The Puzzle of PDVSA Bond Prices

Paolo Colla, Anna Gelpern & Mitu Gulati*

A few weeks ago, two of us posted a draft research paper on the pricing of Venezuelan sovereign bonds.¹ We wanted to know to what extent bond prices incorporated information about contract terms, and whether any such price effect might vary depending on the financial condition of the borrower. Venezuela makes a good case study because it has a number of New York-law bonds outstanding with different contract terms, and because it is experiencing severe financial distress. In particular, Venezuelan sovereign bonds have different voting thresholds for restructuring, and different pari passu clauses. The bonds issued before 2003 require unanimous (100%) consent of the bondholders to change financial terms, and have pari passu clauses that can be used, Argentina-style, to enforce payment. Those issued after 2003 can be restructured with the vote of either 85% or 75% of the bondholders, and have pari passu clauses that make for weaker enforcement tools. Neither the pre- nor the post-2003 bonds permit aggregated voting across different bond series.

Our results were straightforward. Investors attached greater value to the bonds that were tougher to amend; in other words, they were willing to pay for the ability to hold out in an eventual restructuring. This meant that the market was working to distinguish bonds with weaker and stronger minority creditor protections, and attached higher prices to the latter. Consistent with anecdotal evidence, we also found that the price effects were more pronounced in this study of a severely distressed government’s bond contracts than in prior studies of bonds issued by sovereigns in better financial health.

In response to our post, a number of analysts reached out to us for details of the study. They were most interested in a subject that we had avoided in the paper: the question of how the pricing of


* Faculty at Bocconi University, Georgetown University and Duke University, respectively.
New York-law bonds issued by Venezuela’s oil company, Petróleos de Venezuela SA (PDVSA), compared to the pricing of Venezuela’s pure sovereign bonds. Market participants wanted to know whether differences in prices between otherwise similar PDVSA and sovereign bond contracts presented arbitrage opportunities. PDVSA has $34 billion in outstanding bonds, comparable to Venezuela’s $36 billion sovereign bond stock. PDVSA has payments of slightly more than $4 billion coming due in October and November of 2016; it is reportedly in talks with creditors to postpone these and other near-term repayments.²

We were particularly intrigued by the view expressed to us by some market analysts concerning the legal protections embedded in PDVSA bonds as compared to Venezuelan sovereign bonds. Ordinarily, the markets tend to value pure sovereign bonds at a premium over comparable quasi-sovereign bonds, such that of a state oil company like PDVSA.³ Analysts were telling us, though, that the PDVSA bonds were different; that they were as good, and maybe even better, than the pure sovereign issuances. The reasons they cited were that: (a) all of the PDVSA bonds required unanimous action (100% vote) by the bondholders to modify the payment terms; and (b) PDVSA, unlike the sovereign, had substantial assets abroad in its subsidiaries (importantly including shares in CITGO in the United States), which might be available for investors to seize in a contract enforcement lawsuit. For reasons explained below, we were initially skeptical of these arguments. To us, PDVSA bonds looked weaker, not stronger, than the comparable sovereign bonds in light of all the relevant legal parameters. That said, the history of sovereign bond restructurings—and particularly the recent Greek restructuring of 2012—cautioned us not to be too confident about concluding that a quasi-sovereign bond was necessarily going to fare worse in a restructuring than a comparable pure sovereign bond. In 2012, the debt of Greek state-owned firms, and debt guaranteed by the Greek sovereign, did better than comparable Greek government bonds. What is more, an examination of the market pricing suggests that smart investors had predicted that outcome.⁴

⁴ Choi & Gulati, supra note 3.
Testing Legal Protections: PDVSA Bonds v. Pure Sovereign Bonds

Our initial view, in contrast to the one from analysts we described above, was that the PDVSA bonds were probably weaker than comparable sovereign bonds. Considering the contracts first, the PDVSA bonds are more vulnerable than pure sovereign bonds to a restructuring technique called the Exit Consent, which has been used in the past to restructure sovereign bonds with unanimity provisions, most famously in Ecuador (2000) and Uruguay (2003).\(^5\) Exit consents take advantage of the fact that the voting threshold for changing important non-financial terms is much lower than the 100% needed to change financial terms. Non-financial terms in PDVSA bonds can be changed with a 50% vote of the creditors; the threshold in comparable sovereign bonds is 66.67%. In other words, PDVSA bonds may have contractual restructuring options unavailable for the pure sovereign bonds even where both require unanimity to amend financial terms. PDVSA bonds also have an additional measure of insulation against holdout creditor lawsuits that the sovereign bonds do not, since PDVSA bonds are issued under a trust structure, which requires bondholders to act collectively and indemnify the trustee to sue on their behalf.\(^6\)

Beyond contracts, we thought it important to highlight that PDVSA is a domestic corporate entity in Venezuela, and its bonds have no explicit sovereign guarantee. *In extremis*, a debtor such as PDVSA is vulnerable to asset stripping by the government, which would then leave an empty shell for the creditors.\(^7\) Venezuela’s oil belongs to the government, not the company, while the company itself is subject to a host of obligations to remit funds to the state.\(^8\) The state has considerable leeway to shift oil assets, change domestic contracts and regulations, and impose new, senior obligations on the firm. It could restructure the company entirely, as it has

---


\(^6\) See e.g., PDVSA 9% Senior Notes Due 2021, Offering Circular dated November 11, 2011, at p. 107.


\(^8\) See “About PDVSA” at PDVSA.com (last visited July 30, 2016) and “Risk Factors—Risk Factors Relating to Venezuela” in PDVSA 9% Senior Notes Due 2021, Offering Circular dated November 11, 2011, pp. 15-16.
done in the past, forming a “New-New PDVSA.” In a slightly less extreme scenario, PDVSA could declare itself bankrupt under Venezuelan law, and force its creditors into an involuntary restructuring. In any of these cases, those contract terms under New York law would go out the window. As for the assets of PDVSA’s foreign subsidiaries, creditors could only nab them if they convinced a court to engage in “veil piercing” (effectively ignoring layers of corporate personality), something that many try but few succeed at, particularly when the ultimate owner is a sovereign.

A counter to our speculation that domestic bankruptcy in Venezuela could bind PDVSA’s foreign creditors and offshore assets is that this can only happen if PDVSA is able to persuade a judge in New York to recognize the Venezuelan proceeding and give it legal effect. That a U.S. court would do so, however, is by no means certain. If, for example, Venezuela flagrantly disregarded the rights creditors bargained for in their New York-law contracts, it might persuade a U.S. judge to rule against recognizing the Venezuelan proceeding. Finally, there is also a political argument against a PDVSA bankruptcy: the company is Venezuela’s crown jewel, would any Venezuelan government survive even an hour after declaring PDVSA bankrupt?

In sum, there are multiple elements of legal uncertainty pointing in different directions in answering the question whether PDVSA bonds had stronger or weaker safeguards against restructuring than pure Venezuelan sovereign bonds. While the uncertainty excited our analyst friends, it made it difficult for us to test the effect of contract provisions on bond prices. Without having a clear view at the outset whether PDVSA bonds had stronger or weaker legal protections

---

9 See “About PDVSA-The New PDVSA” at PDVSA.com (last visited July 30, 2016).
10 See e.g., PDVSA 9% Senior Notes Due 2021, Offering Circular dated November 11, 2011, pp. 20-21.
for minority bondholders than pure sovereign bonds, we could not have a testable prediction about which bonds would be valued more by the market.

What we could do, however, was to take our finding for sovereign bonds – that investors paid close attention to contractual rights and factored them into bond prices – and use them as a starting point, asking whether they valued PDVSA or sovereign bonds more. If we could find a price difference, we might infer, based on the last study, that a higher price reflected better protection for bondholder minorities. Such an inference would find additional support in anecdotal evidence that distressed bonds like Venezuela’s attract specialized investors, who focus on legal tools for recovery and have the time and resources to put them to good use. We might expect therefore that distressed PDVSA and Venezuelan sovereign bond prices would reflect the views of the best, most expensive lawyers in the business.

A meaningful comparison requires PDVSA bonds that are highly similar in most respects to the Venezuelan sovereign bonds discussed in the earlier paper. Of all the outstanding PDVSA debt securities for which we could obtain information on Bloomberg, we found three that fulfilled our minimum selection criteria: dollar-denominated, New York law, fixed coupon, non-callable, non-puttable, non-sinking. The three PDVSA bonds matured ten years apart, in 2017, 2027, and 2037, which allowed us to compare their prices with those of clearly distinct segments of the sovereign term structure. However, PDVSA bond maturities only roughly matched those of corresponding sovereign bonds, with differences ranging from six to 16 months. Two of the pure sovereign bonds in our comparisons are have 100% voting thresholds to change key financial terms, the same as PDVSA; the third has a 75% threshold. The main features of these twin bonds are summarized in Table 1.

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Issue</th>
<th>Coupon</th>
<th>Size</th>
<th>CAC</th>
<th>ID ISIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/15/18</td>
<td>8/6/98</td>
<td>13.625</td>
<td>0.753</td>
<td>N</td>
<td>US922646AT10</td>
</tr>
<tr>
<td>9/15/27</td>
<td>9/18/97</td>
<td>9.25</td>
<td>4.0</td>
<td>N</td>
<td>US922646AS37</td>
</tr>
<tr>
<td>3/31/38</td>
<td>11/15/07</td>
<td>7</td>
<td>1.25</td>
<td>Y</td>
<td>USP97475AJ95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Issue</th>
<th>Coupon</th>
<th>Size</th>
<th>CAC</th>
<th>ID ISIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/12/17</td>
<td>4/12/07</td>
<td>5.25</td>
<td>3.0</td>
<td>N</td>
<td>XS0294364103</td>
</tr>
<tr>
<td>4/12/27</td>
<td>4/12/07</td>
<td>5.375</td>
<td>3.0</td>
<td>N</td>
<td>XS0294364954</td>
</tr>
<tr>
<td>4/12/37</td>
<td>4/12/07</td>
<td>5.5</td>
<td>1.5</td>
<td>N</td>
<td>XS0294367205</td>
</tr>
</tbody>
</table>

Table 1. Venezuela and PDVSA twin bonds. Main features of PDVSA and pure sovereign bonds. Coupon is in percentage; size is in $bln; CAC is a Y/N indicator for Collective Action Clauses provisions.
Below we report the evolution of their yields, over time, in simple graphs.

The Near-Term Maturity Comparison

In Figure 1, we compare the weekly yield of the PDVSA 5% bond due April 2017 and the Venezuela sovereign 13.25% bond due August 2018. Although both require unanimous (100%) bondholder consent to amend key financial terms, Figure 1 shows that the market clearly perceives the shorter maturity PDVSA bond as riskier than the sovereign bond. The PDVSA bond appears to get riskier and riskier relative to the sovereign starting in early 2015, when the three major credit rating agencies assigned Venezuela extremely speculative credit ratings, signaling near-term default risk. The yield differential between PDVSA and the pure sovereign widens to 5000 basis points as the crisis worsens between early 2015 and mid-2016. Given Venezuela’s precarious financial position and imminent payment dates for PDVSA debt obligations, bonds maturing the soonest are the ones most directly in the line of a potential restructurer’s bullets; historically, these tend to lose the most in net present value terms. The difference in price must reflect a market view that PDVSA bonds are going to do much worse than the pure sovereign bonds despite identical 100% restructuring amendment thresholds. Why are investors in PDVSA apparently discounting the protections embedded in the voting threshold, which appeared so salient in our sovereign bond analysis?

Figure 1. **Venezuela and PDVSA twin short-term bonds**. Yields of near-term PDVSA and matched sovereign bonds (top panel) and yield differential between the two (PDVSA minus sovereign, bottom panel).

Potential explanations for the price difference range from a simple gap in maturity dates—the PDVSA bond matures more than a year before its sovereign twin—to nuanced contract-based explanations such as the ease of deploying exit consents and differences in the *pari passu* clause (PDVSA’s clause is potentially less useful for enforcement). Market participants might also be pricing in a likelihood of asset-stripping and bankruptcy for PDVSA. A variant on the asset-stripping scenario might entail an arrangement like the one with China, well-known in the market, whereby PDVSA agreed to sell oil forward at prices favorable to the buyer, effectively taking out a loan repayable in oil.\(^{14}\) Depending on the precise structure of payments and deliveries, China or another buyer might even advance foreign currency to the government or the Central Bank in exchange for oil deliveries by PDVSA. The result would represent a structural subordination of PDVSA bonds, both *vis a vis* Venezuela’s and PDVSA’s obligations to China, and *vis a vis* pure sovereign bonds. An extreme scenario might look like a direct transfer from PDVSA to sovereign bond holders.

Finally, and paradoxically, the discount we find in the nearest-term PDVSA bonds might reflect concerns about a messy restructuring. All else equal, an investor might prefer a bond that is hard to amend—because she sees herself as a potential holdout, is reasonably confident of her ability to sell to a holdout, or generally wants more bargaining power for creditors vis a vis the distressed debtor, embedded in higher voting thresholds. However, when default or restructuring is nigh, all else is not equal. Market participants may have knowledge of specialist holdouts already holding blocking positions in the bonds, of investment disputes being filed under bilateral investment treaties, and of exchange offer terms discussed by government officials.

As it becomes clear that the debtor will not pay everyone in full, the creditors begin fighting for recovery scraps among themselves—and attach growing importance to knowing precisely who else holds claims on the sovereign, and what their strategy might be. For example, an investor that wants to hold out but does not have the sophistication or resources of the specialists would want to crowd into the bond issues held by the specialists, in effect, free-riding on their prowess. Alternatively, an investor that prizes liquidity and does not want to play the long, high-risk holdout game is worried about getting stuck in a holdout bond for a long time. As a result, the same investor that wanted more bargaining power for creditors in general a year earlier now might see herself in particular as holding illiquid, defaulted PDVSA bonds indefinitely, having her bond payments blocked (as happened in the case of Argentina), or subordinated to a host of obscure, poorly understood claims and claimants. Minority bondholder protections that had been valuable earlier could backfire against the majority of creditors as more pieces of the restructuring puzzle fall into place.

---

15 Although Venezuela no longer submits to the jurisdiction of the International Center for the Settlement of Investment Disputes (ICSID), its withdrawal in 2012 does not preclude attempts to lodge claims against it by disgruntled direct investors.
16 For a discussion of how this dynamic can play out, see Anna Gelpern, Ben Heller, & Brad Setser, Count the Limbs: Designing Robust Aggregation Clauses in Sovereign Bonds, in TOO LITTLE, TOO LATE: THE QUEST TO RESOLVE SOVEREIGN DEBT CRISES (Martin Guzman, José Antonio Ocampo & Joseph E. Stiglitz eds., Columbia U. Press 2016).
The Longer Maturity Comparisons

Once we saw that the market did not think much of the legal protections in PDVSA’s bonds maturing within a year or two, we expected to see a similar pattern in the longer maturity bonds. That is, the yields on the sovereign bonds, whether they had a 75% vote or a 100% vote should be below those on similar-maturity PDVSA bonds, if the yields reflect the structural subordination of PDVSA bonds to sovereign bonds irrespective of their maturity. The results might show up in a more muted fashion in bonds maturing decades from now than in the bonds maturing in 2017-18, but they should show up nonetheless.

Figure 2. Venezuela and PDVSA twin bonds maturing in 2027. Yields of medium-term PDVSA and matched sovereign bonds (top panel) and yield differential between the two (PDVSA minus sovereign, bottom panel).
Figure 3. Venezuela and PDVSA twin bonds maturing in 2037-38. Yields of long-term PDVSA and matched sovereign bonds (top panel) and yield differential between the two (PDVSA minus sovereign, bottom panel).

We do not find what we expected, not by a wide margin. As Figures 2 and 3 illustrate, when we compare the longer-dated PDVSA bonds against similar maturity sovereign bonds, the sovereign yields are the ones that are higher. In all three bond pairs—near-term and longer term maturities alike—yields start diverging substantially at the end of 2014. However, for the longer-term pairs, divergence goes in the opposite direction from what we saw in Figure 1. Long-dated PDVSA bonds appear to be more valuable in the eyes of market participants than their sovereign twins. If the price difference we measure reflects contractual and other legal protections for minority creditors, the result suggests that the market considers longer-term PDVSA bonds to be safer than comparable sovereign bonds.

These results seem counterintuitive. Creditor protection embedded in a bond contract and the surrounding legal regime does not normally change over time.\(^\text{17}\) The relative positions of debt obligations are generally set at issue. The explanations for the differences between near-term and

\(^{17}\text{De facto} subordination is fairly common in sovereign debt; however, legislative, regulatory, and judicial interventions affecting payment priorities after the debt is issued are rare, and mostly confined to domestic debt. On ex-post dilution and subordination, see Patrick Bolton & David Skeel, Inside the Black Box: How Should a Sovereign Bankruptcy Framework Be Structured?, 53 EMORY L.J. 763 (2004).
longer-term bond prices may not be legal after all. Several additional explanations that echo strands of market analysis strike us as plausible.

Four Possible Explanations

Bond (il)Liquidity: It may well be that—for reasons unrelated to contract terms—the liquidity of PDVSA bonds vis a vis that of matched sovereign bonds changes over time, and it does so differently depending on their residual maturity. Indeed, the evolution of yield differentials we observe would be consistent with near-term (resp., longer-term) PDVSA bonds becoming more illiquid (resp., more liquid) than pure sovereigns after January 2015. Size and bid-ask spread are two popular proxies for bond-level liquidity. Although size is in principle time-varying at the bond level—bonds can be called or reopened during their lifetime—this does not happen for the PDVSA and the sovereign bonds during our sample period. Which leaves us with the bid-ask spread to track variation in liquidity premia. However, data quality issues prevent us from taking this route because Bloomberg inevitably reports the same bid and ask prices for PDVSA bonds during our sample period.

Issuer Illiquidity, Not Insolvency: Some investors holding Venezuelan bonds (both PDVSA and sovereign) argue that the country is facing a temporary liquidity crisis, which requires neither dramatic economic reform nor a debt restructuring. If Venezuela secures an emergency cash infusion from the International Monetary Fund (IMF), China, Russia, or another source—or if it can simply postpone the payment of near-term bond maturities—it might buy time until oil prices recover, and it can go back to living off its oil reserves, as one of the largest integrated oil companies in the world. This may be an optimistic scenario, however, since oil prices are not projected to recover significantly in the short term.

The IMF Story: So far, Venezuela has not gone to the IMF for assistance with its current crisis. Indeed, as of this writing, Venezuela’s Article IV consultation with the IMF, an annual ritual for

---

each member in good standing, has been “delayed” for 127 months. Put differently, the relationship between the IMF and Venezuela is not all it could be at the moment. If and when Venezuela does approach the IMF, the latter may ask for a reprofiling of near-term debt maturities or a comprehensive restructuring of sovereign debt; it is most likely to ask for a restructuring of PDVSA operations, which are central to the viability of Venezuela’s economy.

Bond prices suggest that smart money is betting that the long-dated PDVSA bonds might escape restructuring altogether or suffer minimal losses in any such scenario.

Dynamic Crisis Management and Heterogeneous Investors: The final possibility to consider, which we previewed in our discussion of PDVSA bonds maturing next year, is that the legal context for sovereign bonds is not static, and neither is market analysis. A government that finds itself in the middle of a major political and financial crisis is disproportionately focused on the near-term objective of containing it. It will exploit aggressively the legal options in its contracts and statutes; this may mean ignoring or legislating away any domestic legal constraints. In response, foreign investors might attach greater value to external contractual protections over which the sovereign has no control, but might heavily discount domestic legal protections, or even penalize the sovereign that has more discretion in crisis management—depending on their assessment of the current government’s political preferences.

Just as the crisis might crystallize a government’s idiosyncratic short-term preferences, so it does with investors. As noted earlier, holders of deeply distressed bonds must assess their position not only vis-à-vis the debtor, but also vis-à-vis the other creditors. For example, a bondholder might

---

prefer to restructure on less-than-ideal terms to holding out or getting stuck in a messy restructuring driven by a small group of known holdouts. The same bondholder might prefer to hold out rather than accept punitive terms driven by domestic investors under the sway of the sovereign debtor. Depending on who is in power and who else holds the claims on the sovereign—information that is hard to come by very far in advance—bondholders might attach value to different legal parameters and creditor protections. Both legal and political minutiae recede to the background in long-term debt. Its pricing is dominated by broad national, regional and global macroeconomic trends such as inflation and growth expectations, commodity price trends, and the like.

In concrete terms, our results may simply reflect the view that the government of Venezuela faces extreme near-term stresses, and has the political will and the legal way to sacrifice payments to PDVSA bondholders for the sake of other claims on the sovereign. In the long run, the markets seem to be worried about Venezuela’s economic and political prospects, but are betting that both Venezuela and PDVSA will weather the current storm. If it survives, then rebounding oil prices, hard currency earnings and PDVSA’s relatively robust contracts make it a pretty good bet—all else equal.

Conclusions

Analyzing the prices of PDVSA bonds side by side with comparable sovereign bonds leads us to suspect that the value of some legal and contractual parameters may change, and change dramatically over the life of a debt contract. For payments that are decades away, legal terms are drowned by macroeconomic and market factors, except where investors expect a deep and comprehensive debt restructuring. As financial conditions deteriorate, legal parameters loom larger for near-term payments; however, residual uncertainty about the government’s political priorities and constraints, and the identity of other creditors, can create peculiar discontinuities. Market participants may prefer terms that empower creditor minorities vis à vis the debtor, until they find themselves in the cross-hairs of an exotic legal strategy deployed by a super-empowered holdout.