



Moody's Investors Service

Credit Opinion: **Petroleos Mexicanos**

Global Credit Research - 23 Dec 2009

Mexico City, Mexico

Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured	Baa1
NSR Senior Unsecured -Dom Curr	Aaa.mx
NSR BACKED Senior Unsecured -Dom Curr	Aaa.mx
Pemex Project Funding Master Trust	
Outlook	Stable
Senior Unsecured	Baa1
Fideicomiso No. F/163 de Pemex	
Outlook	Stable
Bkd Senior Unsecured -Dom Curr	Baa1
NSR BACKED Senior Unsecured -Dom Curr	Aaa.mx
Repcon Luxembourg SA	
Outlook	Stable
Bkd Senior Unsecured	Baa1

Contacts

Analyst	Phone
Thomas S. Coleman/New York	212.553.0365
Steven Wood/New York	212.553.0591

Key Indicators

[1] **Petroleos Mexicanos**

	9/30/09	12/31/2008	12/31/2007	12/31/2006	12/31/2005
	LTM				
Average Daily Production (Mboe/d)	3,719	3,860	4,270	4,328	4,305
Total Proved Reserves (Million boe)	13,982	13,982	14,381	15,158	16,097
Total Proved Reserve Life (years)	10.3	9.9	9.2	9.6	10.2
3-Year All-Sources Reserve Replacement	53.5%	53.5%	38.7%	29.1%	23.6%
3-Year All-Sources F&D (\$/boe)	\$12.78	\$12.78	\$14.99	\$17.09	\$18.39
Return on Capital Employed (ROCE 3-year average)	114.2%	133.5%	122.0%	108.2%	91.4%
Leveraged Full-Cycle Ratio	2.40x	4.28x	2.69x	2.18x	1.31x
Total Crude Distillation Capacity ('000 bpd)	1,540	1,540	1,540	1,540	1,540
Refineries with Capacity > 100 M bpd	6	6	6	6	6
Retained Cash Flow / Net Debt	142.0%	73.7%	21.3%	10.6%	-8.5%
EBIT / Interest Expense	3.36x	6.79x	9.04x	9.43x	7.67x
Gross Debt / Total Proved Reserves	\$6.94	\$6.27	\$5.48	\$5.33	\$4.64
Gross Debt / Total Capital	191.7%	197.8%	154.5%	144.3%	156.4%

[1] Standard adjustments in accordance with "Rating Methodology: Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations, Part 1 (February 2006)." In addition, Moody's adjusts for one-time items.

Note: For definitions of Moody's most common ratio terms please see the accompanying [User's Guide](#).

Opinion

Rating Drivers

- * High fiscal burden and elevated financial leverage
- * Challenge of reserves and production growth
- * Benefits and challenges of energy reform implementation
- * Rising capital spending
- * Government related issuer with strong implied government support

Corporate Profile

Petróleos Mexicanos (PEMEX) is the state oil company of Mexico. It has monopoly status in the petroleum industry and is 100%-owned by the Mexican government. PEMEX is a fully integrated company with operations in oil and gas exploration and production, refining, distribution and retail marketing, pipelines and petrochemicals. With over 45% of its crude oil exported, it is also a leading crude supplier to the U.S.

Rating Rationale

PEMEX's Baa1 foreign currency and local currency ratings reflect strong implied support from the government of Mexico (government bond rating Baa1). PEMEX's ratings reflects the company's sizable 14.3 billion BOE of proved hydrocarbon reserves (2008) and oil and gas production averaging about 3.8 million BOE/day in 2009, its monopoly status, its fully integrated operations, and position as a leading crude oil exporter to the U.S. However, on the negative side, and weighing heavily on our lower fundamental assessment of the company are PEMEX's heavy tax burden and high financial leverage. The company faces continuing declines in its core crude production and its export profile. Even with the benefit of recent fiscal and energy reform, PEMEX remains capital-constrained, and its ability to attract foreign capital and technology will be challenged. It will take many years of consistent reinvestment and the development of the deepwater and other resources to stabilize and grow production, as well as make necessary upstream and downstream infrastructure investments to meet rising energy and product demand in Mexico.

DETAILED RATING CONSIDERATIONS

HIGH FISCAL BURDEN AND ELEVATED FINANCIAL LEVERAGE

PEMEX's pre-tax cash flow is abundant and could support high levels of investment, but capital retention and investment have been stymied by a heavy tax burden, especially when compared to its international peers, and by the prohibition on foreign investment in the Mexican oil sector. Moody's believes the tax reforms enacted in 2007 and 2009 will be positive in terms of cash retention for investment, and the elimination of the PIDIREGAS (public works) financing structure will release PEMEX from the national budget setting process and give it more flexibility to establish its annual budgets and long-term development plans and to directly issue debt. However, the new fiscal regime will only modestly increase after-tax cash flows relative to PEMEX's sizable debt levels in the near-to-medium term. PEMEX's debt obligations showed sizable increases from 2002-2006, then leveled off and actually declined in 2007 as a result of higher pricing and cash flow, as well as higher earnings retention. With capital spending exceeding cash flow in 2009 and significant financing activity, total gross debt has increased some \$7.6 billion in dollar terms to approximately \$50.6 billion, although the net increase is less at \$2.6 billion, reflecting the company's substantial \$13.3 billion cash position. In addition, the company has sizable pension obligations that have continued to increase, totaling M\$ 546 billion (\$40 billion) at 9/30/09. We believe the government would never allow PEMEX to default on these obligations.

CHALLENGE OF RESERVES AND PRODUCTION GROWTH

PEMEX is Mexico's sole producer and marketer of crude oil, natural gas and refined products. Despite massive proven hydrocarbon reserves, the dual legacies of high taxation and under-investment have resulted in a declining reserve and production profile and deteriorating energy infrastructure. PEMEX has not replaced production for many years and crude oil reserves have declined steadily in tandem with the sharp decline of the giant Cantarell oil field. PEMEX's total one-year reserve replacement increased to 72% in 2008, up from 51% in 2007, adding over 1 billion barrels in revisions and discoveries from the KMZ fields and other sources, including natural gas. Three-year average reserve replacement was 54%, primarily from revisions. The company's goal is to achieve 100% replacement on a proved reserves basis by 2012, a task that will be made more difficult by continuing difficulties in developing the Chicontepec field.

Cantarell production has continued as sharp decline from peak levels of 2 million bpd in 2005 to an average 653,476 bpd in 2009. The third quarter production declined even more to average about 582,000 bpd. The field thus contributes about 25% of total crude production, versus more than 60% at peak, with the decline only partly offset by the significant increase in production from the KMZ fields. Cantarell continues to undergo nitrogen injection and faces higher production costs.

Major developments in various fields such as KMZ and Chicontepec are intended to gradually offset Cantarell declines. However, Chicontepec (an area that has been slightly enlarged and is now known as ATG) is a technically challenging, fractured reservoir and is highly drilling intensive. It is estimated to have about 17.4 billion barrels in place, but the recovery factor of 5%-9% is much lower and to date has shown low well productivity. Investment in ATG will be about M\$ 22 billion in 2009 (US\$ 1.7 billion) and will decline slightly to about M\$ 21 billion in 2010, with the number of wells to be developed per year in the area of 600-800 wells. Original plans to drill 1,000 wells annually have been cut as the company plans to conduct pilot testing on a number of new technologies designed to increase well recovery. Growth in production from the Chicontepec is critical to PEMEX's plans to stabilize its production profile in the medium-term.

Exploration of the deepwater Gulf of Mexico provides the greatest prospects for PEMEX's future reserves growth. At this juncture, the company lacks deepwater expertise and exploration and seismic work are in an early phase that will require years of investment and development, with first production projected for 2014. Although the company has increased exploration there, with twelve wells drilled it has produced only limited potential commercial success to date, mostly in natural gas. PEMEX has three additional

deepwater rigs scheduled for delivery in 2010.

BENEFITS AND CHALLENGES OF ENERGY REFORM IMPLEMENTATION

Tax reform in 2007 and 2009 and the passage of energy reform in October 2008 indicate that PEMEX's need to retain capital and reinvest to grow production has gained more widespread recognition across party lines. The reforms will directly affect PEMEX's operations, governance, and investments. They include provisions that will allow greater autonomy for PEMEX in setting its budgets, higher retentions of windfall oil revenues for internal investment, and new forms of incentive-based contracts.

The incentive-based service agreements were created to target Chicontepec and the deepwater, which are intended to attract foreign companies to come in and explore and be compensated on a fee basis for successful production. They are largely intended to attract capital and expertise to Chicontepec and the deepwater. The contracts are under development and are expected to be introduced in 2010. It is not clear whether they will be of real interest to the major oil companies, given the lack of equity ownership in reserves and potential financial risk on dry holes. Moreover, the constitutionality of such contracts is still under scrutiny given the prohibition on foreign ownership of reserves.

While the energy reforms have increased PEMEX's autonomy and ability to control its budgets, the reforms fell short of more far-reaching changes that would help promote hydrocarbon exploration and development, particularly in the deepwater Gulf of Mexico. In particular, the upstream production sector will remain off-limits to production sharing or other forms of equity ownership that would promote accelerated investment, relying instead on the new incentive based contracts. Most of PEMEX's other operations, such as refining, will also remain closed to foreign investment or ownership.

CAPITAL SPENDING ON INCREASING TREND

PEMEX's capital spending trend is positive, with investment up significantly from very low levels in 2002 and further benefiting from tax reform that reduces royalties through 2012 to allow the company to retain higher levels of cash for internal investment. The energy reform package also introduced a modified lower tax regime for the Chicontepec and offshore deepwater. The company estimates that capital spending will be about \$19.5 billion in 2009 and the government recently approved the 2010 capital budget of \$20.4 billion, or a 5% increase in peso terms, with 84% to be spent in the upstream, including major investments to stem the Cantarell decline and for development in the KMZ and CLM oil fields, as well as non-associated gas in the Burgos basin.

PEMEX still needs to import about 29% of the petroleum products consumed in Mexico, so a major downstream focus is on new capacity to produce higher quality refined products and back out imports. It has slated substantial downstream investment of \$9 billion for 2010-2012, including \$2.2 billion in 2010, about 12% of the total budget, to increase heavy oil processing capacity and to gradually reduce dependence on product imports. These investments include a major upgrade of the Salamanca refinery, as well as for increased diesel and clean fuels production. PEMEX is also proceeding with plans for a new 300,000 bpd refinery at Tula to help reduce reliance on gasoline imports. The refinery is estimated to cost \$9 billion, with basic engineering studies to begin in 2010 and beginning of construction in the 2012 time frame.

STRONG GOVERNMENT SUPPORT AND LINKAGE

PEMEX's debt is not guaranteed by the government or any other government-related entity. However, an assumption of high government support in the event of distress reflects PEMEX's role as a symbol of national sovereignty, its significant contribution to government revenue at about 40% of total fiscal revenues, and its position as a major source of employment, exports and foreign currency reserves. As a result we believe that in a distress situation the government would support PEMEX's debt, including its pension obligations. As a government entity, it is rated according to Moody's government-related issuers (GRI) methodology. PEMEX's Baa1 global local currency rating reflects a baseline credit assessment (BCA) of 11 (equal to Ba1), and a high level of dependence and support from the government.

Liquidity

PEMEX's high debt level entails a significant amount of refinancing, and its capital spending, particularly in a lower price environment, could result in debt increases. The company manages its liquidity to keep a substantial amount of cash on the balance sheet, at about \$13.3 billion as of 9/30/09. Committed bank facilities include a \$2.5 billion syndicated revolver, approximately \$1.4 billion equivalent in multi-year bilateral facilities established in 2009, and \$765 million of bank export credit lines.

As a result of energy reform, the company has more flexibility to adjust its capital spending and to issue debt. Scheduled debt maturities are fairly heavy at over \$6 billion equivalent (offshore and peso denominated) in each of 2010, 2011 and 2012. We have noted in the past the risk that PEMEX could at some point meet market resistance to the large amount of debt it needs to issue. However, with improving market conditions the company has been actively financing in 2009, having issued approximately \$7.7 billion in the first ten months, including local CB issuance, as well as U.S. dollar, sterling and Euro financings in a move to diversify funding sources. The company is also exploring the potential issuance of "citizen bonds" in 2010, which would be issued domestically to Mexican funds and individuals. The bond return would be tied to PEMEX's financial performance, but would grant no voting rights to holders.

Rating Outlook

The outlook for PEMEX's Baa1 global local currency rating and Baa1 foreign currency bond rating is stable. While the company is highly leveraged and taxed, we believe its need to retain capital and to reinvest to grow production has gained more widespread recognition across party lines, leading to recent tax reform. While we see little chance for significant private investment in the Mexican oil sector anytime soon, our outlook depends on the company's ability to fund its capital without further significant leverage increases, at least in the near term.

What Could Change the Rating - Down

A further decline in PEMEX's baseline credit assessment stemming from a material increase in its financial leverage, or further significant deterioration in its production outlook could affect PEMEX's ratings. We will continue to monitor the implementation of

energy reform, including developments around the incentive contracts, and the impact of the cut back in investment in Chicontepec, which was expected to be a major source of production growth. If we were to reduce PEMEX's BCA, it would affect the GLCR and in turn the FCBR, at which point both would be rated below the sovereign.

What Could Change the Rating - Up

An upgrade is not likely at this time. In the longer term, stronger cash flow retention and an improving reinvestment and production profile could lead to a higher BCA.

Other Considerations

Methodology Comment: We use the integrated oil methodology to analyze PEMEX, comparing the methodology-implied rating outcome to its BCA of 13 (equivalent to Ba1). The integrated methodology yields an indicated rating of Baa1 (LTM 9/30/09) versus its current BCA. Including the impact of Factor 6, which notches the rating to reflect the negative impact of government reliance of PEMEX for its fiscal revenues, the methodology outcome is B1, versus its current BCA. The methodology generally reflects high metric scoring on the scale of PEMEX's reserves, production and benefit of integration, but also its lower reinvestment metrics and high financial leverage. These metrics are historically-based and do not reflect potential increases in capital spending and financial leverage in 2009 and beyond.

Moreover, the integrated methodology and BCA do encompass Mexican regulatory and economic risks that affect the company's day-to-day operations, or directly capture transfer or currency convertibility risk. PEMEX's Baa1 global local currency rating derives uplift from high dependence (default correlation) and high imputed government support. Its Baa1 foreign currency bond rating reflects both the Baa1 global local currency rating and the degree of sovereign interference anticipated in times of stress. Please refer to Moody's January 2005 Special Comment, "Piercing the Country Ceiling: An Update," and to the July 2006 GRI update on the expanded BCA scale.

Rating Factors

Petroleos Mexicanos

94100

Integrated Oil & Gas Industry	Aaa	Aa	A	Baa	Ba	B	Caa
Factor 1: Reserve & Production Characteristics (25%) [1][2]							
a) Average Daily Production (Mboe/d)	3,719						
b) Total Proved Reserves (Million boe)	13,982						
c) Total Proved Reserve Life (years)			10.3				
Factor 2: Re-Investment Risk (10%) [1][2]							
a) 3-Year All-Sources Reserve Replacement							53.5%
b) 3-Year All-Sources F&D (\$/boe)			\$12.78				
Factor 3: Operating & Capital Efficiency (10%) [1][2]							
a) Return on Capital Employed (ROCE 3-year average)	114.2%						
b) Leveraged Full-Cycle Ratio			2.40x				
Factor 4: Downstream Rating Factors (15%) [1][2]							
a) Total Crude Distillation Capacity ('000 bpd)			1,540				
b) # Refineries with Capacity > 100 M bpd			6				
c) Segment ROCE (3-year average)							X
Factor 5: Financial Metrics (30%) [1]							
a) Retained Cash Flow / Net Debt (3-year average)			53%				
b) EBIT / Interest Expense (3-year average)				6.89x			
c) Gross Debt / Total Proved Reserves					\$6.94		
d) Gross Debt / Total Capital							191.7%
Factor 6: Geographical/Geopolitical Risk Diversification (10%)							
a) Government Fiscal Dependence				6			
Rating:							
a) Assigned BCA Rating					11 (Ba1)		
b) Methodology-Implied Rating					B1		

[1] Standard adjustments in accordance with "Rating Methodology: Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations, Part 1 (February 2006)." In addition, Moody's adjusts for one-time items. [2] As of 9/30/2009 LTM



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