

# Overview of the actions

taken by the Latin American  
petroleum producing countries  
against the international  
crude oil price drop



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Organización Latinoamericana de Energía  
Latin American Energy Organization  
Organisation Latino-américaine d'Énergie  
Organização Latino-Americana de Energia



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## Executive Summary

Oil prices were relatively stable from 2011 until mid-2014, with the Brent price fluctuating around \$ 110 per barrel and WTI fluctuating around \$ 96 per barrel. This situation has radically changed. Since mid-2014, prices have fallen by half or even less, and both references recorded its lowest levels in the last five years. This has profound implications not only on oil-exporting economies such as Mexico, Colombia, Venezuela, Brazil and Ecuador but also on the overall macroeconomic performance.

Monitoring of the actions and / or strategies that have been carried out by the oil exporting countries of the region

Therefore, the Latin American Energy Organization proposes the following document, which summarizes the geopolitical and economic situations that have contributed to the decline in oil prices. It also presents the follow-up to the actions and / or strategies taken, especially by the oil-exporting countries, and it sets out alternatives that could be implemented by those countries affected by this situation.

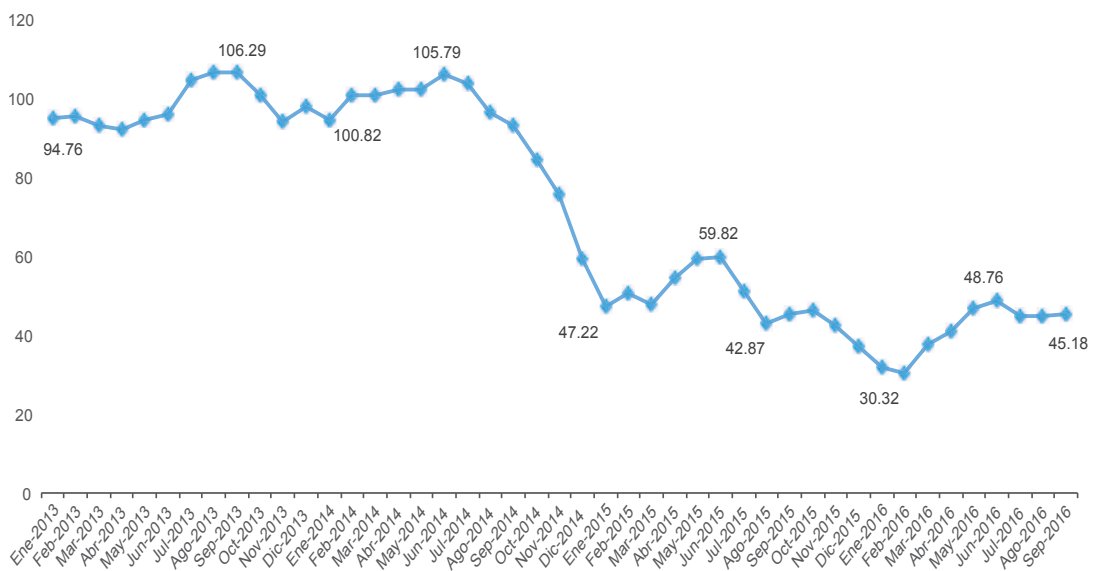
Finally, this document is aimed to become an input to generate discussions around the best practices used in the context of low oil prices.

# 1. Global Context

The falling in oil prices is the result of some factors that have been generated over the past five years, where the conjunction of them, since June 2014, has caused a historic drop in oil prices.



**Graph 1**  
**Evolution of oil prices WTI 2014-2016 Dollars per barrel**



Source: [http://www.eia.gov/dnav/pet/pet\\_pri\\_spt\\_s1\\_m.htm](http://www.eia.gov/dnav/pet/pet_pri_spt_s1_m.htm)



Here are the reasons that have led to crude oil to achieve its lowest price over the last decade:

### 1.1 Increased production of unconventional oil (Shale Oil) in North America

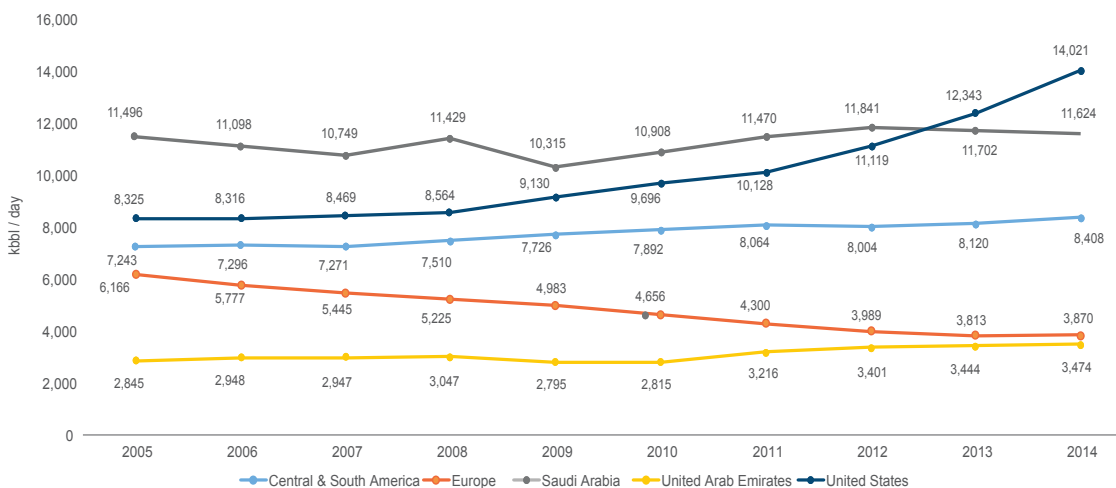
One of the reasons that have pushed oil prices down is the increase in oil production particularly in the United States derived from the implementation of best unconventional oil extracting techniques like hydraulic fracturing or fracking.

According to the projections made by different specialists of Entities related to the hydrocarbon's matter, such as the International Energy Agency -

IEA, an average price of US \$ 50 is needed to achieve profitability in the extraction of unconventional crude oil. High oil prices above of \$ 100, made attractive the extraction of such reserves despite its high cost.

The graph 2 allows understanding the increase in production in the United States from 2008 to date, by going from a production of approximately 8 million barrels of oil a day to 14 million barrels per day in 2014.

Graph 2  
Oil Production (kbbbl / day) by region 2005-2014

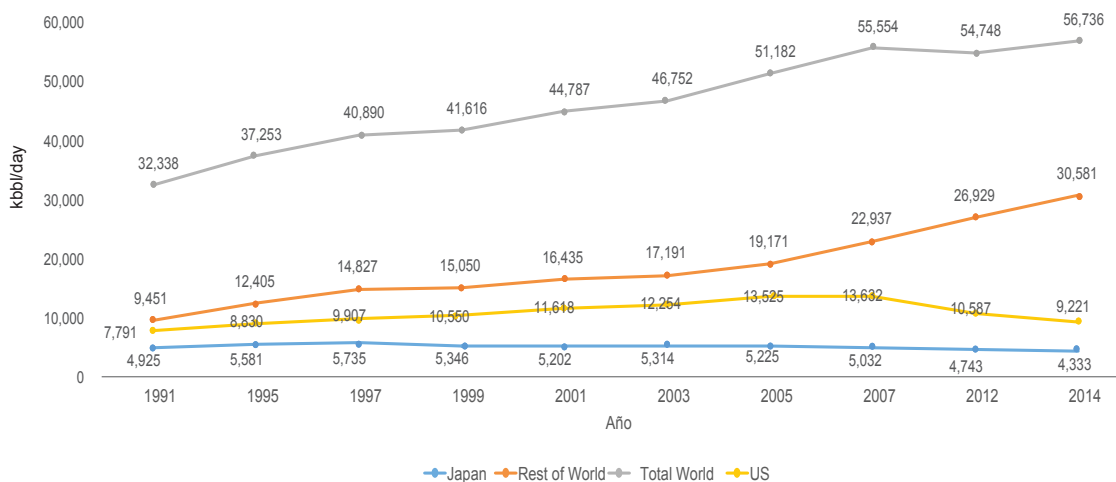


Own elaboration based on data from: BP Statistical Review 2015

Among the major oil producers in the world, the United States has been the highest contributor in recent

years to increase oil production. As a result of the above, United States oil imports have significantly fallen in the last seven years.

**Graph 3**  
**Crude oil imports (kbbbl / day) United States 1991-2014**

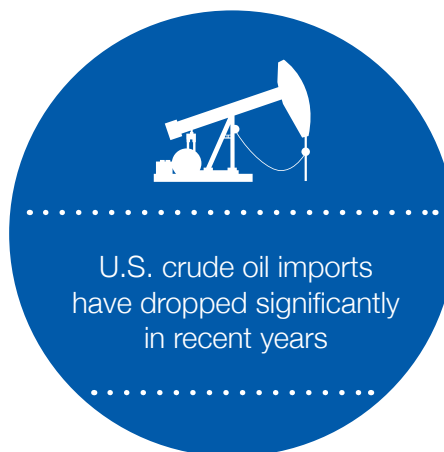


Own elaboration based on data from: BP Statistical Review 2015

## 1.2 World economy recession, especially oil demand from China

Due to oil imports reduction in the US, Arab producers were after the Asian market, especially China, as it is the world's second-largest oil consumer. However, the increase in the supply of crude was accompanied by a reduction in global economic growth by the uncertainty of the rate of growth of the Chinese economy affecting the global stage.

The drop in the China's stock markets has set off the alarms on the economic welfare of the country. The devaluation of its currency and cuts in growth estimates of GDP confirms that the Asian giant will grow at lower rates with the notable consequences

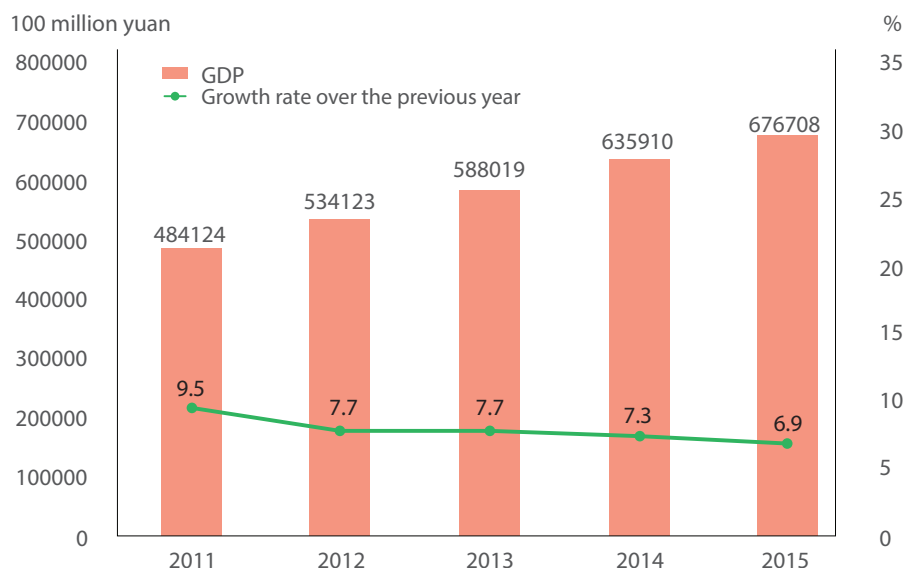


that cause a decrease in consumption of raw materials in China.

Figure 4 shows how China's economy is entering a new stage by moving from a GDP growth of more than 10% to an expected growth of just over 5%.



Graph 4  
GDP Graph of China's Economy 2011-2015



Source: [http://www.stats.gov.cn/english/PressRelease/201602/t20160229\\_1324019.html](http://www.stats.gov.cn/english/PressRelease/201602/t20160229_1324019.html)

### 1.3 The high level of prices in recent years encouraged exploration and production in deep waters in Brazil and exploration in Colombia

The high oil prices and overall raw materials in the past decade led countries to undertake oil exploration in areas previously proved unattractive due to their high costs. The increase in crude oil prices led to important discoveries in Brazilian and Colombian deep waters.

In the case of Colombia, the National Hydrocarbons Agency since 2012 has been working in the structuring of technical, environmental and operational standards, which, besides

having the highest standards of quality, it allows Colombia to continue to be an attractive destination for offshore investment.

As an example of the above, Colombia issued the Decree 2682 of 2014<sup>1</sup>, whose main objective is to encourage and promote the development of projects for the exploration and exploitation of hydrocarbons in the maritime coasts and territorial waters, becoming one of the biggest incentives for Colombia exploration in recent years.

<sup>1</sup> Taken from: <http://wp.presidencia.gov.co/sitios/normativa/decretos/2014/Decretos2014/DECRETO%202682%20DEL%2023%20DE%20DICIEMBRE%20DE%202014.pdf>



The Ministry of Mines and Energy of Colombia announced the approval of the first free zones for offshore hydrocarbon exploration. The three free trade zones that favor companies such as Ecopetrol, Anadarko, Petrobras, Repsol, Exxon and Statoil, containing 13 blocks which have benefits in income tax, VAT and tariffs.

“We have great potential in offshore operations. Colombia is becoming more competitive in attracting more investment, which we hope will be translated into increased reserves and production of oil to continue contributing to the national development,”<sup>2</sup> concluded the Minister of Mines and Energy, German Arce Zapata.

Hydrocarbon sector reforms in Brazil also played an important role in increasing reserves and production in this country. These reforms

began with the amendment to Article 177 of the Federal Constitution. Hence the presence of other companies besides Petrobras in the production operations sector was allowed.

The 9,478 (Petroleum Act 1997) introduced the concession regime created the National Energy Policy Council and the Brazilian National Petroleum Agency. The conditions for schemes transfer of exploration rights were issued in the law 12,276, while the law 12,351 established shared production systems in the new discoveries of pre-salt areas called strategic areas, and it established a social fund where Petrobras obtained exclusive rights to operate over the pre-salt and strategic areas<sup>3</sup>.

Graph 5 displays the significant increase in oil production in Brazil since the last years of the nineties, the increase in production in Colombia since 2007 and the fall of oil production in Mexico, which is a trend that seeks to be inverted with the energy reform.

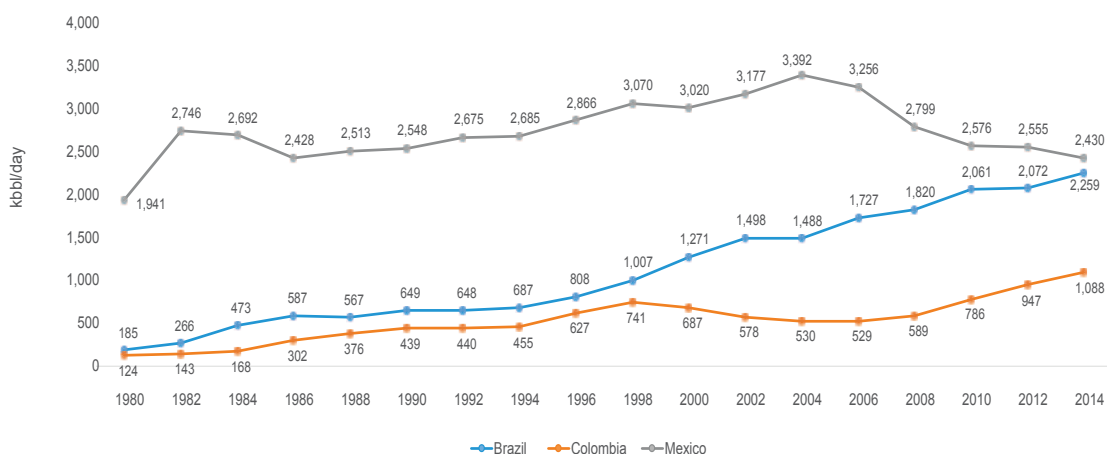


<sup>2</sup> Taken from: <http://www.minminas.gov.co/web/10180/historico-de-noticias?idNoticia=23820743>

<sup>3</sup> Source: Chauhan V, Van Mourik M., Florencio P., (2014). Challenges across Brazil's oil sector and prospects for future production. The Oxford Institute for Energy Studies.



Graph 5  
Oil Production Brazil, Colombia and Mexico 1980-2014



Source: Energy-Economic Information System (SIEE-OLADE)

However, with current oil prices, maybe an investment in oil exploration and extraction performed by companies worldwide, won't be as striking as it had been a few years ago.



## 1.4 Decreased demand for hydrocarbons in industrialized countries through energy efficiency

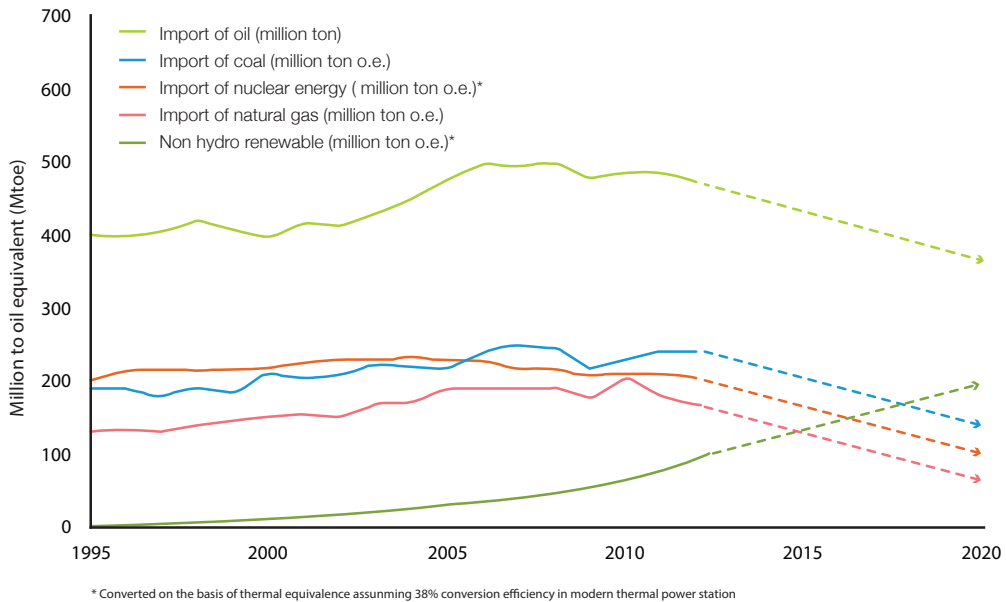
Among the consequences of high oil prices, in an almost 10 year long cycle, we can see the implementation of measures to achieve greater energy efficiency in oil-importing countries. In order to reduce dependence on hydrocarbons, European industrialized countries have implemented new technologies for power generation and

improved utilization of hydrocarbons<sup>4</sup>, causing a decrease in demand for oil and gas. Graph 6 shows how European countries, on the one hand, have decreased their consumption of oil and gas and on the other hand have increased production and consumption of renewable energy.

<sup>4</sup> <https://aleklett.wordpress.com/2014/05/07/european-energy-horizons-2014/>

Graph 6

**No renewable energy imports and consumption in Europe (Million Ton)**



Source: <https://aleklett.wordpress.com/2014/05/07/european-energy-horizons-2014/>

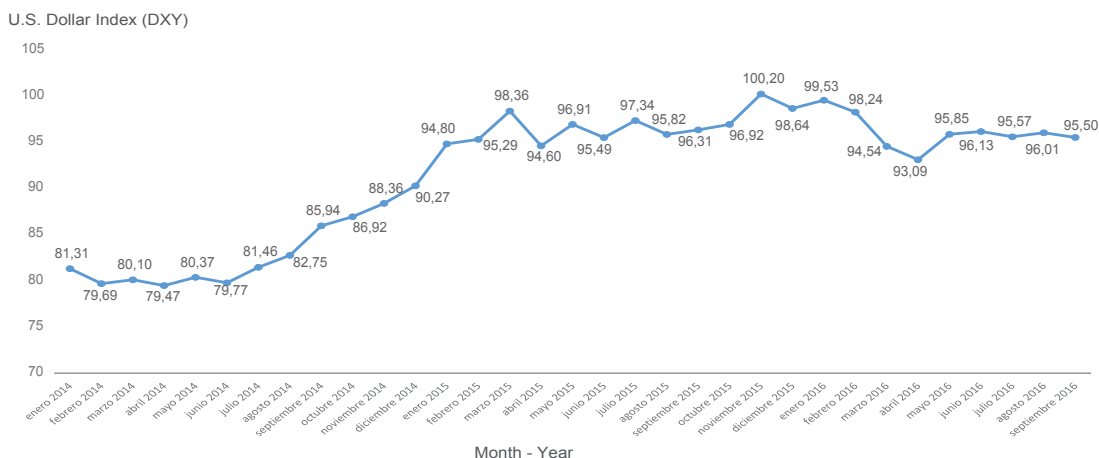
## 1.5 The appreciation of the dollar, which is the currency most oil exchanges are made

The normalization of monetary policy in the US is leading a movement of capital towards the dollar. This situation causes the dollar to appreciate against other currencies in the world. This is much more expensive for oil consumers who buy barrels of oil because they have to do the transaction in dollars and not in their respective local currencies. The appreciation of the dollar and the consequent devaluation of local currencies, affecting the purchasing power of countries to import oil and petroleum products.





Graph 7  
Behavior of the appreciation of the U.S dollar 2014 - 2016



Source: Trading Economics

## 1.6 Importing Countries

Oil price drop affects importing countries in three main aspects:

- The increase in real income on consumption;
- Reduction of production costs of final goods, and therefore there is an effect on profits and investment; and
- The effect on the inflation rate, both general and basic.

Therefore, for net importers, international oil prices may influence fiscal balances in different ways that could be compensated. Revenue from taxes on oil imports (both value

added tax and import duties ad valorem<sup>5</sup>) are likely to decline, but fuel subsidies could also decrease, especially if the government does not allow a total transfer of the drop in international oil prices.

This leads to the conclusion that the fiscal situation of most net oil importer countries would be moderately improved thanks to the fall in international oil prices. The fiscal situation of some of these countries is strengthened because governments are not allowing the decline in international prices to be reflected in domestic prices.<sup>6</sup>

<sup>5</sup> Tariff charged to goods

<sup>6</sup> 7th edition Oil and Gas Journal. December 2015. "Impacts on oil price drop in Latin America and the Caribbean."

## 1.7 Projections for oil prices

The World Bank in its latest report on the Commodity Markets Outlook revised the oil price projection for 2016 estimating it at USD41 per barrel. This reduction in the projected price is due to factors related to supply and demand, namely: export volumes of production from Iran, resilience of US production, the mild winter in the northern hemisphere and the poor growth prospects for the major emerging market economies.

However, it considers a gradual recovery in the oil price that will be less than the upturns after sharp falls of 2008, 1998 and 1986. This possible recovery takes into account changes in the supply and demand variables driven by the decrease in production volumes of the producers with high costs and a partial rebound “after a moderate recovery in global growth.”

According to Jhon Baffes, top World Bank economist and lead author of the report Commodity Markets Outlook, it is considered that it is possible for prices to rise slightly in the next two years, but downside risks remain at large.<sup>7</sup>

Meanwhile, the International Energy Agency, in its latest release of the

SHORT-TERM ENERGY OUTLOOK issue dated, June 2016,<sup>8</sup> analyzes the reasons for the recent moderate rise in prices during May 2016: the average Brent monthly price increased by \$5 / bbl in May to \$47 / bbl, which was the highest monthly average Brent since October 2015. Increased disruptions on global oil supply were the main contributor to the rise in oil prices, largely driven by forest fires in Canada and attacks on oil pipelines in Nigeria. Also, improvement in economic data and its indicators, allow the EIA to infer that growth in global oil demand is accelerating.

Despite the recent rise in oil prices, the EIA expects that global oil inventory increases by an average of 0.8 million bbl / d in the second and third quarters of 2016, limiting price pressures rise in the coming months. It is also expected that Brent's prices remain at an average of \$46/bbl in the third quarter of 2016, before increasing to \$47/bbl in the fourth quarter as a result of slower than expected growth in global oil inventories. Finally, they predicted that Brent's price is located at an average of \$52/bbl in 2017.

According to Ramon Espinasa, an official of the Inter-American Development Bank, “the perspective of the evolution of US production is critical to building a scenario of the evolution of oil prices over the next five years,” especially the development of unconventional resources production, estimated at over 900

<sup>7</sup> Source: <http://www.bancomundial.org/es/news/press-release/2016/01/26/world-bank-lowers-2016-forecasts-for-37-of-46-commodity-prices-including-oil>

<sup>8</sup> Source: [http://www.eia.gov/forecasts/steo/report/global\\_oil.cfm](http://www.eia.gov/forecasts/steo/report/global_oil.cfm)



billion barrels, figure equivalent to the proven reserves of the OPEC countries<sup>9</sup>.

Espinasa suggests that we are facing a new structure of the oil market where the magnitude of these unconventional reserves, the

permanent reduction of production costs and the organization of an industry with competing actors are those who will fix the ceiling price of oil within the next five years. The ceiling price which will be up to 50USD per barrel, unless disruptions of geopolitical origin.<sup>10</sup>

<sup>9</sup> Source: Espinasa R, 2016. Brand New Model, same old price. Technical Note N° IDB-TN-937. pages: 3-6

<sup>10</sup> Source: Espinasa R, 2016. Brand New Model, same old price. Technical Model N° IDB-TN-937. Page: 7







## 2. Measures or actions taken before low price scenario

### 2.1 OPEC - Organization of Petroleum Exporting Countries

Since the beginning of the sharp drop in oil prices, OPEC has failed to reach a consensus on a common position on the reduction of production quotas among its members. Since December 2015 its members have stated that there won't be a cut in production, while there is no coordinated stance with countries outside the group.

In addition, OPEC has not reached a common position because of the uncertainty of Iran's entry into the market, which could increase its production by 2016, to 1 million barrels/day, further deepening the oversupply (of about 2 million barrels/day). Tehran refused to freeze production after January 2016 when

the Western countries lifted sanctions against it after reaching an agreement over its nuclear program, which now seeks to recover its production despite the current low prices. Iranian Oil Minister Bijan Zangeneh stated that he could discuss the issue of declining production levels only when levels pick up again. Also, the breaking of diplomatic relations between Saudi Arabia and Iran has hindered an agreement within this organization.

However in February this year, OPEC and non-OPEC countries such as Saudi Arabia, Russia, Venezuela and Qatar approved an agreement to maintain their production levels to those recorded in January 2016, this initiative was joined by Algeria, Ecuador, Kuwait, Nigeria and Oman, and it is subject to the adherence of other major producing countries.

The current production of OPEC reached in May 2016 to 32.82 million barrels / day<sup>11</sup> and has a share of around 42%, which shows the important role it can play in the global oil market.

In November 2015 it reached a record 31.79 million barrels production / day (Reuters poll) falling in December of the same year to 31.62 million barrels / day. In January 2016, together with the production of Iran and increased Saudi Arabia and Iraq, the cartel produced 32.6 million barrels / day.

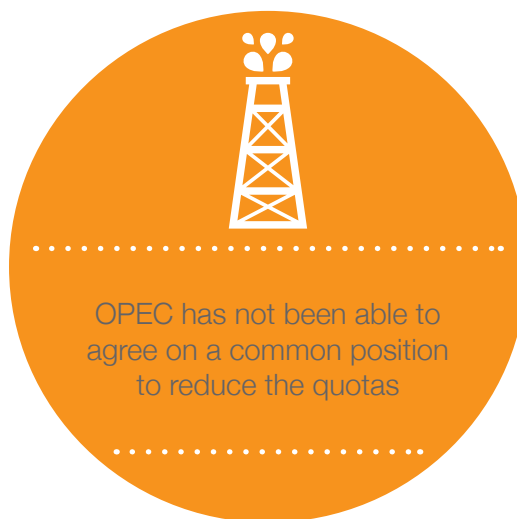
Among other reasons for the stagnation of an internal agreement between OPEC members due to the breaking of diplomatic relations between Saudi Arabia and Iran.

In late February, the Secretary General of OPEC acknowledged that the price recovery will be limited by US oil shale. If the price recovers to US \$ 60 producers US shale drilling begin quickly - except Iran and Libya - they attended the event also several non-member producers.

Also, on April 17 this year Qatar hosted a meeting of members and non-members of OPEC, which was attended by 18 producing countries, but there was no involvement of key

players such as Iran and Libya. In conclusion of the meeting, Qatari Energy Minister Mohammed Saleh informed about the need for more time to reach an agreement and the expectation of having some extent as a result of the OPEC meeting in June 2016.<sup>12</sup>

Finally, at the meeting of the organization on June 2 and despite the recognition of the Executive Secretary of the OPEC that price recovery will be limited by oil from US shale, members decided not to alter the current policies of oil production. For the new minister of Saudi Arabia, Khalid al-Falih, setting an artificial limit on oil production would be premature.<sup>13</sup>



11 Consulted in: [http://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/publications/MOMR%20June%202016.pdf](http://www.opec.org/opec_web/static_files_project/media/downloads/publications/MOMR%20June%202016.pdf)

12 Taken from: <http://expansion.mx/economia/2016/04/17/la-opec-falla-en-lograr-un-acuerdo-para-congelar-la-produccion-petrolera>.

13 Taken from: <http://www.preciopetroleo.net/opec-reunion-junio-2016.html>



## 2.2 What happened with importing countries in the region?

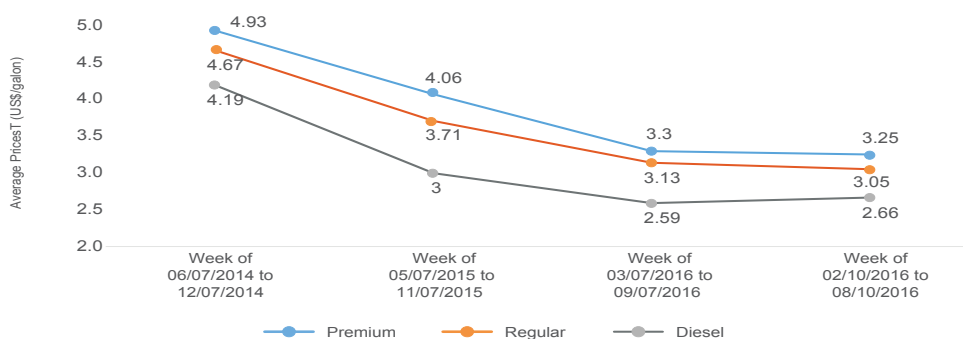
### 2.2.1 Central América

The fall in international oil prices has been reflected in the prices of diesel and gasoline currently reporting service stations for the end consumer in each country of the region.

Graph 8 shows the average prices to the

final consumer of gasoline and diesel in Central America, based on official prices of the Cooperation Committee Hydrocarbons of Central America - CCHAC, and follow and surveys made up by the General Hydrocarbons Secretariat equivalent departments in the capital of each Central American country.

Graph 8  
**Behavior of the price of derived liquid fuels in Central America (2014 - 2016)**



Source: [http://www.cne.gob.sv/index.php?option=com\\_phocadownload&view=category&id=11:cchac&Itemid=63](http://www.cne.gob.sv/index.php?option=com_phocadownload&view=category&id=11:cchac&Itemid=63)

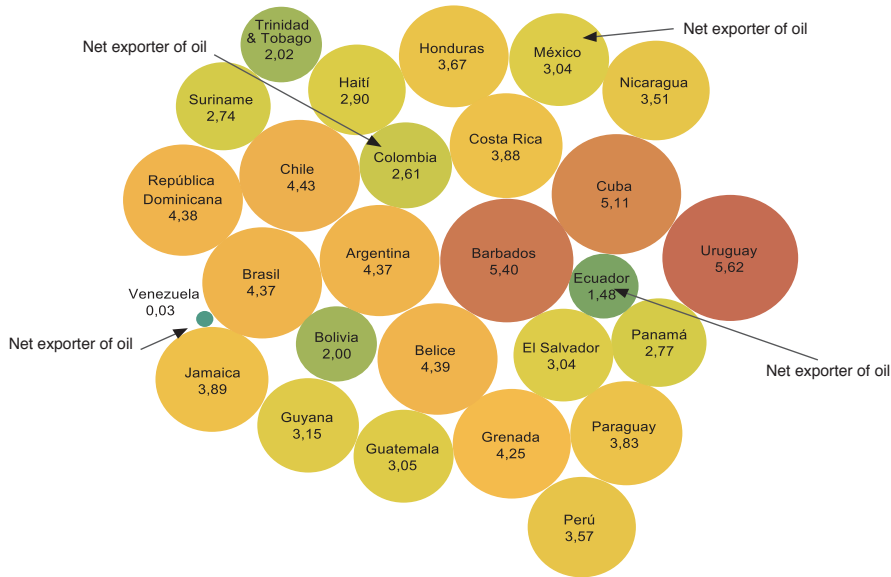
With the oil prices drop, it is evident that in the Central American countries, prices to final consumer of oil derived liquid fuels show a strong link to the international crude oil prices.

Unlike oil-producing countries that have witnessed a number of revenues to the State due to low oil prices, the

Central American countries have seen some relief by reducing the oil bill. The fuel prices have declined, which has led to the substantial increase in fuel consumption and vehicle sales, causing other problems such as increased traffic and inefficient fuel consumption.<sup>14</sup>

<sup>14</sup> 7th edition of the Oil and Gas Journal. December 2015. "Impacts of oil price drop in Latin America and the Caribbean."

**Graph 9**  
**Fuel prices in Latin America and the Caribbean**  
**U.S. Gallon / US Dollar**



Source: <http://es.globalpetrolprices.com/> (Researched on November 10, 2016)

### 2.3 What actions or strategies have been undertaken in the exporting countries of the Region?

The geopolitics of energy in Latin America has traditionally been marked by the heterogeneity of the various national energy models, with large differences between the producer and consumer countries; mainly among the producing countries.<sup>15</sup>

The Latin American countries, especially oil exporting countries, have been similarly affected by falling oil prices, which has led them to make economic, social, regulatory and politically related

decisions. Below we can see the actions taken by the countries of the region with respect to falling oil prices:

Fuel prices have been reduced, which has led to a considerable increase in fuel consumption and vehicle sales

<sup>15</sup> Source: <http://www.politicaexterior.com/articulos/economia-exterior/el-escenario-energetico-de-america-latina/>

### 2.3.1 Colombia<sup>16</sup>

The country has taken important decisions for the sector to best fit this low prices global context. Competitiveness Plan for Oil was conceived as a set of measures to boost the hydrocarbons sector. The plan defines four priority fronts to work in the short and medium term:

- 1. Improve the prospective.** It includes hiring new reserves valuation studies, classification and prioritization of watersheds and it involves the acquisition of multi-client seismic, which seeks to position Colombia as an attractive destination for investors.
- 2. Strengthen ANH.** It will implement a strategy and segmented approach to its client's support and will adopt more flexible regulation processes allowing permanent and dynamic allocation. The promotion will be done in a more focused manner; therefore, 158 companies have been identified and have been classified to couple them with the basins. The promotion process will be more personalized and contracting mechanisms will be performed more regularly.
- 3. Making most economically attractive projects.** The ANH is reviewing guidelines for adjusting the minimum exploratory programs required for continental border areas and adjust

.....  
It created the  
Plan for Oil  
competitiveness  
.....



or remove the unit price table. The study includes fiscal tools to facilitate adjustments in the sector to the price cycle.

- 4. Increase efficiency and process times.** ANH will continue to work with the Ministry of Environment, Housing and Territorial Development, the National Agency for Environmental Licensing and the Autonomous Regional Corporations. It will be promoted the creation of a unified environmental baseline, optimizing time licensing and creating a regulatory framework for offshore projects.

These measures are the result of several months of work with the industry. The Plan for Oil Competitiveness is aimed to reach close to 20 billion investment levels and production volumes of 1,300,000 barrels, including oil and gas investment by 2030.

Furthermore, the following steps have been taken:<sup>17</sup>

<sup>16</sup> Source: National Agency of Hydrocarbons and Ministry of Mines and Energy

<sup>17</sup> Source: Ministry of Mines and Energy. [www.minminas.gov.co](http://www.minminas.gov.co)



- Keep maximum production, as close to one million barrels per day; this will allow the country to meet the resources requirements to finance the National Development Plan and minimize impacts on employment and local suppliers.
- Implementation of fiscal tools that will allow the adjustment to be gradually performed.
- The introduction of variable royalties for incremental production, which consist of a production above base field production that pays more royalties. Also, when it is lower, it pays less. This will help small projects to become feasible in the midst of this prices' crisis.
- Customs-free zones were created in offshore operations, so for the operations to keep on, future resources guarantee must be guaranteed. Technical and environmental regulations were issued for conventional and unconventional offshore.

### 2.3.2 Ecuador

Ecuador as a member of OPEC supports the decisions taken by consensus by the members of the organization and has spoken through the Minister “for a balance in the international oil market, this means, to access to a stable oil demand and supply in the international

market.” Noting that “this stability will enable the industry to have appropriate technical and budgetary planning, stressing that the lack of forecasts has hurt producing countries and global industries of the hydrocarbon sector.”<sup>18</sup>

The country has worked during this low prices time lapse to attract investment for the exploitation of its fields through a Strategic Investments Forum. 9 projects were presented seeking to establish joint ventures for the development of Ecuador’s oil industry.<sup>19</sup> Additionally, it was considered to make a new round for this year 2016, “whose special feature is the tender of smaller blocks than the usual ones.”<sup>20</sup>

Moreover, the management of the public company PETROAMAZONAS will be focused on three dimensions: “reduce operating costs, continuous training of the company’s staff and renegotiating Specific Services Financing contracts, in 17 mature fields. “Our expectations are primarily focused on making a diagnosis of the market and our company, right at this time when we have a relatively low oil prices market. It is important to work on reducing costs and increasing production, so efficiency levels will

<sup>18</sup> Source: <http://www.hidrocarburos.gob.ec/opep-resolvio-mantener-cuota-de-produccion-de-petroleo/>

<sup>19</sup> Source: <http://www.hidrocarburos.gob.ec/ecuador-presenta-proyectos-hidrocarburiferos-para-oportunidades-de-inversion/>

<sup>20</sup> Source: <http://www.hidrocarburos.gob.ec/inversionistas-extranjeros-interesados-en-invertir-en-el-sector-petrolero-ecuatoriano/>

increases, conducted by the National Government.”<sup>23</sup>

.....  
**Reduction of operation costs, training for technical staff and renegotiation of contracting services**  
.....



significantly increase”. This was part of the CEO of PETROAMAZONAS EP”<sup>21</sup> .

In that sense, PETROAMAZONAS has conducted activities directly related to the optimization in production activities “optimization of fluids, seeking opportunities in boreholes, continuous improvement of facilities to avoid production losses, and implementation of secondary recovery projects that allow extending the economic life of the deposits.”<sup>22</sup> These measures ensured that PETROAMAZONAS’ oil production reached a new historical record of average daily production of 366,754 barrels per day by April.” This is more than 800 barrels per day average in the same period of 2014, when it registered 365,942 barrels per day. This result, which has been certified by the Secretariat of Hydrocarbons (SH), is part of an optimization plan of the company working under the guidelines of responsible production

### 2.3.3 Brazil<sup>24</sup>

PETROBRAS reduced its long-term investment plan to its lowest level in 8 years, while the new administration takes steps to reduce the increased debt of the industry and restore investor confidence.

A resolution was adopted to maintain the current system to set a minimum price of oil for royalty payments made by the state-owned company Petroleo Brasileiro SA to local governments.



.....  
**It downsized its long-term investment plant technical staff and renegotiation of contracting services**  
.....

### 2.3.4 Argentina<sup>25</sup>

In the case of Argentina, the effects on the domestic market are diminished by an agreement between the oil producing provinces and the industry, which led domestic prices above international reference prices. This agreement was

21 Source: <http://www.petroamazonas.gob.ec/tres-dimensiones-de-trabajo-marcaran-la-gestion-del-gerente-general-de-petroamazonas-ep-jose-icaza-romero-en-petroamazonas-ep/>

22 Taken from: <http://www.hidrocarburos.gob.ec/petroamazonas-ep-alcanza-record-de-promedio-de-produccion-al-llegar-a-366-754-bariles-por-dia/>

23 Ibid

24 Source: <http://www.preciopetroleo.net/petroleo-brasil.html>

25 Inform by National Coordinator of OLADE - Argentina.

created within the framework of a temporary income stabilization strategy of the oil producing provinces and sustaining exploration and production activity.

Nowadays, the price of an oil barrel in Argentina has an average of US\$ 60 per barrel, compared the international market barrel which is ranked between US\$ 40 to US\$ 50. The expectation is that if the international price does not rise, a new internal equilibrium will be established by the end of the year, probably on a downward trend, trying to preserve the level of activity. In this context, probably between the price raise in the international market and the situation in Argentina, there will be a trend to a gradual convergence to the levels of international reference price.

The oil produced for export (of different physical and chemical characteristics than can be processed in local refineries) receives a subsidy: in March, the Ministry of Energy and Mines issued Resolution 21/2016, which created compensation when the price of international benchmark Brent oil to be located below the US \$ 47.5 until 31 December, 2016.



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**The effects in the domestic market are dimmed by an agreement held between the oil producing provinces and the industry**

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Such compensation is shared between the federal government and the oil producing provinces: for every \$ 10 each barrel of oil for export is subsidized, US \$ 7.5 are handed over the National Government and US \$ 2.5 remain for the government provincial.

### 2.3.5 Venezuela

The drop in oil prices in Venezuela has caused mixed reactions around the price, production volume, regional integration, and operation of joint ventures.

According to statements made by the People's Ministry of Hydrocarbons and Mining in office from 2015, until March 2016, Venezuela seek to defend and promote the balance of oil prices by placing a "flat base price adapted to the regions of the world with a floating band to stabilize the market. President Maduro additionally said that "oil production must be controlled with the collective discipline of necessary reduction to find a balance to further

coordinate a planned growth of oil production.”<sup>26</sup>

As for the promotion of regional integration, this is a goal that is in the Socialist Strategic Plan 2016-2025, which is focused on “direct, efficient and effective management of social work process by forced labor; and the need to optimize and increase production capacity, diversifying markets, technological sovereignty, territorial development, energy security and environmental management.”<sup>27</sup>

Finally, management of joint ventures has been evaluated in a meeting with the Venezuelan Association of Hydrocarbons that have ratified the will of President Maduro to continue promoting oil development in Venezuela especially in the Orinoco Oil Belt to allow progressive increase production, which is “the largest reservoir of oil in the world” according to Asdrubal Chavez. It should be noted that the parties agreed to maintain the continuity of these meetings to assess the progress of joint projects<sup>28</sup> and President of Petroleos de Venezuela said that “it is necessary to review the actions to be implemented in each of the joint ventures such as the transfer of the operation of drilling and



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**Is searches for  
the defense and  
promotion of the  
balance of oil prices**  
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operating personnel in addition to the transfer of goods and seeks for each joint venture do it in a way that better suits its interests.”<sup>29</sup>

As part of the meeting held by OPEC in Vienna on June 2, Venezuela proposed the implementation of a system of production bands, which will be evaluated by technical teams of OPEC in the coming months. “We proposed to implement a band system production by countries, so can have a range and where there is more flexibility,” said the Minister.

He explained that this system would allow the remaining countries to balance situations, any time a country has a problem so that OPEC can ensure a sustainable production level. “It’s a new system, which had not been applied before. It was registered with the resolution to be evaluated by technical teams of the organization, and at the next meeting, a decision will be made, depending on how the market evolves between now and November.”<sup>30</sup>

26 Source: <http://www.mpetromin.gob.ve/portalmenpet/noticias.php?option=view&idNot=3677>

27 Source: <http://www.mpetromin.gob.ve/portalmenpet/noticias.php?option=view&idNot=3707>

28 Source: <http://www.mpetromin.gob.ve/portalmenpet/noticias.php?option=view&idNot=3499>

29 Source: <http://www.mpetromin.gob.ve/portalmenpet/noticias.php?option=view&idNot=3497>

30 Taken from: <http://www.mpetromin.gob.ve/portalmenpet/noticias.php?option=view&idNot=3964>



### 2.3.6 Mexico

The main Mexican tool to cope with the drop in oil prices is the new energy model implemented since the constitutional reform of the energy sector in 2013, whose strength, according to the head of the Ministry of Energy lies in business development, as from the reform of private enterprises and productive state enterprises, individually or in combination, can participate in exploration and extraction by assignments or contracts - awarded through international competitive bidding - and in transport, storage and industrial processing hydrocarbons, as well as transport, storage, marketing and sale of petroleum and petrochemical products, under a system of permits and fees, and following principles of open access and effective competition.

Since the energy reform, Mexico has strengthened and created new institutions to carry out effective regulation in accordance with best international practices, principles of sustainability, transparency and accountability. The Energy Secretariat (SENER), responsible for the design and implementation of public policies on energy, working in coordination with other ministries and regulators to create efficient and competitive markets bodies. One of the main tasks of the Ministry of Energy is to select the areas to tender and design contracts for exploration and extraction of hydrocarbons.



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**The Oil Mexican Fund is the entity entitled to promote the top use of oil resources in the country**

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This work is done in a coordinated fashion with the Secretariat of Finance and Public Credit, responsible for defining the economic and fiscal terms and the variables for the award of contracts, and the National Hydrocarbons Commission, responsible for managing the national geological information and oil contracts on behalf of the State.

Mexico has successfully advanced in implementing the new oil E & P model even in the current oil market situation. Between 2014 and 2015 there were concluded the first three tenders called Round One. Through these contests Mexico awarded 30 contracts for exploration and extraction of oil and gas deposits in shallow waters and in onshore blocks. These contracts represent an estimated of 6.900 billion dollars in investment, and could reach a production of around 191,000 barrels of oil equivalent a day. The fourth edition of Round One, for awarding blocks in deepwater and ultra-deep Gulf of Mexico, is one of the most anticipated by industry processes and currently there are 26 companies, including major oil companies in the world, registered

in the prequalification process. In July 2016 the first call for Round Two was launched. Thus, Mexico has begun to positioning itself as an attractive investment destination for oil companies in the world.

Medium and long-term planning are essential to give certainty to investors and cope with market volatility element, so that from the implementation of the new energy model, SENER published a Five-Year Exploration and extraction tender Plan. This indicative plan highlights the areas that the state plans to put in competition over the next 5 years and adjusted annually based on feedback obtained from industry and local governments, and in accordance with market conditions.

From the Energy Reform PEMEX has greater flexibility and new tools that allow it to increase your ability to execute, assimilate new technologies and improve institutional coordination in order to increase productivity setting their priorities in business and form strategic alliances to optimize processes, improve their returns and remain a leader in the new energy model in Mexico. The latter follows the principles of equity and social and environmental responsibility.

Given the overall price situation and the need to strengthen its financial position, the Board of Directors of PEMEX approved an adjustment

of 100 billion pesos budget for 2016, as well as the organizational restructuring of the company with the objective of generating savings, increase cash flow and make its operation more efficient. Meanwhile, the scheme will be elemental migration and partnerships for PEMEX continue developing strategic projects, gain experience, and technology, and achieve more effectively balance risks and returns for the benefit of Mexico.

In addition, today the country has a sovereign fund, the Mexican Petroleum Fund (FMP), with the aim of promoting the optimal use of oil resources. The FMP is responsible for managing the oil revenue derived from all oil contracts and assignments Pemex, giving priority to the stabilization of public finances, long-term savings and investment in projects that allow to translate the natural wealth of Mexico in other types of productive capital and develop human capital.

The new energy regime Mexico has given the country new tools to optimize their natural resources, coping and mitigating the risks inherent in the industry, modernize the oil industry and position itself as a destination attractive and stable investment. To date, there have been important steps to the creation of a new industrial ecosystem under high standards of transparency and is expected to contracts awarded to date to contribute to increased oil and gas production in the medium term.

## 2.4. Oil companies in the region

The fall in prices is affecting companies in the oil sector in different ways, taking into account the type of business, and the economic situation of the country where they are operating.

The Association of Oil, Gas and Biofuels Companies in LAC (ARPEL), has been supporting partner companies in their efforts to optimize their business processes through intensified cooperation among peers, mutual assistance and the exchange of best practices. It also conducts regular monitoring of the actions that companies are taking under this scenario and among these are:

1. Optimizing their templates.
2. Intensive Operating Costs' reduction programs.
3. Selection of operating wells based on productivity (Abandonment or temporary closure of wells).
4. Reduction in investment budgets.
5. Joint Ventures and Acquisitions
6. Companies are taking back old blocks.
7. Improved productivity focused on the recovery of mature fields rather than developing new fields, as in the case of Colombia and Mexico.
8. Cuts and delays of investments in Off Shore exploration in the case of Colombia and Brazil, due to its high costs.
9. Cooperative actions with suppliers of goods and services to gain competitiveness and efficiency.
10. There are special situations within the region as the case of PETROBRAS, PEMEX, ECOPETROL, who have made adjustments and restructuring within each company to adapt to this situation.
11. The situation, in general, may vary depending on the condition of the company (Upstream, Downstream, integrated), state, private and economic context of each country.
12. Research centers and development companies have intensified the search for new technologies to lower production costs of Oil and Natural Gas.

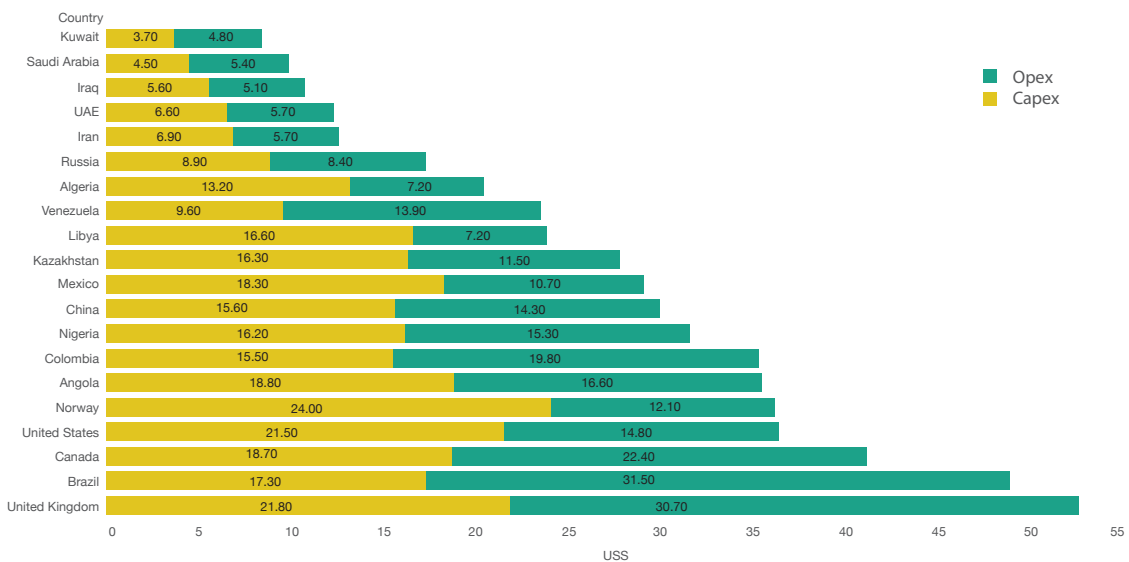
Moreover, ARPEL continues to facilitate dialogue between business and government in order to create enabling investment regulations to contribute to the sustainability of the sector in the medium and long term.

# ARPEL

Given that the issue of the costs of oil barrel production is the main variable so that oil companies can continue making new investments, we can see in the following chart the oil barrel production cost in some countries.<sup>31</sup>

It holds a timely assessment of the actions undertaken by oil companies under the low oil prices scenario

Graph 10  
Investment and operating costs in the production of hydrocarbons (OPEX - CAPEX)



Own elaboration based on data from: UCube by Rystad Energy, Interactive published Nov. 23, 2015

NOTE: The Opex of Ecuador is US \$ 23.54. Data taken from the newspaper "El Universo", based on statements by the President of the Republic

Operating costs in the Upstream differ among producers, average costs shown, allow us to check the different degree of involvement that accelerated fall causes in countries.

Those with lower OPEX present greater ability to maintain or even increase their production levels; hence, the capacity of countries like Iran and Iraq to increase the pumping has caused greater uncertainty in a volatile market affected by oversupply.

The Latin American countries generally have less ability to cope with lower oil prices;

<sup>31</sup> The chart was calculated from data from more than 15,000 oil fields in 20 nations. Production costs were calculated by including a mixture of capital expenditures and operating expenses. Capital expenditures include the costs involved in the construction of oil facilities, pipelines and new wells. Operating expenses include the costs of extracting oil from the ground, paying employee salaries and general administrative tasks. (Source: UCube by Rystad Energy; Interactive published Nov. 23, 2015)



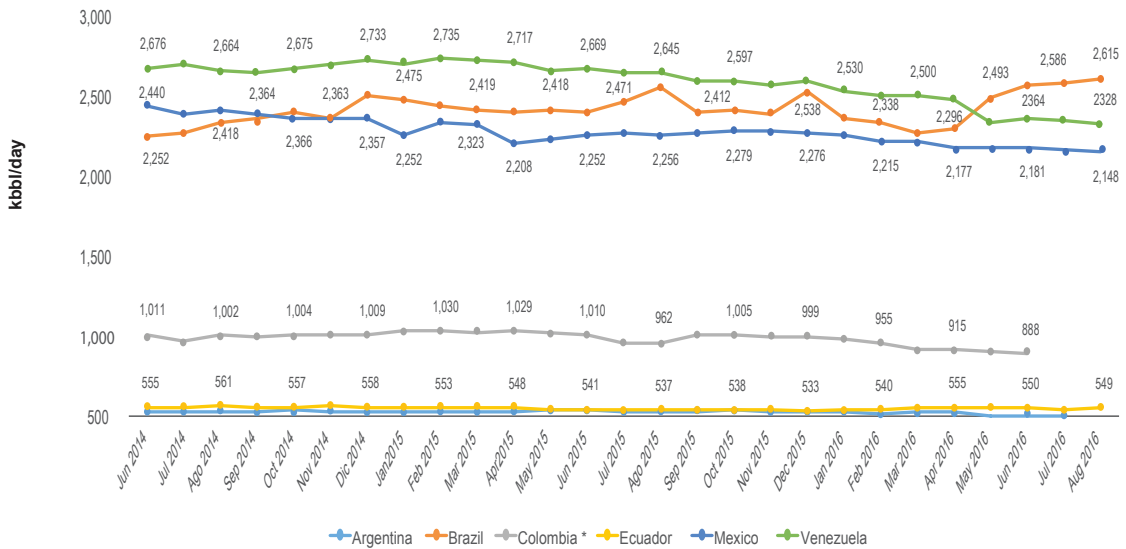
operating costs are significantly higher compared to countries in the Middle East; the ability to maintain and further increase production is limited when operating costs are higher, and investment costs exceed the market price.

Despite the above, the countries studied in this paper, have not substantially reduced hydrocarbon production. As it can be seen in the following graph, the production since November 2014 has a continuing trend of production volume.



The oil barrel production **COST** is the main variable for oil companies to continue makin new investments.

Graph 11  
Oil Production (kbbl / day) 2014 - 2016



Source: Joint Oil Data Initiative (JODI-Oil)

\*Colombia: Series January - June 2016 based on Statistical Review 2015 by National Agency of Hydrocarbons - ANH





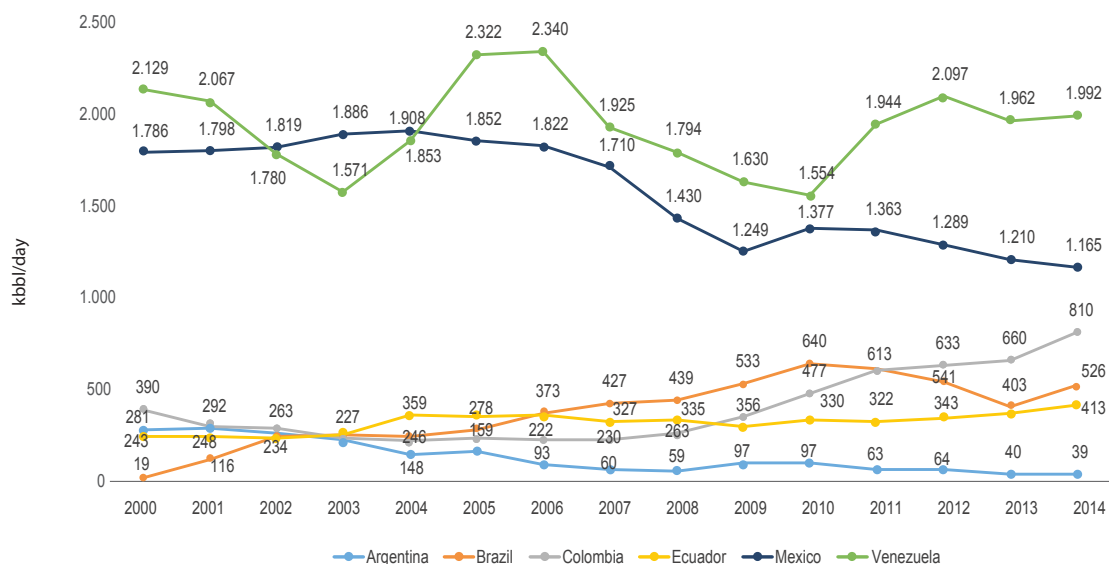


### 3. What actions could be taken in this situation?

The growth trend in export volumes of Latin American countries show the dependence of economies and the consequent interest over profit that represent these volumes of oil in the international market for (Figure 12). Each nation has its sovereign right to exploit their hydrocarbon resources in volumes that represent them profit, so that even when in the context of current prices there are positive

indicators projects and available investment capital, they will be launched. Under these considerations, the strategy of Latin American producers should consider long-term and should be aimed at a sustained reduction in extraction costs for the greater economic advantage of each barrel placed on the surface.

Graph 12  
Oil Exports - Latin America and the Caribbean Producing countries (kbbl / day)



Source: Energy-Economic Information System (SIEE -OLADE)





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**The countries of the region  
may implement political,  
regulatory and technical  
actions to improve oil  
sector's competitiveness**

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Likewise, countries should implement effective policies to improve the use of production factors, identifying and correcting market distortions, so in that way resources can be efficiently allocated.

Consequently, these problems facing the region, with falling in oil prices, should be seen as an opportunity to change and adapt to this new situation. These problems trigger the great vulnerability of Latin American economies to the international price of raw materials, which makes evident oil dependence and competitive lag of capital generation. As such, it is necessary to acquire new comparative advantages through investment in productive sectors that generate added value, to thereby incorporate the natural advantages of the region. The efficient use of production factors allows Latin America to boost its productivity and strengthen a sustainable model, taking advantage of trade and mitigating exogenous shocks.

Among the actions and / or strategies that countries in the region could implement to improve the competitiveness of the sector, the following have been included:

#### **Political functions:**

- Strategies and long-term state policies.
- Initiatives to achieve greater transparency and social control over flows, management, and use of extractive revenues for governments and businesses are an important component to achieving these objectives.
- Public-private partnerships to enhance or develop new infrastructure with a systematic and comprehensive approach that takes into account energy efficiency measures to reduce operating costs.
- Legal stability and incentives for investors, which provide a security framework for investment to foster the prospectivity of the business.

#### **Regulatory actions:**

- Public institutions strengthened to manage effectively and resolve technical, social, and environmental and labor disputes, among others, associated with the development of extractive sectors.
- Model of contracts adjusted to the reality of the sector.
- The Government Take is progressive and flexible according to the market behavior, making taxation lower when prices fall and higher in when the prices are high.
- Adequate risk management and regulation.
- Having fiscal frameworks that allow for adequate compensation to the State and investors so as to promote the activity in a high-risk industry and where the return of the investments is in the medium and long term. In turn, it should be considered the various mechanisms of state involvement regarding contractual arrangements that best suit the conditions of each country.

#### **Technical actions:**

- Investment in research and development of new technologies.
- Oil cluster in the region and / or production, national - regional chains to become more competitive.
- Staff training

According to the above, the approach should be based on creating regulatory frameworks that facilitate competitiveness and increase productivity in the oil sector.

# olade

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