
Mexico: positioning for a transformational upstream opening in 2015

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Introduction

Since the late 1800s, Mexico has been a prolific, predominantly light oil producing region; its development has mirrored the initial oil booms (which were occurring at the same time) on its borders in California and Texas. Mexico has multiple established billion barrel-sized fields onshore and offshore, with reservoirs having high production rates throughout several key regions.

In 1937 the government took over the petroleum industry, creating the state-owned monopoly PEMEX as the country's sole oil and gas producing company and investor. Over the last two decades PEMEX has developed a large portfolio onshore and in shallow

water, underpinned by attractive low costs and P1 P2 P3 reserves. However, it is estimated by CNH, the Mexican upstream regulator, that there are over 260 fields that are in decline or underdeveloped and in need of investment. These reserves lack the traditional development investment programmes that are successfully being implemented in the USA including: down spacing, stimulation and enhanced oil recovery (EOR) methods, deeper drilling technologies and completion methods including the horizontal drilling and fracking so popular and successful in its northern neighbour. Mexico's proven base of resources is quite unique and within the top 10 on a world scale relative to other

international emerging areas that have received high investment interest over the last five years, such as Uganda, Kenya, Tanzania, and Morocco. Mexico is set to become one of the most attractive new emerging areas in the E&P industry.

Several factors – such as the recent (2004–12) 25 per cent reduction in internal country production levels, an increase in consumer demand for refined products and increase in gas and oil imports, the success of the US shale boom, and a need to increase

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long-term GDP growth – have required the government to re-evaluate its long-held energy strategy. When compared with the higher growth attained in other major oil-producing environments in the Latin America–South American region which enjoy investor-friendly regulatory systems (such as Brazil, Colombia, and Peru) Mexico’s service contract model, in place prior to 2014, has not yielded the results expected.

In the recent landmark, far-reaching energy reform process, Mexico revised its Constitution and created significant structural changes across a short time frame that allowed for private investment in the energy sector for the first time since 1937. This followed a proven model which sets apart well-defined institutions to handle the various roles. A well-organized ministry (SENER) supported by the upstream regulator CNH conducting a transparent and open bid process initiated in 2014–15, will allow foreign investors to participate in a world-class hydrocarbon province. This is a timely and fortuitous move for both the Government of Mexico and investors alike. Mexico will benefit from growth in production via investment in both production (in existing mature fields) and exploration.

On 13 August 2014, Mexico announced the first upstream licensing round for private participation. This process includes two primary sets of opportunities: JV opportunities with PEMEX, and exploration and development opportunities without PEMEX. The JV opportunities with PEMEX include 2.6 billion barrels of oil equivalent of 3P reserves and close to 81 thousand barrels per day of production across various assets including: deepwater discoveries (both oil and gas), extra-heavy oil fields (shallow water and onshore), and large mature fields (EOR potential). Standalone opportunities (without PEMEX) include: 39 deepwater

exploration blocks, 70 unconventional exploration blocks, and 60 developed fields across 28,500 square kilometres (11,000 square miles).

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CNH estimates the value of investment for the assets in Round 1 (including PEMEX ‘farmouts’ or JVs) to be US\$12.6 billion a year, representing a total of US\$50 billion over a four year time period (2015–18). With the bid round in 2015, operators will kick off work programme activities from 2016 onward, with likely expected growth in production as early as 2018 anticipated by Morgan Stanley (September 2014). The figure is expected to reach 3.0 mb/d (million barrels a day) in 2018, (up from 2.5 mb/d), and 3.5 mb/d in 2025 for new ‘green’ fields. Similarly, gas production is estimated to grow from 5.7 bcf/d to 8 bcf/d in 2018, and up to 10.4 bcf/d in 2015.

The future players in Mexico

After the reform, PEMEX is now a peer and competitor to the oil and gas industry in Mexico. However, it is expected that PEMEX will maintain its dominant position through retaining key production and exploration areas as part of Mexico’s Round 0 process. Mexico’s proven oil environment should attract a high level of competition for the upcoming Round 1 assets, and beyond, which will change the landscape. Mexico represents not only a new country opening, but new basin opportunities and technological play. This increased competition will mainly come from seven principal groups.

1 *Traditional Majors* who are currently looking to reset in lower-risk proven high-potential reserve base off the back of rationalizations programmes,

and who seek expansion primarily to their deepwater portfolios in relatively lower risk environments.

2 *NOCs* that are seeking to expand their portfolios, either to meet rising demand at home or simply grow their upstream business as part of internationalization programmes.

3 *Regional and US Independents* who are cash rich off the back of strong unconventional oil success in the USA or Colombia, their own recent non-core asset rationalizations, five years of steady balance sheet strengthening from US\$100/barrel oil pricing, and who are looking for the next best place to go that mirrors their investor friendly focus in the USA.

4 *Private Equity backed players* who have, since the 2008/9 crash, found investors willing to build companies privately up to materiality rather than suffer illiquidity issues in the historically difficult start-up markets of TSX and AIM; this is a somewhat newer force coming to the table, with large long-term capital commitments needed to secure these higher stake initial value assets with proven reserves as well as undertake exploration opportunities.

5 *Local Mexican companies* with management teams that have expertise in E&P and the service sector that can be combined to re-position historical service sector players into upstream players.

6 *Service Companies* primarily from the USA and Canada taking advantage of their well-established proprietary technologies and expertise in conventional and unconventional methods to satisfy the upcoming increase in demand for services and products.

7 *Other players*, such as trading companies and integrated refineries with growing E&P portfolios that focus on niche markets.

Moves by a range of the above types of companies are happening now in Mexico. Morgan Stanley estimates local and international energy companies could ultimately drive capex to more than double by 2020, from US\$25 billion today.

In order to be successful independently, or in partnership with PEMEX, companies must develop not only key differentiators in technology, operational efficiency, efficient capital deployment, and enhanced production methods in this oil proven environment (with high P1 P2 P3 numbers in assets being offered) but also establish mid-to long-term sustainability through a focused technical approach to understanding the ongoing and still-developing reform process and regulatory environment, as well as Mexican social and cultural ideas. The companies that can position themselves wisely in the early stages of this important opening will benefit from building a material base early (including mature fields and exploration acreage) and developing strong drilling portfolios, a reserve base, and production growth.

Capital markets and M&A environment: North America in focus

Prior to 2014, following the 2008/9 crash, investors wanted to make up their losses and assumed higher risk portfolios in the general oil and gas asset market. At this time the market was giving a premium to explorers like Tullow, Anadarko, Africa Oil, Ophir, and others who were making significant gains in Africa. This trend, however, changed in 2014 as investors, attracted to recent success stories of low-risk bread and butter development plans of companies such as Continental and Pioneer in the USA, shed their appetite for international risk. International buyers (primarily NOCs) have also stopped buying – their share is down

to only 30 per cent of total deal activity.

‘NORTH AMERICA CONTINUES TO DOMINATE THE MARKET, WITH US\$85 BILLION IN TRANSACTIONS TO OCTOBER 2014.’

According to a study (Derrick- MA activity 2014) the MA market hit a low in 2007 with a combined activity of US\$151 million. In 2010, the market went up to US\$212 million then retreated in 2011 to US\$173 billion. A peak in activity in 2012 of US\$275 billion was followed by a five-year low in 2013 of US\$141 billion, but 2014 is set to finish strongly with projected total activity of US\$198 billion. This growth comes with a renewed focus on core assets, with money becoming available in the first half of 2014 for asset purchases. However, the second half of 2014 and into 2015 is characterized by weaker oil prices and asset rationalizations by majors.

North America continues to dominate the market, with US\$85 billion in transactions to October 2014 (Energy Intelligence). A strong buyers' market continued in tight unconventional oil plays in the USA, with high activity from Bakken shale to Texas. So then the question becomes: where do these independents and majors go now, and where is the next big thing? Active buyers are cash-rich PE/non-traditional buyers, ex-Middle East, or small independents looking to build critical mass.

Emergence of private equity: implications for Mexico

The small independents and new players have traditionally led the charge into new countries, de-risking the main plays and creating substantial value to investors and host countries. Since 2009 some small independents have fallen out of favour with investors due to over-weighted risk profiles and

illiquidity in the volatile markets; they have therefore not been able to raise fair-priced equity. The AIM EP LSE AIM Oil and Gas Index has fallen by 40 per cent in the last five years (since 2007) over a period where the Brent oil price has increased by 16 per cent. A new source of capital is needed.

According to Richmond Energy Partners (REP) in an August 2013 study, only one in 15 companies managed to sustain a market capitalization figure of US\$500 million (US\$500 million market cap). Three were acquired, one grew four-fold, and the remaining shrank by 50–95 per cent. Of the 103 companies smaller than US\$500 million market cap only seven are now at or larger than US\$500 million market cap. Those that grew had a single success factor, they focused on one country. Sweet spots for these companies and subsequent investor support include production reaching a level of 18 to 40 kb/d, and reserves of 120 to 220 mb. Some of these companies had reserves prior to 2007 but the growth is approximately three to five times (singled out as the biggest factor of success) the production figure over the period, and between two and ten times the figure for reserves. Equally in order to build these production portfolios successful companies managed a higher rate of debt vs equity. The study goes on to point out several themes:

- Higher capitalized companies initially fare better – it takes a billion to make a billion or more.
- Companies should be focused geographically.
- Acreage is proven with room to grow reserve base organically.
- Discoveries should be brought to production quickly and cheaply to recycle cash flow into exploration appraisal.
- Management teams should be able to access debt markets.



- Successful assets are attractive for early exit geographically and commercially.

As of April 2013 it is estimated that a figure of over US\$50 billion ‘firepower’ has been targeted for oil and gas investment by private equity, creating ‘powder’ of over US\$56 billion. Notable recent moves by PE include:

- L1 Capital aims to invest US\$10 billion in oil and gas.
- Riverstone closed an oversubscribed US\$7.7 billion fund in June 2013, the biggest in its history; the fund will focus on the broad energy sector.
- In early 2013 EnCap closed its biggest fund, with US\$5 billion to be invested in the USA.
- KKR is raising a US\$1.5 billion fund for oil and gas in the USA.
- Carlyle is raising more than US\$1.5 billion for investments in Africa and Europe.
- Warburg Pincus closed its XI fund at US\$11.2 billion.

One potential driver of this increased interest by PE in oil and gas investment has been a period of relative price stability in oil prices and low volatility. It of course remains to be seen how the PE interest will be affected by the recent downturn in pricing of October 2014.

The model of capitalizing successful start-ups and growing an E&P company has changed. Private equity and its business model suit this new environment, having the capital strength, expertise, and connections to unique technical management teams and partnering companies for supporting efforts.

Exploration and production success: small is better

In March 2014 Bernstein Research reported that, dollar for dollar, larger companies struggle to bring the same

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amount of unrisks resource through to the drill bit as their smaller counterparts often do. Exploration budgets tend to be around 7 per cent of market cap, across the whole group in the Bernstein sample.

E&Ps’ exploration budgets (relative to their size) are three times larger than those of the majors; averaging 10 per cent of market capitalization for the smaller explorers, versus 3 per cent on average for the Integrated. For smaller E&Ps, targeted resource is a linear function of exploration budgets. On average, 200 million barrels of oil equivalent can be targeted per US\$100 million of exploration budget. But this ‘straight-line relationship’, according to Bernstein, flattens off considerably for larger explorers: US\$1 billion budgets fall short by 30 per cent, US\$2 billion budgets fall short by 40 per cent, and US\$4 billion budgets fall short by 60 per cent. The International E&Ps achieved a success rate of 55 per cent on average last year, which was –67 per cent inversely correlated with these companies’ market capitalizations. We believe this is driven by exploration that is more selective, from smaller, more capital-constrained E&Ps. Based on 2013–4 data, smaller explorers spent more heavily on exploration. For the money they spent, they were able to target more resource. And while targeting more resource, they may have been able to achieve better success rates, as a function of being more capital-constrained and selective.

For those new companies starting in Mexico, certain recent market fundamentals or benchmarks hold. Fundamentally the oil and gas business is about finding and developing reserves at the lowest possible cost and selling/marketing them at the highest possible price; in this manner

the State is also assured of making significant income. Strong correlation between enterprise value (EV) and 1P reserves exist, and there is an average reserve value of US\$16 per boe, with some variances geographically and oil vs gas fiscal terms etc. Most companies have a market value of 1.3–2.1 × their reserves value. This is in line with a value of probable 2P reserves, contingent resources, and exploration upside. The portfolio in Mexico, having P1 P2 P3 reserves, allows companies to come in on the curve sooner, and with potential higher resource value relative to other emerging countries or to asset opportunities available in other more risky frontier basins.

Global opportunity set: Mexico’s turn

For the period 2014–15 notable exploration bid rounds include Myanmar, another emerging area which is undergoing reform, with its first real offering in onshore (oil potential) and offshore (gas potential) blocks. For offshore, Myanmar released 60 blocks and received 64 competitive multiple bids from 36 different companies. Other international examples include: Liberia, which recently offered four blocks; Suriname three blocks; the North Sea with 17 blocks; Egypt with seven blocks; Oman with five blocks; and India with 35 blocks. Also rounding out the list internationally are Australia, Indonesia, and Thailand with annual bid rounds. A total of 40 bid rounds take place annually.

For comparison purposes in other North America bid rounds: Canada has had recent offerings in Newfoundland with six blocks having a total of 266 sq. km. In the USA, annual bid rounds continue in the Alaska and GOM; the East Breaks and Alaminos areas near the offshore USA–Mexico border having recently seen the recent Lease sale 238 of 4,026 blocks in Shelf areas.

For investors interested in Latin America, Colombia, a mature area having seen over 12 years of bid rounds, continues to offer and receive interest from majors and independents alike in onshore conventional, unconventional, and offshore deepwater acreage. However the recent offering of 95 blocks attracted only 26 bids in areas deemed to have not been de-risked, or with moderate perceived potential, and only one of the 18 unconventional blocks received a bid. Brazil's recent bid rounds received high relative interest in Equatorial Margin acreage offered and the pre-Salt acreage 'Libra Round', with winning bids from Total Shell CNPC and CNOOC. Brazil could continue subsequent rounds in 2015, provided its current deteriorating economy, its political process (mixed majority and wavering support), or recent Petrobras corruption scandals don't delay the round. Peru, a country that gets a lot of interest from a select group of independents, recently announced (in August 2014) a bid round in one Basin Talara 2 onshore large exploration areas.

Mexico is offering 169 blocks (including some 60 fields) in Round 1 and a material reserves and YTF portfolio that dwarfs anything else globally as an opportunity to access material positions in an emerging area with the additional benefits of proximity to the USA. Overall, in the Mexico round there is a total of 28,500 sq. km. with 2P reserves estimated by PEMEX at 3.8 billion barrels and prospective resources of 14 billion barrels.

| Blocks being offered in Mexico's Round 1 | | |
|---|-------------------------|------------------------------|
| <i>Area</i> | <i>Number of blocks</i> | <i>Average size (sq. km)</i> |
| Shallow water blocks | 43 | ~300-600 |
| Deep water blocks Area 1 | 11 | ~220-400 |
| Deep water blocks Area 2 | 17 | ~380-960 |
| Unconventional blocks | 8 | 112 |
| Onshore conventional blocks | 62 | 120 |
| Onshore field areas | 28 | ~35-311 |

Compared to what is available in the international marketplace, in principle this represents an attractive opportunity. Arguably, the deepwater blocks could be larger in size as well as the unconventional blocks, and some other features could be enhanced.

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'MEXICO OFFERS AN ATTRACTIVE PROFILE PROMISING LONG-TERM SUCCESS FOR MAJORS, INDEPENDENTS, AND WELL-CAPITALIZED, OVER-US\$500 MILLION START-UPS.'

Summary

Mexico offers an attractive profile promising long-term success for majors, independents, and well-capitalized over-US\$500 million start-ups. In addition to capital and capacitation, PEMEX and the regulatory bodies of Mexico are looking for technology-driven approaches to mature fields and underdeveloped field assets. Expert management teams that are able to bring this expertise, along with strong attention to exploration upside, are likely to be successful, as Mexico's mature fields

present unique challenges to industry. In today's environment of volatile oil price uncertainties in the Middle East and fluctuations in expectations of the world economy, success factors can be defined broadly as a combination of:

- 1 Well-qualified management team understanding local processes, cultural sensitivities, regulatory issues, and on the ground challenges.
- 2 Strong expert technical team with local and relevant international expertise to identify resource and operational improvement potential, in order to capture margin growth and reserves upside.
- 3 Significant financial backing greater than US\$500 million.
- 4 Early access and scale.
- 5 Capital discipline.
- 6 Importance of focus, pure play.
- 7 Material P1 P2 and P3 reserves in fields available.
- 8 Material size of acreage, 100-900 sq. km available in exploration blocks.
- 9 Extensive internally developed drilling inventories.

