

Brazil Oil & Gas M&A update

Spring 2013



Key major oil & gas
frontier for
international
corporates

Companies targeting US\$400 billion opportunity

Brazil is on the verge of an energy boom. Recent major oil & gas discoveries in offshore deepwater 'pre-salt' fields will move the country into the top five producers globally by 2020.

The resumption of exploration auctions in 2013 will boost M&A activity as international corporates across the supply chain position themselves to benefit from the associated investment.

Key findings from our research:

- State-owned Petrobras is investing US\$225 billion in energy projects to meet its goal of doubling oil production by 2020. Local industry will be a major beneficiary of this investment due to government regulation regarding local content (see page 5). However, Petrobras also needs the expertise of international corporates. This is creating high value opportunities for foreign corporates across the supply chain.
- Three new auction rounds will take place during 2013 covering 289 exploration blocks, pre-salt and shale gas. They will be a catalyst for M&A and new investment as local and international companies look to add reserves and suppliers position themselves to win a share of the spend.



“Brazil is transforming itself into one of the world’s most important oil & gas producers. We are seeing large and smaller foreign corporations across the supply chain using different M&A strategies to enter the market.”

Leonardo Antunes, Managing Director, BroadSpan

- Some international companies in the supply chain have established a local presence. However, many are using joint ventures and acquisitions of domestic businesses to ensure they meet local supplier content and gain the approvals necessary to supply to Petrobras.

Global majors are making a long-term commitment to Brazil

A major offshore oil and gas frontier

Brazil is now the ninth largest oil producing country, accounting for around 25% of global output. One third of global reserves discovered in the last five years were found in Brazil, including the major find in the offshore deepwater “pre-salt” layers off the South East coast. By 2020, Brazil is aiming to be a top five global oil producer.

The country has been self sufficient in oil since 2006. Estimates that the pre-salt fields hold reserves of 20 billion barrels is leading to export forecasts of around 1.5 million barrels of oil per day (bbl/d) by 2020. This compares to 8.5 million bbl/d currently exported by Saudi Arabia.

Petrobras dominates energy production

State-backed Petrobras accounts for around 90% of Brazil's total oil & gas production. It benefits from regulatory advantages over other competitors. For example, the production sharing contract regime (PSC) established under the 2010 Pre-Salt Law requires Petrobras to be the operator on all pre-salt oil fields and to hold a 30% stake in other non-exclusive fields.

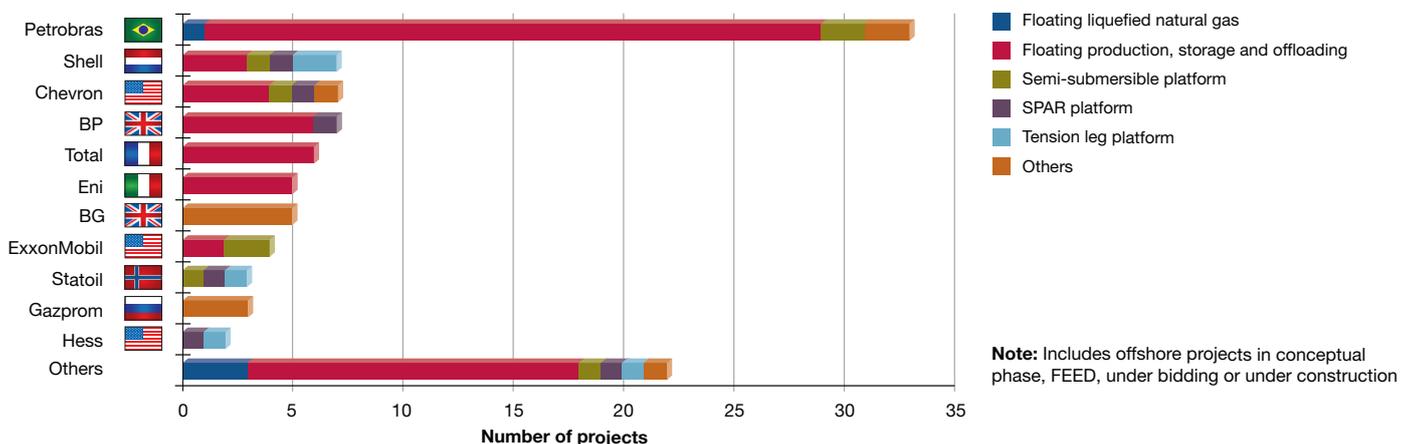
Independent Brazilian oil & gas companies including Cosan, Queiroz Galvão and OGX are becoming established players.

Global oil & gas majors are committed to Brazil with around 40 international companies active in Brazil's upstream market (see Figure 1).

US major Chevron holds working interests ranging from 30% to 52% in fields with average daily production of 71,000 barrels of crude oil and 28 million cubic feet of natural gas. Chevron's largest investment in Brazil is the development of its 37.5% interest in the subsea Papa-Terra field, located in the key Campos Basin. Planned total daily capacity of 140,000 barrels of crude oil is expected in 2013 via production using floating production, storage and offloading (FPSO) facilities.

BG, the largest UK investor in Brazil, has invested over US\$5 billion since the mid 1990s. It plans to invest a further US\$30 billion over the next decade. BG is a partner in four offshore blocks alongside Petrobras, Repsol, Sinopec Brasil and Petrogal, with estimated total reserves of six billion barrels of oil equivalent. BG has a majority shareholding in Comgás, Brazil's largest natural gas distributor, and a stake in the gas pipeline which runs between Brazil and Bolivia.

Figure 1: Petrobras and selected global oil majors offshore projects



Source: Petrobras 2012, BG

- China is becoming a significant player. In 2009, China extended a US\$10 billion credit line to Petrobras to develop offshore oil. Terms included an increase in oil exports to China. Sinopec is now one of the sector's largest investors. Both Sinopec and Sinochem are growing their market share via acquisitions of assets in oil fields (see page 6).
- The Round 11 Auctions to be held in May 2013 (which will include 289 exploration blocks) and Pre-Salt and Shale Gas bidding rounds later in the year will increase the penetration of foreign majors and boost M&A. The strategies used to participate in bidding will be affected by the different rules governing each auction (concession agreements, production sharing contracts and the dominance of Petrobras as the operator of all pre-salt blocks for example). Different rules will also affect how the unitization process is conducted and therefore the value of individual blocks.

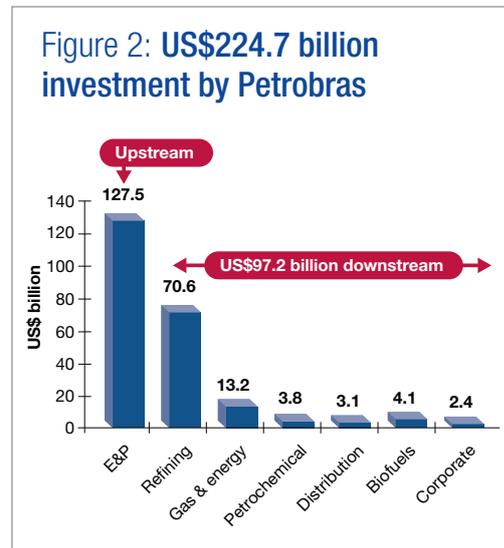
Petrobras leading a massive investment programme

- Petrobras has the highest production growth rate amongst the oil producers operating in Brazil. To achieve this, its current five year business plan is built

around a US\$225 billion investment plan which includes US\$127.5 billion in the exploration and production (E&P) sector (see Figure 2). This investment will enable Petrobras to double its oil production for both domestic consumption and exports to over four million barrels per day by 2020.

- Local producers and the global majors are also making significant investments to develop E&P in strategically important oil fields. Total investment in Brazil's E&P sub-sector is forecast to reach US\$400 billion (including Petrobras' expenditure) by 2020.

New auctions will boost activity by global majors



Source: Petrobras

The global outlook

The world proven oil reserves total approximately 1,383 billion barrels of oil equivalent (BOE). The Middle East represents almost 54% of the total.

Increasing demand for energy

In line with the increase in global economic growth estimates for 2013, forecasts for oil and gas consumption are positive, mainly due to Chinese import demand. BP is forecasting oil consumption will grow by 1.6% a year, leading to 36% growth between 2011 and 2030. More than 90% of the growth is forecast to come from non-OECD countries.

High oil price supporting deepwater drilling

The stable high oil price has underpinned investment in deepwater drilling technology and made difficult recovery environments economic. This has led to a significant shift in the outlook for new reserves and the recovery potential of previously difficult hydrocarbons – tight oil, shale oil & gas and oil sands.

Mid-market companies using tier 1 suppliers to enter market

Long-term opportunities across the supply chain

A significant amount of infrastructure investment is needed to exploit Brazil's deepwater oil and gas reserves. Strict local content rules mean Brazilian companies are playing a major role across the supply chain (see page 5). However, limited local expertise and capacity means production targets will not be met without the participation and technical expertise of foreign operators.

Areas where Petrobras has highlighted it needs the expertise of foreign corporates include:

- Upstream opportunities related to E&P including testing and drilling equipment, oil platforms and drilling components, installation of exploration equipment and equipment maintenance.
- Downstream opportunities include oil & gas transport, refinery, petrochemistry and maintenance/monitoring equipment.

Mid-market also seizing opportunities

For some mid-sized component and service suppliers, the most effective approach to enter the market is via first tier suppliers. Large Brazilian and international companies like GE, Aker and Cameron are providing supply chain opportunities. Petrobras wants to develop standardization in many components and so supply contracts to both Petrobras and tier 1 suppliers can be substantial (see Spotlight below).

“Our customers are moving more and more of their production to Brazil and it is crucial to ensure that we have manufacturing close to their units.”

Lennart Johansson, President Trelleborg Engineered Systems, commenting on the acquisition of a subsidiary of Veyance Technologies Inc

Source: Trelleborg press release

Spotlight: selected opportunities in the subsea E&P supply chain

	Opportunity	Lead supplier	Support supplier
 <p>Servicing</p>	<ul style="list-style-type: none"> ■ Offshore oil drilling facilities need constant supplies during and after construction ■ Petrobras estimates it will need 235 support vessels by 2020 	<ul style="list-style-type: none"> ■ Brazil's Wilson Sons provides services within shipbuilding and shipping. It has a service contract with Petrobras to transport supplies 	<ul style="list-style-type: none"> ■ Netherlands-based Damen Shipyards is building new tugs (in Brazil) and providing offshore supply vessels (OSV) to Wilson Sons. OSV engines include Caterpillar generator sets that power Rolls Royce azimuth thrusters
 <p>Well construction</p>	<ul style="list-style-type: none"> ■ Equipment which goes on the sea bed and enables production ■ Petrobras is constructing 48 drilling rigs and 38 oil production platforms 	<ul style="list-style-type: none"> ■ GE's oil and gas business will supply Petrobras with 380 subsea wellhead systems valued at US\$1.1 billion. Over 75% of parts will be made in Brazil 	<ul style="list-style-type: none"> ■ In 2012 UK subsea engineering specialist Viper Subsea won an order with Petrobras through a first tier supplier to supply underwater components
 <p>Drilling vessels</p>	<ul style="list-style-type: none"> ■ Offshore drilling vessels ■ Petrobras needs over 30 new drilling vessels 	<ul style="list-style-type: none"> ■ Singapore's Sembcorp Marine's wholly-owned Brazilian shipyard Estaleiro Jurong Aracruz secured a US\$793 million contract from Guarapari Drilling BV, Netherlands, a subsidiary of Sete Brasil Participações 	<ul style="list-style-type: none"> ■ Austria-based Palfinger Dreggen has a US\$121 million contract to supply cranes to the Jurong Shipyard

Source: Mergers Alliance, company press releases

Market entry strategies influenced by local protection measures

Government regulation influences the strategic options available to international companies targeting the sector. Most are entering the supply chain via joint ventures with, or acquisitions of, mid-sized domestic companies which ensure they can participate in Petrobras tenders and meet Brazil's local content policy.

Petrobras approved suppliers' register

- Companies awarded contracts and orders directly from Petrobras are chosen from the company's Supplier Approval Register. Registration can be highly bureaucratic and slow and foreign companies are required to have a legal representative in Brazil to fulfill legal and financial requirements.
- Acquisitions and joint ventures are often the easiest way to enter the register. There are over 5,500 companies on Petrobras' supplier register so significant M&A opportunities exist.

For example, US well completion specialist FTS International entered a joint venture in 2012 with privately-owned Brazilian E&P PETRA Energia, which will provide well completion products and services for onshore conventional and unconventional oil and gas wells in Brazil.

Local content regulations

Legislation enforced by penalties requires goods and services used in the oil & gas industry have a significant level of "local content".

- Joint ventures enable international companies to ensure that they meet regulations while often increasing the competitiveness of their locally-based partner with regard to price, delivery schedule and quality requirements. For example, French oil service company Technip and Brazilian services provider Odebrecht agreed a joint venture which won a five-year contract estimated to worth US\$1 billion to supply two pipeline installation ships to Petrobras.
- Some companies are using acquisitions to accelerate their entry into the sector. For example, UK-based Hydrasun acquired Remaq Ltda, a Brazil-based provider of flexible hose assemblies, in 2011 (see case study below).

M&A and joint ventures enable corporates to meet strict Brazilian regulation

Market entry case study: Hydrasun, UK-based provider of fluid control equipment

The strategic importance of Brazil

Hydrasun was attracted to the scale of investment being made to access deepwater reserves. Customer feedback confirmed that demand from subsea operators and drill equipment manufacturers for Hydrasun's products would be high.

Acquisition used to gain entry

Hydrasun decided that an acquisition would fast-track its entry into Brazil and acquired Remaq, a local provider of flexible hose assemblies, in 2011. Remaq had a complementary business model and a proven record with Petrobras, ensuring Hydrasun would meet local

content regulations and avoid Petrobras' supplier approval process.

Local acquisition enhanced value to acquirers

Equistone Partners led a management buy-out of Hydrasun in 2007 which valued the business at around US\$115 million. Revenue has grown from US\$75 million in 2008 to US\$157 million for financial year 2013.

The Investcorp Gulf Opportunity Fund acquired a controlling stake in Hydrasun in February 2013 attracted by its presence in high growth markets including Brazil and the Gulf Coast.

Corporates will use M&A to meet demands of new deepwater projects

New auctions will drive M&A

The size of the potential deepwater oil & gas reserves and the level of investment by Petrobras and the global majors has driven M&A over the last five years.

The number of deals has fallen from a peak of 24 in 2010, a record year, to 15 in 2012 (see figure 3). The fall was due to uncertainty regarding the timing and terms of new exploration auctions, and concerns about the scale of capital expenditure being undertaken by Petrobras and its impact on the company's cashflow. However, the 2013 bidding rounds will act as a catalyst for partnerships and M&A as the majors and leading suppliers look to expand their operations.

Global majors and equipment providers

- Oil majors are using acquisitions to grow reserves. Maersk Oil's US\$2.4 billion acquisition of SK do Brasil, owned by South Korea's SK Energy, gave the oil producer access to three offshore oil blocks.
- Trelleborg acquired a Brazilian subsidiary of Veyance Technologies Inc which produces hoses for surface and deepwater applications in Brazil in 2011 for US\$6.3 million.
- Tuscany International Drilling's acquisition of Drillfor for US\$62 million in 2011 quadrupled the company's Brazilian fleet, giving a 15% to 20% market share in the offshore drilling market. Contracts with Petrobras and Petrogal were part of the sale conditions.

Private equity

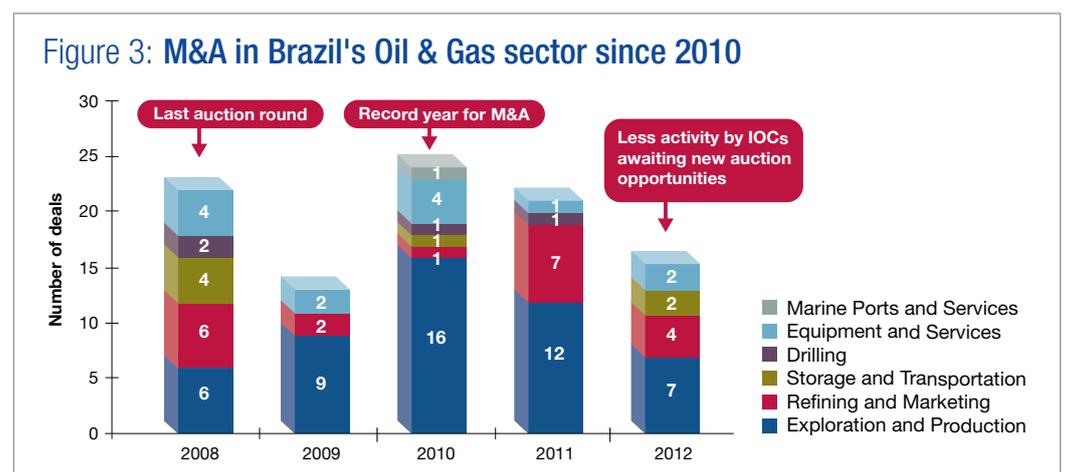
- Private Equity (PE) is increasing its participation in projects. Both domestic energy-focused and generalist funds are investing. In 2011, BTG Pactual announced a partnership with Brasbunker, a holding company that controls companies in bunker transport, support for offshore platforms.
- International PE is active and competing for specialist operators. Singapore's Temasek acquired a 14.3% stake in the oil services unit of Brazilian Odebrecht for US\$400 million.

Domestic and international private equity active in the sector

Inbound M&A is being driven by three main types of international acquirers.

National oil companies

- China has been one of the most active acquirers. In 2011, Sinopec acquired a 30% stake in the Brazilian assets of Galp Energia, the Portuguese energy company, for US\$5.2 billion. Chemicals company Sinochem acquired a stake in the Peregrino Oil Field from Statoil in 2010.



Source: Capital IQ, Mergers Alliance

Figure 4: Selected M&A transactions

Date	Target company	Country	Target Activities	Acquirer	Country	Deal value (US\$ mm)	Deal Type
Feb-13	Hydrasun	UK	Oil & Gas Equipment and Services	The Investcorp Gulf Opportunity Fund	Bahrain	NA	Private equity
Feb-13	Georadar Levantamentos Geofisicos	Brazil	Oil & Gas Equipment and Services	Modal Administradora de Recursos	Brazil	50.4	Private equity
Dec-12	Alvorada Petroleo	Brazil	Oil & Gas Exploration and Production	Fortress Energy	Canada	37.0	Inbound
Aug-12	Sete Brasil	Brazil	Oil & Gas Exploration and Production	Petrobras and BTG Pactual	Brazil	2,709.9	Domestic, Private equity
May-12	WFS Sondagem	Brazil	Oil & Gas equipment and services	Foraco International	France	19.8	Inbound
May-12	Prooceano	Brazil	Environmental Services for Oil and Gas	Collecte	France	NA	Inbound
Mar-12	Shell, BM-S-45 Exploration Block in the Santos Basin	Brazil	Exploration Block	Petrobras	Brazil	NA	Domestic
Feb-12	Petrogal Brazil	Brazil	Oil & Gas Exploration and Production	Sinopec	China	4,800.0	Inbound
Dec-11	Raízen, Aviation Fuel Assets	Brazil	Oil & Gas Storage and Transportation	BP	UK	100.0	Inbound
Dec-11	Alvorada Petroleo	Brazil	Oil & Gas Exploration and Production	Fortress Energy	Canada	37.7	Inbound
Oct-11	Repsol Gas Brasil	Brazil	Oil & Gas Refining and Marketing	Ultrapar Participacoes	Brazil	27.5	Domestic
Sep-11	Shell, Block BS-4 in Santos Basin	Brazil	Exploration Block	Barra Energia	Brazil	52.5	Domestic
Sep-11	Tropical BioEnergia	Brazil	Oil & Gas Refining and Marketing	BP	UK	59.8	Inbound
Jul-11	SK do Brasil	Brazil	Oil & Gas Exploration and Production	Mærsk	Denmark	2,400.0	Inbound
May-11	Drillfor Brasil	Brazil	Oil and Gas Exploration and Production	Tuscany International	Canada	52.0	Inbound
Apr-11	Veyance Technologies, Plant Located in Santana de Parnaíba	Brazil	Oil & Gas equipment production Plant	Trelleborg	Sweden	6.3	Inbound
Apr-11	Statoil, Peregrino Oil Field In Brazil	Brazil	Oil Field	Sinochem Group	China	3,070.0	Inbound
Dec-10	Agua Grande Exploracao e Producao de Petroleo	Brazil	Oil & Gas Exploration and Production	Brookwater Ventures	Canada	4.3	Inbound
Oct-10	Odebrecht Óleo e Gás	Brazil	Oil & Gas Exploration and Production	Temasek	Singapore	400.0	Private equity
Oct-10	Repsol	Brazil	Oil & Gas Exploration and Production	Sinopec	China	7,175.3	Inbound
Sep-10	Brasbunker	Brazil	Oil & Gas Services	BTG Pactual	Brazil	NA	Private equity
Apr-10	Starfish Oil & Gas SA	Brazil	Oil & Gas Exploration and Production	Sonangol	Angola	NA	Inbound
Mar-10	Delba Maritima Navegacao	Brazil	Oil & Gas equipment and services	BOURBON	France	NA	Inbound
Jan-10	CNEC Engenharia	Brazil	Engineering and project management services	WorleyParsons	Australia	96.5	Inbound

Contacts

Specialist advice on call...

For information on the oil & gas sector trends



Leonardo Antunes
Managing Director, Brazil
Telephone: +55 21 2543 5409
Email: lantunes@brocap.com



Keith Pickering
Partner, United Kingdom
Telephone: +44 115 957 8230
Email: keithpickering@catalystcf.co.uk



Geoffrey Morphy
Managing Director, United States
Telephone: +1 416 496 3075
Email: gmorphy@farberfinancial.com



Peter Gray
Managing Director, United States
Telephone: +1 914 263 9428
Email: pgray@headwatersmb.com



Nigel Jones
Managing Director, Singapore
Telephone: +65 6884 8880
Email: njones@alphaadvisory.com



Nick Van Den Brul
Partner, Russia
Telephone: +7 495 721 1370
Email: nick.vandenbrul@northstarcorporateline.com



Owen Hultman
Executive V.P., Japan
Telephone: + 81 3 6895 5521
Email: owen.hulman@ibs-sec.com



Robert Jenkins
Partner, Russia
Telephone: +7 495 721 1370
Email: robert.jenkins@northstarcorporateline.com



Omkar Biradar
Vice President, India
Telephone: +91 22 61496666
Email: omkar@singhi.com



Michel Degryck
Partner, France
Telephone: +33 148 246 300
Email: m.degryck@capital-partner.com



Piero Manaresi
Partner, Italy
Telephone: +39 051 59 47 309
Email: piero.manaresi@ethicacf.com



Piotr Olejniczak
Director, Poland
Telephone: +48 22 236 9200
Email: piotr.olejniczak@ipopema.pl



Jose Antonio Moranchel
Director, Mexico
Telephone: +52 55 2167 1810
Email: moranchel@sinergiacapital.com.mx



Jonathan Fisher
Director, South Africa
Telephone: +27 11 268 6231
Email: jfisher@bridgecapital.co.za

Join in the mergers and acquisitions discussion

With an oil & gas sector team, the Mergers Alliance partners are expertly placed to offer advice.

In particular, we offer:

- Advice on structuring and completing deals in the oil & gas market.
- Identifying acquisition opportunities around the world.
- Information on sector trends and valuations.
- Access to corporate decision-makers and owners.