



MAGUIRE ENERGY INSTITUTE

In Wake of YPF Seizure, Is Argentina a Good Investment?



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A brief history of the oil and gas industry in Argentina

In terms of natural resources, the nation of Argentina is one of the world's most richly endowed. This is particularly true when it comes to oil and natural gas. Both on-shore and off-shore, Argentina possesses huge reserves—some of which have already been tapped and others that are currently ripe for exploration and production.

Oil production in Argentina began more than 100 years ago, and in 1922 Yacimientos Petroliferos Fiscales (YPF) was established as the national oil company. Until 1980, private companies were prohibited from developing oil and gas resources in Argentina. But as a consequence of mismanagement and a lack of expertise, during the 1980s the Argentine government encouraged foreign investors to enter the market in an attempt to reinvigorate Argentina's declining oil production. In 1991, Argentina deregulated the oil and gas industry and converted its fiscal system to a tax and royalty structure. Then between 1993 and 1999, YPF was privatized with Repsol, a Spanish company, eventually acquiring 100 percent ownership.

Until 2002, hydrocarbon prices in Argentina were unregulated. But after the economic crisis and peso devaluation that year, the Argentine government imposed prices controls and other regulatory measures that significantly reduced industry profitability and, consequently, new investment. A tax of 20 percent was imposed on exports of oil, a rate that was raised to a maximum of 45 percent in 2004. Also in 2004, natural gas prices were frozen at the pre-peso devaluation price of 40 cents per mcf and a 20 percent tax was imposed on exports. Not surprisingly, at such a low price, coupled with an export tax, most domestic production became uneconomical and the country became a net importer of natural gas.

In April of 2012, the Argentine government announced it was taking back 51 percent of YPF from Repsol. President Cristina Fernandez de Kirchner justified the seizure by claiming

Repsol had failed to invest enough in YPF to bolster output, forcing Argentina to double fuel imports to \$9.4 billion in 2011. Repsol has demanded \$10.5 billion in compensation for the seizure, a figure the government has so far rejected. President Fernandez has also stated that the “new YPF” will actively seek partners to help it tap the nation’s oil and gas resources, especially in the country’s extensive shale plays.

An overview of Argentina’s hydrocarbon industry

As indicated in Figure 1, Argentina’s oil production peaked in 1998 and has declined in most years since. Last year’s output of about 750,000 barrels per day (bbd) was well below the peak of 900 bbd 13 years earlier. With total consumption continuing to grow, net exports of oil have declined rapidly.

However, natural gas production has only been in decline since 2009 (see Figure 2). But Wood Mackenzie is projecting future declines of both oil and gas output in Argentina through at least 2015. YPF, by far the largest energy company in Argentina, has accounted for most of the drop in oil and gas production in recent years (see Figure 3).

FIGURE 1

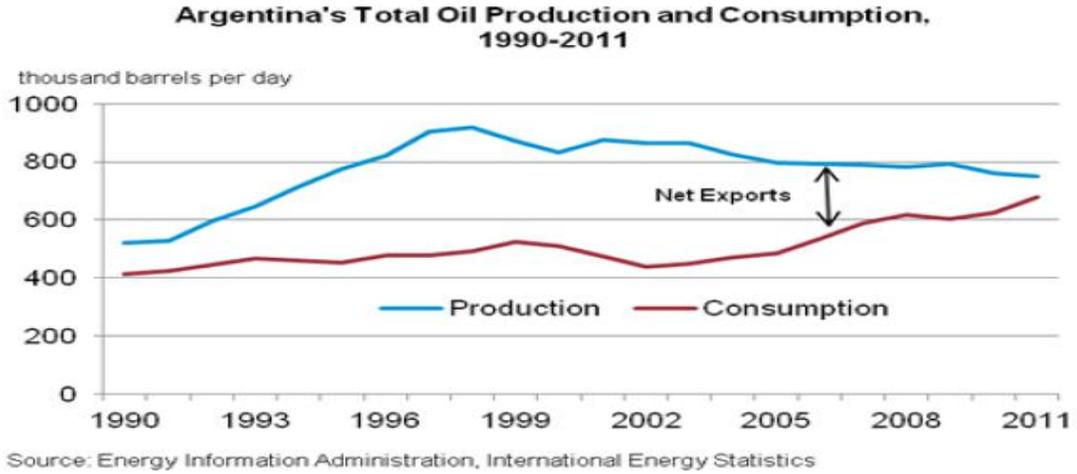


FIGURE 2

Figure 348: Argentina – Oil production to 2015E (kb/d)

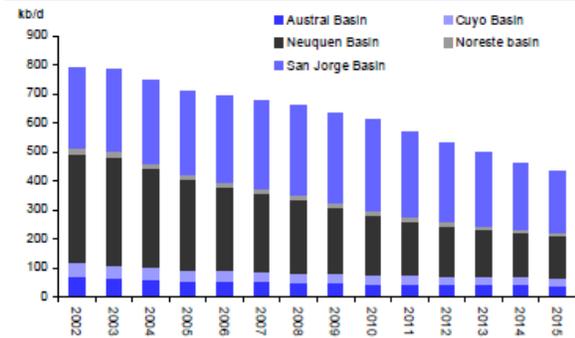


Figure 349: Argentina: Gas production to '15E (mscf/d)

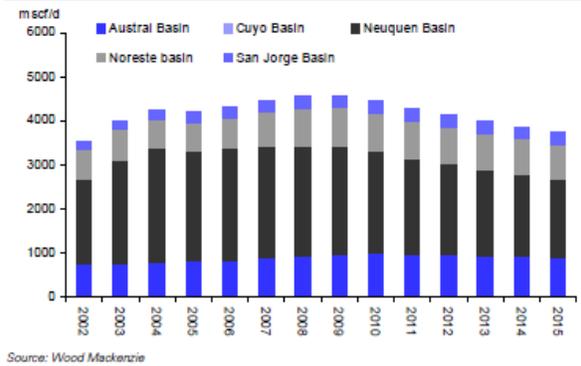
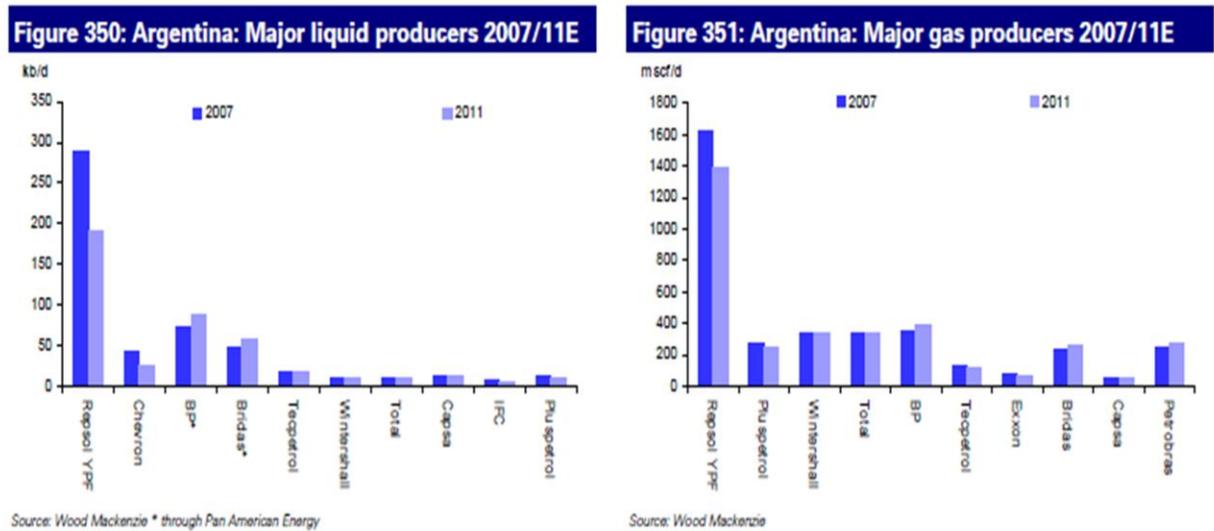


FIGURE 3



The Neuquen Basin, located just east of the Andes Mountains in Central Argentina, is the country’s largest hydrocarbon field. It accounts for 45 percent of Argentina’s oil production and more than 55 percent of the country’s conventional gas. The 1500 kilometer Oldelval pipeline, with a capacity of 220,000 bbd, runs east from the Neuquen Basin towards refineries on the eastern seaboard and also extends to Buenos Aires. Pipelines from the Neuquen also supply oil to Chile and Brazil.

The US Department of Energy has estimated that Argentina ranks third worldwide in recoverable *unconventional* oil and gas. To that end, both YPF and international energy companies have been focusing on the Vaca Muerta shale play located in southern part of the Neuquen Basin (see Figure 4). The International Energy Agency has estimated that the 30,000 square kilometer Vaca Muerta play contains more than 20 billion barrels of oil equivalent, with roughly 70 percent being oil and 30 percent natural gas. Ryder Scott, an oil and gas consulting firm, notes that Vaca Muerta is 3,000 feet deep and three times as thick as the Eagle Ford Shale

in South Texas. If both Vaca Muerta and another shale discovery in the San Jorge basin are fully developed, by 2025 half of all natural gas production in Argentina could be coming from unconventional sources. What's more, oil and gas production from Argentina's shale plays could once again make the country a net energy exporter.

FIGURE 4



The outlook for foreign investment in Argentina's oil and gas industry

KPMG Argentina recently noted that Argentina “has a well-developed gas distribution infrastructure from natural gas operations, which has sufficient spare capacity to support new investments in shale gas. However, it lacks the technology, equipment and services required to support large-scale production. The industry’s success hinges on the availability of capital, the development of a supplier base, and the growth of a skilled labor pool.”

In late August, YPF released a five year-business plan that focuses on unlocking the potential of Vaca Muerta and other hydrocarbon fields. According to Chief Executive officer Miguel Galuccio, YPF plans to invest \$37 billion by 2017 with the goal of increasing its oil output by 29 percent and its refinery throughput by 37 percent. About \$4.5 billion of direct

investment is being sought from foreign partners to assist YPF in developing shale oil and shale gas. YPF plans to borrow about \$7 billion and finance the remainder of its capital needs from retained earnings. But in view of Argentina's less-than-stellar reputation as a borrower and dependable business partner, attracting these amounts of capital may prove difficult.

For example, in May, the International Energy Agency (IEA) commented that "Argentina's seizure of YPF, the country's biggest oil producer, may deter investment in the Vaca Muerta field.....The government takeover clouds the investment climate for international companies that might otherwise have been attracted to unconventional resources in the Vaca Muerta and other plays.....Absent foreign-investor guarantees of contract sanctity, the move could deepen Argentina's product import needs in the short and medium term." Further, the IEA said "In the near term we expect to see companies commit to new investments to secure their positions with the government. But absent guarantees of stability from the government, producers are unlikely to risk significant investment to develop shale deposits or the employ costly technologies to enhance existing production."

(Some companies, including Exxon-Mobil, Chevron, Apache Corporation and the China National Overseas Oil Corporation (CNOOC), have recently expressed interest in partnering with YPF. But whether or not they're willing to commit sizeable amounts of investment remains to be seen).

In theory, Argentine law protects foreign investors on an equal footing with local businesses. Specifically, Article 20 of the country's constitution guarantees "equal treatment under the law to all foreigners living or carrying out any business in Argentina." But in practice, this has not been the case. In recent years, Argentina has abrogated contracts, refused to abide by arbitral judgments of the World Bank's International Centre for the Settlement of Investment

Disputes, and failed to honor more than 100 court judgments in the US demanding payment of obligations to private creditors, including suits brought by Aurelius Capital Management, Gramercy Capital, Milberg Weiss and NML Capital, among others. Because of a perception that Argentina does not respect property rights, court judgments or the rule of law, American energy companies are likely to limit their investment exposure.

In short, the Argentine government must change both the perception and reality of doing business in that country's energy sector. Otherwise, Argentina may witness a further deterioration of its hydrocarbon industry, as has occurred in Venezuela because of its hostile and counterproductive treatment of foreign investors coupled with its refusal to honor outstanding debts. As a start, some progress must be made toward settling outstanding claims and judgments.

Some specific proposals for improving Argentina's investment climate for energy companies

New legislation

First and foremost, Argentina will have to adopt legislation that protects its new partners if the country wants to fully development its unconventional shale plays.

- **Leases:** All leases granted to US partners by Argentina should be long-term in nature and be fully protected from seizure by the Argentine government. With this in place and leases of 50 years or more, US companies will feel more secure in placing large capital investments into Argentina

- **Rule of Law:** Argentina’s reputation on Rule of Law issues remains problematic on multiple fronts. The Center for Financial Stability ranks Argentina at 118 on its Rule of Law Index and at 133 on its Protections of Private Property Index (it barely outperforms the Ukraine and Venezuela according to this scale). Transparency International’s Corruption Perceptions Index places Argentina at 100 from the bottom out of 182 surveyed. Moreover, the Financial Action Task Force has sanctioned Argentina (which remains on its probationary “grey list”) for failing to adopt safeguards to deter money-laundering and terrorist financing. More problematic still for potential investors, Argentina has stonewalled judgments brought by the World Bank’s International Centre for Investment Disputes on behalf of companies doing business in Argentina, and it has refused to honor more than 100 cases issued by US courts in cases involving private lenders.

If Argentina wants to attract outside investment, it will have to put stringent laws into place that prohibit nationalization of any outside partner. Argentina scared away many investors by nationalizing YPF. By prohibiting future nationalizations, Argentina will be sending a clear message that the YPF incident will not be repeated. According to the Embassy of the US in Buenos Aires, “transparent and predictable policies in a country offer the best climates for investments.” Today, Argentina is the most sued country in the world. By protecting leases, contracts, and prohibiting nationalization through the introduction of legislation, Argentina should receive significant outside investments and begin to build a better business rapport with the major countries around the world.

- **Oil and Refining Plus Program:** The Argentine government recently suspended its Oil and Refining Plus program to incentivize hydrocarbon production. The incentives cost Argentina roughly \$461 million per year. With the program no longer in place, production has declined and, according to President Kirchner, has cost “the country almost \$10 billion last year by forcing it to import fuel.” Keeping this incentive in place would have saved the government billions of dollars. It is also important to note that with full-scale development of the shale plays, revenues from this additional production would more than offset the \$461 million per year cost of the Oil and Refining Plus program.

Tax restructuring

According to Deutsche Bank’s *Oil and Gas for Beginners*, “Argentina’s export tax works on a sliding scale with a 25 percent tax when WTI is below \$32/bbl but a maximum of 45 percent paid when the WTI price is above \$45/bbl. Since May 2004 an export tax of 20 percent has been payable on gas exports. At current oil prices, the marginal tax rate on crude oil exports is thus around 74 percent (including royalties). There is very little expectation of these taxes being rescinded.”

The current tax structure will obviously have to change if Argentina wants to attract outside investment. WTI is rarely is below \$32/bbl if ever, and a current marginal rate of 74 percent is confiscatory. Outside partners simply won’t drill in Argentina if they can do so elsewhere at a lower cost. The current 12 percent royalty rate is reasonable, but Argentina should scale back its effective tax rate to a 20 percent maximum. Export taxes should also be reduced or removed. Part of the tax restructuring could include a “first right of refusal to

Argentina,” where the country can purchase oil and gas up to a certain amount while allowing the rest should to be exported without taxation.

Gas price economics

Fixed natural gas prices well below market values are not only unreasonable but they deter outside investment. Why would a company from the US drill for gas in Argentina when it can't get market value and also pays high taxes? Argentina needs to return to an uncontrolled free market for natural gas. In conjunction with lower taxes, such a move would incentivize outside investors to increase new investment and current production.

Consider REIT/MLPs

Real estate investment trusts (REITs) and master limited partnerships (MLPs) have created substantial cash inflows for real estate and energy ventures in the United States. REITs were introduced in the 1960s and have grown to more than \$700 billion in total market capitalization. MLPs became prolific around 1996 and have grown to almost \$300 billion in total market capitalization. Both vehicles are structured as tax-free, publicly-traded partnerships that require 90 percent of earnings to be distributed to the individual partners. In other words, the REIT or MLP itself does not pay taxes, but the income passed through to the partners is taxable. Argentina should consider allowing structures similar to REITs/MLPs as vehicles to attract foreign invest into their energy sector.

Conclusion

Argentina has become a net importer of oil and gas due to decreased production resulting from the undercapitalization of YPF, irrational natural gas pricing, and divestiture of assets. The undercapitalization of YPF has meant fewer wells drilled, and divestitures over the past decade have caused YPF to lose strategic assets. Fixing natural gas prices below market rates has also resulted in lower production. Because the Argentine economy relies so heavily on natural gas, imports are costing the country billions annually. Luckily, the nation is richly endowed with both natural gas and oil and can take steps to reverse the decline in output and eventually become a net exporter of energy.

Development of the Vaca Muerta shale field can go a long way toward returning the country to a net exporter position. The play contains an estimated 22 billion barrels of oil equivalent, with roughly 70 percent oil and 30 percent natural gas. But the development of Vaca Muerta and other shale plays will require substantial foreign investment and expertise. To ensure the country's ability to attract this capital and know-how, the Argentine government must ensure that the rule of law and the sanctity of contracts will prevail.