



## **PDVSA may face capacity constraints** **THINK TANK**

**SUBJECT:** Constraints on the oil sector and state oil company PDVSA.

**SIGNIFICANCE:** Venezuela is the largest exporter of oil in the western hemisphere, and what President Hugo Chavez says and what the country does is closely watched, particularly in a world facing still high oil prices and edgier geopolitics.

**ANALYSIS:** Venezuela's oil wealth enables President Hugo Chavez to promote and support his political views, domestically and internationally, with oil revenue accounting for about half the government's annual budget. Chavez has steadily increased the state's ownership and control of its oil sector. State oil company PDVSA now owns a majority in all major oil and gas production ventures, largely reversing the opening of the oil industry of the early 1990s, when international oil companies were invited back into the country following nationalisation in 1976. Some foreign oil companies have quit the country as a result and others have been reduced to holding minority (40% or less) stakes in energy ventures now controlled by PDVSA.

Higher oil prices, larger stakes in the conventional oil fields and heavy oil projects, along with increased taxes and royalties, have boosted Venezuela's income from hydrocarbons. PDVSA's net income rose by 961% in the first half of 2008, to 9.8 billion dollars. However, its debt stood at 15.7 billion dollars, up from around 7.0 billion in 2000.

**Funding PDVSA.** Having achieved ownership and control of the country's hydrocarbon sector, the government now faces major challenges, two of which will be fundamental to the future of PDVSA:

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1. **Investment.** PDVSA must find funding for the capital investment necessary to maintain and grow Venezuela's production. Simply sustaining oil production requires constant investment; expanding it needs an active and effective exploration programme and assessment of reserves, and then major investment to develop the resource. Although the country's oil reserves have been increasing -- from 58.1 billion barrels at end 1987 to 74.9 billion barrels at end 1997 and 87.0 billion barrels at end 2007 -- its production has fallen from 3.3 million barrels per day (b/d) at the end of 1997 to 2.6 million b/d at the end of 2007, according to BP Statistical Review.

The general rule of thumb is that investment is made in proportion to the equity stakes held in a particular oil development. Having forced foreign investors into minority equity positions, PDVSA must now find at least 60% of the requisite investment for existing oil developments. If PDVSA is to reach its target of producing 5.8 million b/d by 2012, it must deliver a series of major projects to produce material quantities of crude oil upgraded from Orinoco extra heavy oil. Each of these projects will cost several billion dollars each. Even where PDVSA is able to find partners, it looks likely to need to find the majority of funding itself, even if it negotiates some element of financial carry or signature bonus in each case.

Prima facie, this should not be a problem, given recent oil prices which, even below peak levels, look likely to remain relatively high in the immediate future. However, PDVSA appears to have been starved of necessary investment for some years. Domestically the government is using its oil wealth to fund social and political activities, including health and social welfare programmes, re-arm its military, nationalise companies in chosen industries -- eg cement, telecoms, electricity, banking and steel-- finance imports of consumer goods, including food, and even promote sport.



2. **Managing state businesses.** These nationalisations highlight PDVSA's second major challenge -- whether it has the competence and capability to manage the huge increase in the number and variety of assets for which it is now responsible:

- It lost 15-20,000 managers in a major shakeout after the failed 2002 coup attempt and prolonged 2002-03 strike. It has since acquired direct operational control of 32 oil field operations and the four existing heavy oil upgrading projects, all formerly run by major international oil companies. Many of the staff previously employed by these companies have left or redeployed abroad, and those who remain may be de-motivated and struggling to work with unfamiliar systems and processes.
- The problem is not one of numbers but rather quality of staff and management processes. PDVSA's staff has risen from 48,000 in 1998-99 to 75,000 in late 2007, with 110,000 forecast by end 2009. It has been reported that 50% of senior staff are due to retire in the next two years. With the possibility of a series of very large projects, project management skills in particular will be at a premium but PDVSA will find itself competing with high industry activity levels around the world.

Outside the hydrocarbons sector, further management capability will be required to run the large, diverse portfolio of companies across a range of business sectors with varying industrial and commercial challenges. Private sector experience elsewhere suggests it is difficult to manage conglomerates effectively, even without the challenges of trying to meet both business and political objectives.

**International dimensions.** To support south-south dialogue and trade, and use oil as an instrument of regional integration, Chavez has continued to promote and talk about investing in oil projects across Latin America. Beyond Latin America, Venezuela has signed energy and other agreements



with many countries including South Africa, Iran and Vietnam. A series of new state oil company players (such as Ecuador's Petroecuador, Uruguay's ANCAP, Argentina's Enarsa and Vietnamese PetroVietnam) have been encouraged to participate in the development of heavy oil. However, Venezuela seems to be focusing on Russia and China as the main source of investment in future heavy oil developments:

- In late September Moscow and Caracas signed a memorandum of understanding establishing a Russian-Venezuelan consortium to include PDVSA (controlling shareholder), Gazprom, Rosneft, TNK-BP, Surgutneftigas and Lukoil. The scale of Russian investment in Venezuela via the consortium could purportedly be "tens of billions of dollars", although recent stock market turmoil and a sharp drop in its market capitalisation suggest that Gazprom will be forced to scale back its international operations in the short term at least.
- Also in September, China and Venezuela signed a suite of agreements including a contract for the supply of fuel oil and a feasibility study for an upgrading plant in the Orinoco heavy oil belt to process up to 300,000 b/d of oil. Earlier this year, they agreed to build a 400,000 b/d plant in China's Guangdong province, and are reportedly considering further processing investments.

Chavez wants to reduce dependence on the US oil market and appears to be placing his main strategic bets on Russia and China delivering the alternative investment and support he needs to finance the next wave of heavy oil upgrading projects. However, Russia is an oil and gas powerhouse, so it is reasonable to conclude that its drivers are geopolitical -- arguably a risky basis for long-term investment. China looks to be a better fit, as a huge energy consumer keen to secure future energy supplies. However, the plans with China need to be turned into reality and China has already made it brutally clear to Chavez that they will not tolerate him interfering in their relationship with the United States.



**CONCLUSION:** Venezuela faces a world of much tighter funding in the near future and, consequently, of more cautious investors. A global economic downturn will hit demand for oil and gas and put downward pressure on oil prices. Although OPEC will resist this, the context is likely to become less favourable for all oil producers in the short-to-medium term.