



Vaca Muerta Update: Faltering Development Plans for Argentina's Shale Reserves Will Accelerate Without Foreign Investment

Executive Summary

Vaca Muerta, Argentina's vast oil and gas reserve in Patagonia, has been seen as the silver bullet to solve the country's economic and energy problems for the past few years. Unconventional production (hydraulic fracturing, or fracking) would boost the country's economy, ultimately creating a lucrative export market. But development of Vaca Muerta has been slow by comparison with other shale basins — even before this year's global demand destruction and plunging oil prices. It has now sputtered to a near halt.¹ It was dependent on foreign investment that has been slow to materialize over the past few years.

Development of Vaca Muerta has relied on joint ventures between the Argentine government and international corporations, which have until now been fueled by significant subsidies from the Argentine government. As those subsidies have evaporated due to Argentina's deteriorating fiscal condition, foreign companies' commitments to Argentina has eroded. Without substantial investment by domestic and foreign oil and gas companies, Vaca Muerta's potential will fall short of ambitious plans set forth by Argentina's previous administration.²

Among the most active oil and gas companies in Vaca Muerta tracked by IEEFA, three — state-controlled YPF, Chevron and Vista Oil and Gas — have demonstrably pulled back on specific investments. In 2017 and 2018 (the most recent year figures are available), these three companies accounted for 39 percent of investments in unconventional production in Neuquén Province, home to most of Vaca Muerta.³ Four other significant oil and gas companies invested in Vaca Muerta — Shell, Total, BP and Exxon — have pulled back on their enterprise-wide capital investments.⁴ As foreign oil and gas companies rein in their capital expenditures globally, expanding

¹ In April, new fracture activity in Vaca Muerta, in fact, did halt, according to an analysis NCS Multistage, a Houston-based company. S&P Global. [Argentina's fracking activity in Vaca Muerta slowed to zero in April](#). May 5, 2020.

² IEEFA. [Financial risks cloud development of Argentina's Vaca Muerta oil and gas reserves](#). March 2019.

³ Secretaria de energia. [Datos Energia: Inversiones en mercado de hidrocarburos upstream](#). Retrieved June 1, 2020.

⁴ S&P Global. [Update: 12 oil majors to slash capex by \\$43.6B amid price collapse, coronavirus](#). April 7, 2020.

their nascent operations in Argentina will be postponed – or abandoned entirely.

Given the global reduction in demand for both oil and gas and the current glut, the uncertain rate of economic recovery and internal political issues in Argentina, foreign investors have remained skittish. The government has taken some initial actions related to mandated oil pricing that will not encourage investments, according to a former energy official.ⁱ

The government's recent executive decree establishes a fixed price of \$45 per barrel (bbl) for oil.ⁱⁱ This "Creole barrel" is a government effort to prop up production.ⁱⁱⁱ Refineries will be required to pay producers this price through the end of the year. It is not expected to induce production increases until demand increases and storage capacity opens up, according to former energy undersecretary Jose Luis Sureda, who notes that refineries will lose money since fuel prices at the pump are frozen. "The Creole barrel will have practically no effect until demand has a recovery," Sureda said.^{iv} This sentiment was echoed by the president of YPF, Argentina's state-controlled oil and gas company, who recently noted, "You cannot generate demand by decree."^v This measure would also help to raise the income for the oil-producing provinces, because producers must pay their royalties based on the \$45/bbl rather than the lower international price.

Officials of oil-producing provinces and some producers,^{vi} such as Vista Oil and Gas, had lobbied for the Creole barrel, suggesting it would "keep all companies alive — to make sure we get past all the wild animals in our path — and come through the other side."^{vii}

The decree pits producers against refiners, who must bear the higher cost of oil, which they cannot pass along to their customers. State-controlled YPF, PAE (a BP subsidiary), and Raízen, a Shell joint venture with Cosan, argued against the \$45 barrel. The Raízen refinery in Buenos Aires, the nation's second-largest, halted processing in April after running out of storage.^{viii} And YPF noted it would not buy oil for its refineries from third parties through the end of the year, citing a drop in demand and the poor financials for its refinery operations.^{ix}

The government also plans to launch a new subsidy to boost gas production with a new gas plan. Gas production, though below levels set by the country's 2018 energy plan, created an oversupply in 2019.^x Between the glut and a retroactive change in government production subsidies for gas in January 2019, many companies pivoted toward oil production throughout the year.^{xi}

ⁱ Rio Negro. Sureda: "El baril criollo es una suerte de impuesto a las empresas." May 20, 2020.

ⁱⁱ Reuters. [Argentina imposes \\$45 oil barrel price to shield domestic sector](#). May 19, 2020.

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- iii. The term Creole comes from criollo, which means home-grown. It refers to the history of price controls set by Argentina's governments to protect the local energy business from worldwide price changes. Bloomberg. [Plan to fix oil at \\$45 a barrel gains momentum in Argentina](#). May 6, 2020.
 - iv. Rio Negro. Sureda: ["El baril criollo es una suerte de impuesto a las empresas."](#) May 20, 2020.
 - v. La Opinion Austral. [Nielsen anunció que YPF no comprará crudo a terceros "muy posiblemente hasta fin de año."](#) May 20, 2020. Nielsen was emphasizing a point made at the conference by Jose Luis Manzano, an Argentine businessman who has significant investments in the energy sector.
 - vi. ArchyNewsy. [Kulfas will issue a decree with a barrel of "Creole" oil at US \\$45.](#) May 7, 2020
 - vii. World Oil. [Argentina's plan to protect drilling by setting oil prices gains momentum.](#) May 10, 2020.
 - viii. Argus Media. [Raizen halts crude runs at Buenos Aires refinery.](#) April 19, 2020.
 - ix. La Opinion Austral. [Nielsen anunció que YPF no comprará crudo a terceros "muy posiblemente hasta fin de año."](#) May 20, 2020.
 - x. NaturalGasIntel. [Argentina's YPF to slow natural gas investment amid supply glut, LNG plans.](#) May 14, 2019.
 - xi. IHS Markit. [Argentina: Unconventional Activity Update.](#) May 12, 2020.

Other smaller oil and gas companies appear to be taking a wait-and-see approach as they evaluate the country's new president, Alberto Fernandez, and recovering economy.

These findings and recent production numbers show that the 2018 Argentine Energy Plan formulated under former President Mauricio Macri, has failed to materialize and the new president must rewrite Argentina's energy future. Argentina's new administration has an opening to consider alternative approaches to meet the country's energy needs and promote economic recovery.

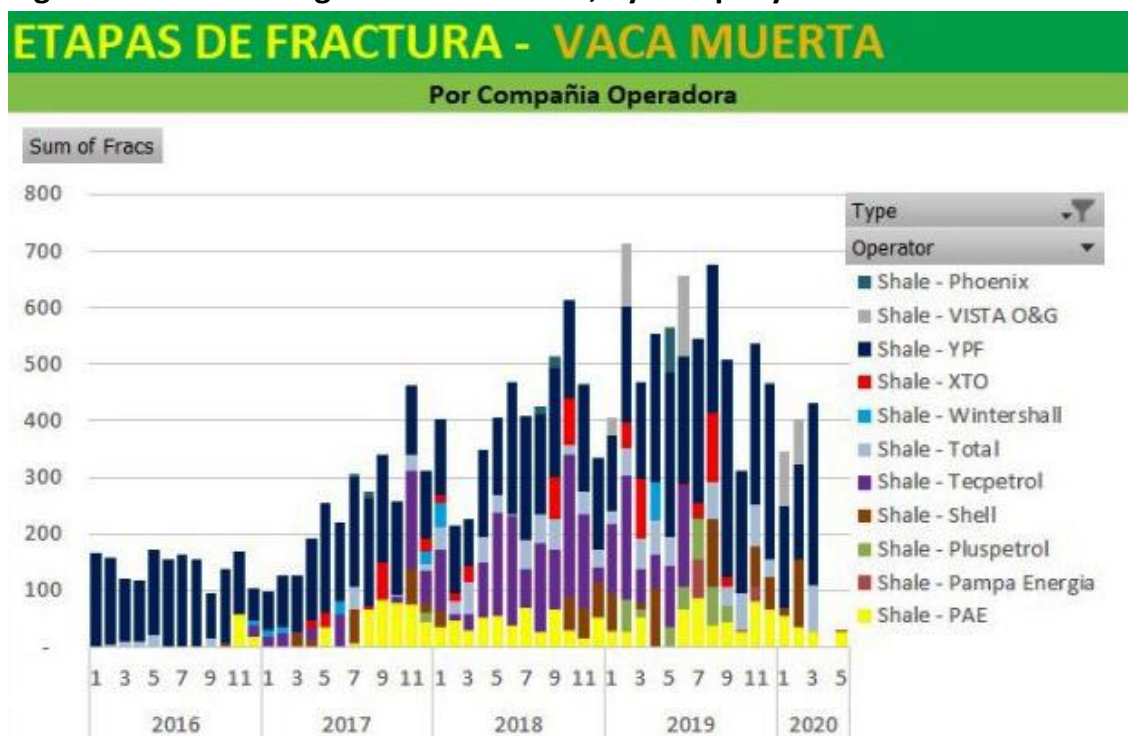
Challenging Conditions in Vaca Muerta Predate Pandemic, Oil Price Declines

Crucial foreign partners have reduced their investment plans for Argentina in 2020. Domestic producers have also cut production and investment targets for Vaca Muerta amid strict lock-down measures that have caused oil demand to fall by 80 percent.⁵

But shale producers in Vaca Muerta struggled financially even while oil and gas prices were far higher than current levels. Last year, producers grappled with political and economic turmoil that roiled their industry, reducing fracking activity in the final months of the year. (See Figure 1.)

⁵ Argus Media. [Raizen halts crude runs at Buenos Aires refinery.](#) April 19, 2020.

Figure 1: Fracture Stages in Vaca Muerta, by Company: 2016-2020



Source: NCS Multistage, compiled by Luciano Mucello.

2019 saw a series of economic and policy changes within the country that dealt a blow to the Macri administration's ambitious plans to double oil and gas production over the next five years.⁶ In early 2019, a retroactive policy change to support prices for unconventional gas production caused many oil and gas companies to shift to oil production in Vaca Muerta.^{7,8} In August 2019, primary election results triggered a series of economic events, including a massive devaluation of the peso and plunging prices for Argentina's stocks and bonds.⁹ Later that month, the Macri government issued an emergency decree,¹⁰ which froze the price of oil at prices lower than production costs. Both domestic and foreign producers adopted a wait-and-see approach, as Argentina's newly elected president took office in December 2019. Planned investment in unconventional production in Neuquén Province, home to most of Vaca Muerta, was less than \$5 billion (\$4.94 billion) in 2019.¹¹ (See Figure 2.) Actual levels of investment for 2019 are not yet available, but are likely far lower

⁶ Secretaria de Gobierno de Energia. [Argentina Energy Plan](#). October 2018.

⁷ Moody's Investor Services. "Argentina oil and gas. Change in compensation policy to slow momentum for unconventional natural gas." February 4, 2019. Also: Energy Analytics Institute. [LatAmNRG Argentina briefs](#). March 2019.

⁸ IHS Markit. [Argentina: Unconventional Activity Update](#). May 12, 2020.

⁹ New York Times. [Argentina's Macri trounced in primary by voters angry over economy](#). August 12, 2019.

¹⁰ Baker McKenzie. [Argentina: The national executive branch freezes local crude oil and fuel prices for 90 days](#). August 16, 2019.

¹¹ Secretaria de energia. [Datos Energia: Inversiones en mercado de hidrocarburos upstream](#). Retrieved June 1, 2020.

since many companies halted production once the oil price freeze was announced in August, as indicated by the reduction in the number of fracture stages recorded by NCS.¹² (See figure above.)

While the planned investment for 2019 was up from actual investments of \$3.19 billion and \$3.99 billion in 2017 and 2018, respectively (See Figure 3), it fell far short of the annual \$15 billion to \$20 billion considered necessary to develop the shale play’s potential.¹³

Figure 2: 2019 Planned Investments in Unconventional Production, Neuquén Province, in US\$ Millions

Company	Exploration	Complementary Exploration	Production	Total
CAPEX S.A.	3.00	0.00	43.83	46.83
CHEVRON ARGENTINA S.R.L.	0.00	77.80	0.00	77.80
EXXONMOBIL EXPLORATION ARGENTINA S.R.L.	0.00	0.00	496.30	496.30
KILWER S.A.	24.51	0.00	0.00	24.51
MADALENA ENERGY ARGENTINA SRL	8.01	0.00	0.00	8.01
O&G DEVELOPMENTS LTD S.A. (Shell)	0.00	0.00	277.90	277.90
PAMPA ENERGIA S.A.	0.10	11.50	95.04	106.64
PAN AMERICAN ENERGY SL (a BP Subsidiary)	20.82	0.00	245.23	266.04
PLUSPETROL S.A.	0.00	0.50	364.94	365.44
TECPETROL S.A.	0.51	0.00	371.07	371.57
TOTAL AUSTRAL S.A.	0.66	0.00	384.49	385.15
VISTA OIL & GAS ARGENTINA SA	0.00	0.00	227.18	227.18
WINTERSHALL ENERGIA S.A.	0.00	0.00	31.05	31.05
YPF S.A.	0.00	120.68	2139.05	2259.73
Grand Total	57.60	210.48	4676.05	4944.14

Source: *Secretaría de Energía: Inversiones en mercado de hidrocarburos upstream.*

¹² An analysis NCS Multistage, a Houston-based company. S&P Global. [Argentina’s fracking activity in Vaca Muerta slowed to zero in April.](#) May 5, 2020.

¹³ Forbes. [Argentina’s Vaca Muerta Could Lead To A Shale Boom To Rival The United States.](#) December 9, 2019.

Figure 3: 2017-2018 Actual Investments in Unconventional Production, Neuquén Province, in US\$ Millions

Company	Exploration	Complementary Exploration	Production	Total
AMERICAS PETROGAS ARGENTINA S.A.	6.73	0.00	3.32	10.05
CAPEX S.A.	13.45	4.63	70.18	88.25
CHEVRON ARGENTINA S.R.L.	0.00	20.50	9.67	30.17
EXXONMOBIL EXPLORATION ARGENTINA S.R.L.	0.30	0.00	420.40	420.70
KILWER S.A.	14.24	0.00	0.00	14.24
O&G DEVELOPMENTS LTD S.A. (SHELL)	13.10	0.00	321.80	334.90
PAMPA ENERGIA S.A.	1.78	14.42	80.57	96.76
PAN AMERICAN ENERGY (SUCURSAL ARGENTINA) LLC (BP)	0.00	23.72	250.80	274.52
PAN AMERICAN ENERGY SL	72.53	0.00	215.08	287.61
PETROBRAS ARGENTINA S.A.	25.53	0.00	76.19	101.73
PLUSPETROL S.A.	0.18	4.04	234.36	238.58
TECPETROL S.A.	78.80	0.00	1637.04	1715.85
TOTAL AUSTRAL S.A.	2.24	0.00	692.11	694.34
VISTA OIL & GAS ARGENTINA SA	0.00	0.00	66.78	66.78
WINTERSHALL ENERGIA S.A.	8.70	0.00	80.09	88.79
YPF S.A.	4.34	84.35	2603.14	2691.83
YSUR ENERGÍA ARGENTINA S.R.L.	0.00	0.00	21.98	21.98
Grand Total	241.92	151.65	6783.51	7177.08

Source: Secretaría de Energía: Inversiones en mercado de hidrocarburos upstream.

Figure 4: 2013-2018 Actual Investments in Unconventional Production, Neuquén Province, in US\$ Millions

Company	Exploration	Complementary Exploration	Production	Total
AMERICAS PETROGAS ARGENTINA S.A.	67.65	0.00	7.18	74.83
APACHE ENERGIA ARGENTINA S.R.L.	0.00	23.38	71.14	94.51
ARGENTA ENERGIA S.A.	7.00	0.00	0.00	7.00
CAPEX S.A.	19.77	21.25	140.56	181.57
CHEVRON ARGENTINA S.R.L.	0.00	24.87	80.33	105.20
ENERGICON S.A.	0.10	0.00	0.00	0.10
EXXONMOBIL EXPLORATION ARGENTINA S.R.L.	130.28	0.00	478.90	609.18
KILWER S.A.	14.24	0.00	0.00	14.24
O&G DEVELOPMENTS LTD S.A.	388.02	0.00	405.90	793.92
PAMPA ENERGIA S.A.	1.78	14.42	80.57	96.76
PAN AMERICAN ENERGY (SUCURSAL ARGENTINA) LLC	0.00	72.15	822.91	895.06
PAN AMERICAN ENERGY SL	72.53	0.00	215.08	287.61
PETROBRAS ARGENTINA S.A.	65.97	100.01	535.16	701.15
PETROLERA ENTRE LOMAS S.A.	0.00	0.00	5.99	5.99
PETROLERA PAMPA S.A.	3.69	0.00	0.00	3.69
PLUSPETROL S.A.	19.79	4.04	235.17	259.00
ROCH S.A.	11.54	0.00	0.00	11.54
TECPETROL S.A.	118.34	9.01	1669.56	1796.91
TOTAL AUSTRAL S.A.	491.92	0.00	1209.08	1701.00
VISTA OIL & GAS ARGENTINA SA	0.00	0.00	66.78	66.78
WINTERSHALL ENERGIA S.A.	72.16	0.00	147.73	219.90
YPF S.A.	255.70	142.23	9639.97	10037.90
YSUR ENERGÍA ARGENTINA S.R.L.	0.00	0.00	21.98	21.98
Grand Total	1740.47	411.35	15834.00	17985.82

Source: *Secretaría de Energía: Inversiones en mercado de hidrocarburos upstream.*

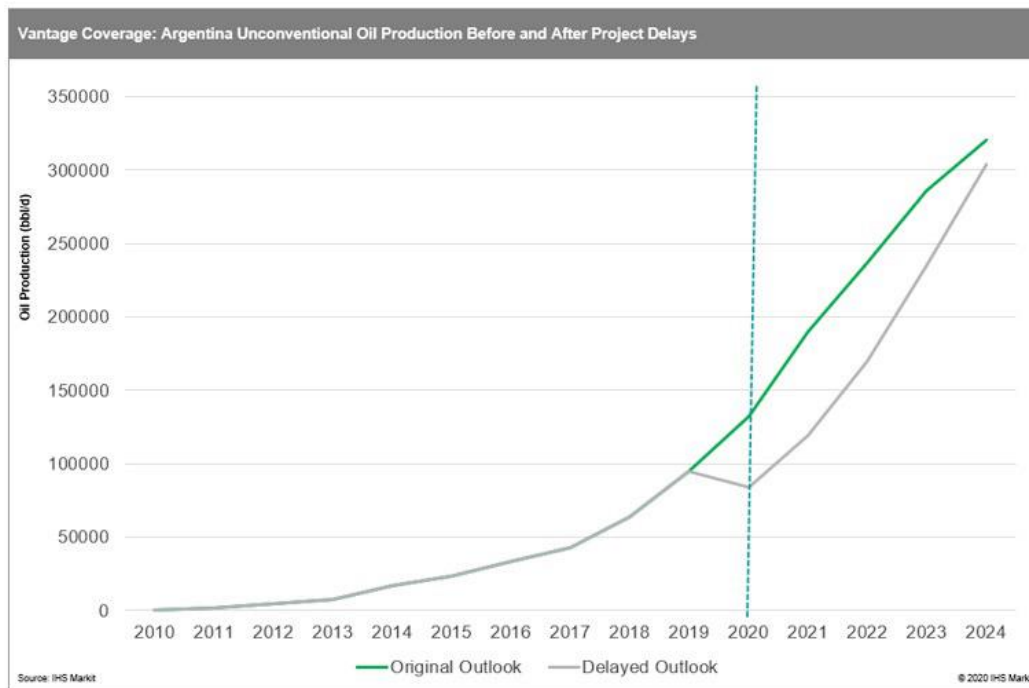
Production costs are higher in Vaca Muerta, compared to global production. Without state subsidies, the higher costs in Vaca Muerta require state intervention or wells will stop producing, acknowledged Matias Kulfas, Argentina's Minister of Productive Development.¹⁴

Energy analysts at IHS Markit suggest that with oil prices at current levels, the value of assets in Vaca Muerta will plunge. For example, 10 assets that IHS Markit follows in Vaca Muerta will lose \$13 billion in value with oil prices dropping from \$60/bbl

¹⁴ Argus Media. [Oil price slump triggers Argentina state intervention.](#) March 13, 2020.

to \$30/bbl, despite advances in production efficiencies.¹⁵ The energy consultancy forecasts a decline in Argentina's unconventional oil production in 2020, from its previous forecast of nearly 130,000 bbl/day to 90,000 bbl/day.¹⁶ This compares to nearly 100,000 bbl/day in 2019. (See Figure 5). The Macri 2018 Energy Plan had called unconventional oil production in 2019 to reach more than 150,000 bbl/day.¹⁷

Figure 5: Argentina Unconventional Production Before and After Project Delays



Source: IHS Markit.

Struggling State-Controlled YPF Reduces Capital Expenditures to Preserve Cash

Argentina's majority state-owned oil and gas company, YPF, has severely reduced its development plans for the country's oil and gas reserves.

YPF has been the most active company investing in Neuquén Province, having spent \$10.04 billion on unconventional production there between 2013 and 2018, the most recent year data were available.¹⁸ Its planned investments in 2019 in Neuquén Province had been \$2.14 billion.¹⁹ In August, however, the company announced plans to reduce its capex by \$100 million-\$120 million per month in response to the

¹⁵ IHS Markit. [Argentina: Unconventional Activity Update](#). May 12, 2020.

¹⁶ Ibid.

¹⁷ Secretaria de Gobierno de Energia. [Argentina Energy Plan](#). October 2018. p. 32.

¹⁸ Secretaria de energia. [Datos Energia: Inversiones en mercado de hidrocarburos upstream](#).

Retrieved June 1, 2020.

¹⁹ Ibid.

government-imposed price freeze on oil.²⁰ YPF's full-year investments in Vaca Muerta are not yet available. YPF's capex reductions are significant as they represent nearly half (46%) of the investment for unconventional production planned for Vaca Muerta in 2019 (See Figure 2) and nearly 60 percent (56%) of actual investments between 2017 and 2018 (See Figure 3).

In March 2020, YPF announced company-wide capex reductions, with plans to invest \$2.8 billion, a reduction of more than \$750 million from 2019 levels.²¹ In April, it slashed production by half at its largest facility, Loma Campana, Vaca Muerta's oldest and most productive play, which it operates with Chevron.²²

By May, YPF had replaced its chief executive. During the company's annual shareholder meeting, YPF's chairman noted "the preservation of cash flow [w]as the absolute goal for this year."²³ The company withdrew earnings guidance for 2020 during its first quarter earnings call, and noted it was working to identify "significant opex and capex reduction along all business units."²⁴ During the earnings call, analysts focused on looming debt maturities.²⁵ Moody's downgraded the company's credit in September 2019 to Caa2 and again in April to Caa3.²⁶

YPF, the country's largest producer and refiner of oil and gas, has struggled financially during the past few years. It lost half its stock value in 2018. It reported a \$700 million loss in 2019,²⁷ described by its then-CEO Daniel Gonzalez, as "a very difficult year for Argentina, for the local oil industry and for YPF... [t]he local economy was particularly weak, with a GDP reduction of 2%, internal consumption down more than 5%, inflation of almost 54% and the revaluation [devaluation] around 60%... and by the freeze the previous government put in place in August."²⁸

Foreign Partners Reduce Capital Expenditures (Capex) in Vaca Muerta

Two foreign investors — Chevron and Vista Oil — have publicly announced drastic reductions in their already-reduced 2020 investment plans for Vaca Muerta. Four others — Shell, ExxonMobil, Total and BP — have announced significant reductions of their global capex budgets for the year,²⁹ throwing their previously announced plans for Vaca Muerta into doubt.

²⁰ Argus Media. [YPF cuts capex in response to economic crisis](#). August 16, 2019.

²¹ Ibid.

²² Reuters. [Argentina's YPF slashes production at key Vaca Muerta play amid virus — local media](#). April 9, 2020

²³ YPF Shareholder's Meeting 2020. [Speech delivered by Guillermo Nielsen](#). April 30, 2020.

²⁴ Fool.com. [YPF S.A. Q1 2020 Earnings Call Transcript](#). May 12, 2020.

²⁵ Ibid.

²⁶ Moody's. [YPF Sociedad Anonima](#).

²⁷ Upstreamonline. [Argentina's YPF names a new chief executive as Vaca Muerta faces setback](#). May 1, 2020.

²⁸ Fool.com. [YPF S.A. Q4 2019 Earnings Call Transcript](#). March 6, 2020.

²⁹ S&P Global. [Update: 12 oil majors to slash capex by \\$43.6B amid price collapse, coronavirus](#). April 7, 2020.

The following foreign companies have announced plans to reduce their Argentina-focused investments:

- **Chevron**, the first foreign company to invest heavily in Vaca Muerta in 2013, announced in March that it would further cut its 2020 capex budget from prior levels, from \$16 billion to \$14 billion. In announcing an additional \$2 billion reduction during its first quarter earnings call, the company signaled that \$500 million cuts in unconventional production “would include not only Permian, but also Argentina and Canada.”³⁰ This reduction was a reversal of the company’s investment plans to increase investments in Argentina, which “are beginning to contribute, not at the same magnitude as the Permian, but certainly, strong growth.”³¹
- **Vista Oil and Gas**, which went public in 2019, has focused its investments in Vaca Muerta. In 2019, it planned to spend \$227 million on fracking in Neuquén Province.³² Its chief executive, Miguel Galuccio, served as CEO of YPF from 2012-2016.

Vista recently announced 50 and 65 percent reductions in its 2020 investment plans for Vaca Muerta to “protect our cash position and in turn our balance sheet. We stopped drilling and completion activities and scaled down our capital expenditure projects for the remainder of the year.”^{33,34} The capex reduction brought spending levels to \$95 million, down from the planned \$300 million, announced in February,³⁵ and down from \$2.27-million spent in 2019.³⁶ (As recently as late February, before the impact of the global pandemic prompted the oil price drop, the company had planned to re-boot its production in Vaca Muerta after suspending its drilling program last year due to the government-imposed price freeze on oil.³⁷)

Vista’s capex reduction comes despite its having received \$300 million of financing guarantees from the U.S. Overseas Private Investment Corporation (OPIC) in September 2019 “to catalyze investment in one of Argentina’s key industries.”³⁸

Vista has become the country’s fifth-largest oil producer, according to the Argentina Ministry of Energy and Mining, which tracks oil and gas

³⁰ Fool.com. [Chevron Q1 2020 Earnings Call Transcript](#). May 1, 2020

³¹ SeekingAlpha.com. [Chevron Q4 2019 Earnings Call Transcript](#). January 31, 2020.

³² Secretaria de energia. [Datos Energia: Inversiones en mercado de hidrocarburos upstream](#).

Retrieved June 1, 2020.

³³ Fool.com. [Vista Oil & Gas Q1 2020 Earnings Call Transcript](#). April 20, 2020.

³⁴ Ibid.

³⁵ Buenos Aires Times. [Shale driller Vista Oil & Gas cuts executive salaries amid hopes of rebound](#). May 1, 2020.

³⁶ Fool.com. [Vista Oil & Gas Q4 2019 Earnings Call Transcript](#). February 27, 2020.

³⁷ S&P Global. [Vista bets on Vaca Muerta for 20% oil, gas production growth in 2020](#). February 27, 2020.

³⁸ US Embassy in Argentina. [OPIC approves financing for energy projects in Argentina](#). September 11, 2019.

production.³⁹ Since going public, the company's stock has dropped from more than \$11 to \$3.28/share, an increase from its April lows when the stock traded below \$2.00/share.

Foreign Partners Likely to Remain Skittish

Some foreign companies have not made specific public statements about reducing their investments in Argentina, but have not moved forward with previously announced investments.

- **Shell and Equinor**, for example, purchased Schlumberger's 49 percent stake in a block in Vaca Muerta for \$355 million in January.⁴⁰ Since then, Shell has announced global capex reduction from \$25 billion to less than \$20 billion, though it did not specify where the cuts would be made.⁴¹
- **Total**, which produced more than a quarter of the country's gas in 2019,⁴² and which holds interests in 10 licenses in Vaca Muerta, has remained silent about plans to expand investments there. Liquids and gas production in South American represented 5% of the company's combined liquids and gas production in 2019.⁴³ The company's 2019 annual report specifically noted that production has "recently suffered from political or economic instability" in certain countries, including Argentina.⁴⁴
- **ExxonMobil** had announced plans in mid-2019 to proceed with expansion plans in Vaca Muerta, where it was granted concessions in 2015, and had launched a pilot project with "excellent results."⁴⁵ It planned to spend \$496 million on unconventional production in Neuquén Province in 2019, the second-largest investment there after YPF, which planned to spend \$2.14 billion.⁴⁶ Exxon's development plans over five years called for completion of 90 wells that would produce 55,000 barrels of oil equivalent per day, and would include a production facility and export infrastructure.⁴⁷

Based on fracture stages, considered a reliable gauge of activity in Vaca Muerta, Exxon's activity in Vaca Muerta all but stopped after the oil price freeze, according to data compiled by NCS Multistage, a Houston-based oil

³⁹ Vista Oil & Gas. [Nosotros](#).

⁴⁰ S&P Global. [Shell, Equinor buy Schlumberger's stake in Vaca Muerta block](#). January 31, 2020.

⁴¹ Shell Media Release. [Shell acts to reinforce business resilience and financial strength](#). March 23, 2020.

⁴² Total [2019 20 F](#). p. 45.

⁴³ *Ibid.* p. 86.

⁴⁴ *Ibid.* p. 86.

⁴⁵ ExxonMobil. [ExxonMobil proceeds with Argentina expansion project in Vaca Muerta basin](#). June 11, 2019.

⁴⁶ Secretaria de energia. [Datos Energia. Inversiones en mercado de hidrocarburos upstream](#). Retrieved June 1, 2020.

⁴⁷ ExxonMobil. [ExxonMobil proceeds with Argentina expansion project in Vaca Muerta basin](#). June 11, 2019.

services firm.⁴⁸

The company's financial reports typically contain almost no mention of its holdings in Argentina, and do not break out production or earnings numbers for Argentina in its annual filings. For example, the company's 2019 10-K mentioned Argentina in just four of its 136 pages. The only significant note was the \$72 million the company spent in 2019 on its Invernada block in Vaca Muerta, where it had announced the expansion plans. In the context of a 2019 global capex budget of \$24.36 billion,⁴⁹ the company's capex plans for Argentina are small. For example, in 2018, the most recent year actual investment levels are available, Exxon spent \$273 million on unconventional production in Neuquén, which was less than 2 percent of the company global \$19.57 billion capex.⁵⁰

Development plans in Argentina may be delayed as part of Exxon's 30 percent reduction in its global capex budget for the year, announced in April when the company reported a \$610 million loss for the first quarter.⁵¹

- **Pan American Energy (PAE)**, BP's subsidiary in Argentina, is the second-largest oil producer in the country. It had planned capex of \$400 million for Vaca Muerta, funded in part by a \$120 million bond issuance in late 2019.⁵² BP announced a 25 percent reduction in capex, from \$15 billion to \$12 billion, with \$1 billion of the reduction focused on unconventional production, which they term "short-cycle onshore activity."⁵³ Given the signal sent by its parent company, PAE may opt to reconsider its development plans in Vaca Muerta.
- **Wintershall Dea and ConocoPhillips** formed a partnership to develop unconventional assets in Vaca Muerta in mid-2019. Wintershall, which merged with Dea in 2019, had been active in Argentina for 40 years, primarily as a gas producer. With its partnership with ConocoPhillips, the Wintershall Dea will focus on oil production in Vaca Muerta.

Foreign Oil and Gas Companies Press Argentine Government for Incentives

Vista's Galuccio has called on the Argentine government to realize the potential of Vaca Muerta, which will require "incentives to export or get to export market. And I

⁴⁸ Based on an analysis NCS Multistage, a Houston-based company. S&P Global. [Argentina's fracking activity in Vaca Muerta slowed to zero in April](#). May 5, 2020.

⁴⁹ ExxonMobil. [2019 10-K](#). February 26, 2020, p. 70.

⁵⁰ ExxonMobil. [2018 10-K](#). February 27, 2019, p. 69

⁵¹ ExxonMobil. [ExxonMobil reduces 2020 capex by 30%, cash opex by 15%; maintains long-term outlook](#). April 7, 2020.

⁵² S&P Global. [Pan American sells bonds to fund drilling in Argentina's Vaca Muerta](#). November 14, 2019.

⁵³ BP. [BP details COVID-19 response and provides market update](#). April 1, 2020.

think we will also require — or most of the company would require — some kind of way of getting access to the proceeds of exportation.”⁵⁴

Other foreign investors in Vaca Muerta have also called on the government for support, either directly or through comments to the press. For example, when announcing its planned expansion in Vaca Muerta in mid-2019, Exxon’s Staal Gjervick, senior vice president of unconventional, noted, “The reforms implemented by the federal and provincial governments have been critically important to enabling the development of the Vaca Muerta basin as one of the country’s main energy resources.”⁵⁵

Wintershall executives have frequently criticized government regulatory policies.⁵⁶ At a virtual conference in March, the company’s CEO, Mario Mehren noted that in Argentina, “what we need is stability,”⁵⁷ adding, “When we see **governments trying to regulate prices, interfere with the development of the market, we are concerned. Just as when we see rapid changes in the legal framework or the framework of taxes and investment.**”

Conclusion

The failure to develop Vaca Muerta offers President Alberto Fernandez, who took office in December, a unique opportunity to change course. His administration can learn lessons from failure of fracking in the Permian Basin,⁵⁸ and avoid the boom-bust cycle that increasingly seems more bust than boom. The business case for fracking — in Argentina and in the U.S. — remains unproven.

⁵⁴ Fool.com. [Vista Oil & Gas Q4 2019 Earnings Call Transcript](#). February 27, 2020.

⁵⁵ ExxonMobil. [ExxonMobil proceeds with Argentina expansion project in Vaca Muerta basin](#). June 11, 2019.

⁵⁶ Wintershall Dea’s CEO for Argentina, Manfred Boeckmann, for example, gave a clear message to the current national government and to the incoming government after the October elections: “A more competitive regulatory framework, infrastructure improvements, access to new markets, a cost structure and a more competitive tax regime are necessary to ensure sustainable development at scale in Vaca Muerta,” as reported in Rio Negro. [Oil and Gas: Wintershall Dea condiciona el Desarrollo masivo de dos áreas de Vaca Muerta](#). September 24, 2016.

⁵⁷ RioNegro. [Wintershall Dea: en Argentina “necesitamos estabilidad.”](#) March 19, 2020.

⁵⁸ The difficulties facing the Permian basin has been covered extensively in the US. For example: Bloomberg. [Shale’s amazing, world-changing, lousy decade](#). December 27, 2019. IEEFA has written extensively on the ongoing difficulties of fracking-focused companies in North America, particularly the Permian basin. [IEEFA update: Fracking companies’ 2019 performance signals ongoing crisis](#). March 19, 2020.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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