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Venezuela: Preparing for the End Game

- Amid continued escalation of political and social tension, more and more investors begin to engage with us on discussing potential restructuring scenarios. In this note, we provide snippets of data, facts, and opinions that could be useful for investors to ascertain any post-default scenarios, as well some simulations on a couple of restructuring scenarios to aid our discussion on recovery value, P/L of bonds, and related topics.
- We first provide a primer of Venezuela and PDVDA bonds and CDS, touching on the topics of events of default, cross-default, grace periods, collective action clauses, CDS trigger and deliverables, significant relevant obligations other than bonds, and cash flows schedules, etc.
- In our view, an effective restructuring for Venezuela and PDVSA bonds will likely require a substantial amount of nominal haircut, and a delay or forgiveness of repayment in principal and/or interest. A simple re-profiling, in which maturities are extended, is unlikely to be enough.
- Yet, a debt restructuring, if managed well, need not be so distressed as to cause current bondholders to incur a substantial loss (except perhaps for the holders of the high priced bonds on the curve).
- We see the exit yields for a Venezuela exchange likely between 9 – 12%, with 10% as the central scenario in our simulation. For PDVSA, it is likely higher given that historically PDVSA bonds traded on average about 100bp wider than comparable Venezuela bonds.
- We believe the recovery value for Venezuela will likely be higher than PDVSA, but this is only due to lower coupon and likely higher exit of the PDVSA bonds. That oil resources belong to the sovereign argues for a lower recovery for PDVSA, but we doubt how meaningful this argument is in practice given the urgency of curing a default and motivation of avoiding holdout and legal risks.
- Our simulation results of a conventional debt exchange suggest that the benefit of higher existing coupons from potential cash flows before a credit event and addition to the total claim in a restructuring does not justify the much higher prices these bonds have currently if a default occurs within the next year and an exchange takes place shortly after.
- We do not see enough risk premia priced in the front end of the bond curves, and hence we see further downside to the prices of PDV 17Ns and Venezuela 18s. Given our increasingly cautious stance, we prefer low-priced bonds at the long end of the curve.
- Other topic 1: in terms of "coercing mechanism" in a potential restructuring, we believe exit consent will likely be used in conjunction with CACs (to the extent it exits) for sovereign bonds, but unfortunately exit consent might be the only mechanism to be used on PDVSA bonds. We doubt US bankruptcy protection (Chapter 11 or Chapter 15) is a viable option for PDVSA.
- Other topic 2: on the issue of whether certain bonds "issued" at a deep discount price should have par claim in a potential restructuring, we think the risk is relatively low because a). The government (if an opposition led) is unlikely to pursue this as it would be counter-productive, despite what being said now; and b). Majority of Venezuela bonds and all PDVSA bonds have an initial trading price significantly below par.

Venezuela: Preparing for the End Game[1]

Introduction

Heightening political and social tensions, severe financing stress, and increasing difficulty in raising fresh money have pushed Venezuela significantly closer to the edge. While a credit event taking place this year is not (yet) our base case scenario, it might be informative to entertain some end game scenarios, which would be important in guiding asset allocation strategies.

In fact, more and more investors have begun to engage with us recently in discussing potential restructuring scenarios, for which we offered some snippets in our Weekly of 18-June-2017. In a follow up piece (see Weekly of 5-July-2007), we provide relevant data and facts that could be useful for investors to ascertain any post-default scenarios. In this report, we combine and re-organize the materials from both reports and add a few additional topics, such as mechanism/options of restructuring PDVSA bonds in the absence of CACs, potential risk on bonds that are perceived to be issued significantly below par, etc.

Profile of bonds and other debt obligations

Venezuela has defaulted or restructured many forms of its debt obligations, including much of its commercial debt, multilateral debt (CAF), bilateral debts, and judgments stemmed from international arbitrations (it rescheduled the payment to Gold Reserve via mutual agreement). However, they have insofar remained current on their international law bond obligations.

List of bonds

The following table shows the full list of Venezuela and PDVSA bonds that investors are concerned about. All these bonds are governed by New York law, denominated in USD, and are deliverable to CDS (more on this below). However, investors should be aware of the following characteristics regarding a potential credit event and post-default restructuring events. The main source for these is the bonds prospectus, available on Bloomberg.

Figure 1: PDVSA and Venezuela bonds profile

ID	Bond	Cpn	Mat'y	Amt (USD mm)	Governing Law	Grace Period	CAC	Form of CAC
USP7807HAK16	P'17N	8.500	Nov-17	1,121	NY	Int only, 30d	NO	
USP7807HAV70	P'20	8.500	Oct-20	3,368	NY	Int only, 30d	NO	
USP7807HAP03	P'21	9.000	Nov-21	2,394	NY	Int only, 30d	NO	
USP7807HAM71	P'22	12.750	Feb-22	3,000	NY	Int only, 30d	NO	
XS1126891685	P'22N	6.000	Oct-22	3,000	NY	Int only, 30d	NO	
USP7807HAT25	P'24	6.000	May-24	5,000	NY	Int only, 30d	NO	
USP7807HAR68	P'26	6.000	Nov-26	4,500	NY	Int only, 30d	NO	
XS0294364954	P'27	5.375	Apr-27	3,000	NY	Int only, 30d	NO	
USP7807HAQ85	P'35	9.750	May-35	3,000	NY	Int only, 30d	NO	
XS0294367205	P'37	5.500	Apr-37	1,500	NY	Int only, 30d	NO	
US922646AT10	V'18O	13.625	Aug-18	753	NY	Pri & int, 30d	NO	
USP9395PAA95	V'18O	13.625	Aug-18	300	NY	Pri & int, 30d	NO	
USP97475AD26	V'18N	7.000	Dec-18	1,000	NY	Pri & int, 30d	YES	Single series, 85%
USP97475AN08	V'19	7.750	Oct-19	2,496	NY	Pri & int, 30d	YES	Single series, 75%
USP97475AG56	V'20	6.000	Dec-20	1,500	NY	Pri & int, 30d	YES	Single series, 75%
USP17625AC16	V'22	12.750	Aug-22	3,000	NY	Pri & int, 30d	YES	Single series, 75%
USP17625AA59	V'23	9.000	May-23	2,000	NY	Pri & int, 30d	YES	Single series, 75%
USP97475AP55	V'24	8.250	Oct-24	2,496	NY	Pri & int, 30d	YES	Single series, 75%
XS0217249126	V'25	7.650	Apr-25	1,600	NY	Pri & int, 30d	YES	Single series, 75%
USP17625AE71	V'26	11.750	Oct-26	3,000	NY	Pri & int, 30d	YES	Single series, 75%
US922646AS37	V'27	9.250	Sep-27	4,000	NY	Pri & int, 30d	NO	
USP17625AB33	V'28	9.250	May-28	2,000	NY	Pri & int, 30d	YES	Single series, 75%
USP17625AD98	V'31	11.950	Aug-31	4,200	NY	Pri & int, 30d	YES	Single series, 75%
US922646BL74	V'34	9.375	Jan-34	1,500	NY	Pri & int, 30d	YES	Single series, 85%
USP97475AQ39	V'36	6.500	Dec-36	5,000	NY	Pri & int, 30d	YES	Single series, 75%
USP97475AJ95	V'38	7.000	Mar-38	1,250	NY	Pri & int, 30d	YES	Single series, 75%

Source: Deutsche Bank, Bloomberg, Bonds Prospectus

Events of default

Events of Default for Venezuela and PDVSA bonds are quite conventional. Both include: failure to pay, repudiation, and acceleration of obligations (with 25% threshold), among others.

It is worth noting that the case of Venezuela, the list of events also includes:

- default by the Central Bank on its duty related to remitting dollars for government's debt repayments and its terms or duties in the Central Undertaking or the Fiscal Agency Agreement (the latter has a 90-day grace period);
- failure to satisfy significant judgment that is final and un-appealable (>100mm, 30-day grace period);
- cross-default from any Public External Indebtedness (of the Republic, Banco Central or any Governmental Agency guaranteed by the Republic);
- for most bonds, ceasing to be a member of the IMF.

In the case of PDVSA, the events also include:

[1] This report combine the materials originally presented in our EM Sovereign Credit Weekly of 18-June-2017 and of 5-July-2017, with more details and a few additional topics added.

- default in performance of any other covenant or agreement contained in the Indenture (60-day grace period, 25% threshold);
- default on or acceleration of any Indebtedness[2] of the Issuer or any of its Significant Subsidiaries[3] (30-day grace period, USD100mm threshold);
- default on significant judgment against the company and Significant Subsidiaries (60-day grace period, USD100mm threshold);
- bankruptcy by the company or its Significant Subsidiaries.

Grace periods

The grace period for failure to pay on the sovereign bonds is 30 days for principal and coupon payments.

There is no grace period on the principal payments of PDVSA bonds. The grace period for failure to pay coupons for PDVSA bonds is 30 days.

Cross-defaults

We first note that there is no cross-default between Venezuela and PDVSA. While the two entities are intertwined, there are no formal cross-default clauses between the two in the bond documents.

For Venezuelan bonds, besides the normal cross-default clause related to other "Public External Indebtedness", a default can be triggered by failure to satisfy final judgments exceeding USD100mm, stemming from international arbitrations.

For PDVSA bonds, a cross-default can also occur via failure to satisfy final judgments exceeding USD100mm against the Issuer or its Significant Subsidiaries. It can also occur via default on or acceleration of any Indebtedness of the Issuer or any of its Significant Subsidiaries. The definition of "Indebtedness" is "any obligation (whether present or future, actual or contingent and including, without limitation, any Guarantee) for the payment or repayment of money that has been borrowed or raised". While the scope of this definition is not entirely clear, it would appear that it includes the loans that PDVSA contracted under the New York law.

Collective Action Clause

All Venezuelan bonds, with the exception of the 13.625% 18s (two series) and the 27s, have Collective Action Clause, which allows the super majority of bond holders (75% of total outstanding for all bonds except for 7% 18s and 34s, which have a 85% threshold) to restructure the bonds and have the terms binding for all.

However, it is important to note that there is no Aggregation clause on these bonds. This means that the CAC must be used for each of the series of the bonds to be effective. For example, bondholder with 15% of the 7% 18s' outstanding could effectively block the restructuring of that series of the bonds. This, in conjunction with the fact that the two bonds do not have CACs at all, could make a potential bond restructuring challenging.

PDVSA bonds are corporate bonds issued under US Trust Indenture Act and hence do not have CACs at all. The traditional "exit consent" – with which bondholders, having a simple majority of each series of the bonds, change the non-payment terms of the bonds (such as governing law) to diminish the value of bonds – will likely be the main resort for the issuer and participating bondholders to coerce in a higher participation rate in the event of a potential restructuring. Quite obviously, holdout risk is higher on PDVSA bonds than Venezuela bonds due to lack of CACs (more on this topic below).

Other debt obligations

Venezuela has a significant amount of multilateral and bilateral debts, the latter mostly with China and Russia. Debt with China (mostly to be repaid via oil shipments) was already restructured and the terms of payment extended. There is currently no payment until mid-2018. Debt with Russia is in default and being negotiated.

These bilateral debts do not cross-default to sovereign bonds, as they do not constitute as "Public External Indebtedness", the definition of which is "any External Debt issued in a public offering or private placement of securities or other instruments of a type offered in capital markets, including, without limitation, any bonds, floating rate notes, commercial paper, certificates of deposit, debentures, or other evidence of indebtedness".

There are also significant judgments resulting from international arbitrations, which potentially pose cross-default risk. After an international tribunal (typically the ICSID) makes a final ruling on an arbitration case, the ruling would need to be enforced in a credible court (typically a US or European court). If a claimant obtains a judgment from a Court to enforce the arbitration award, if the ruling is final and un-appealable, and if the monetary amount exceeds USD100mm, this would trigger a cross-default with a 30 day grace period.

Currently, there is one arbitration case that had reached its final stage (Gold Reserve, USD770mm), but

[2] "Indebtedness" means any obligation (whether present or future, actual or contingent and including, without limitation, any Guarantee) for the payment or repayment of money which has been borrowed or raised.

[3] "Significant Subsidiary" means any Subsidiary of the Issuer that would be a "Significant Subsidiary" of the Issuer within the meaning of Rule 1-02 under Regulation S-X promulgated by the SEC.

Venezuela and the mining company had reached a settlement agreement. Venezuela is believed to be making monthly payment to Gold Reserve. There are a few other high profile cases in various stages, as follows

- Gold Reserve: a USD770mm award was confirmed to be enforced by US District Court in August 2016. The parties had reached an agreement since then with a defined payment schedule in conjunction with some agreement for the mining company to operate in a gold mine.
- Crystallex: a USD1.4bn award is being enforced in US District court. Venezuela filed its last motion in May to dispute the judgment. We believe this case is close to its final stage, and Venezuela may have to negotiation a deal with Crystallex in the coming months.
- ExxonMobil: ICSID initially awarded the oil company USD 1.6bn but a review panel later annulled USD1.4bn out of USD1.6bn. Earlier this week, a US Appeals Court effectively threw out the case so Venezuela scored a (rare) victory related to its nationalization of international operations in late 2000s.
- ConocoPhillips: ICSID has ruled that Venezuela was "liable" but has not yet determined the final monetary amount Venezuela has to pay. This case has yet to move to enforcement stage. The amount if not yet known, but the claimant is apparently demanding a very large sum (multi-billion dollars). However, Venezuela's victory in the ExxonMobil case suggests this could be exaggerated.

There are also a number of smaller cases, but we do not have much information about them. None of them has reached its final stage to potential trigger cross-default yet, to our knowledge.

Venezuela also has the Oil Warrants maturing in 2020 (with a total remaining notional amount of USD600mm), but they are derivative instruments with no principal, and there does not appear to be cross-default between the Warrants and the bonds.

PDVSA has many loan agreements with limited information available. The table below shows partial information, to the extent that it is available on Bloomberg, but we cannot tell if it is complete (likely not).

Figure 2: PDVSA loans, whereas info is available on Bloomberg

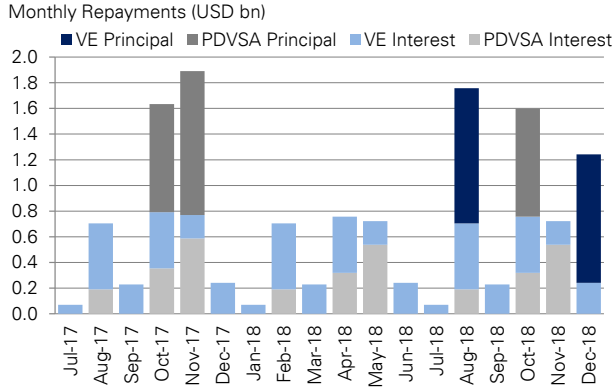
PDVSA loans listed on Bloomberg					Deliverable
ID	Maturity	Outstanding	Type	Seniority	to CDS?
BBG002PYVTY8	27-Feb-18	318	Term	First lien, senior secured	Yes
BBG001Y5SLG4	26-Jul-19	4000	Term	First lien, senior secured	Yes
BBG0072K6MR3	3-Sep-24	1950	Delayed draw term	First lien, senior secured	Yes
BBG001V77MC8	28-Jun-26	1250	Delayed draw term	First lien, senior secured	Yes
BBG003252346	Undislosed	Undisclosed	Term	First lien, senior secured	Not sure
BBG004PFW852	Undislosed	Undisclosed	Revolver	Unsecured	Not sure

Source: Bloomberg Finance LP, Deutsche Bank

Cash flows schedule

While most investors are concerned with the USD2bn principal repayments for the 2020s and 2017Ns amortization/maturity in October and November, there is a significant amount of Sovereign bond coupon payments due in August (about USD710mm) that warrant investors' attention. All together, the two issuers will likely need to pay close to USD5bn by the end of 2017 and USD 13bn cumulatively by the end of 2018. While PDVSA repayments are the biggest concern this year, it will likely be the two 2018 maturities of sovereign bonds that pose the most significant risk next year.

Figure 3: Venezuela and PDVSA bond's repayment schedule up to end of 2018



Source: Deutsche Bank, Bloomberg Finance LP

CDS profile

Venezuela sovereign CDS and PDVSA CDS follow the "Standard Latin America Sovereign" and "Standard Latin America Corporate BL" rules, respectively, in the CDS settlement matrix. The Deliverable Obligation category for sovereign CDS is Bond only, while for PDVSA CDS, it is Bonds or Loan.

Detailed definition of triggering credit events, obligations, and deliverable obligations for the Venezuela sovereign and PDVSA CDSs are shown in the table below.

Figure 4: Key terms of Venezuela and PDVSA CDSs

	Venezuela	PDVSA
Obligation Category	Bond	Bonds or Loan
Credit events	Failure to Pay Grace Period Ext: YES Obligation Acceleration Repudiation/Moratorium Restructuring Multiple Holder Obligation: N/A	Bankruptcy Failure to Pay Grace Period Ext: YES Obligation Acceleration Repudiation/Moratorium Restructuring
Obligation Charasteristics	Not Subordinated Not Domestic Currency Not Domestic Law Not Domestic Issuance	Not Subordinated Not Sovereign Lender Not Domestic Currency Not Domestic Law
Deliverable Obligation Category	Bond	Bonds or Loan
Deliverable Obligation Charasteristics	Not Subordinated Specified Currency Not Domestic Law Not Contingent Not Domestic Issuance Transferable Not Bearer	Not Subordinated Specified Currency Not Sovereign Lender Not Domestic Law Not Contingent Not Domestic Issuance Assignable Loan Consent Required Loan Transferable Not Bearer

Source: ISDA

Trading Restructuring Scenarios

Restructuring or profiling?

A sovereign debt exchange typically involves liquidity relief (if the problem is purely driven by a liquidity crisis), debt reduction (if near-term liquidity is not an issue but debt burden is simply too large), or both.

In the case of Venezuela, we believe it is both. While the country is in the depths of a balance of payment crisis, the amount of accumulated debt stock in dollars has significantly increased in recent years. Even excluding commercial arrears and contingent liabilities stemming from international arbitrations, the total amount of debt in hard currency accumulated by the government and PDVSA already exceeds USD100bn[4]. Rapid increase in debt and sharp depreciation of currency has brought its external debt-to-GDP to a unsustainable level.

Therefore, any effective restructuring for Venezuela and PDVSA bonds will likely require a substantial amount of nominal haircut (to reduce debt stock), likely combined with an interest rate reduction, and a delay of repayment in principal and/or interest. A simple re-profiling, in which maturities of obligations are extended, is unlikely to be enough.

Yet, a debt restructuring, if managed well, need not be so distressed as to cause current bondholders to incur a substantial loss (except perhaps for the holders of bonds at the very front end of the curves). In a scenario in which the government – likely a new government – would seek in good faith to negotiate a restructuring of debt in order to achieve debt sustainability, and at the same time pursue sound economic policies, the exit yield post restructuring could be relatively low. Thus, most investors could still gain based on current price levels even with a significant nominal haircut.

A pricing framework

Before we simulate any potential restructuring scenarios, we introduce a framework for calculating recovery value and P/Ls of bondholders participating in the exchange. Our general framework centers around calculating the P/L of entering a long position today (T0), and then encountering a default at time T1, followed by a restructuring settlement at time T2.

- At time T0, investors pay the dirty price (**P**) of the bond.
- Between time T0 and T1, investors collect coupon payments before T1, if any. We denote the total cash flows as **CF**. However, there could be accrued interest from the last coupon date before T1 and up to T1 that is unpaid.
- Between T1 and T2, there are no cash flows as a default has occurred. This could be in the form of a moratorium, or the issuer simply stops payments on the bonds, at T1. However, there is accrued interest accumulated from the last coupon date before T1 up to T2, which is commonly referred to as **PDI**.
- At time T2, we assume the existing bonds are exchanged into new bonds. For simplicity, we assume all bonds are exchanged into the same new bond(s), subject to the same amount of nominal haircut (**HC**) per 100 notional of claim, and we denote the NPV of the new bond at the time of restructuring settlement as **V**. The claim of a bond is typically par + PDI, if PDI is recognized but unpaid at restructuring. However, there are other scenarios, which we detail below.

The P/L of a position is the following:

$$P/L = \text{Recovery Value} + CF - P$$

$$\text{Recovery Value} = V * (1+PDI) * (1 - HC)$$

To look at the same thing from a different angle, we can calculate the breakeven price of the bond by setting the P/L to 0. In other words[5]:

$$\text{Breakeven Price} = \text{Recovery Value} + CF$$

[4] Including bilateral and multilateral debt.

[5] For simplicity, we ignore the discount by riskfree rate, because the horizon is relatively short.

If we assume all bonds are subject to the same haircut (HC) and receive the same value for the same amount of claim at restructuring, then the only variables that could impact relative values among bonds are CF, PDI, and P. The first two are a function of timing of default (T1) and level of coupons, while P is obviously an indication of the current market pricing.

However, there are two alternative scenarios regarding the treatment of PDIs. The first is that it is fully paid in cash at settlement. This could be the case for a highly organized restructuring (e.g. Ukraine 2015). Under this scenario the above formulae for the recovery value will be simplified to:

$$\text{Recover Value} = V * (1 - HC) + PDI$$

The other alternative scenario is that the PDI is not even recognized, but this should be rare[6]. Under this scenario, the above formulas would be simplified to:

$$\text{Recover Value} = V * (1 - HC)$$

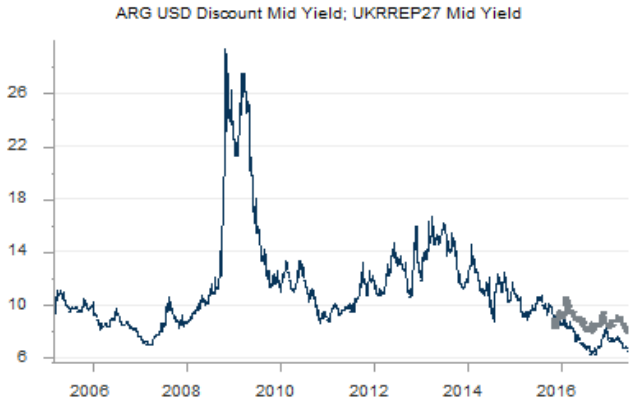
We believe that in the case of Venezuela/PDVSA, it would most likely be consistent with the base case above (i.e., PDIs will be recognized and added to the total claim, which will then subject to haircut).

Exit yields

What exit yield should investors expect post a restructuring in Venezuela and PDVSA? While it is clearly too early to tell, considering that the exit yield will be determined by the political and economic outlook of the country after the restructuring, the effectiveness of the exchange (in terms of providing liquidity and debt relief as well as obtaining a high participation rate and minimizing/eliminating holdout risk), and the overall market conditions (including US interest rates and oil prices). However, we need to make a reasonable assumptions based on historical precedence and Venezuela's bond price history.

For historical reference, we look at the two of the high-profile debt restructurings in EM within the past 15 years: Argentina 2005 (exit yield about 10%) and Ukraine 2015 (exit yield about 9%) – see the graph below in which we use the pricings of Argentina Discount bonds and Ukraine 2027s bonds as references. While the former represents one of the most distressed exchanges in EM history, the latter is one of the more tightly managed under the support of an IMF EFF program. These two cases could suggest that the exit yield post a Venezuela restructuring could fall between 9-10%[7].

Figure 5: Yield of Argentina Discounts and Ukraine 27s



Source: Deutsche Bank

However, the pricing history of Venezuelan bonds looks less favorable for the exit yield. Except for a period in 2012-2013, yields of Venezuela 27s were consistently above 12%, and that was before the correction to the oil market took place in 2014. This indicates the market has always placed some stigma on Venezuela bonds, from a pricing point of view. Of course, if there is indeed a political transition away from Chavismo, the exit yield could break from historical levels on Venezuelan bonds.

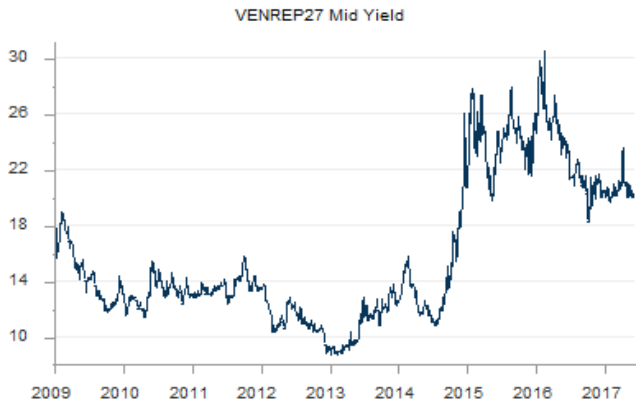
Finally, the current pricing of Ecuadorean bonds (B/B3 rated) could offer some useful reference for the exit yield as well. 10Y Ecuador bonds currently yield about 9.5%. Ecuador does not have a longer bond, but a 20-30Y bonds would likely trade between 10-11%.

Combining the factors discussed above, we see the exit yield as likely to be between 9-12%. We use 10% as a central scenario in our simulations below. Given that PDVSA bonds have historically traded about 100bp wider than Venezuela bonds (if we compare bonds with a similar coupon level), we use 11% as the exit yield for PDVSA bonds as our base case scenario.

[6] In the case of Argentina default in 2000/2001, the PDI is recognized for up to the end of 2001. Restructuring took place in 2005 and the PDI from the end of 2001 to 2005 was not recognized.

[7] One caveat is that when Argentina USD Discount bonds were issued in the 2005 exchange, the 10Y UST yield was about 4.5%, almost 250bp higher than the levels in 2015 when the Ukraine exchange took place. Yet, for the sake of simplicity, we ignore this caveat in the current context.

Figure 6: Venezuela 27s yield history



Source: Deutsche Bank

A typical exchange scenario

Under this scenario, all bonds are exchanged into a single bond or a basket of bonds with a longer average maturity than existing bonds, and likely a grace period of coupon payments in conjunction with a nominal haircut for all exchanges.

Specifically, for the sake of simplicity, we simulate a scenario of all bonds being exchanged into new 20Y bonds with a 0 coupon for the first three years, but paying a 9% coupon thereafter for the new Venezuela bonds and 8% coupon thereafter for the new PDVSA bonds. We assume a 50% nominal haircut for all bonds. We assume the default date is 27-October-2017 and that the exchanges take place a year later, settling on 27-October-2018.

Under this scenario, we assume that all the eligible bonds are treated equally in terms of their claims, which are principal plus all unpaid interest from the last coupon date before default and restructuring settlement date. Furthermore, the total claims are subject to a 50% haircut. We believe this is the most likely scenario as it represents common practices of past exchanges (i.e., no defaulted bonds, regardless of their coupon levels, are treated more favorably than the other). After all, after a credit event, all bonds tend to trade flat in prices, with a small variation reflecting the difference in total claims attributed to PDIs[8].

Figure 7: Simulation of exchanges into 20Y bonds with a 10% coupon (no coupon first 3Y) and 50% haircut

Exchange into 20Y bonds with 9% and 8% coupon (no coupon first 3Y), 50% nominal haircut														
				Recovery value (pts)					P/L (pts)					
				(with exit yield at)					(with exit yield at)					
Bond	Dirty Px	Cpn	Claim	8%	9%	10%	11%	12%	8%	9%	10%	11%	12%
VE'18O	80.8	13.6	116.4	55.9	50.4	**45.6**	41.4	37.7	-18.1	-23.6	**-28.4**	-32.6	-36.2
VE'18N	64.8	7.0	106.3	51.1	46.1	**41.7**	37.8	34.5	-13.7	-18.7	**-23.1**	-26.9	-30.3
VE'19	52.1	7.8	108.0	51.9	46.8	**42.3**	38.5	35.0	3.6	-1.5	**-5.9**	-9.8	-13.2
VE'20	45.6	6.0	105.3	50.6	45.6	**41.3**	37.5	34.2	5.0	0.0	**-4.3**	-8.1	-11.4
VE'22	58.6	12.8	115.0	55.3	49.8	**45.1**	40.9	37.3	3.1	-2.4	**-7.1**	-11.3	-14.9
VE'23	46.3	9.0	108.7	52.2	47.1	**42.6**	38.7	35.3	6.0	0.8	**-3.7**	-7.6	-11.0
VE'24	45.5	8.3	108.6	52.2	47.0	**42.5**	38.6	35.2	10.8	5.6	**1.1**	-2.8	-6.2
VE'25	44.4	7.7	107.8	51.8	46.7	**42.2**	38.4	35.0	11.2	6.1	**1.6**	-2.2	-5.6
VE'26	54.5	11.8	111.9	53.8	48.5	**43.9**	39.8	36.3	5.2	-0.1	**-4.7**	-8.7	-12.3
VE'27	52.8	9.3	110.3	53.0	47.8	**43.2**	39.3	35.8	4.8	-0.4	**-5.0**	-9.0	-12.4
VE'28	46.4	9.3	109.0	52.4	47.2	**42.7**	38.8	35.3	5.9	0.8	**-3.7**	-7.6	-11.1
VE'31	55.7	12.0	114.7	55.1	49.7	**44.9**	40.8	37.2	5.4	0.0	**-4.7**	-8.9	-12.5
VE'34	45.7	9.4	112.1	53.9	48.6	**43.9**	39.9	36.4	12.9	7.6	**3.0**	-1.1	-4.6
VE'38	44.6	7.0	107.5	51.7	46.6	**42.1**	38.3	34.9	10.6	5.5	**1.1**	-2.8	-6.2
Average	52.7	9.3	110.1	52.9	47.7	**43.2**	39.2	35.7	3.8	-1.5	**-6.0**	-10.0	-13.4
PDV'17N	86.7	8.5	108.4	47.7	42.9	38.7	**35.1**	31.9	-39.0	-43.8	-48.0	**-51.6**	-54.8
PDV'20	74.3	8.5	108.5	47.7	42.9	38.8	**35.1**	32.0	-26.6	-31.4	-35.5	**-39.2**	-42.3
PDV'21	50.0	9.0	108.5	47.7	42.9	38.8	**35.1**	32.0	-2.3	-7.1	-11.2	**-14.9**	-18.0
PDV'22	61.0	12.8	115.2	50.7	45.6	41.2	**37.3**	34.0	-3.9	-9.0	-13.5	**-17.3**	-20.7
PDV'24	38.8	6.0	105.7	46.5	41.8	37.8	**34.2**	31.1	7.7	3.0	-1.0	**-4.6**	-7.7
PDV'26	38.5	6.0	105.7	46.5	41.8	37.8	**34.2**	31.1	8.0	3.4	-0.7	**-4.2**	-7.3
PDV'27	38.2	5.4	105.6	46.5	41.8	37.7	**34.2**	31.1	11.0	6.3	2.3	**-1.3**	-4.3
PDV'35	48.9	9.8	109.2	48.0	43.2	39.0	**35.4**	32.2	-0.9	-5.7	-9.9	**-13.5**	-16.7
PDV'37	37.7	5.5	105.7	46.5	41.8	37.8	**34.2**	31.2	11.6	6.9	2.8	**-0.7**	-3.8
Average	52.7	7.9	108.0	47.5	42.8	38.6	**35.0**	31.8	-3.8	-8.6	-12.7	**-16.4**	-19.5

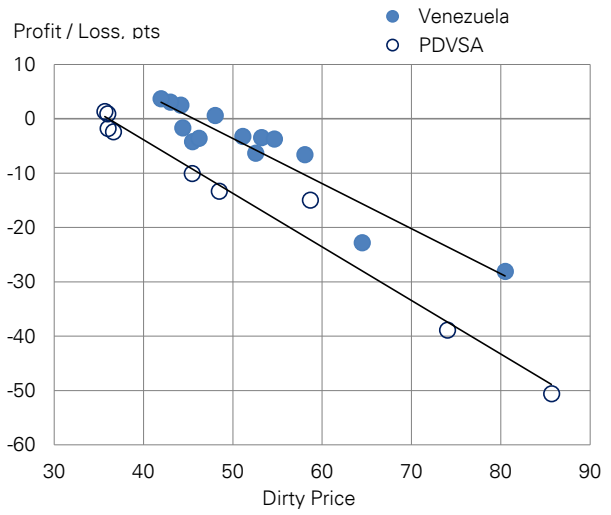
Note: For simplicity, we have ignored the collaterals in the calculation for PDVSA 2020s
Source: Deutsche Bank

From this simple simulation, we observe the followings:

- The recovery values for all bonds within Venezuela or PDVSA would be at similar levels, with small differences caused by the PDIs that are added to the claim. The level of PDIs is influenced not only by the level of coupons, but also by the timing of default.
- Under a 10% and 11% exit yield assumption for Venezuela and PDVSA, respectively, the average recovery is 43 for Venezuela and 35 for PDVSA. The results do show that PDVSA bonds will have a much lower recovery value than Venezuela bonds. The reasons for the lower PDVSA recovery are two folds: a). PDVSA bonds have a lower average coupon, so we assume the PDVSA news bonds will have a lower coupon (8% vs. 9%); b). We assume a 100bp higher exit yields for PDVSA bonds given that they have traded historically that such wider than sovereign bonds.
- P/L for all bonds (Recovery + CF – P) strongly favors the low-priced bonds. This holds almost by definition, given the underlying assumption of equal treatment in terms of claims (regardless of coupon levels), but with some small variations reflecting differences in total claims.

[8] There is an ongoing debate on whether certain bonds, which are perceived as being issued at a deep discount from par, should enjoy par claim at the restructuring. See the last section of this report for a discussion on this topic.

Figure 8: Simulated P/L vs. current dirty prices



Source: Deutsche Bank

Figure 9: Price dispersion among Ukraine bonds prior to 2015 restructuring diminished into the exchange

Source: Deutsche Bank

Alternative exchange scenarios to favor high-priced bonds?

We have heard the argument that a bondholder of a higher coupon bond may cry foul about the general exchange scenario described above, under which they are subject to a higher loss than holders of a low-coupon bonds. It is quite obvious that the high coupon advantage could only be kept under the scenario of all bonds' maturities being extended but coupons unchanged (while nominal haircut or any delay of coupons is still possible).

However, this has not been how sovereign debt exchanges were done in the past. For example, in Ukraine in 2015, all bonds were exchanged into the same basket of bonds with varying maturities. It was highly anticipated and was conducted in an orderly fashion. The price dispersion on the curve eventually converged to a mere 1.5pts, and the tiny price differential did not correspond to maturity or coupon levels. Granted, the coupon differential was much smaller than Venezuela/PDVSA (it was only 3pts from the lowest coupon to the highest), but the NPV differentials (due to different levels of coupons) would nevertheless be much larger than 1.5pts at the end of exchange had the higher coupon bonds were to be treated more favorably.

Conclusions/observations drawn from the simulations

Through this simple simulation and the general discussions on a few topics above, we have the following observations regarding a potential debt exchange for Venezuela/PDVSA bonds.

- An effective restructuring for Venezuela and PDVSA bonds will likely require a substantial amount of nominal haircut, and a delay or forgiveness of repayment in principal and/or interest. A simple re-profiling, in which maturities of obligations are extended, is unlikely to be enough.
- Yet, a debt restructuring, if managed well, need not be so distressed as to cause current bondholders to incur a substantial loss (except perhaps for the holders of the high priced bonds on the curve).
- We see the exit yields for a Venezuela exchange likely between 9 – 12%, with 10% as the central scenario in our simulation. For PDVSA, it is likely moderately higher given that historically PDVSA bonds traded on average about 100bp wider than comparable Venezuela bonds.
- We believe the recovery value for Venezuela will likely be higher than PDVSA, but this is only due to lower coupon of the PDVSA bonds and the likely higher exit yields for PDVSA. That oil resources belong to the sovereign argues for an even lower recovery for PDVSA, but we doubt how meaningful this argument is in practice given the urgency of curing a default and motivation of avoiding holdout and legal risks.
- Our simulation results of a conventional debt exchange suggest that the benefit of higher existing coupons from potential cash flows before a credit event and addition to the total claim in a restructuring does not justify the much higher prices these bonds have currently if a default

occurs within the next year and an exchange takes place shortly after.

- We therefore do not see enough risk premia priced in the front end of the bond curves, and hence we see further downside to the prices of PDV 17Ns and Venezuela 18s. Given our increasingly cautious stance, we prefer these bonds on the curve: PDVSA 20s (due to partial collateral), PDV 27s, PDV 37s, VENZ 38s, and VENZ 25s (due to their low prices).

Other relevant topics

On relative recovery between Venezuela and PDVSA

We elaborate a little more on this topic of relative recovery between Venezuela and PDVSA.

Beside that PDVSA bonds historically trading wider than Venezuela (which likely leads to higher exit yields in a restructuring event), there are also arguments from a fundamental perspective to support that PDVSA should have a lower recovery value than Venezuela. The main argument, on which we agree, is that oil resources belong to the sovereign, not PDVSA, which is merely an operator. PDVSA's right to explore the hydrocarbon reserves is granted by the government, and such a right can be revoked. In fact, such risks are usually highlighted in typical PDVSA bond documents, such as this one (drawn from the prospectus of PDVSA 2027s):

"We do not own any of the hydrocarbon reserves that we develop and operate.
Under Venezuelan law, the hydrocarbon reserves that we develop and operate belong to Venezuela. The rights to exploration of these hydrocarbon reserves are reserved to Venezuela. We were formed to coordinate, monitor and control operations related to Venezuela's hydrocarbon reserves.

While the Venezuelan National Constitution requires that Venezuela retain exclusive ownership of us, Venezuelan law does not require the country to continue to conduct its hydrocarbon exploration and exploitation activities through us. If the Venezuelan government elects to conduct its hydrocarbon activities other than through us, our operations will be materially and adversely affected. We can offer no assurance that changes in Venezuelan law or the implementation of policies by the Venezuelan government will not adversely affect our operations, cash flow and financial results."

Practically speaking, we are not sure how meaningful or important this argument will be at the time of restructuring. Given the lack of collateral action clauses in PDVSA bonds, holdout and legal risks are arguably higher in PDVSA than in Venezuela. While exit consent will likely be used to help create a higher participation rate, they are unlikely to effectively eliminate – from a legal standpoint – the right for bondholders to hold out and engage in litigation. For this reason and because of the urgency for curing the default of PDVSA to fully restore its operations and generate oil revenue, we believe the government is unlikely to impose a deeper haircut or terms more adverse than those of the sovereign bonds in a potential restructuring. Therefore, in our base-case assumptions, we believe Venezuela and PDVSA bonds will likely be treated equally in a potential restructuring.

However, our simulation results shown above under the scenario that we designed do show 8pts lower recovery value of PDVSA bonds compared to Venezuelan bonds. But again, the difference in the recovery values reflect potentially more bearish pricing by investors post restructuring (i.e. higher exit yields) and the lower coupon of the new PDVSA bonds, which the existing PDVSA bonds will exchange into. This dynamics has actually been priced in today's markets – as we can see in the table above, the P/Ls for Venezuela and PDVSA bonds at the longer end of the curve are very similar.

Coercing mechanism for restructuring Venezuela bonds

For sure, the CACs, to the extent it exists, will be used in a potential Venezuela bonds restructuring. However, as we note above, there are three series of bonds that do not have CACs, and there is no Aggregation clause on these bonds. Therefore, we believe the so-called "exit consent" will likely be used in conjunction with the CACs - it could be used on bonds without CACs and the ones with CAC but in a situation where holder(s) with a blocking minority (15% or 25%, depending on bonds) would not participate in the exchange.

Coercing mechanism for restructuring PDVSA bonds

Debates are heating up on how PDVSA, whose bonds were issued under US Trust Indenture Act and hence have no CACs, could effectively be restructured with a high participation rate. A corporate issuer closely tied to the sovereign, PDVSA's options may be limited to only "exit consent". Obviously, while this could be an effective way for the issuer and participating bondholders to coerce in a higher participation rate in the event of a potential restructuring, it would not eliminate holdout/litigation risks.

In conjunction with exit consent, PDVSA may be able to use bankruptcy protection under Venezuela and US law. However, given that US Chapter 11 bankruptcy code excludes sovereign and its "instrumentality" – the definition of the latter seems to include PDVSA – it is unclear if Chapter 11 could be resorted to. The alternative is Chapter 15, under which PDVSA can seek recognition of US court on its domestic bankruptcy proceeding. However, because there are concerns that Venezuela insolvency law may be antiquated and not adequate for such a complex international financial restructuring, this is unlikely to work.

Will the deep discount bonds with un-matured interest enjoy par claim?

This is another ongoing debate and unresolved issue involving not only Venezuela and PDVSA bonds, but also other bonds issued with a deep discount price from par (e.g. Argentina Pars, PETBRA 2115s, etc). The issue is, essentially, if a bond is issued at a deep discount from par, would it be treated as having the same par claim as the other bonds at a potential restructuring?

This is akin to the issue of whether bankruptcy courts should disallow OID arising from fair market value debt exchanges in the domestic corporate credit market. There is no precedence on sovereign bonds on this issue. There are, however, a couple of complicated precedence cases in the US corporate universe[9].

Such risk has often been associated with three bonds: the partially collateralized PDVSA 2020s (issued as part of a bond exchange with initial secondary market price at low 70s), PDVSA 6% 22s (the "Goldman bonds"), and Venezuela 36s (not traded yet). The argument against these bonds is that if an opposition government is overseeing a restructuring, they may declare that these bonds (especially the latter two) should not have par claim as a way of repudiation.

We would not engage in an in-depth discussion on this topic as it is very legal in nature and is clearly beyond the scope of our expertise as a market strategist. We do, however, offer the following caveats which would suggest the risk is likely not as high as many think.

First, we doubt the new government will really be inclined to go there simply because the restructuring would be complicated enough even without this. If they are motivated to get the problem resolved as smoothly as possible, insisting on these would be counter-productive.

Second, if it turns out to be a group of investors going against another, it is also a hard argument simply because majority of Venezuela and PDVSA bonds were issued locally (paid with bolivars with who-knows-what exchange rate) and they came out to the international markets with an initial price significantly below par. The "issue price" for most of these bonds is not clearly defined even though on paper they were issued at par (or very close to par). The following table shows the initial secondary market prices of all Venezuela and PDVSA bonds. With the exception of a few old sovereign bonds (e.g. the 27s), all PDVSA bonds and almost all Venezuela bonds came out to the international markets at significantly below par prices (most below 80). With this picture, doesn't the argument against, say, the 22s, suddenly looks a lot weaker?

Figure 10: Initial trading prices of Venezuela and PDVSA bonds

Bond	Issue date	Initial price	Initial px date	Source
PDVSA 8.5 17	29-Oct-10	70.75	29-Oct-10	DB
PDVSA 8.5 20	28-Oct-16	71.50	28-Oct-16	BBG
PDVSA 9.0 21	17-Nov-11	64.00	17-Nov-11	DB
PDVSA 12.75 22	17-Feb-11	77.00	17-Feb-11	DB
PDVSA 6.0 22	28-Oct-14	31.00	23-Mar-16	DB
PDVSA 6.0 24	16-May-14	61.00	23-May-14	DB
PDVSA 6.0 26	15-Nov-13	55.25	13-Dec-13	DB
PDVSA 5.375 27	12-Apr-07	76.15	12-Apr-07	DB
PDVSA 9.75 35	17-May-12	82.10	19-Jun-12	DB
PDVSA 5.5 37	12-Apr-07	74.00	12-Apr-07	DB
VENREP18 13.625	6-Aug-98	94.22	6-Aug-98	DB
VENREP18 7.00	1-Dec-03	71.25	1-Dec-03	DB
VENREP19	13-Oct-09	69.65	13-Oct-09	BBG
VENREP20	9-Dec-05	84.96	9-Dec-05	BBG
VENREP22	23-Aug-10	84.75	23-Aug-10	BBG
VENREP 9 23	7-May-08	85.70	7-May-08	DB
VENREP24	13-Oct-09	66.15	13-Oct-09	BBG
VENREP25	21-Apr-05	86.01	21-Apr-05	BBG
VENREP26	21-Oct-11	76.21	21-Oct-11	BBG
VENREP27	18-Sep-97	95.32	18-Sep-97	DB
VENREP28	7-May-08	85.46	7-May-08	BBG
VENREP31	5-Aug-11	82.00	5-Aug-11	DB
VENREP34	14-Jan-04	91.90	14-Jan-04	DB
VENREP36	29-Dec-16	NA	30-Dec-16	DB
VENREP38	15-Nov-07	75.50	15-Nov-07	DB

Source: Deutsche Bank, Bloomberg

[9] See, for example, Unsecured Creditors v. UMB Bank, N.A. (In re Residential Capital, LLC

Appendix 1

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