

THE PRICE OF CHEEKY CONTRACTING

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I

INTRODUCTION

“Investors like me look at contracts as akin to the user instructions that come along with some device, like a computer or phone. The contract is a document I look at when things go wrong; it has instructions on how to fix the problem. But [Argentina’s] lawyers . . . they approached the contract as if they were Harry Houdini trying to get out of a box.”

- *Investor in sovereign bonds, talking about Argentina’s aggressive reading of its contract terms in its 2020 restructuring.*¹

It is an old adage among lawyers that contracting parties pay minimal attention to their contract terms until faced with a crisis. Then, the parties rush to read the terms of what they contracted for. And, to the extent there are gaps and ambiguities in what they agreed to, choices have to be made in terms of what meanings to assert for those gaps and ambiguities. In a severe crisis, we hypothesize, parties will face the temptation to be particularly aggressive; a temptation that will be tempered, possibly, by factors such as concerns about long-term reputation. In this Article, we examine what happens when a sovereign debtor with an already besmirched reputation faces a severe crisis and aggressively interprets the gaps and ambiguities in its contracts. The debtor is Argentina, and the crisis is the covid-exacerbated financial situation in 2020.

In the real world of standard-form contracting, where contract terms are largely copied from one deal to the next, it seems plausible that the “real deal” will sometimes vary from the “paper deal.”² The question we ask is: Under

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1. Mark Weidemaier & Mitu Gulati, *Clauses and Controversies, Episode 35 ft. Ben Heller*, APPLE PODCASTS (Apr. 19, 2021), <https://podcasts.apple.com/us/podcast/ep-35-ft-ben-heller/id1528208049?i=1000517758085> [<https://perma.cc/DEC6-ZJ3J>].

2. On standard-form contracting in the sovereign debt world (our focus) and elsewhere, see MITU GULATI & ROBERT E. SCOTT, *THE THREE AND A HALF MINUTE TRANSACTION: BOILERPLATE AND*

conditions of contract inattention, will parties entering into contracts price their deal differently as a function of whether the counterparty is likely to be faithful to the real deal, or try to wring advantage by engaging in an opportunistic reading of the paper deal?

To date, there has been little empirical investigation of the interaction between informal trust and formal contract in the legal literature.³ To the extent trust and contract are discussed together, it is as alternative methods of contract enforcement: informal versus formal.⁴ And the question that is often asked is whether one crowds out the other.⁵ Put differently, the two concepts are viewed as substitutes rather than complements. Our Article looks to their complementarity. Does more or less trust among parties change how the formal contract terms get priced?

Scholars of investment contract design have long been interested in the tradeoff between commitment and flexibility. Take the contracts between dispersed investors and firm managers.⁶ On the one hand, investors want to give managers discretion to make the right business decisions with their money because the managers are the experts on this matter, and the investors are

THE LIMITS OF CONTRACT DESIGN 4 (2013) (discussing how lawyers working with financial contracts are slow to implement changes to standard form contracts, even after a court has revealed its interpretation of a term does not match what the lawyer believed it meant or will be to the detriment of the lawyer's client); see also Robert Anderson & Jeffrey Manns, *Boiling Down Boilerplate in M&A Agreements: A Response to Choi, Gulati, & Scott*, 67 DUKE L. J. ONLINE 219, 219 (2019) (showing how merger and acquisition contracts often suffer from "the problem of unreflective copying of precedent provisions"). On how the "real" can often vary from the "paper" one, see Stewart Macaulay, *The Real Deal and the Paper Deal: Empirical Pictures of Relationships, Complexity and the Urge For Transparent Simple Rules*, 66 MOD. L. REV. 44, 79 (2003) (finding that "contract documents often fail to capture the real deal between parties"). For a discussion of the Macaulay perspective and how it is at odds with how contract law is generally taught in United States law schools, see Brian H. Bix, *The Role of Contract: Stewart Macaulay's Lessons From Practice*, in REVISITING THE SCHOLARSHIP OF STEWART MACAULAY, 241, 250–53 (Jean Braucher, John Kidwell & William C. Whitford ed., 2013) (noting the differences between what students are taught and real world practices).

3. Among the exceptions are Stewart Macaulay, *Non-Contractual Relations in Business*, 28 AMER. SOC. REV. 55, 58 (1963) (explaining that businessmen often prefer handshake deals based off trust rather than formal contracts); Lisa Bernstein, *Beyond Relational Contracts: Social Capital and Network Governance in Procurement Contracts*, 7 J. LEGAL ANALYSIS 561, 561 (2015) (explaining how sophisticated contractors can rely on trust-based relational contracting without involving the legal system).

4. Among the articles discussing the complimentary relationship, see Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice and Doctrine*, 110 COLUM. L. REV. 1377, 1383–84 (2010) (studying the relationship and information exchange between informal and formal contracts); Bryan McCannon, Colleen Tokar Asaad & Mark Wilson, *Contracts and Trust: Complements or Substitutes*, 14 J. INSTITUTIONAL ECON. 811, 830–31 (2018) (discussing the impact that trust has on contract formation and contract enforcement).

5. E.g., Iris Bohnet, Bruno Frey & Steffen Huck, *More Order with Less Law: On Contract Enforcement, Trust, and Crowding*, 95 AM. POL. SCI. REV. 131, 131 (2001) (explaining that trusts "crowds in" or "crowds out" depending on the strength of enforcement).

6. See Oliver Hart, *Financial Contracting*, 39 J. ECON. LITERATURE 1079, 1085–86 (2001) (discussing how the tension between the conflicting interests of managers and investors impacts decisionmaking).

dispersed and inexpert. Constraining the managers by requiring them to seek investor approval for decisions would produce delay and inefficiency, making it harder to compete with other firms where managerial decisions are not subject to investors second-guessing. On the flip side, granting managers discretion to handle investor funds produces the risk that the managers will make hasty decisions or, worse, simply take the money and run. This risk of managerial misbehavior militates in favor of constraining managers, or granting them less discretion.

The question then is how to design a contract that appropriately balances the need to give discretion, while also constraining opportunism? The question is thorny because increased discretion for managers produces greater temptation to act opportunistically. Among the features that scholars have suggested solve the circularity between commitment and flexibility in the real world are extra-contractual characteristics such as trust and reputation. If the managers in question are repeat players with reputational capital at stake, then they can be trusted more. Or if the managers come from the same small insular community as the investors, the fear of community shaming might constrain misbehavior.⁷

In the area of government financing, the commitment versus flexibility problem is stark. In the case of countries that are dependent on foreign financing, investors will necessarily be dispersed, inexpert about local conditions, and ill-equipped to police the behavior of local actors. In such a situation, when a financial crisis hits a sovereign borrower, the investors would likely benefit by allowing local government officials the discretion to make quick decisions to handle the crisis—including the discretion to do things like putting a hold on creditor payments—until the crisis has abated. By contrast, if such decisions could only be taken after obtaining the agreement of a supermajority of creditors—say, 90%—the decision would take time to be made and would be at risk of being held hostage by holdouts. The problem, though, is that giving government officials unfettered discretion to make quick and unilateral decisions on debt relief creates the risk that those government officials will utilize that discretion to curry favor with their local constituents, who might like the lower tax payments that result from having to pay creditors less.⁸ That is, officials may claim the existence of a crisis that calls for the reduction of the amounts owed to creditors, even when the situation does not call for such extreme measures. In line with the conjecture about how trust and reputation can help determine the appropriate balance between commitment and flexibility, one might predict that countries that borrow heavily, and have built up reputational capital, will be given

7. For an overview of the literature, see Sadie Blanchard, *Contracts Without Court or Clans: How Business Networks Govern Exchange* 11 (July 1, 2021) (unpublished manuscript Notre Dame Law School), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3780925 [<https://perma.cc/MX5E-UDT4>] (explaining that insular communities may boycott a member who wrongs another person in the community).

8. See Michael Bradley, Elisabeth de Fontenay, Irving De Lira, Salvatiera & Mitu Gulati, *Pricing Sovereign Debt: Foreign Versus Local Parameters*, 24 EUR. FIN. MGT. 261, 265 (2018) (examining the commitment versus flexibility tradeoff with foreign versus local parameter debt).

more leeway by investors. In contrast, countries who borrow less and with less reputational capital at stake will be subject to greater contractual constraints.

At the extremes, this is what we see. Large borrowers with positive reputational capital such as the US, France, the Netherlands, the UK, and Japan borrow under contracts that essentially allow the debtor to do whatever it wants. By contrast, emerging market nations, such as Ecuador and Argentina, who are poorer, borrow less, and have a history of default, borrow under lengthy, detailed contracts that constrain the debtor's ability to act unilaterally in a debt crisis vis-à-vis creditor claims, or to claim that there is such a crisis in the first place.⁹

In a world without transaction costs, one might conjecture from the foregoing discussion that countries that show themselves to be more trustworthy will get offered contracts with greater flexibility, and those that have demonstrated bad behavior in the past will have to agree to greater commitment.¹⁰ While true at the extremes, this is not the case within categories of borrowers who are all constrained by market convention to use the same boilerplate provisions, such as the world of emerging market sovereign borrowers. So, while Chile might have demonstrated a strong commitment to repaying its external debts, no matter what the domestic costs, it has to use the same basic contract terms as Argentina, a nation that some might say has demonstrated little commitment to repaying its foreign debt. The question then is what happens to the commitment versus flexibility tradeoff when all debtors use standard forms, but have shown differing indicia of trustworthiness? The answer, economic logic tells us, should come through the price mechanism. At a predetermined commitment-flexibility point, debtors that are more trustworthy should pay less to borrow than those that are less trustworthy. But do they?¹¹ Do we see the cost of debt increasing for debtors who have shown themselves to be less trustworthy?

To analyze the foregoing question, we use the perennial “bad boy” of the international debt markets: the Republic of Argentina.¹² Argentina has not only been a serial defaulter, but has long been known for its aggressive behavior vis-à-vis creditors in fighting creditor claims.¹³ Below are some recent highlights, that

9. *Id.*

10. See Barry Eichengreen, Kenneth Kletzer & Ashoka Mody, *Crisis Resolution: Next Steps*, in BROOKINGS TRADE FORUM 2003 279, 294 (2004) (exploring the commitment versus flexibility tradeoff); Jason Roderick Donaldson, Lukas Kremens & Giorgia Piacentino, *Sovereign Debt Restructuring: Commitment Versus Flexibility* 3 (2021) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3761293 [<https://perma.cc/86VD-NY63>] (similar).

11. For a skeptical view, see Jeffrey Lipshaw, *Trust Versus Law (in a Box): Do Organizational Forms Really Make a Difference?*, 2014 U. ILL. L. REV. 1796, 1801, 1811 (2014) (noting the difficulty of incorporating trust, a noncalculable metric, into an economic model).

12. On Argentina's “bad boy” status, see Anna Szymanski, *Opportunity Cost: Argentina Remains the Bad Boy of Sovereign Debt*, REUTERS (July 14, 2020), <https://www.breakingviews.com/considered-view/argentina-remains-the-bad-boy-of-sovereign-debt/> [<https://perma.cc/FP72-4PPJ>].

13. See a history of the last two centuries of sovereign borrowing and the serial defaulters over that period, see generally Carmen Reinhart, Christoph Trebesch & Josefin Meyer, *Sovereign Bonds Since Waterloo*, (Nat'l Bureau of Econ. Rsch., Working Paper No. 25543, 2019), <https://www.nber.org/papers/w25543> [<https://perma.cc/C8CE-ACNM>] (analyzing historical rates of

no other sovereign borrower can compete with.

- In 2013, in litigation against unpaid creditors from its 2001 default, the Second Circuit Court of Appeals described Argentina as a “uniquely recalcitrant debtor” and went so far as to use its equity powers to shape a special remedy to force it to pay creditors.¹⁴
- In 2019 and 2020, Argentina found itself in litigation for its refusal to pay on a set of GDP-linked instruments that it had issued in 2005 and 2010. The instruments paid out more when Argentina’s GDP was higher. Investors, however, alleged that Argentina had fudged its GDP numbers in some years, which then resulted in it not having to pay out on the GDP warrants.¹⁵ In 2021, Argentina, for its part, argued that the contracts granted it discretion to decide on how to report the GDP numbers. Ruling in 2021, however, a federal judge in New York determined there were enough facts alleged by the investors that there was a plausible case Argentina had acted in bad faith.¹⁶
- In 2020, mired in crisis and faced with the need to restructure its debt again, Argentina arguably showed its colors again. This time, the supposed bad behavior was in its aggressive use of a new set of clauses intended to enable sovereigns to restructure their debt quickly, without undue vulnerability to holdout creditors—so-called “Collective Action Clauses” or “CACs.” Argentina, seeking to deter holdouts, unveiled two new strategies dubbed Pac Man and Re-designation. Many investors, including some who had participated in the drafting of these clauses, however, saw these as constituting bad faith.¹⁷ Or, quoting Reuters reporter Anna Szymanski, “cheeky”

returns on sovereign debt).

14. For discussion of Argentina’s misbehavior as a debtor, *see, e.g.*, Laura Alfaro, *Sovereign Debt Restructuring: Evaluating the Impact of the Argentina Ruling*, 5 HARV. BUS. L. REV. 48, 49 (2015) (referring to Argentina’s poor reputation from conducting bad-faith negotiations with creditors); Arturo C. Porzecanski, *From Rogue Creditors to Rogue Debtors: Implications of Argentina’s Default*, 6 CHI. J. INT’L L. 311, 317 (2005) (noting Argentina’s long standing bad reputation as a debtor).

15. *See Argentina Fails in Bid to Halt 645 mln Euro UK Lawsuit Over GDP Warrants*, REUTERS (July 22, 2020), <https://www.reuters.com/article/britain-argentina-court/argentina-fails-in-bid-to-halt-645-mln-euro-uk-lawsuit-over-gdp-warrants-idUSL5N2ET611> [<https://perma.cc/BUC9-S6CP>] (describing a lawsuit where Argentina is accused of manipulating financial data); Bob Van Voris, Carolina Millan & Pablo Rosendo Gonzalez, *Suing Argentina Over Debt (Again), Aurelius Claims \$84 Million*, BLOOMBERGQUINT (Jan 14, 2019), <https://www.bloomberg.com/news/articles/2019-01-14/aurelius-capital-sues-argentina-over-gdp-linked-securities?sref=wvo74VD0> [<https://perma.cc/VK9S-MBMY>] (noting allegations that Argentina failed to properly calculate payments). Argentina had previously gotten into trouble with the International Monetary Fund for fudging GDP numbers. *See IMF Says Argentine Economic Data Still Flawed, Extends Review For a Year*, REUTERS (June 3, 2015), <https://www.reuters.com/article/argentina-imf/imf-says-argentine-economic-data-still-flawed-extends-review-for-a-year-idUSL1N0YO2PL20150603> [<https://perma.cc/N2AL-PJNF>] (explaining that Argentina has failed to improve the quality of their statistics).

16. *See Aurelius Capital Master, Ltd. v. Republic of Argentina*, No. 1:19-cv-00351-LAP (S.D.N.Y. Mar. 29, 2021) (describing the judge’s decision to deny Argentina’s motion to dismiss against allegations of improper calculations).

17. Investor ire on this matter was widely reported. *See Colby Smith, Autonomy Hedge Fund*

contracting.¹⁸

We are interested in whether—and, if so, how—the trustworthiness of a contractual counterparty affects the pricing of contract terms. To examine this, we look at a contract term that, if used cooperatively, can benefit all the parties involved, but which also allows for the possibility of opportunistic use. In the next section, we provide the background on the specific contract term, the Collective Action Clause (CAC), whose pricing we study.

II

COLLECTIVE ACTION CLAUSES

The basics of the Collective Action Clause are simple. The CAC sets out the conditions under which a group of creditors will grant the sovereign debt relief. So, the CAC could say that a 100% vote of the creditors is required to alter the provisions of the debt contract, or it could require the support of 85% or 75%. There will typically also be other bells and whistles in that the vote required to alter payment terms—e.g., the amount owed and time and currency of payment—might be higher than the vote required to alter less crucial terms—e.g., the negative pledge clause. For example, the former might be 75% and the latter 50%. And, for purely ministerial matters that have no material impact on the investors, the sovereign issuer and the trustee—the bondholder representative—might be able to make the changes without any need for a creditor vote. There might also be restrictions on whether the affiliates of the issuer—e.g., the central bank—can vote its holdings.

This simple clause—at its core, a vote requirement—has been the topic of

Bemoans Argentina's 'Bad Faith' Tactics, FIN. TIMES (June 30, 2020), <https://www.ft.com/content/5b9d712f-e349-4a53-8a2d-0c7a9bc52214> [<https://perma.cc/XHV8-RUUS>] (noting that some investors claiming these strategies as a “flagrant abuse” of the contractual terms); *Argentina and the Bad Pac Man*, SLATE MONEY (July 25, 2020), <https://slate.com/podcasts/slate-money/2020/07/argentina-sovereign-debt-crisis> [<https://perma.cc/YT4S-VFVV>] (reporting investor’s unhappiness with Argentina’s dealings); Buttonwood, *Hell is Other Bondholders*, ECONOMIST (Aug. 29, 2020), <https://www.economist.com/finance-and-economics/2020/08/29/for-fixed-income-investors-hell-is-other-bondholders> [<https://perma.cc/GL8L-7ZJL>] (highlighting that creditors immediately complained when learning of Argentina’s strategy); Scott Squires, Jorgelina Do Rosario & Carolina Milan, *Argentina Creditors Seek Foreign Backing On Debt Clauses*, BLOOMBERG (Aug. 1, 2020), <https://www.bloomberg.com/news/articles/2020-08-01/argentina-creditors-seek-international-backing-on-debt-clauses?sref=wvo74VD0> [<https://perma.cc/8YVK-YANX>] (describing investor ire with Argentina’s use of Pac-man tactics); Anna Gelpert, *Keeping Cosy By The Dumpster Fire: Argentina Reads Its Contracts... Twice... Quel Scandale!*, CREDIT SLIPS (June 10, 2020), <https://www.creditslips.org/creditslips/2020/06/keeping-cosy-by-the-dumpster-fire-argentina-reads-its-contracts-quel-scandale.html> [<https://perma.cc/5FR3-L3WK>] (examining the investor outrage created by Argentina’s strategy); cf. Mark Sobel, *Argentina And Its Creditors Enter a New Round*, OMFIF FORUM (June 3, 2020), <https://www.omfif.org/2020/06/argentina-and-creditors-enter-new-round/> [<https://perma.cc/72PP-ANKF>] (one of the architects of the 2014 CACs, former United States Under Secretary of the Treasury, expresses concern about the Argentine negotiations and the use of CACs there).

18. Anna Szymanski, *Argentina Gets Too Cheeky With its Creditors*, REUTERS BREAKING VIEWS (June 8, 2020), <https://www.breakingviews.com/considered-view/argentina-gets-too-cheeky-with-its-creditors/> [<https://perma.cc/P36Q-YJX3>].

attention from scholars and policy makers for many years because Official Sector institutions, such as the International Monetary Fund, the United States Treasury, and the European Central Bank, have worried that the modification terms that private creditors and sovereign debtors tend to agree on in their contracts often unduly constrain the ability of sovereigns to restructure quickly in the event of a crisis. In the 1990s bond market, this concern was particularly salient because the vote to change payment terms required unanimity—which meant that bonds, with thousands of dispersed creditors, were essentially impossible to restructure.¹⁹ That constraint then puts pressure on the Official Sector, given its concerns about spillover effects from a sovereign crisis, to provide bailouts to ameliorate the problem.²⁰ In other words, there is a moral hazard problem. Official institutions, therefore, have urged on multiple occasions that sovereigns and their creditors revise their contract terms to make restructurings easier and less susceptible to holdout problems.²¹ Specifically, they have urged the reduction of the vote requirements on the standard form collective action clauses—for example, from 100% to 75%. The response from critics has been that making restructurings easier will lead to greater opportunistic behavior on the part of debtors and that, in turn, will raise the cost of capital.²²

Under pressure from the Official Sector, sovereign debtors and creditors have agreed twice over the past two decades, in 2003 and 2014, to revise their standard forms to include increasingly restructuring-friendly CACs. Specifically, the voting thresholds, in terms of how much creditor approval was required, have been reduced twice, both times making it easier for sovereigns to restructure their debts. The first time, in 2003, the vote requirement in individual bonds for a restructuring decision to be binding was reduced from 100% to 75%.²³ And the second time, the requirement of obtaining a 75% vote in each individual bond was relaxed to also allow a restructuring vote to be binding if either the proposal received 66.67% of the votes across all the bonds being aggregated and at least 50% approval in each individual bond or just a 75% vote across all the bonds in

19. See Lee C. Buchheit & Mitu Gulati, *Sovereign Bonds and the Collective Will*, 51 EMORY L. J. 1317, 1329–30, 1335, 1341–45 (2004) (noting that a unanimity requirement frustrates the ability to restructure).

20. “Official Sector” is the term used in the sovereign debt industry for the official institutions that help govern it, such as the International Monetary Fund and the World Bank. See Lee C. Buchheit, *The Role of the Official Sector in Sovereign Debt Workouts*, 6 CHI. J. INT’L L. 333, 338–39 (2005) (discussing the history of the official sector’s role in sovereign debt).

21. For histories of these initiatives, see Lee C. Buchheit & Mitu Gulati, *The Argentine Collective Action Clause Controversy*, 15 CAP. MKTS L. J. 464, 464–69 (2020) (examining the evolution of CACs); see generally W. Mark C. Weidemaier & Mitu Gulati, *A People’s History of Collective Action Clauses*, 54 VA. L. REV. 1 (2014) (outlining the evolution of CACs).

22. For a discussion of the theory, see generally Sayantan Ghosal & Kannika Thampanshivong, *Does Strengthening Collective Action Clauses (CACs) Help?*, 89 J. INT’L ECON. 68 (2013) (discussing the relationship between creditor coordination and both interim and *ex ante* efficient CAC thresholds). Real world participants had similar concerns. See Anna Gelpern & Mitu Gulati, *Public Symbol in Private Contract*, 54 WASH. U. L. REV. 1627, 1648–707 (2006) (reporting on interviews with key players).

23. Buchheit & Gulati, *supra* note 21, at 465–67.

aggregate, with no requirement for any individual bond.²⁴

The empirical question on each of these occasions has been: Did the shift to the restructuring friendly clauses—more flexibility and less commitment—produce an increase in the cost of capital as initially predicted by the critics of the CAC initiatives?

Looking over the range of CAC studies, most have failed to find evidence of a pricing penalty from the reduction in voting thresholds. Instead, studies generally either find a pricing benefit (the cost of borrowing for the sovereign decreases) from using CACs or no effect.²⁵ That is, investors seem to perceive a benefit from making it easier for the debtor to reduce how much it owes those investors (more flexibility/less commitment)—at first cut, a counterintuitive result.²⁶

One explanation for the puzzling result has to do with the interaction of trust with contract. Sovereign issuers, the story goes, are repeat players in the borrowing market. That means that they can generally be trusted to not act opportunistically. That is, to not ask for a restructuring when the issuer is still able to make payments and to not take advantage of a contract term in a fashion that the parties did not foresee at the start; not even if the literal terms of the contract allow for that reading.²⁷ Under such conditions, the primary effect of a reduced voting threshold will be to help reduce the risk of a creditor's holdout disrupting a restructuring, which in turn should result in cost reduction for the majority of creditors and the issuer.²⁸ That then explains why the majority of

24. The fractional vote requirement is a function of the principal amount. *See New ICMA Collective Action Clauses*, CLIFFORD CHANCE 3–4 (Oct. 2014), <https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2014/10/new-icma-sovereign-collective-action-and-pari-passu-clauses.pdf> [<https://perma.cc/E9UA-366Q>] (discussing two limb voting mechanics).

25. *See generally* Kay Chung & Michael G. Papaioannou, *Do Enhanced Collective Action Clauses Affect Sovereign Borrowing Costs?* (Int'l Monetary Fund, Working Paper No. 20, 2020) (discussing whether CACs affect sovereign bond prices); Elena Carletti, Paolo Colla, Steven Ongena & Mitu Gulati, *The Price of Law*, REV. FIN. STUDS. (2020) (analyzing price effects and other related phenomena due to the rise of CAC clauses); Mattia Picarelli, Aitor Erce & Jiang Xu, *The Benefits of Reducing Holdout Risk: Evidence From the Euro CAC Experiment, 2013–2018*, 14 CAP. MKTS. L. J. 155 (2019) (evaluating the price impacts of “mandatory two-limb CACs”); Christoph Grosse Steffen, Sebastian Grund & Julian Schumacher, *Collective Action Clauses in the Euro Area: A Law and Economics Analysis of the First Five Years*, 14 CAP. MKTS. L. J. 134 (2019) (outlining the timeline of CAC incorporation and its limited effects on the price of bonds); Alfredo Bardozetti & Davide Dottori, *Collective Action Clauses: How do They Affect Sovereign Bond Yields?* 92 J. INT'L ECON. 286 (2014) (finding price effects of CACs, but with differences in the effects for different categories of bonds); Michael Bradley & Mitu Gulati, *Collective Action Clauses for the Eurozone*, 18 REV. OF FIN. 2045 (2013) (finding that CACs reduce the cost of capital for lower rated sovereign issuers); Torbjörn Becker, Anthony Richards & Yunyong Thaicharoen, *Bond Restructuring and Moral Hazard: Are Collective Action Clauses Costly?* 61 J. INT'L ECON. 127 (2003) (finding little effect of CACs on bond prices).

26. It is counterintuitive, until one accepts that financial distress is always a multilateral problem. That is, creditor versus creditor and not just creditor versus debtor.

27. *See* Carletti et al., *supra* note 25, at 5938 (suggesting that the risk of strategic default by sovereigns with some degree of trustworthiness is relatively low and generally outweighed by the benefits of more orderly credit coordination from the use of CACs).

28. *Id.* at 5943.

studies do not find negative pricing effects from creditors giving debtors greater flexibility to ask for debt reductions.

In prior research examining the adoption of CACs by Euro area sovereigns in 2013, we found this result, and so do other researchers.²⁹ For Euro area nations, we found overall that reducing the vote required to alter payment terms from 100% to a supermajority requirement—that is, the CAC—reduced the cost of capital.³⁰ More important for our current inquiry, we also found that sovereigns less likely to act opportunistically, other things equal, received a higher pricing benefit for including CACs in their bonds.³¹

The prior study, however, examined a set of sovereigns who were all relatively high on the trust scale.³² The question we consider is the effect of reducing voting thresholds for a country that is low on the trust scale; one that has a track record of acting opportunistically. We should, in such circumstances, see the flip of the result we found for Euro area sovereigns: a negative price effect.

We find some indication of a negative price effect in a study of Venezuelan bond prices in 2016. Venezuela, to give some context, is a frequent defaulter and had a government in place with an unsavory reputation.³³ And we found, for data from 2016, that bonds with higher vote thresholds, harder to restructure, were priced higher than the ones with lower vote thresholds, easier to restructure.³⁴ In other words, the opposite pricing result as that from the Euro area study for a set of high-trust issuers. The sample of bonds in the Venezuela study, however, varied not just in terms of their CACs, but also another important contract term, the *pari passu* clause.³⁵

Argentina, in 2020, presents an empirically cleaner opportunity to examine CAC pricing for an unsavory debtor. As noted earlier, under pressure from the

29. Carletti et al., *supra* note 25; Picarelli, *supra* note 25; Grosse Steffen et al., *supra* note 25.

30. Carletti et al., *supra* note 25; Picarelli et al., *supra* note 25.

31. Carletti et al., *supra* note 25.

32. *See id.* (constructing the scale using measures of trustworthiness from a number of public sources such as the World Bank’s “Doing Business” index of countries).

33. This being the government of Nicholas Maduro, currently under international sanctions. For discussion of its unsavory character, *see* Robin Wigglesworth, *Venezuela Crisis Raises Talk of ‘Odious Debt’ Doctrine*, FIN. TIMES (Sept. 11, 2017), <https://www.ft.com/content/fa6850cc-96c3-11e7-b83c-9588e51488a0> [<https://perma.cc/5JVK-VLJX>].

34. *See generally* Carletti et al., *supra* note 25 (studying the yield differential between CAC bonds and otherwise similar no-CAC bonds).

35. There are prior CAC studies that have examined pricing effects across a range of issuers, ranging from poor to rich. However, these studies—the first generation of CAC studies—were done with cross-sectional data across countries, where researchers had to make heroic assumptions about how they had managed to control for the myriad differences in the contracts and issuers other than the CAC term. And the findings vary. Some find that the reduction of voting thresholds results in a price penalty for the nations with low credit ratings, but a price benefit for those with high ones. Others find no effects across the range of sovereigns. Some find price benefits for the low credit rating nations, but few for the high ones. And one study found a U shaped curve with negative effects for the sovereigns in the middle range of ratings. For the varying bottom lines, *see generally* Barry Eichengreen & Ashoka Mody, *Do Collective Action Clauses Raise Borrowing Costs?*, 114 ECONOMIC J. 247 (2004) (comparing bond spreads); Bradley et al., *supra* note 25 (discussing the impact of CAC clauses on the cost of capital); Becker et al., *supra* note 25 (examining the cost effects of CAC clauses); Bardozzetti & Dottori, *supra* note 25 (same).

Official Sector, almost all sovereigns switched to using a new type of CAC in mid to late 2014.³⁶ A number of the sovereigns who switched to the new CACs, though, still had outstanding bonds, issued earlier in time, that had the prior generation of CACs. That then produced a situation where sovereigns such as Argentina simultaneously had bonds trading that had two different types of CACs: easier-to-restructure and harder-to-restructure. In Argentina's case, the situation was unusually good for purposes of an empirical test because it retained the differential in CACs even after it did its restructuring in 2020. Put differently, restructured bonds that had older CACs—we term them Kirchner CACs, after Christina Kirchner, the president under whom they were issued—and restructured bonds that had newer CACs—Macri CACs, after Mauricio Macri, the next president—both kept their original CACs even after the restructuring.³⁷ Other than this one CAC type difference, though, these Kirchner and Macri bonds were identical in substantive legal terms like *pari passu*, negative pledge, and cross defaults. That then sets up a situation where we can compare Argentine bonds with Kirchner CACs, which should be harder to restructure, to Argentine bonds with Macri CACs, which should be easier to restructure, in the lead up to the restructuring and in the period immediately after the restructuring.³⁸ To reiterate then, unlike in the case of the Venezuelan study mentioned above, the only salient legal contract difference in these bonds is the type of CAC.

III

EMPIRICAL TESTS

This section reports on our empirical analysis of two sets of Argentine bonds, Kirchner and Macri, that are identical in all of their substantive contract terms, except for some differences in the financial terms—e.g., maturity, coupons, principal amounts, and callability—and one legal term, the CACs. The CACs in

36. For the most recent data on this, *see generally* INTERNATIONAL MONETARY FUND, *Fourth Progress Report on Inclusion of Enhanced Contractual Provisions in International Sovereign Bond Contracts* 3–4 (2019), <https://www.imf.org/~media/Files/Publications/PP/2019/PPEA2019008.ashx> [<https://perma.cc/RY79-8RY8>] (describing the prevalence of enhanced CACs in sovereign bonds).

37. We are unaware of any other sovereign debt restructuring where the holders, after the restructuring, kept their pre-restructuring contract terms. But, with Argentina in 2020, the story we have heard from insiders involved in the negotiations is that holders who had stronger contract terms going in to the restructuring refused to have them weakened. The holders with already weaker terms though, were willing to stay with their weaker terms post restructuring.

38. This feature is explicated in the disclosures mandated by the US Securities and Exchange Commission for the bonds in question. The relevant public documents are publicly available both on EDGAR (the SEC's disclosure system) and the website of the Luxembourg exchange, where the bonds are listed. *Description of the Republic of Argentina*, SEC. EXCH. COMM'N (Oct. 23, 2020), <https://www.sec.gov/Archives/edgar/data/914021/000119312520275311/d29083dex99d.htm> [<https://perma.cc/SEX4-XVDQ>]; *Argentina (The Republic of)*, LUX. STOCK EXCH., <https://www.bourse.lu/issuer/Argentina/28543> [<https://perma.cc/W3FV-P3V6>]; *see also* Sebastian Grund, *Restructuring Argentina's Sovereign Debt*, COLUMBIA BLUE SKY BLOG (Dec. 3, 2019), <https://clsbluesky.law.columbia.edu/2019/12/03/restructuring-argentinas-sovereign-debt-navigating-the-legal-labyrinth/> [<https://perma.cc/ML5W-JP42>] (noting the same differences in bond contract terms).

the Kirchner bonds require higher voting thresholds to be met to be restructured than do the Macri bonds. To the extent we can control for differences in the financial terms, this allows us to examine the differential pricing effect of the one legal difference between the Kirchner and the Macri bonds. That is, the differences in the CACs. If there are pricing differences, that suggests that the market is cognizant of the contractual differences.

We are interested in whether the pattern we see in terms of the pricing difference will be different here than what has been found in prior pricing studies. Prior studies of Euro area sovereign bonds described above found that the harder-to-restructure bonds had *lower* prices than the easier-to-restructure ones. The explanation for this counterintuitive result was that Euro area sovereign issuers—all very concerned with maintaining their good reputations and constrained by institutions such as the European Central Bank—were only ever going to use the power to restructure when they needed to solve a holdout problem. Put differently, they were not likely to use that power to restructure opportunistically, by paying back only a fraction of what they borrowed even when they had the ability to repay in full. Consistent with that conjecture, when the CAC pricing differential among the different European countries was examined, we found that the size of the differential between harder-to-restructure and easier-to-restructure bonds was smaller for countries that scored lower on an index of relative trustworthiness of nations.³⁹

The aforementioned European nations though were all high on the trust scale to start with. The natural question then was whether, if we went far down the trust scale—to a bad actor sovereign issuer like Argentina—the differential could go so far down that the sign on the differential might flip. Would *harder-to-restructure* bonds now show a higher price than *easier-to-restructure* ones?

For readers who would prefer to skip the econometric analysis that follows and jump to the punch line: the sign does flip.⁴⁰

As explained more fully in the next part, we examine sets of Argentine bonds in two scenarios: during a severe debt crisis and prior to restructuring, and after the debt crisis, when a new restructuring was unlikely to be offing in the near future. The sign flips in both scenarios, except for a short window of time immediately after the restructuring, when the differential hovers around zero.

39. See *supra* Part II (discussing the study results).

40. A point to re-emphasize here is that the legal contract terms of the bonds remained the same before and after the restructuring. That is, bonds that had Kirchner (harder to restructure) terms before the restructuring in 2020 kept their Kirchner terms. And bonds that had Macri terms (easier to restructure) before the restructuring continued to have the same terms afterwards as well. The restructurings did not alter the CACs, themselves.

IV DATA

The Republic of Argentina announced on August 31, 2020 that, as part of its bond exchange offer:

[I]t has obtained the consents required to exchange and or modify 99.01% of the aggregate principal amount outstanding of all series of eligible bonds issued under the 2005 Indenture . . . and 2016 Indenture . . . pursuant to the terms of its invitation . . . described in the prospectus supplement dated April 21, 2020, as most recently amended and restated on August 17, 2020.⁴¹

The eligible bonds were denominated in USD, EUR, and CHF. The principal amount that consented to the proposed modifications totaled \$59,735 million out of \$63,376 million. As a result of the exchange offer, on September 4, 2020, Argentina issued twelve new bonds (six USD denominated and six EUR denominated⁴²) with maturities ranging from 2029 to 2046. The debt restructuring pushed debt amortizations to 2024 and beyond and reduced interest payments. The total amount issued with these securities was \$68,161 million, which corresponds to about 20% of Argentina's total government debt (\$332.2 billion in Q3 2020). Table 1-Panel A summarizes the main characteristics of the newly issued USD denominated bonds (henceforth "after-exchange-bonds"). With the sole exception of the 2029 maturity, a fixed coupon bond, all the other bonds are step-up with coupon rates that increase over the securities' lifecycle according to a predefined schedule.⁴³

41. *The Argentine Republic Announces the Results of the Exchange of External Public Debt under Foreign Law*, ARGENTINA.GOB.AR (Aug. 31, 2020), <https://www.economia.gob.ar/en/the-argentine-republic-announces-the-results-of-the-exchange-of-external-public-debt-under-foreign-law/> [<https://perma.cc/5YKE-Z43D>].

42. After-exchange-bonds are "twin-currencies" in that, for a given maturity, Argentina issued a USD- and a EUR-denominated bond. EUR-denominated bonds represent a small fraction of the total issued amount of about 7.5% (about 5,000 million using the EUR/USD exchange rate on September 4, 2020). We therefore focus on USD-denominated bonds which constitute the lion's share of newly issued government securities.

43. Coupon payments are semi-annual with a long first coupon paid in July 2021. Amortization plans are pro-rata in that an identical fraction of the (original) principal amount is paid to creditors at each reimbursement date. The 2029 maturity amortizes in 10 installments starting January 2025; the 2030 maturity amortizes in 13 installments starting July 2024; the 2035 maturity amortizes in 10 installments starting January 2031; the 2038 maturity amortizes in 22 installments starting July 2027; the 2041 maturity amortizes in 28 installments starting January 2028; the 2046 maturity amortizes in 44 installments starting January 2025.

Panel A: after-exchange-bonds						
ISIN	Issue	Maturity	Coupon Type	Coupon Rate	Amount	Indenture
US040114HX11	04/09/2020	07/09/2029	Fix	1.000	2,635.03	Macri
US040114HS26	04/09/2020	07/09/2030	Step-up	0.125- 1.750	16,090.61	Macri
<i>US040114HT09</i>	<i>04/09/2020</i>	<i>07/09/2035</i>	<i>Step-up</i>	<i>0.125- 5.000</i>	<i>20,501.72</i>	<i>Macri</i>
<i>US040114HU71</i>	<i>04/09/2020</i>	<i>01/09/2038</i>	<i>Step-up</i>	<i>0.125- 5.000</i>	<i>11,405.07</i>	<i>Kirchner</i>
<i>US040114HV54</i>	<i>04/09/2020</i>	<i>07/09/2041</i>	<i>Step-up</i>	<i>0.125- 4.875</i>	<i>10,482.11</i>	<i>Kirchner</i>
<i>US040114HW38</i>	<i>04/09/2020</i>	<i>07/09/2046</i>	<i>Step-up</i>	<i>0.125- 5.000</i>	<i>2,092.00</i>	<i>Macri</i>
					63,206.53	
Panel B: before-exchange-bonds						
ISIN	Issue	Maturity	Coupon Type	Coupon Rate	Amount	Indenture
US040114GW47*	04/12/2017	04/22/2021	Fix	6.875	4,484	Macri
US040114HK99*	04/18/2017	01/26/2022	Fix	5.625	3,250	Macri
US040114HP86	01/11/2018	01/11/2023	Fix	4.635	1,750	Macri
US040114GX20*	04/18/2017	04/22/2026	Fix	7.50	6,454.85	Macri
US040114HL72*	04/12/2017	01/26/2027	Fix	6.875	3,750.00	Macri
US040114HQ69	1/11/2018	01/11/2028	Fix	5.875	4,250	Macri
<i>US040114HF05*</i>	<i>04/12/2017</i>	<i>07/06/2028</i>	<i>Fix</i>	<i>6.625</i>	<i>965.00</i>	<i>Macri</i>
<i>US040114GL81*</i>	<i>12/31/2003</i>	<i>12/31/2033</i>	<i>Fix</i>	<i>8.280</i>	<i>5,092.46</i>	<i>Kirchner</i>
<i>US040114HG87*</i>	<i>04/12/2017</i>	<i>07/06/2036</i>	<i>Fix</i>	<i>7.125</i>	<i>1,727.00</i>	<i>Macri</i>
<i>US040114GK09</i>	<i>06/02/2005</i>	<i>12/31/2038</i>	<i>Step-up</i>	<i>1.330- 3.750</i>	<i>4,938.66</i>	<i>Kirchner</i>
<i>US040114GY03</i>	<i>04/12/2017</i>	<i>04/22/2046</i>	<i>Fix</i>	<i>7.625</i>	<i>2,617.69</i>	<i>Macri</i>
US040114HR43	1/11/2018	1/11/2048	Fix	6.875	3,000	Macri
USP04808AN44*	6/28/2017	6/28/2117	Fix	7.125	2,689,18	Macri
					44,968.83	

Table 1. Bond characteristics. Annual coupon rate is in %. For step-up bonds the first number is the first coupon (to be paid in July 2021 for the after-exchange bonds and paid on September 30, 2005 for US040114GK09) and the second number is the highest coupon rate. Amount is in USD MM. * indicates multiple ISINs: amount aggregated across multiple ISINs. Bonds in italics are those used in our empirical analyses.

All the after-exchange-bonds contain CAC provisions regarding future modifications to their terms. Yet these provisions differ across bonds in cases where the proposed modifications would affect two, or more, bond series. Specifically, the 2038 and 2041 bonds—“2005 Indenture new bonds”—require the consent of more than 85% of the aggregate principal across all series affected and/or more than 66 2/3% of the aggregate principal of each series. By contrast, the 2029, 2030, 2035, and 2046 bonds—“2016 Indenture new bonds”—require the consent of more than 66 2/3% of the aggregate principal across all series affected

and/or more than 50% of the aggregate principal of each series. The heterogeneity in legal terms across indentures is identical to that of the “before-exchange-bonds,” those that got exchanged at the beginning of September 2020. As noted above, we refer to these different sets of legal terms and the bonds that contain them as *Kirchner* and *Macri*, respectively, after the presidents who were in power when the bonds were issued. Key to keep in mind is that the *Kirchner* bonds required a *higher vote* to be satisfied before a restructuring can be universally binding than the *Macri* ones required, *making the former harder to restructure and the latter easier*. The characteristics of the USD denominated before-exchange-bonds are summarized in Table 1-Panel B.⁴⁴

Note that *Kirchner* bonds have relatively long tenors, 2033 and 2038 before exchange, and 2038 and 2041 after exchange, while the maturity structure for *Macri* bonds is more dispersed, with expirations ranging from 2021 to 2117 before exchange and from 2029 to 2046 after exchange. The term structure of bond yields—as well as yield spreads—is, overall, inverted for the Argentinian bonds during our sample period, consistent with the documented feature for sovereign debtors in financial (dis)stress⁴⁵: Yields and yield spreads on shorter maturities are larger than those for bonds with longer tenors. Making use of the entire set of *Macri* bonds would therefore bias us towards finding a negative yield differential associated with *Kirchner* bonds since the vast majority of *Macri* bonds have shorter tenors than *Kirchner* bonds. Therefore, in our study, we include a smaller set of *Macri* bonds: three before-exchange-bonds and two after-exchange-bonds, indicated in italics in Table 1. These *Macri* bonds have the closest maturities to those of *Kirchner* bonds.⁴⁶ The goal is to compare bonds that have similar maturity risk. Overall, the maturity differential between *Kirchner* and this restricted set of *Macri* bonds ranges between two and five years. The average maturity of *Kirchner* bonds is about fifteen years before exchange and twenty years after exchange.

We collect from Refinitiv daily zero-volatility spreads (*Z*-spreads⁴⁷), as well

44. The exchange offer involved EUR- and CHF-denominated bonds with an outstanding amount of \$18,407 million (\$6,677 million with *Macri* indentures and \$11,729 million with *Kirchner* indentures). Holders of these series could opt for USD-denominated bonds.

45. See generally Juan M. Sanchez, Horacio Saprizza & Emircan Yurdagul, *Sovereign Default and Maturity Choice*, 95 J. MONETARY ECON. 72 (2018) (describing a model of sovereign debt maturity and the term structure of interest rate spreads).

46. An alternative would be to include all bonds and to control (parametrically) for the dependence of bond valuations on residual maturity. Yet the best models in fitting the term structure of bond yields typically include at least three terms and thus require a large set of cross-sectional units. Given the scarcity of bonds we can use—especially after the exchange offer, where there are at most six bonds—we opt for reducing the number of bonds instead in order to have similar maturities across *Kirchner* and *Macri* bonds.

47. The *Z*-spread is the constant spread that has to be added to the (currency-matched) swap-derived zero curve to obtain the current bond (bid) price. *Z*-spreads constitute an alternative to yield spreads to quantify the additional risk a bond bears as compared to a risk-free alternative. While yield spreads assume that all future cash flows are discounted at the same rate—as the spread is measured at a specific point on the yield curve—*Z*-spreads take into account that payments occurring at different points in time are discounted at different rates. See MOORAD CHOUDHRY ET AL., CAPITAL MARKET

as other data fields described below, for the before-exchange-bonds from December 10, 2019—when Alberto Fernandez takes office—to July 17, 2020, two weeks after the fourth and last restructuring proposal. That gives us a total of 159 trading days.

For the after-exchange-bonds, our sample period ranges from September 14, 2020—two weeks after the exchange offer—to June 4, 2021 for a total of 187 trading days. All the after-exchange-bonds are callable. Holders of callable bonds are long a non-callable bond and short a call option. The embedded option makes callable bonds trade at lower prices and higher yields than non-callable bonds. For the after-exchange-bonds, we use the option-adjusted spread which nets out prepayment risk,⁴⁸ and is therefore the right metric to compare with the Z-spread for the non-callable before-exchange-bonds. We hereafter refer to these Z-spreads for before-exchange-bonds and option-adjusted spreads for after-exchange-bonds as our bonds' spreads.

To mitigate the effect of outliers, spreads are winsorized, at the bond level, at the ninety-fifth percentile. Descriptive statistics – means, medians, first and third quartile – for bond spreads are portrayed in Figure 1. The figure reveals that spreads are, overall, lower and less volatile for after-exchange-bonds.

INSTRUMENTS: ANALYSIS AND VALUATION 150–58 (3d ed. 2010). Given the heterogeneity in our bonds' payment structure, we therefore opt for Z-spreads in lieu of yield spreads in order to measure credit risk more accurately.

48. This is given by the difference between the zero-volatility spread and the option-adjusted spread. Prepayment risk turns out to be of little economic relevance for our sample bonds in that prepayment risk, as a fraction of a bond's yield, ranges between 2.5% and 6.25%. This is consistent with a low likelihood that the Argentinian government will repay the bonds to refinance at better terms. More generally, on how these issuer call provisions are set deep out of the money and are unlikely to ever be triggered, *see generally* Ugo Panizza & Mitu Gulati, *Make-Wholes in Sovereign Bonds*, 16 CAP. MKTS. L. J. 267 (2021) (examining sovereign bond “make-whole” provisions).

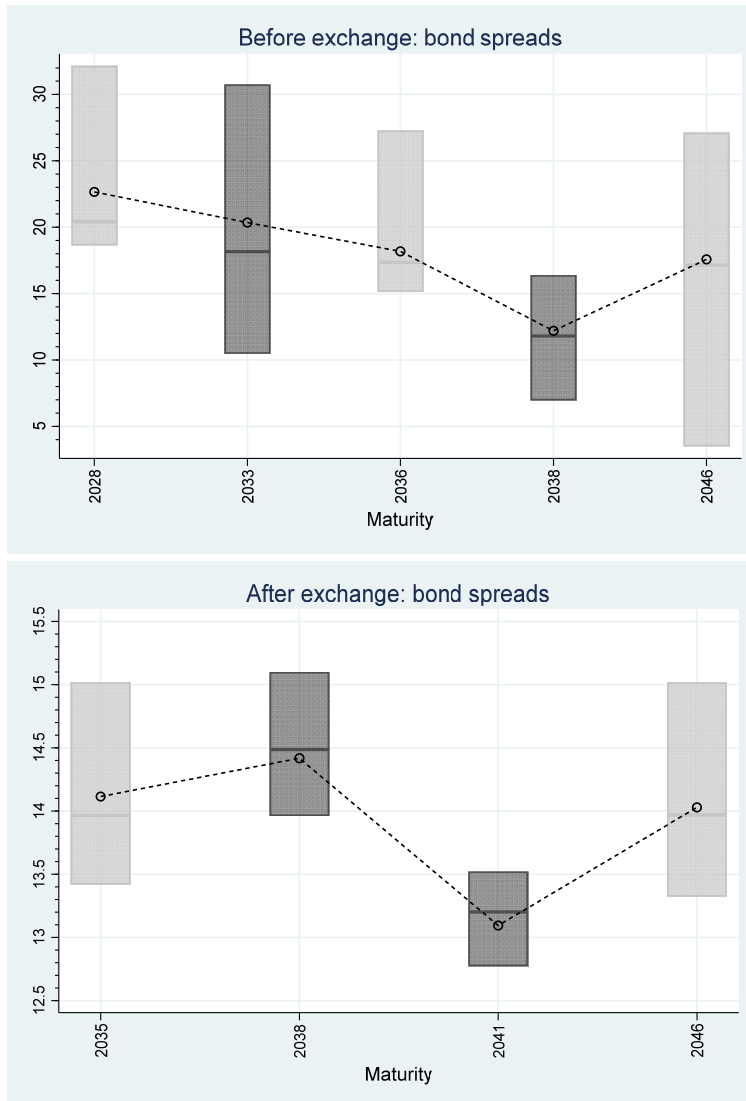


Figure 1. Bond spreads/1. The figure displays descriptive statistics of bond spreads: average (black circles), median, first and third quartile for Kirchner (dark grey) and Macri (light grey) bonds. Bond spreads are Z-spreads for before-exchange bonds (left panel) and option-adjusted spreads for after-exchange bonds (right panel).

Figure 2 plots the time series of equally weighted average spreads for the Kirchner—harder to restructure—and Macri—easier to restructure—bonds. In reading Figure 2, it is helpful to keep an important feature of sovereign bond restructurings in mind. The norm in sovereign restructurings is that all bonds of the same type—for example, foreign currency, foreign law, maturity greater than a year—receive the same offer, regardless of their legal terms—for example,

CACs. That is what was expected in Argentina and what happened. Any pricing difference, therefore, is a function of differential expectations about whether the debtor will be able to force that offer on to one group of bondholders versus another—which the lower vote threshold in Macri-vintage CACs makes more likely.

Focusing now on Figure 2, we see that bond spreads are relatively stable at the beginning of the sample. They then increase in the aftermath of March 2, 2020, when Argentina hires Bank of America and HSBC as underwriters in its debt restructuring and contracts with Lazard Freres as financial adviser until the first debt proposal is put forward by the government on April 21, 2020. This increase makes sense since one would expect to see investors lower their expected returns upon news that the sovereign was making concrete plans to restructure its debt.

Spreads then remain at high levels for about one month, until the government submits the second proposal on May 28, 2020, after negotiations with creditors. This proposal reduces the moratorium period on interest payments from three—as in the first proposal—to two years. Given that investors are now expecting to receive the higher recoveries they had demanded, and there is a reduced need for Argentina to ask for the restructuring of its debt, it makes sense that spreads would reduce.⁴⁹ From then onwards, bond valuations remain fairly stable once the third and fourth, and final, debt proposals are submitted to iron out final details.

Now, once the restructuring is done, we should expect the prices to be stable, since there is no immediate new risk of a restructuring. After all, Argentina's interest payments on the bonds have been pushed out for a number of years as a result of the 2020 restructuring.⁵⁰ And, indeed, we do see a stable period of a couple of months up to October 2020.

But then uncertainty hits, in the form of tensions between Argentina and its Official Sector lenders: particularly with the IMF, with Argentina owing it around \$44 billion.⁵¹ On October 5, 2020 President Fernandez says he's seeking an agreement with the IMF "as soon as possible" in order to "clear up any doubts."⁵² The fact that Argentina needs a new debt deal with the IMF comes as something of a shock to players in the bond market since the IMF, as a matter of long-

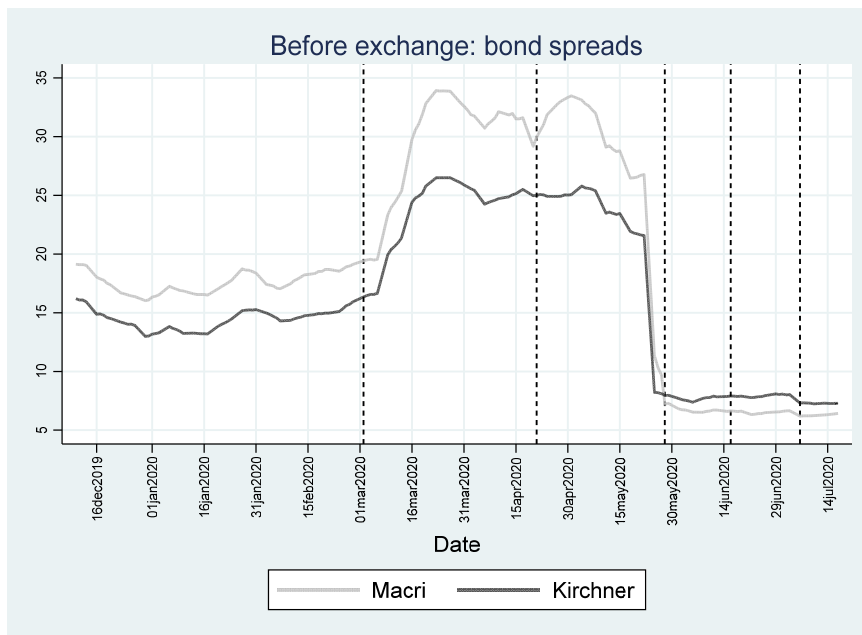
49. For a discussion of concerns about opportunism in this context, see Scott Squires & Jorgelina Do Rosario, *Argentina Says 99% of Sovereign Debt Restructured in Swap*, BLOOMBERG (Aug. 31, 2020), <https://www.bloomberg.com/news/articles/2020-08-31/argentina-says-99-of-sovereign-debt-was-restructured-in-swap?sref=wvo74VD0> [<https://perma.cc/E8N7-EQPQ>] (estimating that creditors received approximately \$13 billion more from Argentina, after negotiations which then reduced the likelihood of holdouts).

50. *Id.*

51. Pablo Guidotti, *Argentina on the Brink, Again*, OMFIF (Oct. 7, 2020), <https://www.omfif.org/2020/10/argentina-on-the-brink-again/> [<https://perma.cc/CZ6W-BYGQ>].

52. See Manuel Leon Hoyos, *Argentina's Path to Debt Relief From Private Creditors*, YALE SCHOOL OF MANAGEMENT (Dec. 1, 2020), <https://som.yale.edu/blog/argentina-s-path-to-debt-relief-from-private-creditors> [<https://perma.cc/32JU-YAR4>] (explaining the timeline).

standing practice—providing concessional financing at low rates to countries in crisis—does not restructure its debts. And without IMF assistance, Argentina will be back in crisis—despite the maturities of private bonds having been pushed out in time. Bond spreads quickly widen, possibly anticipating a replay of the Argentina–IMF drama witnessed in 2002–04. At the beginning of May, 2021 President Fernandez embarks on a European tour seeking support for his country in talks over a new IMF deal and to delay repayments with the Paris Club group of lenders. On May 14, 2021 the IMF managing director, Kristalina Georgieva, states that she had “a very positive meeting with President Alberto Fernández Our objective remains helping Argentina build a prosperous economic future for all.”⁵³ This seems enough to calm bond markets as spreads gradually decrease thereafter.



53. INT'L MONETARY FUND, STATEMENT BY IMF MANAGING DIRECTOR KRISTALINA GEORGIEVA ON ARGENTINA (May 14, 2021), <https://www.imf.org/en/News/Articles/2021/05/14/pr21130-argentina-statement-by-imf-managing-director-kristalina-georgieva> [<https://perma.cc/JQ28-TNYY>].

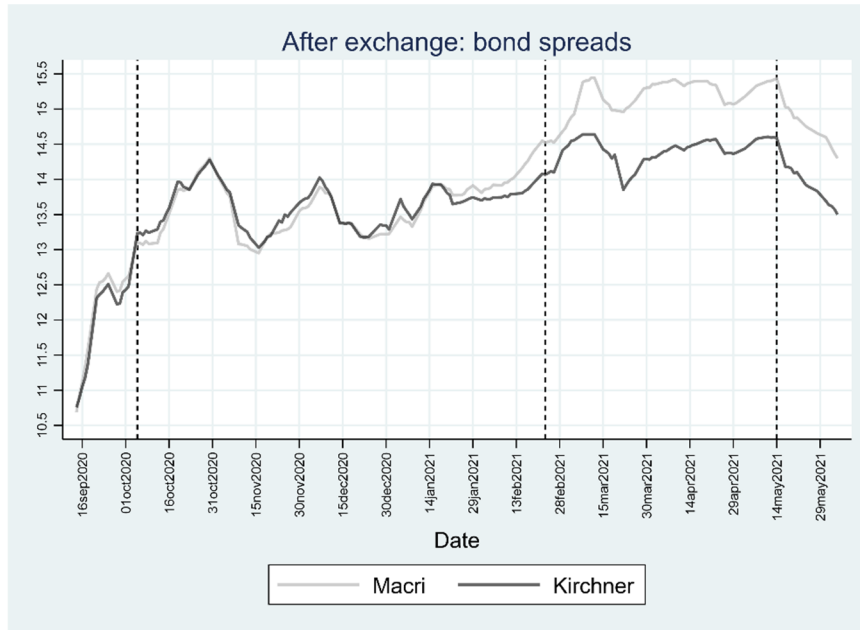


Figure 2. Bond spreads/2. Spreads on Kirchner (dark grey) and Macri (light grey) bonds. Moving average of daily bond spreads, averaged across bond indentures, using two lagged terms, two forward terms and the current observation. Vertical lines correspond to the salient dates reported in Table A1.

Our primary interest though, more than overall movements in the spreads, is the relative pricing of the Kirchner versus the Macri bonds, because that potentially reveals the effect of variation in contract—CAC—terms. One common strategy to understand whether bonds are correctly priced is to compare their yields to those that are predicted by yields on other bonds—typically, constant maturity plain vanilla bonds issued by the same sovereign—together with a curve-fitting method.⁵⁴ Systematic differences between actual and interpolated bond yields would be informative about mispricing. In our context, deviations from predicted bond yields—or spreads—would be informative of a pricing effect associated with the bond terms—Macri versus Kirchner. Such an exercise is however not feasible in our case given the scarcity of plain vanilla Argentine debt securities we can use to predict the yields of our bonds. We therefore conduct our (mis)pricing analysis in relative terms. That is, we compare Kirchner and Macri bond valuations.

Evidence of the pricing effect associated with the difference in bond contract terms comes from Figure 3, where we plot the average spread differential

54. See CHOUDHRY et al., *supra* note 47, at 176–85. For the relation between curve-fitting average pricing errors in U.S. treasuries and aggregate (il)liquidity, see Grace X. Fu, Jun Pan & Jiang Wang, *Noise as Information for Illiquidity*, 68 J. FIN. 2341, 2375 (2013) (using pricing errors as a measure of illiquidity).

between Kirchner and Macri bonds. The traditional prediction, under the assumption that creditors are primarily concerned about debtors opportunistically restructuring their debt, would be that we would see the harder-to-restructure bonds trade at lower spreads than the easier-to-restructure ones. And Figure 3 shows this is indeed the case: that Kirchner—harder to restructure—bonds trade at *lower* spreads than Macri—easier to restructure—bonds for most of the sample period.

Readers may recall from the discussion in the prior Part, however, that the pattern we see in Figure 3 is the opposite pattern from what was found in multiple recent analyses of the debt of Euro area sovereigns. There, the easier-to-restructure bonds were viewed by the market as more valuable than the harder-to-restructure ones, the theory being that there was little fear among investors of debtor opportunism in the Euro area context.⁵⁵ Extra-contractual trust allayed such concerns.

The spread differential in Figure 3 is about -300 bps before the appointment of Bank of America and HSBC as underwriters in the Argentinian debt restructuring. As one would expect, because this appointment indicates a high likelihood of a restructuring, the differential then widens to about -600 bps. That continues until after negotiations between Argentina and the creditors, and a second and improved restructuring proposal from Argentina. At this stage, the likelihood that the restructuring will succeed increases and the risk of holdouts reduces, and we see that the spread differential narrows significantly, to around +100 bps thereafter. Prior to the exchange offer, the average Kirchner-Macri spread differential equals -320 bps—about a 15% reduction with respect to Macri bonds trading at 20% average spreads—with a t-stat equal to -5.84.⁵⁶

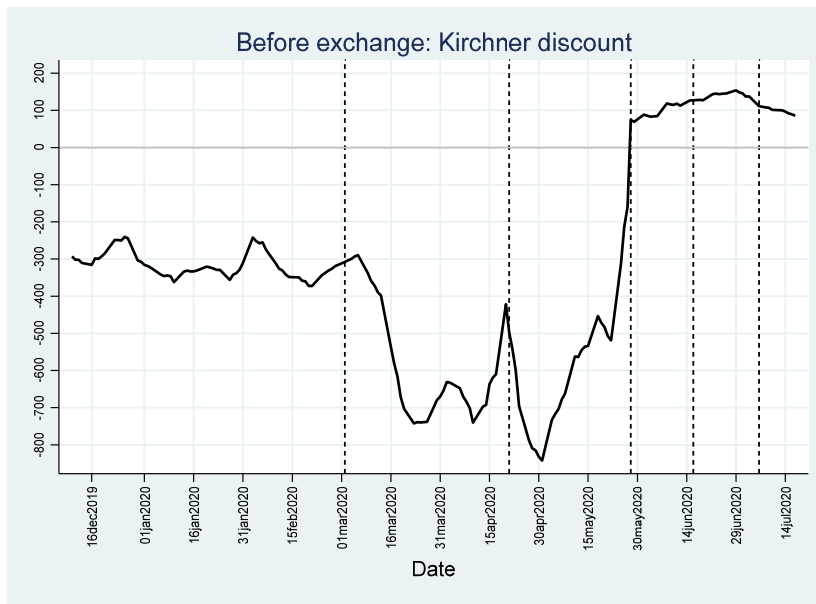
After the restructuring, the spread differential narrows to near zero. This makes sense since the risk of another restructuring of the bonds, given that the restructuring has pushed out the maturity dates on the bonds by multiple years, should now be minimal. The differential remains in the vicinity of zero only for a few months, however, because new uncertainties arise. Specifically, there is uncertainty about Argentina being able to renegotiate the large amount of debt it owes the IMF.⁵⁷ By the end of January, we go back to seeing the Kirchner bonds

55. Carletti et al., *supra* note 25; Picarelli et al., *supra* note 25; Grosse Steffen et al., *supra* note 25.

56. We first regress the daily Kirchner-Macri spread differential on a constant term. The estimated coefficient on the constant term therefore coincides with the average spread differential, and its t-stat can be used to assess the statistical significance (or lack of) of such differential. Computations for the 'typical' t-stat assume that the error terms are uncorrelated over time. Yet, since we are dealing with time-series (financial) data, we use a more conservative approach that is robust to the presence of correlation in residuals. Specifically, we compute the t-stat for the constant term using five-lags (i.e. five days) Newey-West corrected standard errors.

57. See Hoyos, *supra* note 52 (describing the timeline) (Authors, this footnote reference has been adjusted, as the prior reference did not cite to a timeline—please confirm that this is the correct reference). For discussion of some of this drama, see Benedict Mander, *Argentina Damps Hope of Quick Deal with IMF*, FIN. TIMES (Nov. 29, 2020), <https://www.ft.com/content/660c1d46-01f3-41e3-8b6a-cd463a40e05a> [<https://perma.cc/3WWY-4DVV>] (discussing Argentina's diminished hopes of reaching a deal with IMF); Patrick Gillespie, *IMF and Argentina Find Common Ground Amid VP's Bombshell*

having consistently lower spreads than the Macri ones—the same type of result we saw prior to the restructuring. And that differential then widens further up to -100 by the end of March. After the restructuring, the average Kirchner-Macri spread differential equals -32 bps—about a 2.5% reduction relating to Macri bonds trading at 14% average spreads—with a t -stat equal to -4.29. In other words, at least at first cut, the CAC pricing results for Argentina’s bonds are the flip of what we saw for Euro area sovereigns.



Remarks, BLOOMBERGQUINT (Mar. 26, 2021), <https://www.bloombergquint.com/politics/imf-and-argentina-find-common-ground-amid-vp-s-bombshell-remark> [<https://perma.cc/5GJV-JWZ9>] (outlining some topics of negotiation between IMF and Argentina).

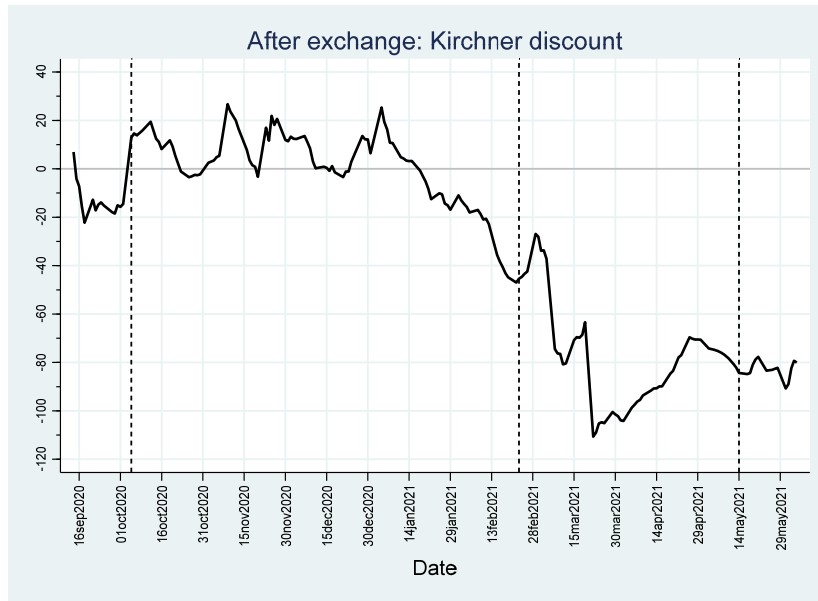


Figure 3. Kirchner discount. Spread differentials (in bps) between Kirchner and Macri bonds. Moving average of daily bond spread differentials, averaged across bond indentures, using two lagged terms, two forward terms and the current observation. Vertical lines correspond to the salient dates reported in Table A1.

Multiple factors other than differences in legal terms, however, may affect risk and, in turn, bond valuations. Drawing from other research on bond pricing, one might worry that differences in liquidity risk—that is, that Macri bonds are more illiquid than Kirchner bonds, rather than in credit risk—are driving our results.⁵⁸ Figure 4 summarizes descriptive statistics—means, medians, first and third quartile—for bond bid-ask spreads.⁵⁹ While illiquidity appears directly correlated with residual maturity after the restructuring, see Panel B, before the restructuring it seems to be the other way round. The figure suggests that Macri bonds are more illiquid than Kirchner bonds prior to the exchange offer, while after the restructuring liquidity levels seem to be quite comparable across the two groups of bonds. It is therefore not clear how liquidity risk may impact our findings regarding the spread between Kirchner and Macri bonds.

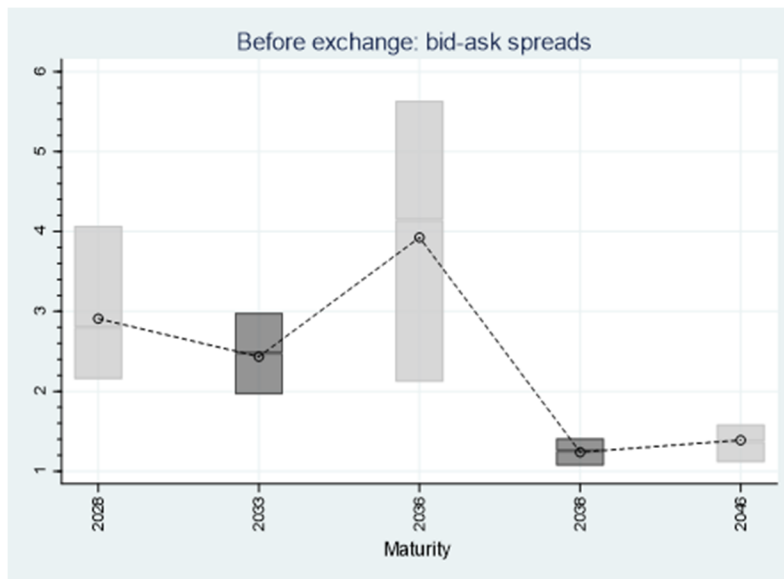
We therefore adopt Fama-MacBeth (1973) cross-sectional regressions—a popular methodology to estimate parameters for asset pricing models with panel

58. For evidence that emerging countries' sovereign bond yields reflect liquidity risk by about 25% and credit risk by about 75%, see Saad Badaoui, Lara Cathcart & Lina El-Jahel, *Do Sovereign Credit Default Swaps Represent a Clean Measure of Sovereign Default Risk? A Factor Model Approach*, 37 J. BANK FINANCE 2392, 2402 (2013) (discussing relative risk percentages).

59. We compute a bond's bid-ask spread as the difference between bid and ask yields (i.e., the yields at the bid and the ask price), scaled by the mid-yield. Bid-ask spreads are winsorized, at the bond level, at the 95% percentile.

data—to separate bond valuations from liquidity risk.⁶⁰ For every day t in our sample, we first run cross-sectional OLS regressions of bond spreads on bid-ask spreads and a constant term. Then we obtain residual bond spreads by subtracting predicted spreads from realized ones. Lastly, we compute the liquidity-adjusted spread differential between Kirchner and Macri bonds taking averages of these residuals across the two groups of bonds.

Using the bid-ask spread as the explanatory variable in our cross-sectional regressions reveals that, consistent with term structures of yields and bid-ask spreads in Figures 2 and 4 for our Argentinian bonds, bond spreads are positively associated with bid-ask spreads before the exchange offer, while the association turns negative for the after-exchange-bonds.⁶¹ Moreover, prior to the exchange, bid-ask spreads explain a sizable portion of bond spreads until mid-March 2020—R-squared values larger than 50%—while the explanatory power progressively drops afterwards, reaching R-squared values of about 10% from June onwards. After the restructuring, we observe a steady decrease in the variability of bond spreads that is explained by the bid-ask spreads: average R-squared values larger than 50% until the end of January 2021 and about 20% afterwards. In short, this evidence is reassuring in that liquidity risk does not appear to be a first-order determinant of bond spreads during times when the Kirchner-Macri spread differential is sizable.



60. Eugene F. Fama & James D. MacBeth, *Risk, Return, and Equilibrium: Empirical Tests*, 81 J. POL. ECON. 607, 615–17 (1973).

61. The result is not reported in the tables in the paper, but available from the authors.

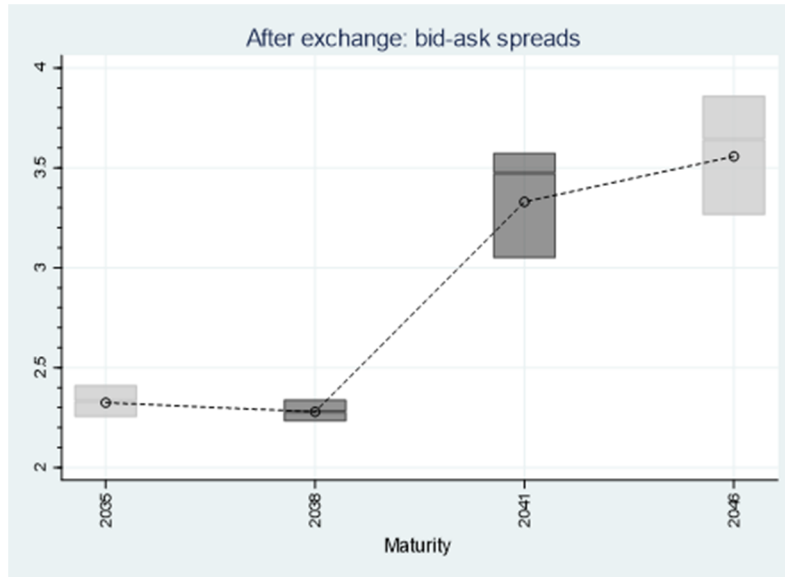


Figure 4. Bid-ask spreads. The figure displays descriptive statistics of bond bid-ask spreads: average (black circles), median, first and third quartile for Kirchner (dark grey) and Macri (light grey) bonds. Bid-ask spreads (in %) for before exchange bonds (left panel) and after exchange bonds (right panel).

In Figure 5, we plot the liquidity-adjusted spread differential—solid line—together with the raw differential—dashed line—from Figure 3. The Kirchner-Macri spread differential gets narrower after adjusting for liquidity risk before the exchange: on average it equals -160 bps with a t-stat equal to -4.18. After the restructuring, if anything, it gets wider relative to the raw spread differential: on average it equals -38 bps with a t-stat equal to -4.78. In sum, although the liquidity-adjusted spread differential becomes narrower overall, Kirchner bonds continue to trade at lower spreads than Macri bonds and the different valuations across the two groups of bonds therefore truly reflect credit risk.

For our purposes, the bottom line is clear. Whether we look at data before the Argentine 2020 restructuring or after, the finding is that the market values Kirchner bonds—harder to restructure—more than the Macri bonds—easier to restructure. When we couple this with the findings in prior research on CACs, which shows the opposite pattern for countries in the Eurozone—there, easier-to-restructure bonds were valued more—it lends support to the conjecture that the pricing of these contract terms is a function of not just the substance of the contract provision, but also an expectation about how the contract clause is going to be utilized.

V

CONCLUSION

To conclude, we note a few matters worthy of further inquiry.

First, it is possible that our results are idiosyncratic to Argentina and to the 2020 context, which was complicated by a global pandemic. Argentina was facing a situation where already bad economic conditions were significantly worsened by the pandemic. That combination of these factors may have forced it to take extreme actions. Further, the comparison we make to Euro area sovereign debt in 2013–14 is one where the Euro area sovereigns were emerging from a crisis, as opposed to going into one, as Argentina was in 2020.

Second, we only look at one side of the transaction. That is, whether the debtor is more or less likely to act opportunistically vis-à-vis its creditors. But what if the creditors are also aggressive contract readers? In our analysis, we do not examine creditor reputations because we do not have data on who the creditors are. We think this is appropriate because investors in the market do not know what holdings other creditors have either, and therefore, unless this information leaks, cannot price it in. In a world where this information leaks, however, one would want to consider information on creditor identity as well.⁶²

Third, there is the question of whether, and to what extent, contract law itself ameliorates the problem of aggressive contract reading through its doctrines such as the duty of good faith that is implicit in all contracts governed by New York law. Judges do on occasion stretch the law to police what they see as contracting misbehavior.⁶³ But those instances are few and far between, when what the judge is being asked to do is to second-guess negotiated contract language among sophisticated commercial parties.⁶⁴

62. A bond held by aggressive creditors with high quality lawyers will presumably behave differently vis-à-vis its contract terms and that should impact the pricing of those terms. *But see generally* Robert E. Scott, Stephen J. Choi, & Mitu Gulati, *Anticipating Venezuela's Debt Crisis: Hidden Holdouts and the Problem of Pricing Collective Action Clauses*, 100 B.U. L. REV. 255 (2020) (discussing why these creditors typically have an incentive to remain hidden).

63. An example of this is *Nanukali Paving v. Shell Oil*, 664 F.2d 772, 805 (9th Cir. 1981), where the court seemed willing to stretch the doctrines of interpretation quite a bit where Shell seemed to be using the literal language of the contract to contravene the real deal. For a discussion of the case, see Tess Wilkinson-Ryan & David Hoffman, *Promises, Promises: Nanukali Paving v. Shell Oil*, APPLE PODCASTS (July 31, 2020), <https://podcasts.apple.com/us/podcast/promises-promises-nanakuli-paving-vs-shell-oil/id1527875721?i=1000488225815> [<https://perma.cc/4BLK-JWFG>] (discussing *Nanukali Paving v. Shell Oil*, 664 F.2d 772 (9th Cir. 1981)).

64. Royce Barondes writes:

A number of factors . . . result in courts relying to a lesser extent on the evident purposes of contractual provisions in interpreting corporate financing instruments. . . One consequence is tedious literalism—hyperliteralism—may reign in interpreting corporate financing instruments.

Royce de R. Barondes, *Vestigial Literalism in the Interpretation of Corporate Financing Instruments*, 15 TRANSACTIONS: TENN. J. BUS. L. 239, 288 (2014); Stephen J. Lubben, *Protecting Ma and Pa: Bond Workouts and the Trust Indenture Act in the 21st Century* (unpublished manuscript) (on file with authors) (“Courts have been extremely reluctant to do anything other than a highly formalistic “plain meaning”

On most occasions, as Tess Wilkinson–Ryan points out in her superb comment, a court is likely to find that actions taken consistent with a formal reading of the contract language will be seen as kosher.⁶⁵ In this world of formal lawyering, the “real” deal is the “paper” deal. One might even say that the investors in Argentine bonds are the ones being cheeky by restricting Argentina from using contractual rights that are explicit in its contract—even if neither side was aware of them. That is not an uncommon phenomenon in a world where parties use lengthy standard-form contracts and deals have to be done quickly.⁶⁶ Wilkinson-Ryan’s framing helps sharpen the key finding in this article. At the start of this article, we discussed how informal sanctions and legal sanctions are generally discussed in the legal literature as substitutes. What we see here, in the Argentine case, is how the formal and the informal can work as complements. Specifically, the price penalty comes into play even where a legal sanction likely would not.

analysis in corporate finance cases.”); Elisabeth de Fontenay, *Complete Contracts in Finance*, 2020 WIS. L. REV. 533, 535 (2020) (“Judges tend to believe that sophisticated parties should write lengthy agreements that explicitly provide for the parties’ conduct under every contingency, because, in their view, such ‘complete’ contracts come closer to expressing the parties’ entire bargain.”); Diane Lourdes Dick, *Confronting the Certainty Imperative in Corporate Finance Jurisprudence*, 2011 Utah L. Rev. 1461, 1466 (2011) (“[T]he prevailing judicial decision-making approach in corporate finance finds its roots in what this Article calls the ‘Certainty Imperative,’ . . . which, in the realm of finance and lending, is best preserved when courts exercise considerable restraint, narrowly tailoring opinions to strict construction and passive enforcement of contracts.”).

65. See Tess Wilkinson-Ryan, *A Comment on Colla and Gulati, Cheeky Contracting*, 85 LAW & CONTEMP. PROBS., no. 2, 2022, at 127.

66. *Id.*

VI
APPENDIX

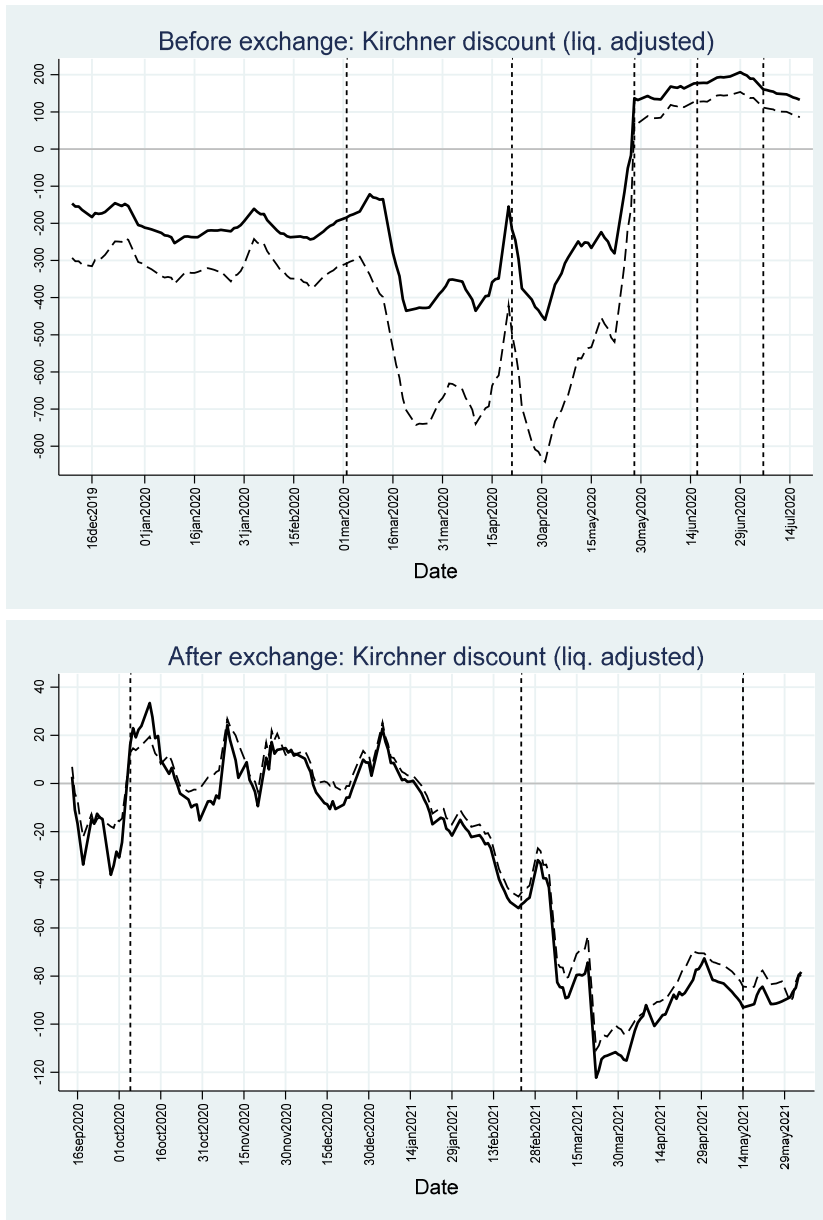


Figure 5. Kirchner discount. Spread differentials (in bps) between Kirchner and Macri bonds. Moving average of daily bond spread differentials, averaged across bond indentures, using two lagged terms, two forward terms and the current observation. Raw (dashed line) and liquidity-adjusted spread differential (solid line). Vertical lines correspond to the salient dates reported in Table A1.

<u>Date</u>	<u>Event</u>
March 2, 2020	Argentina hires Bank of America and HSBC as underwriters in its debt restructuring and contract Lazard as its financial adviser
April 21, 2020	Argentina presents its first debt proposal to the US SEC, which includes a 3-year grace period.
May 28, 2020	Argentina submits a second proposal with a two-year grace period.
June 16, 2020	Argentina submits a third proposal.
July 6, 2020	Argentina submits a fourth proposal, a deal that Finance Minister Guzman says won't be improved further.
October 5, 2020	President Fernandez expects an agreement with the IMF as soon as possible.
February 23, 2021	President Fernandez says he is working to get a deal with the IMF over the country's debts.
May 14, 2021	President Fernandez says he wants to reach a deal with the IMF as quickly as possible. The Paris club declares to be willing to delay the payment under certain conditions.

Table 2. Timeline of events.