup>7</sup> Now, in the wake of *Elliott*, there was the threat of hedge funds aggressively policing contract

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held out and benefited from Elliott's victory. There have been no news reports indicating that there were others.

<sup>4</sup> For descriptions of the case and the furor it caused, see, e.g., Felix Salmon, *Pari Passu Clause is Threat to Markets*, Euromoney, May 2004 at 148; Charles G. Berry, 'Pari Passu' Means What Now? N.Y. L. J. March 6, 2006; William W. Bratton, *Pari Passu and a Distressed Sovereign's Choices*, 53 Emory L. J. 823 (2004).

<sup>5</sup> For example, the U.K used a version of the clause closely resembling the modern version in its April 16, 1902 issuance of debt (16,000 consols) through the Bank of England. Documents on File at the Morgan Library, New York.

<sup>6</sup> There is a good deal of evidence of market participants characterizing *Elliott Associates* as both unexpected and seismic. See e.g., Farisa Zarin, *How to Sue a Sovereign: The Case of Peru*, Moody's Investors Service, Special Comment, November 2000 (Moody's analyst observing "it turns [the investor's] suit from an academic and avenging 'I told you so' option to a more lethal weapon"); Eric Lindenbaum & Alicia Duram, *Debt Restructurings: Legal Considerations (Impact of Peru's Legal Battle)*, Merrill Lynch Investor Report, Oct. 30, 2000 ("Elliott Associates' successful litigation against Peru . . . importantly set a precedent for the attachment of bond coupons. This could increase the incentive to hold out in debt restructurings.").

<sup>7</sup> See PHILIP R. WOOD, PROJECT FINANCE, SUBORDINATED DEBT AND STATE LOANS 165 (1995); Lee C. Buchheit, *Sub Specie Aeternitis*, Int'l Fin. L. Rev., Dec. 1991 at 11-12.

language and making innovative arguments about the meaning of ambiguous clauses.<sup>8</sup> This occurred because *Elliott* gave the *pari passu* clause legal significance by empowering creditors to invoke the clause as a means for holding up the sovereign's restructuring of its debt. This was a bargaining chip that heretofore was not possessed by the holders of sovereign debt.

*Elliott* caused consternation among government officials and bond market participants. As later argued by the U.S. Treasury, the N.Y. Federal Reserve, and the New York Clearing House<sup>9</sup>, the widespread acceptance of the interpretation of the *pari passu* clause provided by the Brussels court (the "rateable payments" interpretation) would not only exacerbate the classic holdout problem associated with debt, but would wreak havoc with the international flow of funds between countries and their creditors. The rateable payments interpretation would require sovereigns to pay all their creditors on a pro rata basis if it decided to pay any creditor anything. At the very least, the country would have to stand ready to pay off all of its creditors on a pro rata basis if the creditors so desired. Since a debtor nation could be required to pay all creditors if it attempted to pay any one, *pari passu* clauses give every creditor significant power over the sovereign's ability to deal with its creditors on a one-to-one basis.

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<sup>8</sup> A similar paradigm shift has been observed in the corporate bond areas (where also Elliott has been one of the players). See Marcel Kahan & Ed Rock, *Hedge Funds and the Enforcement of Bondholder Rights* \_\_ Northwestern U. L. Rev. \_\_ (forthcoming 2008).

<sup>9</sup> The New York Clearing House is an association of the some of the largest commercial banks in the U.S. including the Bank of America, Citibank and HSBC. For details, see <http://www.theclearinghouse.org/about/board/000215f.php>. The filing of an *amicus* brief disagreeing with Elliott's rateable payments interpretation was potentially important in terms of showing a judge that it was not just the sovereign debtors who thought that Elliott's interpretation was destructive, but also all the major creditors. Senior lawyers at Sullivan & Cromwell, the law firm that does the largest share of work for underwriters doing sovereign issuances, were the authors of the brief for the Clearing House. Brief in *Macrotecnic Int'l Corp. v. Republic of Argentina* (1/12/04) available at [http://www.theclearinghouse.org/reference/amicus\\_curiae/index.php](http://www.theclearinghouse.org/reference/amicus_curiae/index.php)

The ability of any one bondholder to hold up an efficient reorganization of the debt of sovereign issuers injected new risk into these securities. The net effect of enforcing such clauses would be to preclude efficient reorganizations and render repayment more risky because of the reluctance of the debtor to repay anyone unless it was prepared to pay everyone. Presumably, the impediments to efficient reorganizations and the ability of certain bondholders to extract rents from either sovereigns or other bondholders would be priced by capital market participants, resulting in a higher required rate of return on sovereign debt. This, in part, is what we seek to determine in this study.

In an attempt to reduce the uncertainties created by *Elliott*, sovereigns began to adopt a particular type of contractual provision called Collective Action Clauses or CACs.<sup>10</sup> The vast majority of sovereign debt is held by institutions and other large investors around the world. The prior norm in the New York market had been that the payment terms of a bond could only be modified with unanimous approval of the holders of that issue. As a result, each bondholder held a potential veto over any restructuring attempt. This potential veto inherently invites holdouts to engage in strategies of the type successfully employed in *Elliott*. At the time, the U.S. government perceived the inclusion of CACs in sovereign debt instruments to be an antidote to the problems created by *Elliott*. Most CACs replace the unanimity rule with a requirement that only 75% of the holders in principal amount are required to modify the terms of a debt contract. By

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<sup>10</sup> A CAC is a covenant written into a bond contract that allows a pre-specified fraction of the firm's bondholders to alter the payment terms of the contract (principal, interest, and dates of payment); without a CAC, any change in the terms of the indenture agreement must be approved by *all* of the firm's bondholders. Thus, the effect of a CAC is to reduce the holdout problem associated with a unanimity rule and should therefore reduce the spread on sovereign debt. See Anna Gelpern & Mitu Gulati, *Public Symbol in Private Contract: A Case Study* 84 Wash. U. L. Q. 1627 (2006).

dropping the required approval percentage from 100% to 75%, CACs reduce somewhat the opportunity for holdouts to disrupt bond restructurings.

Note, however, that CACs do not directly get at the specific holdout *litigation* problem posed by Elliott's rateable payments argument. *Elliott* in fact creates an ex post problem since its ill-effects occur after a restructuring has begun. CACs instead work to protect against the holdout problem in the restructuring itself in that a single bondholder can no longer hold up a restructuring agreement; with CACs, more than 25% of the holders in principal amount are needed to veto a restructuring. The two problems are related though in that the holdout litigation problem can only occur if a bondholder can avoid being forced into the restructuring. A more significant problem with the CAC "solution" is that the typical CAC applies to only to a single bond issue. A creditor wanting to hold out could still do so by buying bonds from a prior issue by the sovereign that did not contain CACs, refusing to enter the restructuring, and invoking the *pari passu* clause once the post-restructuring payments had begun. For the CAC solution to work effectively, sovereigns would have had to go beyond incorporating CACs into their *new* bonds, as Mexico did in February 2003. They would also have to do an exchange of all their outstanding non CAC bonds for new CAC bonds, thus ameliorating the threat posed by the rateable payments interpretation. Sovereigns though were simply not willing to pursue this course of action, suggesting therefore that including CACs in sovereign debt agreements might not have been the antidote it was anticipated to be, if an antidote at all.<sup>11</sup>

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<sup>11</sup> See William W. Bratton & Mitu Gulati, *Sovereign Debt Reform and the Best Interest of Creditors*, 57 Vand. L. Rev. 1 (2004).

CACs suddenly appeared in sovereign debt contracts in early 2003. CACs were largely unheard of in the U.S. market before 2003, although they had long been used in sovereign bonds issued in the U.K. market. Between 2001 and 2003, the U.S. Treasury, under the stewardship of Undersecretary John Taylor, mounted a campaign to persuade players in the U.S. sovereign debt market to adopt CACs as an antidote to the holdout problem exemplified by cases such as *Elliott*.<sup>12</sup> Beginning in February 2003 with Mexico's adoption of these clauses, sovereigns quickly began adopting CACs – even though practitioners continued to express skepticism as to whether the adoption of these clauses provided a meaningful solution to the holdout problem (it was, some said, a means of appeasing the U.S. government).<sup>13</sup> We offer empirical evidence of the market's assessment of whether CACs impact the riskiness of bonds.

Available data demonstrate the success the U.S. government had with its campaign to encourage the adoption of CACs: among 181 observations before 2003, only 7 (4%) contained a CAC; of the 129 observations after 2003, 111 (86%) included a CAC. (See Table 1 and Figure 1.) The adoption of CACs was explicitly intended as a response to the holdout creditor threat exemplified and amplified by *Elliott*.<sup>14</sup> Thus *Elliott* arguably stimulated the wide adoption of a perceived contract solution (antidote), CACs, to the holdout problem.

A second potential antidote to the uncertainties created by *Elliott* occurred in January of 2004 when the U.S. government announced its position repudiating the

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<sup>12</sup> See Minn. Fed. *Interview With John Taylor*, June 06, 2006 (available at [http://economistsview.typepad.com/economistsview/2006/06/minneapolis\\_fed.html](http://economistsview.typepad.com/economistsview/2006/06/minneapolis_fed.html)) (observing that the drop in spreads occurred in conjunction with the widespread adoption of CACs); see also JOHN TAYLOR, GLOBAL FINANCIAL WARRIORS 129-30 (2008) (characterizing 2003 as the “Year of the Clauses” and one of the big successes of the George Bush Appointed Treasury Team).

<sup>13</sup> See Gelpert & Gulati, *supra* note 10.

<sup>14</sup> *Id.*

wisdom of that decision through *amicus* briefs filed in on-going litigation in New York involving debt issued by Argentina.<sup>15</sup> In these briefs, the U.S. Department of Justice (writing upon the advice of the Treasury Department) and the New York Federal Reserve argued against the rateable payments interpretation of *pari passu* clauses, reasoning that such a construction would exacerbate the holdout problem whenever a sovereign sought to re-negotiate its debt.<sup>16</sup> In light of the fact that the U.S. government rarely intervenes in sovereign debt disputes, and that courts are reputed to take the U.S. Government's views seriously when it does, the filings of the briefs constituted major events.<sup>17</sup> Adding to this, in response to new litigation over the *pari passu* clause in Brussels, the Belgian legislature passed legislation in December 2004 that made it harder for the holdouts to employ the strategy used in *Elliott*.<sup>18</sup>

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<sup>15</sup> Statement of Interest of the United States, 5-6 (Jan. 12, 2004), in *Macrotecnic*, available at [http://www.emta.org/members/US\\_Statement\\_of\\_Interest.pdf](http://www.emta.org/members/US_Statement_of_Interest.pdf); Memorandum of Law of Amicus Curiae, Federal Reserve Bank of New York, 5-6, (Jan. 12, 2004), in *Macrotecnic*, available at: [http://www.emta.org/members/New\\_York\\_Fed\\_Amicus\\_Brief.pdf](http://www.emta.org/members/New_York_Fed_Amicus_Brief.pdf). (stating that the adoption of the wide interpretation of the *pari passu* clause “would allow holdout creditors to disrupt the efficient operation of payment and settlement systems, create legal uncertainty for those systems, and ultimately cause adverse economic implications for beyond the sovereign debt dispute”).

<sup>16</sup> As noted earlier, the New York Clearing House that represents the largest commercial banks, also filed a brief in the case, taking the same position as the U.S. government. See New York Clearing House Amicus Curiae Brief filed in *Macrotecnic*, January 13, 2004 (available at <http://www.emta.org/ndevelop/ifa.htm>). *Elliott* also sparked a flurry of concern at the IMF. The IMF focused on the implications of the Brussels' court decision for the creditors of countries that default on their debt. The result of this concern was a formal proposal to for an international bankruptcy court, which would among other things, have the power to reform contract terms and grant stays on litigation – similar to the stay associated with Chapter 11 in the U.S. The purpose, in light of *Elliott*, was to give defaulting countries the time to work out their finances in an orderly fashion and, presumably, to insure that *pari passu* clauses and other provisions were properly enforced. See Sean Hagan, *Designing a Legal Framework to Restructure Sovereign Debt*, 36 Geo. J. Int'l L. 299 (2005).

<sup>17</sup> Domestic U.S. courts are generally seen as giving the highest levels of deference to the U.S. government's views in cases involving foreign affairs. See William N. Eskridge Jr., & Lauren E. Baer, *The Supreme Court's Deference Continuum: An Empirical Analysis (from Chevron to Hamdan)* \_\_ Geo. L. J. \_\_ (forthcoming 2008). Cf. Hal S. Scott, *Sovereign Debt Default: Cry For the United States, Not for Argentina*, Washington Legal Foundation, Working Paper Series No. 140, September 2006 (describing *Elliott* as the “high water mark for creditor's rights” and criticizing the U.S. government for stepping in and curtailing those rights).

<sup>18</sup> For discussion, see National Bank of Belgium, Financial Stability Review 2005 at 162-63 (available at [http://www.bnb.be/doc/ts/Publications/FSR/FSR\\_2005\\_EN.pdf](http://www.bnb.be/doc/ts/Publications/FSR/FSR_2005_EN.pdf)); Vladimir Werning, *Argentina Debt Restructuring: Belgian Legal Reform Limits the Options for Hold Outs*, J.P. Morgan Emerging Markets

The *amicus* briefs filed on behalf of the defendant in the New York litigation, combined with the actions of the Belgian legislature, presumably sent a signal to participants in the sovereign debt market that the Official Sector (the G-8 governments, their Finance ministries, and the major international financial organizations) disfavored the rateable payments interpretation of the *pari passu* clause. The 2004 governmental responses were likely to impact any court faced with a holdout creditor raising the rateable payments interpretation.<sup>19</sup> In other words, after 2004, one might expect that countries could feel safer dealing with one creditor at a time without having to deal with all creditors pro rata due to a *pari passu* clause. Pursuant to this view, we conjecture that after 2004 sovereign debt became less risky and the market more liquid, which presumably increased the value of sovereign debt and reduce the required rate of return demanded by investors. Subsequently, we examine whether these actions impacted the required return on sovereign debt offerings.

The primary question that this Article asks is whether traders in the sovereign debt market acted in a predictable fashion in response to these regime shifts in the legal interpretation of *pari passu* clauses. An ancillary question is the extent to which the legal counsel of sovereign debt issuers felt compelled to re-write the language in *pari passu* clauses in order to reduce the uncertainties injected by *Elliott*.

Assuming that capital market agents incorporate the implications of important events into the pricing of securities, we ask whether the market considered these legal events

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Research Bulletin, February 24, 2005 (reporting on the view that the Belgian legislation had reduced the litigation risks posed by holdouts such as Elliott).

<sup>19</sup> In early 2005, an eminent group of English lawyers added its view to the general position disfavoring the rateable payments interpretation. Although put together by the Bank of England, this expert report was not an official statement of the U.K. government. Nevertheless, it likely served to give sovereigns additional confidence that the weight of authority was against the rateable payments interpretation. See FINANCIAL MARKETS LAW COMMITTEE, ISSUE 79—*PARI PASSU* CLAUSES (2005) (hereinafter "FMLC Report"), available at [http://www.fmlc.org/papers/fmlc79mar\\_2005.pdf](http://www.fmlc.org/papers/fmlc79mar_2005.pdf).

significant. That is, did prices move accordingly? Specifically, we inquire whether the markets perceived a significant increase in the risk of holdout litigation subsequent to *Elliott* (the shock) and did they subsequently perceive that the move to CACs, the filing of briefs by the Official Sector and the passage of legislation in Belgium, provided antidotes to the holdout problem exacerbated by *Elliott* (the antidotes)?

In the sovereign debt literature, there is speculation in both directions. Some have suggested that the risk of holdout litigation was never significant.<sup>20</sup> Perhaps the holdout risk was exaggerated by those in the Official Sector to serve political and bureaucratic goals such as the creation of a new International Bankruptcy Court under the auspices of the IMF (the “Cynical Story”)? A recent study of sovereign debt market participants reports a number of the players as saying that the Official Sector had been galvanized to solve a holdout problem that was minimal at best.<sup>21</sup>

Alternatively, the Official Sector version of the story (the “Official Story”), contends that the holdout risk, particularly in the wake of *Elliott*, was significant and raised the costs of default.<sup>22</sup> Not surprisingly, the Official Story goes on to claim that the holdout antidote that it pushed most aggressively, CACs, ameliorated the risk of holdouts

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<sup>20</sup> E.g. Nouriel Roubini, *Mechanisms for Dealing with Financial Crises*, 126-27, in *FIXING FINANCIAL CRISES IN THE 21<sup>ST</sup> CENTURY* (ANDREW HALDANE eds. 2004) (giving ten reasons why the holdout problem in sovereign debt was not nearly as significant as many have suggested in recent years).

<sup>21</sup> One player observed, “[s]uing a sovereign is so damn hard – being a holdout is hard, not smart . . . [T]he official sector was offended by what happened to Peru – someone bought low and shook down Peru . . . It offended [their] sense of fairness in the financial system.” Gelpern & Gulati, *supra* note 10 at 1693 (reporting on interviews with leading market participants).

<sup>22</sup> This view was articulated by Stanley Fisher in his Lionel Robbins Lectures on the International Financial System, where he asserted that “Rightly or wrongly, debtor governments see the costs of default as extremely large – and recent legal developments, including the Elliott Associates case in the Peruvian debt restructuring, have raised the likely costs.” See Manmohan S. Kumar & Marcus Miller, *Evolution of the New Architecture*, 351, in *INTERNATIONAL FINANCIAL GOVERNANCE UNDER STRESS* (GEOFFREY R.D. UNDERHILL & XIAOKE LIANG, eds. 2003) (quoting Fisher’s lecture and also articulating the view of increase litigation risks as a result of holdout creditors).

and importantly, for our purposes, reduced the required returns to sovereign debt.<sup>23</sup> Even within the context of the Official Story though, there is the question of which of the different strategies undertaken by the Official Sector – the narrower anti-litigation defense strategy that involved the filing of amicus briefs and the passage of legislation or the broader contractual reform strategy that involved persuading private parties to reform their contract provisions – worked best to ameliorate the holdout threat that had arguably been elevated from minor nuisance to major crisis by *Elliott*.<sup>24</sup> To date, there has been no empirical inquiry into this question.<sup>25</sup>

To foreshadow the formal presentation of the results of our empirical analyses, we find that the average spread on sovereign debt – defined as the difference between the yield-to-maturity on a bond when issued and the yield-to-maturity of a U.S. Treasury Bond with the closest time to maturity – increased significantly in the wake of *Elliott* and decreased significantly after the New York litigation (the filing of the *amicus* briefs) and Belgian legislation. In other words, we do not find support for the Cynical Story. Instead, there is support for the hypothesis that the markets perceived an increase in holdout litigation risk. There is also support for the hypothesis that some of the steps taken by the Official Sector (the Official Story) helped ameliorate the holdout risk. However, there is only partial support for the Official Story. We find that CACs, an innovation in contract language advocated by the U.S. Treasury to ameliorate the holdout problem, and the antidote most often advertised in the telling of the Official Story, did

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<sup>23</sup> See Minn. Fed Interview, *supra* note 12

<sup>24</sup> See FEDERICO STURZENEGGER & JEROMIN ZETTELMEYER, DEBT DEFAULTS AND LESSONS FROM A DECADE OF CRISES, Part I, Chapter 3 (2007).

<sup>25</sup> The treatment that comes closest to analyzing this question looks at a series of case studies of recent restructurings and suggests, based on the higher than normal settlement amounts there, that the cause of those higher amounts might be the enhanced risk of holdout litigation. *Id.*

not help to reduce spreads. In other words, the portion of the Official Sector strategy that focused directly on litigation to negate the *pari passu* argument worked to reduce the required return on sovereign debt. But the broader strategy of the U.S. government of promoting a contract clause that ameliorated holdout problems, CACs, had no impact on the pricing of sovereign debt.

Our results help answer the question of whether pricing in the sovereign bond market is sensitive to litigation and contractual reform events. The empirical studies on the sovereign market to date have all looked at the effects of one particular type of contract provision, CACs, on pricing. Some of the studies find no pricing effects of CACs, whereas others do. Among the issues with these studies is that they were all conducted prior to 2003 when the big shift toward CACs occurred in the U.S. market – these studies typically compare U.K. bonds with CACs to U.S. bonds without CACs<sup>26</sup> By contrast, because of the extensive and more recent dataset that we use, our study is able to examine the effects of using CACs within a single market, the U.S. Further, the prior studies do not correct for variations in the types of clauses – that is variation in the phrasing of the clauses that might affect the legal risk.<sup>27</sup> Instead, for the most part, it was simply assumed that U.K. law governed bonds had CACs and U.S. law governed bonds did not – itself problematic since some U.S. bonds issued prior to 2003 did have CACs – and that

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<sup>26</sup> See Liz Dixon & David Wall, *Collective Action Problems and Collective Action Clauses*, 9 Fin. Stability Rev. 142 (2000); Torbjorn Becker et al., *Bond Restructuring and Moral Hazard: Are Collective Action Clauses Costly?* 6 Int'l Fin. 415 (2003); Mark Gugiatti & Anthony Richards, *Do Collective Action Clauses Influence Bond Yields? New Evidence from Emerging Markets* (Discussion Paper, Reserve Bank of Australia, 2003); Barry Eichengreen & Ashoka Mody, *Would Collective Action Clauses Raise Borrowing Costs?* NBER Working Paper (2000); Barry Eichengreen & Ashoka Mody, *Would Collective Action Clauses Raise Borrowing Costs? An Update and Additional Results*, Working Paper, University of California, Berkeley (2000).

<sup>27</sup> For more on the differential vulnerability to holdout creditor risk as a function of variations in the language of the clauses, see Stephen J. Choi & Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 Emory L. J. 929 (2004).

all CACs and non-CACs were identical. The problem though is that the CACs and non-CACs being examined in all of these studies likely had significant variation in phrasing that would have affected legal risk.<sup>28</sup> Our study endeavors to adjust for specific phrasing and its impact on litigation risk. Consistent with research on corporate bonds, we find that sovereign bond pricing is sensitive to changes in legal risk posed by particular type of bond covenants.<sup>29</sup>

## II. Empirical Design

Evaluating whether market prices react to legal changes – such as court decisions or the passage of legislation – is typically difficult because it is rarely clear whether the final court decision or passage of legislation was anticipated and its likely effects incorporated into the price of the firm’s securities long before the legislation became official or the court decision became public. To correct for such problems, researchers typically estimate windows of time during which the legal event might have begun to be anticipated.<sup>30</sup>

*Elliott*, however, presents a unique natural experiment in which the court’s decision came as a shock to the market and was clearly unanticipated. The decision granting the injunction was made *ex parte* on the basis of submissions from Elliott alone. Had Peru

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<sup>28</sup> *Id.* Our study did not have to confront the problem of differing forms of CACs since the language of the CACs in our study were strikingly similar to one another with no material differences in their content.

<sup>29</sup> For example, a prior study by one of us finds that covenants in corporate bonds are priced by capital market participants. See Michael Bradley & Michael R. Roberts, *The Structure and Pricing of Corporate Debt Covenants*, 4 Amer. L. Econ. Rev. 141 (2002). (draft dated May 13, 2004, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=466240](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=466240) ).

<sup>30</sup> See Sanjai Bhagat & Roberta Romano, *Event Studies and the Law: Part I: Technique and Corporate Litigation*, 4 Amer. L. Econ. Rev. 141 (2002). With respect to judicial decisions, Bhagat and Romano note that “judicial decisions are not clearly “events” except for the litigants . . . [because] other firms and investors will be able to contract around a rule and recalibrate costs and benefits”. However, in the instant case, *Elliott* did not resolve any issue that firms could subsequently contract around. Rather the decision injected uncertainty in the pricing of sovereign debt. Further, as discussed later, the data show that the lawyers found themselves unable to contract around the decision.

not settled the case so quickly, Peru's lawyers would have been able to make their arguments before the court and a different result might have eventuated. But Peru's heightened need to settle – reportedly, a function of Alberto Fujimori's tenuous political position and resultant desire to avoid the publicity that a default on Peru's Brady bonds might have brought – was also likely unanticipated.<sup>31</sup>

We think that it is plausible to assume that the filing of the government briefs in early 2004 was also largely unanticipated by the market. We say this not only because the adversarial nature of the litigation process means that the substance of the briefs would be kept secret until the last moment, but also because it was not clear what the U.S. government's position was going to be. Because in a prominent prior sovereign dispute the U.S. had taken the position that New York courts should not interfere in contract interpretation matters, it was possible that the U.S. would be reluctant to say much of anything with respect to the contract interpretation issue.<sup>32</sup> The Belgian legislative decision, by contrast, was likely anticipated much before it happened. The legislative process typically entails a good deal of negotiation and deliberation over many months, if not years. This was very much the case with the Belgian legislation.<sup>33</sup> As an

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<sup>31</sup> See Robert Scott & Mitu Gulati, *The Stickiness of Contract Terms: A Case Study* (March 25 draft, on file with authors) (quoting leading practitioners on the surprising nature of the settlement).

<sup>32</sup> See Jill E. Fisch & Caroline Gentile, *Vultures of Vanguard: The Role of Litigation in Sovereign Debt Restructuring*, 53 Emory L. J. 1043, 1079 (2004) (discussing the *Allied Bank* set of cases and the U.S. government's position there). Another factor complicating predictions of what the U.S. government's position was likely to be was that Elliott's principal, Paul Singer, was a major contributor to the Republican party. So, the question was whether the Bush Administration's Treasury Department would be willing to file a brief that went against the interests of Singer. See *Hedge Fund Chiefs, With Cash, Join Political Fray*, New York Times, January 25, 2007.

<sup>33</sup> Our interviews suggest that this legislation took months rather than years. Interviews with officials in Belgium for a sister project suggest that the Belgian legislature removed relative quickly, in contrast to many attempts at legislation that can take years, because of the importance of demonstrating to important institutions like Euroclear that Belgium was a friendly location for them and that *Elliott* was an aberration. See Scott & Gulati, *supra* note 31 (reporting on interviews with Belgian officials).

approximation, therefore, we assume that the markets knew about the impending legislation in early 2004.

### **III. Sample Description**

Our sample consists of 312 bonds issued by 40 countries over the period 1986 through 2007. This is the full set of sovereign bond offerings available from the Thomson Financial database as of July 2007. Thomson Financial is the most exhaustive collection of such documents. We downloaded and read the prospectus for each of the bonds in the sample and extracted the relevant data by hand. Since the legal issues we examine arose under U.S. law, we limit our inquiry to the population of U.S. law issued bonds.<sup>34</sup> As an aside, the vast majority of all sovereign bonds are issued under either U.S. or U.K. law. German and Japanese law governed issuances comprise but slivers of the market.

Table 1 reports the frequency of issues per year. Also reported in Table 1 are the number and percentage of the bonds in the sample that are shelf-registrations<sup>35</sup> and the number and percentage of the bonds that contain a collective action clause. We separate shelf-registrations from other types of offerings because of the possibility that these offerings entail unique risks to investors.<sup>36</sup> The frequencies reported in Table 1 indicate

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<sup>34</sup> U.S. law effectively means the law of the state of New York, since that is the state law that all of the bonds in our sample chose.

<sup>35</sup> Shelf registration is authorized by SEC rule 415, 17 C.F.R. § 230.415, and essentially permits issuers to separate the sometimes lengthy process of complying with the SEC registration requirements for public offerings from the actual sale of the registered securities. This permits issuers to register the security weeks and sometimes months in advance of their actual sale. Once the formal registration steps are complied with and the registration statement is effective, the issuer then places the securities “on the shelf” to await market events that allow it to reduce interest rates by discretely catching market windows. *See generally* JAMES D. COX, ROBERT W. HILLMAN & DONALD C. LANGEVOORT, *SECURITIES REGULATIONS CASES AND MATERIALS* 196-204 (5<sup>th</sup> ed. 2006).

<sup>36</sup> Because speed is the essence of catching market windows, shelf offerings customarily entail competing bids from underwriters so that there is much less time for underwriters and their counsel to perform due diligence in connection with the offerings. In addition, there is the suspicion that shelf offerings signal the offered security is believed to be over-priced. The latter arises because the very purpose of the shelf

that the sovereign bond market was thin prior to 1993. However, 13 new issues were brought to market in 1996 and the average number of new issues was slightly over 25 per year between 1996 and 2006.

The expansion in the sovereign bond market roughly corresponds to the period when the restructurings of sovereign loans from the prior two decades were being concluded.<sup>37</sup> The rationale for the shift from loans to bonds that is frequently given is that, after the losses the banks suffered in the 1980s, their enthusiasm for sovereign lending diminished. The small number of outstanding bonds, however, had been largely immune from the restructurings of 1980s and early 1990s, which gave investors a level of confidence in bonds that loans did not carry.<sup>38</sup> There was also the matter of the innovation of Brady bonds – that were collateralized using U.S. Treasuries and provided banks with favorable accounting treatment – that may have helped add confidence and liquidity to the bond market that emerged full blown in the mid to late 1990s.

The data in Table 1 show that the percentage of sovereign debt issues that are shelf-registered has remained relatively stable through time, averaging 68% per year between 1994 and 2007. In contrast, the number of sovereign issues containing CACs was virtually zero until 2003. However, 70% of all issues in 2003 contained a CAC, and

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offering is to facilitate the issuer catching favorable “market windows.” It is the ability to act more opportunistically in the shelf registration context than in other types of offerings that subjects investors in securities offered pursuant to a shelf registration to a somewhat heightened risk of such opportunism. The two features mentioned, likely lower levels of diligence and likely opportunism by the issuer, may result in a market discount for shelf offerings. Cf. David J. Denis, *Shelf Registration and the Market for Seasoned Equity Offerings*, 64 J. Bus. 189, 190-195 (1991) (few for-profit issuers engage in equity shelf offerings because the offerings incur substantial discounts for fear shares will be sold only when management believes they are overpriced in the market).

<sup>37</sup> E.g., Ross P. Buckley, *The Facilitation of the Brady Plan: Emerging Markets Debt Trading from 1989 to 1993*, 21 Fordham Int'l L. J. 1802 (1998); Ross P. Buckley, *Turning Loans into Bonds: Lessons for East Asia from the Latin American Brady Plan*, 1 J. Restructuring Fin. 185 (2004).

<sup>38</sup> E.g., Lee C. Buchheit, *The Absence of Temptation*, \_\_ Latin Finance \_\_ (forthcoming 2008).

this percentage increased to 92% for the period 2004- 2007. Figure 1 illustrates the composition of our sample.<sup>39</sup>

The data reported in Table 1 and illustrated in Figure 1 indicate that the bulk of the sample observations are after 1998. The number of observation per year is more than double after 1998, relative to the yearly rate prior to 1998. Thus, the statistical tests presented below are heavily weighted toward the 1999-2006 period. This skewing reflects the growth in the sovereign (and particularly emerging market) debt in recent years.

#### **IV. Empirical Results**

Table 2 reports the results of our regression analysis of the spread on sovereign debt as a function of (1) the bond's rating; (2) the log of the size of the issue (amount); (3) its registration type (shelf or 144A); (4) whether the bond contains a CAC; and (5) the issue date. For each bond in the sample, we calculate the difference between the yield-to-maturity of the bond at its issue date and the yield-to-maturity of a U.S. Treasury bond with the closest time to maturity. We define this difference as the bond's spread. The vector of bond spreads is the dependent variable in all of the regressions reported in Table 2.

The results of the first regression ("R1") in Table 2 indicate that, as would be expected, the spreads on sovereign debt are significantly negatively related to the bond's S&P rating: the coefficients are monotonically related to ratings – the higher the rating the lower the spread; the coefficients are "centered" around the omitted rating (BBB);

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<sup>39</sup> Since there are only five observations dating back to 1986, the figure reports the data only from 1992 onward, although all of the statistical tests are performed on the entire sample.

and 3 of the 4 ratings' dummy variables are highly significant, with t-Statistics of 5.0 or greater.

The results of R(1) also indicate that spreads are negatively related to the size of the issue. This is a curious finding. If there were a downward sloping demand curve for the bonds of a particular sovereignty, then one would expect a positive relation between spreads and amount. The more debt that is issued, the lower the price (the higher the required rate of return), and hence the greater will be the spread over U.S. Treasuries. On the other hand, a larger issue may create a more liquid market for the country's debt, which would reduce its spread. In addition, there may be an element of the "too big to fail" phenomenon at play. The Official Sector, fearing contagion, may be more likely to step in to protect against defaults in the case of the largest issuers.

The data reveal that shelf-registered issues command a higher spread than non-shelf issues. This is another interesting finding since one of the presumed benefits of shelf registration is that issuers can "time" the market, which means that they can pre-register a new issue, "put the registered bonds on the shelf," and issue them when the firm, here a country, believes it to be propitious to do so. One explanation suggested by the Finance literature is that market participants anticipate this incentive, and respond to this adverse selection by price-protecting themselves against the asymmetry of information between them and the ministries of finance in the issuing country.<sup>40</sup> Thus, they will price the bonds lower (generating a higher spread) when the country issues debt by means of a shelf registration. Finally, it may be that the quality of diligence in shelf

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<sup>40</sup> See Stuart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have*, 35 J. Fin. Econ. 99-122 (1994) (arguing that the asymmetric information between firms and investors accounts for the negative reaction of the market to the announcement of a new stock issuance).

offerings – because of the speed with which these offerings are taken to the market – is lower than that for non-shelves and that the market is discounting shelf offerings for this reason.<sup>41</sup>

The results of R(1) in Table 2 indicate that the presence of a CAC significantly reduces the spread on sovereign debt. However, recall that prior to 2003, virtually no sovereign debt had such clauses, whereas after 2003 more than 90% did. Thus, CAC may well be a proxy for the entire post-2003 period – a period in which spreads are lower than average. This interpretation is consistent with the results reported in subsequent regressions in which the sign of the coefficient on CAC becomes positive and insignificantly different from zero when we add dummy variables for the post-2003 years.<sup>42</sup>

Before moving on it is important to pause and note that it has become common practice in the social science literature to adjust statistics derived from panel data for the fact that observations in the sample are not independent.<sup>43</sup> For example, our initial panel consists of 312 bonds issued by 40 countries. Consequently, our sample consists of a number of bonds issued by the same country and clearly these are not independent observations. As we discuss below, countries are loathed to change even the language of the covenants in their debt instruments from one issue to the next. Moreover, there are certainly country-related risks that are not captured by the issue's S&P rating. There are

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<sup>41</sup> As demonstrated subsequently, after *Elliott*, there were more changes in the private offerings than in the shelf deals, which provide mild support for this conjecture. However, as we will see, there are so few changes overall, that one cannot make too much of these differences.

<sup>42</sup> Since only 75% of the bonds issued in 2003 had CACs, as compared to over 90% thereafter, we test for the cross-sectional effect of CACs in that year. We find that there is no statistical relation between the presence of a CAC and bond spreads in that year. While the spreads are predictably and consistently related to ratings, the coefficient on the CAC dummy variable is positive and insignificant. This sample contains 21 issues with CACs and 9 without.

<sup>43</sup> See M. A. Peterson, *Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches*, Kellogg Finance Dept. Working Paper No. 329 (2006).

two ways to deal with the covariances inherent in panel data: one is to entertain dummy variables for each of the countries and calculate so-called country fixed-effects; the other is to “cluster” the estimates of the standard errors by country, which takes into account the covariance between the issues of a particular country through time. We do both.

R(2) in Table 2 includes 40 country dummy variables. The first thing to note is that the adjusted  $R^2$  increases from 0.45 to 0.55 with the inclusion of the country variables. Clearly there are significant country-specific effects. Note also that the positive coefficient on double A rated bonds (AA) and the negative coefficient on single-B rated bonds are significant, even after controlling for country effects. Importantly, the inclusion of country fixed-effects does not affect the signs or the statistical significance of the other independent variables in the model – Amount, Shelf and CAC. Finally, R(3) in Table 2 reports the effects of clustering standard errors at the country level. Note that this procedure does not affect the estimated coefficients – just their estimated standard errors. As can be seen, clustering standard errors has little to no effect on the statistical significance of the independent variables reported under R(1).

R(4) in Table 2 includes dummy variables for the relevant years 2001– 2007. Based on the two litigation events under study, we divide the years into two periods: 2001-2003, which is the post *Elliot* but pre amicus brief period – the aftermath of the shock, and 2004-2007, which corresponds to the two potential antidotes to this shock: the widespread use of CACs; and the announced U.S. government position in the briefs countering *Elliott*.

The pattern of the coefficients on the dummy variables in R(4) across these seven years is consistent with the predictions of the holdout analysis. All of the dummy

variables for the years 2001–2003 are positive and two of the three are statistically significant. The average annual effect over this period is an increase of a statistically significant 63 basis points per year – see the results reported under R(7). In contrast, all of the annual dummy variables for the years 2004–2007 are negative, and three of the four are statistically significant. Moreover, as shown in R(7), the average annual effect over this period is a decrease in the mean spread by a statistically significant 78 basis points. Thus, overall, the data indicate that the spreads on sovereign debt were “abnormally” high in the 2001–2003 period and “abnormally” low in the 2004–2007 period.

The results reported in R(5) show that the inclusion of country fixed-effects reduces the significance of the annual effects but does not affect their signs. Moreover the averages for the two periods, reported in R(8) have the same signs as in R(7) and are both statistically significant.

Table 3 reports the impact of the degree of vulnerability to the rateable payment interpretation on the spreads of sovereign debt issues. As noted at the outset, *Elliott* represented a legal shock because it enhanced the likelihood of holdouts and the success of engaging in a holdout strategy so that opportunistic litigation and bargaining occurred in the shadow of the newly invigorated *pari passu* clause. So viewed, differential price effects should exist across clauses that are worded differently and therefore present different vulnerability to litigation. The details of the variation in clauses in the market have been explored elsewhere, but broadly speaking there are three categories of clauses – those with high, medium and low vulnerability to litigation under the rateable payments interpretation.<sup>44</sup>

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<sup>44</sup> See Scott & Gulati, *supra* note 31, and references there.

The categorization we use is drawn from the writings of the leading commentators on the topic.<sup>45</sup> The riskiest form of the clause provides “We will pay our debt obligations on a pro rata basis”. Either that or words such as “and shall be paid as such” or “shall be discharged as such” will appear at the end of the standard clause providing for the ranking of debt claims. Italy was among the sovereigns in our dataset using this type of clause. Language such as this can hardly be interpreted other than compelling equal treatment at the moment of payment. At the opposite end of the spectrum is a clause that provides that the offered debt securities “will rank equally.” Because the clause only refers to ranking (such as, equal rights in any alternation of the bond’s terms) and not the act of payment, it poses a lower order of risk that the clause could be the source of a substantial holdout claim. This form of the clause is widely used and appears in offerings for Belize and Guatemala, among others. Falling in between, in the middle risk category are clauses appearing in offerings by Mexico and the Philippines, among others. Their clauses’ language provided the debt shall “rank at least *pari passu* in priority of payment and in rank of security.” This is the language that was common before the Belgian court in *Elliott* and permitted Elliott’s expert to successfully argue that the words “rank” and “pay” were interchangeable so that the natural construction should be that bonds could only be paid rateably.

The results of dividing the contracts in terms of their differential vulnerability to litigation enables us to go beyond the question of whether the market reacted broadly to *Elliott*; our three-way division of clauses allows discrete inquiry as to whether the

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<sup>45</sup> The two sources we utilize here are LEE BUCHHEIT, HOW TO NEGOTIATE EURO CURRENCY LOAN AGREEMENTS, 83 (2d ed. 2004) and the *FMLC Report*, *supra* note 19.

market's reaction was dependent on the risk levels of the type of clause employed – a level of inquiry that has not previously been conducted with respect to bond contracts.

We see from R(1) in Table 3 that there is an inverted U shaped effect of separating the risk categories. The spreads on bonds with “high litigation vulnerability” (HLV) and “low litigation vulnerability” (LLV) are significantly lower than the spreads on bonds with “medium litigation vulnerability” (the omitted variable). Note that these relations are significant while holding constant the bond's rating, and in R(4) and R(5) its issue date. However, note that these relations become insignificantly different from zero when country fixed-effects are added to the regression model – R(2), R(5) and R(8). The insignificance of litigation vulnerability in these regressions indicates a strong country effect, which is not at all surprising since, as mentioned above, we will show that countries are extremely reluctant to change the language in their bond covenants and therefore there is a high degree of correlation between countries and covenant language. Before moving on, note that the estimates of the average spread in the 2001-2003 period are all significantly positive, and the average spread in the 2004-2007 period are all negative and two of the three are statistically significant.

The data in Table 4 better illustrate the inverted U shape relation found in the data. The table reports summary statistics of the spreads for each of the three categories of litigation vulnerability: Low, Medium and High. The test statistics indicate that the mean spread of the bonds in the Medium category is significantly larger than the mean spread of the bonds in the Low category (  $t = 4.30$  ) and larger than the mean spread of the bonds in the High category (  $t = 7.22$  ).

There are a couple of explanations why spreads for the medium-risk *pari passu* clause may have increased post-*Elliott* while the spreads for the high- and low- risk clauses did not. The existence of the inverted U shape in spreads with respect to litigation vulnerability is consistent with the commitment versus flexibility continuum that has been discussed in the literature.<sup>46</sup> Consistent with this view, we find that both the most risky and the least risky clauses produce positive value (lower spreads) in the eyes of investors. This occurs perhaps because, in the case of the high risk clause, the issuer is understood to commit that it will not fail because to do so will visit upon it extraordinary transaction costs arising from the greater power the clause confers on creditors wishing to act opportunistically as holdouts. In the case of the low risk clause, investors perhaps react positively as they understand that this version of the *pari passu* contract poses the lowest likelihood of costly holdout litigation in the event of a financial restructuring. In other words, the issuer has greater flexibility if it needs to enter into a restructuring.

An alternate explanation for the inverted U, and one that we find more plausible, reflects less faith in markets than the explanation above. Recall that prior to *Elliott* the *pari passu* clause, while customary in sovereign debt offerings, was generally believed to have no impact on the riskiness of the offering. Our data show not only that *Elliott* changed this, but *increased* riskiness primarily with respect to the version of the *pari passu* clause that was interpreted in *Elliott* (the medium-risk version). The uneven impact of *Elliott* may reflect the fact that markets did not extend *Elliott's* implications beyond the medium-risk clause, viewing the decision, incorrectly in our eyes, as being limited to the particular formulation before the court in *Elliott*. Markets therefore did not

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<sup>46</sup> See Ashoka Mody, *What is an Emerging Market?* IMF Working Paper No. WP/04/177 (available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=879002](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=879002)).

extrapolate from *Elliott* how its holding might impact other forms of the *pari passu* clause. This result is all the more understandable if one believes, as was the popular perception within the market, that *Elliott* was both aberrational and sui generis. Our data, however, do not allow us to go beyond speculating as to possible explanations for the inverted U.

There is a puzzle here, however. When counsel for the countries that had clauses in the medium risk category saw that there was a pricing benefit to moving to a different clause, either high risk or low risk, they should have done so. Further, even if counsel did not believe that there was a pricing benefit to moving to a different type of clause, there was still the option of doing something to reduce the risk of the rateable payments interpretation. Our empirical results show that there was a pricing penalty overall that, we conjecture, resulted from the enhanced risk of potential holdouts based on *Elliott*. Conceivably that penalty could have been eliminated, especially for clauses in the middle risk range, by deleting the clause or at least dropping a footnote explaining that whatever their clause meant, it did not mean what *Elliott* said it did. Yet, Table 5 reveals that instead of drafting new language in the wake of *Elliott*, counsel for both the sovereigns and the underwriters ignored the decision: they did nothing.<sup>47</sup> Instead, they waited three years, until 2004, when the Official Sector stepped in to try and provide an antidote. The data in Table 5 are reported for three separate time periods: (1) 1986 – 2000 (pre *Elliott*); (2) 2001-2003 (post *Elliott*; but prior to the filing of the amicus briefs); and (3) 2004-2007 (post amicus briefs). For each country in our database, we read the *pari passu* clauses in successive offerings and noted whether the language changed from the

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<sup>47</sup> Subsequently we discuss the various actions that lawyers could have (should have) taken in the wake of *Elliott*.

previous issue. We hypothesize that changes would occur more frequently in registered public offerings than in private offerings because the former has greater liability for the sovereign issuer and its underwriters than the latter.

The overall story implied by the results reported in Table 5 is that there were very few changes in language made at all – as a general matter, the clauses hardly change. But the number of changes made, if anything, dropped after *Elliott*, instead of dramatically increasing. Put differently, instead of being galvanized into innovating and reforming their contracts as a result of *Elliott*, the lawyers appear to have become more conservative; in effect, they froze. As an aside, there are more changes to the clauses that are made in the private offerings than in the public shelf deals. But the differences are not big enough to make too much of them here.

As noted, we are puzzled as to why lawyers for sovereigns did not attempt to avoid the resulting rise in their clients' costs of capital by the simple expedient of either removing the *pari passu* clause from post-*Elliott* offerings (a course that appears relatively free of problems given the questionable role the clause would ever play since sovereigns do not liquidate) or employing language for *pari passu* clause that is less problematic.

As a check on the robustness of our empirical tests, we examine the pattern of bond ratings over the three relevant time periods. The point of this exercise is to show that our results are not being driven by changes in the distribution of bond ratings over time. Table 6 reports the distribution of the sample according S&P bond ratings. The data show that the distribution of the ratings of sovereign bonds has remained relatively

constant over the 22-years under study and virtually constant over the 2001 to 2007 period.

## V. Conclusion

Our analysis suggests that market prices adjust to unanticipated judicial events. We conjecture that the 2000 Belgian decision was a shock to the market and injected a new source of uncertainty into the pricing of these securities. We find empirical support for this conjecture. The mean spread on sovereign debt is significantly higher than the average over the preceding nine years in the three years following the 2000 Belgian decision, including in 2003, the year when CACs began to be adopted by the sovereigns. We also find that spreads are significantly lower than the historical average in the four years following the filing of amicus briefs by the U.S. Treasury and the Federal Reserve calling for a New York court to reject the Belgian decision. Soon after the filing of the briefs in the U.S. case, the Belgian legislature passed a law that made it much harder for a creditor to hold out and exploit the benefit of its position in a Belgian court as Elliott had. This second action may have also contributed to the reduction in spreads.

Our empirical results indicate that the judicial injection of uncertainty into the meaning of crucial contract terms is priced by capital market participants in a predictable fashion. Decisions that increase the risk of repayment by sovereigns increase the rate of return sovereigns must pay in order to attract international capital. Decisions, such as the position announced by the U.S. government in its 2004 *amici* briefs, that reduce this risk, reduce the cost of capital that sovereigns face.

A possibility that bears explication is that the spread-increasing effects that we observe in the 2001-2003 period may not be a function solely of *Elliott*, but a function of

the market's recognition that there had been a change in sovereign debt markets generally with hedge funds beginning to pursue aggressive litigation and other strategies being undertaken for the purpose of disrupting restructurings. In other words, *Elliott* might have been more a symptom of a change rather than the change itself.<sup>48</sup> Countering this possibility is that we find a significant spread-decreasing effect corresponding to the moves taken by the Official Sector to counter specifically the rateable payments interpretation. Further, we do not find spread-reducing effects from the use of CACs, which were designed to counter the broader holdout problem but would have had but a limited utility against the rateable payments interpretation.<sup>49</sup>

The foregoing story challenges the dominant narrative in the sovereign debt literature, which has been to link the holdout problem to the solution of CACs. Our evidence suggests that the holdout problem was linked more directly to the *pari passu* litigation and, perhaps unsurprisingly in hindsight, the most effective solutions to it were litigation based: the filing of amicus briefs and the passage of legislation that increased the difficulty of litigating. In contrast, the CAC contractual solution aimed at some broader and more general holdout problem appears to have had little effect, at least within the time frame we examine here.<sup>50</sup> It is possible that the utility of this contractual

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<sup>48</sup> In the 2001-2003 period, *Elliott* was followed by assertions of the rateable payments interpretation in three other cases, against the Congo, Nicaragua and Argentina. It was in the third of those cases, against Argentina, that the U.S. government and the N.Y. Fed stepped in to give their views as amicus curiae. See Scott & Gulati, *supra* note 31.

<sup>49</sup> In theory CACs could be used up front in a restructuring to protect against the holdout problem by simply obtaining the necessary voting threshold to reduce the amount owed by the debtor. However, if that threshold was not obtained (and a 75% vote is not easy to obtain, especially if the holdouts obtain a sizeable position), the rateable payments interpretation could come into play.

<sup>50</sup> The foregoing is not altogether surprising, when one sees that CACs work only within a single bond issue. That is, a sovereign might have bonds with CACs and bonds requiring unanimous approval. In such a case, the CACs would help only to ameliorate the holdout problem with the bond that contained them. And to the extent the sovereign was not willing to treat the CAC bondholders differently than the others, the CACs would be useless (at least until the sovereign had retired all its non CAC bonds). The anti-litigation strategies, by contrast, directly attacked the problem and potentially solved it.

solution will become more evident in the future, especially as the stock of old bonds without CACs diminishes (currently, only new issues contain CACs). But for now, the market appears to attach little positive value to the use of CACs.

We conclude with a conundrum: if the ambiguities arising from the *Elliott* decision caused an increase in the cost of sovereign debt, then why were the clauses not modified, clarified, or simply removed from future offerings more widely? Why did the Official Sector have to step in to provide a solution to a basic contract reform problem?

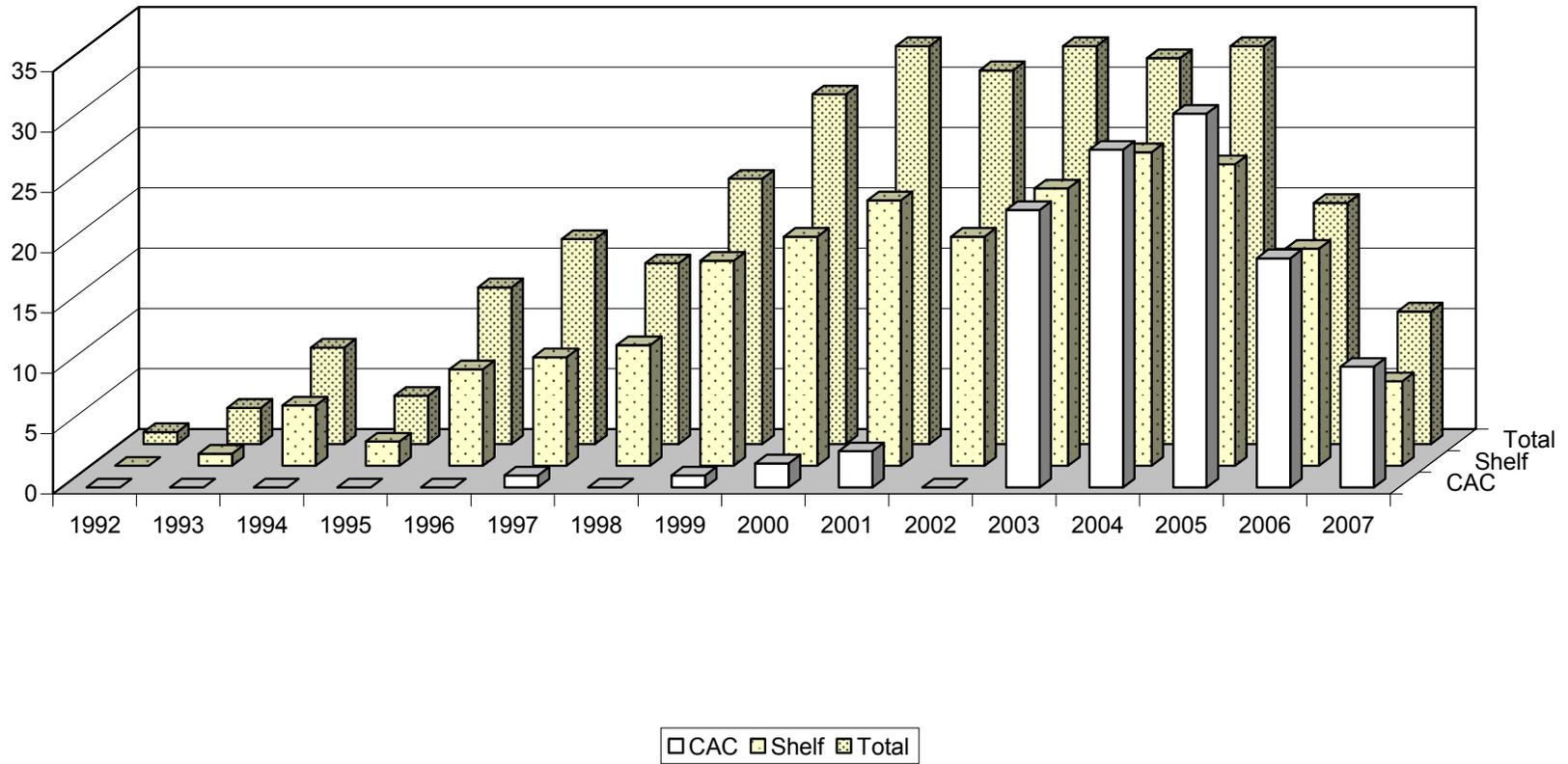
**Table 1**

**Total Issuances of Sovereign Debt, the Number and Percentage of Shelf Registered and the Number and Percentage of Issues Containing a Collective Action Clause**

| <u>Year</u> | <u>Total</u> | <u>Shelf</u>  |                   | <u>CAC</u>    |                   |
|-------------|--------------|---------------|-------------------|---------------|-------------------|
|             |              | <u>Number</u> | <u>Percentage</u> | <u>Number</u> | <u>Percentage</u> |
| 1986        | 3            | 0             |                   | 0             |                   |
| 1987        | 0            | 0             |                   | 0             |                   |
| 1988        | 0            | 0             |                   | 0             |                   |
| 1989        | 1            | 0             |                   | 0             |                   |
| 1990        | 1            | 0             |                   | 0             |                   |
| 1991        | 0            | 0             |                   | 0             |                   |
| 1992        | 1            | 0             |                   | 0             |                   |
| 1993        | 3            | 1             | 33%               | 0             |                   |
| 1994        | 8            | 5             | 63%               | 0             |                   |
| 1995        | 4            | 2             | 50%               | 0             |                   |
| 1996        | 13           | 8             | 62%               | 0             |                   |
| 1997        | 17           | 9             | 53%               | 1             | 6%                |
| 1998        | 15           | 10            | 67%               | 0             |                   |
| 1999        | 22           | 17            | 77%               | 1             | 5%                |
| 2000        | 29           | 19            | 66%               | 2             | 7%                |
| 2001        | 33           | 22            | 67%               | 3             | 9%                |
| 2002        | 31           | 19            | 61%               | 0             |                   |
| 2003        | 33           | 23            | 70%               | 23            | 70%               |
| 2004        | 32           | 26            | 81%               | 28            | 88%               |
| 2005        | 33           | 25            | 76%               | 31            | 94%               |
| 2006        | 20           | 18            | 90%               | 19            | 95%               |
| 2007        | 11           | 7             | 64%               | 10            | 91%               |

Figure 1

Total Number of Issues, Number of Shelf and Number with a CAC



**Table 2**  
**Dependent Variable: Spreads on Sovereign Debt Relative to U.S. Treasury Bonds**  
(t-Statistics in parentheses, \*\*\*p<.01, \*\*p<.05, \*p<.10)

| INDEPENDENT VARIABLES     |           | (1)                 | (2)                 | (3)                 | (4)                 | (5)                 | (6)                 | (7)                 | (8)                 | (9)                 |
|---------------------------|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| CONSTANT                  |           | 3.33***<br>(5.04)   | 3.09<br>(1.63)      | 3.33***<br>(6.14)   | 3.43***<br>(5.31)   | 2.28<br>(1.23)      | 3.43***<br>(5.33)   | 3.41***<br>(5.34)   | 2.13<br>(1.15)      | 3.41***<br>(6.11)   |
| BOND RATING:              | AA        | -2.52***<br>(-5.19) | -2.16<br>(-1.44)    | -2.52***<br>(-8.53) | -2.71***<br>(-5.74) | -3.60**<br>(-2.36)  | -2.71***<br>(-8.00) | -2.65***<br>(-5.69) | -2.66*<br>(-1.81)   | -2.65***<br>(-8.60) |
|                           | A         | -0.61<br>(-1.39)    | -0.64<br>(-0.61)    | -0.61<br>(-1.26)    | -0.97**<br>(-2.24)  | -0.83<br>(-0.81)    | -0.97**<br>(-2.09)  | -0.97**<br>(-2.33)  | -0.85<br>(-0.83)    | -0.97*<br>(-1.94)   |
|                           | BB        | 1.49***<br>(4.96)   | 0.24<br>(0.58)      | 1.49***<br>(4.57)   | 1.44***<br>(4.93)   | 0.58<br>(1.40)      | 1.44***<br>(4.60)   | 1.44***<br>(5.00)   | 0.48<br>(1.21)      | 1.44***<br>(4.65)   |
|                           | B         | 2.37***<br>(7.08)   | 1.35***<br>(3.18)   | 2.37***<br>(5.17)   | 2.33***<br>(7.17)   | 1.46***<br>(3.47)   | 2.33***<br>(5.35)   | 2.29***<br>(7.14)   | 1.35***<br>(3.27)   | 2.29***<br>(5.21)   |
| AMOUNT                    |           | -0.58**<br>(-2.39)  | -0.68***<br>(-2.71) | -0.58**<br>(-2.66)  | -0.73***<br>(-3.10) | -0.79***<br>(-3.22) | -0.73***<br>(-3.05) | -0.71***<br>(-3.05) | -0.80***<br>(-3.26) | -0.71***<br>(-3.34) |
| SHELF                     |           | 0.90***<br>(3.76)   | 1.27***<br>(3.16)   | 0.90***<br>(2.77)   | 1.13***<br>(4.77)   | 1.21***<br>(2.84)   | 1.13***<br>(3.75)   | 1.08***<br>(4.60)   | 1.19***<br>(2.78)   | 1.08***<br>(3.46)   |
| CAC                       |           | -0.67***<br>(-3.09) | -0.97***<br>(-4.14) | -0.67**<br>(-2.43)  | 0.17<br>(0.45)      | -0.29<br>(-0.57)    | 0.17<br>(0.39)      |                     |                     |                     |
| TIME PERIODS:             | 2001      |                     |                     |                     | 0.64**<br>(1.98)    | 0.54<br>(1.55)      | 0.64*<br>(1.72)     |                     |                     |                     |
|                           | 2002      |                     |                     |                     | 0.70**<br>(2.00)    | 0.58<br>(1.51)      | 0.70*<br>(1.96)     |                     |                     |                     |
|                           | 2003      |                     |                     |                     | 0.42<br>(1.05)      | 0.58<br>(1.16)      | 0.42<br>(0.88)      |                     |                     |                     |
|                           | 2001-2003 |                     |                     |                     |                     |                     |                     | 0.63***<br>(2.61)   | 0.47*<br>(1.69)     | 0.63*<br>(1.97)     |
|                           | 2004      |                     |                     |                     | -0.55<br>(-1.17)    | -0.26<br>(-0.43)    | -0.55<br>(-0.96)    |                     |                     |                     |
|                           | 2005      |                     |                     |                     | -0.90*<br>(-1.89)   | -0.46<br>(-0.76)    | -0.90<br>(-1.57)    |                     |                     |                     |
|                           | 2006      |                     |                     |                     | -1.41***<br>(-2.61) | -1.25*<br>(-1.89)   | -1.41**<br>(-2.25)  |                     |                     |                     |
|                           | 2007      |                     |                     |                     | -1.76**<br>(-2.29)  | -1.69**<br>(-1.99)  | -1.76***<br>(-3.05) |                     |                     |                     |
|                           | 2004-2007 |                     |                     |                     |                     |                     |                     | -0.78***<br>(-3.12) | -0.90***<br>(-3.14) | -0.78**<br>(-2.06)  |
| Country Fixed Effects     |           | No                  | Yes                 | No                  | No                  | Yes                 | No                  | No                  | Yes                 | No                  |
| Clustered Standard Errors |           | No                  | No                  | Yes                 | No                  | No                  | Yes                 | No                  | No                  | Yes                 |
| Adj. R <sup>2</sup>       |           | 0.45                | 0.55                | 0.45                | 0.50                | 0.58                | 0.50                | 0.50                | 0.66                | 0.50                |
| Observations              |           | 252                 | 252                 | 252                 | 252                 | 252                 | 252                 | 252                 | 253                 | 252                 |

**Table 3**  
**Dependent Variable: Sovereign Debt Relative to U.S. Treasury Bonds**  
(t-Statistics in parentheses, \*\*\*p<.01, \*\*p<.05, \*p<.10)

| INDEPENDENT VARIABLES     |                       | (1)                 | (2)               | (3)                 | (4)                 | (5)                 | (6)                 | (7)                 | (8)                | (9)                 |
|---------------------------|-----------------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|
| CONSTANT                  |                       | 2.54***<br>(8.84)   | 1.32<br>(0.70)    | 2.54***<br>(7.06)   | 2.50***<br>(8.40)   | 0.59<br>(0.33)      | 2.50***<br>(6.09)   | 2.51***<br>(8.51)   | 0.42<br>(0.24)     | 2.51***<br>(6.32)   |
| BOND RATING:              | AA                    | -2.09***<br>(-3.74) | -2.35<br>(-1.50)  | -2.09***<br>(-6.93) | -2.16***<br>(-3.95) | -3.43**<br>(-2.21)  | -2.16***<br>(-5.74) | -2.14***<br>(-3.97) | -2.71*<br>(-1.80)  | -2.14***<br>(-6.75) |
|                           | A                     | -0.72*<br>(-1.67)   | -1.40<br>(-1.30)  | -0.72<br>(-1.50)    | -0.75*<br>(-1.76)   | -1.13<br>(-1.09)    | -0.75<br>(-1.55)    | -0.78*<br>(-1.85)   | -1.10<br>(-1.06)   | -0.78<br>(-1.65)    |
|                           | BB                    | 1.34***<br>(4.43)   | 0.56<br>(1.35)    | 1.34***<br>(3.55)   | 1.37***<br>(4.63)   | 0.68<br>(1.62)      | 1.37***<br>(3.66)   | 1.36***<br>(4.66)   | 0.64<br>(1.59)     | 1.36***<br>(3.69)   |
|                           | B                     | 2.12***<br>(6.18)   | 1.29***<br>(2.92) | 2.12***<br>(4.15)   | 2.20***<br>(6.50)   | 1.42***<br>(3.30)   | 2.20***<br>(4.54)   | 2.15***<br>(6.43)   | 1.31***<br>(3.11)  | 2.15***<br>(4.54)   |
| HLV                       |                       | -0.96**<br>(-2.59)  | 0.76<br>(0.88)    | -0.96***<br>(-4.11) | -0.98***<br>(-2.72) | 0.42<br>(0.50)      | -0.98***<br>(-4.19) | -0.99***<br>(-2.78) | 0.30<br>(0.36)     | -0.99***<br>(-4.22) |
| LLV                       |                       | -0.52**<br>(-2.06)  | -0.17<br>(-0.35)  | -0.52*<br>(-1.93)   | -0.63**<br>(-2.54)  | -0.17<br>(-0.34)    | -0.63**<br>(-2.22)  | -0.61**<br>(-2.48)  | -0.25<br>(-0.51)   | -0.61**<br>(-2.20)  |
| TIME PERIODS:             | 2001                  |                     |                   |                     | 0.70**<br>(2.11)    | 0.62*<br>(1.81)     | 0.70<br>(1.61)      |                     |                    |                     |
|                           | 2002                  |                     |                   |                     | 0.72**<br>(2.04)    | 0.73**<br>(1.98)    | 0.72*<br>(1.84)     |                     |                    |                     |
|                           | 2003                  |                     |                   |                     | 0.50<br>(1.43)      | 0.45<br>(1.23)      | 0.50<br>(1.21)      |                     |                    |                     |
|                           | 2001-2003             |                     |                   |                     |                     |                     |                     | 0.64***<br>(2.63)   | 0.59**<br>(2.19)   | 0.64*<br>(1.80)     |
|                           | 2004                  |                     |                   |                     | -0.35<br>(-1.03)    | -0.29<br>(-0.81)    | -0.35<br>(-0.65)    |                     |                    |                     |
|                           | 2005                  |                     |                   |                     | -0.35<br>(-1.00)    | -0.30<br>(-0.79)    | -0.35<br>(-0.85)    |                     |                    |                     |
|                           | 2006                  |                     |                   |                     | -0.97**<br>(-2.35)  | -1.11***<br>(-2.70) | -0.97**<br>(-2.46)  |                     |                    |                     |
|                           | 2007                  |                     |                   |                     | -0.87<br>(-1.47)    | -1.30**<br>(-2.14)  | -0.87**<br>(-2.09)  |                     |                    |                     |
|                           | 2004-2007             |                     |                   |                     |                     |                     |                     | -0.53**<br>(-2.16)  | -0.59**<br>(-2.23) | -0.53<br>(-1.51)    |
|                           | Country Fixed Effects |                     | No                | Yes                 | No                  | No                  | Yes                 | No                  | No                 | Yes                 |
| Clustered Standard Errors |                       | No                  | No                | Yes                 | No                  | No                  | Yes                 | No                  | No                 | Yes                 |
| ADJ - R <sup>2</sup>      |                       | 0.42                | 0.51              | 0.42                | 0.46                | 0.54                | 0.46                | 0.47                | 0.63               | 0.47                |
| OBSERVATIONS              |                       | 259                 | 260               | 259                 | 259                 | 260                 | 259                 | 259                 | 260                | 259                 |

**Table 4**  
**Spreads on Sovereign Debt Relative to U.S. Treasury Bonds**  
**According to Litigation Vulnerability**

| STATISTIC   | LOW   | MED   | HIGH  | MED-LOW | MED-HIGH |
|-------------|-------|-------|-------|---------|----------|
| Mean        | 2.83% | 3.87% | 1.08% | 1.04%   | 2.80%    |
| Std.Dev.    | 1.47% | 1.95% | 2.30% | 0.24%   | 0.39%    |
| Number      | 64    | 157   | 42    | N/A     | N/A      |
| t-Statistic | 15.38 | 24.86 | 3.03  | 4.30    | 7.22     |

**Table 5**  
**Frequency of Changes in the Language of *Pari Passu* Clauses in Sovereign Debt**

|                  | 1986 - 2000  |             | 2001 - 2003  |             | 2004 - 2007  |             | Overall      |             |
|------------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
|                  | <u>Shelf</u> | <u>144A</u> | <u>Shelf</u> | <u>144A</u> | <u>Shelf</u> | <u>144A</u> | <u>Shelf</u> | <u>144A</u> |
| Bonds            | 73           | 20          | 61           | 27          | 77           | 19          | 211          | 66          |
| Language Changes | 10           | 9           | 4            | 7           | 3            | 4           | 17           | 20          |
| Percentage       | 14%          | 45%         | 7%           | 26%         | 4%           | 21%         | 8%           | 30%         |

**Table 6**  
**Distribution of S&P Ratings on Sovereign Debt through Time**

| Rating | Total Sample | 1986-2000 |    | 2001-2003 |    | 2004-2007 |    |        |
|--------|--------------|-----------|----|-----------|----|-----------|----|--------|
| AAA    | 3            | 3         |    |           |    |           |    |        |
| AA     | 21           | 9         |    | 8         |    | 4         |    |        |
| AA-    | 2            |           |    |           |    | 2         |    |        |
|        | 23           | 7.59%     | 9  | 7.96%     | 8  | 8.33%     | 6  | 6.38%  |
| A+     | 4            | 2         |    |           |    | 2         |    |        |
| A      | 4            | 1         |    |           |    | 3         |    |        |
| A-     | 21           | 3         |    | 11        |    | 7         |    |        |
|        | 29           | 9.57%     | 6  | 5.31%     | 11 | 11.46%    | 12 | 12.77% |
| BBB+   | 7            | 3         |    | 1         |    | 3         |    |        |
| BBB    | 15           | 5         |    | 6         |    | 4         |    |        |
| BBB-   | 24           | 17        |    | 5         |    | 2         |    |        |
|        | 46           | 15.18%    | 25 | 22.12%    | 12 | 12.50%    | 9  | 9.57%  |
| BB+    | 40           | 17        |    | 20        |    | 3         |    |        |
| BB     | 61           | 31        |    | 10        |    | 19        |    |        |
| BB-    | 32           | 6         |    | 10        |    | 16        |    |        |
|        | 133          | 43.89%    | 54 | 47.79%    | 40 | 41.67%    | 38 | 40.43% |
| B+     | 22           | 11        |    | 7         |    | 4         |    |        |
| B      | 35           | 4         |    | 9         |    | 22        |    |        |
| B-     | 15           | 4         |    | 9         |    | 3         |    |        |
|        | 72           | 23.76%    | 19 | 16.81%    | 25 | 26.04%    | 29 | 30.85% |
| Totals | 303          | 113       |    | 96        |    | 94        |    |        |

