

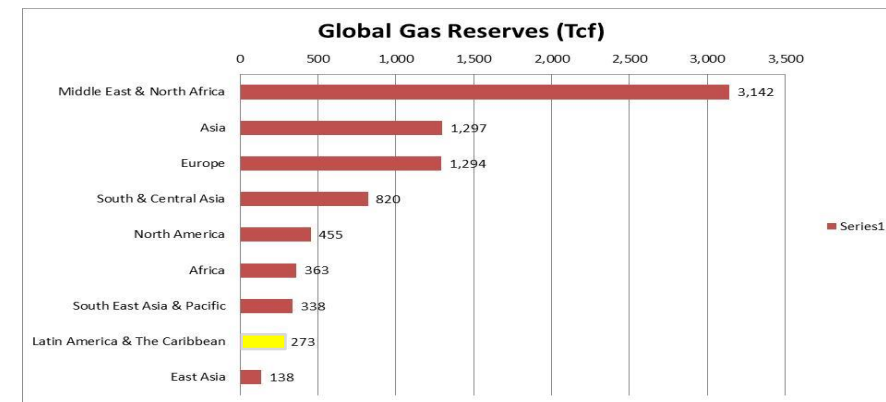
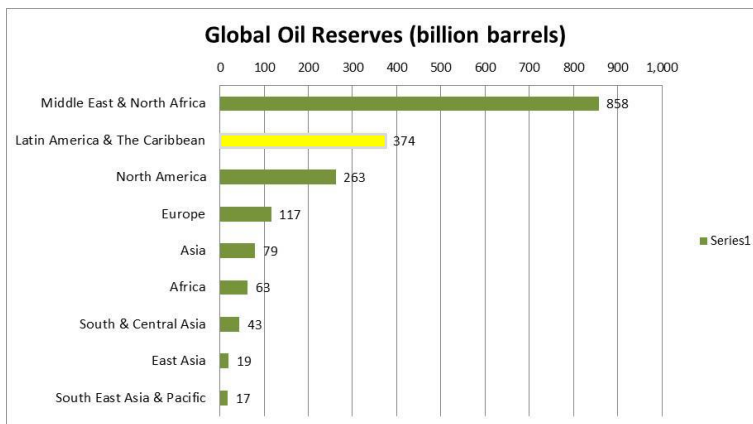
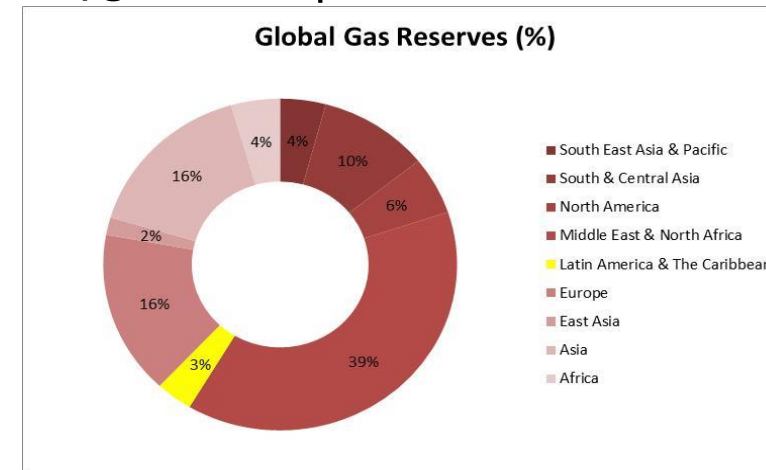
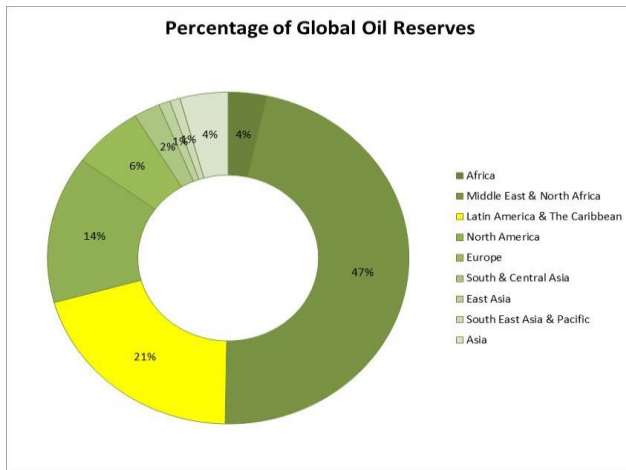
Finding Oil in Central & South America

29th October 2018



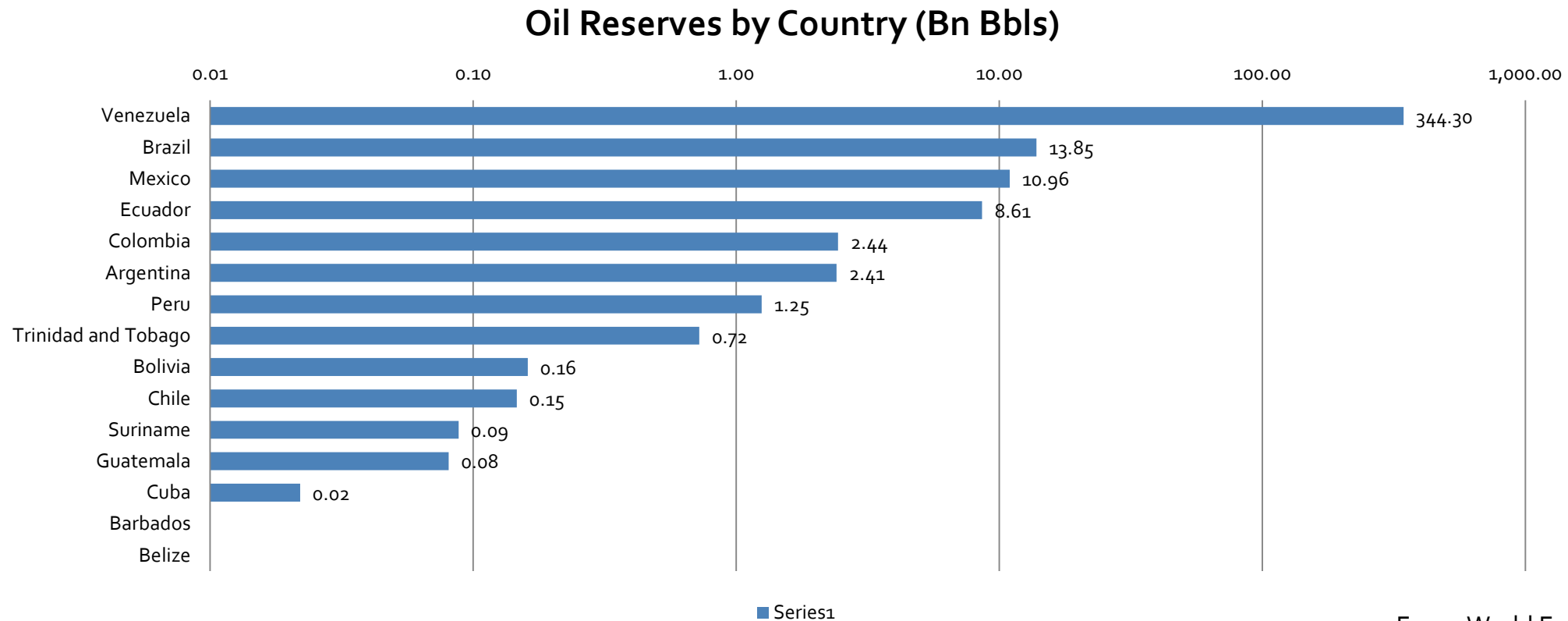
Latin American Production on the World Stage.

- 33 Countries in Latin America & Caribbean (20 Countries excluding Caribbean)
- 21% of the Global Oil Reserves
- 374 billion barrels of oil proven reserves
- 3% of the Global Gas Reserves
- 273 Tcf Gas proven reserves



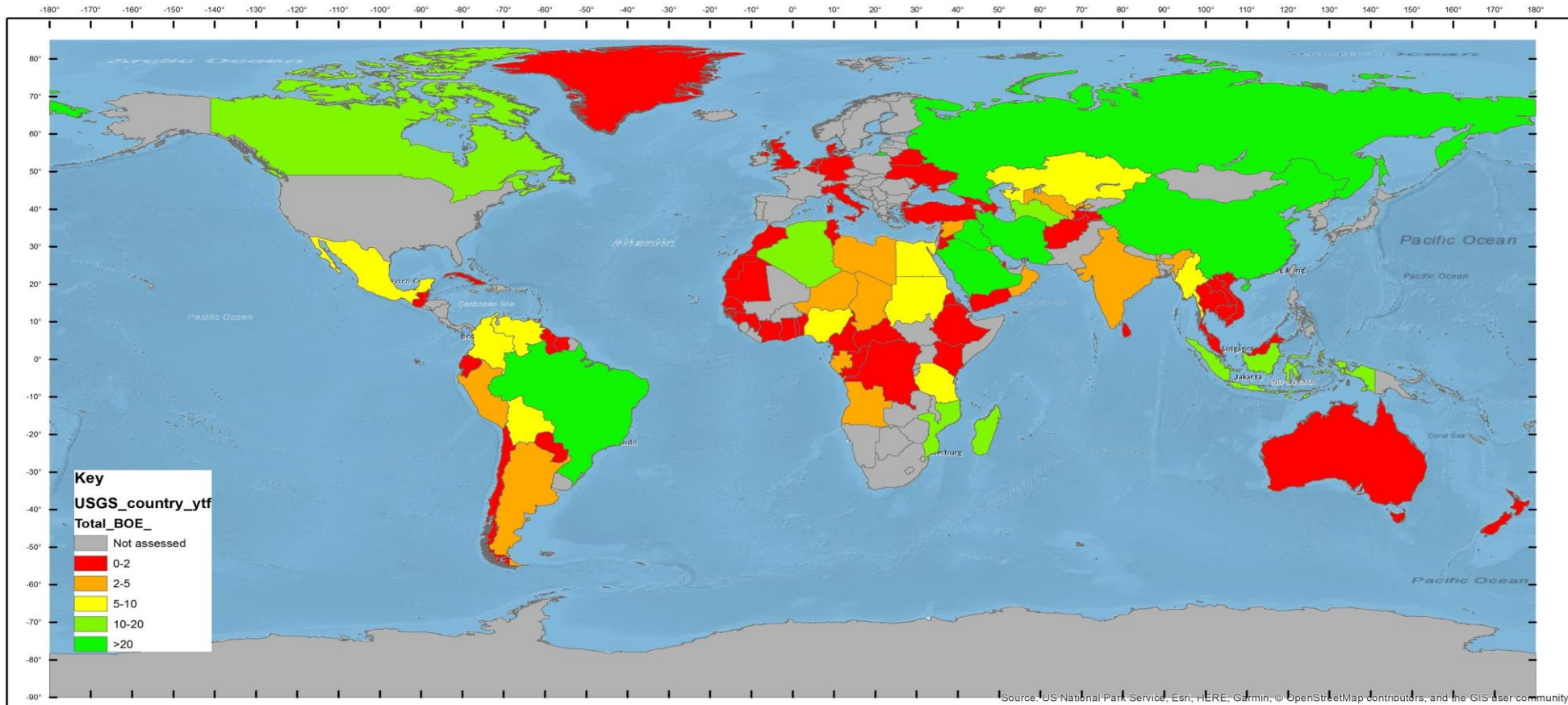
Latin American Proven Oil Reserves

- Venezuela, Brazil and Mexico are the top 3 oil resource players in Latin America
- Venezuela's oil resources are 24 times largest than the next producer Brazil
- Brazil Mexico and Ecuador have between 8 - 13 Bn bbls of proven oil resource currently.



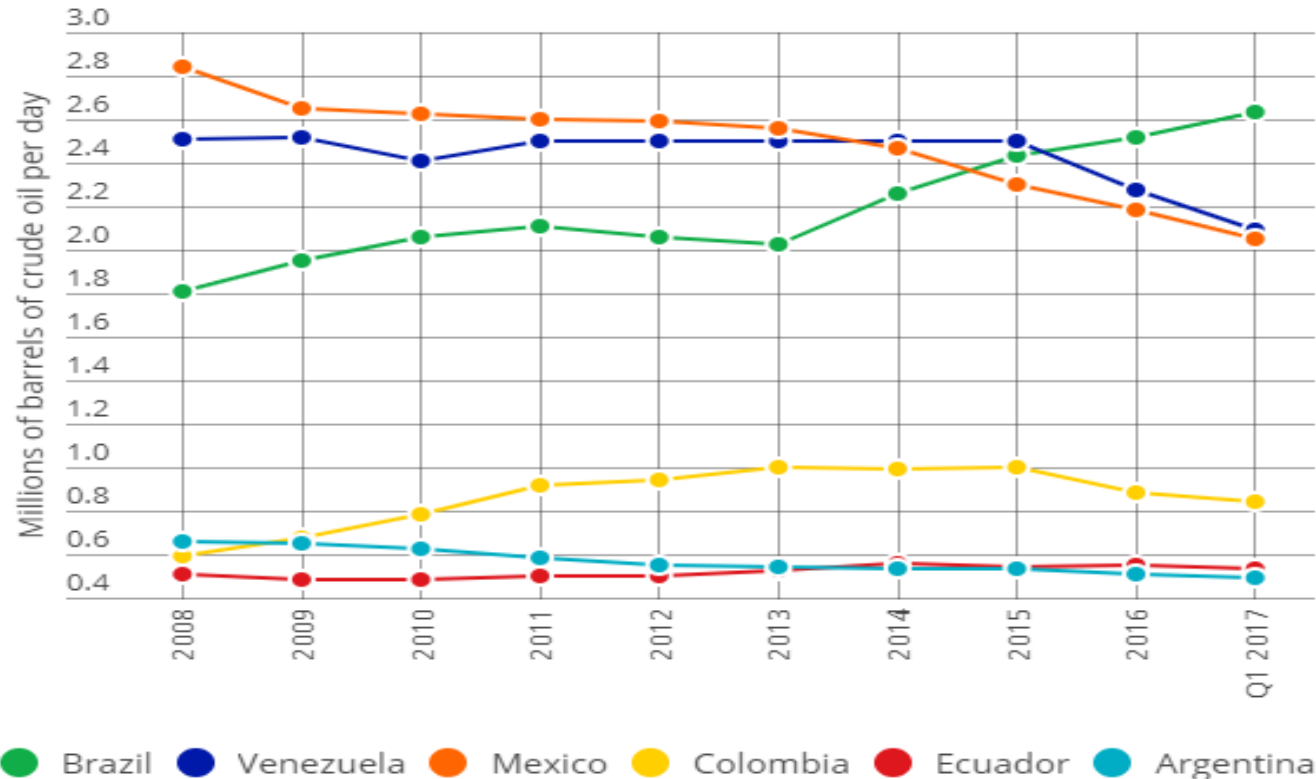
From: World Energy Council

USGS Yet to Find Global Forecasts



- Brazil stands out with >20 bn yet to find – presumably with the opening up of the pre salt.
- 4 countries with 5 – 10 bn yet to find Mexico, Colombia, Venezuela, and Bolivia
- 2 countries with 2-5 bn yet to find Peru and Argentina

Oil Production Driving Energy Reforms



- Mexico 33% reduction in oil production 2008 – 2017
- Venezuela 14% reduction in oil production between 2015 – 2017 but poor performance give the pre-eminent proven oil resource.
- Brazil has increased oil production by 44% since 2008 led by development of the presalt plays opened up by foreign investment.

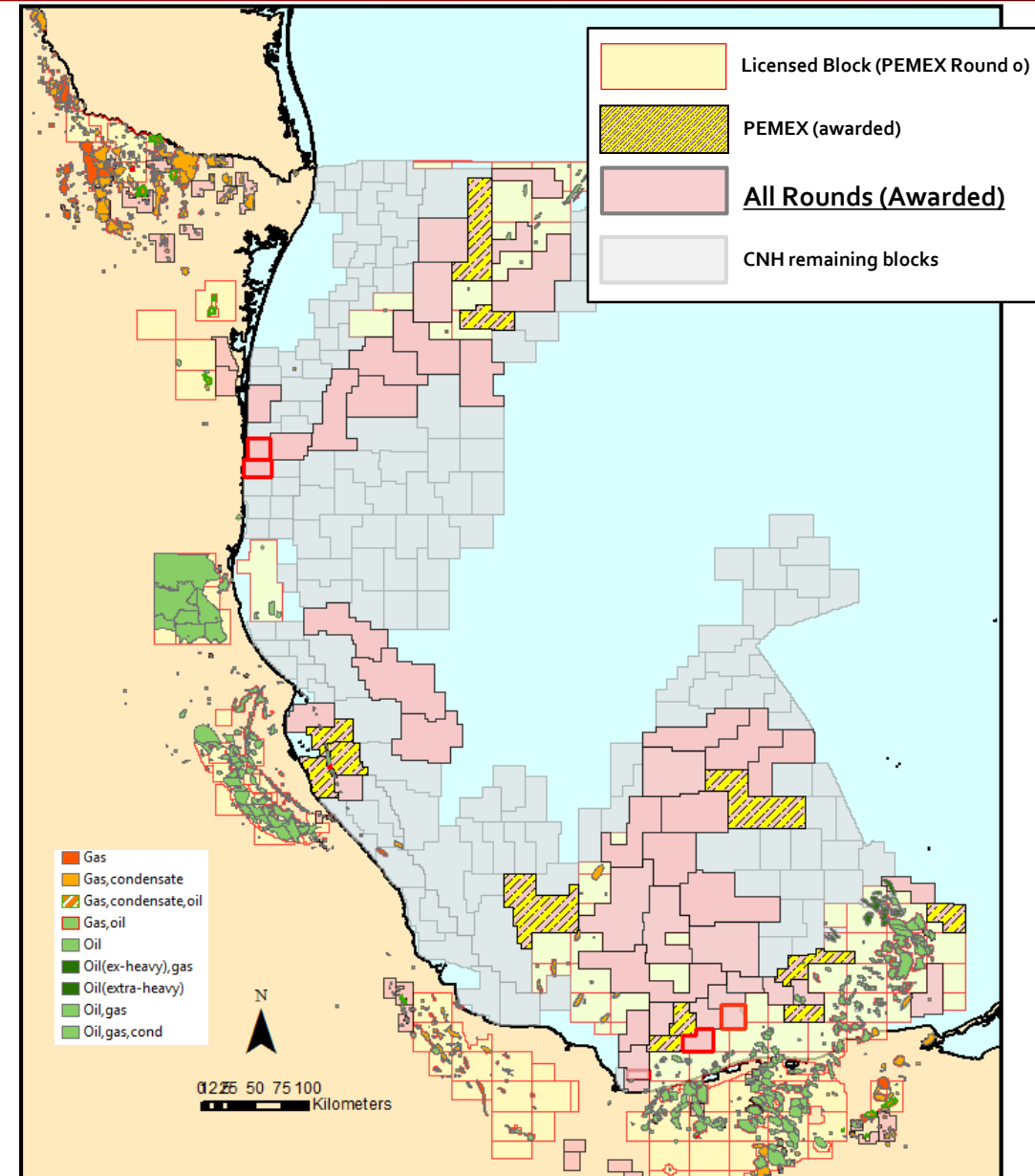
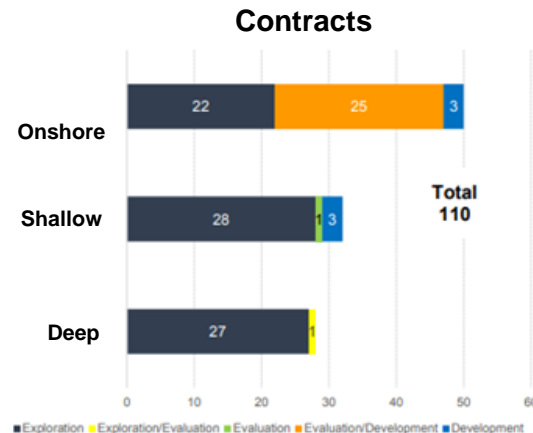
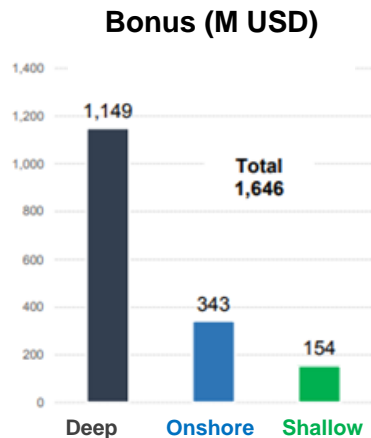
Impact of Energy Reform in Mexico

December 2014 (CNH 5 year plan)

- 379 conventional exploration blocks
 - 130 onshore
 - 108 shallow water
 - 141 deep-water
- 170 extraction licences/fields

3½ years forward

- Awarded 107 contracts (76 exploration, 31 production)
- 31 shallow water; 28 deep water, 48 onshore
- 132 total well commitments (32 shallow water)
- \$1.6 bn of bonuses
- Average Govt Take bid 55% (excl 10% royalty)

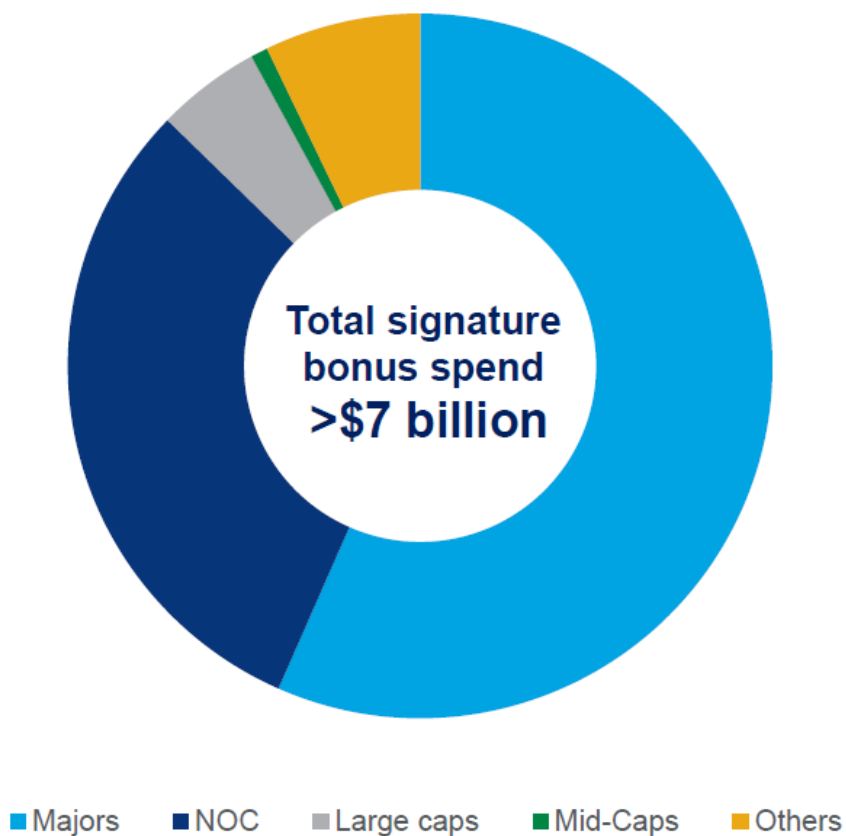


Acreage Reload by E&P companies has been focused in LAM

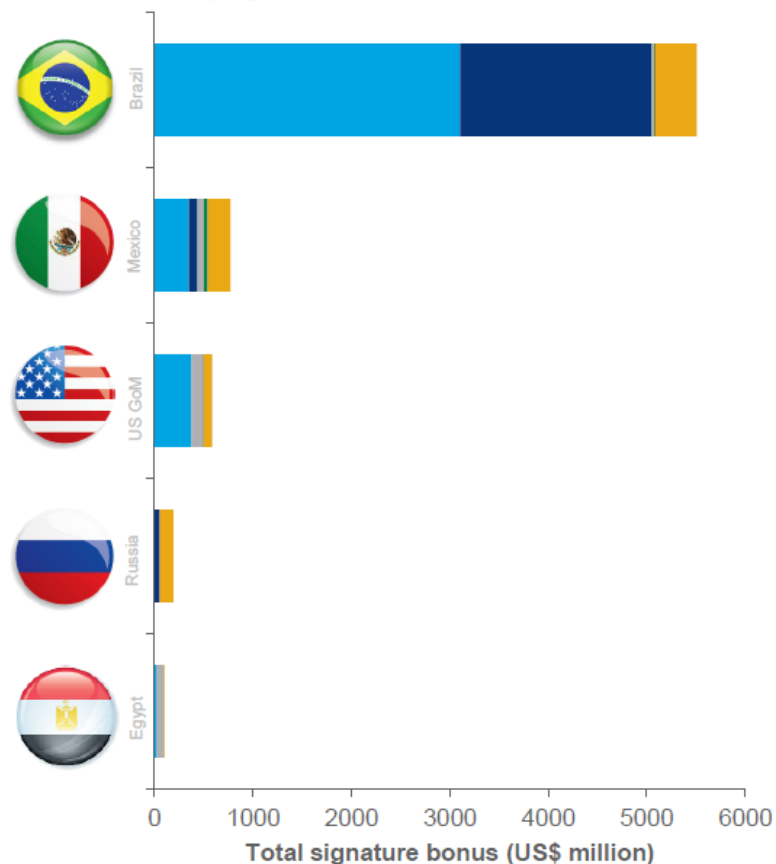
Majors paid the most for their new acreage

Majors and NOCs paid over US\$5 billion in signature bonuses in Brazil alone

Majors paid over half of all signature bonuses between 2016 and 2018



Brazil dominated in terms of signature bonus payments



What are the Risk in Latin America?

- It is the legal right of any sovereign state to appropriate or nationalise their resources – as long a compensation is made to the existing owners.
- Popularist politics is a current global phenomenon. Rhetoric has replaced rational debate.
- Poor communication of the energy industries benefits to a sceptical public is a threat to continued growth and opportunity access in many countries.
 - Significant foreign investment has turned round Brazil's production combined with >\$5billion of signature bonuses.
 - >3bn bbls of new resources proven in Mexico by foreign investors \$1.6 bn of bonuses
- Bureaucracy poses a considerable challenge.
- Unrealistic local content requirements can create an environment for fraud.
- Decision making in regulatory bodies is typically slow.
- Unionised workforces.
- All of the risks above (apart from government policy) can mitigated and managed with the right communication and engagement.



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Agenda

9:30	<p><u>Tim Davies</u> - Group Exploration Asset Manager <i>Premier Oil</i></p> <p>Chairman's introduction - Overview of Brazil, Mexico and the Falklands</p> <p>show </p>	 
10:00	<p><u>Toby Garwood</u> - Exploration manager, Brazil and UK <i>Premier Oil</i></p> <p>Brazil – Opportunity Whilst All Eyes on Mexico</p> <p>show </p>	
10:35	Coffee & Tea; Exhibits	
11:00	<p><u>David Contreras</u> - Regional Data Sales Manager, Africa, North & South America <i>Polarcus</i></p> <p>New Lights on the Santos: How Multi-Azimuth is a game changer in Pre-salt Brazil</p> <p>show </p>	 
11:35	<p><u>Hannah Kearns</u> - geoscientist <i>Spectrum</i></p> <p>Argentina Offshore Exploration Revival with Modern Seismic</p> <p>show </p>	
12:10	<p><u>Nick Panes</u> - Senior Managing Director <i>Control Risks Group</i></p> <p>Security for oil and gas companies in Mexico / South America</p> <p>show </p>	
12:45	Lunch and close	

Bio's

- Toby Garwood 12 years at Enterprise Oil, 8 years at Shell, 3 years at Hess, 5 years at PMO. 15 years as Exploration Manager of various forms and abilities. Now in third stint as Brazil Exploration Manager having lived in Rio for 4.5 years. Rumours abound that he participated in 2002 Rio Carnival dressed as an oil drop with a derrick on my head.
- David Contreras is currently the Regional Data Sales Manager for the EAME and NASA regions at Polarcus. With 9 years of full exposure to the Upstream business in a supermajor (Total) and now in the seismic sector, he has extensive experience in providing clients with robust geoscience and business advice to unlock the hydrocarbon potential of mature and frontier basins.
- Hannah Kearns currently a geoscientist with Spectrum carrying out prospectivity analysis of frontier basins and regional interpretation of Spectrums 2 & 3D seismic library. Hannah has an MSc in Petroleum Geoscience from Royal Holloway and degree from Southampton University. Her dissertation was in 'Play Analysis of Provencal Salt Basin, NW Mediterranean'.
- Nick Panes serves as a Senior Partner for Control Risks' and leads the Global Risk Analysis department for Europe and Africa. Previous to this, Nick was based in Mexico and was responsible for the Global Client Services department for Mexico, Central America and the Caribbean. In this role he worked with clients in the development and implementation of risk management solutions, with a particular emphasis on the design of regulatory and anti-corruption compliance systems.