The Puerto Rico Disaster

Hurricane Maria has devastated Puerto Rico. Hopefully this is not news to you. But some of the responses have been way over the top. In this article I'll **review a little history.** That will help you understand some of the reasons for the sluggish response to this disaster. **Then I'll look at the last 24 hours of trhe news cycle.** This article is about the Puerto Rico disaster.

History

Puerto Rico is in debt and has defaulted on payments. The reasons for this are **bad government management, outrageous pensions and salaries to government employees, and flat-out incompetence**. But, despite all this, the island managed to sell $3.5 billion in new 20 year bonds on March 17, 2014. At issue the yield was 8.618%. One month later the yield was 9.335%. **Puerto Rico collected $218,750,000 more than they would have if the bonds had been priced correctly.** That's a cool quarter billion dollars. There are links to three other articles at the beginning of the article linked above.

To stay afloat, the island decided to not maintain their electric, water, and highway infrastructure. Which means said infrastructure suffered far more damage than it would have if it had been kept in good shape.

None of this is meant to demean the disaster Puerto Rico experienced. The residents are U.S. citizens. They deserve

every bit of support the government and other aid agencies can offer.

The Current Situation

But [on September 29, the mayor of San Juan said this:]()

San Juan Mayor on September 29 (click for larger image)

Hello? Genocide? Really?

[The next day she said this:]()

San Juan Mayor Carmen Yulin Cruz on September 30 (click for larger image)

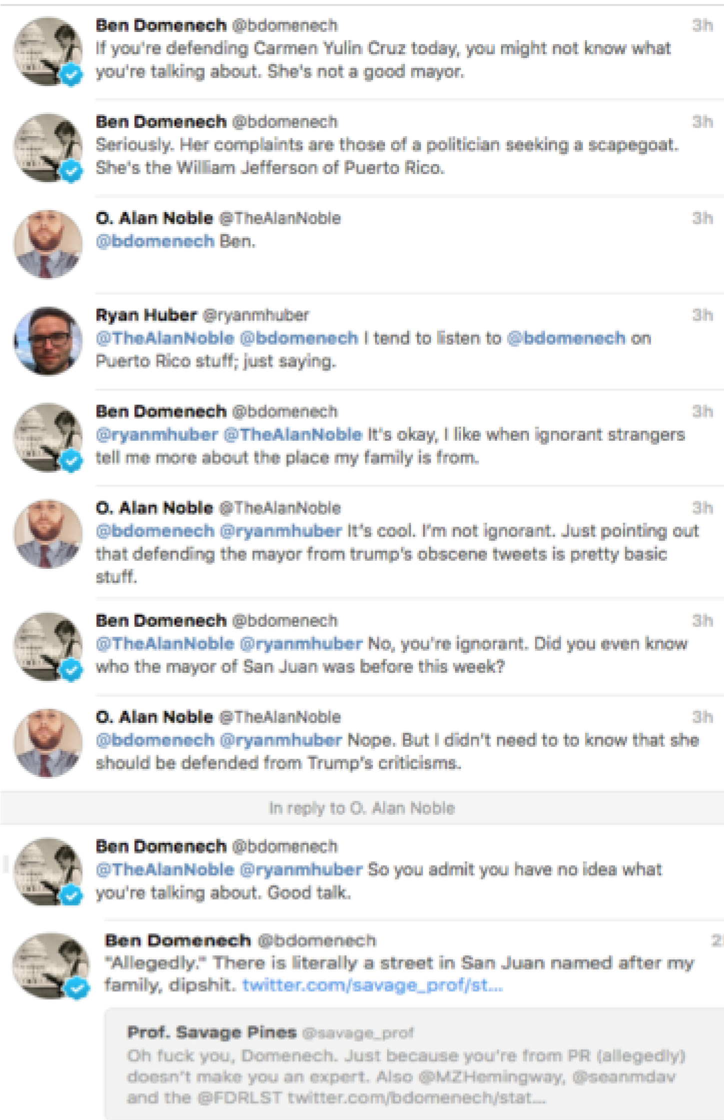
[**In response, one of Puerto Rico's leading political analysts, Luis R. Davila-Colon, tweeted**](#) (translation via Google translate).

> *Cada cual parte de su cargo particular y de su estilo. Yulin llora y pelea con Trump para llamar atencion y acumular pietaje pal 2020.*
>
> *Each one is part of his particular position and his style. Yulin cries and fights with Trump to call attention and accumulate pie 2020 pal.*

Journalist Cate Long engaged Mr. Davila-Colon in a conversation:

Cate Long chats with Luis R. Davila-Colon (click for larger image)

Ben Domenech, publisher of The Federalist, is from Puerto Rico. He has a few things to say:



Ben Domenech Weighs In (click for larger image)

Over the years we've repeatedly seen municipal bankruptcies, the state of Illinois virtually broke, and Puerto Rico's finances under control of an outside board. All these events have one common factor: cities, states, and now one territory that have been run by the Democratic party. Truly the party of financial irresponsibility.

Puerto Rico Got Away With It

[Re-upping this because of the recent burst of news. Originally published April 20, 2014. Note that Puerto Rico already fleeced investors when they issued these securities. If a corporation had done this the SEC would have them in court for failure to disclose material facts in the prospectus.

More of my articles about Puerto Rico: click here and click here and click here.]

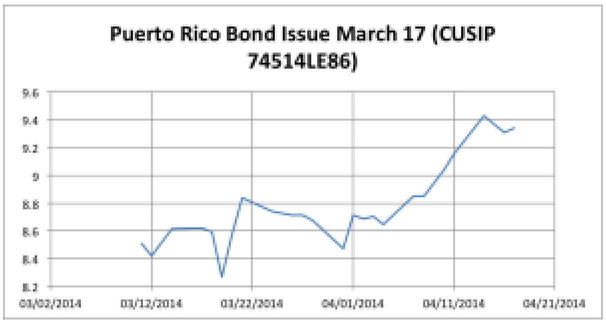
Puerto Rico

I've been doing some research on the municipal bond market, specifically troubled communities. Bankruptcies in Stockton and San Bernardino (California), borderline fraud in Harrisburg (Pennsylvania) and, of course, Detroit have left **everyone wondering, "Who's next?" Preview: Puerto Rico got away with it.**

In 1917, the U.S. granted citizenship to Puerto Ricans. In 1948, it granted Puerto Ricans the right to elect their own governor. In 1952, under request by the United States, a local territorial constitution was adopted and ratified by the electorate. Under the tenets of the Puerto Rico Federal Relations Act, Puerto Ricans are still subject to the plenary jurisdiction of the U.S. Congress, and the island continues as a U.S. territory.

One good candidate is Puerto Rico. Technically a U.S. unincorporated territory, the archipelago is subject to U.S. law and tax regulations. A brief history from Wikipedia →

On March 17, 2014 Puerto Rico issues new government debt. This was their **first new issue since August 28, 2013**. And it looks like **Puerto Rico got away with it. On the issue date the yield on these bonds was 8.618%. A month later the yield was 9.335%, a whopping 71.7 basis points higher**. (This data is from **Bondview.com**. **They offer a plugin for Excel that makes getting data like this easy.** Their data, however, is intra-day trade data. I have a short procedure and some Visual Basic code that will translate this into end-of-day yields.)



Puerto Rico Bond Yield

These bonds are CUSIP 74514LE86. The bonds are Puerto Rico Commonwealth Series A **maturing July 1, 2035.** Take a deep breath. Those are 20 year bonds. **The Commonwealth unloaded $3.5 billion of these with a hefty 8 percent coupon** according to EMMA. **But, as we all know, a bond is nothing more than a promise to make one or more future payments on specified dates. The quality of that promise is reflected in the yield to maturity, not the coupon yield.**

My calculations show that **Puerto Rico collected $218,750,000 more than they would have if the bonds had been priced correctly (the market price on April 17).** Putting this another way, **if you bought those bonds on March 17, you suffered a notional loss of $66.50 per $1,000 of face value. (Your loss of $62.50 is per $940 of face value.) You**

also get to congratulate yourself on propping up the Puerto Rico government for a few more months.

As always, my methods are transparent. This Excel workbook has macros enabled so you will probably get a security warning when you open it. The workbook includes the Visual Basic script which is not necessary to most of the functionality. Disable macros if you're nervous. Click here to download the Excel 2007 workbook.

Chicago and Puerto Rico Show How Not to Do It

The news from Chicago today was amazing. The city issued taxable bonds. Think about that. In principle they could issue tax-exempt bonds and pay a lower interest rate. Why didn't they do that? And how is this related to Puerto Rico? The answers are pretty straightforward, but in my usual fashion, I'll turn this into a learning exercise.

Chicago, Chicago, A Wonderful Town

Today Chicago issued $730 million in taxable bonds and $344 million in tax-exempt bonds. According to BondBuyer.com.

> *The sale offers $344 million of tax-exempt bonds and $730 million of taxable bonds, with much of the sale moving short-term debt into a longer, fixed-rate term with capitalized interest for two and a half years. William Blair & Co. and Siebert Brandford Shank & Co. are co-seniors and another eight firms rounding out the syndicate as co-managers.*
>
> *With such a big chunk of taxable securities, the city is*

> ***broadening its universe of buyers who may be willing to overlook the city's fiscal struggles and invest in a deal designed to clear the city's balance sheet of operating costs at the expense of its long-term debt load.***

The limited amount of tax-exempt paper should help, given the market's recent absorption of more than $650 of tax-exempt city GO [general obligation] paper.

Why issue taxable securities? BondBuyer gives a plausible excuse (see above). **But later in the article they note→**

Note the gotcha in there. **The first 2-1/2 years of interest (presumably coupon payments) are capitalized and become part of the maturation value. I cannot count the number of municipal agencies (including school districts) that have gotten themselves into serious trouble with stunts like this.**

And the sale will go on. [Here's what CNBC says:]

> ***Underwriters priced nearly $743 million of taxable Chicago general obligation bonds with yields topping out at 7.98 percent for debt maturing in 2042. Bonds due in 2023 were priced at par with a 6.361 percent coupon, representing a big spread of 400 basis points over comparable U.S. Treasuries.***

Chicago is paying nearly 8 percent for 27 year bonds. Even the eight-year bonds were over 6 percent. By comparison, **t[he Wall Street Journal reports that junk bond yields range from 6 to 11.7 percent] – and the latter is for CCC rated bonds. Frankly, I didn't even know such a rating existed.**

Tracking Bond Benchmarks

Wednesday, July 15, 2015

Closing index values, return on investment and yields paid to investors compared with 52-week highs and lows for different types of bonds. **Preliminary data and data shown as "n.a." will update around 12p.m. the following business day.**

Index	Close	% Chg	YTD total return	52-wk % Chg	YIELD (%), 52-WEEK RANGE Latest	Low	High	SPREAD, 52-WEEK RANGE (●) Latest Latest	Low	High
High Yield Bonds Merrill Lynch										
High Yield Constrained*	356.09	0.12	2.70	-0.08	6.577	5.201	7.259	493.00	363.00	571.00
Triple-C-rated (CCC)	333.04	0.06	0.82	-7.21	11.696	7.765	11.999	1039.00	632.00	1074.00
High Yield 100	2544.37	0.03	1.81	-0.32	5.996	4.727	6.629	449.00	339.00	512.00
Europe High Yield Constrained	268.09	0.12	2.65	2.99	4.460	3.550	4.724	424.00	337.00	454.00
Global High Yield Constrained	321.23	0.11	3.52	0.39	6.484	5.198	7.135	517.00	386.00	592.00

Junk Bond Yields (click for larger image)

In other words, **Chicago is paying junk bond yields. But how would you like to get a 12.75 percent yield on tax-free bonds?**

Puerto Rico

Some Puerto Rican bonds were selling for about 68 cents on the dollar Tuesday. An 8 percent 2035 bond, issued three years ago, was yielding 12.77 percent Tuesday, up from 10.75 percent Friday.

Puerto Rico is the place to park your cash! After all, according to CNBC→

And those are tax-exempt bonds. With a marginal tax rate of, say, 33%, the taxable-equivalent yield is a whopping 19.13%. And my calculations say the price is more like $0.6612 per dollar of maturation value.

WAIT! STOP! DON'T DO THAT!

Puerto Rico is broke. Yahoo finance says,

> ***Governor Alejandro Padilla has stated that Puerto Rico is bankrupt and it is mathematically impossible to repay the creditors. Imposing sales tax in 2006, retrenchment of public employees in 2009, pension reform in 2013, and the latest gas tax and the Sales and Use Tax (IVU) were some of the measures Puerto Rico had been trying to effectively use. Unfortunately, it failed to restrict the country from***

> ***amassing about $73 billion of debt, which translates into over $20,000 per person in Puerto Rico. This ironically is more than the median income of $19,520 per year.***

In other words, **Puerto Rico's per-capita debt exceeds per-capita income.** Putting this another way, **even if the government seized 100 percent of income they still would not be able to pay off the debt.** And, of course, at a 100 percent tax rate nobody would work and income would be near zero. (OK, people would work but reported income would be zero. The underground economy would be the entire economy.)

Conclusion

Don't buy Chicago bonds. Unless your net worth is at least $1 billion, don't buy Puerto Rico bonds. Scrutinize the holdings of any bond funds in which you own an interest. Most analyses have shown that the exposure to Puerto Rico bonds is pretty low. But Chicago bonds are another story. Puerto Rico has beach-front property in a tropical climate and could be a vacation paradise. Chicago? Not so much. Those arguing that Chicago has a thriving industrial base and an economy that's in great shape are ignoring the realities of both Chicago and Illinois budgeting. Chicago is in bad shape. The state of Illinois' condition is worse. **If you're considering buying any muni bonds issued in Illinois, I have one word of advice: don't. Run fast, run far.**

Ordinarily I'd include a link to the Excel workbook. But these calculations are so trivial I'm not going to take the time. If you'd like it, e-mail me.

Puerto Rico Update

Megan McArdle

Today **Megan McArdle** pointed me to a piece on **Puerto Rico** by **Matt Levine**. I won't even try to sommarize it. Instead, just click here.

Matt Levine

More About Puerto Rico Debt

On Sunday **I posted an article in which I alleged that the government of Puerto Rico got something north of $200 million** above what their credit should have cost. Since then, **Cate Long** pointed out that **there are several call provisions in this particular bond issue. The yield, she noted, was yield to call, not yield to maturity. Hence I need to write more about Puerto Rico debt.**

And **she's correct. The first date on which the call can be exercised is July 1, 2020.** In one of the many odd features of this issue, the call price is par value. You earn your call premium via the 8% annual coupon (actually two $400 payments per year). The **first coupon is payable on July 1, 2014, a mere 3.5 months after the bonds were issued.**

And, of course, the yields are far different. I've updated **the Excel workbook**, adding a fourth tab that shows the calculations for yield to maturity and yield to call with two payments per year. **Using the quick-and-dirty "annual yield equals two times semi-annual yield" the yield to maturity is 8.63%. Using the more accurate $(1 + r)^2 - 1$ equation gives 8.82%. Using years to call gives 9.25% and 9.46%$ respectively.**

There's one other gotcha I noticed perusing the documents. The **price shown on Bondview.com was $94 but the EMMA website says the price was $93**. Using that price instead gives the following results:

Years to maturity / call	Yield per year	Yield per year done correctly
20	8.7471%	8.9384%
6.2916	9.4665%	9.6906%

There's one other not-so-minor issue. **The yield on these**

bonds really started to rise sharply after April 11. A few days later there was a supplemental filing by Puerto Rico. On April 11 their Supreme Court ruled that the government's attempt to restructure the Teachers' Retirement System was unconstitutional. This was one of the risks noted in the original offering document (I've pasted together the April 14 document and page 14 from the original filing as a pdf file for your enjoyment.) It looks like there was a good reason to rush this issue to market.

Conclusion

This is all very well and good, but it really doesn't change my original analysis. If anything, it provides additional circumstantial evidence supporting my hypothesis: Puerto Rico really did get away with it.