

Economics and Strategy

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Venezuela's collapse: How far will oil production fall?

It is hard to believe but Venezuela's economic death spiral is getting worse. By the end of this year the country's economic output will have fallen by well over 50% in the span of only four years. To make matters even worse, the IMF projects that Venezuela's inflation rate will reach a whopping one million percent by the end of 2018, up from 1,133 percent in 2017. Steve Hanke, one of the world's leading experts on hyperinflation at Johns Hopkins University, estimates it took 19 days for Venezuela's currency to lose half its value in August.

Hyperinflation on this scale brings Venezuela one step closer to total collapse: It destroys the value of savings and wages and makes further mass business defaults inevitable. Already, it is estimated that the number of private businesses operating in Venezuela has plummeted from 650,000 in 1998 to only 140,000 today.²

The socioeconomic impact of this meltdown is reflected in following statistics:



Source: "Venezuela's crisis by numbers," AL Jazeera, September 13, 2018

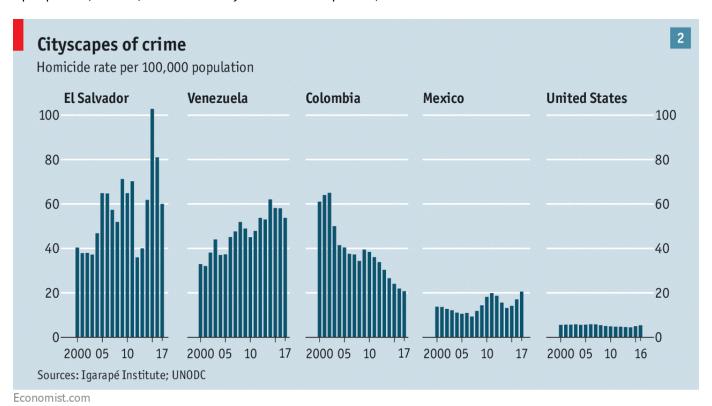
¹ "Outlook for the Americas: A Tougher Recovery," IMF, July 24, 2018

² "Hollowed-out Venezuela counts the cost of crisis," Financial Times, September 4, 2018



Another consequence of Venezuela's economic woes: a sky-high murder rate

Venezuela's has the world's second-highest homicide rate, behind El Salvador. According to United Nations estimates, its stands at 57 per 100,000 inhabitants, while Amnesty International Argentina, puts it at as high as 89 per 100,000. To put these figures into perspective, in 2016, Canada had only 1.68 homicides per 100,000 inhabitants.³



Source: "Shining light on Latin America's homicide epidemic," The Economist, April 5, 2018

The government has sought to halt the country's economic free fall by:

- Hiking the monthly minimum wage over 3,000 percent as of September.
- Increasing the price of gasoline substantially as of October (A similar hike in domestic fuel prices in 1989 ignited mass riots and led to an attempted coup).
- Raising the value-added tax substantially.
- Devaluing its currency from the official rate of 250,000 per USD to six million.

Forcing businesses to continue selling goods at prices far below their production cost while wages spike is a recipe for even more business closures.

Foreign reserves nearly depleted

In 2009, Venezuela's foreign reserves peaked at \$43 billion. Today, they amount to less than \$9 billion, which essentially means that the government has no cash to pay its debt and to import food, medicine and other basic supplies. Spending on non-oil imports plunged from nearly \$46 billion in 2011 to only \$6 billion in 2017.

Together, Venezuela and its various state-controlled entities have about \$150 billion (163% of GDP) in debt owed to creditors around the world. To date, they are behind on about \$6-billion worth of debt interest payments.⁵

³ "Mexico had over 29,000 murders in 2017, but homicide rate still lower than some Latin American nations," CBC, January 21, 2018

⁴ "As Venezuelans suffer, Maduro buys foreign oil to subsidize Cuba," Reuters, May 15, 2018

⁵ "U.S. Judge Authorizes Seizure of Venezuela's Citgo," Wall Street Journal, August 9, 2018



Mass exodus

Venezuela is also experiencing one of the most dramatic demographic outflows in modern history. The United Nations estimates that 2.3 million people—about 7% of the population—have left Venezuela since 2015. This includes a massive brain drain of doctors, teachers, oil workers and many other professionals. To cite but one example, one-third of all doctors (22,000) have fled the country in the past few years.⁶ This has led to a significant increase in preventable diseases such as malaria and measles.

2.3 million Venezuelan's have migrated since 2015 Migration routes Colombia 1,000,000 (number of Venezuelans) Suspended daily entrance passes COSTA RICA for Venezuelans crossing the border Barranquilla. Caracus Ecuador 500.000 Declared state of emergency in three states where 4.000 ■ Bogata migrants arrived every day COLOMBIA Peru 400.000 Ouito Declared 'health BRAZIL emergency' due to ECUADOR measles and malaria Brazil carried by migrants. Manaos 60,000 PERU Tightened passport Sent troops to the controls for Venezuelans border after vigilante groups attack migrants 500 miles SOURCE: UN

Source: "Towns in Brazil have become refugee camps for a tide of desperate Venezuelans," The Telegraph, August 30, 2018

The Ongoing free fall in oil production

According to OPEC secondary sources, oil production in Venezuela plunged from a peak of 3.3 million barrels per day (bpd) in 2001 to 1.28 million last July, a level not seen since the late forties. The International Energy Agency (IEA) estimates that production could fall to 1 million bpd by the end of 2018, a drop of 600,000 bpd since the beginning of the year.⁷

There are several driving forces behind the collapse:

- Hyperinflation has rendered the national currency nearly worthless and the country's foreign currency reserves are nearly depleted. As a result, Venezuela is increasingly unable to import needed machinery and spare parts. It is estimated the country owes \$60 billion to energy contractors and suppliers.⁸
- The decrepit state of its refining infrastructure is forcing Venezuela to significantly increase imports of lighter oil (currently 200,000 bpd) to be used as a diluent for its heavy crude.9

⁶ "Doctors in violent Venezuela work under threat of death if patients die," Miami Herald, March 29, 2018

⁷ "Oil Market Report," International Energy Agency, September 13, 2018

^{8 &}quot;Corporate America's nightmare in Venezuela is getting worse," CNN Money, January 19, 2018

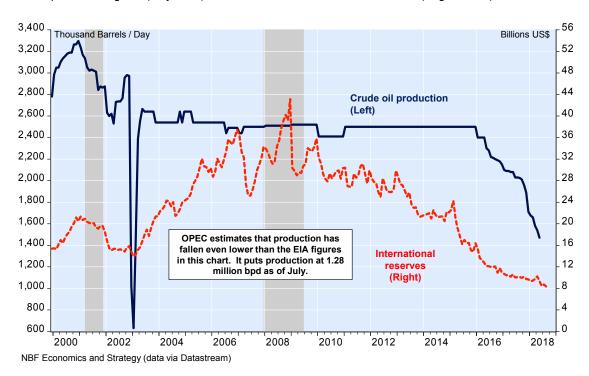
^{9 &}quot;How Venezuela has resorted to importing oil as its core industry faces collapse," The Independent, April 16, 2018



- The oil sector is unable to pay its labour force a living wage under prevailing hyperinflationary conditions, leaving many workers too weak and hungry to perform heavy labour. This has resulted in mass resignations and absenteeism. Official statistics are not available, but one union leader recently stated that about 25,000 workers had resigned from January 2017 to January 2018. PDVSA, the Venezuelan state-owned oil and natural gas company, reported 146,000 people on its payroll in 2016.¹⁰
- Desperate oil workers and criminals are reportedly stealing vital equipment from oil facilities, including copper wire, to resell on the black market.

Venezuela: Oil production and international reserves decreasing

EIA oil production figures (May 2018) and Banco Central international reserves (August 2018)



The growing legal threat of asset seizures

Oil production is further threatened by foreign companies suing Venezuela for assets lost to expropriation. Below are two examples of recent legal setbacks.

ConocoPhillips

Last May, ConocoPhillips, a U.S. oil producer whose assets were expropriated by Venezuela's government in 2007, won an international arbitration action against PDVSA, allowing it to seize Venezuelan oil in Curacao and other Dutch Caribbean islands. The seizures left PDVSA without access to facilities that process about 15% of Venezuela's oil exports.

In August, ConocoPhillips agreed to suspend its legal actions in return for payment from PDVSA. Under the terms of the agreement, Venezuela must pay the U.S. company \$500 million by late November and the remaining \$1.5 billion owed over the next four and a half years. However, this is likely at best to be nothing more than a temporary legal truce because the odds are very low that PDVSA will make good on these payments. Two billion dollars represent about one-quarter of the international reserves held at Venezuela's central bank.

Given that the United States receives about 35% of Venezuela's oil exports, this affords U.S. companies significant leverage to sue Venezuela in domestic courts and potentially seize control of oil shipments.

^{10 &}quot;Under military rule, Venezuelan oil workers quit in a stampede," Reuters, April 17, 2018



Canadian mining company Crystallex

Also in August, the now defunct Canadian mining company, Crystallex, won a U.S. court battle in a bid to be compensated for the 2008 nationalization of one of its mining operations. The judge in the case recognized PDVSA as an "alter ego" of the Venezuelan state, giving Crystallex the right to seize PDVSA's U.S. assets (i.e., Citgo's three large refineries and its pipeline network).

If PDVSA loses its appeal, it will open the floodgates for claims against Citgo assets by other companies whose investments were also expropriated in Venezuela.

Colombia has been particularly hard hit by the Venezuelan crisis

After a decades-long war that claimed hundreds of thousands of lives, in 2016 Colombia signed a peace deal with the Revolutionary Armed Forces of Colombia (FARC), the country's largest rebel group. Under the terms of the agreement, some 25,000 FARC guerillas and their families were to be socially and economically reintegrated into civilian life. Even under the best of conditions, honouring this promise was going to be difficult.

However, in addition to this challenge, Colombia must now also contend with the financial and political costs of accommodating an influx of people from Venezuela. Like Germany did with respect to Syrian refugees, Colombia has recently taken in over one million migrants from Venezuela. The difference is that Colombia has much less financial resources to handle such an influx: GDP per capita is \$14,500 in Colombia vs. \$50,400 in Germany (calculated on the basis of purchasing power parity).¹¹

Second, numerous other armed groups—the National Liberation Army, the People's Liberation Army, and drug cartels—have not disbanded. Venezuela's weakened state has made its border regions convenient places for these groups to retreat, reorganize, and eventually cross back into Colombia. It is also increasingly easy for these groups to recruit desperate Venezuelans. Businesses in the oil-producing regions along the Venezuelan border are most at risk.

Finally, the U.S. State Department reports that because of Venezuela's weak government, corrupt judiciary, and porous borders, the country has emerged as a major trans-shipment point for drugs flowing to Central America, the United States and Europe. There are also reports that certain elements of the military are engaged in drug trafficking.

How has Maduro managed to stay in power?

Military support. Despite rumours of discontent in the lower and middle ranks of the military, many top-ranking members have been co-opted into the regime. There are some 1,000 active and retired generals and admirals in public office. They also hold 9 of 32 cabinet posts. All of these high-ranking military officers would be at risk of going to jail if the government were overthrown.

Emigration has also helped Maduro stay in power. Many of the people with the greatest means to oppose the Maduro regime are no longer in the country to orchestrate protests.

People struggling without food or medicine often do not have the strength to mobilize against the government. They are also scared that protesting against the government might lead to being cut off from monthly government handouts of basic foods and medical supplies.

If you break it, you own it. While the United States has hit Venezuela with severe sanctions, including restrictions on American banks issuing or restructuring debt for the Venezuelan government and PDVSA, it is feared that harsher sanctions might trigger an even worse humanitarian crisis. U.S. sanctions with the potential to really hurt Venezuela include:

- Targeting insurance coverage of oil tankers carrying Venezuelan oil.
- Banning Venezuelan oil imports to the United States.
- Taking steps to prevent the diaspora from transferring funds to the country (According to Pew Research, cash transfers from abroad totalled an estimated \$279 million in 2016).
- Prohibiting U.S. exports of diluents such as naphtha, needed to reduce the thickness of Venezuelan heavy crude in order for
 it to flow through pipelines (Of all the sanctions listed, this one is the likeliest to be implemented).

¹¹ CIA World Factbook, 2018

¹² 'The Army Took Over the Spigots, Forcing Thirsty Venezuelans to Pay," Bloomberg, June 25, 2018

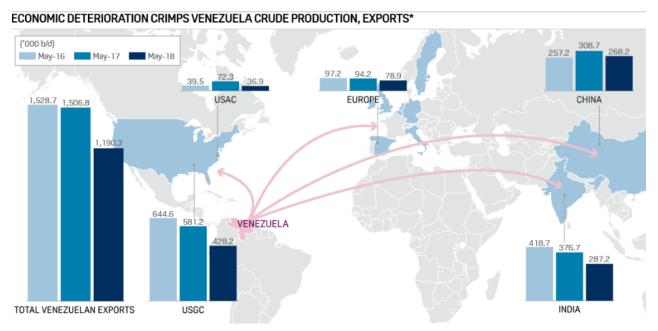


China, its largest creditor, is stuck between a rock and a hard place

China has loaned Venezuelan US\$65 billion over the last decade. Of this amount, \$20 billion is still outstanding. 13

On the one hand, China is reluctant to throw good money after bad. On the other hand, if it wants to continue getting paid back, efforts must be made to prevent Venezuelan oil production from further collapsing. In this regard, Venezuelan President Nicolás Maduro recently announced that China planned to invest \$5 billion in Venezuela's oil sector.

Even if this claim is confirmed, we do not feel this will alter the downward trajectory of Venezuela's economy and oil sector. This is because a large part of Venezuela's oil exports to China goes towards paying off its loans. The United States, Venezuela's main geopolitical adversary, remains its largest cash buyer by far. Ironically, this means the more Venezuela exports to China to repay its debt, the less revenues it has flowing into the country.



Source: "Factbox: Venezuela's near collapse takes toll on oil industry," S&P Global, June 18, 2018

Is oil hitting perfect geopolitical storm?

In addition to Venezuela's self-induced collapse in production, the oil market is also having to contend with another round of sanctions hitting Iran. Starting November 4, companies buying or shipping Iranian oil or insuring such shipments may be excluded from the U.S. market and financial system. There is a growing view that the United States will enforce these new sanctions more aggressively than originally thought.

The IEA estimated that, as a result of companies and countries preparing for the looming sanctions, Iran exported just 1.9 million bpd in August, a decline of 500,000 bpd from April. Some analysts feel exports could drop by an additional half million barrels when American sanctions go into effect.¹⁴ (For further details, refer to our report on Iran of August 7, 2018: "Will Iran's mounting troubles raise oil prices?").

All of these geopolitical risks come at a time of tightening oil markets. For example, OPEC's official spare capacity fell by 780,000 bpd since April to 2.69 million bpd in August. Spare capacity is officially defined as surplus oil production that can be brought on line within 90 days. However, doubts have been raised whether OPEC has the ability to bring this much oil on line in such a short period of time.

¹⁴ "Trump Hit Iran with Oil Sanctions. So Far, They're Working," NY Times, September 19, 2018

^{13 &}quot;Venezuela's Nicolas Maduro doubles down on Chinese money to rescue a crashing economy," South China Morning Post, September 18, 2019



Investment conclusion

Venezuela has been hit by a perfect storm of events:

- An economic collapse rarely seen by a country not a war, characterized by food shortages, hyperinflation and almost complete depletion of foreign reserves.
- A massive brain drain from all sectors of society.
- Lawsuits by international companies looking to be compensated for expropriated assets.
- The inability to import much-needed spare parts/machinery for the oil sector due to its mostly depleted foreign reserves.

Not only could the combined impact of all these factors lead to an even sharper drop in oil production than projected by the IEA (down to 1 million bpd by the end of 2018), but the worst-case scenario whereby oil output could fall to a mere couple of hundred thousand bpd in 2019 can no longer be entirely ruled out. Given that oil accounts for 95% of its export revenues, levels this low would could threaten the ability of the regime to function and continue paying off its core supporters.

The potential for the combined oil production of Iran and Venezuela to fall by 1 to 1.5 million bpd over the next year or so means that, barring an economic slowdown, oil prices are likely to remain elevated for the foreseeable future. And this estimate does not even include the risk of oil production being further squeezed by political instability in other oil producing countries such as Libya, Iraq and Nigeria.

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