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CONTRACTING FOR COLLATERAL: SOLVING THE SOVEREIGN BOND ENFORCEABILITY PROBLEM

*Victoria Colbert**

Abstract

This Note emphasizes the importance of sovereign bonds to emerging-market countries and proposes a solution to the enforcement problem that exists in the current market. This Note argues that sovereign nations issuing bonds should bargain for improved contracts and limit assets used as collateral for those bonds. This proposal would stabilize volatility in emerging market countries, while providing investors with stronger rights to collateral. Ultimately, this Note argues that contracts for collateral are enforceable and can become a valuable source of capital flow into the countries that need foreign investment the most.

I. Introduction

In 2016, facing an unprecedented humanitarian crisis and $2.8 billion coming due on bond payments,[1] Venezuelan President Nicolás Maduro needed an immediate surge of foreign cash to help stabilize the country.[2] The recent instability of the oil market had inhibited Maduro's government from generating income, leaving the country short on cash because oil accounted for virtually all of Venezuela's foreign income.[3] Crude oil accounts for ninety-five percent of Venezuelan exports,[4] with the majority of income generated by the state-owned oil company Petróleos de Venezuela, S.A. (PDVSA) and the U.S. based subsidiary Citgo Petroleum Corporation (CITGO).[5] This intense reliance on oil grants the energy sec-

* J.D. 2022, The George Washington University Law School; B.A. 2018, University of Michigan. With sincere thanks to my parents, Sophie, Livvy, and Nathan, for everything.

1. *See* Elena Holodny, *Venezuela's Small Win Won't Help It in the Long Run*, Bus. Insider (Oct. 25, 2016), https://www.businessinsider.in/Venezuelas-small-win-wont-help-it-in-the-long-run/articleshow/55056458.cms [https://perma.cc/R9DM-2KCP]

2. *See* Mark Weidemaier & Mitu Gulati, *A Mini Q&A on Venezuela's Possible Defense to Foreclosure on the PDVSA 2020*, Credit Slips (Oct. 12, 2019, 7:52 PM), https://www.creditslips.org/creditslips/2019/10/a-mini-qa-on-venezuelas-possible-defense-to-foreclosure-on-the-pdvsa-2020.html [https://perma.cc/7ZBR-AG77] ("Venezuelans were living through a 'profound humanitarian crisis,' which would require foreign currency to solve.").

3. *See id.*

4. Marco Werman, *Why Does Oil Matter So Much to Venezuela?*, The World (Jan. 30, 2019, 5:30 PM), https://www.pri.org/stories/2019-01-30/why-does-oil-matter-so-much-venezuela [https://perma.cc/H9UC-PAPQ].

5. *See* Weidemaier & Gulati, *supra* note 2.

tor "the power to shape politics" in Venezuela.[6] Facing an ongoing humanitarian crisis, with billions of dollars in debt looming and circumstances growing more volatile every day, Maduro faced a vital political decision.[7] The President could default on the country's sovereign debt, instead using the funds owed to investors to address the growing humanitarian crisis, or he could make a move to solidify political power but risk losing PDVSA, Venezuela's most valuable asset, in the process.[8]

Maduro chose the power grab and the government engaged in a debt swap.[9] Under the terms of the deal, foreign investors exchanged $2.8 billion of debt due in 2016 for $3.4 billion of new bonds with the due date for payment pushed back to 2020.[10] To encourage creditors to accept the debt swap, Maduro enticed investors by adding an unusual provision to the bond contracts: the new bonds were assured by collateral in the form of a majority share in the economic "crown jewel," CITGO.[11] In the short-term, Maduro bought himself some time and avoided the political pitfall of defaulting on the 2016 bonds.[12] In the long-term, however, Maduro failed to address the humanitarian crisis and risked losing control of CITGO and the accompanying income from oil if Venezuela were to default on the new 2020 bonds issued in the swap.[13]

With the addition of this collateral clause, Maduro attracted the attention of sovereign bond scholars because, for the most part, sovereigns rarely utilize collateral to secure bonds in the modern bond market.[14] Once commonplace, the practice of sovereigns issuing asset-backed bonds trickled to a near halt in the 1950s.[15] While the practice remains infrequent for the majority of the

6. Werman, *supra* note 4.

7. *See* Weidemaier & Gulati, *supra* note 2.

8. *See id.*

9. *See* Mitu Gulati, Ugo Panizza & Mark Weidemaier, *Should Creditors Pay the Price for Dubious Bonds?*, Project Syndicate (Oct. 9, 2019), https://www.project-syndicate.org/commentary/venezuela-pdvsa-debt-default-creditor-risk-by-mitu-gulati-et-al-2019-10 [https://perma.cc/BEY7-PVPK].

10. Holodny, *supra* note 1.

11. *See* Mark Weidemaier & Mitu Gulati, *Can Creditors Seize CITGO? Enforcing the PDVSA 2020 Bond Collateral*, Credit Slips (Oct. 9, 2019, 7:29 PM), https://www.creditslips.org/creditslips/2019/10/can-creditors-seize-citgo-enforcing-the-pdvsa-2020-bond-collateral.html [https://perma.cc/NC86-Z8FQ].

12. *See id.*

13. *See id*

14. *See, e.g.*, *Clauses & Controversies: Ep. 4 ft. Noel Mauer*, Soundcloud (Aug. 24, 2020) https://soundcloud.com/clauses-controversies/ep-4-ft-noel-maurer [hereinafter *Clauses & Controversies*].

15. *Id.*

world,[16] some emerging-market countries now issue bonds backed by collateral.[17] Beginning in the late 1980s, Angola and other emerging market countries renewed the practice with the hope that collateral would serve as an incentive to encourage investors to make an otherwise risky investment.[18] Legal scholars, however, argue this practice is fruitless because collateralized sovereign bonds are impossible to enforce, thus offering little incentive for investors.[19] Unlike loans, which are traditionally collateralized and which offer creditors strong enforcement rights, creditors holding sovereign bonds have no enforcement rights.[20] Current scholarship suggests that, unlike traditional loans, the very nature of investing in sovereign-issued bonds prevents creditors from enforcing any rights to collateral, as this would require seizing resources from a sovereign country.[21]

Even without addressing the problem of sovereign immunity,[22] public international law prohibits courts from ordering the seizure of sovereign assets to satisfy a judgment.[23] Therefore, it is nearly impossible, both legally and practically, to seize collateral from inside sovereign borders.[24] Enforcing a judgment against sovereign collateral in emerging markets is more difficult still, because these countries often put up the most valuable assets as collateral when issuing sovereign bonds.[25] Foreign governments are then

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16. *Id.*

17. *See* INT'L MONETARY FUND & WORLD BANK, COLLATERALIZED TRANSACTIONS: KEY CONSIDERATIONS FOR PUBLIC LENDERS AND BORROWERS 5 (2020) [hereinafter COLLATERALIZED TRANSACTIONS].

18. *See id.* at 9; INT'L MONETARY FUND, ASSESSING PUBLIC SECTOR BORROWING COLLATERALIZED ON FUTURE FLOW RECEIVABLES 3, 10, 11 (2003) [hereinafter PUBLIC SECTOR BORROWING].

19. *See, e.g.*, *Clauses & Controversies*, *supra* note 14.

20. *See id.* A mortgage, for example, is a collateralized loan where the property itself serves as the collateral for the loan. See Julia Kagan, *What Is a Mortgage?*, INVESTOPEDIA (Feb. 25, 2021), www.investopedia.com/terms/m/mortgage.asp [https://perma.cc/X37A-HB3B]. A homebuyer borrows a sum from a lender, and pledges to pay back the loan overtime. *Id.* However, if the buyer defaults and fails to repay the lender, the lender may foreclose on the property and use the profits from the sale to pay off the mortgage debt. *Id.*

21. *Clauses & Controversies*, *supra* note 14.

22. Sovereign immunity prohibits the foreign seizure of government assets. *See* Joshua Burress, *Sovereign Disobedience: The Role of U.S. Courts in Curtailing the Proliferation of Sovereign Default*, 25 IND. INT'L & COMP. L. REV. 269, 285 (2015).

23. Stephen J. Choi, Mitu Gulati & Eric A. Posner, *The Evolution of Contractual Terms in Sovereign Bonds*, 4 J. LEGAL ANALYSIS 131, 139 (2012).

24. *See* GANLIN CHANG, A MODEL OF DYNAMIC SOVEREIGN BORROWING EFFECTS OF CREDIT HISTORY AND SANCTIONS 3–4 (2001); *see also Clauses & Controversies*, *supra* note 14.

25. *See* DAVID MIHALYI ET AL., RESOURCE-BACKED LOANS: PITFALLS AND POTENTIAL 35 (2020).

reluctant to allow the seizure of such assets for fear of plunging the debtor nation into political and economic turmoil.[26]

This cyclical enforceability problem inhibits growth in emerging markets because few investors are willing to purchase such high-risk bonds without the promise of collateral, or where offered, without a mechanism to enforce a legal claim to sovereign assets.[27] However, countries with emerging markets have a unique need for foreign capital to drive economic growth.[28]

This Note seeks to solve this enforceability problem and argues that the legal and practical roadblocks to seizing sovereign assets can be solved by improved contracting. After solving the enforceability problem, contracting for collateral will help stabilize the volatility of the sovereign bond market by providing investors with stronger rights to collateral, thereby driving up investment in emerging markets. Part II of this Note will examine historical collateralization practices, modern use of sovereign debt bonds in emerging market borrowing, and the difficulty of enforcing collateralized bonds, using Angola and Venezuela as examples of emerging-market countries that have engaged in high amounts of collateralized borrowing. Part III will examine the arguments against contracting for collateral and propose that governments with emerging markets modify bond contracts to strengthen the enforcement rights of investors to increase the flow of capital into emerging markets. Part IV will conclude by briefly summarizing the positive outcomes of contracting for collateral.

26. *See* Haik Gugarats, *US Again Blocks Citgo Takeover by PdV Creditors*, Argus (Oct. 6, 2020), https://www.argusmedia.com/en/news/2147737-us-again-blocks-citgo-takeover-by-pdv-creditors [https://perma.cc/L2VY-32UD].

27. *See* Kathy Jones & Christina Shaffer, *Are Emerging-Market Bonds Worth the Risk?*, Charles Schwab (July 23, 2020), https://workplace.schwab.com/content/are-emerging-market-bonds-worth-risk [https://perma.cc/MVF9-44US].

28. *See* José Antonio Ocampo, *Financing and Debt Management for Emerging Market Economies*, Brookings (May 26, 2020), https://www.brookings.edu/blog/future-development/2020/05/26/financing-and-debt-management-for-emerging-market-economies/ [https://perma.cc/VKS8-JFVY].

II. Background

A. *Sovereign Nations Issue Bonds to Raise Money from Foreign Investors*

Sovereign governments require capital to finance infrastructure, government programs, and other necessary spending measures.[29] When taxes and revenue from exports are not enough to sustain necessary government spending, sovereigns turn to bonds.[30] Debt is now the most significant source of capital flow to emerging markets.[31] A sovereign bond is a debt instrument that is issued by a national government.[32] An investor can purchase the sovereign bond on the marketplace, and in exchange, the national government promises to make periodic payments to the bondholder and repay the full value of the bond, plus interest, by the maturity date.[33] To strengthen this promise, some countries issue bonds backed by assets: so-called "collateralized" sovereign bonds.[34]

According to the International Monetary Fund (IMF) and the World Bank, "a debt instrument is collateralized when the creditor has rights over an asset or revenue stream that would allow it, if the borrower defaults on its payment obligations, to rely on the asset or revenue stream to secure repayment of the debt."[35] Thus, a borrower grants a creditor a lien over a specific asset as security against repayment of the loan. [36] In the private sector, collateral loan agreements are commonplace.[37] Sovereign bonds backed by collateral are far less common, although the public sector has recently seen a resurgence in this type of borrowing.[38]

Prior to World War II, some sovereigns—mainly those in emerging markets—could only issue bonds if the government pledged

29. Justin Kuepper, *What You Should Know About Sovereign Bonds*, Balance (Nov. 12, 2021), https://www.thebalance.com/what-are-sovereign-bonds-1979114 [https://perma.cc/RU9Y-G7Y9].

30. *Id.*

31. Alinna Arora & Rodrigo Olivares Caminal, *Rethinking the Sovereign Debt Restructuring Approach*, 9 L. & Bus. Rev. Am. 629, 629 (2003) ("Debt has been the largest source of capital flow to developing countries in the past fifty years.").

32. *Sovereign Bond*, Corp. Fin. Inst., https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/sovereign-bond/ [https://perma.cc/9FR6-9N25].

33. *Id.*

34. *See* Collateralized Transactions, *supra* note 17, at 4; *see also Clauses & Controversies*, *supra* note 14.

35. Collateralized Transactions, *supra* note 17, at 4.

36. *Id.*

37. *Id.*; *see, e.g.*, Kagan, *supra* note 20.

38. *See* Public Sector Borrowing, *supra* note 18, at 3.

assets to back the bond.[39] As collateral, sovereign governments would promise investors priority over certain customs, duties, or specific taxes.[40] However, between 1950 and 1990, the practice of collateralization fell-off in the sovereign bond market, with only twenty countries issuing foreign-currency bonds during that period.[41] In the late 1980s and early 1990s, the Brady Plan[42] helped solve the emerging-market debt crisis and emerging markets returned to issuing sovereign bonds.[43] Heavy oil exporters, like Angola, were the first to return to the practice of collateralizing borrowing starting in 1987.[44] This decision reinvigorated the market for collateralized bonds—the World Bank now estimates that about fifteen percent of all sovereign lending to emerging markets over the past fifteen years has been collateralized in some way.[45]

B. *Emerging Markets Sell Sovereign Bonds to Fuel Economic Growth*

Emerging market countries use capital flows as engines of growth.[46] Today, the majority of capital flows into emerging markets come from two main categories: foreign portfolio investment (FPI) and foreign direct investment (FDI).[47] However, ideally sovereigns should seek financing from multiple sources, including sources outside FPI and FDI.[48] One crucial source of additional financing for emerging market economies is private sector financing, for example raising capital with the sale of sovereign bonds to private investors.[49] When an emerging market can bolster capital flow with private financing, the government is better able to

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39. *Clauses & Controversies*, *supra* note 14.

40. *Id.*

41. Josefin Meyer et al., *Sovereign Bonds Since Waterloo* 17 (Nat'l Bureau of Econ. Rsch., Working Paper No. 25543, 2019).

42. The Brady Plan was designed to address the Latin American Debt crisis in the 1980s when international capital flows dried up. *See* Trade Association for the Emerging Markets, Brady Plan, https://www.emta.org/em-background/the-brady-plan/ [https://perma.cc/9YL2-KMZ2]. The Plan undertook extensive restructuring processes that resulted in the grant of debt relief to the debtor countries. *Id.*

43. Meyer et al., *supra* note 41, at 17.

44. Public Sector Borrowing, *supra* note 18, at 10, 11.

45. *Clauses & Controversies*, *supra* note 14.

46. *See* Bryan J. Noeth & Rajdeep Sengupta, *Emerging Markets: A Source of and Destination for Capital*, Fed. Res. Bank St. Louis (Jan. 1, 2012), https://www.stlouisfed.org/publications/regional-economist/january-2012/emerging-markets-a-source-of-and-destination-for-capital [https://perma.cc/FUS6-G2AP].

47. *Id.*

48. *See* Ocampo, *supra* note 28.

49. *See id.*

finance projects, social programs, and other necessary spending measures.[50]

1. To Raise Enough Capital from Private Financing, Emerging Market Countries Sell Collateralized Bonds

For many countries with low creditworthiness, collateralized debt is the only method available for raising capital from external investors.[51] In emerging market countries, access to foreign markets and foreign investment is crucial to stimulating growth. Thus, sovereigns use assets as collateral to either enable borrowing or allow governments to borrow higher amounts of capital.[52] In Africa, for example, after the 2008 financial crisis many countries could no longer rely solely on development aid to finance large infrastructure, social, and other projects that were designed to accelerate growth.[53] With only a small stream of foreign private capital coming into these nations, bank lending in the form of resource-backed loans became the prevalent vehicle of cross-border lending.[54]

Resource-backed loans give countries access to financing through loans collateralized by future streams of income from natural resources.[55] These loans are typically capital loaned by foreign governments, with China currently dominating the market.[56] Because of the need for capital to spur growth in emerging markets, collateralized borrowing in these countries is considerable. One source estimated that such loans reached $28.8 billion as early as 2002.[57] However, due to the lack of variety among lenders,[58] borrower countries are not getting the best deal[59] and the market for asset-backed loans is not competitive.[60] While collateralized loans remain more common and more valuable than collateralized

50. *See* Kuepper, *supra* note 29.

51. *See* PUBLIC SECTOR BORROWING, *supra* note 18, at 10.

52. *See id.* at 12.

53. Vera Songwe, *From Bottom Billion to Top Trillion: Using Commodity-Backed Securities to Support the Future of Africa's Resource Economies*, BROOKINGS (Apr. 17, 2013), https://www.brookings.edu/opinions/from-bottom-billion-to-top-trillion-using-commodity-backed-securities-to-support-the-future-of-africas-resource-economies/ [https://perma.cc/9R48-YSZB].

54. Meyer et al., *supra* note 41, at 17.

55. MIHALYI ET AL., *supra* note 25, at 2.

56. *Id.* at 11.

57. PUBLIC SECTOR BORROWING, *supra* note 18, at 7.

58. *See* MIHALYI ET AL., *supra* note 25, at 15.

59. *Id.*

60. *Id.* at 11.

bonds, many sovereigns have also turned to the issuance of collateralized sovereign bonds to increase investment and raise capital.[61]

2. Collateralizing the Sale of Bonds Is Insufficient to Raise Large Amounts of Capital Because Few Investors Are Willing to Buy High-Risk Bonds Without Better Enforcement Rights

Demand for emerging market sovereign bonds has grown significantly in recent years, increasing from $885 billion in 2008 to $2.7 trillion in 2020.[62] While interest rates on bonds from large markets like the United States and the United Kingdom can be close to zero percent,[63] investors that seek out emerging-market bonds are attracted to the potential for much higher yields.[64]

Emerging-market bonds offer high interest rates to offset the perceived high-risk factors of volatile emerging-market economies, such as the risk of default.[65] This high-risk means that some investments in emerging-market bonds will inevitably fail.[66] However, for the investors who are willing to take on the high-risk, a diversified global portfolio of sovereign bonds still pays out a return that averages 6.77 percent per year.[67] This return average on emerging-market bonds is almost four percent higher than the average return on a low risk bond such as a U.S. or U.K. bond.[68] Wealth management advisors such as Charles Schwab "classify emerging-market bonds in the 'aggressive income' segment of the market because they are typically more volatile, more likely to default, and less liquid."[69] Therefore, while some investors may turn to emerging markets for high yields and increased returns,[70] the majority of investors still shy away from investing in developing countries due to the perceived high financial risks.[71] Because this reluctance from investors hinders emerging-market access to international markets,[72] some sovereigns have turned to collateralization to further mitigate risk concerns, hoping to encourage investors that are

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61. *See* Public Sector Borrowing, *supra* note 18, at 7, 8, 10.
62. Jones & Shaffer, *supra* note 27.
63. Meyer et al., *supra* note 41, at 25.
64. Jones & Shaffer, *supra* note 27.
65. Meyer et al., *supra* note 41, at 1.
66. *See id.* at 3, 7, 20.
67. *See id.* at 20.
68. *Id.* at 1.
69. Jones & Shaffer, *supra* note 27.
70. Songwe, *supra* note 53.
71. *See* Jones & Shaffer, *supra* note 27.
72. *See* Mihalyi et al., *supra* note 25, at 2.

curious about investment opportunities in emerging markets but want to see stronger risk mitigation factors before buying emerging-market sovereign bonds.[73]

C. *The Enforcement Problem in Collateralized Sovereign Bonds Is Caused by a Combination of International Law and the Nature of Assets in Emerging Markets*

1. Under Public International Law, Sovereign Immunity Presents a Legal Roadblock to Enforcing the Promise of Collateral

For many investors, collateralization is not enough to mitigate the high-risk of sovereign default because collateralization offers little benefit to creditors unless the collateral provision is enforceable.[74] Unlike creditors in the private market, sovereign defaults leave creditors holding collateralized bonds without an easy path to recovery.[75] Public international law grants countries sovereign immunity, which works in two ways against creditors.[76] Practically, creditors have little recourse to seize the promised assets because "it will almost always be impossible for creditors to march into a country and simply repossess the assets of the sovereign even if a contract so allows."[77] Legally, a debtor country can also invoke sovereign immunity, preventing the seizure of its assets.[78] Bondholders then have no legal or practical recourse against sovereigns that have defaulted on debt.[79] Because of this phenomenon, legal scholars generally assert that there is no realistic way to seize assets owned by a sovereign, even if the government has made promises on the assets.[80]

Notably, a government can easily eradicate this roadblock by waiving sovereign immunity in a bond contract, thus allowing foreign bondholders to seek judgments in foreign courts and granting foreign courts the ability to compel the seizure of assets.[81] As a practical matter however, "courts almost never compel governments to pay money . . . [or the courts] might refuse to hear the

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73. *See* Songwe, *supra* note 53.
74. Collateralized Transactions, *supra* note 17, at 10.
75. *See* Choi et al., *supra* note 23, at 135.
76. *Id.* at 138.
77. *Id.* at 133.
78. *See* Burress, *supra* note 22, at 78.
79. Choi et al., *supra* note 23, at 133.
80. *See, e.g., Clauses & Controversies*, *supra* note 14.
81. Choi et al., *supra* note 23, at 138–39.

case" without a consent-to-jurisdiction clause.[82] Consent-to-jurisdiction clauses go beyond the waiver of sovereign immunity by affirmatively committing a sovereign to subject themselves to the jurisdiction of a foreign legal system.[83] With the combination of a sovereign immunity waiver and a consent to jurisdiction clause, sovereigns can use bond contracts to signal to potential investors that sovereign immunity will not prevent creditors from collecting in the event of a default.[84] Thus, contracting can negate blanket immunity from litigation in foreign courts solely on the basis of public international law.[85]

2. Assets Owned by Emerging Market Sovereigns Are Practically Difficult to Seize Because of Accessibility Issues, the Economic Value of the Assets, and the Potential for the Loss of Assets to Cause Political Disruption

Once the legal hurdle of sovereign immunity is overcome, obtaining a judgment can be straightforward.[86] Enforcement of the judgment, however, is monumentally more difficult.[87] Even with legal entitlement to an asset, it is difficult to seize any sovereign owned collateral.[88] According to the IMF, large escrow accounts held within the sovereign's jurisdiction are the most readily enforceable.[89] The next best options include assets which are located outside the sovereign's jurisdiction, such as equity shares in a company incorporated in a foreign jurisdiction, and some movable or liquid assets.[90] By contrast, the IMF notes that assets held within the borders of the sovereign's jurisdiction are typically the most difficult to access.[91]

82. *Id.* at 139.

83. *Id.*

84. *See id.*

85. Burress, *supra* note 22, at 303. Note that sovereign bonds typically include collective action clauses that limit a creditor's unilateral rights. These collective action clauses also create enforcement problems for sovereign bonds. For further discussion of the collective action clause problem see 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. 253, 273 (2020).

86. *See* Stephen J. Choi, Mitu Gulati & Robert E. Scott, *The Black Hole Problem in Commercial Boilerplate*, 67 Duke L.J. 1, 17 (2017).

87. *Id.*

88. *See, e.g., Clauses & Controversies*, *supra* note 14.

89. Collateralized Transactions, *supra* note 17, at 10.

90. Id.

91. *Id.*

3. Emerging Markets Secure Bonds with Precious Collateral: The Case of Angola

Even when collateral is accessible, it can be difficult to enforce a court judgment against an emerging-market country because sovereigns in emerging markets have very little they can use to put up as sufficient collateral to secure a debt.[92] As a result, the governments often use some of the country's most valuable assets as collateral when issuing sovereign bonds.[93] Angola is a helpful example to illustrate this phenomenon. Angola is heavily dependent on oil,[94] as the industry accounts for nearly ninety percent of exports[95] and thirty-seven percent of GDP.[96] According to Osvaldo João, the state secretary for finance, this dependence on oil "makes [Angola's] economy more vulnerable."[97] Other threats to the stability of Angola include its high level of debt and the fact that the majority of agreements with large creditors are collateralized by the natural resource.[98] Because of the volatility of oil prices, the Angolan government estimates the country's debt will increase from 113 percent in 2019 to 123 percent of GDP by the end of 2020.[99] The government is "pursuing a debt stock that is compatible with an Angola without oil," which would help stabilize the economy by making it less exposed to the shocks of the oil industry boom-and-bust cycle.[100] But this effort is difficult—foreign direct investment is heavily concentrated in the oil industry[101] with negli-

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92. Robert Auray, Note, *In Bonds We Trustee: A New Contractual Mechanism to Improve Sovereign Bond Restructurings*, 82 FORDHAM L. REV. 899, 906 (2013).

93. MIHALYI ET AL., *supra* note 25, at 34 ("In case of non-payment the collateral lost might be of greater financial value than the loan . . . or at least perceived as more valuable by citizens of the country. One such example is also in Venezuela, where PDVSA . . . used the other half of [Citgo] as collateral for a commercial bond . . .").

94. U.S. DEP'T OF STATE, 2020 INVESTMENT CLIMATE STATEMENTS: ANGOLA (2020), https://www.state.gov/reports/2020-investment-climate-statements/angola/ [https://perma.cc/4SSA-PALW] [hereinafter 2020 INVESTMENT CLIMATE STATEMENTS: ANGOLA].

95. Candido Mendes & Henrique Almeida, *Angola Renegotiating Debt with Main Lenders After Oil Rout*, BLOOMBERG (May 30, 2020, 7:13 AM), https://www.bloomberg.com/news/articles/2020-05-29/angola-renegotiating-debt-with-main-lenders-president-says [https://perma.cc/V5UW-YG5A].

96. 2020 INVESTMENT CLIMATE STATEMENTS: ANGOLA, *supra* note 94.

97. Candido Mendes, *Angola Eurobonds Gain After Government Pledge to Honor Debt*, BLOOMBERG (Sept. 21, 2020, 3:24 PM), https://www.bloomberg.com/news/articles/2020-09-21/angola-pledges-to-honor-eurobond-payments-as-debt-relief-sought [https://perma.cc/Q5Q7-8BMX].

98. *See* Mendes & Almeida, *supra* note 95.

99. Mendes, *supra* note 97.

100. *Id.*

101. 2020 INVESTMENT CLIMATE STATEMENTS: ANGOLA, *supra* note 94.

gible investment into other sectors of the economy.[102] Still, Angolan officials continue to make efforts to diversify the sources of foreign investment.[103] This effort is crucial, in part because "rolling back dependency on oil will require significant investment in other economic sectors to stimulate growth."[104] Angola seeks to use collateralized borrowing, with restraint, as an essential tool for regaining market access, stimulating economic growth outside of oil, and eventually, paving the way to allow for borrowing without the need for collateral to offset risk.[105] As part of an effort to restrain the use of collateral, Angola limits foreign ownership to forty-nine percent in the oil sector.[106]

4. Using Vulnerable Assets as Collateral Can Create Economic and Political Instability: The Case of Venezuela

Like Angola, Venezuela also relies heavily on oil for income—virtually all of Venezuela's foreign income stems directly from PDVSA and state control over CITGO.[107] However, unlike Angola, Venezuela recently undertook a risky debt swap that offered up 50.1% ownership of the state-owned oil company as collateral.[108] As mandated by the Venezuelan Constitution, PDVSA is an oil company wholly owned by the country of Venezuela.[109] PDVSA also wholly owns CITGO, an oil refiner that operates three refineries in the United States.[110] With PDVSA and CITGO, oil accounts for virtually all of Venezuela's foreign income[111] and ninety-five percent of Venezuelan exports.[112] By 2016 declining crude oil prices rocked the Venezuelan economy.[113]

By September 2016, Venezuela was experiencing several conflicting crises. At the same time, the Venezuelan oil market had become volatile, and the country was nearing default on obligations to make payments on sovereign bonds.[114] Venezuela was also

102. *Id.*
103. *Id.*
104. *Id.*
105. *Id.*
106. *Id.*
107. *See* Weidemaier & Gulati, *supra* note 2.
108. Weidemaier & Gulati, *supra* note 11.
109. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., 495 F. Supp. 3d 257, 261–62 (S.D.N.Y. 2020).
110. *Id.* at 263.
111. *See* Weidemaier & Gulati, *supra* note 2.
112. Werman, *supra* note 4.
113. Petroleos De Venez. S.A., 495 F. Supp. 3d at 264.
114. *Id.* at 261.

experiencing a profound humanitarian crisis, with severe shortages of medical supplies, food, and other essential goods.[115] This crisis required a large influx of foreign currency to ameliorate the situation.[116] Yet rather than taking steps to assuage the humanitarian crisis, the Venezuelan government continued to borrow, sinking the country into further debt with "no apparent economic purpose."[117]

Turning away from the humanitarian crisis, President Maduro instead focused on avoiding default and announced an exchange offer on September 16, 2016 in which holders of bonds with 2017 maturity dates could exchange their notes for bonds with payment due in 2020.[118] To encourage bondholders to accept the exchange, Maduro collateralized the deal: the new bonds were backed by collateral in the form of a 50.1% interest in CITGO.[119] Under the terms of the exchange offer, if Venezuela were to default, bondholders would be entitled to a majority stake in CITGO.[120] To show that Venezuela was good on the deal, the collateral was to be held as a physical stock certificate in New York.[121]

The promise of the collateral was "juicy"—CITGO is Venezuela's economic crown jewel.[122] Enticed by the offer, foreign investors exchanged $2.8 billion of debt due in 2016 for $3.4 billion of new bonds with the due date for payment pushed back to 2020.[123] For a while, all seemed calm, and Venezuela kept up with making payments on the new bonds.[124]

Then, on May 20, 2018, Venezuela held a presidential election that the United States and other allies described as "not free, fair, or credible."[125] While Nicolás Maduro was technically re-inaugu-

115. Human Rights Watch, Venezuela's Humanitarian Crisis: Severe Medical and Food Shortages, Inadequate and Repressive Government Response 4 (2016), https://www.hrw.org/sites/default/files/report_pdf/venezuela1016_brochure_web.pdf [https://perma.cc/9WWS-ASC8].

116. Weidemaier & Gulati, *supra* note 2.

117. *See id.*

118. Petroleos De Venez. S.A., N.A., 495 F. Supp. 3d at 263.

119. *Id.* at 265.

120. *See id.*; Johnathan Wheatley & Eric Platt, *What Now for Venezuela's PDVSA After the Bond Swap?*, Fin. Times (Oct. 25, 2016), https://www.ft.com/content/e5298570-9a96-11e6-8f9b-70e3cabccfae [https://perma.cc/6GD3-H3CF].

121. *See* Petroleos De Venez. S.A., 495 F. Supp. 3d at 265.

122. Gulati et al., *supra* note 9.

123. Holodny, *supra* note 1.

124. *See* Miluska Berrospi, *Major PDVSA 2020 Holder Anticipates Default on Bond*, Nasdaq (Oct. 10, 2019), https://www.nasdaq.com/articles/major-pdvsa-2020-holder-anticipates-default-on-bond-2019-10-10 [https://perma.cc/QAG5-Y9E5].

125. Petroleos De Venez. S.A., 495 F. Supp. 3d at 266.

rated on January 10, 2019, the Venezuelan National Assembly declared Maduro's presidency illegitimate and named opposition leader Juan Guaidó the acting president of Venezuela.[126] In response, the United States imposed sanctions on Venezuela in an attempt to topple Maduro's illegitimate regime.[127] The sanctions helped destabilize Maduro's presidency, and in early 2019 Maduro lost PDVSA and subsidiary CITGO, ceding control to Guaidó.[128]

Soon after gaining control of PDVSA and CITGO from Maduro, acting President Guaidó had a principal and interest payment of $913 million due to bondholders in October 2019.[129] Despite Guaidó's desire to retain control over PDVSA and CITGO, there were not enough funds left to make this payment.[130] On October 27, 2019, Venezuela defaulted on the 2020 PDVSA bonds.[131] According to the contractual terms of the exchange offer, the bondholders were now entitled to either seize the collateral[132] or seek the sale of the majority stake in CITGO to satisfy the outstanding debt on the bonds that Venezuela failed to pay.[133]

While acknowledging the default, the opposition government, now widely recognized as the viable Venezuelan government,[134] rejected the conclusion that bondholders were entitled to a majority stake in CITGO.[135] To retain control over CITGO, which the government characterizes as indispensable to the country's economic recovery, Guaidó's government sought recourse in U.S. federal court to invalidate the bonds.[136]

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126. *Id.*

127. *See* Exec. Order No. 13835, 83 Fed. Reg. 24,001 (May 24, 2018); Berrospi, *supra* note 124.

128. Berrospi, *supra* note 124.

129. Gulati, Panizza & Weidemaier, *supra* note 9.

130. *See* Berrospi, *supra* note 124.

131. Petroleos De Venez. S.A., 495 F. Supp. 3d at 267.

132. Mark C. Weidemaier & Mitu Gulati, *Unlawfully-Issued Sovereign Debt*, 61 Va. J. Int'l L. 553, 555 (2021).

133. Petroleos De Venez. S.A., 495 F. Supp. 3d at 261.

134. Scott Smith & Raf Casert, *Venezuela Opposition Scrambles for International Legitimacy*, Associated Press (Jan. 6, 2021), https://apnews.com/article/legislature-europe-caracas-caribbean-venezuela-6d2511e2b3efa52c990e50361bf02986 [https://perma.cc/TTD6-SPX2].

135. *See* Weidemaier & Gulati, *supra* note 132, at 2.

136. *Id.*

D. *Foreign Nations Such as the United States Have Added to the Enforcement Problem by Preventing Bondholders from Seizing Collateral*

Under the consent-to-jurisdiction clause included in the 2020 bond contracts, President Guaidó turned to the jurisdiction of U.S. courts.[137] The bonds included a choice-of-law clause stipulating that the dispute was to be governed exclusively by the law of New York.[138] This provision is consistent with other emerging-market sovereign bonds that are issued for purchase in foreign markets[139] and are used to protect foreign investors from the risks that may lurk in the unexpected "quirks" of the local law.[140]

Typically when sovereign bonds utilize a governing law provision that designates the use of foreign law, the provision will often leave an explicit "carve out" for matters of "authorization and execution,"[141] which then allows for matters of authorization or execution to be governed by the issuing government's local law.[142] Along these lines, Venezuela's sovereign bonds typically contain an explicit carve out for authorization and execution.[143] However, the 2020 PDVSA bonds do not contain this typical language.[144] The bonds instead state that "all matters arising out of or relating in any way whatsoever to this indenture and the notes . . . shall be governed by[ ] the laws of the State of New York."[145]

1. U.S. Courts Expressed an Interest in Protecting the Validity of Collateral Clauses, but Failed to Grant Bondholders an Enforcement Mechanism

The United States Federal Court for the Southern District of New York found the governing-law provision valid.[146] Then, using

137. *See* Petroleos De Venez. S.A., 495 F. Supp. 3d at 265.
138. *Id.*
139. *See* Philip Wood, *Choice of Governing Law for Bonds*, 15 CAP. MKTS. L.J. 3, 3 (2019).
140. Weidemaier & Gulati, *supra* note 132, at 44.
141. Weidemaier & Gulati, *supra* note 11.
142. *Id.*
143. *Id.*
144. *Id.*
145. Venez. Nat'l Petrol. Co., Application for Qualification of Tr. Indentures, Exhibit 99.T3C (Form T-3) § 10.03 (Sept. 16, 2016), https://www.sec.gov/Archives/edgar/data/906424/000119312516712239/d171369dt3.htm [https://perma.cc/3E43-KS94] (filed with the U.S. Sec. & Exch. Comm'n, captioned as Indenture for Petróleos De Venezuela, S.A. 8.50% Senior Secured Notes Due 2020).
146. Mark Weidemaier, *SDNY Upholds Pledge of Collateral for PDVSA 2020s*, CREDIT SLIPS (Oct. 16, 2020), https://www.creditslips.org/creditslips/2020/10/sdny-upholds-pledge-of-collateral-for-pdvsa-2020s.html [https://perma.cc/RCL8-PUQ3].

New York law, the court ruled that the PDVSA 2020 bonds were valid and enforceable.[147] In reaching the decision, Judge Failla ultimately decided that undermining the validity of the bonds would "invite other governments to shortchange legitimate creditors after-the-fact:"[148]

> [G]iven the substantial interests that the United States has in stabilizing financial markets, protecting the expectations of creditors, and maintaining New York's status as a preeminent global commercial center, and given the absence of any affirmative statement by the United States in favor of granting comity to the National Assembly's actions, the Court does not believe that such a grant is warranted under the present circumstances. The Court is appropriately concerned that recognizing the National Assembly's actions, and accepting them as a rule of decision here, would invite less honest foreign governments to invalidate and repudiate legitimate debts and leave innocent creditors in the lurch. Such a reality, in the Court's carefully considered view, presents just as great a risk of embarrassing the United States as opening the door to Defendants' sale or purchase of CITGO. Therefore, the Court does not believe that it would be consistent with the law and policy of the United States to recognize the National Assembly's efforts at invalidation of the 2020 Notes and Governing Documents.[149]

Despite the stated interest in protecting "innocent creditors,"[150] on December 29, 2020, the court granted a motion for stay of judgment in favor of PDVSA, ultimately preventing the seizure of CITGO.[151] The court found that because the creditors had made clear they intended to seize control of CITGO, the court believed this action would "effectively moot the appeal."[152] While the court maintained that the bondholders are legally entitled to seize the majority stake in CITGO, the court issued a partial stay prohibiting this action to afford the Venezuelan government an opportunity to pursue an appeal.[153] Thus, while bondholders are legally entitled to seize CITGO under the terms of the 2020 bond contracts, the time-old enforcement problem has prevented the creditor takeover

147. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., 495 F. Supp. 3d 257, 292–93 (S.D.N.Y. 2020).

148. Charles Michael, *Judge Failla: Venezuela Cannot Void Bonds Based on Alleged Illegality Under Venezuelan Law*, Steptoe (Oct. 18, 2020), https://www.sdnyblog.com/judge-failla-venezuela-cannot-void-bonds-based-on-alleged-illegality-under-venezuelan-law/ [https://perma.cc/3W58-EW3M].

149. Petroleos De Venez. S.A., 495 F. Supp. 3d at 282–83.

150. *Id.*

151. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., No. 19-10023, 2020 U.S. Dist. LEXIS 243602, at *6 (S.D.N.Y. Dec. 29, 2020).

152. *Id.* at *3.

153. *Id.*

because of the specific asset Maduro put up as collateral for the bonds.

2. In the Case of Venezuela, the U.S. Government Prevented a Bondholder Takeover of CITGO to Prevent Political Upheaval

Beyond the courts, the United States Government sought to prevent a bondholder takeover of CITGO for the sake of political stability. In 2018, the U.S. Government took steps to undermine Maduro's control of the Venezuelan government by making it difficult to do business with or engage in transactions with the "illegitimate" Venezuelan government.[154] In May 2018, President Trump issued Executive Order 13835, prohibiting U.S. persons from "engaging in transactions related to the sale, transfer, assignment, or pledging as collateral by the Government of Venezuela. . .[including] any equity interest in an entity owned fifty percent or more by [Venezuela]."[155] Following the contested Venezuelan presidential election of 2018, in which the United States did not recognize the claimed reelection of Maduro,[156] the U.S. Treasury Department reaffirmed President Trump's executive order.[157]

The U.S. Government took this action to prevent a bondholder takeover of CITGO because it firmly believed that opposition control of PDVSA and other state-owned oil subsidiaries were vital to maintaining Guaidó's authority.[158] In issuing Executive Order 13835, the United States told the world that Guaidó could not afford to lose control of Venezuela's valuable crown jewel. However, in preventing this takeover, the United States also prevented

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154. *See* Moises Rendon & Max Price, *Are Sanctions Working in Venezuela?*, CTR. FOR STRATEGIC & INT'L STUD. 1, 2–3 (Sept. 2019), https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/190903_RendonPrice_VenezuelaSanctions_layout_v2.pdf [https://perma.cc/K98A-TS72].

155. Practical Law Finance, *OFAC Again Extends Measure Protecting PDVSA's CITGO Shares from Bondholders*, THOMPSON REUTERS PRAC. L. (Oct. 8, 2020), https://uk.practicallaw.thomsonreuters.com/w-027-8485?transitionType=default&contextData=%28sc.Default%29 [https://perma.cc/X9C9-BXFB].

156. *See* CLARE RIBANDO SEELKE, CONG. RSCH. SERV., VENEZUELA'S 2018 PRESIDENTIAL ELECTION 1 (2018). The United States deemed the election illegitimate due to the climate of state repression. *Id.* Many prominent opposition candidates were imprisoned, Maduro controlled the electoral counsel, courts, and legislative assembly, *id.* State media promoted propaganda, government employees were coerced to vote, and the election was not overseen by accredited election monitors. *Id.*

157. *See* Gugarats, *supra* note 26.

158. *See id.*

bondholders from exercising the legal right to seize the promised collateral.[159]

III. Analysis

Currently, many legal scholars argue that collateralized sovereign bonds are unenforceable,[160] or at least creditors that hold bonds issued by sovereigns have no real legal recourse to enforce their rights to assets when governments default on debt obligations.[161] As the case of Venezuela shows, this enforcement problem turns on two factors—contractual election of law and choice of assets for collateral—that work together to inhibit a creditor's ability to seize sovereign assets.[162]

Contracts for sovereign bonds should be reworked to embrace collateralization while granting investors strong enforcement rights and simultaneously stabilizing the economic climate in emerging markets. First, the careful use of contracts can be used to overcome international public law that generally prevents creditors from even being allowed to bring an enforcement action to court. Second, contracting can also be used to solve the enforceability problem by ensuring the assets sovereign nations use as collateral are both accessible and appropriately limited.

While some may argue that redrafting sovereign bond contracts is too costly,[163] the payoff that will come from redrafting sovereign bond contracts is well worth that expenditure.[164] However, this process of re-contracting will work best with, if not require, a fresh start. Many sovereigns, including Venezuela and Angola, have outstanding bonds that will require many future payments.[165] This Note proposes a solution that first assumes the resolution of ongo-

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159. *Id.*

160. *See, e.g.*, *Clauses & Controversies*, *supra* note 14.

161. Choi et al., *supra* note 23, at 135.

162. *See* Collateralized Transactions, *supra* note 17, at 10.

163. *See* Choi, et al., *supra* note 23, at 175–76 (explaining that drafting new terms imposes both direct costs in renegotiating and costs that account for uncertainty; because of these costs, most sovereigns use boilerplate language in their contracts. Thus, "it is generally not worthwhile to negotiate new bond terms unless a shock occurs").

164. *See id.* at 175 (arguing that sovereign bond contract terms are generally boilerplate until parties to contract view the benefits of new terms as exceeding the cost of changing).

165. *See, e.g.*, *Venezuela's PDVSA Saw Debt Rise to $34.9 Billion in 2021*, Reuters (Jan. 19, 2022), https://www.reuters.com/business/energy/venezuelas-pdvsa-saw-debt-rise-349-billion-2021-2022-01-19/ [https://perma.cc/T9KQ-T3NL?type=image] ("PDVSA's consolidated financial debt rose . . . to $34.9 billion last year . . . . Around three quarters of [PDVSA's] outstanding debt as of the end of 2021 were related to loans taken out by the parent company, mainly bonds . . . .").

ing debt crises, in turn allowing a smooth and viable contract renegotiation process to occur.

A. *To Overcome Legal Barriers to Enforcement in Public International Law, Bond Contracts Must Explicitly Waive Sovereign Immunity*

The first step to solving the enforcement problem requires sovereigns to contractually assign investors strong enforcement rights. For contracts to overcome the major legal roadblock that prevents enforcement, sovereign bond issuers must waive sovereign immunity.[166]

Under public international law, a bondholder cannot seek to enforce the terms of a bond contract in a foreign court due to sovereign immunity.[167] Therefore, for a creditor to even get a foot in the door, the debtor nation must first waive the right to sovereign immunity. This step alone, however, is insufficient without resolving the jurisdictional question.

In the case of Venezuela, the jurisdictional question was resolved through a lengthy and unpredictable court proceeding where, ultimately, the court found the governing law provision valid,[168] and then, using New York law, ruled that the PDVSA 2020 bonds were valid and enforceable.[169] Moving forward, sovereigns should include an explicit consent-to-jurisdiction clause in bond contracts to avoid such drawn out litigation and assure investors early on that the government will subject themselves to the jurisdiction of a foreign legal system.[170] With this combination of contractual terms, sovereigns would assuage risk and signal to investors that sovereign immunity will not prevent creditors from collecting in the event of a default. This would also equip future investors with a more reliable way to predict the outcome of a court case in the event of litigation.

Improved bond contracts that waive sovereign immunity and solve the jurisdictional question up front would provoke little debate over whether a foreign court could hear a potential dispute over bond validity.[171] However, as seen in the U.S. response to

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166. *Id.* at 138–39.

167. *Id.* at 138.

168. *See* Weidemaier, *supra* note 146.

169. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., 495 F. Supp. 3d 257, 292–93 (S.D.N.Y. 2020).

170. Choi et al., *supra* note 23, at 139.

171. *See id.* at 138–139 ("Under public international law, countries have sovereign immunity, which means that they cannot be used in foreign courts. Debtors frequently

Venezuela that disallowed creditors from acting on their legal rights,[172] foreign nations might still be hesitant to allow the seizure of valuable assets for fear of amplifying economic, political, or social turmoil in emerging markets. Future bond contracts should seek to ameliorate such concerns with respect to vulnerable assets.

B. *To Mitigate Potential Problems Caused by the Nature of Assets Used as Collateral, Sovereign Bonds Should Be Collateralized by Assets that Are Limited in Type or Scope and Accessible to Creditors*

Sovereigns must properly assess risk and establish more rigorous standards of enforceability before offering collateral clauses on sovereign bond contracts in the future.[173] To ensure collateralized sovereign bonds are both valuable and enticing to investors, and stable and non-detrimental to the borrowing sovereigns, the collateral must be limited in type or scope.

At the heart of the "type" issue is the collateral at stake. To effectively collateralize, a sovereign country must have assets or other revenue streams that are both useable and desirable as collateral.[174] Low-income countries that are classified as "commodity producers" tend to fit these qualifications.[175] The problem is, for many of these emerging markets, the assets that are valuable and desirable to investors are the sovereigns only or most valuable source of income.[176] To allow sovereigns flexibility to assess the unique properties of their resources and assets, this Note does not propose a rigid regulatory framework for limiting collateral. Instead, sovereigns should look to international bodies, such as the Central Bank, which proposes the use of "[a] set of interrelated criteria [that] provides the framework for determining the eligibil-

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waive soverign immunity in bonds so that creditors will be able to obtain foreign judgments.").

172. Petroleos De Venez. S.A., No. 19-10023, 2020 U.S. Dist. LEXIS 243602, at *3 (S.D.N.Y. Dec. 29, 2020).

173. *See* Collateralized Transactions, *supra* note 17, at 10.

174. *Id.* at 5.

175. *Id.*

176. *See* Mihalyi et al., *supra* note 25, at 34.

ity of financial assets."[177] The criteria include "legal certainty,"[178] "credit quality,"[179] "pricing and liquidity,"[180] "denomination,"[181] and "operational risks and costs."[182]

As mentioned above, however, sovereigns with emerging markets often have a limited pool of assets that would serve as sufficient collateral to secure a debt.[183] If a sovereign is unable to establish a set of criteria that would effectively limit the type of asset that may be used as collateral for a bond, this Note proposes that governments should be exceptionally mindful of the scope of the assets used to collateralize sovereign bonds.

To solve the "scope" problem, nations should look to Angola, rather than Venezuela, as an example. Both Angola and Venezuela are fragile due to intense dependency on oil.[184] Angola has succeeded in limiting the use of collateralized borrowing.[185] The Venezuelan government, however, collateralized sovereign bonds with a majority stake in CITGO that risked losing the country's most valuable source of income and plunging the country further

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177. MARK BUESSING-LOERCKS ET AL., INT'L MONETARY FUND, EXPANDING THE CENTRAL BANK'S COLLATERAL FRAMEWORK IN TIMES OF STRESS 3 (July 29, 2020), https://www.imf.org/~/media/Files/Publications/covid19-special-notes/en-expanding-the-central-banks-collateral-framework-in-times-of-stress.ashx [https://perma.cc/X52F-3U25].

178. *Id.* ("Eligible assets should be transferable to the central bank with legal certainty, and there should be no legal or operational obstacles to the liquidation of the asset in the event of a counterparty default.").

179. *Id.* at 3–4 ("[C]redit standards must be applied consistently across all eligible assets. Generally, marketable assets are required to be rated by rating agencies, with minimum credit ratings often applied, given that credit and market risks tend to increase nonlinearly for lower-rated assets. For credit claims, credit risk assessment procedures, including, for example, counterparties' internal rating systems, need to be in place for the assessment of claims on small- and medium-sized enterprises (SMEs) and households.").

180. *Id.* at 4 ("Price determination, where possible, should be based on publicly available market prices. Observed market prices should feed into the risk mitigation framework, allowing for the identification and quantification of financial risks. Where reliable pricing is not available, the central bank will need to develop theoretical pricing models to value nontradable or illiquid assets.").

181. *Id.* ("Financial instruments denominated in domestic currency and issued and settled domestically are usually more easily transferable and simpler to price. Conversely, foreign-denominated instruments require that foreign exchange risk is adequately addressed in the risk mitigation framework.").

182. *Id.* ("To mitigate operational risks and costs, eligible assets should allow for efficient and effective collateral management procedures. The central bank should be able to conduct the eligibility assessment, pricing, and application of risk mitigation measures in a short period of time, and they should be based on standardized, timely, and easily accessible and verifiable asset-specific data. The transfer of title or legal claim should be based on standardized and automated procedures.").

183. *See* Auray, *supra* note 92.

184. *See* Mendes & Almeida, *supra* note 95; Werman, *supra* note 4.

185. *See* PUBLIC SECTOR BORROWING, *supra* note 18, at 8.

into political and economic distress.[186] While the Angolan government is still over-reliant on oil, especially to secure debt financing,[187] Angola's hard limit on the use of collateral to back bonds at forty-nine percent has prevented the type of controversy recently seen in Venezuela.[188] This example of restrained scope in the use of collateral should be the goal for sovereigns moving forward if a nation cannot limit the type of asset used as collateral.

Once collateral is sufficiently limited by the sovereign, the assets used as collateral should be accessible and non-isolated to signal to future lenders that the collateral is attachable in the event of a default.[189] Due to the nature of sovereignty, bondholders in the market are currently unable to seize collateral that is held within sovereign borders.[190] Accordingly, sovereigns issuing collateralized bonds should hold collateral in a readily enforceable manner. Potential methods of making assets readily available include an escrow account held within the sovereign's jurisdiction, any immovable asset located in a neutral location outside the sovereign's jurisdiction, or a demonstrably movable asset.[191]

C. *Foreign Nations Will Have Little Reason to Undermine the Enforceability of Collateral Pledges if the Collateral Is Appropriately Limited in Scope or Type*

If sovereigns limit the use of assets to collateralize bonds in either type or scope, foreign nations will have little excuse to deprive innocent bondholders of enforcing their rights to collateral. As seen in the case of the 2020 PDVSA bonds, the United States expressed an interest in protecting the validity of collateral clauses.[192] Ultimately, however, the court and the Federal Government, through executive actions, declined to allow bondholders to enforce their legal rights[193] because of the type and scope of collateral used. However, without the need to prevent a takeover of a vital state-owned oil company that could disrupt the entire nation, the United States and other foreign nations would have little incen-

186. *See* Weidemaier & Gulati, *supra* note 11; *see also* Wheatley & Platt, *supra* note 120.
187. Mendes, *supra* note 97.
188. *See* 2020 Investment Climate Statements: Angola, *supra* note 94.
189. Collateralized Transactions, *supra* note 17, at 4, 10.
190. *See* Burress, *supra* note 22, at 181.
191. Collateralized Transactions, *supra* note 17, at 10.
192. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., 495 F. Supp. 3d 257, 292–93 (S.D.N.Y. 2020).
193. Petroleos De Venez. S.A. v. Mufg Union Bank, N.A., No. 19-10023, 2020 U.S. Dist. LEXIS 243602, at *5–6 (S.D.N.Y. Dec. 29, 2020).

tive to undermine the enforceability of collateral clauses. To this point, the language of the U.S. court in the Venezuela case suggests that absent political necessity to interfere, the policy and law of the United States would grant bondholders the right to seize collateral in the event of a sovereign default.[194]

D. *Contracting for Collateral Benefits Both Investors and Sovereigns Seeking Increased Foreign Investment*

1. Contracts for Collateral Would Provide Additional Incentives to Investors by Decreasing Risk and Offering Stronger Enforcement Rights

While some investors are willing to invest in emerging-market bonds in the hopes of earning large returns on high interest rates,[195] most investors still shy away from investing in developing countries due to the perceived high financial risks.[196] As demonstrated above, improved contracting would provide potential investors who may be wary of risk with much stronger enforcement rights to mitigate the risk of loss in the event of a sovereign default. This risk mitigation would increase the number of investors willing to purchase sovereign bonds from emerging markets, diversify the investor pool, and encourage strong capital flow into the countries that most rely on foreign investment.

Once risk is mitigated, the interest rates on the sovereign bonds will likely decrease from the high seven percent average that currently exists on the market. Providing stronger enforcement rights would then lead to the loss of some of the investors seeking high-risk, high-yield investments. However, with a yield that is still greater than the low yield offered on big market bonds and stronger rights to collateral in the event of default, more investors overall will be willing to add these bonds to their portfolios—leading to an increase in foreign investment in emerging markets.

2. Contracts for Collateral Would Provide Sovereigns Seeking Increased Foreign Investment with More Market Access and a Path Toward Economic Stability

The majority of emerging market countries use capital flows as engines for growth.[197] When a sovereign requires additional funds

194. *See* Petroleos De Venez. S.A., 495 F. Supp. 3d at 282–83.
195. Songwe, *supra* note 53.
196. *See* Jones & Shaffer, *supra* note 27.
197. *See* Noeth & Sengupta, *supra* note 46.

to fuel government spending, many turn to private sector financing.[198] Collateralized debt is often the only method by which emerging market countries can raise capital from external investors.[199] However, the enforcement problem has limited the pool of investors willing to buy bonds from emerging markets.[200] This Note proposes a solution to the enforcement problem that would increase the number of investors willing to purchase emerging market bonds. With more investors, emerging markets would likely see increased access to foreign markets and larger capital flows that can be used to fuel growth.

Increased investment in emerging-market sovereign bonds would also give emerging markets a path to economic stability, and governments would be able to avoid future debt swaps like the tumultuous one that occurred in Venezuela. Over time, as sovereigns avoid debt swaps and make bond payments on time, the risk of default will fall. Eventually, sovereigns would be able to issue bonds with lower risk ratings, thus allowing them to issue longer-maturity bonds with lower interest rates. Because bonds are easier to pay back over longer periods of time, with smaller interest payments, this model would enable sovereigns to make all promised bond payments, stabilizing the local economy in the long run.

IV. Conclusion

Emerging market countries have long been without adequate sources of foreign investment.[201] These nations, often plagued with volatile government structures, fluctuating economies, and dire humanitarian crises, require a steady stream of foreign investment to ameliorate problems and boost the country towards more steady development and stability.[202] Recently, some of these sovereigns have turned to collateralizing national issued bonds.[203] This Note proposes that this process should be embraced by more emerging market nations to attract additional investors and drive economic growth.

For many years, scholars have argued that collateralized sovereign bonds were unenforceable. While collateralized bonds can present a myriad of problems specific to emerging market coun-

198. *See id.*
199. Public Sector Borrowing, *supra* note 18, at 10.
200. *See* Jones & Shaffer, *supra* note 27.
201. *See* Arora & Caminal, *supra* note 31, at 629–31.
202. *See, e.g.*, Songwe, *supra* note 53.
203. *See* Collateralized Transactions, *supra* note 17, at 4.

tries, this Note seeks to address the problem of enforcement; overcoming both legal and practical obstacles that can prevent creditors from exercising enforcement rights. By creating a framework with which sovereigns can improve bond contracts, the collateralization of sovereign debt bonds can finally be used as a tool for economic invigoration, rather than volatility.

and commentators about the extent to which private actors should be permitted to use their own cyber capabilities in hackback against botnets.[31]

B. *Hackback*

"Hackback" is the term given to the ways in which companies (could) electronically follow hackers back to their lairs, either to identify them for law enforcement or to disrupt their systems and prevent them from hacking again.[32] Some take a broad view of what is included in hackback.[33] This Note does not. Here, use of the term hackback is limited to events like the Microsoft-led disruption of Trickbot—instances in which a private actor degrades a hacker's system to an extent that reduces or eliminates the system's capability to continue hacking. This definition of hackback does not include methods used merely to identify hackers, which do not harm the hackers' systems. Examples of such methods include beaconing[34] and the use of honeypots.[35]

Hackback could be sanctioned by governments, just as privateers were once permitted to attack enemy ships under State authority. However, many States came to disfavor high seas privateers after criminalizing piracy.[36] To combat the problem of pirates—a threat to companies' profit margins and innocent civilians—States turned to interstate cooperation schemes, not privateers. Thus, historical experiences with both pirates and privateers provide lessons for how best to combat botnets today.

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31. *See, e.g.*, Josephine Wolff, *When Companies Get Hacked, Should They Be Allowed to Hack Back?*, THE ATLANTIC (July 14, 2017), https://www.theatlantic.com/business/archive/2017/07/hacking-back-active-defense/533679/ [https://perma.cc/2WRW-W9K7].

32. FireEye is one firm that has publicly admitted to "hacking back." *See* Scott J. Shackelford et al., *Rethinking Active Defense: A Comparative Analysis of Proactive Cybersecurity Policymaking*, 41 U. PA. J. INT'L L. 377, 382 (2019).

33. *See, e.g.*, *id.* at 389-90.

34. Beaconing is the process of sending to another computer a file which, when opened, transmits data about the receiver, usually including IP address, back to the sender. *See* Sean L. Harrington, *Cyber Security Active Defense: Playing with Fire or Sound Risk Management?*, 20 RICH. J.L. & TECH. 1, 11 (2014).

35. A honeypot is a computer system designed to look unprotected so that it attracts hackers who can then be caught in the act or traced back to their IP address. *See id.* at 18.

36. *See* discussion in Section IV *infra*.

C. *Comparing Botnets to Pirates*

This is not the first analysis to find the comparison of the actions of cybercriminals to pirates useful.[37] As one legal scholar wrote, "this analogy is attractive for many reasons."[38] Not least of these reasons are the facts that cyberspace functions as "a highway of commerce" similar to how sea routes bring goods to market, and that hackers enter computers to steal data in a way logically similar to how pirates board vessels to steal cargo.

As cyber threats go, botnets are *particularly* analogous to pirates. Like pirates, who take advantage of police-less international waters, botnets pose an enforcement problem because they operate in the "ungoverned badlands" beyond any one state's control.[39] This "jurisdictional lack of clarity" allows online threats like botnets to multiply.[40] The problem is exacerbated by uneven enforcement: not all States enforce their anti-hacking statutes as aggressively as States such as the United States does through its Department of Justice.[41]

The threat of a major ransomware or DDoS attack perpetrated by a botnet also adds tremendous costs to businesses that use the Internet to provide goods and services.[42] Just as the threat of pirates holding shipping containers captive in the Gulf of Aden has driven up insurance rates for shipping firms and resulted in "specific insurance products to address piracy-related ransom costs,"[43]

37. *See, e.g.*, Paul Rosenzweig, *International Law and Private Actor Active Cyber Defensive Measures*, 50 Stan. J. Int'l L. 103, 110 (2014); Singer & Friedman, *supra* note 8, at 177.

38. Rosenzweig, *supra* note 37, at 110.

39. Chris C. Demchak & Peter Dombrowski, *Rise of a Cybered Westphalian Age*, Strategic Stud. Q. 32, 44 (Spring 2011).

40. *Id.* at 43.

41. *See Spamhaus Botnet Threat Report 2019*, *supra* note 23; *see also, e.g.*, Press Release, U.S. Dep't of Just., Seven International Cyber Defendants, Including "Apt41" Actors, Charged In Connection With Computer Intrusion Campaigns Against More Than 100 Victims Globally (Sept. 16, 2020), https://www.justice.gov/opa/pr/seven-international-cyber-defendants-including-apt41-actors-charged-connection-computer [https://perma.cc/25FD-A4Y5]; Press Release, U.S. Dep't of Just., Six Russian GRU Officers Charged in Connection with Worldwide Deployment of Destructive Malware and Other Disruptive Actions in Cyberspace (Oct. 19, 2020), https://www.justice.gov/opa/pr/six-russian-gru-officers-charged-connection-worldwide-deployment-destructive-malware-and [https://perma.cc/F73D-5J77].

42. *See* The Council of Econ. Advisers, *supra* note 30.

43. Lauren Ploch et al., Cong. Rsch. Serv., R40528, Piracy off the Horn of Africa 14 (2011), https://fas.org/sgp/crs/row/R40528.pdf [https://perma.cc/R7UE-TMSC].