

# MOODY'S

## INVESTORS SERVICE

### Credit Opinion: **Petroleos Mexicanos**

Global Credit Research - 11 Feb 2014

Mexico, Mexico

#### Ratings

Category	Moody's Rating
Outlook	Rating(s) Under Review
Issuer Rating	*Baa1
Senior Unsecured	*Baa1
NSR Senior Unsecured -Dom Curr	Aaa.mx
NSR BACKED Senior Unsecured -Dom Curr	Aaa.mx

\* Placed under review for possible upgrade on February 6, 2014

#### Contacts

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

#### Key Indicators

Petroleos Mexicanos[1]	9/30/2013(L)	12/31/2012	12/31/2011	12/31/2010	12/31/2009
EBIT / Book Capitalization	49.9%	57.6%	58.6%	66.2%	71.2%
EBIT / Interest Expense	10.7x	14.8x	11.8x	6.7x	5.0x
Retained Cash Flow / Net Debt	6.9%	9.4%	10.3%	10.4%	6.2%
Gross Debt / Total Capital	119.3%	113.5%	92.8%	118.3%	134.7%
Gross Debt / Total Proved Reserves	\$11.61	\$11.65	\$8.63	\$8.65	\$8.61
Total Proved Reserve Life (Yrs)	10.4	10.3	10.2	10.1	10.2

[1] All ratios are calculated using Moody's Standard Adjustments. Source: Moody's Financial Metrics

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

#### Opinion

##### Rating Drivers

- \* Improved reserves and production growth prospects
- \* Rising capital spending trend
- \* High fiscal burden and elevated financial leverage

- \* Energy reform carries big benefits but also implementation risk
- \* Government related issuer with strong implied government support

## **Corporate Profile**

Petróleos Mexicanos (PEMEX) is the state oil company of Mexico. Its monopoly status will change with the implementation of energy reform, but the company will remain the dominant energy player in Mexico, with fully integrated operations in oil and gas exploration and production, refining, distribution and retail marketing, pipelines and petrochemicals. PEMEX is also a leading crude oil exporter, with 48% of its crude exported and about three-fourths of its exports going to the US in 2013.

## **Rating Rationale**

PEMEX's Baa1 foreign currency and local currency ratings reflect the company's sizable 13.9 billion BOE of proved hydrocarbon reserves (year end 2012), and oil and gas production averaging about 3.7 million BOE/day (September 30, 2013), its dominant role and integrated operations in the energy industry in Mexico, and its position as a leading crude oil exporter to the US. The ratings factor in strong implied support and uplift from the government of Mexico (government bond rating upgraded to A3, stable outlook, in February 2014) using joint-default analysis. However, the ba1 baseline credit assessment (BCA) also factors in the company's heavy tax burden, high financial leverage and production growth challenge.

PEMEX's ratings are under review for upgrade, following the sovereign upgrade to A3 from Baa1. While PEMEX's ratings are likely to remain closely linked to the government's ratings, Moody's will look at whether the underlying assumptions of very high implied government support and default correlation with PEMEX will change as a result of the energy reform. The review will incorporate the government's higher rating and the impact of energy reform on PEMEX's operating and financial profile. We will also evaluate PEMEX's BCA, taking into account among other factors its future reserves and production growth profile, investment strategy, capital spending level, highly leveraged capital structure and changes in its tax burden.

## **DETAILED RATING CONSIDERATIONS**

### **IMPROVED RESERVES AND PRODUCTION GROWTH PROSPECTS**

Despite massive proved hydrocarbon reserves and resources, PEMEX is burdened by high taxation and a legacy of under-investment that has hurt reserves and production growth. However, PEMEX has been increasing upstream spending to grow reserves and stabilize production, focusing on its traditional core offshore and onshore Southeastern Basins, which can be developed and produced at competitive costs.

Since 2011, PEMEX has achieved full reserve replacement of proved reserves from conventional shallow fields, the KMZ fields and other sources, including natural gas. With its ramp up in exploration, the company expects reserve replacement to exceed 100% for the next few years. Total production has largely stabilized over the past few years, averaging 3.7 million BOE/day in the first nine months of 2013. Total crude and NGLs production averaged 2.6 million bpd and is expected to be flat to slightly growing through 2015, primarily reflecting rising production from the KMZ complex and other smaller fields to offset embedded field declines. The company has an ambitious crude production target of 3 million bpd by 2018 from conventional oil and gas development, a challenge given its embedded field declines. Natural gas production has been flat to down slightly, averaging 5.67 BCF/day, as a result of reduced drilling in Burgos and Veracruz due to low gas prices and core field declines.

PEMEX's core Southeastern Basin will remain its most important producing area for the foreseeable future. KMZ is the largest producing complex with crude running at plateau rates of 859,000 bpd following a staged field development program, along with light crude from the offshore Litoral de Tabasco, and other fields such as Ixtal-Manik and Delta del Grijalva. The Cantarell field continues its decline, producing about 445,000 bpd, but its relative importance to PEMEX has also shrunk, contributing about 17% of total crude output, down from a peak 2.1 million bpd in 2004.

The deepwater Gulf of Mexico and unconventional shale resources provide the greatest prospects for long-term reserves and production growth for PEMEX, but they also present major capital, development and technology challenges. While PEMEX is increasing its deepwater exploration spending and has had several significant oil and gas discoveries, much its future success will hinge on energy reform in Mexico and its impact on attracting foreign investment to the energy sector.

### **CAPITAL SPENDING ON INCREASING TREND**

PEMEX's legacy of underinvestment has changed in recent years, with a significant step up in capital spending since 2012 and government approvals of increasing budgets. The pending energy reform should give PEMEX more autonomy and further de-link it from the annual state budget process, but the extent to which fiscal reform will leave more capital available to PEMEX remains unclear. PEMEX's capital spending in 2014 is budgeted at \$27.7 billion (all currency in US dollars unless otherwise noted) up 6.5% over \$26 billion in 2013, and more than 50% over the average spending of \$18 billion for 2007-2011. PEMEX is targeting further increases to the range of \$29-\$31 billion in 2015 and beyond. PEMEX's capital spending is typically back-end loaded during the year, as indicated by capital spending of M\$218 billion in the first nine months of 2013, or about 66% the total for the year.

About 82% of PEMEX's spending in 2014 will be allocated to the upstream and 13% to refining and marketing. The largest portions of upstream investment will be for the Southeastern basins where Cantarell and KMZ are located, with higher spending also slated for exploration in the deepwater Gulf and unconventional shale in northern Mexico, and development of the complex Chicontepec (ATG) field.

Downstream investment is driven by the mismatch between PEMEX's lighter refining capacity and an increasingly heavy crude barrel, and by a need to reduce dependence on product imports, with PEMEX importing about one-third of the petroleum products consumed in Mexico in 2013. In the downstream, the company is investing in clean diesel and gasoline, including increased conversion and heavy oil processing capacity at the Salamanca refinery, as well as Cadereyta and Minatitlan. The greenfield refinery at Tula, which would produce 350,000 bpd of low sulfur diesel and gasoline, is a giant \$12 billion project in design stage but it appears to be stalled, with startup uncertain but likely in the 2017 timeframe.

#### 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 its heavy tax burden and the prohibition on foreign equity ownership of reserves and production. In the first nine months of 2013, the company paid 82% of its \$61.1 billion EBITDA and 116% of its \$50.6 billion of pre-tax income in taxes and hydrocarbon duties, and reported a net loss of \$6.8 billion.

With capital spending on an increasing trend and exceeding cash flow from operations, PEMEX was cash flow negative after capital spending through September 30, 2013, with total debt up 2.7% to \$62.1 billion and debt net of cash up 4% to \$53.3 billion. For the full year, the company estimates total debt to be up by \$4.8 billion after \$6.2 billion of amortizations, and its cash position reduced to \$4.5 billion from \$7.4 billion at the end of 2012. In 2014, the company estimates it will need to issue \$14.7 billion of debt, financing primarily in international bond markets and to a lesser extent in the domestic market and from banks and export credit agency lines.

One of the most important components of the reform package to be considered in the secondary legislation will be tax changes that transition PEMEX away from the current hydrocarbon tax regime levied on PEMEX E&P to a more typical corporate tax and dividend to support its shareholder. Fiscal reform could reduce PEMEX's tax burden and net losses if the net government take is meaningfully reduced and leaves more for PEMEX to reinvest, but the ultimate form and extent of the tax changes are unclear and are likely to take several years to implement.

PEMEX also has sizable pension obligations (M\$1.3 trillion or \$103.6 billion as of September 30, 2013), an amount well in excess of its funded debt. The adoption of international accounting standards (IFRS) contributed to the large increase in the reported liability, reflecting in part a lower mandated discount rate. The government does not guarantee PEMEX's pension liabilities but we believe it would not allow PEMEX to default on these obligations. Pension reform is likely to be on the agenda as a component of the energy reform, but will probably not be addressed until 2015. Pension reform is likely to involve reductions in benefits for new employees, but without affecting the benefits of current employees and retirees.

#### BENEFITS OF ENERGY REFORM BUT IMPLEMENTATION RISK

Mexico's congress voted in December 2013 on major energy reform proposals that will help transform PEMEX as well as the energy sector over time. The most important change under the new law is the end of PEMEX's monopoly status and its re-creation as a "productive enterprise," or commercial company. The reform also will reconfigure and make the board more independent, establish a range of contract structures to attract private investment both in the upstream and downstream, and open up PEMEX to a more standard corporate and dividend structure. It appears that the new upstream contract structures will have provisions to allow private companies to book reserves (even though they remain assets of the state), removing a major impediment to earlier attempts to spur private investment in oil development in Mexico.

Energy reform will broaden the range of models for investment in Mexico, from the pre-existing service contracts to profit sharing contracts to production sharing and licenses. Production sharing or other licensing arrangements between the state and private oil company, where the company can be paid in cash and oil, are likely to be more attractive to international oil companies, particularly in higher risk areas such as the deepwater Gulf, unconventional shale, or even the complex Chicontepec field. In some cases PEMEX could enter into the contracts and bid jointly with private partners. The new structures will be a key step in attracting major oil companies and their technology. The features of the new structures will be developed in early 2014.

We see the reforms moving forward in 2014 with little chance that they will get derailed. Still, public protests from the left are bound to continue, and implementation risk poses a major challenge, even in the face of widespread support for the reform initiatives. PEMEX's culture and entrenched interests will need to evolve, and more gradualist forces could come into play. The government will need to clarify a whole regulatory framework and the roles and responsibilities of institutions such as the National Hydrocarbons Commission, the finance ministry and the energy ministry as the reform is implemented.

#### **STRONG GOVERNMENT SUPPORT AND LINKAGE**

PEMEX's debt is not guaranteed by the government or by any other government-related entity. However, it is rated according to Moody's government-related issuers (GRI) methodology. PEMEX's Baa1 global local currency rating (GLCR) reflects a baseline credit assessment (BCA) of ba1, with uplift based on a very high level of imputed government support and dependence (default correlation). We assume high government support in the event of distress, reflecting PEMEX's role as a symbol of national sovereignty, its significant contribution at about 35% of total government fiscal revenues, and its position as a major source of employment, exports and foreign currency reserves.

The rating review will incorporate the government's higher rating and the impact of energy reform on PEMEX's operating and financial profile. We continue to view PEMEX's credit risk as closely linked to the government but also recognize that the scope of the energy reform and loss of its monopoly status could result in changes in our assumptions on support and dependence.

#### **Liquidity**

PEMEX's high debt levels and amortizations entail significant refinancing risk, though both domestic and international markets remain receptive to the company. PEMEX keeps a substantial amount of cash on the balance sheet, at about \$8.8 billion as of September 30, 2013. Committed bank facilities include two syndicated revolvers of \$1.25 billion each, due in 2013 and 2017, M\$ 10 billion of peso bank borrowing facilities, and various bank export credit lines, including US EXIM bank and a \$2 billion Korean EXIM Bank line established in late 2013. Scheduled debt amortizations are substantial at \$5 billion in 2014.

PEMEX will be active in both the international and domestic markets to cover cash flow deficits and debt amortizations. PEMEX has maintained good access to domestic and international markets, raising funds in US and Australian dollars, Euros, Yen, sterling, and Swiss francs, as well as via domestic issuance and export credit agencies. The company is targeting international bond markets for 25%-40% of its expected \$14.7 billion financing program in 2014, and will also do significant issuance in the domestic peso market under a certificades bursatiles program. Given the large amount of debt it needs to issue, PEMEX could face increased financing risk if it meets market resistance at some point in the future.

#### **Rating Outlook**

Both the local currency and foreign currency bond ratings are under review for upgrade.

#### **What Could Change the Rating - Up**

Our rating review will assess PEMEX's BCA and the impact of reform on its governance, budgeting and capital spending, and prospects for growing reserves and production. It will also consider whether the reforms can measurably reduce PEMEX's tax burden, provide more effective structures to attract outside investment, and support higher levels of capital spending and internal funding in the medium-term. These conditions will be necessary for PEMEX to reduce its dependence on debt funding and improve its elevated leverage profile.

#### **What Could Change the Rating - Down**

A material increase in financial leverage or significant deterioration in production could affect PEMEX's BCA and debt ratings. A downgrade of the Mexican government's rating could lead to a downgrade of PEMEX's ratings.

## Other Considerations

Methodology Comment: The integrated oil methodology yields an indicated rating of Baa2 (LTM 9/30/13) vs. PEMEX's BCA of ba1. The methodology outcome reflects its large-scale operations, but also high financial leverage. PEMEX's BCA and debt ratings reflect the impact of Mexican regulatory risks on day-to-day operations. Factor 6 on Government Fiscal Dependence could change over time as a result of reform. However, it notches the ratings for the negative impact of the government's fiscal reliance on PEMEX, with an outcome of Ba3.

## Rating Factors

### Petroleos Mexicanos

Integrated Oil & Gas [1][2]	LTM as of 9/30/2013		[3]Moody's 12-18 Month Forward View
<b>Factor 1: Reserves &amp; Production Characteristics (25%)</b>	Measure	Score	Score
a) Average Daily Production (Mboe/d)	3570	Aaa	Aaa
b) Proved Reserves (Million boe)	13543	Aaa	Aaa
c) Total Proved Reserve Life (Yrs)	10.4	A	A
<b>Factor 2: Re-Investment Risk (10%)</b>			
a) 3-Year All-Sources Reserve Replacement	96%	Ba	Ba
b) 3-Year All-Sources F&D Cost (\$/boe)	\$10.8	Aa	A
<b>Factor 3: Operating &amp; Capital Efficiency (10%)</b>			
a) Return on Capital Employed (ROCE) (3 Year Avg)	63.3%	Aaa	Aaa
b) Leveraged Full-Cycle Ratio	5.3x	Aaa	Aaa
<b>Factor 4: Downstream Rating Factors (15%)</b>			
a) Total Crude Distillation Capacity ('000 bpd)	1690.0	A	A
b) # of Refineries with Capacity > 100 M bpd	6.0	A	A
c) Segment ROCE (3 Year Avg)	-58.8%	Caa	B
<b>Factor 5: Financial Metrics (40%)</b>			
a) Retained Cash Flow / Net Debt (3 Year Avg)	-1.5%	Caa	B
b) EBIT / Interest Expense (3 Year Avg)	10.4x	A	Baa
c) Gross Debt / Total Proved Reserves	\$11.6	Caa	B
d) Gross Debt / Total Capital	119.3%	Caa	Caa
<b>Rating:</b>			
Indicated Rating from Grid Factors 1-5		Baa2	
Notching for Government Fiscal Dependence		4	
Indicated Rating from Grid		Ba3	
Actual Baseline Assigned		ba1	

Government-Related Issuer	Factor
a) Baseline Credit Assessment	<b>ba1</b>
b) Government Local Currency Rating	<b>A3</b>
c) Default Dependence	<b>Very High</b>
d) Support	<b>Very High</b>
Final Rating Outcome*	<b>Baa1</b>

[1] All ratios are calculated using Moody's Standard Adjustments. [2] Based on financial data as of 9/30/2013; Source: Moody's Financial Metrics [3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

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