

A Brief Update on Venezuela

The recent release of the GAO study on the impact of Venezuelan exports to the U.S. has reignited discussion of the role of Venezuela in the world's energy security.

Much has been reported about decreases in Venezuelan oil production and the lack of new projects for increased production, despite claims from the Venezuelan government to the contrary and the announcement of partnerships and plans for these projects, respectively. One good example is the project known as Mariscal Sucre which originally had Shell, Mitsubishi and ExxonMobil as partners in a venture to exploit offshore natural gas bearing reservoirs for the production of LNG and NGLs for the world market. Over the last 7 years, the partners have been removed and the project has been offered to many national oil and gas companies. The latest was Petrobras which to date has not complied with the timetable that PDVSA has requested. PDVSA has not been able to move beyond reservoir delineation activities (similarly this is the situation of most offshore natural gas projects). Another example is the opening of the rest of the Orinoco Faja to foreign national oil and gas companies. The opening is currently limited to delineation and estimation of the resource in place. From there to actual production, many hurdles must be crossed including that of fiscal terms and the government's take. Ventures such as these based on extra-heavy oil and offshore natural gas, will likely require outside financing which has been difficult to come by for projects in Venezuela.

In early 2005, when the first threats about curtailing exports to the U.S. were made by the Venezuelan government, we prepared a short note (included in the Appendix) about the limited impact it would have if Venezuelan exports were destined to other markets and that the scenario that would be worrisome would be if production would be shut in. The note mentioned that Venezuela would not have incentives to shut in production or to expropriate assets in Venezuela while it had considerable assets in the US.

In the interim, Citgo (which is wholly owned by the Venezuelan state) has signaled that it is interested in disposing of non-core assets (curiously most are assets that have lower rates of return or are more regulated like pipelines) and even has floated the possibility of selling off refineries that it does not own completely.

Close attention should be placed as these announcements proceed to actual sales since it would indicate the possibility of much more confrontational postures from Venezuela. A real impact on the U.S. economy through a significant increase in gasoline prices could come about if Citgo reduced its refinery runs (an overtly confrontational act). The tightness of the gasoline market would exacerbate any problems in gasoline supply that already exist.

The situation in Venezuela has continued down a path considerable government criticism of past oil sector openings and revisions of contracts, agreements and fiscal terms. Despite the apparent tightening of the fiscal terms, these have not impacted the ongoing extra-heavy oil projects considerably. The increase in effective royalty rate is more a political move than an actual economic move given that the reference price that is used for the calculation of the royalty payments is

considerably lower than the reference price of the resulting synthetic crude oil (SCO) that is produced. There are many ways to calculate the reference price of the produced extra-heavy oil. For these integrated ventures it could be determined via a netback calculation from that of the SCO. However, the fiscal regime for the upgrading aspects of the ventures is different and would complicate the calculation somewhat (but not beyond something that could be done). Another procedure would be to use the value of similar crude that is sold such as some of the heavy crude from the Maracaibo basin such as Bachaquero or Tia Juana Heavy and apply a discount. This procedure does not reflect the "real value" of the extra-heavy crude since the market is different. Finally, the other alternative is to netback the value of the extra-heavy crude from its contribution to the Merey blend (which is a blend of Orinoco type extra-heavy crude and lighter crude oil). This method also estimates a low value for the extra-heavy crude.

The increase in the effective royalty rate should not impact significantly the four projects that are currently producing. That said, it does impact future projects given that these new projects would still bear risks due to uncertainty in productivity (due to requests for production beyond primary with steam injection which has not been applied extensively), higher operating costs (up to 300% higher) and higher upfront capital costs.

Appendix A
Short note on the impacts of a Venezuelan Oil Embargo (Prepared in February 2005)

Recent tension between the U.S. and Venezuela has increased the frequency of announcements (and re-announcements) of re-evaluation of existing contracts and the search for new clients for Venezuelan exports. Threats of limiting exports to the U.S. have become more common. Most exports of Venezuelan crude do have the U.S. as its market. CITGO (owned by Venezuela) refines a great deal of Venezuelan crude. Partners of Venezuela's national oil company (PDVSA) refine most of the syncrude produced in Venezuela from upgrading extra-heavy crude. A Venezuelan oil embargo can play out in many ways, but most scenarios can be constructed as a combination of two basic ones.

The first scenario would be a Venezuelan oil embargo limited to the U.S. If this were to occur, a good example of what would follow is the response of U.S. refiners during the walk out of oil workers in Venezuela in early 2003. When exports were halted, international inventories of Venezuelan crude were consumed and new suppliers were sought out by U.S. refineries. The market at the time was able to provide the shut in production. The change in the diet in the refineries likely resulted in reduced operational efficiency and reduced margins since most of Venezuela's clients make margins on the fact that heavy crude is usually in oversupply for the segment. If an embargo were put in place, Venezuela would have to place the embargoed crude in other markets. In order to do so, Venezuelan crude would have to displace crude from other sources, most likely through price discounts. If this would actually happen, the displaced crude would eventually be available directly or indirectly for consumption in the U.S. Another example of a similar situation is the oil embargo of the early 70s. No real long term crude oil supply shortages resulted since U.S. markets were supplied by other producers.

The second scenario would be based on a more aggressive posture of Venezuela towards the U.S. and would be based on a complete shut down of exports. This would be very critical in the short term given the tightness in the crude oil market and the possibility for other disruptions. However, this is very unlikely due to the need for continued cash flow of the Venezuelan government and the fact that assets PDVSA owns abroad could be frozen or appropriated. This extreme scenario seems plausible only in circumstances where the Venezuelan government would see this alternative better to other more destructive and isolationist alternatives.