Venezuela Buying U.S. Exports to Prop Up Ailing Crude Production
Gulf Coast crude enjoying a boost for now, but it's unlikely to last.

Venezuela Becomes a Buyer of U.S. Crude
The most popular destination for U.S. crude exports during April and May (apart from perennial buyer Canada) has been OPEC member Venezuela—more commonly known for exporting crude. The Latin American nation has been purchasing U.S. crude to help boost output of blended heavy bitumen in order to raise cash to pay debtors.

U.S. Crude Exports Fail to Take Off
Overall, U.S. crude exports have failed to take off so far after federal restrictions were lifted in December 2015. The restrictions limited crude exports except to Canada and in certain limited circumstances from Alaska and California. Surprisingly, crude exports averaged only 375 thousand barrels per day in the first quarter of 2016, or 16% lower than the 445 mb/d exported during the same period in 2015 (Exhibit 1).

The absence of any surge in crude exports despite much hoopla accompanying the legislation can be attributed to two main factors. First, crude price differentials between West Texas Intermediate and Brent have traded in a narrower range this year, making WTI less competitive in overseas markets. The Brent premium over equivalent WTI delivery contracts averaged $6.40/bbl in first-quarter 2015 but just $0.82 year to date. Second, U.S. exports to Canada (the main destination for U.S. exports both before and after the ban) have been reduced since the Enbridge Line 9 flow reversal in November 2015 that allowed Canada to supply Quebec refineries with domestic production. Also, falling U.S. production (down over 600 mb/d since peaking at 9.7 million barrels per day in April 2015) has not helped U.S. exports, as fewer barrels are now available for export.
Given these factors, it is puzzling that U.S. exports have continued at all. We believe that many of the shipments leaving Gulf Coast ports have been “test” cargoes sold to international customers on a “buy-and-try” basis — discounted to allow refiners to become familiar with U.S. grades in the hopes of encouraging term contracts once U.S. prices are more attractive or domestic production takes off again. Without such discounts, it seems that prospects for increased crude exports are limited for the moment.

That has not stopped midstream companies from investing in and planning infrastructure to enable crude exports from U.S. terminals that were largely built to handle growing imports before the shale boom. Enterprise Products Partners and Magellan Midstream Partners are investing in expansions to their Houston Ship Channel facilities. The owners of the huge Louisiana Offshore Oil Port storage and deep-water import terminal have also discussed upgrading their infrastructure to handle exports.

However, a recent surge in WTI exports from the Gulf Coast to the Caribbean during April and May has offered a glimpse of one future trade path for export barrels: Venezuela. National oil company Petroleos de Venezuela, or PDVSA, signed contracts with BP and China Oil to import about 95 mb/d of WTI grade crude during April and May to use as diluent to blend with heavy bitumen crude from its Orinoco Belt production region. That makes the company the largest customer so far, outside of Canada, to buy U.S. crude exports.
Selling Coal To Newcastle?

At first sight, exporting oil to Venezuela seems strange when the country has 300 billion barrels of proven oil reserves\(^1\) — the largest in the world — and has long been a supplier of imports to the U.S. market. This turn of events has arisen because PDVSA is scrambling to produce additional crude for export to generate cash in the face of lower prices and a deteriorating domestic economy. It is faced with an urgent need to export crude to pay off debtors (particularly China, which it pays with oil in kind — meaning more barrels need to be shipped at today’s low prices). Because of a lack of adequate investment to upgrade heavy bitumen production in the prolific Orinoco Belt into lighter synthetic crude, PDVSA has no choice but to increase raw Orinoco production and blend it with lighter hydrocarbons (diluent) to create higher volumes of export-grade Merey crude (16 API gravity). The missing ingredient in this scramble to increase export volumes is access to supplies of lighter hydrocarbons to blend with heavy Orinoco crude to make Merey. However, PDVSA is producing less of the lighter crudes that can be used for this diluent blending nowadays. An alternative diluent material that PDVSA has used is heavy naphtha produced by its massive 955 mb/d Paraguana Refining Center, but the latter is currently operating at only 50% capacity because of unfinished repairs. The net result is that PDVSA has been buying light sweet crude imports to blend with increasing bitumen production from the Orinoco Belt since 2014 — including multiple cargoes of WTI in 2016.

We believe that (provided Venezuela’s economy and government do not melt down altogether) shipments of U.S. crude may continue in the near future and have a bullish impact on Gulf Coast prices. The PDVSA strategy of importing U.S. light crude as diluent makes sense geographically since the shipping distance from the U.S. Gulf to Venezuela is far less than for equivalent grades from West Africa or northwestern Europe. But there are risks associated with such shipments, including late payment by PDVSA and congestion at the Jose delivery port in northeastern Venezuela, where loading problems held up several cargoes in April.

In the longer term, the economics of blending expensive imported light crudes such as WTI with heavy Orinoco bitumen are not favorable for PDVSA. The 30% WTI blend with bitumen to make Merey means paying $15/bbl for diluent (assuming WTI at $50/bbl) on top of Orinoco production costs (estimated $18/bbl * 70% = about $12.5/bbl) meaning production cost is $27.5/bbl, which is barely above break-even with market prices for Merey at about $30/bbl this month. Yet for now, PDVSA is caught in the same vicious cycle as hard-pressed U.S. shale producers: The need to keep producing to generate cash overrides break-even economics.

Meanwhile, PDVSA made another move last week to escape from its diluent supply dilemma. Its U.S. refining subsidiary Citgo signed a 25-year agreement with the government of Aruba to lease a 235 mb/d shuttered refinery on that island, which is 15 miles north of Venezuela. The agreement, due to be ratified by the Aruba Parliament shortly, could have Citgo investing up to $1 billion to rebuild and restart the refinery over the next two years. Once running again, the refinery could process Venezuelan heavy sour

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\(^1\) According to OPEC Share of World Crude Oil Reserves, 2014.
crude to produce heavy naphtha as a diluent blend stock to replace light crude imports as well as intermediate oils such as vacuum gasoil for upgrading by Citgo refineries in the U.S.
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For More Information
+1 800 546-9646 North America
+44 20 3194 1455 Europe
commoditydata-sales@morningstar.com