IMPUESTOS NACIONALES

[Domestic Taxes]

Determination of the price

of natural gas

for tax purposes in Bolivia

1. **GENERAL INFORMATION –
   NOTEWORTHY DATA**

Bolivia	Taxes	Gross Domestic
POPULATION INHABITANTS	**REGISTERED TAXPAYERS**	**Product 2014**
		Bs. 228,003.6 million
10,027,254	395,135	US$ 32,759.1 million
12TH out of 26 countries in LA		Taxes collected by TA (SIN) 2014
		Bs. 49,719.7 million
		US$ 7,143.6 million

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Selected indicators for Bolivia's extractive sector, according to ECLAC data.

Period	As a share of total GDP		As a share of the sector's income		As a share of total tax revenue	
	Mining	Hydrocarbo	Mining	Hydrocarbo	Mining	Hydrocarbo
2000 - 2003	0.1	2.7	101.9	27.9	0.3	11
2005 - 2008	0.7	9.1	22.5	25.8	2.1	28.2
2010 - 2013.	1.1	10.2	23.6	73.6	3.2	29.9

Bolivia

Bolivia's economy relies heavily on natural resource extraction and export, mainly in the MINING and HYDROCARBONS sector.

Currently, the second largest natural gas reserve in South America is located in Bolivia, according to data of the Organization of the Petroleum Exporting Countries (OPEC), the International Energy Agency (IEA), and British Petroleum (BP).

Period	Income tax		Royalties		Other	
	Mining	Hydrocarbons	Mining	Hydrocarbons	Mining	Hydrocarbons
2000 - 2003	14.5	5.2	85.5	94.8	0.0	0.0
2005 - 2008	32.1	6.9	67.9	35.8	0.0	57.3
2010 - 2013	48.6	5.2	51.4	34.3	0.0	60.4

National Tax Administration of Bolivia

Institutional VISION: to be a transparent and innovative institution, with values, commitment and social concern that facilitates the payment of taxes and helps forge a Tax-Conscious Culture.

MISSION Statement: To provide the State with the revenue derived from national taxes, thereby helping to improve the quality of life and well-being of all Bolivians.

2. THE HYDROCARBONS SECTOR IN BOLIVIA

Oil and gas (hydrocarbons) activities

Exploration   Refining & Industrialization   Marketing

Production   Transportation & Storage   Distribution of Natural Gas through pipeline networks

1. **UPSTREAM**

DOWNSTREAM 2

Tax enforcement arrangements

1. Rendering of exploration and production services to YPFB: IVA (VAT), IT (transactions tax), IUE (corporate income tax) and IDH* (direct tax on hydrocarbons)
2. Sale of hydrocarbons at refinery price

   (PTP) [pre-terminal price]: IVA, IT^A, IUE and IEHD[Special tax on hydrocarbons and derivatives]
3. Transportation charge: IVA, IT, IUE
4. Net wholesale price (SP-PTP): IVA, IT, IUE
5. Storage service: IVA, IT,IUE
6. Net retail price (SP – CP): IVA, IT, IUE

A. Domestic sales for export are exempt
* YPFB participates in the whole chain, and therefore consolidates payment of the IDH

1. PRODUCTION 2 REFINING 3 TRANSPORTATION 4 MARKETING/DISTRIBUTION
5. STORAGE 6.RETAILERS

Products being extracted and types of gas in Bolivia

Petroleum   Liquefied Petroleum Gas   Natural Gas

Liquefied petroleum gas (LPG)
                Compressed Natural Gas (CNG)   Liquefied Natural Gas (LNG)

DOWNSTREAM

Participation in value by Product and Market

According to information submitted in 2014 for tax administration, in terms of product value, natural gas for external markets accounts for more than 85% of the total value of Bolivia's oil and gas output. That explains the very high sensitivity of fiscal revenue to this product.

[*Tr.Key to pie-chart, clockwise*:] LPG Domestic Market
Petroleum Domestic Market   Petroleum External Market
Natural Gas Domestic Market   Natural Gas External Market

3. DETERMINING THE PRICE OF NATURAL GAS

Natural gas export contracts

The exploitation or production of natural gas is an important component of the Bolivian economy, given its decisive impact on fiscal revenue and on tax collection. As noted earlier, the sector as a whole is subject to the taxes with the widest coverage and with few exemptions (VAT, corporate income tax and transactions tax) and by the special tax on hydrocarbons (IDH).

The product's contribution to fiscal revenue is undeniable, a fact that renders its export price highly important.

Said exports go mainly to markets in Brazil and Argentina. In both cases they are governed by contracts specifying volumes and prices.

The Roboré agreement, Energy Integration

Gas pipeline construction agreement

Supplementary Contract

Export Agreement

New Contract

Framework Agreement

YPFB Enarsa Contract

YPFB/BGC and Gas del Estado Export Contract

Exports begin

Establishment and revision of prices

New Contract

YPFB Petrobras Contract

Brasilia Agreement

Price set in the GSA Contract with Brazil

1.

$$PG = P_I \left(0{,}50 \frac{FO1}{FO1_0} + 0{,}25 \frac{FO2}{FO2_0} + 0{,}25 \frac{FO3}{FO3_0} \right)$$

2. Where:

PG = Gas price (US$/MMBTU) rounded to the fourth decimal point
PI = Base Price (US$/MMBTU)
FO1 = Fuel Oil with 3.5% sulfur Cargo FOB Med Italy (US$/MT)
FO2 = Fuel Oil N°6 with 1% sulfur, Cargo U.S. Gulf Coast Waterborne (US$/bbl)
FO3 = Fuel Oil with 1% sulfur Cargo FOB NWE (US$/MT)
, = .

3. For Daily Contract Quantity (DCQ), the Base Price (PI) varies from 0.95 to 1.06 and for Additional Daily Contract Quantity (ADCQ) it is 1.20 for the whole period in which the contract is in force.

FO1, FO2 and FO3 are arithmetic averages of each day of the quarter immediately prior to the quarter in which the Gas Price (PG) is in effect.

FO1o, FO2o, and FO3o are arithmetic averages for the same Fuel Oils established for the period from January 1, 1990 to June 30, 1992, excluding the period from August 1, 1990 to January 31, 1991

4. Quarterly price adjustment

$$P_t = (0{,}50 \, PG + 0{,}50 P_{t-1})$$

Where:
Pt: relevant quarterly gas price (US$/MMBTU)
PG: Gas Price calculated by using a formula (US$/MMBTU)
Pt-1: Gas Price of the previous quarter (US$/MMBTU)

Price set in the ENARSA contract with Argentina

1.

$$PG = P * \left(0{,}20 \frac{FO1_i}{FO1_0} + 0{,}40 \frac{FO2_i}{FO2_0} + 0{,}20 \frac{FO3_i}{FO3_0} + 0{,}20 \frac{DO_i}{DO_0} \right)$$

2. Where:

PG:	Gas Price (US$/MMBTU)
P:	Base Price equal to 4.0588 (US$/MMBTU)
$FO1_0$:	Fuel Oil with 3.5% sulfur Cargo FOB Med Italy (US$/MT)
$FO2_0$:	Fuel Oil N°6 with 1% sulfur, Cargo U.S. Gulf Coast Waterborne (US$/bbl)
$FO3_0$:	Fuel Oil with 1% sulfur Cargo FOB NWE (US$/MT)
DO_0:	LS Diesel, above-mentioned Cargo U.S. Gulf Coast Waterborne

Considerations regarding the price established for tax purposes

The price of natural gas for export is one of the principal factors affecting taxes paid by the hydrocarbons sector.

That calls for reflections on this variable and its impact on tax collection possibilities.

> ➢ It is a variable that affects all the taxes paid by actors participating in the process.
>
> ➢ Four different price projections for exports; Fuel Oil forecasts are error correction models that are used in the short term but which include long-term ratios.
>
> ➢ At the end of the day, the international price of oil is the core input for establishing the price, in view of the fluctuations which this may entail.

The institutions responsible for sector oversight

Ministry of Hydrocarbons and Energy   UPSTREAM

Yacimientos Petrolíferos
Fiscales Bolivianos (YPFB)

National Hydrocarbons Agency

DOWNSTREAM

Domestic Taxes Administration (SIN)
Administers the tax collection and oversight system

Conclusions

1. Tax revenue

The price of natural gas is the chief determinant of tax revenue, because of its huge share in the value of sector output.

2. Determination mechanisms

The inclusion of up to four international benchmark prices for the calculation and consideration of prior periods leads to a direct relation between revenue and hence taxes paid and the international oil price.

3. Control mechanisms

Appropriate arrangements to control output and marketing, in both domestic and export markets; contracts and local provision criterion is maximized.

4. Fiscal oversight

An adequate IDH tax return system is in place, because of its importance for revenue; with the other taxes, payments reflect observed patterns of behavior at the macro level; some shortcomings in the verification of declared costs.

THANK YOU VERY MUCH.