SOUTH CENTRE

Research Paper 71
October 2016

RECOVERING SOVEREIGNTY OVER NATURAL RESOURCES: THE CASES OF BOLIVIA AND ECUADOR

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RESEARCH PAPERS

71

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OCTOBER 2016

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INTRODUCTION

This document analyzes the renegotiation process of oil and gas contracts in two Latin American countries, Bolivia and Ecuador, from 2003 to 2010. These countries have significant reserves and production of hydrocarbons. Ecuador has 6.9 billion barrels of proved oil reserves, produces 550,000 barrels of oil per day, exports 390,000 barrels per day and is a member of the Organization of the Petroleum Exporting Countries (OPEC). Bolivia has 10.5 trillion cubic feet (TCF) of natural gas reserves and exports 1.65 million cubic feet per day to its neighbors Argentina and Brazil.

In Bolivia and Ecuador, significant reforms to their Constitution and hydrocarbon laws were implemented in those years. These reforms provided the basis for the renegotiation of oil and gas contracts. Also, both countries implemented an important process of modernization and strengthening of its State Owned Enterprises (SOEs), which had been marginalized (Ecuador) or had almost disappeared (Bolivia) with the neoliberal reforms of the 1990s and the beginning of the new millennium.

In Bolivia, the reform process began in 2003 with national protests that ousted the Sánchez de Lozada government, because of its natural gas exports policy. In 2004 the new government of Carlos Mesa held a national referendum to decide the new hydrocarbon policies. In 2006 newly elected President Evo Morales completed the renegotiation of contracts with foreign companies and a new Constitution was approved in 2010. This has resulted in a significant increase in government take, mostly because of higher royalties, but, above all, because Yacimientos Petrolíferos Fiscales Bolivianos (YPFB, the state owned enterprise) took control of the process of marketing and selling natural gas, orienting it to meeting the country's needs.

In Ecuador, the process began in 2005, when the government terminated the contract with U.S. based Occidental Petroleum for breach of contract. In 2006, the new government of President Rafael Correa enacted Law 42-2006, which raised the tax on windfall profits of companies caused by high oil prices. This started a long dispute with oil companies, some of which went to international arbitration. In 2008, a new Constitution was approved, which redefined the role of the State in the exploitation of non-renewable natural resources. The renegotiation process of oil contracts took place in 2009 and ended in 2010. Contracts are now Service Contracts, which means that the State pays the companies a fee for their services, and Petroecuador maintains the ownership of the extracted hydrocarbons.

In both countries, as it has been said, governments called for general elections for the installation of a Constituent Assembly, indicating that a deep and intense process of social, political and economic change was taking place. These processes lasted several years and were not without strong conflicts. What this indicates is that changes to the legislation of hydrocarbons, which is our subject of study, were part of a much larger process.

This document analyses the measures taken for sectorial policy reform in the hydrocarbon sector and our conclusions are that it has been favourable. It is also important to say that macroeconomical policies are not analysed in this paper (fiscal policy, monetary and exchange rate policy, trade policy). Neither do we analyse social (direct money transfers, pension funds, unemployment, women's rights) and environmental (deforestation, colonization of the Amazon basin, respect of Protected Natural Areas and the right to previous and informed consultation of indigenous peoples) policies.

This document goes as follows: Section I provides the general framework of the situation of the hydrocarbon sector in Latin American countries and a section of Synthesis and Conclusions of the study. Section II analyses the nationalization of the hydrocarbon sector in Bolivia from 2002 to 2010. Section III analyses Ecuador's new Constitution of 2008 and the renegotiation of the hydrocarbon contracts. Finally, we present three Annexes: Annex 1 describes the arbitration cases of Ecuador and private companies at the International Centre for Settlement of Investment Disputes (ICSID). Annex 2 and 3 present briefly the views of the International Monetary Fund (IMF) about the overall performance of Bolivia and Ecuador.

I. The Latin American natural resources context in the New Millenium and the renegotiation of hydrocarbon contracts in Bolivia and Ecuador

The abundance in the supply of natural mineral and hydrocarbon resources is one of the main characteristics of Latin America. In most countries of the region, mineral and hydrocarbon exports exceed 50 % of total exports. This has a double effect: on the one hand, income from natural resources provides significant foreign exchange earnings and taxes. On the other hand, it has brought an excessive dependence in commodity exports. It is important to state that the IMF considers that countries are "natural resources dependent" when commodity exports exceed 20 to 25 % of total exports (IMF, 2012).

National constitutions of Latin American countries recognize the State as owner of the resources generated by the extractive sector (mainly hydrocarbons and, also, mining). Consequently most Latin American countries have established different concession regimes, tax treatments and specific royalties to these sectors. Also, almost all countries have State Owned Enterprises in all the value chain of the hydrocarbon sector.

The relations of the State and foreign enterprises have had different moments, the balance shifting from one end to the other in various occasions. Thus, the importance of oil (and mining) rents has been a traditional ground of dispute between the State and foreign oil companies that many times has ended in expropriations and/or renegotiations of contracts. The cases in study in this document, Bolivia and Ecuador, are inscribed in this scenario.

Economic growth in the region between 2003 and 2008 -as well as rising consumption, declining poverty and inequality rates- was associated with, among other factors, the high prices of natural resources (the "super cycle"). Rising international prices of natural resources starting in 2003, with record highs in 2007, brought unprecedented growth in primary sector export value in Latin America and the Caribbean. After falling in July-August 2008 following the global financial crisis, commodity prices rebounded and reached, in 2010-2012, levels that nearly matched the previous peak. This favorable cycle did much to improve the macroeconomic performance and fiscal position of the region's hydrocarbon exporting countries.

Table 1

Latin America, Selected Countries Commodity Dependence and Export Concentration, 2010	
Dependence *(Net commodity exports in percent of GDP)*	
Less than 0	El Salvador / Costa Rica
0 to 5	Mexico / Guatemala / Brazil
5 to 10	Colombia / Peru / Argentina / Uruguay
10 to 15	Venezuela / Paraguay
15 to 20	Ecuador / Chile
More than 20	Bolivia
Export Concentration *(Gross commodity exports in percent of total exports)*	
Less than 30	Mexico / El Salvador / Costa Rica
30 to 40	Argentina / Paraguay
40 to 50	Guatemala / Brazil / Uruguay
50 to 60	Peru
60 to 70	Colombia / Chile
More than 70	Venezuela / Ecuador / Bolivia
Source: Adler and Sosa 2011.	

According to the Economic Commission for Latin America and the Caribbean (ECLAC, 2015), fiscal revenues from hydrocarbons production increased steadily from 2000 to 2013 in most Latin American countries. An important reason behind the increase was the extraordinarily high prices of oil in the commodity super cycle. In most hydrocarbon producing countries, high international prices buoyed the sector's potential economic rent.

It is important to note that while all countries improved their export earnings and total income due to high prices (see Table 2), some countries had a better performance than others. In Bolivia and Ecuador oil revenues rose not only because of high prices, but also because of major reforms, as we will see in this paper, to the Constitution and hydrocarbons laws, which ended in the renegotiation of contracts with foreign companies.

In Bolivia, fiscal revenue from the sector as a percentage of total GDP surged from 2.7% to 10.2% of GDP from 2000-2003 to 2010-2013. As a proportion of the economic sector income[2], hydrocarbon fiscal revenues increased almost three times from 27.9% in 2000-2013 to 73.6% in 2010-2013. Finally, hydrocarbon fiscal revenues

[2] The economic sector income corresponds to the income calculated by the World Bank (World Development Indicators) representing the production of oil and natural gas valued at the international price, excluding extraction costs.

as a proportion of total fiscal revenues rose more than 100% between 2000-2003 and 2010-2013, going from 11.0% to 29.9%.

Table 2

Latin America: Indicators of Fiscal Revenues generated by hydrocarbons production 2000-2013 (in percentage)

Countries	Proportion of total GDP			Proportion of economic sector income			Proportion of total fiscal revenues		
	2000-2003	2005-2008	2010-2013	2000-2003	2005-2008	2010-2013	2000-2003	2005-2008	2010-2013
Argentina	0.8	1.6	1.0	15.0	18.3	25.9	4.5	7.3	3.9
Bolivia	2.7	9.1	10.2	27.9	25.8	73.6	11.0	28.2	29.9
Colombia	1.6	2.1	3.3	27.5	27.0	39.3	5.3	7.2	11.5
Ecuador	5.7	8.7	13.4	44.9	35.2	69.3	29.3	35.3	40.3
Mexico	3.0	5.9	5.5	72.6	70.0	76.7	21.2	38.3	34.4
Peru	0.5	1.1	1.4	35.0	37.9	53.7	3.2	5.9	7.1
Venezuela	10.5	13.8	10.5	38.5	36.6	36.2	48.2	50.6	44.7

Source: ECLAC (2015).

This relates to the change in the royalty regime because of the direct tax on hydrocarbons (Law 3058 of 2005 increased the royalty fee from 18 to 50%), the renegotiation of contracts in 2006, and the renegotiation of natural gas export contracts with Argentina and Brazil, with higher prices and larger contract volumes.

In Ecuador, hydrocarbon fiscal revenue as a proportion of total GDP more than doubled from 2000-2003 to 2010-2013, from 5.7% to 13.4%. As a proportion of the economic sector rent, hydrocarbon fiscal revenues increased from 44.9% in 2000-2003 to 69.3% in 2010-2013. Finally, hydrocarbon fiscal revenues as a proportion of total fiscal revenues rose from 29.3% to 40.3% between 2000-2003 and 2010-2013.

The revenue increase in Ecuador saw an important boost in 2006 with Petroecuador´s takeover of Block 16 and, also, with Law 42, which increased significantly the windfall profits tax. In 2010, after the enactment of the New Constitution, new Services Contracts were signed with oil companies resulting in a higher government take.

Governance and natural resource curse

Some analysts say that natural-resource-rich countries tend to be less economically developed than those lacking in natural resources. The empirical literature associated with this hypothesis, known as the natural resources "curse", examines the various channels through which it might operate. A major focus has been on the impact that greater foreign-exchange earnings from the exploitation of natural resources has on the exchange rate, triggering national currency appreciation. This is known as the Dutch disease, where currency appreciation leads to lower relative prices for imported goods and encourages consumption of imported instead of domestically produced goods.

Currency appreciation also pushes up the relative cost of domestic industrial products, making them less competitive in international export markets.

This literature also states that increased foreign exchange earnings produce or generate "rent seeking" practices that discourage the implementation of economic policies that can widen the industrial base of the country in order to generate more income and employment. Also, that the management of large public revenues in conditions of institutional weakness, poor transparency and social control, can lead to the proliferation of administrative corruption and inefficiency in the allocation of revenues, weakening social relations.

All these negative factors would lead inevitably to two results: first, that natural resource rich countries have lower growth rates than countries that do not have them, and secondly, a tendency to the unequal distribution of national income which would contribute towards greater social inequality.

However, other analysys state that the natural resources "curse" does not exist per se, and, therefore, is not inevitable. They show that although the above problems exist, these can be combated and eliminated if adequate economic and social policies are adopted, with a strong institutional framework and enhanced governance of natural resources. The "curse", then, would be limited to countries with weak governance.

The governance of natural resources includes all sovereign countries' policies on ownership, appropriation and distribution of natural resources to maximize their contribution to development with sustainability criteria. Undoubtedly, this includes a wide range of policy challenges and governance capacity[3]. This has been the case of Bolivia and Ecuador, as we will see in this document, although this process is only at the beginning.

Dependence, vulnerability and productive diversification

Commodity-exporting Latin American economies significantly benefited from the price boom of recent years. This recent performance serves as a reminder that the region should not disregard its comparative advantage in natural resources or their great potential. Nor should it ignore the risks of development that is dependent on the primary sectors or, therefore, the need to develop institutional capacities for managing them responsibly. However, capitalizing on this set of factors must be combined with progress towards a more diversified production structure, bringing more technical

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[3] ECLAC defines governance as the joint action and exercise of public authority by agents of the State (executive, legislative, judicial, sector regulatory agencies, and others) through the existing framework of policies, institutions and regulations. Governance of natural resources is exercised through the set of formal institutions (such as the constitutional framework, legislation, the fiscal framework and sectorial regulation), informal institutions (the rules implicit in standard practice) and sovereign political decisions that, all together, influence how the extractive sectors operate. This governance structure determines property ownership regimes (laws on concessions, for example), tax frameworks (tax treatment specific to these sectors), mechanisms for saving, distributing and using public rents from these sectors (investment and stabilization funds) and other functions governing activities associated with natural resource extractive sectors (ECLAC, 2014).

change into the mix and creating quality jobs to sustain societies with higher levels of equality and development opportunities for all.

The recent steep fall in commodity prices signals the end of the super cycle and is a reminder of the need to move away from the tendency of some governments to treat rising prices as permanent, at the same time that they consider the fall of prices as temporary. This vision perpetuates excessive economic dependence on natural resources, which gives way to a high vulnerability because commodity prices are very sensitive to global economic performance. It also conspires against the need for countries to implement structural reforms in order to have more diversified economies and other productive engines of growth.

This is the general context of the cases of Bolivia and Ecuador in the first decade of the new century, analyzed in this document.

Synthesis and Conclusions

1. The process of renegotiation of oil and gas contracts in Ecuador and Bolivia shows that political will of the government and the population is indispensable in order to modify existing unfavorable conditions of oil and gas contracts. In both countries there were important social mobilizations that resulted in new Constitutions and legal frameworks.

2. In both natural resource rich countries, hydrocarbon rents increased considerably, boosting fiscal revenues and foreign exchange reserves. In Bolivia the new legal regime increased fiscal revenues to US$ 34.6 billion from 2005 to 2015; only US$ 14.5 billion would have been obtained with the legal framework in place before the renegotiation. In Ecuador, according to the United Nations Conference on Trade and Development (UNCTAD), the share of government revenues in rents from the oil industry rose from 71.8% to 93.5% from 2004 to 2012.

3. These rents were channeled to important new investments in the energy sector and other sectors of the economy. Revenues from the hydrocarbon sector were funneled also to social programs (including pensions, endowments to avoid "child labor" and direct cash transfers to the poor). These programs have had an important role in the reduction of poverty and inequality.

4. An important instrument for this policy was the strengthening of state owned enterprises YPFB (Yacimientos Petrolíferos Fiscales Bolivianos) and Petroecuador. Before the process started, YPFB had been stripped of all its assets and was not producing oil or gas. Petroecuador had been weakened by neoliberal policies that reduced its revenues and, therefore, vital investment in exploration and production. The final objective of neoliberal governments, in both cases, was to privatize the state owned companies. The strengthening of SOEs from 2005 onwards gave the governments the legal, technical, economical and financial clout that made the renegotiations possible.

5. The renegotiation process in both countries had to deal with domestic political opposition and also opposition from foreign companies. In the case of Ecuador, many

companies made use of Bilateral Investment Treaties (BITs) and led the government to foreign courts, such as the International Centre for Settlement of Investment Disputes (ICSID) of the World Bank and the International Court of Justice (ICJ) of The Hague (Netherlands). In Ecuador, new service contracts were signed accounting for 80% of private oil production in 2010. In Bolivia, private hydrocarbon companies did not go to ICSID (although three companies from other sectors of the economy did go to ICSID). In Bolivia all companies finally signed new contracts in 2007. Both countries have rejected BITs since the reforms. Bolivia formally withdrew from ICSID in 2007 and Ecuador did the same in 2009.

6. YPFB and Petroecuador are now the most important players in the oil industry in their respective countries. In Ecuador, Petroamazonas (state company founded in 2010) is the biggest oil producer and, also, the company with the highest annual investment in oil exploration and production. In Bolivia, YPFB is the largest investor in gas exploration activities. YPFB has a majority stake in oil exploration and production in partnership with foreign companies. YPFB (with YPFB Andina and YPFB Chaco) participates in 25% of total natural gas production, individually and, also, in association with foreign companies. In marketing and exports activities, YPFB is responsible for 100% of hydrocarbons produced in Bolivia. This has raised analysts' concerns about an over extension of SOEs' responsibilities.

7. As it is known, natural gas prices differ among regions. Since 2007, gas prices were higher in European and Asian markets, compared to United States prices (Henry Hub), because of shale gas production. In Bolivia, before 2003, private consortiums planned to export natural gas to the United States, at Henry Hub prices, an initiative that was defeated by the "gas war" of 2003. In 2006, the government of Bolivia, as the owner of all produced natural gas in the country, renegotiated the export contracts with Argentina and Brazil, ameliorating indexation clauses linking natural gas prices with the price of fuel substitutes (like crude oil and fuel oils). Thus, Bolivia obtained higher export gas prices (than those of the United States Henry Hub), which determined very important income and fiscal revenues. Governments should not only recuperate the ownership of hydrocarbons but, also, get the highest value for them in the international markets.

8. In Ecuador, Service Contracts determined that contractors were paid an agreed fee per barrel of oil produced. As it is known, different from natural gas, oil has an international price, valid in all markets (with differences regarding the quality of different types of oil). It is important to take into account that this service contracts provide safeguards to the State in case the price of oil falls below the agreed fee per barrel. The "Accumulation Clause" states that if the price of oil falls below the fee, the amount owed will be transferred to the next fiscal year, free of interest. In case of termination of the contract, any amount owed to the contractor will be declared extinguished and will not be paid to the contractor.

9. In the following years, private companies' oil and gas production investment increased substantially in both countries. Also new companies came to Bolivia and Ecuador and signed contracts with the new constitutional and legal framework.
Nevertheless, in both countries oil and gas exploration investment during the renegotiation process decreased substantially. From 2011 onwards, both governments have taken specific measures to reverse this negative trend and have signed an important number of new exploration contracts with foreign companies and new

hydrocarbon reserves have been discovered. It is still too early for a final assessment on the results of these policies.

10. In both countries economic growth increased significantly after the renegotiation of the contracts. Fiscal revenues and foreign exchange also increased. Poverty and inequality diminished in both countries, according go multilateral institutions (IMF and World Bank). Good governance policies increased in both countries, targeting transparency, adequate legal frameworks, fight against corruption and efficiency of state owned enterprises. Nevertheless, official documents in both countries, as well as independent analysts, argue that these policies need to be strengthened.

11. In Ecuador and Bolivia we observe important alternative development paths in the recent years. In Bolivia, there has been progress in the massification of natural gas for universal household energy access. More than 25% of the population has now direct connections to the national gas grid. The diversification of the production matrix around natural resource exploitation has started to take place, with the construction of natural gas processing plants (for the production of ethane, LPG and isopentane) and plans for a petrochemical industry. This has been assumed as a permanent State policy: the industrialization of natural resources. It will introduce greater density in capacities, technological innovation, production linkages and synergies with other sectors. Also, it can ensure that investment in infrastructure for exploiting and transporting natural resources facilitates the emergence of supply chains associated with their industrialization, generating the broadest possible benefits for other production sectors and for society as a whole.

In Ecuador, enhanced oil revenues have permitted the investment of natural resource rents (and associated tax revenues) for building human capacities through government investment in education, training and high technology with value added content. This is the case of Yachay, a city built as a space for generating knowledge and technological innovation that seeks to change the dependence on natural resources. The intention of the government is to create a "Silicon Valley" in the country –investment will be US$ 1.1 billion- in order to advance into the information and knowledge technologies. President Rafael Correa has said that technology and innovation are key to development and “Living Well” because they help overcome the extractive economy, based mostly in the exploitation of natural resources.

12. The challenge of transforming natural resource rich economies and moving away from heavy dependence on commodities is not a short-term process. In spite of the advances made by these economies, they still rely heavily on commodities, a process that will have bigger problems now that the super cycle of high commodity prices has come to an end. The scope of that study –which is crucial for reaching economic and social goals proposed by both countries- goes far yonder than the limits of this paper, which has been to analyze the renegotiation process of the oil and gas contracts in both countries.

II. BOLIVIA - THE NATIONALIZATION OF THE HYDROCARBON SECTOR

The background

Bolivia has been traditionally dependent on the mining industry as its most important source of exports and fiscal revenues for the State. But the hydrocarbons industry (oil and gas) was not very important and the country was a net importer of oil. This changed dramatically in the 1970s when important natural gas reserves were discovered by the State oil company (YPFB). It is important to remark that these are natural gas, not oil reserves.

Up until the middle of the 1980s, the State played a main role in economic development and growth. State owned companies YPFB and Comibol were the backbone of the Bolivian economy. Comibol owned the most important tin mines and was the leading industry until tin prices came down and tin reserves were exhausted. YPFB produced 77% of oil and natural gas. In 1972, the Yacimientos-Bolivian Gulf (Yabog) pipeline was constructed. Its transport capacity was 6 million cubic meters per day and it connected Rio Grande in Bolivia with the Salta province in Argentina. Gas exports boosted fiscal revenues, albeit in a moderate manner, because of capacity problems in the Argentinian territory.

In 1985, Bolivia adopted the New Economic Plan (NEP), which consisted of a set of specific policies oriented to free prices and trade, the privatization of State-owned companies, and the liberalization of capital flows. Bolivia was the second country in Latin America after Chile that adopted the Washington Consensus. Implementation of the NEP began with Decree 21060 in 1985, which focused on economic stabilization and implementing bases for further policies. The second generation of policies dealt with "privatizing state-owned corporations and reaching sustainable development".

In March 1994, the government passed the Capitalization Act, which established the path to the conversion of State Owned Enterprises to a new property regime called "capitalization". Under "capitalization", a private company was allowed to buy 50% of the shares of the SOE. The remaining 50% then went to a new institution that administered the received funds in the name of Bolivian citizens. Proceeds went to the Bolivian pension funds and each citizen received an annual payment.

Capitalized companies included major utilities: National Telecommunications Company (ENTEL), National Railway Company (ENFE), Lloyd Aéreo Boliviano (LAB), National Electricity Company (ENDE), and most important, YPFB which had oil and gas activities in exploration and production, refining, transport and commercialization.

Law 1689 or Law of Capitalization

In 1996, the new government of Gonzalo Sánchez de Lozada enacted Law 1689 in order to "capitalize" YPFB. Law 1689 brought upon new conditions for YPFB and also, for the existing oil and gas contracts with foreign companies.

The structure of the oil sector (see next section for gas) before the capitalization process was as follows: YPFB produced 71% of hydrocarbons, and it operated and managed the national network of pipeline transportation. YPFB owned 2 refineries and marketed petroleum products. It also exported gas to Argentina via the Yabog pipeline.

Upon "capitalization", the structure of YPFB was modified. It was divided into two companies, Andina SAM and Chaco SAM. Both companies did exploration and production activities. Another company was created for the oil pipeline transportation, with the name Transredes.

The two refineries (Villaroel and Elder Bell) and two pipelines, property of YPFB, were 100% privatized (they were not "capitalized"). Finally, YPFB Casa Matriz (YPFB Head Office) was established. YPFB Casa Matriz had no direct assets in the industry and was reduced to an administrative body with a residual role. Revenues from the "capitalization" process amounted US$ 937 million (see Table 1).

Table 1

Bolivia: Capitalization and Privatization of YPFB (in millions of US dollars)

CAPITALIZED UNITS (1996)	BUYERS	AMOUNT	% SOLD SHARES
Andina SAM (oil production)	YPF (20,25%), Pérez Companc (20,25%), Pluspetrol (9,5%)	264.7	50%
Chaco SAM (oil production)	AMOCO (USA, 30%), Bridas (Arg, 20%)	306.6	50%
Transredes (pipelines)	Enron (USA, 25%), SHELL (UK-NETHERLANDS, 25%)	263.5	50%
SUB-TOTAL (1)		835	
PRIVATIZED UNITS (1999)	**BUYER**	**AMOUNT**	**% SOLD SHARES**
Refinery Gualberto Villarroel Refinery Guillermo Elder Bell Pipeline Palmasola - Viru Viru Pipeline Villarroel Refinery - Airport	Petrobras (70%) / Pérez Companc (30%)	102	100%
SUB-TOTAL (2)		102	
TOTAL (1) + (2)		937	

Source: Campodonico (2004).

The situation of natural gas contracts with private companies

Besides the oil and gas reserves exploited by YPFB mentioned above, there were other oil and gas reserves exploited by private companies: Total/Fina/Elf , Repsol, Petrobras and British Gas were the most important. It is crucial to take into account that the biggest gas fields were exploited by these companies.

The new legislation required that companies migrate to new Risk Sharing Contracts. The Contractor that signed these contracts with YPFB acquired ownership of the hydrocarbons produced, with the exception of those needed to satisfy the domestic market demand. The same type of Contracts applied to the bidding rounds for new areas, awarded in 1997, 1998 and 1999. This meant that the private companies owned the oil and gas produced and were allowed to decide freely about the destiny of those hydrocarbons.

The other contentious and very controversial issue was the change in the royalty regime for Risk Sharing Contracts. Before Law 1689 all hydrocarbons were subjected to a 50% royalty for produced hydrocarbons. But Law 1731, also enacted in 1996, considered two types of hydrocarbons, each with a different royalty treatment. For "existing" hydrocarbons the 50% royalty was maintained. But "new" hydrocarbons would only be subjected to a royalty of 18%. The income tax law remained the same for both "old" and "new" hydrocarbons: 25% income tax plus a 12.5% tax on profit remittances. With one exception: there would be a "surtax" of 25% on profits coming from "new" hydrocarbons.

Since over 90% of proven and probable reserves were considered "new hydrocarbons", this new legislation was considered to obtain the most reduced "government take" in Latin America. In the subsequent years, the property question, the classification of "old" and "new" reserves and the royalty reduction from 50 to 18% became some of the most critical issues in Bolivian politics.

Discoveries of huge reserves of natural gas at the end of the 1990s

In 1996, Bolivia signed an agreement with Brazil to construct a pipeline to export natural gas. The pipeline, finished in 1999, had a transport capacity of 30 million cubic meters per day and an extension of 1,970 km. Total investment in the pipeline was US$ 2.2 billion. The pipeline ran from Santa Cruz in Bolivia to Sao Paulo in Brazil and was constructed with the participation of YPFB and Petrobras.

The opening of the Brazilian market for natural gas gave a boost to exploration investments of private companies with Risk Sharing Contracts. From 1997 to 2000, investment in exploration amounted to US $ 1.134 billion and investments in production were US$ 765 million.

The natural gas discovered increased Proved Reserves from 3.75 Trillion Cubic Feet (TCF) in 1997 to 18.31 TCF in 2000. In 2003, Proved Reserves reached 28.69 TCF making Bolivia second in Latin America in natural gas reserves, after Venezuela (see Table 2).

Table 2

Certified Reserves of Natural Gas
Trillion Cubic Feet (TCF)

Year	1997	1998	1999	2000	2001	2002	2003
Proved Reserves	3.75	4.16	5.28	18.31	23.84	27.36	28.69

Source: YPFB

Note: In 2006, the certification of natural gas reserves by consultant De Goyler and MacNaughton reduced the estimate to 12.8 TCF. In 2010, consultant Ryder Scott put the estimate in 9.7 TCF. The reason for this important reduction of reserves is not clear to date (Gustavo Rodríguez, 2011).

The foreign companies that had the biggest reserves were Andina (where Repsol held a majority interest), British Gas, Petrobras, TotalFinaElf and Maxus/Repsol. These 5 companies accounted for 78% of total reserves of Bolivia.

The official account says that these reserves were discovered by the above mentioned companies after 1996. Nevertheless, many critics argued that an important amount of these reserves had been discovered by YPFB at the beginning of the 1990s, before its capitalization and privatization (see Box 1).

BOX 1
"New reserves" had already been discovered by YPFB

At the end of the 1990s, there was an intense discussion about the important natural gas reserves discovered in Tarija. Who discovered the huge gas reserves and when? Was it YPFB in the '90s before Sanchez de Lozada removed it from the exploration activities with Law 1689? Or were they discovered by exploration of private enterprises that "migrated" to the new contracts of Law 1689, which then reduced royalties from 50% to 18%?

This issue is of utmost importance because if it was YPFB, that meant that the government was considering as "new reserves" what were "old reserves" and, for that reason, the companies were paying less royalties. This discussion was one of the central themes of the "gas war" of 2002 and 2003 that led to the ousting of Sanchez de Lozada.

The question was answered in 2004, when the Presidential Delegation for Review and Improvement of Capitalization, appointed by President Carlos Mesa, concluded unanimously:

"Had a more technical than fiscal definition been adopted, the reservoir of Campo San Alberto – discovered beyond doubt by YPFB in 1990 – should have been declared as 'existing' instead of 'new'. In Tarija, the Presidential Delegate for Review and Improvement of Capitalization, Francesco Zaratti, announced the findings of the report on the reclassification of San Alberto, after six weeks of research: because it was considered a "new" field, it paid royalties of only 18%, when it should have paid 50% as an "existing" field".

(San Alberto: Una historia entre lo legal y lo justo, June 29, 2004, http://www.bolivia.com/noticias/autonoticias/DetalleNoticia21210.asp).

The "gas war" of 2002 and 2003

In 2002, the Pacific LNG consortium proposed to build a pipeline to the Chilean coast in the Pacific. The purpose was to build a Liquified Natural Gas plant to export Bolivian natural gas to the United States. The members of the consortium were Repsol (Spain), British Petroleum and British Gas. This project encountered strong opposition in Bolivia.

One of the main reasons for the opposition to the project was that the pipeline and the plant facilities were going to be built in Chile, due to a long historical rivalry between the 2 countries. (In a war between them in the second half of the 19^{th} century, Bolivia lost its entire coast and is now a land-locked country.) The opposition also said that Bolivia would obtain very little income from natural gas exports, because of low prices in the United States and unfavorable terms in the export contracts.

In 2002 and 2003, popular riots against the project caused 75 mortalities. Bolivian President Sánchez de Lozada was forced to resign and his export project was rejected. The new government of President Carlos Mesa passed a referendum bill in order to consult the Bolivian population about the nature of the new oil and gas laws to be adopted in the country. The most important questions of the referendum held in 2004 were massively ratified by the population in the referendum: 92 percent of voters supported nationalizing Bolivia's gas and 87 percent supported repealing the 1996 privatization law.

In 2005, as a result of the referendum, a new Law of Hydrocarbons was supposed to be enacted, but President Carlos Mesa refused to enact the Law. It was finally approved by the Bolivian Congress (without the approval of President Mesa) as Law 3058 in May 2005.

Implications of Law 3058 of 2005

Law 3058 creates the Impuesto Nacional a los Hidrocarburos (IDH), a Direct Tax of 32% to be paid by oil and gas companies, in addition to the 18% royalty rate that was already required. Thus, the Bolivian royalty reverted back to 50%, as before the enactment of Law 1689.

Law 3058 also allowed the Bolivian State to reclaim ownership of all hydrocarbons, and set a deadline of 180 days for the mandatory conversion of the Risk Sharing Contracts into new forms of contracts. Such new types of contracts were: (i) production sharing contracts, (ii) operating contracts, and (iii) association contracts.

Nevertheless, this law was seen as too conciliatory to foreign companies. Moreover, the discussion of this law had revealed a lack of political will of President Mesa, and triggered fears that the Law would not be fully implemented. Protests grew throughout the country, and Carlos Mesa resigned in June 2005.

Law 3058 also stated that YPFB was to regain activities in exploration and exploitation of oil and gas fields. This participation took place in Production Sharing Contracts, Participation Contracts or Association Contracts.

Evo Morales in power: The Nationalization Decree

In January 2006, Evo Morales was elected President. On May 1st, 2006 Morales issued Supreme Decree No. 28701 nationalizing the hydrocarbon resources of the country (the "Nationalization Decree"). It mandated that all companies producing oil and gas in Bolivia deliver their production exclusively to YPFB, and set a 180-day deadline for companies to convert their operations to comply with Law 3058 lest YPFB take over their operations.

The nationalization decree put an end to the "capitalization" and privatization process. It stated that YPFB must own 50% plus 1 shares of SAM Andina and SAM Chaco, "capitalized" in 1996. It also provided for recovery by YPFB of the 2 Bolivian oil refineries, which had been privatized and acquired by Petrobras.

Box 2
Supreme Decree 28701 of May 2006

Article 1. In exercise of national sovereignty and obeying the mandate of the Bolivian people expressed in the binding referendum of July 18, 2004 and in strict application of constitutional principles, the natural hydrocarbon resources have been nationalized.
The state recovers ownership, possession and total and absolute control of these resources.

Article 2. As of May 1, 2006, oil companies currently engaged in oil and gas production in the country are obliged to transfer ownership to YPFB of all production of hydrocarbons. YPFB, in the name and on behalf of the State, in the exercise of ownership of all hydrocarbons produced in the country, assumes its marketing and defines conditions, volumes and prices for both domestic market and for export and industrialization.

Upon issuance of the Nationalization Decree the government developed the model form of the Operations Contract. The negotiation process began in the midst of legal uncertainty and heightened tension over the actual prospects of investment recovery and of a profitable continuity of hydrocarbon operations in the country[4].

After months of negotiations, in October 2006, YPFB and all the oil companies operating in Bolivia signed a total of 44 Operations Contracts. Subsequently, as required by Law 3058, the Contracts were approved by the Congress of Bolivia. The Operations Contracts came into effect on May 2, 2007.

The Constitution of 2010 endorsed the Contracts, proclaiming that natural resources are property of the Bolivian State. Also, the Constitution clearly mandates the industrialization of hydrocarbons (see Box 3).

Box 3
The Constitution of 2010 and natural resources

The Constitution proclaims that Natural Resources are the property of the Bolivian State.

Article 349

I. The natural resources are the property and direct domain, indivisible and without limitation, of the Bolivian people, and their administration corresponds to the State on behalf of the collective interest.
II. The State shall recognize, respect and grant individual and collective ownership rights to land, as well as the rights to use and enjoyment of natural resources.

Regarding hydrocarbons, its administration and the profits produced by them, are

[4] See Vargas (2007), Medinaceli (2007b), Lefebvre and Bonifaz (2014).

property of the State of Bolivia.

Article 359

I. The hydrocarbons, in whatever state they are found or form in which they are, are the inalienable and unlimited property of the Bolivian people. The State, on behalf of and in representation of the Bolivian people, is owner of the entire hydrocarbon production of the country and is the only one authorized to sell them. The totality of the income received by the sale of hydrocarbons shall be the property of the State.

The Constitution clearly mandates the industrialization of hydrocarbons.

Article 355

I. The industrialization and sale of natural resources shall be a priority of the State.
II. The profits obtained from the exploitation and sale of the natural resources shall be distributed and reinvested to promote economic diversification in the different territorial levels of the State. The percentage of profits to be distributed shall be approved by Law.
III. The processes of industrialization shall be carried out with preference given to the place of origin of the production, and conditions shall be created which favor competitiveness in the internal and international market.

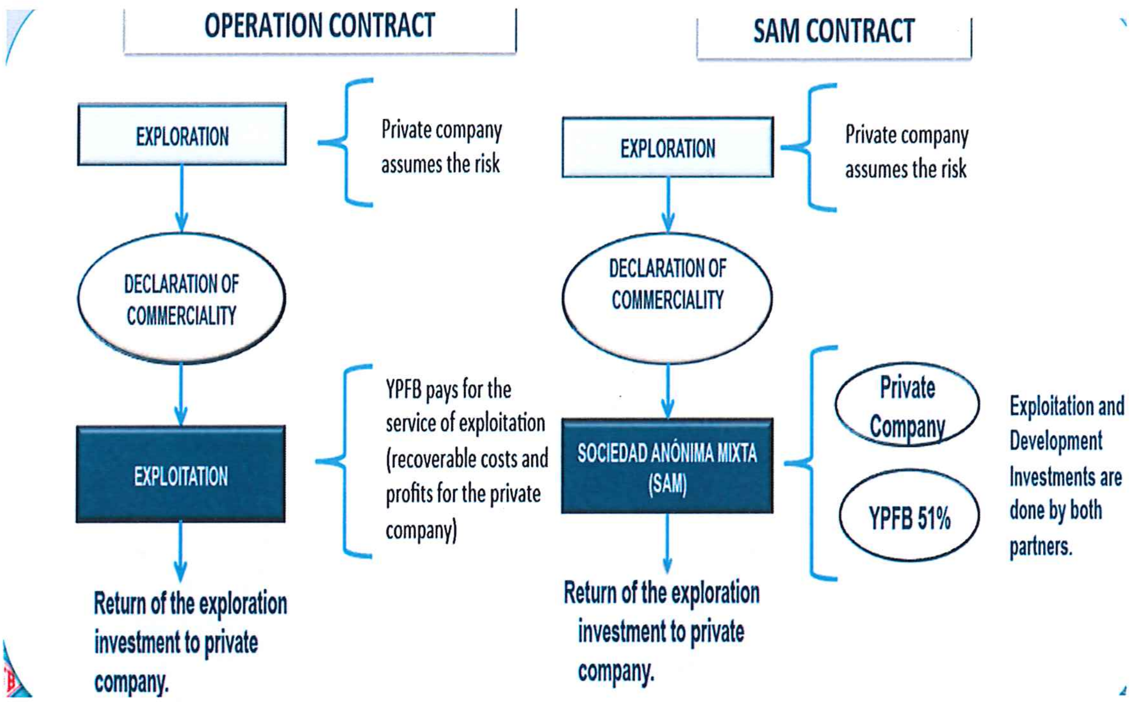
The Nationalization Decree of 2006 and the new contracts

The Nationalization Decree required that oil companies operating in Bolivia deliver all production to the owner YPFB, which assumed all aspects of operations related to sales and commercialization. The Decree also defined the types of Contracts that can be signed in Bolivia. The most important were the Operation Contracts and the SAM Contracts (defined below).

a) The Operation Contracts established that exploration investments had to be assumed by the private company at its own risk. If oil and/or gas were discovered, the company had to make a "Declaration of Commerciality" in order to enter the Exploitation Phase.

In the Exploitation Phase, once production started, the private company is reimbursed for its exploration expenses. Also, in this Phase, (see Figure 1) YPFB pays the private company for the service of exploitation (recoverable costs and profits for the private company). Thus, despite the name, these contracts are Service Contracts.

Figure 1
Bolivia 2007: Two types of Service Contracts
Operation and SAM Contracts



Source: YPFB 2014.

The great majority of Operation Contracts were signed with private gas companies that were operating in Bolivia. The most important companies were Repsol, Petrobras, Pluspetrol and British Gas. Among the most important contracts signed for the biggest fields were San Alberto, San Antonio and Margarita.

b) The SAM contracts established a joint venture between YPFB and private oil companies. YPFB always had a majority share of at least 50% + 1. The SAM contracts also stated that exploration investment had to be assumed by the private company at its own risk (see also Figure 1).

If oil and/or gas were discovered, the joint venture had to make a "Declaration of Commerciality" in order to enter the Exploitation Phase. In this Phase, once production started, YPFB reimbursed the private company for its exploration expenses.

In the Exploitation Phase, development and production investments were done jointly by YPFB and the private company (or companies), in the corresponding proportions.

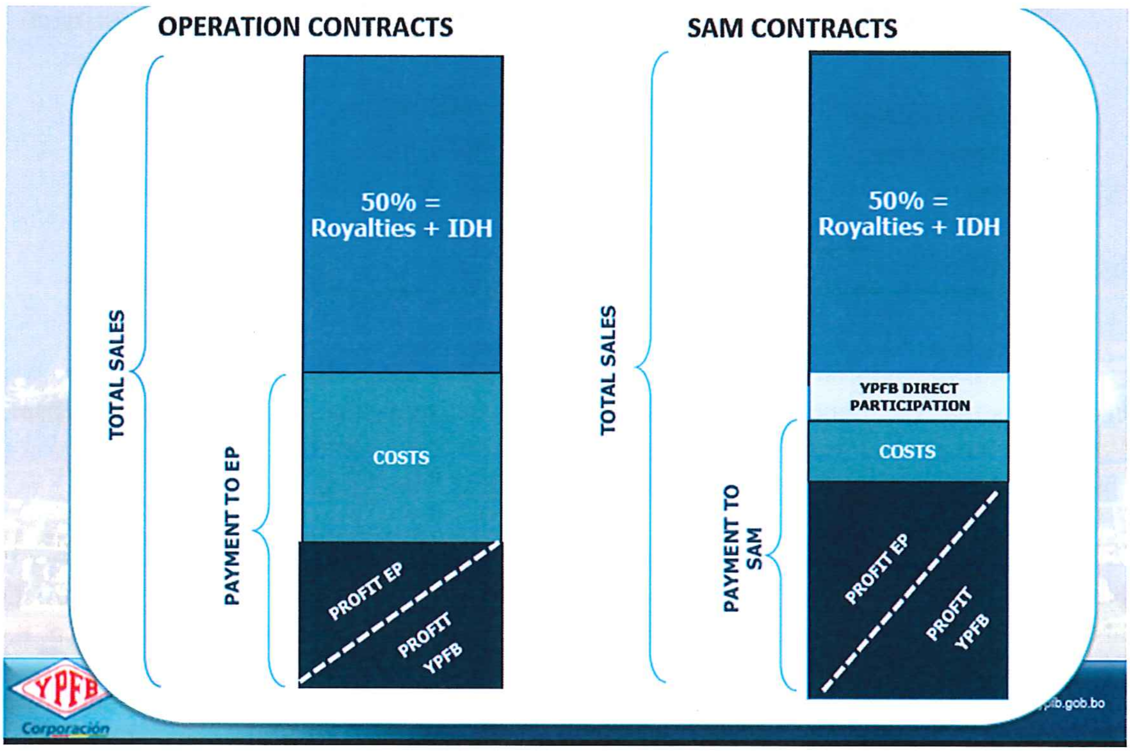
The first SAM Contracts signed in 2007 were SAM Chaco, where YPFB owns 100% of the shares and SAM Andina, where YPFB owns 51% of the shares and Repsol (Spain) the remaining 49%.

The fiscal regime of the Nationalization Decree

As has been said before, Law 1689 of 2005 established a royalty of 18% and an additional 32%, the Impuesto Directo a los Hidrocarburos (IDH, Direct Tax on Hydrocarbons). These royalties were collected by YPFB. The Operation Contracts established that these revenues were first intended for payment of royalties (12%), government participation of the Treasury (TGN, 6%) and the Direct Tax on Hydrocarbons (IDH, 32%).

In Operation Contracts, after the payment of 50% of royalties mentioned above, the remaining amount has to cover "recoverable costs" of the Exploration and Production (EP) company. These costs were clearly established in the contracts (see Figure 2).

Figure 2
Bolivia: Fiscal Regimes in Operation and SAM Contracts



Source: YPFB 2014.

After the payment of 50% royalties and the deduction of "recoverable costs" of the EP companies, there is an amount called "Profit to be distributed". This amount is now split between YPFB and EP oil companies, according to participation tables established in the operating contracts. This participation gave significant revenues to YPFB.

In both contracts, oil and gas companies were required to pay 25% income tax of their "distributed profits". There was also a profit remittance tax, which amounted to

25% of 50% of remitted profits.

The Nationalization Decree and the new role of YPFB

Decree 28701 established dominant presence of YPFB across the hydrocarbon value chain. To achieve this, the government nationalized 50% + 1 shares of companies that had been "capitalized" in 1996 (see again Table 1).

In accordance to the application of Decree 28701, the following companies were now owned by YPFB:

- SAM Chaco (100% YPFB): US$ 324 million were paid to Pan American Energy (50% of the shares).
- SAM Andina (51% YPFB, 49% Repsol): Repsol stayed as holder of 49%, reason why there was no payment.
- Transredes (100% YPFB): US$ 307 million were paid in 2008 to Shell, Ashmore and minority shareholders (50% of the shares) for pipeline networks.
- Refineries: US$ 112 million were paid to Petrobras for 100% of the shares of Refineries Villaroel and Elder Bell.
- CLHB Tanking Facilities (100% YPFB): US$ 16 million were paid to the consortium OilTanking and Graña & Montero.

YPFB becomes an important actor in natural gas production

Until 2006, YPFB was excluded from participating in exploration and production activities in Bolivia. All gas fields were owned by foreign companies. Starting in 2007, YPFB not only recovered its "capitalized" and privatized assets, but acquired an important stake as an owner and operator in natural gas fields.

Thus, YPFB Andina formed associations with private companies, for example, Total and Petrobras. YPFB Andina participates with 50% of shares in Blocks Sabalo (San Antonio) and San Alberto and which account for 45% of total gas production in Bolivia (see Table 3).

Table 3

Bolivia 2015: Natural Gas Production - Selected Blocks per Company (Million Cubic Meters per day)				
Companies	Blocks			
	Sábalo	Caipipendi	San Alberto	Itaú
Petrobras	35%		35%	30%
Total France	15%		15%	41%
YPFB Andina (*)	50%		50%	
Repsol		37.5%		
YPFB Chaco				4%
British Gas		37.5%		25%
PanAmerican Energy		25%		
Total shares	100%	100%	100%	100%
Production 2015 Million Cubic Meters/day	18.46	16.96	7.78	2.22

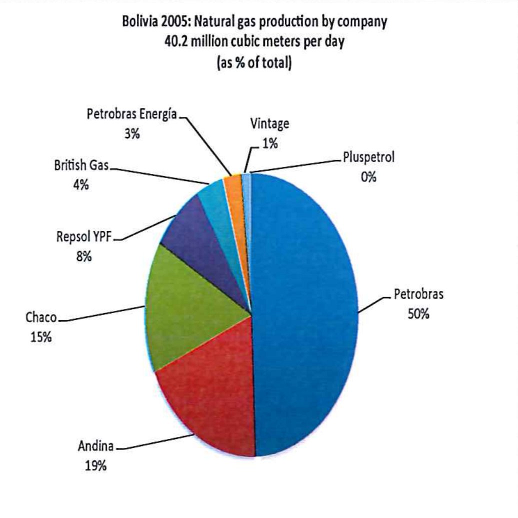
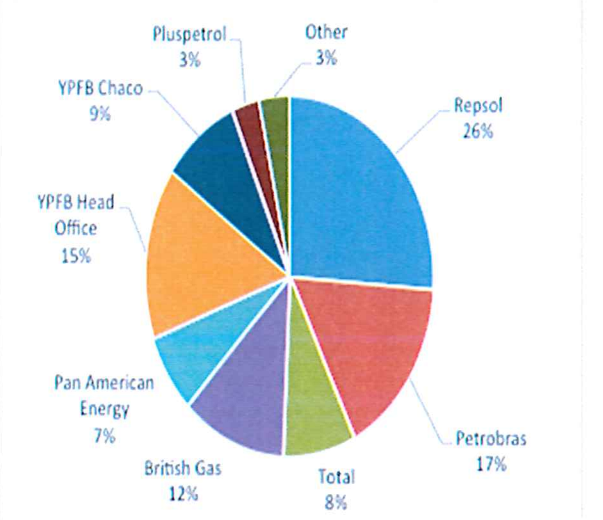
(*) YPFB Andina is owned by YPFB Head Office (50.18%), Repsol (48.92%) and other shareholders (0.9%).

Source: YPFB, Boletín Estadístico 2015

In Itaú Field, YPFB-Chaco (subsidiary of YPFB) participates with 4% of the shares. Also, YPFB-Chaco owns Bulo-Bulo, El Dorado, Vuelta Grande and other smaller fields. Aggregate participation of YPFB Chaco amounts to 5.2% of Bolivia´s natural gas production.

Thus, the participation of YPFB (YPFB Andina and YPFB Chaco) in total natural gas production amounts to 24%. Other important companies are Repsol (26.1%), Petrobras (16.5%), British Gas (11.6%) and Total France (8.1%).

Figure 3

Bolivia 2005: Natural gas production by company (as % of total) 40.2 million cubic meters per day	**Bolivia 2015: Natural gas production by company (as % of total) 59.7 million cubic meters per day**
	

Source: Campodonico 2009, YPFB 2015a.

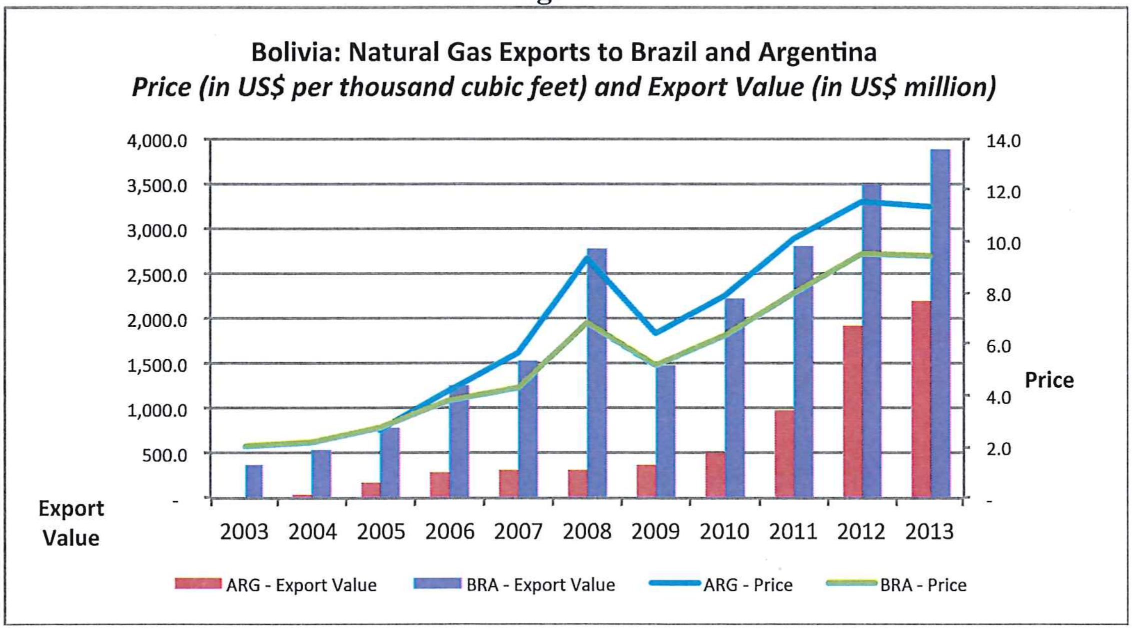
Increase of export revenues from Argentina and Brazil

The government of Bolivia decided to prioritize natural gas exports to neighbor countries Brazil and Argentina. Natural gas contracts with these countries were renegotiated and Bolivia obtained higher export prices, which determined important income and fiscal revenues.

Revenues from gas exports have increased substantially since 2005, when they amounted to only US$ 1.1 billion, just before the nationalization. In 2013, revenues from gas exports were US$ 6.1 billion, six times more than in 2005 (see Figure 4). These revenues have been a very important source of foreign exchange for Bolivia and are the main contributors of the country's current account surplus since 2006.

Different reports made by economists agree that the methodology of contracts with Argentina and Brazil provide an adequate level of profitability to Bolivia[5], especially when compared with exports to the United States under the government of Sánchez de Lozada in 2002-2003. In the United States, the reference is the Henry Hub price, which has had a negative performance in recent years, falling far below the export price to Brazil and Argentina.

Figure 4



Source: YPFB 2015a

[5] The results show that the formulas in the contract give an optimal combination of inputs for determining future prices in the markets of Brazil and Argentina. As noted, prognostic indicators lead us to think that the optimal combination should replicate future conditions that are (or would be) taken separately in each of the projections. And, therefore, that projections based on a single criterion could be subject to forecasting errors (Aguilar and Valdivia, 2011).

Box 4
The export gas contracts with Brazil and Argentina

a) Agreement with Brazil

The natural gas export agreement (Gas Service Agreement, GSA) was signed in 1999 for a 20-year period. The contract established the criteria for determining the price of the exported gas. In 2019, this formula will be renegotiated.

The GSA established that the export price is to be determined every three months according to a formula that takes into account three fuels, following international prices given by recognized international energy agencies and companies. The price will change taking into account the variations in that period. Correspondingly, the export prices will also change. In the period 2008-2013, the export prices had a clear upward trend.

The contract initially set exports of 16MMm3/day of natural gas. However, later on an agreement was reached to establish the maximum contractual volume of sales of 30.08 MMm3/day, which is currently in force.

b) Agreement with Argentina

From 1972 to 2006, there were several export contracts with Argentina. In 2006, a new agreement was signed with state oil company ENARSA for 20 years.

The agreed price in 2006 was US $ 5.0/MMBTU. The agreement stated that a new formula for the price of the exported gas would be designed. Established in 2007, the formula is similar to the GSA with Brazil, with one difference: the price of Diesel Oil is added to the basket of three fuel oils.

The contract is based on export volumes of 7.7 MMm3/day for 2007 and 2008, reaching up to 16 MMm3/day in 2009 and 2010. The contract contemplates the possibility of gas exports of 27.7 MMm3/day in 2010-2026. In 2014, Bolivia exported 15MMm3/day to Argentina.

Significant increase in fiscal revenues after 2005

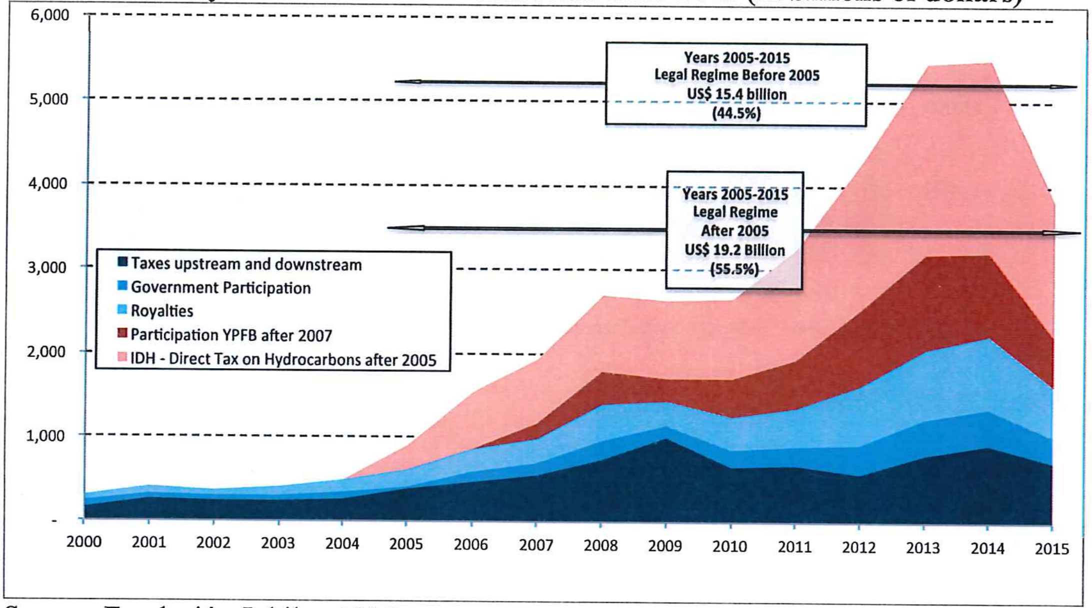
Fiscal revenues have been growing steadily since the establishment of Law 3058 in 2005 and the Nationalization Decree of 2006. For the whole period these revenues amounted to US$ 34.6 billion. Part of this increase is due to higher prices of oil and gas because of the super cycle.

The most important source of fiscal revenue is the 50% royalty (with the IDH, Direct Tax on Hydrocarbons), which reached US$ 2.6 billion in 2013. The revenues from income tax (called IUE, in Spanish) also increased reaching US$ 257 million in 2013. The revenue from the specific tax for hydrocarbon derivatives sold in the internal market (gasoline, diesel, gas and others) also rose, albeit in a moderate way, to US$ 458 million. It must be stated that this is an indirect tax and is related to fiscal policy, not to the hydrocarbons sector.

In order to measure the increase that corresponds to the measures taken after 2005, we have divided the increases in 5 items. The first three (blue in Figure 5) are existing legislation before 2005. The last two (light red and orange in the chart) comprise post 2005 revenues.

According to official data published by Fundación Jubileo (2016), if no measures had been taken, then fiscal revenues would only have amounted to US$ 15.4 billion. But with the new measures, being the most important the Impuesto Directo a los Hidrocarburos of 2005, revenues are an additional US$ 19.2 billion.

Figure 5
Bolivia: Hydrocarbon Rent - Before and after 2005 (in billions of dollars)



Source: Fundación Jubileo 2016.

Investments in the hydrocarbon sector 2001-2015

Investments in the hydrocarbon sector in the last 10 years (2006-2015) reached US $ 11.2 billion. This amount represents about a third of gross domestic product (GDP). Since 2006, hydrocarbon investments had a rate of growth of 29.1 % per year (see Figure 6).

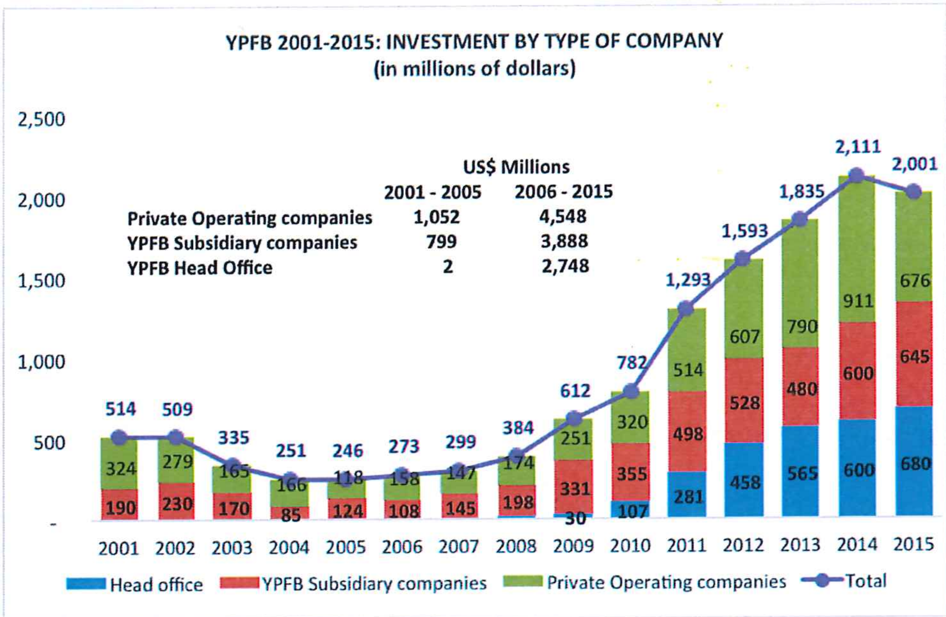
This growing trend of investment had a positive impact, especially in the production levels of hydrocarbons, in GDP growth, in the value of exports, in positive flows of foreign exchange due to natural gas exports and, also, higher amounts of tax revenues and transfers for distribution of royalties and IDH, among others.

YPFB now accounts for an important share of annual investment. According to official data[6], investments from YPFB include investments from Casa Matriz (Head

[6] See YPFB (2015b), Chart 28, page 89.

Office) and directly related companies (subsidiaries). In the period 2006-2015, YPFB total investments amounted to US$ 6.6 billion (59.4%) and private operating companies invested US$ 4.4 billion (40.6%).

Figure 6



Source: YPFB 2016.

Nevertheless, there has not been an important investment of private companies for exploration of new reserves of gas, a critical issue in order to continue natural gas exports to Brazil and Argentina. This investment has been carried out mainly by YPFB: in the last ten years 64% of investments in exploration have been made by YPFB and only 36 % by private companies.

As said earlier (see again Table 2), natural gas reserves have diminished significantly: from 28.7 TCF in 2003 to 9.7 TCF in 2010 and rising to 10.5 TCF in 2014. The most important authorities of the country are aware of this[7]. In recent years this trend has been partially reversed by new investments in exploration by foreign companies. This is the case of Block Azero (Total, 50% and Gazprom, 50%), Block Huacareta (British Gas, 100%) and Block Cedro (Petrobras, 100%). New production of 6.2 million cubic meters per day of natural gas will start in 2016 in Block Incahuasi, owned by Total (60%), Gazprom (20%) and Tecpetrol (20%).

In 2015, YPFB launched its Strategic Plan 2015-2019 (YPFB, 2015b, pages 89 and 90). The goal is to raise natural gas reserves from 10.5 TCF to 15 TCF in the next

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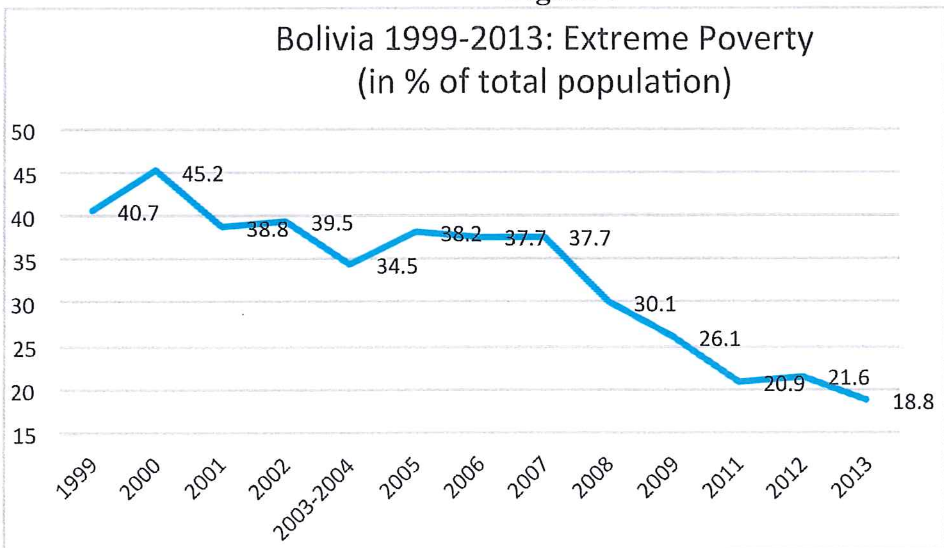
[7] President Evo Morales said in 2011:"Operating companies should invest particularly in exploration. YPFB makes an important effort in this investment, but that is not enough". (http://www1.ypfb.gob.bo/index.php?option=com_content&view=article&id=607:presidente-evo-morales-pide-a-las-empresas-operadoras-acelerar-las-inversiones-en-bolivia-para-exploracion&catid=121:agencia-de-noticias&Itemid=196)

five years with an investment of US$ 4.3 billion. YPFB Head Office would contribute with US$ 620 million (14.4%), YPFB subsidiaries with US$ 1.2 billion (28.5%) and private operating companies with US$ 2.5 billion (57%).

Important reduction of poverty

Proper management of revenues from natural resources and strategic implementation of a policy of redistribution of income and productive investment, managed to reduce extreme poverty. Extreme poverty decreased from 38.2 % in 2005 to 18.8% in 2013 and the inequality gap between rich and poor was reduced from 128 times in 2005 to 46 times in 2012.

Figure 7



Source: Ministerio de Economía y Finanzas Públicas, Memoria de la Economía Boliviana 2014.

Hydrocarbon-based industrialization

The Constitution of Bolivia of 2009 establishes that natural resources have to be industrialized, as we have seen in Box 3. The Constitution also says that this is necessary "to overcome dependence on raw materials exports and to achieve an economy with a productive base, within the framework of sustainable development in harmony with nature" (Article 311).

In the last 10 years the most important YPFB projects for the industrialization of hydrocarbon projects were the plants for liquids separation (of natural gas) of Rio Grande and Gran Chaco, the Ammonia and Urea Plant of Bulo Bulo, and the Rio Grande LNG project.

As part of the activities for future projects in the sector, the Central Bank of Bolivia has arranged a loan of US $ 1.8 billion for YPFB for the construction of the petrochemical propylene and polypropylene plastics complex, which requires a total investment of US $ 2.2 billion. Construction will begin in 2017 and its entry into operation is scheduled for 2021. This complex will generate more than 4,000 jobs and industrial development of the project will create at least 10,000 other labor sources.

The Bolivian government has pushed an aggressive process of massification of gas. In 2005 there were 25,000 households connected, but by 2015 there are more than 550,000 household connections (22 times more) investing US $ 800 million. Now there are 2.5 million served (5 people per household).

Table 4

Bolivia: Industrialization of Natural Resources and Universal Household Energy Access (in millions of dollars)					
Name of Project	Activity	Capacity	Investment	Owner	Starting Date
Gran Chaco	Separation and Licuefaction Plant	3,140 tons of ethane/day and 2240 tons of LPG/day.	609	YPFB	March 2015
Bulo Bulo	Ammonia and Urea Plant	750,000 tons of urea/year and 400,000 tons of ammonia/year	862	YPFB	November 2016
Río Grande	LNG Plant	12.8 million cubic feet/day to be transported by tanker trucks	205	YPFB	February 2016
LNG Massification Project	Gas Pipeline network construction for energy access of 140,000 homes	3,680 km of secondary network pipelines and 2,181 km of primary network pipelines	240	YPFB	Done
Natural Gas Massification	Universal household energy access	550,000 connections since 2006, that provide energy access to 25% of the population	800	YPFB	Done and ongoing
Petrochemical industry	Propylene and Polypropylene Plants	250.000 TM/year of Polypropylene	1800	YPFB	Planned date for the Beginning of Construction - 2017

Source: YPFB

III. ECUADOR - THE NEW CONSTITUTION AND THE RENEGOTIATION OF THE HYDROCARBON CONTRACTS

The background

Until the decade of the 70s, Ecuador was dependent on agricultural exports, mostly banana, coffee, and cacao. This changed in the beginning of the 1970s with the discoveries of important oil reserves in the Amazonian jungle by the Texaco-Gulf Consortium. In 1972, the first oil pipeline, 500 km long, from the Amazon Jungle to the coast was constructed, with the objective of bringing oil to the urban centers and for exports.

During 1980-2006, oil-related value added represented on average 12.8% of total GDP. The importance of oil is also reflected in trade statistics, as oil exports accounted for an average of 48.1% of total exports during 1980-2006. Finally, oil was critical for fiscal accounts: throughout 1980-2006, oil revenues represented 36.5% of central government revenues, declining to 29.5% in recent years.

In the 1990s, Ecuador changed its hydrocarbon legislation aiming to promote private participation, opening possibilities of partnership between Petroecuador and private companies. In 1993, the Law of Hydrocarbons # 44 was enacted. This Law introduced the modality of Production Sharing Contracts (PSC), in which contractors are entitled to receive payments for oil, according to a pre-determined percentage[8].

Under PSC, private production grew until 2005. During the period 1994-2004, investments by private companies were on average eight times higher than those made by Petroecuador. Additionally, the construction of the new Heavy Crude Oil Pipeline (OCP) in 2003, carried out exclusively by private companies, allowed companies involved to further expand production from 77.9 million barrels in 2003 to 120.3 million barrels in 2004.

At the same time, however, between 1994 and 2006, the production of national oil company Petroecuador fell at a relatively constant pace, with an annual average decline rate of 4.5%. Also, its investments in oil exploration and production decreased from an average of US$150 million per year in the first half of the 1990s to an average of less than US$90 million per year from 2000 to 2004.

This decrease in investment in Petroecuador was provoked by explicit government policies that minimized the role of the state oil enterprise, as a consequence of neoliberal policies adopted in the 1990s and the first years of the new millennium. In addition, Petroecuador did not have the autonomy to manage its oil revenues, because it had to deliver them to the central government. The Ministry of Finance then reimbursed the operational and financial costs of Petroecuador and also approved its investment budget, which most of the time was below the amount demanded by Petroecuador.

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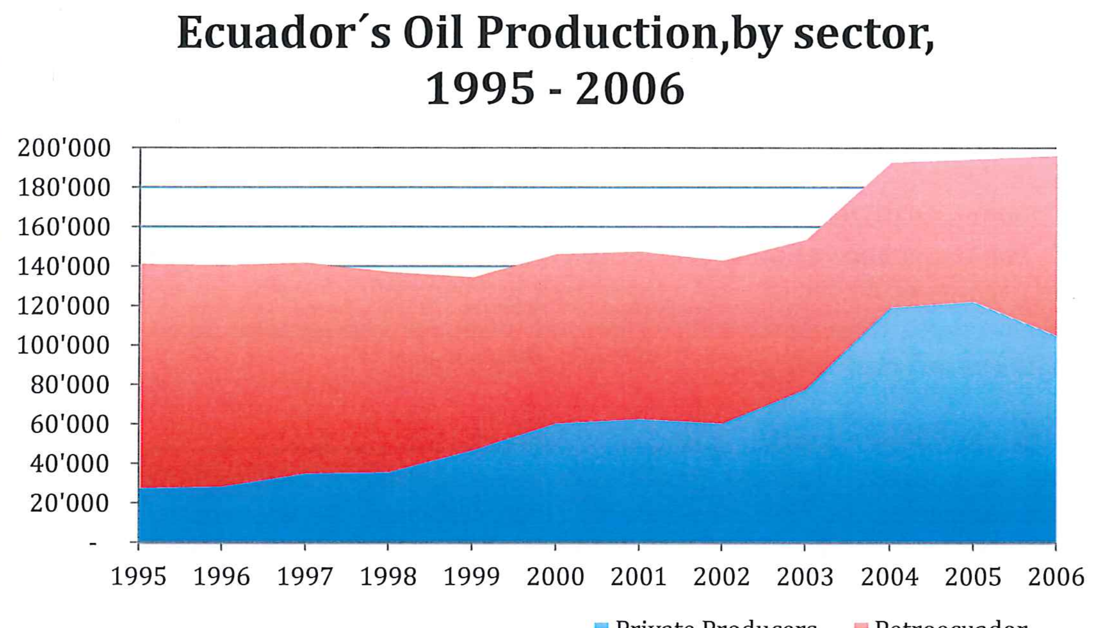
[8] Until the last quarter of 2010, most foreign companies had this kind of contract with Petroecuador.

Due to these legal changes, Ecuador's total crude oil production increased 43% from 1996 to 2006, mostly because of foreign investment. But Petroecuador's share of national crude oil output declined from 78% to 37% during the same period (see Figure 1).

Figure 1



Source: Petroecuador EP (2013)

Despite the increase in oil related economic growth, Ecuador has been Latin America's most unstable democracy in the 1990s and the beginning of the New Millennium: three presidents where ousted, mostly by street protests. In April 2005, protests brought down President Lucio Gutiérrez, who originally had come to power with the support of indigenous and civil society organizations.

The change in the government perception in 2005

From 2005 onwards –in an environment of rising oil prices- the new government realized that the State take in PSCs signed with Law # 44 was unfavorable: oil production share was 81.5% for private companies and 18.5% for the State when production exceeded 60,000 barrels per day (bpd) [9]. Royalties were paid by Petroecuador from the 18.5% of State Participation. Ecuador´s statistics say that up to 80 or 85% of the rent generated in PSCs (after deduction of production costs) went to private oil companies.

With PSCs (Law 44 of 1993), Workers participation was 15% of operating

[9] When oil production was less than 30,000 bpd, state participation could not be lower than 12.5%. When oil production was between 30,000 bpd and 60,000 bpd, state participation could not be lower than 14% (Campodonico, 1998, p. 94).

profits. Income tax was 25%. Total consolidated tax was 36.25%.

Table 1

Ecuador 2003: Share of Participation in Production of the State vs Oil Companies (in %)		
Contractor	**Company**	**State**
Perenco	79.89	20.11
Repsol	80.3	19.7
Oxy	84.88	15.12
AEC (City)	72.14	27.86
CNPC	72.72	27.28
Ecuador TLC	67.11	32.89
Vintage	87.07	12.93
Average	79.72	20.28
Source: Arauz 2004.		

Also, the new government realized that most of the windfall profits went to private companies because most PSCs signed before 1999 had no clauses to adjust the proportions of government take if oil prices rose sharply. In 2005 oil prices reached world records, but the PSCs provided very small gains for the State of the price differential, making it very unfair to Ecuador´s interests[10].

In parallel, several legal and social conflicts generated tensions between the State and private companies. In this context, Petroecuador, the Ecuadorian government, and private companies began to renegotiate the existing PSCs under the current legal framework. This framework mandated that the contracts could only be renegotiated by mutual agreement.

The two most important conflicts were the following:

- In April 2006, after a two-year process, the Ministry of Energy declared the termination of the contract of Occidental (Oxy) in Block 15, the biggest oilfield in Ecuador. The government said that the sale in year 2000 of 40% of Oxy´s shares in Block 15 to (US company) City Investing -without previously notifying Petroecuador- was a violation of the contract and of the Hydrocarbons Law. Following Petroecuador´s takeover of the production in Block 15A, the share of national production jumped to 46% in 2006. Oxy considered this decision as trespassing the legal conditions underpinning its operation in the country and complained to the International Centre for Settlement of Investment Disputes (ICSID), a World Bank institution.

- In May 2006, Law 42 increased the oil windfall profits tax, raising the rate to 50% of the differential between the realized price and the price established by contract (adjusted for inflation). The income surplus coming from extraordinary high prices should be paid to Petroecuador. Companies complained and City Investing (owner of subsidiary City Oriente) went to ICSID in December 2006.

In January 2007, the recently elected government of Rafael Correa of the Alianza

[10] See Cueva and Ortiz (2013), page 3.

País (PAIS) movement took office with a record-high approval rating. This reflected both trust in his administration's ability to overhaul Ecuador's institutions and cater to civil society demands. There was optimism that the new government would be able to respond to the deep frustration with the incapacity, corruption and unconstitutional behavior of previous governments and Congress, in particular. President Correa promised the election of a Constituent Assembly in order to produce "profound, radical and fast change".

On September 2007 an election for a Constituent Assembly was held in Ecuador following the referendum held on April. President Rafael Correa's PAIS Alliance won a landslide victory, obtaining 74 of the 130 seats, giving the party the power to make the substantial constitutional reforms for which Correa had been calling. In November 2007, Ecuador returned to OPEC after 15 years.

The Constituent Assembly first convened in November 2007. In July 2008, it approved a draft constitution comprising 494 articles, which went to a referendum in September 2008 with a 63.9% to 28.1% margin of victory.

Hydrocarbon policies under the Correa administration

Correa's first administration represented continuity and deepening of the previous government´s policies in the hydrocarbon sector. The government publicly stated that all PSCs should be revised. The proposal was to introduce Service Contracts or Specific Services Contracts, by which the State pays the operator a fixed amount for every barrel of oil produced. This proposal was not welcomed by the international oil companies and some threatened to withdraw their investments if this proposal was to materialize.

In October 2007, President Correa enacted Executive Decree 662 increasing the windfall profits tax to 99% —an increase of 49 percentage points from the 50% rate established by Law 42. In December 2007 the oil windfall profits tax was reduced to 70% in accordance with the Law for Tax Equity Reform approved by the Constituent Assembly.

As a consequence, several other foreign oil companies complained and went to ICSID in 2008. These were Repsol, Murphy, Burlington, City Oriente and Perenco (see Annex # 1).

While the discussions between Petroecuador and private companies continued, the parties signed temporary participation contracts for years 2008 and 2009, which in practice lasted until 2010.

The new Constitution of Ecuador

Ecuador's Constitution of 2008 granted the State the power to plan the development of the country and regain its leading role in the economy. The Montecristi Constitution (as it is called) redefined the role of the State in the exploitation of non-renewable natural resources. Articles 313 to 318 of the Constitution addressed the strategic sectors, services and public enterprises. This gave the State a greater presence in strategic sectors, permitted the recovery of existing public companies and sovereign management of non-renewable resources such as oil and mining, along with a recovery of public and social investment.

Articles 313-318 of the Constitution addressed the provisions for strategic sectors, services and public enterprises. These articles established:

- The State's right to manage, regulate, and control the strategic sectors: energy, telecommunications, transportation, biodiversity, spectrum, water and non-renewable natural resources (Art. 313);

- The State's responsibility to provide drinking water and irrigation, sanitation, electricity, telecommunications, roads, maritime port and airport facilities. The State was responsible for public services and the provision thereof observing the principles of obligation, generality, uniformity, efficiency, responsibility, universality, accessibility, regularity, continuity and quality (Art. 314);

- The constitution of public companies for the management of strategic resources (Art. 315.);

- The State's right to delegate participation in strategic sectors and public services to joint ventures in which it has a majority stake (Art. 316);

- The definition of non-renewable natural resources as inalienable and imprescriptible property of the State, which then managed them, prioritizing intergenerational responsibility, conservation of nature and minimization of environmental, cultural, social and economic impacts (Art. 317).

In 2010 and 2011 the government enacted several Executive Decrees in order to strengthen the presence of the State in the hydrocarbon sector, as mandated by the Constitution. Two SOEs now coexist. The exploration and production activities (upstream) are developed by EP Petroamazonas and the midstream (refining) and downstream activities (transport and marketing) are under the charge of EP Petroecuador.

The new legislation introduces important changes in budgetary and financial management to give greater autonomy to both companies, a big difference with the previous regime. Petroecuador and Petroamazonas should now receive financial resources according to their management and investment needs.

The Hydrocarbon Reform Law of 2010

The new Constitution enabled the government to enact a new law to adapt to the new framework that was put into place. After more than two years of complex negotiations, in July 2010, a new Law of Hydrocarbons was enacted. This Law introduced modifications to the Hydrocarbons Law and to the Internal Tax Regime. The reforms focused in four aspects: changes in the institutional sector, the contractual model, environmental issues and tax amounts. The most important changes were: a) the introduction of a type of contract called the Services Contract, and b) a new tax system.

Some notable details follow:

- The existing PSC contracts, where the company owned a percentage of the oil production, were changed to Service Contracts, where the State owned 100% of the oil produced and paid oil companies a fee. With Service Contracts of 2010, the State owns 100% of the oil produced. The contractor is paid a fee for his services. The fee paid to the contractors is negotiated in each contract (see next section).

- In the new Services Contracts, the State reserved 25% of gross revenues as "margin of sovereignty". From the remaining value, the transport and marketing costs incurred by the State was covered. The fee for services was paid after these deductions.

- Amendments to the Internal Tax System Act now disposed that companies with Service Contracts would pay the single rate of 25% income tax (instead of the existing 44.4% income tax). Oil companies with service contracts did not benefit from the reduction of the income tax rate due to reinvested earnings.

- Ecuador´s statistics say that up to 80 or 85% of the rent generated in Service Contracts (after deduction of paid fees) go to the State.

- A Service Contract does not give ownership right to oil in the ground. In such contract, the oil company never actually gains ownership, or "title", to the oil produced either. Instead, the company is simply paid a fee for its services in extracting the government's oil.

- Oil companies had 120 days to renegotiate their contracts. This period was extended to 180 days for companies that operated marginal fields. If an agreement was not reached, the government would terminate the contracts and set the liquidation values.

- This law also amended the definition of petroleum policy and drafted a new regime for Petroecuador.

BOX 1

Why Governments prefer Service Contracts to Production Sharing Contracts

One main driving factor why many countries are adopting a variation of service contracts is their concern for maintaining their sovereignty over their natural resources. Under a service contract, countries maintain field ownership and in most cases produced crude ownership rights as well and do not have to allocate them to the foreign company. Countries are interested in adopting service contracts because they enable them to give up less control over the fields and over the produced crude to foreign oil companies while still using the expertise of these companies.

With Production Sharing contracts, sovereignty concerns arise in part because these contracts give decision-making power to the international oil companies in handling the development/exploration and operation. Under a PSC countries share produced crude ownership rights with the foreign company.

When countries relinquish their sovereignty over their natural resources, there is a lower potential for proper oversight from the host government over the international oil companies′ operation, which is in part due to the many regulatory, supervising and operatorship roles that the state-oil companies usually have to play at the same time in these countries.

Another source of sovereignty concern that arises from PSCs is the tax code or some institutional deficiencies that could prevent the host governments from efficiently collecting rent from the international oil companies. As a result, while there have been efforts in oil producing countries that have demonstrated interest in service contracts to reform the tax code in order to attenuate some of the sovereignty concerns arising from production sharing, the lack of political will and public support, due in part to institutional problems, have made the implementation of PSCs very difficult.

Source: Oil and Gas Service Contracts Around the World, Abbas and Lin (2014).

The negotiation of Service Contracts in 2010

It is important to take into account that in 2008 and 2009, before the start of the negotiations of the Service Contracts, two oil companies ended their operations and their fields were passed to Petroecuador. These were Perenco (France, Block 21, Yuralpa) with a production of 8 MMB per year and City Oriente (USA, Block 27), with a production of 1 MMB barrels per year.

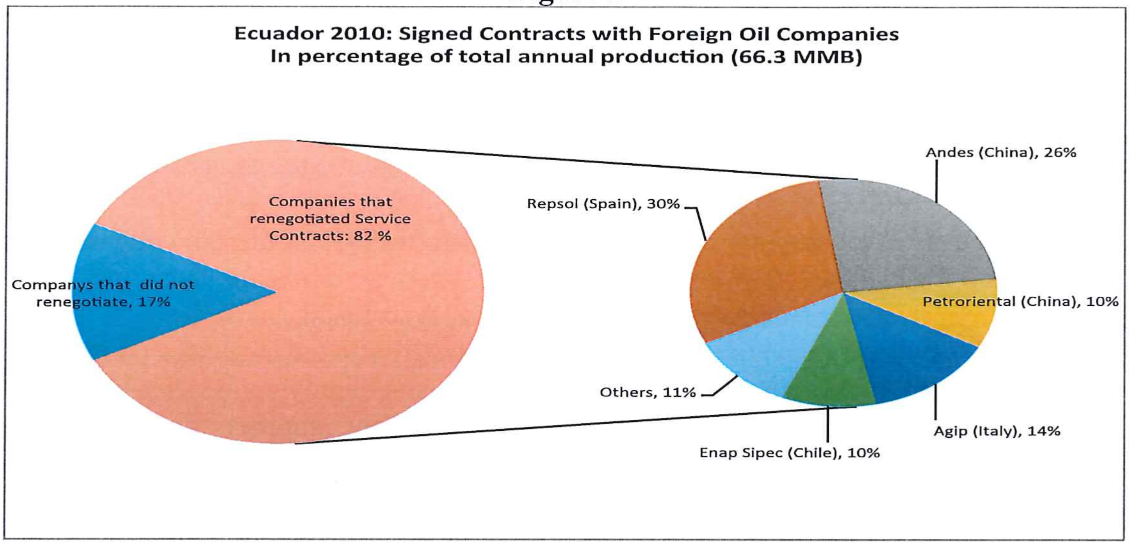
In the case of City Oriente, the company had raised its concerns to ICSID in 2008. Nevertheless, it accepted a mutual termination of the PSC for Block 27 in 2009 and was compensated with US$ 68 million. In the case of Perenco, the company abandoned Block 21 in 2009 protesting Law 42 of 2006. Perenco also went to ICSID, where the final judgment is still pending

In 2010, the Ministry of Hydrocarbons signed Service Contracts with the most important oil companies working in Ecuador. Among those who accepted the new contract conditions were companies that were exploiting the most important blocks: Repsol (Spain), Andes (China), Petrooriental (China), ENAP (Chile) and Agip (Italy).

The production volume that was renegotiated amounted to 82.6% of total oil production by private companies (see Figure 2). The remaining 17.4% terminated their contracts and Petroecuador (later merged with Petroamazonas) took over the installations.

Only one important company, Ecuador-TLC (owned by Petrobras) did not sign the new service contract. With the exception of Petrobras, the other companies with which no agreements were reached represented marginal (smaller) fields and fields that were conducting exploration activities. Regarding marginal fields, in January 2011 the Ministry of Hydrocarbons signed seven contracts with five companies. Three companies decided not to renegotiate because of dissatisfaction with the proposed tariffs.

Figure 2



Source: Ministerio de Recursos Naturales no Renovables del Ecuador (2011)

The Service Contract cost recovery fee

The Services Contract model chosen by Ecuador is an instrument that generates obligations from the company to the State in order to carry out exploration activities and oil exploitation with its own financial resources, investment capital and using the needed equipment, machinery and technology. The company assumes the risk of exploration and exploitation. In exchange for this service, the company receives a flat fee in return for its production.

The fee refers to the amount paid to the contractor, in dollars per barrel of net oil produced and delivered by the contractor. The rate does not fluctuate depending on oil prices and is not recalculated yearly, but is instead adjusted according to inflation in the oil industry, based on variable costs (maintenance of materials and inputs).

There are two distinct types of fees. The first one is for producing oilfields (all renegotiated contracts were signed in November 2010). The other fee is aimed at promoting new investments, plans to finance exploration and prospecting in untapped fields.

The fee for companies that decided to stay in the country was set according to the following criteria: Estimated activities and investments; Operating costs and expenses; Risks assumed by the State. These concepts were weighted in order to obtain an average fee for each company. The overall (unweighted) average fee for all companies was US$ 32.12 per barrel (see Table 2).

It is important to take into account that these service contracts provide safeguards to the State in case the price of oil falls below the agreed fee per barrel. The "Accumulation Clause" states that if the price of oil falls below the fee, the amount owed will be transferred to the next fiscal year, free of interest. In case of termination of the contract, any amount owed to the contractor will be declared extinguished and will not be paid to the contractor[11].

Table 2

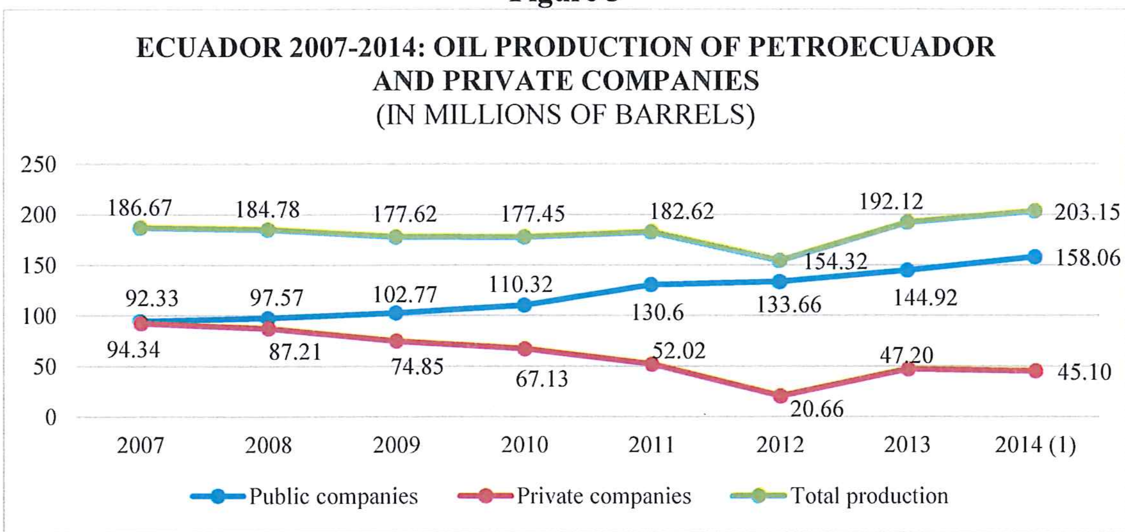
TARIFFS, INVESTMENTS AND AVERAGE DAILY PRODUCTION UNDER THE NEW CONTRACTS			
COMPANY, BLOCK/ CAMPO	REMUNERATION (US$/ BARREL)	TOTAL INVESTMENTS (US$ MILLIONS)	AVERAGE DAILY PRODUCTION 2011 (BARRELS)
ANDES PETROLEOUM, Tarapoa.	35	425	35,945
PETROORIENTAL, Block 14	41	187	12,763
PETROORIENTAL, Block 17	41	112	
AGIP, Block 10	25	119	16,548
REPSOL, Block 16	36	291	47,663
REPSOL, Tivacuno	27.3	23	
ENAP*, MDC	16.72	59	12,710
ENAP*, PBH	20.77	12	
PETROBELL, Tingüino	29.6	15	4,081
PETROBELL, Ancón	58	14	0
CONSORCIO PEGASO, Puma	21.1	21	1,192
PETROSUD, Palanda	31.9	45	7,356
PETROSUD, Pindo	28.5	46	
TECPECUADOR, Bermejo	24	16	4,077
TOTAL	32.12	1385	-

SOURCE: Ministerio de Recursos Naturales no Renovables del Ecuador (2011) :

Oil Production in Ecuador after the renegotiation

From 2007 to date, the distribution of oil production between EP Petroamazonas (in substitution of Petroecuador) and private oil companies has changed dramatically. In 2007, production stood at 186 million barrels (MMB) per year and Petroecuador and private companies each had a 50% share. From 2007 to 2014, production increased 10% to 203 MMB and EP Petroamazonas (in substitution of Petroecuador) now has 78% of total production and private companies the remaining 22%.

Figure 3



Source: Ministerio de Hidrocarburos del Ecuador (2015).

[11] See Grupo Faro (2012), page 13.

The increase in production of EP Petroamazonas takes into consideration that it now owns Block 16 (ex Occidental Petroleum) and, also, the oil Blocks that were exploited by Perenco and City Oriente until 2008-2009.

Oil rent and investments in Ecuador since 2007

Government take in the oil industry increased substantially in Ecuador after Law 42 of 2006 and the renegotiation process. As a proportion of economic sector rent it passed from 44.9% in 2000-2003 to 60.3% in 2010-2013 (see again Section 1, Table 2). Also, UNCTAD estimates that the share of government revenues in rents from the extractive industries rose from 71.8% to 93.5% from 2004 to 2012[12 13].

Oil investment in Ecuador increased sharply after 2010, when the Services Contracts were signed. The most important investments have been made by Petroamazonas (before, Petroecuador), who passed from US$ 440 million in 2007 to US$ 3.38 billion in 2014, an increase of 668% in that period. An important part of this investment went to exploration activities.

Foreign oil companies in Ecuador committed themselves to investing US$ 1.304 billion in the period 2011-2014. According to government official statistics, private investment in the period was US$ 1.765 billion, which was US$ 460 million more than the committed investments[14].

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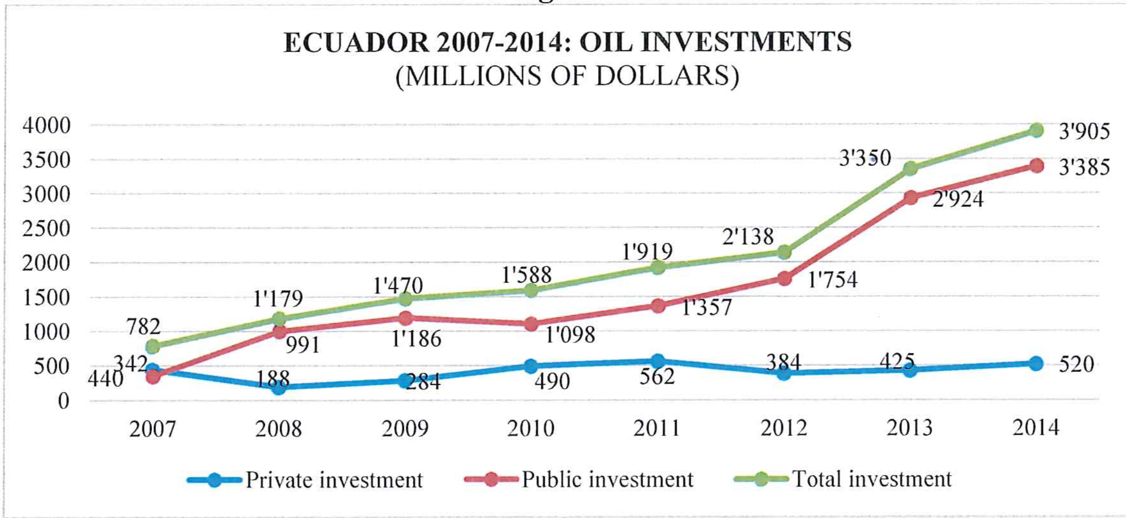
[12] UNCTAD (2014): "These estimations show that there is wide variation in the size of governments' shares of the rents, as expected. The main reason for the differences is the degree of ownership of the natural resource by the State. In those countries where the State participates in production through State-owned companies, such as Sonangol in Angola, PDVSA in the Bolivarian Republic of Venezuela, Petroecuador in Ecuador for oil, and CODELCO in Chile for copper, the governments' shares of the rents are relatively high" (page 185).

[13] All this calculations were made before the agreement reached by Occidental Petroleum and Ecuador in January 2016. Ecuador will pay US$ 980 million to Occidental Petroleum (see Annex 1).

[14] Minister of Hydrocarbons Pedro Merizalde said that private companies invested $ 460 million more than expected between 2011 and 2014, and in 2015 they have already invested US$ 82 million of the US$ 307 million scheduled to be disbursed (http://www.eluniverso.com/noticias/2015/05/11/nota/4863701/ecuador-descarta-reduccion-inversiones-petroleras-salida-empresas).

Figure 4



Source: Ministerio de Hidrocarburos del Ecuador (2015).

The government of Ecuador has stated the importance of exploration investment for oil reserves. Official data estimate 6.9 billion barrels of oil reserves in 201315, which include reserves of 920 million barrels from Ishpingo, Tiputini and Tambococha (ITT) fields16 (data from OPEC and British Petroleum estimate 8.1 billion barrels of oil reserves). From 2012 to date, Petroamazonas has signed several Specific Services Contracts with foreign companies in order to increase exploration investment (see Table 3).

Table 3

Ecuador: Selected Specific Services Contracts signed with Petroamazonas 2012-2016				
Block	Consortium/Company	Year	Announced Investment (millions of dollars)	Fee (dollars per barrel)
Shushufindi - Aguarico	Consortium Shushufindi	2012	1300	30.62
Libertador -Atacapi	Pardaliservices	2012	380	39.53
Block 12	Group 1 Schlumberger, Tecpetrol	2014	701	Non specified
Block 56	Group 2 Halliburton	2014	579	Non specified
Block 15	Group 3 Sinopec	2014	402	Non specified
Block 58	Group 4 Halliburton	2014	240	Non specified
Block 01	Group 5 Sertecpet, Montecz	2014	6	Non specified
Block 21	Group 6 YPF	2014	192	Non specified
Block 28	PAM, ENAP, Belorusneft	2015	395	Non specified
Block 61	Schlumberger	2015	4900	26
Blocks 79 and 83	Andes (China)	2016	72	47

Source: Petroamazonas, press releases.

15 Ministerio de Recursos Naturales No Renovables del Ecuador (2014), sheet 4.
16 In 2007, President Correa initiated the Yasuni-ITT project by means of which Ecuador offered a perpetual suspension of oil extraction in part of the Yasuni National Park in return for payments of US$ 3.6 billion from the international community. In 2013, the commission on the Yasuni-ITT Initiative's progress concluded that economic results were insufficient. President Correa ended the plan on August 2013. This measure has undergone serious criticism from the ecologist movement.

BOX 2

Ecuador in the era of the information society

With a budget allocation of US$1 billion for the first four years, the government is building a new hub for education, innovation and industry known as the Yachay City of Knowledge. It is billed as the most ambitious project that Ecuador has embarked on in over a century and the aim is for Yachay – which means "the wise use of knowledge" in the indigenous Quechua language – to become the most important research institute in Latin America.

Ecuador's economy has long been heavily reliant on oil, mining, fishing and agriculture, but, knowing that some of its natural resources have a limited lifespan, the government is trying to diversify the economy and instill a culture of research and innovation. By switching to a knowledge-based economy, President Correa hopes to create an advanced manufacturing sector that can produce and export high-value goods worldwide.

Ecuador wants to enter the global knowledge society and has chosen Yachay to be "the city of knowledge" as Palo Alto, California (Silicon Valley) or South Korea´s Daedeok Innopolis in a period of 35 years.

The manager of the public company Yachay said that so far they have spent $ 100 of the US$ 1.043 billion budgeted until 2017. PhD teachers have been brought in from Spain, Mexico, Guatemala, Venezuela, Colombia and Chile. Only two professors of this initial group are Ecuadorians. The management committee of the University of Yachay is composed of 3 professors of the California Institute of Technology (Caltech) and 1 from the University of Barcelona, who will be the rector. Rental housing on campus costs only US $ 36 a month. Currently there are 425 undergraduates, says Jose Andrade, a professor of Civil Engineering at Caltech and academic secretary of Yachay Tech.

President Correa said in his inaugural speech: "Here we are overcoming the extractive economy". He emphasized that technology and innovation are key to development and "Living Well ".

Source: articles in the press media.

ANNEX 1 - ECUADOR: DISPUTES WITH FOREIGN COMPANIES IN INTERNATIONAL COURTS (PERMANENT COURT OF THE HAGUE AND ICSID)

Ecuador's disputes with foreign companies comprise three types of litigation, each of them of a different nature. The first is a dispute with Chevron-Texaco for environmental damage in the Lago Agrio fields. The case, started in 1993, has gone to the International Court of Justice and also to the International Centre for Settlement of Investment Disputes of the World Bank (ICSID), in Washington, D.C.

The second issue is with Occidental Petroleum (OXY) for violation of contractual rules in 2000. The litigation process started in 2005.

The third type of litigation is related to raising the windfall profits tax established by Law 42 of 2006 and involves several foreign companies.

Both the second and third proceedings have their legal basis in the Bilateral Investment Treaties signed by Ecuador with different countries and have a process in ICSID.

1) Dispute with Chevron-Texaco

Texaco´s concession in Ecuador's Amazonian territories lasted 26 years (1964-1990). In 2001, Texaco (later acquired by Chevron) left Ecuador without any claim of either party. The properties of Chevron-Texaco were passed on to Petroecuador. The legal case began in 1993 when indigenous communities sued Texaco in New York. After 10 years, the process went to the Court of Sucumbios in Ecuador. The indigenous communities had originally hoped the case would be tried in the United States, but a federal appeals court in New York ruled in 2002 that the matter should be decided in Ecuador.

In 2003, indigenous communities in the Amazon province of Sucumbios (not the Ecuadorian State) filed a lawsuit in Ecuador against Chevron-Texaco. The complaint was about the discharge of more than 80,000 tons of waste oil in the area Lago Agrio in the years 1964 and 1992[17]. The Ecuadorian courts ruled in 2011 that Chevron had to pay US $ 9.5 billion to the Amazonian communities due to the damage caused by Texaco in the 70s and 80s[18].

This case is called Chevron III and will be discussed here after Chevron I and Chevron II.

Chevron I - Chevron-Texaco against Ecuador[19]

In 2004, Chevron Texaco started arbitration proceedings in New York based on two clauses of the Joint Operation Agreement (JOA) signed in 1965 by Texaco-Gulf with Petroecuador: an arbitration clause and an indemnity clause. The indemnity clause

[17] http://www.autopista.es/noticias-motor/articulo/mot7411.htm
[18] http://www.explored.com.ec/noticias-ecuador/chevron-apela-fallo-de-juez-de-sucumbios-463419.html
[19] http://apoya-al-ecuador.com/el-caso-chevron/chevron-contra-el-estado-ecuatoriano/

required that the non-operator party (in this case, Petroecuador) had to indemnify the operator from any judgment issued by the Judiciary related to the operator's activities.

In 2009, a judge of the Federal Court of New York accepted the position of Ecuador that Petroecuador was not obliged to go to arbitration initiated by Chevron-Texaco.

The case is closed.

Chevron II (unmet market demands)

In 2006, Chevron-Texaco initiated an international arbitration proceeding against the government of Ecuador before the Permanent Court of Arbitration at The Hague for the amount of US$ 1.6 billion. Chevron-Texaco said that there are seven commercial lawsuits filed against Ecuador by Texaco in the 1990s that had not been resolved by the judiciary of Ecuador. Chevron-Texaco sees this as a case of "undue delay" in the administration of justice under international law.

For the Ecuadorian government, the Permanent Court did not issue the required statements because Chevron-Texaco failed to take action in an adequate manner in order for them to be resolved (not sending the documents the Court asked for). The government of Ecuador says that this attitude of Chevron-Texaco had the intention to delay the process in order to make time to mitigate and/or obscure the evidence of contamination.

The Chevron-Texaco demand is based on the Bilateral Treaty for the Promotion and Protection of Investments (BIT) signed between Ecuador and the USA. This BIT was signed in 1993 and entered into force in 1997, five years after the end of Texaco´s investments in the country. Therefore, says Ecuador, the Court cannot assert jurisdiction on the basis of the BIT, as the BIT does not include any retroactive clause.

The current status of the case:

Despite the arguments of Ecuador, in 2006, the Court in The Hague invoked jurisdiction and ordered the Ecuadorian State to pay US $ 96 million for violation of Art II (7) of the BIT. The Court said that the government did not provide Chevron-Texaco of the "effective means for resolving their disputes". The Court found Ecuador responsible for those charges, but rejected the initial claim of Chevron to be compensated for US $ 1.6 billion. The judgment requires Ecuador to pay US $ 77 million, plus interests, which amounts to US $ 96 million.

Ecuador filed an action for annulment of the Award, the same that was rejected in September 2014. However, Ecuador´s Attorney General Diego Garcia stated that regardless of the decision of the Court in The Hague, Ecuador will continue its defense before the Court of Appeals of the District of Columbia, where Chevron intends to execute the Award. Chevron argues there was "lack of speed of the Ecuadorian courts in the seven Texaco claims "[20].

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[20] http://www.telegrafo.com.ec/noticias/informacion-general/item/corte-suprema-del-reino-de-los-paises-bajos-falla-contra-ecuador-en-caso-chevron-ii.html

In August 2015 the Ecuadorian Attorney General's Office rejected the decision of the Appeals Court of Columbia's District that ordered Ecuador to pay US$ 96 million to Chevron. The Attorney General analyses options to appeal the ruling and make it void.

Chevron III (Petroecuador should pay for environmental damage in Lago Agrio)[21]

In 2009, Chevron demanded the Ecuadorian State to the Permanent Court of Arbitration at The Hague. The charges were the following:

- That Ecuador violated the BIT with the US
- Chevron-Texaco is not responsible for environmental damage in the Amazon. Instead Petroecuador and the Ecuadorian State are responsible for the environmental damage of Lago Agrio in Ecuador.
- Chevron has no responsibility for the environmental impacts in the Amazon since it has been released by the Act of Settlement of 1998 (Chevron-Texaco has never been released from its liability to the affected citizens as it has been confirmed by the partial award of the Court of September 17).
- There should be a moral compensation to Chevron-Texaco.

The status of the case:

The Court has declared itself competent under the BIT. However, it is considering whether it has jurisdiction over environmental damage. In September 2013 the Court ruled on a partial award that an agreement signed in 1995 by the government of Ecuador released Chevron-Texaco from financial responsibility from any claims of "collective damage." However, the panel left open the possibility that Chevron could still be liable for damages incurred by individuals.

On January 7, 2014 the Attorney General of Ecuador requested the cancellation of this partial award and previous interim awards.

The Attorney General asked the Permanent Court of Arbitration at The Hague to suspend arbitration process since, with the issuance of the judgment on appeal by the National Court of Justice, they have changed the terms of the complaint filed by Chevron against Ecuador22.

In January 2016, the District Court of The Hague rejected Ecuador's argument that the arbitration tribunal lacked jurisdiction to hear Chevron's arbitration claim against the judgment. The Attorney General of Ecuador has said that his country will appeal this decision of the Court.

Status: Pending.

[21] http://apoya-al-ecuador.com/el-caso-chevron/chevron-contra-el-estado-ecuatoriano/
[22] http://apoya-al-ecuador.com/el-caso-chevron/chevron-contra-el-estado-ecuatoriano/

2) Contingency contract with Occidental Petroleum (OXY)

Occidental Petroleum is claiming that Ecuador violated a Bilateral Investment Treaty with the United States by declaring in May 15, 2006 the expiration of the contract that allowed it to produce 100,000 barrels per day of crude oil in Block 15 of the Amazon[23].

In 2000, OXY transferred 40% of its rights in Block 15 to a Canadian company, Alberta Energy (later on Alberta Energy transferred its stake to Canada's EnCana), without permission of Ecuador. For the government, the violation of this clause is a ground for the termination of contract. In 2006, Petroecuador, in representation of the government, took possession of Block 16.

In 2006, OXY went to ICSID invoking the BIT. After several years of litigation, in October 2012, ICSID ruled that Ecuador had to pay US $ 1.769 billion to OXY. In 2013, Ecuador filed a petition for annulment of that decision. The arguments were presented in April 2014[24].

In January 2016, the government of Ecuador and OXY announced that they had reached an understanding on the terms of payment for the amount payable to Occidental by the Republic of Ecuador under a November 2015 ICSID arbitration award. Ecuador will pay US$ 980 million to Occidental Petroleum.

3) Disputes in ICSID because of Law 42-2006

Law 42-2006, Reform of the Hydrocarbons Law, was enacted in April 2006, under the administration of President Rodrigo Palacio. Law 42 increased the oil windfall profits tax, raising the rate to 50% of the differential between the realized price and the price established by contract (adjusted for inflation). The income surplus coming from extraordinary high prices should be paid to Petroecuador.

In October 2007, President Correa enacted Executive Decree 662 increasing the windfall profits tax to 99% —an increase of 49 percentage points from the 50% rate established by Law 42. In December 2007 the oil windfall profits tax was reduced to 70% in accordance with the Law for Tax Equity Reform approved by the Constituent Assembly.25

In general, Law 42-2006 was conceived as a means of ensuring a fairer distribution of oil wealth and simultaneously served as a platform to push for a renegotiation of the participation contracts to service delivery contracts.

This Law 42 was not well received by oil companies that had signed Production Sharing Contracts. Some companies, among them, Repsol YPF, Perenco and City Oriente went to ICSID suing the Ecuadorian State for alleged damages caused by changes in the rules of their contracts.

[23] http://www.eluniverso.com/2012/10/05/1/1356/cronologia-caso-oxy-tema-caducidad-contrato.html
[24] http://expreso.ec/expreso/plantillas/nota.aspx?idart=2326641&idcat=19408&tipo=2
[25] Registro Oficial 242 de 29 de Diciembre 2007.

A) Block 16 - Repsol (operator), Overseas, Murphy and CRS

1 **REPSOL**: August 2008. Partner in Block 16. Repsol, Overseas, Murphy and CRS.

Repsol did not accept Act 42-2006 and took the dispute to ICSID.

However, later REPSOL accepted the modification of contracts and the period of operation of Block 16 (the main oilfield of Ecuador) was extended until December 31, 2018, under the condition of signing a new Services Contract. This contract was signed in November 2010. In January 2011, another contract concerning oilfield Tivacuno was also signed.

With the signature of these two contracts, the parties ended their differences.

2 **MURPHY.** April 2008. Partner in Block 16. Repsol, Overseas, Murphy and CRS.

Murphy also took Ecuador to ICSID for Law 42-2006. The US company claimed $ 185 million as compensation for the application of domestic legislation, while the Quito government argued that the law was in accordance to national legislation and not impinged on the investment chapter. In August 2011 the ICSID court said it was not competent to deal with Murphy´s demand. Because of that, Murphy had to withdraw its demand.

Finally, Murphy worked an agreement with Repsol, that bought Murphy´s shares in 2009.

B) Block 27 - City Oriente Limited (operator)

3 **CITY.** December 2006. **Block 27.**

CITY took Ecuador to ICSID for Law 42-2006. In 2008, CITY and the government of Ecuador reached an agreement and City dropped the suit. The settlement was reduced from $ 400 million to US $ 68.9 million following an agreement of mutual termination of participation.

City Oriente withdrew the application for arbitration against Ecuador in October 2006.

C) Block 7 and 21 - Perenco (operator) and Burlington

4 **PERENCO.** June 2008. Operator. Blocks 7 and 21.

Perenco took Ecuador to ICSID because of Law 42-2006. ICSID accepted the complaint for expropriation of Perenco Ecuador imposed after the expiration of the blocks 7 and 21, which operated until 2009. In July 2014 the court accepted ruling in favor of the company, so that Ecuador would have to pay Perenco USD 440 million plus interest and court costs[26].

In response, Ecuador countersued Perenco for environmental damage in Block 7 and 21, under the same arbitration. The ruling is still pending the issuance of the decision on the responsibility of Ecuador.

In November 2015, the ICSID Tribunal took an Interim Decision. It includes an invitation for the parties to settle the issues in dispute. ICSID tribunal criticized the testimony of both sides' experts and suggested that the parties use a tribunal-appointed expert. The tribunal declined to immediately decide the issues raised by the counterclaim, indicating instead a willingness to do so in a future, final decision.

The final decision is still pending.

5 **BURLINGTON.** June 2008. Partner in Blocks 7 and 21.

Burlington took Ecuador to ICSID for Law 42-2006. In December 2012, ICSID determined that the country expropriated the assets of Burlington in Block 7 and 21. Petroecuador had taken charge of the field operation in July 2009. Burlington argues that Ecuador should compensate the company with an amount yet to be determined[27]. In December 2013 the government challenged the decision of the arbitrator.

The final decision is still pending.

CONCLUSION

Ecuador faces international demands in ICSID, mostly originated by foreign oil companies such as Perenco (France) and Burlington and OXY (US) for alleged breach of contract[28]. To date, and despite having denounced and removed from ICSID, Ecuador still has some processes. Of the 13 processes Ecuador has at ICSID, only two belong to the petroleum sector and are still pending: Perenco and Burlington.

Case Number	Plaintiff	Defendant	Status
ARB/08/10	Repsol YPF Ecuador, S.A. and others	Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (PetroEcuador)	Concluded
ARB/08/6	Perenco Ecuador Limited	Republic of Ecuador	Pending
ARB/08/5	Burlington Resources, Inc.	Republic of Ecuador	Pending

[26] http://www.elcomercio.com/actualidad/ciadi-perenco-arbitraje-ecuador-ganancias.html
[27] http://www.elcomercio.com/actualidad/negocios/tribunal-del-ciadi-fallo-ecuador.html
[28] http://www.ictsd.org/bridges-news/puentes/news/ecuador-finiquita-convenio-con-el-ciadi

ARB/08/4	Murphy Exploration and Production Company International	Republic of Ecuador	Concluded
ARB/06/21	City Oriente Limited	Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (Petroecuador)	Concluded
ARB/06/11	Occidental Petroleum Corporation and Occidental Exploration and Production Company	Republic of Ecuador	Concluded
ARB/01/10	Repsol YPF Ecuador S.A.	Empresa Estatal Petróleos del Ecuador (Petroecuador)	Concluded

In July 2009, Ecuador's President Rafael Correa signed a decree that denounces and, therefore, “declares terminated" the agreement with ICSID of the World Bank Group. Among the arguments put forward by the government to leave ICSID is the conflict with the country's new Constitution, approved by popular referendum in 2008.

Article 422 of the new Constitution declares unconstitutional for the Andean nation to be subject to arbitration, unless it is a claim from a Latin American citizen or a Latin American forum. Despite this, Ecuador has to continue with the cases presented before 2009.

ANNEX 2: BOLIVIA BY THE IMF

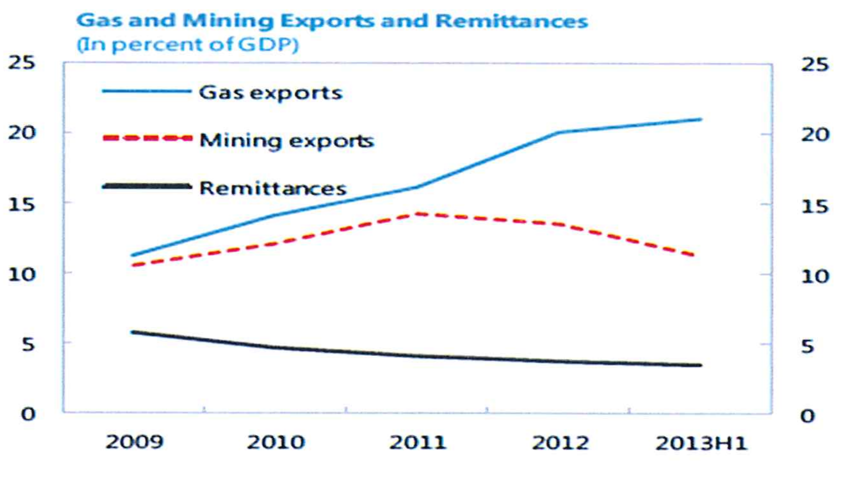
The Article IV report in February 2014 by the IMF staff recognized the strong performance of Bolivia.

Since the mid-2000s, good macroeconomic performance and active social policies have helped nearly triple income per capita and reduce extreme poverty in Bolivia. Prudent fiscal policies allowed saving a sizable portion of the hydrocarbon revenue windfall from the commodity price boom, improving the resilience of the economy to adverse shocks. Reflecting this, Bolivia was one of few countries in Latin America that sustained positive growth during the global crisis of 2008–09 and weathered well the recent regional slowdown.

At the same time, deep political and social changes have been taking place. The 2009 Constitution dictates substantial revisions to the legal and policy frameworks. **The authorities' economic strategy is aligned with new constitutional requirements and envisages the expansion and industrialization of natural resource production.** The authorities are also making inroads to tackle still high levels of poverty, inequality, child and maternal mortality rates, and improve access to public services in remote areas.

Real GDP growth and the external position continued to be strong. The latest data suggest that real GDP growth accelerated to 6.6% by September 2013, from 5.2% in 2012, supported by soaring hydrocarbon exports, resilient private consumption, and accommodative macro policies. Staff expects output growth of 6.7% for the year as a whole, the highest growth rate in thirty years.

Notwithstanding elevated export volumes, the external current account surplus is projected to narrow to 4% of GDP in 2013, from the peak of 7.8% of GDP in 2012, due to softer terms of trade and a pickup in imports. Sizable gross international reserves (projected at 49% of GDP at end-2013) continue to provide ample buffer against external shocks.



Social policies have pursued ambitious redistributive and poverty reduction goals, increasing living standards of vulnerable households. Impact evaluation of cash transfer programs and better targeting of fuel subsidies would help improve on the design and cost-effectiveness of social policies. In addition, expanding access to quality health care and water and sanitation remain long standing priorities.

The economy is expected to continue to grow above potential in 2014, albeit at a slower pace, and risks to the outlook seem manageable. Although external risks over the near and medium term have increased (including from a sharp drop in world commodity prices or weaker activity in main trading partners), sizable international reserves and government deposits at the central bank provide ample buffers. Domestic risks are broadly balanced, with upside risks from fiscal stimulus offset by downside risks from a weak climate for private investment.

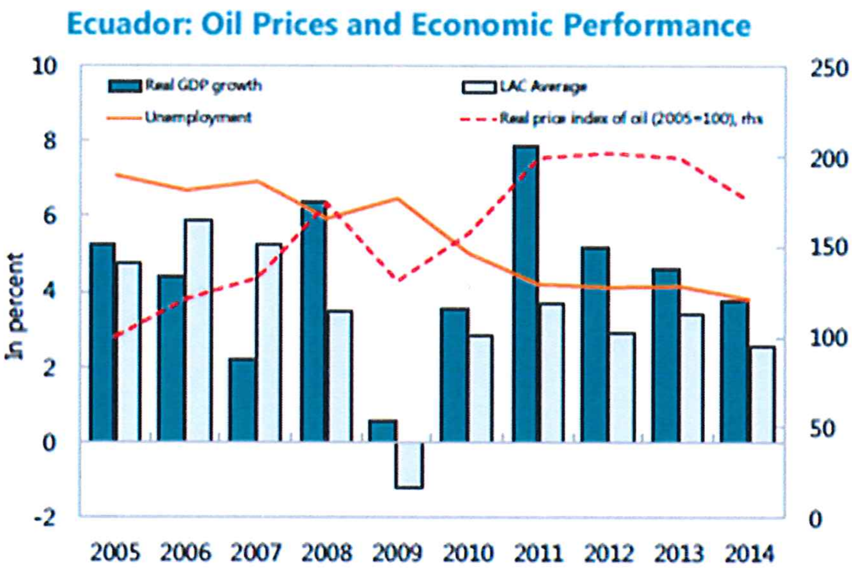
Source: Bolivia, IMF Article IV Consultation, February 2014.

ANNEX 3: ECUADOR BY THE IMF

Ecuador pursued a strategy of public sector-led growth during the oil boom, which yielded important social benefits. It was spearheaded by President Correa, since his election in 2007. The Article IV report of October 2015 by IMF staff recognized this achievement.

Growth averaged 4% over the past decade—contributing to a solid improvement in social indicators—supported by the positive terms of trade and large public investments. Reflecting Ecuador's goals of diversifying energy production and improving infrastructure and social equity, the overall fiscal position of the non-financial public sector (NFPS) widened from a balance in 2011 to a deficit of 3% of GDP in 2012–2014 —despite high oil prices—mainly driven by high capital spending. During the same period public debt rose about 9.5% to 31.3% of GDP.

The poverty rate and the GINI coefficient fell, respectively, from 38 percent and 0.54 in 2006 to 22.5 percent and 0.47 in 2014, while the unemployment rate declined significantly. Financial stability was preserved, supported by dollarization. In 2014, growth moderated to 3.8%, but remained higher than in the rest of the region—as in the past 7 years.



Sources: National Authorities; IMF (WEO); and Fund staff calculations.

In 2014, the reference household income exceeded for the first time the cost of the basic consumption basket. Social convergence was in part achieved through growth in real wages in excess of productivity, which contributed to maintaining inflation at about 4% over the decade.

Since the fourth quarter of 2014, the economy has been hit by external shocks and is slowing down. The sharp decline in the international oil price, by about half for the Ecuadorian mix, significantly undercut oil revenues. In addition, competitiveness is being eroded by the real appreciation of the exchange rate—by 16 percent year-over-year through June 2015.

The authorities responded rapidly to the shocks by cutting public spending, introducing balance of payment safeguards, and containing minimum wage growth. As a result, non-oil imports have been declining significantly from April 2015, and the 2015 fiscal deficit is expected to be contained to the original budget target. Nonetheless gross financing needs remain large, and international access to credit has tightened.

Source: Ecuador, IMF Article IV Consultation, October 2015.

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ISSN 1819-6926