



Fossil fuel exploration subsidies: Argentina

Shelagh Whitley and Shakuntala Makhijani

This country study is a background paper to the report **The fossil fuel bailout: G20 subsidies for oil, gas and coal** by Oil Change International (OCI) and the Overseas Development Institute (ODI).

For the purpose of this report, exploration subsidies include: national subsidies (direct spending and tax expenditures), investment by state-owned enterprise and public finance. The full report provides a detailed discussion of technical and transparency issues in identifying exploration subsidies, and outlines the methodology used in this desk-based study.

The authors would welcome feedback on the full report and on this country study, to improve the accuracy and transparency of information on G20 government support to fossil-fuel exploration.

Argentina

Australia
Brazil
Canada
China
France
Germany
India
Indonesia
Italy
Japan
Republic of Korea
Mexico
Russia
Saudi Arabia
South Africa
Turkey
United Kingdom
United States

Background

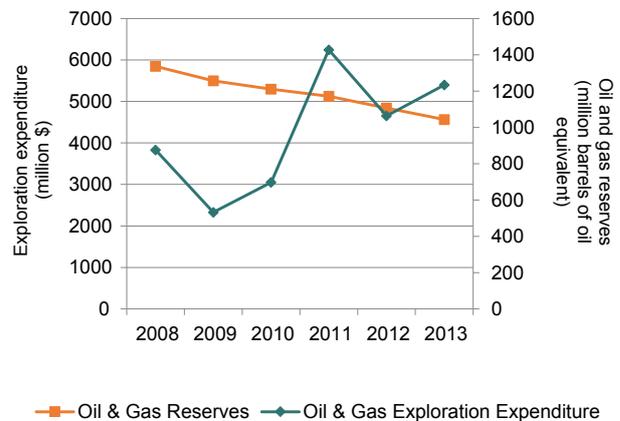
Argentina holds an estimated 27 billion barrels of technically recoverable oil and 23 trillion cubic metres of shale gas (Stafford, 2014). The country is a net importer of coal, with very limited domestic production (90,000 tonnes in 2013) (U.S. EIA, 2013). Despite being one of the largest producers of natural gas and crude oil in Latin America, falling production and rising consumption led Argentina to become a net importer of energy in 2011 for the first time since 1984 (Borderes and Parravicini, 2014; Fin24, 2013). The cost of fossil-fuel imports to the country was \$13 billion in 2013, equal to about 20% of the Central Bank's foreign-exchange reserves (Fin24, 2013; *The Economist*, 2013b).

To address its dependency on imports and develop its export markets, Argentina is investing heavily in exploration and the development of new reserves of oil and gas (YPF, 2012). This is linked to the discovery of the Vaca Muerta shale formation in Neuquén, Rio Negro, La Pampa and Mendoza provinces, which is estimated to be the world's second largest shale-gas deposit and fourth largest shale oil deposit (Stafford, 2014). As a result of the discovery of Vaca Muerta and other shale formations in the country, Argentina is now ranked fourth in the world behind Russia, the United States and China in terms of shale-oil reserves and second only to China in shale-gas reserves (Fossett, 2013). By 2017, it is estimated that Argentina could be producing 100,000 barrels of unconventional oil per day, as well as 13 million cubic metres in natural gas (Fin24, 2013).

In Argentina, the Federal Government is responsible for the design of energy policy through the Energy Secretariat (Secretaría de Energía) within the Ministry of Federal Planning, Public Investment and Services (Ministerio de Planificación Federal, Inversión Pública y Servicios). The Constitution grants Argentina's provincial governments ownership of all natural resources, including oil and gas. Provincial states have the right to grant concessions, apply taxes and issue legislation to regulate the extraction of oil and gas and, as a result, the country has a patchwork of different investment and business models and costs across regional energy projects (George, 2014; Zapata, 2010).

Subsidies to fossil-fuels through direct spending in Argentina primarily benefits consumption rather than exploration and production. However, there are important links between price support for consumers and exploration activities. This was highlighted in early 2014 when the country's Economy Minister Axel Kicillof raised the possibility of a reduction in subsidies to gas and power distribution companies. Such a change in consumption subsidies would mean an increase in prices to consumers alongside an increase in the well-head price of gas, bringing

Figure 1. Oil and gas exploration expenditure and reserves in Argentina



Source: Rystad Energy, 2014

it closer to the level that producers say is needed to develop shale resources (\$5-8/MMBtu¹) (Newbery, 2014).

National subsidies

It is estimated that the development of Vaca Muerta will require \$70-90 billion over the next few decades (*The Economist*, 2013a). At present, Argentina's state-owned oil company Yacimientos Petrolíferos Fiscales (YPF) lacks such funds, and the country's borrowing costs prevent it from seeking significant international financing. To address these barriers to investment, Argentina has sought to establish a number of new incentives for oil and gas exploration and production (Borderes and Parravicini, 2014).

In 2012, Repsol YPF was re-nationalised² by President Cristina Kirchner from the Spanish firm Repsol S.A. One of the Government's arguments for re-nationalisation was that Repsol YPF was funnelling its profits towards dividends instead of to exploration and development. Following lawsuits that Repsol filed against the expropriation of YPF by the Argentine Government, the company has been compensated with bonds worth \$5 billion (Gonzalez and Cancel, 2014).

In 2013, a \$2 billion Argentine Oil Fund (Fondo Argentino de Hidrocarburos) was established by the Ministry of Economy and Public Finance to provide support to fossil-fuel companies in which the Government has an ownership stake (Ministerio de Economía y Finanzas Públicas, 2013). This fund is to support activities across exploration, production, processing and marketing of fossil-fuels (upstream and downstream). In the same year, the Argentine President Cristina Fernández de

1 Million British Thermal Units.

2 YPF was first privatized in 1993.

Kirchner issued a decree stating that oil and gas companies willing to invest more than \$1 billion in the country would be allowed to sell 20% of their production abroad after five years without paying export taxes or being required to repatriate profits (*The Economist*, 2013a; Stafford, 2014). This announcement was followed immediately by a statement from the major US oil company Chevron that it would enter into a \$1.24 billion joint venture with YPF in Vaca Muerta (Young, 2013; *The Economist*, 2013a; Romero and Krauss, 2013).^{3, 4}

In parallel, there are a number of incentives to promote exploration including: accelerated amortisation of new assets for income-tax purposes (gradual write off), exemption from personal asset tax and import duties for assets used in exploration activities, and local tax stability during the term of the concessions (Borderes and

Parravicini, 2014; Bonvecchi, 2010). This also includes wider budget expenditure to Argentina's Wholesale Electricity Market Administration Company (CMMESA) and the 53% state-owned Argentina Energy Company (ENARSA), totalling \$580 million in 2014 (Marty, 2014). One of ENARSA's activities is off-shore oil and gas exploration.

A new hydrocarbon bill is being discussed in Argentina that would centralise regulation of oil and gas, and further incentivise super-majors and mid-sized oil and gas companies (Stafford, 2014). The bill would: establish a standardised hydrocarbon contract used throughout the country (George, 2014)⁵; unify (and potentially limit to 12-18%) the royalties and taxes that provincial and city governments levy on producers; ease equipment import restrictions; and lower the minimum investment levels

Table 1. Argentina's national subsidies

Subsidy	Subsidy type	Targeted fossil-fuels	Estimated annual amount (million \$)	Timeframe for subsidy-value estimate	Stage
Direct spending					
Compensation of Repsol S.A. for the expropriation of Repsol YPF assets	Argentine government bonds	Oil and gas	0-5,000	2013	Extraction (including exploration)
Budget expenditure to Argentina's Wholesale Electricity Market Administration Company (CMMESA) and the 53% state-owned Argentina Energy Company (ENARSA). One of ENARSA's activities is off-shore oil and gas exploration.	Budget expenditure	Oil and gas	n/a (total 580 million)	2014	Unspecified
Tax expenditure					
Accelerated amortisation of new assets for income tax purposes.	Tax exemption	Oil and gas	n/a	Policy implemented in 2006	Exploration
Exemption of personal asset tax and import duties for assets used in exploration activities.	Tax exemption	Oil and gas	n/a	Policy implemented in 2006	Exploration
Ability to sell 20% of their production abroad after five years without paying export taxes at international prices (for companies investing over USD 1 billion in Argentina).	Tax exemption	Oil and gas	n/a	5 years from start of development (effective from 2013)	Extraction (including exploration)
Total annual national subsidies			0-5,000		Extraction (including exploration)

Source: Rystad Energy, 2014

- The agreement between Chevron and YPF after the reversal of a Buenos Aires court ruling that 40% of Chevron's assets in Argentina would be frozen was linked to a \$19 billion claim against the company in Ecuador over environmental contamination.
- Additional incentives included in the deal between YPF and Chevron are that the company can withdraw from operations after 18 months without penalty and continue to receive net profits of 50% of the production from the initial wells in perpetuity.
- In the proposed centralised contract, concessions would be extended to 25 years for conventional drilling, 30 years for offshore, and 35 years for non-conventional, with the possibility of further 10 year extensions.

Table 2. Argentina's state-owned enterprise oil and gas exploration investment

SOE	Targeted fossil-fuels	Estimated annual amount (million \$)	Timeframe for subsidy-value estimate	Stage
Yacimientos Petrolíferos Fiscales (YPF)	Oil and gas	1,500	2013-23	Extraction (including exploration)
Energía Argentina S.A (ENARSA)	Oil and gas	n/a	2014	Exploration
Total annual investment by state-owned enterprise		1,500		Extraction (including exploration)

required to qualify for sending dividends abroad and export tax exemptions from \$1 billion to \$250 million (Turner, 2014; Borderes and Parravicini, 2014; George, 2014).

There have been some controversies surrounding recent hydrocarbon legislation, with Argentina's provinces expressing concern over giving up their current option of taking a stake in concessions where they are not investors (Turner, 2014). There have also been recent legal challenges to the President Kirchner's 2013 decree incentivising the oil and gas industry at the federal level, and significant protests against the approval by Neuquén's provincial parliament of a law granting an extension, until 2048, of YPF-Chevron's permit to drill in the Vaca Muerta (Gilbert, 2014; Yahoo Finance, 2014).

Investment by state-owned enterprise

YPF is currently the largest oil and gas producer in Argentina, and has re-launched its exploration activities across: known areas of medium-to-low risk; exploratory frontiers, including the offshore continental shelf; and the country's shale-oil basins (YPF, 2014). A recent company report states that it is also planning to develop an international exploration portfolio, although the specific countries are not specified. In the Vaca Muerta area alone, YPF plans to spend \$15 billion over the next decade (2013-2023), developing shale resources through 200 unconventional wells per year (Fin24, 2013).

Argentina's other state-owned (53%) oil and gas company, Energía Argentina S.A (ENARSA), is involved in the exploration, extraction, transport and distribution of oil and gas, and in the generation and sale of electricity. ENARSA has the right to extract offshore oil and gas resources, but remains a minor producer in the country. ENARSA receives billions of dollars in national subsidies from the Argentinian Government, the majority of which appear to be linked to fossil-fuel imports and consumption as opposed to exploration or extraction (see Table 1 above) (Marty, 2014).

Yacimientos Carboníferos Río Turbio (YCRT) is Argentina's state-owned coal-mining company. It operates

the country's only significant coalfield in the province of Santa Cruz (on the border with Chile), which has total reserves of 632 million tonnes. The production from this mine is destined for its associated Rio Turbio thermal power plant, although in 2013 there was not enough coal available to run the plant, and the Government was discussing importing coal from South Africa or Colombia to keep it operational (Arias and Cabot, 2013).

Public finance

Domestic

Limited information could be found on domestic public finance for oil and gas exploration in Argentina. The country's 100% state-owned Banco de Inversión y Comercio Exterior (BICE) grants medium and long-term production investment and foreign trade loans to domestic companies (BICE, 2014a; BICE, 2014b; BNAmericas, 2014). In 2013, BICE granted \$104 million in loans, 8% of which went to 'Gas/Oil/ Plást' (plastics) (BICE, 2014c). It is not possible to determine whether a portion of support to oil and gas went to exploration.

State-owned banks, the largest being Banco de la Nación Argentina (BNA), and Banco Provincia also dominate the country's banking sector. Although these institutions do not disclose details of their portfolios, a subsidiary of BNA is the trustee of the \$2 billion Fondo Argentino de Hidrocarburos, which includes support for exploration (see earlier section on National subsidies).

International

No information could be found on bilateral support from Argentina for fossil-fuel exploration overseas. However, Argentina contributed an average of 1.4% of funding to multilateral development banks (MDBs) that invested in fossil-fuel exploration projects between 2010 and 2013. These contributions render Argentina responsible for average annual investment in exploration for fossil-fuels of \$10.9 million across this period (Oil Change International, 2014).⁶

⁶ Data are based partly based on shares of multilateral development banks (MDBs) held by each G20 country from the respective MDB annual reports and replenishment agreements.

Major companies

Oil and gas

In 2013, oil and gas companies in Argentina generated \$19 billion in revenue from upstream operations, and net income from these operations totalled \$4.4 billion. Of the \$19 billion in revenue, Argentina's national and regional governments received \$1.8 billion in income taxes and another \$2.8 billion in royalties. The share of revenue (other than royalties) going to income taxes averaged 11% for Argentina's upstream oil and gas industry.⁷

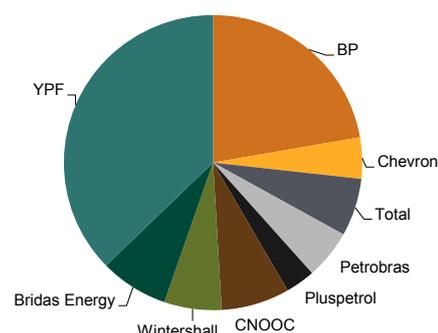
Two companies hold nearly half of Argentina's oil and gas reserves, which totalled 4.4 billion barrels of oil equivalent (BOE) at the start of 2014. YPF holds the largest share at 30% (1.3 billion BOE), followed by BP with 18% (787 BOE) (Figure 2).

Oil and gas exploration expenditure in Argentina is on the rise. Repsol accounted for more than half of total exploration spending in 2013 (which probably included wider investment by YPF based on previous ownership), followed by Chevron (Figure 3)(Rystad Energy, 2014).

A number of additional exploration investments were agreed in 2013 and 2014 (Scott, 2014; Kelly, 2014; Gonzalez, 2013; Total, 2014).

- Chevron is planning to spend an additional \$1.6 billion alongside YPF to develop local oil and gas reserves (as part of a wider \$15 billion joint investment plan).
- Royal Dutch Shell is expecting to invest around \$500 million.

Figure 2. Argentina's top 10 oil and gas reserve holders' share of total reserves as of January 2014



Source: Rystad Energy, 2014

- Bridas (a 50-50 joint venture between the China National Offshore Oil Corporation (CNOOC) and Bridas Energy Holdings) announced it would invest \$500 million to explore for shale oil in Vaca Muerta.
- YPF signed an agreement with Malaysia's Petroliam Nasional Bhd. (Petronas) based on an initial investment of more than \$500 million, with the two companies investing up to \$9 billion in development of shale resources over the next decade.
- Total, Wintershall and Pan American Energy LLC have agreed to invest \$1.2 billion in the development of natural gas in the Vega Pleyade field off the coast of Tierra del Fuego in southern Argentina.

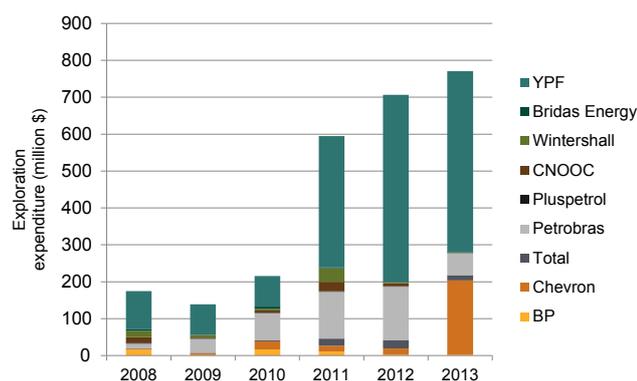
Table 3. Argentina's top 10 oil and gas producers' revenues, profits and income taxes, 2013

Company	Headquarter Country	Revenue (million \$)	Profit (million \$)	Income-tax payments (million \$)	Effective income-tax rate
YPF	Argentina	\$7,828	\$1,210	\$770	12%
BP	U.K.	\$2,198	\$778	\$437	23%
Petrobras	Brazil	\$936	\$360	-\$56	-7%
Sinopec Group (parent)	China	\$921	\$292	\$167	21%
Total	France	\$773	\$193	\$86	13%
Wintershall	Germany	\$775	\$200	\$92	14%
CNOOC	China	\$733	\$262	\$143	23%
Bridas Energy	Argentina	\$733	\$259	\$146	23%
Chevron	U.S.	\$732	\$91	\$107	17%
Pluspetrol	Peru	\$686	\$233	\$104	18%

Source: Rystad Energy, 2014

⁷ The effective income-tax rate is calculated by dividing income tax by revenue, excluding royalties and bonuses.

Figure 3. Oil and gas exploration expenditure in Argentina



Source: Rystad Energy, 2014

Coal

This review does not include investment by coal companies in developing new resources, as Argentina is a net importer of coal, with very limited domestic production (90,000 tonnes in 2013).

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Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ
Tel +44 (0)20 7922 0300
Fax +44 (0)20 7922 0399
www.odi.org
info@odi.org



Oil Change International
714 G Street SE Suite 202
Washington, DC 20003 USA
Tel: +1 202 518 9029
Fax: +1 202 330 5952
www.priceofoil.org
info@priceofoil.org

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