



*Independent Statistics & Analysis*

U.S. Energy Information  
Administration

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## Country Analysis Executive Summary: Venezuela

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Last Updated: November 30, 2020

### Overview

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- Although one of the original five large oil-producing countries that created the Organization of Petroleum Exporting Countries (OPEC) in 1960, Venezuela fell to the fourth-smallest producer among OPEC's 13 members in 2019, ranked higher than only Congo-Brazzaville, Gabon, and Equatorial Guinea.
- Reduced capital expenditures by state-owned oil and natural gas company Petróleos de Venezuela, S.A. (PdVSA), along with increased U.S. sanctions, have resulted in foreign partners continuing to cut activities in the oil sector, making crude oil production losses increasingly widespread.
- Venezuela's revenue from oil exports is severely constricted because few of the exports generate cash revenues. The remaining crude oil exports are sold domestically at a loss or sent as loan repayments to China, Russia, and European companies Repsol and ENI.
- In January 2019, the United States imposed further sanctions, making it increasingly difficult for foreign companies to conduct business in Venezuela. Further U.S. sanctions in February 2020, May 2020, and June 2020 have placed further restrictions on foreign companies.

### Petroleum and other liquids

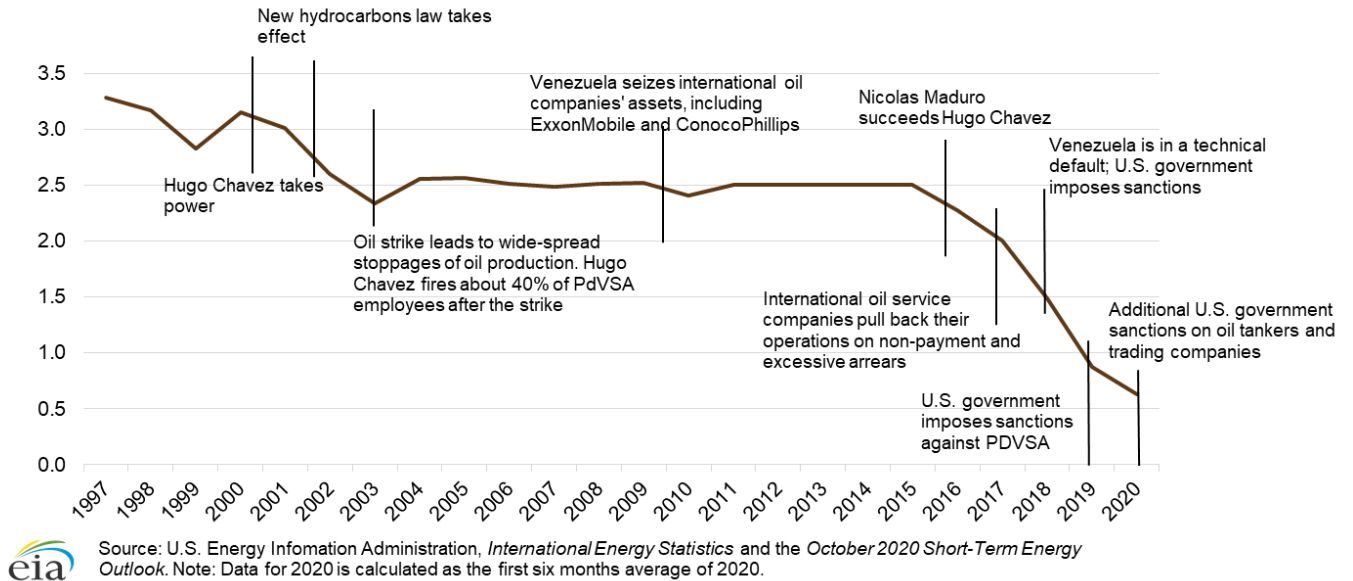
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- In January 2020, Venezuela had 303 billion barrels of proved oil reserves, the largest in the world.<sup>1</sup>

### Exploration and production

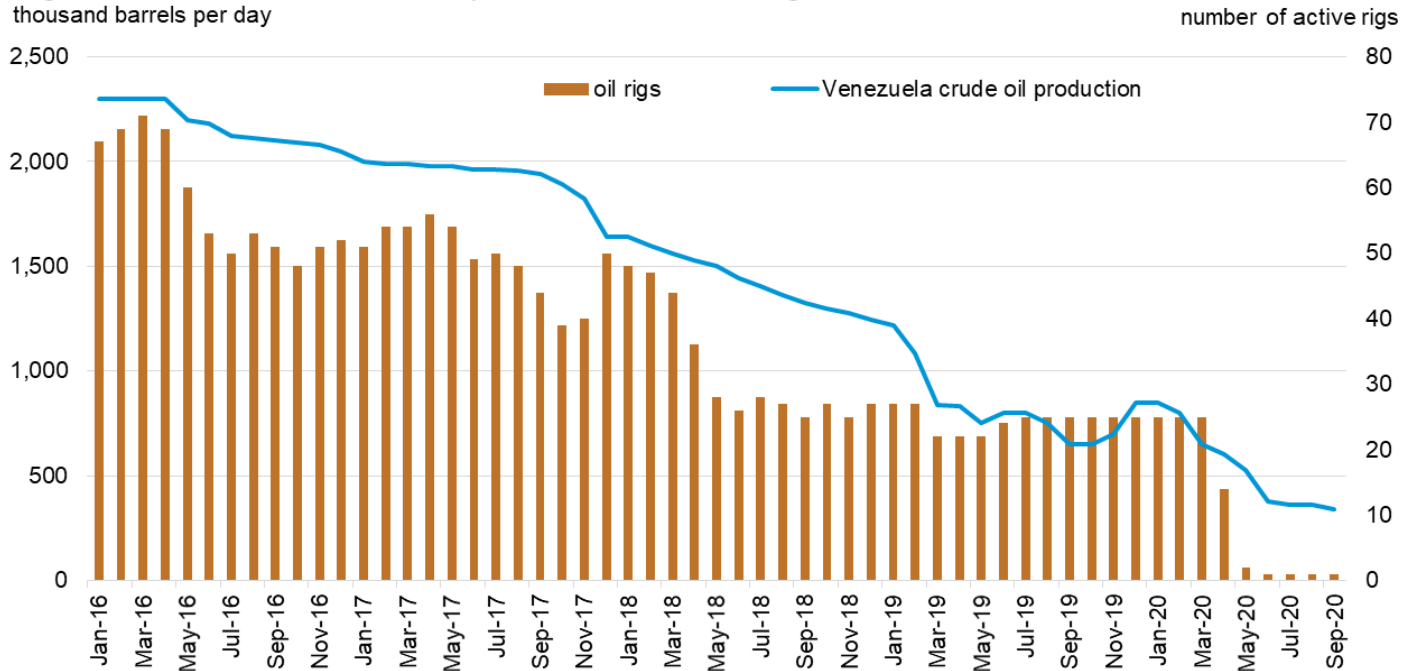
- Venezuela's crude oil production has declined rapidly to historically low levels. In 2019, Venezuela's average crude oil production (including condensates) was 877,000 barrels per day (b/d), a decrease of more than one million b/d since 2017, when the United States first imposed sanctions on crude oil exports (Figure 1).

Figure 1. Venezuela's annual average crude oil production  
million barrels per day



- Several compounding factors have contributed to this steep decline in oil production:
  - A lack of maintenance
  - The faltering financial state of national oil company PDVSA
  - A diminishing workforce
  - National power outages in 2019 that continue to affect western Venezuela's production
  - Sanctions imposed in 2019 and 2020 that have reduced foreign investments and markets for Venezuelan oil
  - Shortages of diluents needed for heavy oil
- As of August 2020, Venezuela's crude oil production (excluding condensates) was 360,000 b/d, the lowest level since EIA started recording production in 1973 (Figure 2).

Figure 2. Venezuela's crude oil production and total rig count  
thousand barrels per day



Source: Venezuela's crude oil production: U.S. Energy Information Administration, Short-Term Energy Outlook October 2020; Rig count: Baker Hughes  
Note: Reported data available through September 2020.

- The number of active rigs fell from 69 in the first quarter of 2016 to 2 reported rigs in May 2020 (Figure 2), although news sources state that the last active drilling rig left Venezuela in early August.<sup>2</sup> Several factors continue to drive down crude oil production:
  - Missed payments to oil service companies
  - A lack of working upgraders
  - A lack of knowledgeable and able managers and workers
  - Declines in oil industry capital expenditures will continue to drive down crude oil production<sup>3</sup>

## Refining

- Venezuela had 1.3 million b/d of domestic nameplate crude oil refining capacity in 2019, which PdVSA operated.<sup>4</sup> However, actual refining throughput in 2019 was at an estimated 10% of its nameplate capacity, or 135,000 b/d, down from approximately 40% in 2017.<sup>5</sup> Refining throughput fell because of a lack of refinery maintenance, power blackouts, and feedstock availability after the 2019 sanctions. With its refinery infrastructure in this state, Venezuela must import petroleum products for domestic consumption.
- In 2019, the Puerto La Cruz refinery was formally shut down after two years of low processing rates.<sup>6</sup>

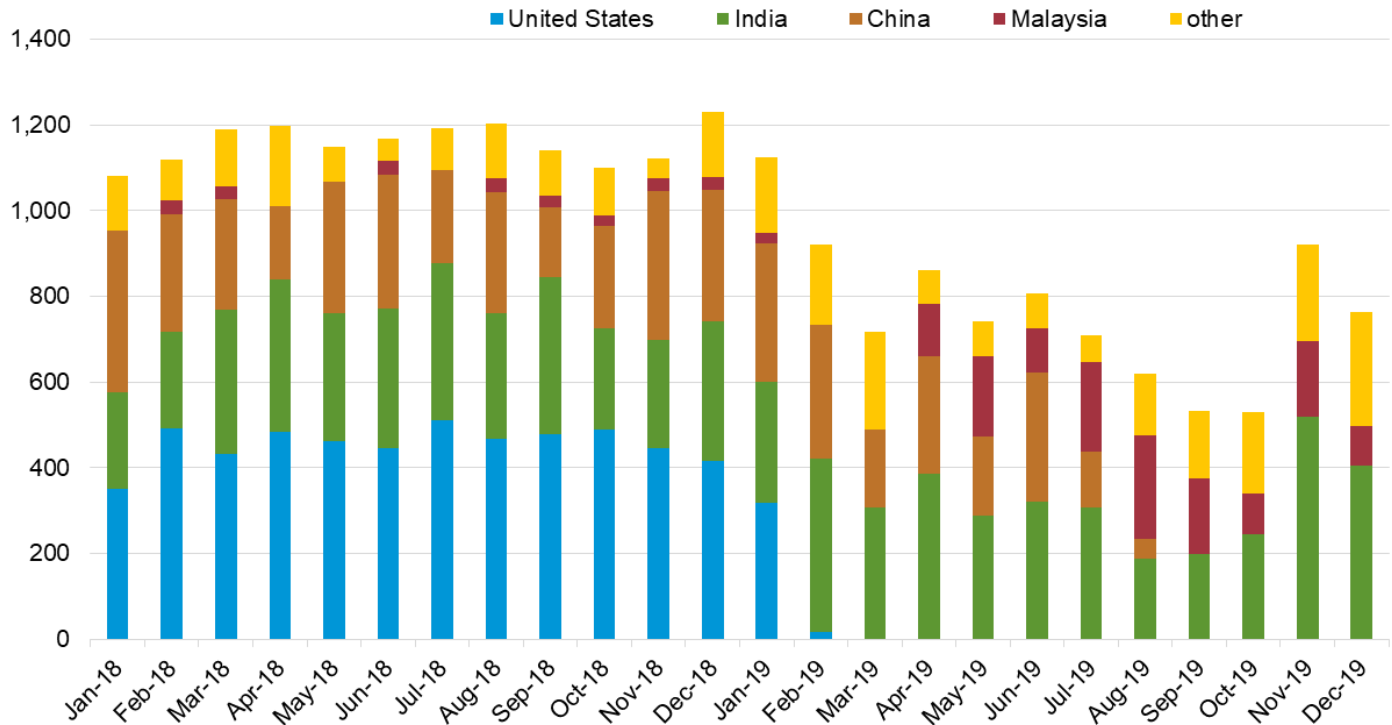
- PdVSA also operates significant refining capacity outside the country. The largest share of Venezuela's foreign downstream operations is in the United States, followed by significant operations in the Caribbean and stakes in Europe.

## Trade

### *Exports*

- Venezuela exported an average of 772, 000 b/d of crude oil (including lease condensates) in 2019, or about 40% lower than the 2018 level.
- Europe is now the largest destination for Venezuelan crude oil exports, with ENI and Reliance lifting crude oil for debt repayment.
- The United States had historically been the primary destination for Venezuela's crude oil shipments, and at its peak in 2007, U.S. imports of Venezuela's crude oil averaged 1.1 million b/d. In January 2019, the United States placed sanctions on Venezuela that prohibited crude oil imports from the country,<sup>7</sup> and all U.S. imports of Venezuela's crude oil ceased in March 2019 (Figure 3).
- In the beginning of 2019, in anticipation of future sanctions, other countries began to wind down imports of Venezuela's crude oil. In 2019, Venezuela exported primarily to India (321,000 b/d), China (147,000 b/d), and Malaysia (119,000 b/d) (Figure 3).

Figure 3. Venezuela's exports of crude oil, January 2018-December 2019  
thousand barrels per day

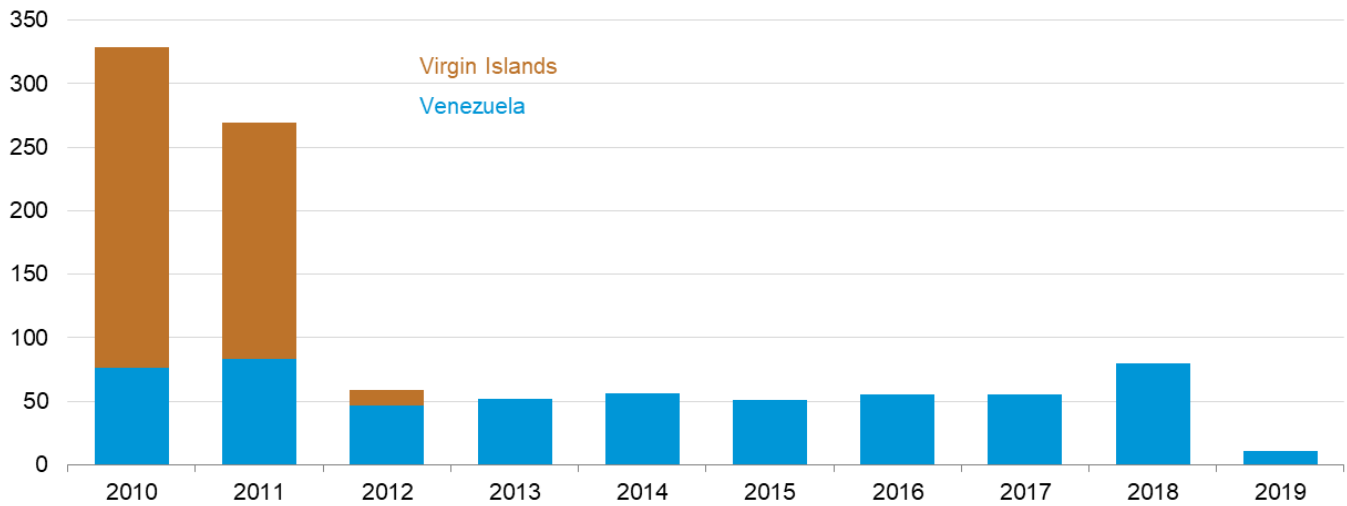


Source: U.S. Energy Information Administration based on data published by Clipper Data Inc.

Note: since Venezuela came under sanctions, loadings have become more difficult to track. Clipper export data does not match EIA US import data as a result of timing issues.

- In the first half of 2020, exports of Venezuela's crude oil fell to an average of 500,000 b/d, based on tanker loadings data.
- The United States had been a significant importer of petroleum products from Venezuela (Figure 4), but sanctions resulted in the halt of all petroleum product trade after March 2019 as well.

Figure 4. U.S. petroleum products imports from Venezuela and U.S. Virgin Islands  
thousand barrels per day



Source: U.S. Energy Information Administration



Note: Before 2012, the United States imported Venezuelan petroleum products through the U.S. Virgin Islands. However, because the U.S. Virgin Islands' Hovensa refinery was shut down in 2012, the U.S. Virgin Islands' no longer exports refined Venezuelan petroleum.

- In 2019, Venezuela exported crude oil from seven loading points. Venezuela's largest terminal by barrels loaded is the Jose Terminal, located offshore of the Jose industrial complex in northeast Venezuela (Table 1). The Jose Terminal consists of two berths that can accommodate 300,000 deadweight tons at an average of 55,000 barrels per hour.<sup>8</sup>

Table 1. PdVSA's crude oil loading terminals and percentage shares of total exports, 2019

Loading point	Percentage of total loadings during 2019
Jose Terminal	89%
Amuay Bay Lightering Zone	5%
Puerto Miranda Terminal	4%
Puerto De La Cruz	1%
Amuay Bay Terminal	1%
St. Eustatius Terminal	1%
Bajo Grande Terminal	0.4%
Curacao Terminal	0.2%

Source: U.S. Energy Information Administration, based on information published by ClipperData, Inc., tanker tracking database

Note: Percentages may not sum to 100% as a result of independent rounding.

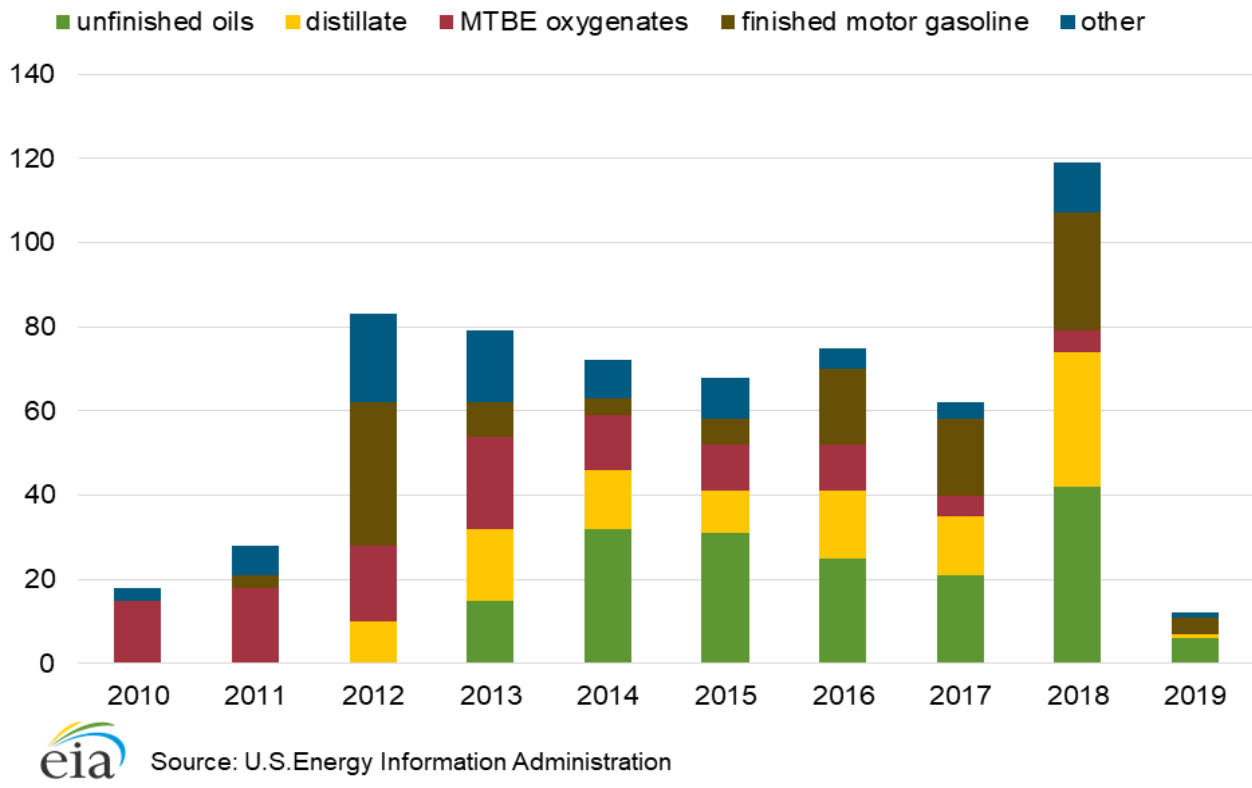
- In addition to crude oil, PdVSA has exported refined products from Curacao. However, Curacao is pursuing a \$162 million arbitration claim against Venezuela's state-run PdVSA oil firm over its management of the island's oil refinery. NuStar Energy operates the loading terminal at St.

Eustatius, and PdVSA rents storage tanks for exporting crude oil. PdVSA and Citgo lease a refinery and a storage terminal in Aruba, but crude oil is not exported from that island.

### Imports

- In 2019, U.S petroleum product exports to Venezuela fell to 12,000 b/d on average because of sanctions that took effect mid-year (Figure 5).

Figure 5. U.S. exports of petroleum products to Venezuela, by type  
thousand barrels per day



### Natural gas

- Venezuela had 200 trillion cubic feet (Tcf) of proved natural gas reserves at the beginning of 2020, the tenth-largest in the world.<sup>9</sup>

### Exploration and production

- Natural gas production has been falling since 2016. In 2018, Venezuela produced 2.6 billion cubic feet per day (Bcf/d) of natural gas and consumed 2.4 Bcf/d of natural gas.
- Historically, 90% of the country's natural gas production has been associated with oil (mostly in eastern Venezuela). As oil production has declined, natural gas production has also declined.

Other factors such as operational and maintenance issues and decreased domestic gas consumption have contributed to a lack of further production increases.<sup>10</sup>

- In early 2020, Trinidad and Tobago canceled an agreement with Venezuela for the joint development of the Loran-Manatee natural gas field on their shared maritime border because of U.S. sanctions on Venezuela's state energy company PdVSA.<sup>11</sup>

## Electricity

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- In 2019, Venezuela generated more than 85 billion kilowatthours of electricity, a decrease of more than 19% compared with the previous year.<sup>12</sup> Lower electric generation in 2019 was primarily the result of power blackouts throughout the year and subsequent electricity rationing.
- Recent declines in generation are the result of technical failures affecting both the hydropower and thermal electric power generation plants. These issues include the government's inability to repair or maintain facilities that are vital to electric power generation.

## Notes

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- Data presented in the text are the most recent available as of October 2020.
- Data are EIA estimates unless otherwise noted.

## Endnotes

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<sup>1</sup> *Oil and Gas Journal*, "Worldwide Reserves Report," January 2020.

<sup>2</sup> Forbes, "[The Last Oil Drilling Rig Leaves Venezuela](#)," August 5, 2020.

<sup>3</sup> Reuters, "[Venezuela's deteriorating oil quality riles major refiners](#)," October 18, 2017.

<sup>4</sup> *Oil and Gas Journal*, "Worldwide Refining Survey," January 2020.

<sup>5</sup> BP [Statistical Review of World Energy, 2020](#)

<sup>6</sup> IPD Latin America, "Venezuela Refining Report 2019-January 2020," (February 2, 2020).

<sup>7</sup> Center for International & Strategic Studies (CSIS), "[Are Sanctions Working in Venezuela?](#)" September 3, 2019.

<sup>8</sup> Clipper Data, Inc. tanker loadings (accessed August 2020) and Energy Intelligence World Crude Oil Data, "Venezuela" (accessed April 2018).

<sup>9</sup> *Oil and Gas Journal*, "Worldwide Reserves Report," January 2020.

<sup>10</sup> IPD Latin America, "Where Venezuela's Natural Gas Operations Stand," (May 2, 2019)

<sup>11</sup> Reuters, "[Trinidad cancels gas deal over U.S. sanctions on state-run Venezuelan company](#)," February 3, 2020.

<sup>12</sup> BP [Statistical Review of World Energy, 2020](#)