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# How Venezuela Ruined Its Oil Industry



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Energy



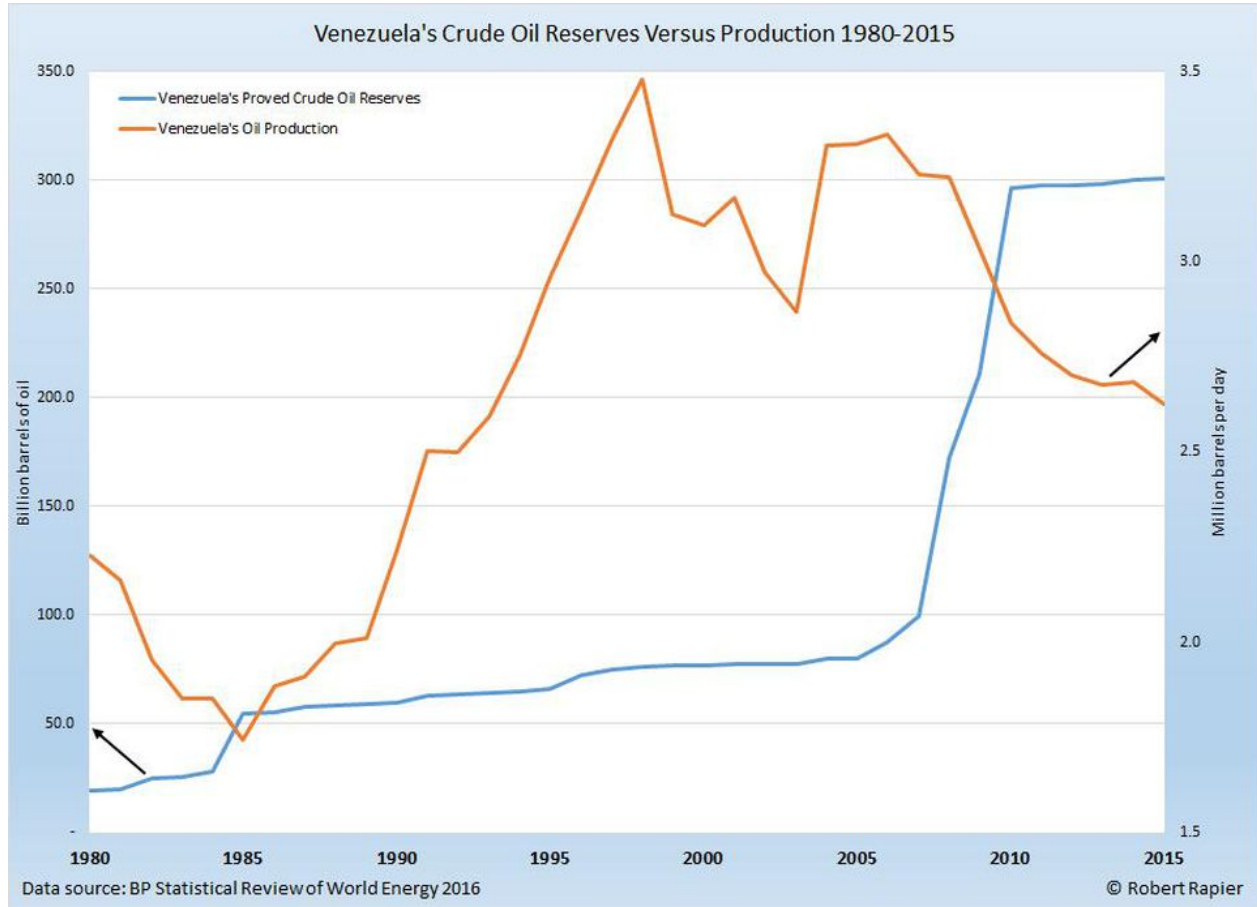
Venezuelan President Nicolas Maduro (C) talks after the official announcement of the decree calling for the rewrite of the constitution at the CNE in Caracas on May 3, 2017. FEDERICO PARRA/AFP/Getty Images

Venezuela is a country in crisis. Protesters that are opposed to the socialist government are being killed, and Venezuelan citizens are starving to death. A humanitarian disaster is unfolding that has been in the making for years.

But how can it be that the country with the world's largest proved oil reserves can't afford to feed its people? The current crisis can be traced to the historical management of the country's oil industry.

## Wasted Potential

Look at the evolution of Venezuela's oil reserves and production since 1980:



Venezuelan oil production versus proved reserves ROBERT RAPIER

Venezuela's highest-ever oil production occurred in 1998 at 3.5 million barrels per day (BPD). That also happened to be the year that Hugo Chávez was elected president of Venezuela. During the Venezuelan general strike of 2002–2003, Chávez fired 19,000 employees of the state oil company *Petróleos de Venezuela, S.A.* (PDVSA) and replaced them with employees loyal to his government.

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This eliminated a tremendous amount of experience from Venezuela's oil industry. Most of Venezuela's proved oil reserves consists of extra-heavy crude oil in the Orinoco Belt. The Orinoco contains an estimated 1.2 trillion barrels of oil

resource. This oil is expensive to produce, but after oil prices climbed to \$100/bbl, 235 billion barrels of this heavy oil were moved into the "proved reserves" category. This positioned Venezuela ahead of Saudi Arabia as the country with the world's largest proved oil reserves.

Because this oil is particularly challenging to produce, Venezuela invited international oil companies into the country to participate in the development of these reserves. Companies like ExxonMobil, BP, Chevron, Total and ConocoPhillips invested billions of dollars in technology and infrastructure to turn the extra-heavy oil into crude oil exports.

What most people do not understand about the oil industry is that it is extremely capital intensive. When oil prices rise, oil companies may indeed reap billions of dollars in profits. But reaping that reward required billions of dollars in capital investments, and if oil prices decline it can quickly turn into billions of dollars of losses. This is the key to understanding what has gone wrong in Venezuela.

### **The Government Gets Greedy**

In 2007 oil prices were on the rise, and the Chávez government sought more revenue as the investments made by the international oil companies began to pay off. Venezuela demanded changes to the agreements made by the international oil companies that would give PDVSA majority control of the projects. Total, Chevron, Statoil and BP agreed and retained minority interests in their Venezuelan projects. ExxonMobil and ConocoPhillips refused, and as a result, their assets were expropriated. (A World Bank arbitration panel has ruled against Venezuela in both expropriation cases, but the country continues to appeal the decisions).

So there are primarily two related causes that have resulted in the steep decline of Venezuela's oil production, despite the sharp increase in the country's proved reserves. The first is the removal of expertise required to develop the country's heavy oil. This started with the firing of PDVSA employees in 2003 and continued with pushing international expertise out of the country in 2007.

Second, the Chávez government failed to appreciate the level of capital expenditures required to continue developing the country's oil. This was in no small part due to inexperience among the Chávez loyalists that were now running PDVSA, but it may not have mattered in any case. When oil prices were high, Chávez saw billions of dollars that could be siphoned to fund the country's social programs, and that's exactly what he did. But he failed to reinvest adequately in this capital-intensive industry.

I explicitly warned about this in an article [I wrote in 2007](#):

“ So, can Chávez under-invest in the industry while diverting money to his pet causes? He can for a while, but you can see the results. Despite having enormous oil reserves, he and his cronies are running Venezuela's oil industry right into the ground. His generosity to the poor has only been possible because he had a goose that laid golden eggs because they constantly reinvested money back into the business. Once he kills the goose, where is he going to get the money to continue his programs?

That warning was prescient. Following the firing of the PDVSA employees in 2003, there was an initial steep decline in the country's oil production below 3 million BPD. Then Venezuela's oil production recovered back to the 3.3 million BPD level from 2004 to 2006. But since 2007 oil production there has been on a steep decline, despite oil prices that were regularly above \$100/bbl. In 2015 Venezuela's oil production had fallen to 2.6 million BPD, a decrease of more than 20% below 2006 levels. By comparison, the U.S. has oil reserves of less than 20% of Venezuela's, yet U.S. oil production rose by 86% from 2006 to 2015.

Note I am certainly not arguing against a country using its oil reserves to benefit its citizens. But Norway provides a case in point of how this can be done responsibly. The problem with Venezuela's approach was that it extracted too much from the industry, which sacrificed its ability to continue to grow its production.

## Conclusions

Events in Venezuela continue to unfold, but it's hard to imagine that the oil industry there can recover without significant reinvestment. Venezuela is one of the OPEC members that has pushed the hardest for production cuts in recent years, as it desperately needs higher oil prices not only to fund further oil industry development but to use those revenues to pay for basic needs of the Venezuelan people.

Venezuela remains one of the world's ten largest oil producers, but its position has slipped in recent years. Should the situation there continue to deteriorate, it will likely further negatively impact the country's oil production. Ironically, because of Venezuela's global importance as an oil exporter, further deterioration there could push world oil prices higher -- but that's a scenario the current Maduro government is desperately seeking to avoid.

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