Managing Risk | Maximising Opportunity

South America Oil and Gas
Risk and Reward in the Land of Opportunity
# TABLE OF CONTENTS

**SOUTH AMERICA OIL AND GAS: RISK AND REWARD IN THE LAND OF OPPORTUNITY**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Regulatory context</td>
<td>2</td>
</tr>
<tr>
<td>Vested interests</td>
<td>5</td>
</tr>
<tr>
<td>Corruption</td>
<td>7</td>
</tr>
<tr>
<td>Think local</td>
<td>9</td>
</tr>
<tr>
<td>Conclusion</td>
<td>10</td>
</tr>
</tbody>
</table>

**COUNTRY SNAPSHOTs**

<table>
<thead>
<tr>
<th>Country</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>12</td>
</tr>
<tr>
<td>Bolivia</td>
<td>13</td>
</tr>
<tr>
<td>Brazil</td>
<td>14</td>
</tr>
<tr>
<td>Colombia</td>
<td>16</td>
</tr>
<tr>
<td>Ecuador</td>
<td>17</td>
</tr>
<tr>
<td>Guianas (Guyana, Suriname, French Guiana)</td>
<td>18</td>
</tr>
<tr>
<td>Peru</td>
<td>20</td>
</tr>
<tr>
<td>Venezuela</td>
<td>21</td>
</tr>
</tbody>
</table>

**SOUTH AMERICA COUNTRY RISK RATINGS 2013**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>
MAIN SOUTH AMERICAN OIL AND GAS AREAS

KEY

Onshore

Offshore
INTRODUCTION

South America’s role and importance on the global oil and gas map is changing rapidly. The region is once again attracting considerable global attention after many years during which resource nationalism dominated headlines and warned off potential investors. Whether the interest lies in Brazil’s pre-salt fields, Colombia’s unexplored expanses, new bidding rounds in Ecuador and Peru, unconventional potential in Argentina or Venezuela’s vast reserves, the region can certainly claim to be key to global supplies in the years to come.

And yet perhaps no other region balances risks and opportunities in so many different ways. Governments are constantly seeking to alter the balance – some to attract investment, and others to gain more control over the sector, or a larger share of royalties or revenues. Geology will certainly inform oil and gas decisions in the region. Similarly, broader, macro-level political and regulatory trends affecting exploration and production in individual countries will also play a critical role. But it is shifting political, social and security dynamics on the ground that often have the most significant impact on the ability of companies to successfully operate in the region. Investing in South America, in that sense, is no walk in the park.

An effective risk management approach to oil and gas in South America therefore combines analysis of the political and regulatory context with a comprehensive approach to the specific risks on the ground. Understanding the interdependency of project-specific risks and the broader regulatory and political context in South America not only ensures that projects and investments accurately align with particular corporate risk appetites but also enables risk owners – from business developers to security directors – to minimize business disruption of all kinds once the decision to proceed is made.
REGULATORY CONTEXT

Laws and norms governing exploration and production (E&P) of hydrocarbons generally reflect ideological leanings of those at the highest levels of government, and South America is no exception to this. The degree of ownership and control that each country exercises over its hydrocarbons and the expected percentage share of oil revenues that will go to the government (or “government take”) greatly affect and influence a wide range of project-specific risks. This is true both at the national level, where highly-favorable contractual protections for investments can moderate creeping nationalization, and at the individual project level, where ad hoc negotiations over signature bonuses can make an otherwise attractive prospect unprofitable.

Contractual framework

Though a vast array of public and private agreements governs the exploration, production and commercialization of hydrocarbons, the E&P contract invariably involves the state as a party, and serves as the primary vehicle through which it exercises ownership and control over underlying hydrocarbons. In South America, resource nationalism, high commodity prices and the advent of leftist or center-left governments over the past decade have left the standard concessionary model in ruins everywhere but Colombia, Peru and, to a certain extent, Argentina. Increasingly skeptical of open markets and ever more optimistic about the benefits of state-led development models, governments across the region have used E&P contracts to augment ownership and control over their hydrocarbon reserves.

Third way: Brazil

On the back of its massive pre-salt discoveries, Brazil has decided to move away from the concessionary framework adopted in 1997 to a new, profit-sharing regime for all pre-salt blocks and any other reservoirs deemed strategic (though existing concessions and non-strategic reservoirs will continue under the old framework). Brazil’s national hydrocarbons agency (the ANP), the National Council for Energy Policy (CNPE) and a new state-owned entity, Petrosal, will play a much more active role in E&P. National oil company (NOC) Petrobras will mandatorily participate in all exploration and production activities as operator and receive a 30% minimum equity stake in the block. Local content requirements, mandatory reinvestment of certain E&P profits in research and development, and a new social fund will be employed to ensure local economies benefit.

Although Brazil’s adoption of this framework illustrates the government’s attempt to find a “third way” for its newfound hydrocarbons wealth – as opposed to outright nationalization – it nevertheless marks a significant move in the direction of resource nationalism, and reflects the overall regional trend. Companies must weigh the lure of some of the largest global deepwater oil finds of the past decade against the practical challenges and risks associated with relinquished ownership and managing the government’s heavy hand (and sometimes divergent objectives) in every step of the exploration, production and commercialization process.

From a purely contractual standpoint, it is easy to see the downside risks of constant bureaucratic intervention in the joint venture or services systems for companies and investors, and difficult to see the upside reward. Although the Venezuelan joint venture system offers at least a modicum of ownership and control, albeit indirectly, it is nevertheless almost superfluous in light of PDVSA’s mandatory participation requirements and its 100% control of the commercialization process. To a certain extent, this means companies do not assume risk of financial loss as a concessionary or profit-sharing arrangement, but financial rewards are also much more limited.

Yet companies may find other compelling reasons to engage in these markets. Gaining first-mover advantage if a change in the contractual regime were to occur or – for smaller firms – the requirement to generate cash flow may justify a long-term commitment.

State-run shows: Venezuela, Bolivia, Ecuador

Venezuela, Bolivia and Ecuador have swung even further in the direction of resource nationalism. Part and parcel of President Hugo Chavez’s “Bolivarian Revolution,” Venezuela has asserted its ownership and control over its hydrocarbons via an indirect joint-venture system. In theory, ownership and control over underlying hydrocarbons – and the related exploration risks and costs – is proportionately distributed between the NOC, PDVSA, and oil companies according to their equity participation in each project. In practice, PDVSA’s 50% minimum participation, the region’s highest taxes and royalties, and the mandatory sale of production to PDVSA effectively mean that oil companies are relegated to minority holdings with limited veto power and minimal access to the spoils of production. Companies put up the cash and may get a decent return, but the state runs the show.

Similarly, leftist nationalization efforts have led Bolivia and Ecuador to abandon earlier concessionary frameworks for pure service arrangements. E&P is now exclusively the domain of NOCs YPFB in Bolivia and Petroecuador and Petroamazonas in Ecuador, leaving oil companies to be contracted for services only. While this limits exposure to typical exploration risks, because payment for services is not conditional on oil discovery or the profitability of the project, it also cuts off the upside rewards of commercialization.

Venezuela’s Oil Minister Rafael Ramirez
Regional outliers: Peru, Colombia

Bucking the regional trend, both Peru and Colombia have moved to strengthen or adopt standard concessionary arrangements. This largely stems from their need to take some initial steps to develop the sector and make their markets more attractive to compensate for years of underdevelopment. But it also reflects ideological leanings at the top toward more open markets and less state intervention, though these proclivities are much more pronounced in Colombia than Peru. Both countries also offer meaningful legal protections for oil and gas investments (both offer access to international arbitration, for example), as well as the greatest degree of control over the means of E&P in the region. And while their NOCs – Ecopetrol in Colombia and PetroPerú in Peru – may also bid competitively for concessions, their participation is not compulsory.

Although the contractual picture for Colombia and Peru is compelling, it belies the fact that both present many other risks. Nevertheless, companies that place a high premium on legal ownership and control will be hard pressed to find more attractive and investment-friendly contractual arrangements in the region.

Government take

Government take does not necessarily correlate with the underlying contractual regime: governments can modify applicable bonuses, fees, rents and taxes to substantially increase their final payout from any particular project or contract. Argentina’s nationalization of YPF without modifying its underlying E&P contractual framework is perhaps the best illustration of this fact. For many companies, the government take and associated risks to cash flow and profitability are therefore a key consideration. Government take on any given project can largely be dictated by the types of considerations outlined in Figure 1.

In South America, government take does, broadly speaking, correlate with contractual frameworks, with concessionary regimes—Colombia and Peru—offering the lowest take and Venezuela the highest (up to 94%). Signature bonuses are mandated in two countries, Brazil and Venezuela, but remain optional in others. Rental fees for use of land are found in most countries, other than those relying on services agreements. Royalties, where applicable, range between 5% and 30%, and are generally levied on final production values. Income taxes on E&P companies range from a low of 30% in Peru to a high of 50% in Venezuela.

The timing of government take is equally important because it can substantially modify the risk/reward balance for any given project. The more front-loaded the government take in the E&P process, the greater the risk to revenue. Brazil, for example, has historically required substantial upfront signature bonuses, which are determined at the outset of the bidding rounds. If oil is not discovered or a project proves unprofitable, non-refundable bonuses paid after the bidding process present greater overall risk than payments contingent upon profitability. Any risk/reward analysis should include careful consideration of the potential for detrimental regulatory changes and the timing of payments against the expected rewards of a given project.

Royalty reform

Most countries in the region, tempted by high oil prices and widespread social perceptions of wealth in the sector, have undertaken or initiated reforms of their royalty regime. These changes have tended to concentrate on the way in which royalties are distributed internally rather than on raising rates or changing collection methods, and so have not attracted significant attention. Yet changes to methods of royalty distribution can have significant repercussions for the operating environment and are one risk factor that companies have little power to influence.

In general terms, such changes look set to transfer more revenues – and control – from producing areas (states/municipalities) to non-producing areas. Examples include reducing the share of royalties received by major producing states, such as Rio de Janeiro state in Brazil, and Arauca and Casanare in Colombia. National governments are also keen to up the revenues they receive from this equation and secure more control over spending, improving national macroeconomic indicators and bolstering the national budget.

Most producing states or municipalities in South America have traditionally lived off the royalties generated by the industry and tend to have complex political and social structures that revolve around these funds. Disrupting this flow of cash undermines these structures and pushes those who have traditionally benefited to seek other ways to replace lost income. This will lead them to directly approach companies in their particular sub-sovereign jurisdictions or areas of influence to demand additional “contributions” or special “prerogatives,” possibly threatening to undermine operations by, for example, delaying licenses, claiming environmental degradation or leading social mobilizations and inciting unrest. This has already begun in Colombia and Peru, both of which have enacted changes to the ways royalties are distributed.

Apart from exposing companies to legal and reputational issues, such dynamics will pose challenges to any stakeholder and public engagement strategy that companies put in place, particularly because some of these tendencies will not manifest during initial project stages. Companies operating or seeking to operate in some of the areas “worst” affected by changes to the royalty regime should consider assessing how a reduction in funds will affect local authorities and key stakeholders, and anticipate the ways in which they might react towards the operation.

Floating Production, Storage and Offloading (FPSO) unit
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>CONTRACTUAL REGIME (PRIMARY)</th>
<th>CONTRACTUAL REGIME (SECONDARY)</th>
<th>SIGNATURE BONUSES/FEES</th>
<th>EXTRAORDINARY PROFIT OR WINDFALL TAXES</th>
<th>CORPORATE INCOME TAX</th>
<th>PARTICIPATION OF NOC</th>
<th>ROYALTIES</th>
<th>LEGAL STABILITY AGREEMENT</th>
<th>ICSID CONVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Concession</td>
<td>NA</td>
<td>Bonus depends on provincial negotiations; rental fees apply</td>
<td>None</td>
<td>35%</td>
<td>No</td>
<td>12% of the well-head value, but may vary by province</td>
<td>Yes (only for agreements entered into before November 1994)</td>
<td>Yes</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Services</td>
<td>NA</td>
<td>None</td>
<td>None</td>
<td>32%</td>
<td>Yes, YPFB maintains national monopoly over all hydrocarbon activity</td>
<td>NA</td>
<td>No</td>
<td>No; former member</td>
</tr>
<tr>
<td>Brazil</td>
<td>Profit sharing (pre-salt)</td>
<td>Concession</td>
<td>Minimum signature bonus set during bidding round; rental fees (concession)</td>
<td>0 - 40% at time of production (concession only)</td>
<td>34%</td>
<td>Mandatory 30% minimum (pre-salt)</td>
<td>10% of total production (monthly) Fluctuates under PSC and based on surplus</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Colombia</td>
<td>Concession</td>
<td>NA</td>
<td>Fees for the use of the subsoil and subsurface (paid monthly during exploration phase) Fees for the exploitation (during exploitation phase) Participation in production (subject to contractual negotiation)</td>
<td>Thresholds and EPT percentages applied to excess gains vary between contracts</td>
<td>33%</td>
<td>No</td>
<td>8 - 25% sliding scale on a per field basis; based on monthly average production</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Services</td>
<td>NA</td>
<td>None</td>
<td>None</td>
<td>44%</td>
<td>Yes (Petroecuador or Petroamazonas)</td>
<td>NA</td>
<td>No</td>
<td>No; former member</td>
</tr>
<tr>
<td>Peru</td>
<td>Concession</td>
<td>Services</td>
<td>None</td>
<td>None</td>
<td>30%</td>
<td>No</td>
<td>5 - 20% (concession only) sliding scale based on production volumes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Joint Venture</td>
<td>NA</td>
<td>Yes; superficial tax (based on land use)</td>
<td>20 - 90% sliding scale depending on excess prices</td>
<td>50%</td>
<td>Minimum participation of 50% of PDVSA</td>
<td>33.33% of value of crude extracted</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

EPT | Extraordinary Profit Taxes  
PSC | Profit-sharing Contract  
ICSID | International Centre for Settlement of Investment Disputes
Vested Interests

Given the complex vested interests involved, the oil and gas sector in South America could easily form the basis of a good Latin American telenovela. Understanding what motivates these interests, the extent and nature of their power, and the interplay and dynamics between them is pivotal to a project’s success.

In most of the region, the main vested interests surrounding a particular project include regulatory agencies (especially the national hydrocarbons agency), the ministry in charge of oil and gas, local and state governments, the NOC, sectoral trade unions, business associations and companies competing for non-sector resources (labor, land, access to transport routes).

Regulatory agencies

In engaging with regulatory agencies across South America, companies have traditionally concentrated on the main national bodies responsible for adjudicating on blocks or projects. These include national hydrocarbons agencies or relevant ministries, and regulatory bodies that evaluate and approve environmental and social impact assessments. However, this approach can overlook lower-level agencies and bodies that not only play a critical role in overseeing the sector, but may ultimately hold a tacit power of veto over project development. Such bodies include municipal or local authorities in Brazil and Peru, and environmental agencies in Colombia.

A more comprehensive initial analysis can prevent unnecessary delays or costs, and might allow companies to streamline projects and operations. Such an approach involves mapping out the most important regulatory bodies in a particular jurisdiction or location, rather than concentrating on key functions – such as title adjudication and environmental licensing – or agencies at the national level. This should focus on the project life-cycle (or specific work flow on the upstream or downstream strands) and include sub-sovereign bodies, which sometimes hold more power than national agencies. Figure 2, modeled on a case in Colombia, shows how companies can identify agencies influencing different stages of a prospective project and then plot them across a project timeline.

The different regulatory bodies can be evaluated separately to assess their track records in applying rules and regulations consistently, and their ability to carry out their roles (for example, to ensure decisions are enforced). Such an exercise allows companies to identify potential risk exposures and prepare engagement strategies accordingly. Given Latin America’s long history of decentralization and the inability of many governments in some cases to effectively enforce legally acquired rights, this could be the difference between a successful project and one that suffers the kind of severe delays prevalent in Colombia, Ecuador and Peru on environmental grounds.

Structured mapping of regulatory bodies also helps companies to compare political and regulatory risks across different project locations and to identify some of the vested interests that might impact a specific project.

Other government interests

Unless influenced by a competitor, most governmental vested interests tend to favor the development of oil and gas projects. But individual leaders at the local level sometimes view projects as a means of gaining advantage. They may position themselves as the valid – or even sole – interlocutor between a specific social, political

<table>
<thead>
<tr>
<th>Regulatory Bodies</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Hydrocarbons Agency</td>
<td>Block adjudication, title verification, environmental licensing, social licensing</td>
</tr>
<tr>
<td>National Environmental Licensing Agency</td>
<td>Environmental licensing, social licensing</td>
</tr>
<tr>
<td>Mines and Energy Ministry</td>
<td>Taxation, transportation of oil/gas, operational oversight, local content verification</td>
</tr>
<tr>
<td>Local Mayors</td>
<td>Certification of good standing</td>
</tr>
</tbody>
</table>

Figure 2: Agency mapping across the project lifecycle: illustrated for Colombia

<table>
<thead>
<tr>
<th>Life Cycle Stage</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Block adjudication, land titling</td>
</tr>
<tr>
<td>Exploration and Discovery</td>
<td>Approval/oversight of exploration plans</td>
</tr>
<tr>
<td>Evaluation and Feasibility</td>
<td>Environmental licensing, social licensing</td>
</tr>
<tr>
<td>Construction and Operation</td>
<td>Taxation, transportation of oil/gas, operational oversight, local content verification</td>
</tr>
<tr>
<td>Closure</td>
<td>Certification of good standing</td>
</tr>
</tbody>
</table>
or business group and the company, and attempt to “disconnect” companies and communities or interest groups. Political leaders in producing areas of Peru and Colombia commonly try to monopolize relations between companies and communities, depicting companies’ corporate social responsibility investments as achievements won by the leader. Politicians can also build careers through opposition to projects. Left-of-center candidates may appeal to environmental concerns by blocking or opposing projects regardless of the real situation or the desires of the local community.

This can undermine companies’ engagement strategies: such politicians might not be legitimate representatives or might have “colorful” backgrounds (such as involvement in corruption, crime or human rights abuses). They are also hard to identify in the early stages of a project (for example through stakeholder mapping): they are often opportunistic and only position themselves once they see a clear opportunity.

Cases where governmental interest groups use their power to veto or obstruct a project tend to involve either a hidden competing interest or reflect a crude calculation of personal or institutional political benefits. The former often involve a competing business interest concerned about access to land or cheap labor, and that can leverage good political connections. Several projects have been denied licenses or have experienced unexplained delays in approval in Colombia, Peru and Argentina because agricultural interests, fearing licenses or have experienced unexplained delays in approval in good political connections. Several projects have been denied concern about access to land or cheap labor, and that can leverage benefits. the former often involve a competing business interest or reflect a crude calculation of personal or institutional political obstuct a project tend to involve either a hidden competing interest cases where governmental interest groups use their power to veto or clear opportunity.

Indigenous and environmental interest groups
Not all environmental or social concerns involve hidden vested interests. Indigenous and environmental groups wield significant power in countries such as Ecuador, Bolivia and Peru, and areas of Brazil and Colombia where they have a large presence or that are environmentally sensitive. Dealing with these groups can be extremely complicated. They tend not to negotiate or be open to settlement on their main concerns – ancestral lands, environmental degradation and land rights. In some areas and on some issues, project development becomes a zero-sum game, rendering normal community and stakeholder engagement strategies ineffective. This invariably necessitates the involvement of national authorities to back and enforce rights, even those that might have been legally acquired and underwent some form of prior consultation within the wider community.

Trade unions
The trade union movement is a significant vested interest, especially in countries where the oil and gas sector has a single, united industry trade union, like in Colombia, Venezuela and Brazil. In general, trade union movements show a balance between positive and negative intent. They want to be seen to be representing the interests of workers against those of operators, and so are prone to incite periodic strikes and undermine the development of projects, sometimes even “formally” extorting employers to remove obstacles. On the other hand, they have to moderate more disruptive forms of activism to avoid completely undermining a specific project, which would lead to fewer jobs created (and therefore fewer members). Venezuela is the exception: workers in the past have sought to completely undermine private operators in an effort to force the government to intervene and nationalize the operation.

Two issues that should be taken into account when assessing the power and impact of trade unions in the region are the political aspirations of specific leaders and the emergence of “rival” or competing unions. Most trade union movements have lost their direct links with political parties on the left. As politics become more personalized, union leaders have centered most of their actions on pushing their personal leadership and furthering their own careers, the most obvious example being former trade union leader Angelino Garzon, now vice president of Colombia. Companies that account for these aspirations can find ways to effectively engage with trade unions. However some companies have adopted a strategy of inviting or sponsoring a rival union as a means of undermining the power of the incumbent one. While this might provide some leverage when dealing with the main union, this approach involves extremely high risks, including serious deterioration in the workplace environment and escalation into violence.

Dealing with state oil companies
NOCs are one of the most complex and powerful vested interest groups in South America. Private companies seeking to exploit opportunities in any South American market will invariably have to deal in some form with the state oil company, whether as partners, contractors, competitors or regulators (or a mixture).

Home advantage
As competitors, NOCs have home advantage. They are normally not only better informed than other oil companies in the country, but are politically very well connected. Some have specific privileges and/or prerogatives for developing new projects, as in Brazil’s pre-salt fields or in the border areas of Peru. They can be chosen as preferred developers of specific areas or have advantages in gaining access to strategic areas with high geological potential (some NOCs or their affiliates might have been involved in national geological surveys) and implicitly meet local content requirements.
This often translates into formidable competitive advantages. NOCs may have access to privileged information (including on their private-sector rivals); can use and leverage political influence to their advantage; and can always, if needed, play the nationalism card. When competing with NOCs, the only real protection companies can count on is the strength and independence of regulatory bodies, and the responsiveness and transparency of the legal system. This reinforces the need to carefully map and assess the regulatory agencies that will have some form of oversight – and thus potentially protect – companies and service firms.

Transparency issues
As contractors, NOCs can be very challenging. Despite efforts at Petrobras, Ecopetrol and PetroPeru to increase transparency, tender processes are still relatively opaque, and unmeritorious bids sometimes come out on top. Ecuador, Bolivia and Venezuela suffer from largely arbitrary contracting and procurement processes. Moreover, Health, Safety and Environmental (HSE) standards and the protective coverage offered to subcontractors does not necessarily match legal and industry best practices, including duty of care and respect for the environment, posing challenges for risk managers. Companies might be exposed to corruption when they find themselves regulated by NOCs. Although in most of the region there have been concerted efforts to strip NOCs of regulatory powers to attract investment, NOCs continue to play a regulatory role in a few countries, including Ecuador and Venezuela. As well as creating additional layers of potential corruption, cases in which the NOC is both a competitor and a regulator will pose serious conflicts of interest, with the state company almost always opting to protect or pursue its own interests when conflicted.

NOCs can become partners with private companies and services firms. Whether made out of choice or because regulations – as in Brazil and Venezuela – force companies to partner with the NOC, such partnerships pose significant risk management challenges. If the NOC is the operator, international private companies often find that their partner operates under different performance requirements, and tends to apply lower HSE and environmental standards. National political considerations frequently influence the performance and management of NOCs, for example through the way in which they split profits into reinvestment in the operation and transfers to the national coffers, or in the appointment of the NOC’s head, which might undermine business priorities based on the needs of the partnership. In other words, if partnering with the NOC, political needs – often short-term ones – will always trump business or operational considerations.

Intellectual property
Partnering with NOCs poses a challenge for intellectual property (IP) protection. The exponential growth of services firms has considerably expanded the availability of and access to some of the most technologically advanced exploration and extraction methods in the world, reducing the exposure of international E&P companies to IP concerns. However, companies that partner with NOCs often find that the protection of sensitive data and technology is not taken seriously by their state counterpart – or is not done to the standards expected by the international companies. This is particularly the case when access to a given country by law requires a certain degree of technology transfer, as in Brazil and Venezuela. Companies considering this type of venture should weigh the costs of protecting – and potentially losing – crucial IP or sensitive information in their project finance calculations.

CORRUPTION
Corruption poses a critical risk to oil and gas opportunities across South America. Of the major oil-producing countries, Brazil is the only one that is not in the bottom half of Transparency International’s 2012 Corruption Perceptions Index. To succeed, oil and gas companies must develop and rely on significant local relationships with relatively unknown intermediaries, and regularly engage public and private decision-makers as an essential part of doing business. But in doing so, they must develop and rely on significant local relationships with relatively unknown intermediaries, and regularly engage public and private decision-makers as an essential part of doing business. But in doing so, they must
so, they expose themselves to a wide range of serious reputational risks – as well as an increasingly aggressively enforced set of foreign and domestic anti-corruption rules. Drawing the line between what constitutes savvy business practices to maximize competitive positioning, and those that constitute (or contribute to) corruption, is a core challenge for oil and gas companies.

Strikingly, corruption in South America in general has increased – not decreased – with newfound economic progress and growth. This is largely a result of the trend toward more populist leadership models that have substantially weakened institutional barriers to corruption, such as independent judiciaries and legislative checks on executive power. Bribery has grown as a result of greater direct interaction between ruling party bosses, who frequently exercise unchecked discretion over public projects, and corporate executives seeking to exploit economic opportunities. Although Chavismo in Venezuela best evinces the corroding influence of populism on institutional and normative checks on corruption, Ecuador, Bolivia and now Argentina show similar signs of frailty. Concentrated power and corruption at the top trickle down through the economy.

Brazil, on the other hand, represents a bright spot for the region. Former leaders of the governing Workers’ Party (PT) have been successfully prosecuted for a vote-buying scheme, representing an important milestone in the fight against corruption. Laws on freedom of information and a clean-record requirement for political officeholders send the right signal from the top. Yet despite these signs of progress, companies must remain wary. Like much of the region, Brazil suffers from a less malignant but equally pervasive form of corruption: payments made to tax, customs, labor or other authorities to improperly expedite transactions or obtain favorable treatment. This almost always occurs through agents, brokers and consultants, whose services, though not legally required, are often necessary because of byzantine and constantly evolving rules and regulations. Companies are virtually certain to encounter this form of corruption. The cornucopia of new rules and requirements surrounding the pre-salt discoveries, such as increased local content requirements, is likely to increase companies’ exposure to such commonplace forms of malfeasance.

Colombia presents a conundrum. It does not suffer from the populist tendencies of its neighbors and maintains a mildly independent judiciary, but public perception of corruption is increasing. One reason is that corruption has been pushed down the agenda by the prioritization of growth and investment, and the renewed focus on the peace process with the Revolutionary Armed Forces of Colombia (FARC) guerrilla group. Many also argue that former president Álvaro Uribe’s third-term bid in 2010 involved turning a blind eye to corruption in return for congressional support for the referendum he needed (which was rejected by the constitutional court). While Colombia presents one of the most attractive frameworks for oil and gas companies looking to invest in the region, their exposure to corruption remains high for the foreseeable future.

Few countries in South America offer clear rules or guidance on how a company can safely and transparently promote or lobby for their economic interests with public authorities. Whether at the executive level or with a local agency, opacity and ambiguity mean foreign companies will be almost entirely dependent on the advice and guidance of intermediaries with direct or indirect ties to government to help them to navigate public affairs. However, well-connected, knowledgeable intermediaries frequently maintain nefarious relationships with government and therefore present the greatest threat of corruption.

However, like most of the other risks presented here, corruption can largely be prevented and its effects minimized through proper management. Commitment and buy-in among senior management to a zero-tolerance policy toward corruption together with a robust compliance program dramatically reduces the likelihood of it occurring.

**Figure 4: Dealing with corruption**

**PREVENT**
- Tone from the top
- Training and awareness
- Policies and procedures
- Risk assessment and due diligence: risk profiling operations and third parties

**DETECT**
- Channels for raising concerns: ‘whistle-blowing’ and compliance hotlines
- Monitoring compliance programmes: in-house and independent reviews and audits
- Investigations: evaluating allegations and suspicious activities using internal and external resources

**RESPOND**
- Post-event mitigation: detection and prevention services to minimise the likelihood of future events
- Incident management programmes: designing procedures / providing support in response to risks triggered by a corruption event or investigation
THINK LOCAL

Location-specific risks are one of the most important factors determining the success of oil and gas projects in South America. More so than headline or national-level risks, these are often only considered either as part of a community/local stakeholder engagement strategy or as residual risks to be dealt with once “on the ground.”

To fully understand the risk environment facing a project and to maximize a project’s chances of success, local risks should be brought to the forefront of feasibility studies. Companies should look not only at macro political, security and integrity issues, but also at local feasibility. Aspects of this approach may not be new. No other activity is as local as extractives: companies need to go where the resources are located, but as efforts to attract investment across the region begin to attract significant attention, ventures will run up against myriad micro dynamics. These may include but not be limited to: the impact of the specific vested interests of local labor leaders; the concerns and influence of local business communities; indigenous opposition to development on environmental, social and/or cultural grounds; the activities of increasingly well-connected local NGOs and, in some areas, the presence of illegal armed groups.

To think local, companies first need to recognize and accept that the goodwill and policy agenda of the national government does not directly apply at the local level. Even if ministers from Brazil, Colombia and Peru spend considerable time touring the world to highlight their countries’ pro-business stance and encourage investors, their willingness and ability to intervene in local politics at the project level might be limited, and in some cases will be based on crude political calculations. Political feasibility will normally be dictated by the attitude and influence of vested interests and political figures in and around the project area, which means that plenty of regulatory challenges remain – particularly when it comes to licensing.

Assessing the social feasibility of a project is often more complicated. In most areas in South America considered to hold the greatest new potential, the oil and gas industry is in its relative infancy and communities can be very open to investments. However, this eagerness to attract projects and the jobs they might create is often hijacked by different groups, whether for specific political or economic interests, or to mask complex interactions with illegal groups or organized crime gangs, as in some areas of Peru, Colombia, Bolivia, Ecuador and Venezuela. Some social movements, NGOs and trade unions seek to strengthen their positions on the back of the sector’s development, so will act in ways that maximize their social and political capital locally, nationally or internationally. There have been cases of local NGOs that seek to attract funding from international environmental groups overstating the degradation of certain areas and publically confronting oil companies with this version of reality.

Local project risks almost never transpire in isolation, which complicates company responses since battles will almost invariably be fought on more than one front. Environmental or social issues – real or imagined – are likely to bog down already painful regulatory processes in many situations. If left to fester, the impacts on an operation go beyond just the bureaucratic and can evolve into physical disruption of transportation routes and wider business activities.

Security

Local security risks for oil and gas operations in South America can normally be managed effectively. Region-wide, opportunistic and common crime are the main threats. Any large project will attract the attention of criminals, but in most cases their capabilities will be limited and their impact quite minimal, with very few instances of serious or high-impact crimes occurring and directly linked to an operation, as is the case in Colombia, Peru and increasingly Venezuela. Here, in some areas, the security challenges are considerably more significant because of the presence of the Revolutionary Armed Forces of Colombia (FARC) and National Liberation Army (ELN) in Colombia and some parts of Venezuela, and the Shining Path (Sendero Luminoso – SL) in some gas-producing areas of Peru.

Figure 6: Managing oil and gas risks in South America
However, even in areas of higher risk security can be managed effectively. The main direct threats in Peru, Colombia and Venezuela are occasional kidnaps and extortion demands emanating from, by and large, local actors. Indirect threats include unwitting exposure to reputational and legal issues, such as money laundering, caused by the involvement of illegal armed groups in the formal economy and/or the pressure they apply on communities or social groups. These can create serious risks which, when mismanaged, have a significant impact. However, companies have been operating in most of these so-called “conflict” areas for years, with the most successful identifying that a comprehensive appreciation of the security dynamics at the most local level allows protective strategies to be “designed-in” to the planning or expansion phases of most projects. Again, this granularity adds significant value to calculations of project profitability and the wider feasibility process.

CONCLUSION

The oil and gas scene in South America offers a diverse spectrum of risks and rewards. Brazil is likely on its way to becoming a global offshore powerhouse, with the city of Rio de Janeiro and surrounding areas rapidly ascending into a hotbed of oil and gas activity. But serious questions remain about Brazil’s (and especially Petrobras’) ability to live up to expectations, as well as what will unfold with its untested profit-sharing venture. The investment-friendly environments of Colombia and Peru continue to attract global interest in droves, though social protest, local issues, and corruption continue to plague extractive industries in both countries. Oil and gas prospects in Venezuela and now Ecuador and Bolivia remain imperiled by an inward-looking, state-led development model accompanied by some of the world’s highest levels of corruption – a path which Argentina seems increasingly likely to follow. With regional competitors who continue to take tangible measures to facilitate investment, especially from North America, only time will illustrate the sustainability of such an approach.

The region offers sufficient variety in the balance of risks and opportunities for companies to make informed choices based on their own specific risk tolerance. But once an investment or engagement decision is made, the complex environments of South America require an integrated and strategic approach to risk management. Business developers, compliance officers, security directors, community relations workers and senior company executives must work in a coordinated manner to identify, analyze, understand and manage the challenges outlined here, from national-level regulatory issues to the social, political and security concerns specific to each project.

Figure 7: the axis of risk vs. reward - The graph is a representation of the ease of doing business rankings, as measured by the World Bank in 2012, a composite measure of Control Risks’ own political, security, integrity and operational risk ratings, and the proven reserves of each country (as indicated by the size of the bubble for each country).
COUNTRY SNAPSHOTs

Country Risk Radar: The radar chart for each country is a combination of well-known external indicators that measure a specific factor that is often associated with a particular country’s attractiveness for, and protection of, investments. The bigger the area covered, the riskier the jurisdiction will be – on the basis of these indicators, which are: enforceability of contracts and protection of investors from the World Bank’s 2012 Doing Business Report, the Regulatory Quality as measured by the Worldwide Governance Indicators (in an inverted percentile scale), Transparency International’s Corruption Perceptions Index (inverted scale) and Freedom House’s Aggregate Score for ranking general freedom in a specific country (inverted scale).
The history of Argentina’s energy industry has followed a turbulent path of nationalization, privatization and re-nationalization since oil was first struck in the Patagonian town of Comodoro Rivadavia in 1907. Always headline-grabbing, the current administration’s statist tendencies led in April 2012 to the expropriation of the 51% stake in national oil company YPF held by Spanish firm Repsol.

Argentina is South America’s largest producer and consumer of natural gas. Following the 2001 economic crisis, the government established several price control mechanisms that resulted in significant reductions in new investments by hydrocarbon companies. With the profitability and stability of the energy sector undermined by the government’s policies, oil production has been falling since 1998, and gas production since 2006. In 2010 Argentina went from being an exporter to an importer of natural gas.

The government has created state-owned firms in an attempt to play a more significant role in the energy sector. In 2004, former president Néstor Kirchner created Energías Argentinas (Enarsa), a company responsible for the exploitation, production, industrialization, transport and trade of oil and gas. At the provincial level, pro-Kirchner governors have taken a similar approach, demanding that private firms operate jointly with local state-owned companies such as Petrominera Chubut, Gas y Petróleo de Neuquén and Fomicruz (in Chubut, Neuquén and Santa Cruz provinces, respectively). The national government also has a record of using foreign oil companies as scapegoats for the country’s energy problems; those that fall out of favor with the government face rhetorical attacks and selectively enforced regulation. When Shell attempted to raise prices at its gas stations in Argentina in 2005, Kirchner urged Argentines to boycott its products. The following year, the company received 23 fines and several executives were issued arrest warrants for allegedly undersupplying the domestic market.

The government’s decision in April 2012 to expropriate 51% of YPF highlighted the extent of President Cristina Fernandez’s political power and the declining influence of economic orthodoxy. The two largest opposition groups – the Radical Civic Union and the Progressive Broad Front – supported the move, while an opinion poll shortly after the event suggested that 62% of the population were in favor.

According to the government’s plan for the oil and gas sector, YPF needs to invest $33bn by 2017, $4.5bn of which is expected to come from strategic partners. In late 2012 YPF chief executive Miguel Galluccio announced that the firm was finalizing deals with US oil company Chevron and Bridas Corp, the Chinese-Argentine joint venture. A deal would mark the first major investment in YPF since the expropriation and would be a significant boost to the development of Argentina’s large shale hydrocarbons reserves, which YPF lacks both the resources and expertise to explore without partners.

Proven natural gas reserves are estimated at 14 trillion cubic feet (tcf) by the US Energy Information Administration (EIA). The country also holds 2.5bn barrels of proven oil reserves. YPF in February 2012 announced the discovery of 22.8bn barrels of unconventional resources, of which 80% is oil and liquids, near the Loma La Lata field in Neuquén province. According to the US Geological Survey, Argentina contains 774 tcf of shale gas, the third-largest technically recoverable reserves in the world, behind China and the US. These findings have put Argentina at the focus of the unconventional fossil fuel industry and are likely to attract several foreign companies and investors.

The domestic energy sector is highly regulated. Since the 2001 economic crisis, the government has imposed several price controls, including caps on domestic prices. Large government subsidies mean that residential consumers pay substantially less than industrial users. The government also taxes oil and gas exports, which are often restricted during energy shortages, while oil, gas and mining companies have been prevented from repatriating profits since 2011. A national hydrocarbon planning commission was created in July 2012 and will oversee the investment plans of public and private companies, as well as establish reference prices for oil, gas and other fuels.

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However, the government’s apparent refusal to properly compensate Repsol – which estimates that its 51% stake in YPF is worth $10.5bn – is likely to lead to lengthy legal disputes (the Spanish company has filed complaints against the Argentine government in the World Bank’s arbitration tribunal and a New York court, and has taken legal action against YPF’s prospective partner Chevron). Furthermore, a decade of continued state intervention in the oil and gas sector has fueled uncertainty among investors.

Fernández is unlikely to emulate her Venezuelan counterpart Hugo Chávez, who has expropriated a string of foreign businesses, but companies face numerous challenges stemming from her unorthodox approach to economic policy – particularly excessive regulation, trade restrictions, capital controls and contract instability. Although the government is keen to attract foreign investment to boost domestic production, this is unlikely to translate into less state intervention and a friendlier environment for oil and gas companies.

As the country becomes increasingly reliant on (expensive) gas imports, the government is likely to allow higher domestic prices to boost output. In early 2013 it has shown itself to be slightly more prepared than before to agree to higher prices in the energy sector, and has cut some transport and energy subsidies to shore up its financial position. However, domestic prices remain well below international market prices and significant distortions are likely to continue.

BOLIVIA

Department: Ministry of Hydrocarbons and Energy (MHE)
Minister: Juan José Sosa
Key legislation: Hydrocarbons Law (2005)
Proven reserves: Oil and natural gas
Presidential election: 2014

Bolivia emerged relatively recently, in the 1990s, as an important player in the regional hydrocarbons market. President Evo Morales fulfilled an election promise to bring the hydrocarbons industry back under state control in May 2006, soon after his inauguration, but in a less radical form than many had feared: no foreign assets were seized outright and a number of private oil and gas companies remain active, albeit under revised contracts.

Bolivia overwhelmingly produces natural gas. The country produces a small amount of crude: according to Oil and Gas Journal, it is home to a modest 209m barrels in total reserves. Production in 2011 was just under 50,000 barrels per day (bpd), down nearly a fifth from the figure in 2007.

By contrast, gas production has risen steadily over the past five years to the point where Bolivia is South America’s largest producer and exporter. Uncertainty persists over the size of its total reserves. A 2010 report by US consulting firm Ryder Scott reduced the estimated size of the country’s proven gas reserves by more than half, to less than 10 tcf, but the potential existence of large undiscovered reserves – particularly in Tarija department – means that the total may be closer to 20 tcf.

The government’s main aim for the industry is to increase production of both oil and gas to meet domestic demand and – in the case of natural gas – fulfill export commitments. A core part of this strategy involves attracting participation from private and foreign companies, particularly in exploration, which has been limited in recent years.

State-owned hydrocarbons company YPFB has outlined plans for more than $4bn to be invested in
the gas sector by the government and private companies by 2015, when it hopes to have boosted daily production to just under 2.5bn cubic feet (bcf) – 16% more than in 2012. The government is taking tentative steps towards diversifying its range of petroleum-derived export products to reduce dependence on exports of raw commodities, though progress on this front is likely to remain slow.

According to YPFB figures, natural gas production in 2012 hit a record 2.12 bcf a day. This means that total projected output of natural gas for the year was 774 bcf – nearly 40% more than in 2011. The government’s aim is to increase this annual total to more than 900 bcf by 2015, an increase that would allow Bolivia to keep up with export commitments to Brazil and Argentina, as well as meet domestic demand. However, the rapid increase in production has prompted warnings from some industry experts that, in the absence of significant new discoveries, the country runs the risk of depleting available supplies, possibly as early as 2019.

The last major discovery took place in April 2011, when French company Total discovered large natural gas reserves in the Aquio block in the east of the country. Bolivia’s energy ministry estimates that the find could boost total proven gas reserves by up to a third, and the company hopes to be producing as much as 230m cubic feet a day by 2015. The government in December 2012 signed an agreement with Italian firm Tecnimont to carry out final feasibility studies for two ethylene and polyethylene plans to be constructed in Tarija department. Should the project be deemed feasible, it is hoped that the plants will be operational by 2017.

YPFB in June 2012 launched a bidding round for exploration rights in 15 blocks, some located in non-traditional areas for hydrocarbons production. However, contracts were not signed by the original deadline of October-November 2012, and some of the auctions were declared void and re-launched owing to lack of interest. The company also announced in February 2013 that it was beginning preliminary explorations for shale gas in the Los Monos formation in the east of the country, making Bolivia the third country in the region (after Argentina and Colombia) to begin exploring for shale gas.

The key priority for YPFB and the government will be reversing the decline in oil production and boosting exploration activities to ensure that gas supplies remain sufficient to meet demand. However, efforts to boost production both of natural gas and unconventional resources may be undermined by the complex political and operational conditions facing investors.

In contrast to investors in other sectors (notably mining and infrastructure), oil and gas companies face little risk of expropriation. The government is keenly aware of the crucial role they have played in getting production to its current high levels; moreover, with the entire hydrocarbons sector nominally under state control since 2006, there is little popular demand for further politicized actions. Yet this does not mean that political and regulatory conditions are uniformly favorable. Companies are required to pay high taxes and royalties, while their opportunity for profit is strictly limited: given state ownership of all oil and gas produced, they are entitled only to a fixed per-barrel fee. It remains to be seen whether a series of new financial incentives being offered to companies interested in exploratory activities – including reimbursement of costs incurred during exploration in cases where commercial reserves are discovered, and a higher per-barrel fee for oil production – will be enough to attract more companies into Bolivia.

In addition, the operating environment in Bolivia is complex even by Latin American standards. While the focus of social unrest over the past three-to-four years has shifted away from the hydrocarbons-producing east of the country, a protracted outbreak of disruptive social unrest over the region’s demands for autonomy in 2008 gave rise to isolated attacks on hydrocarbons infrastructure, highlighting the risk to the sector posed by Bolivians’ penchant for street politics. Infrastructure – or rather the lack of it – also poses a challenge. Most of the exploration blocks being offered by YPFB are located in remote, unexplored areas, generating significant additional costs for companies and creating the risk of financial losses if they fail to find exploitable reserves. The government has offered to reimburse the costs of exploration once significant reserves are discovered, but in the event of negative results companies are not entitled to any reimbursement from YPFB.

The Brazilian oil industry began in Bahia state in the 1930s, but saw nationalization and the long monopoly of state oil company Petrobras, founded in 1953. The industry was opened to private investment in 1998. The National Agency of Petroleum (ANP) became the sector’s key regulator, but Petrobras maintains a dominant role. In 2007, the discovery of vast oil fields under a thick layer of salt 10,000 feet under the sea (the so-called “pre-salt” layer) transformed Brazil’s profile. Estimates of pre-salt reserves indicate a potential for 70bn to 100bn barrels of oil equivalent (boe), placing Brazil at the same level as major international producers. If all the discovered fields are proven to hold recoverable resources, Brazil would have the world’s seventh-largest proven oil reserves.

Brazil is the second-largest oil producer in South America, and its industry is experiencing steady growth. Production is concentrated in the southeast, particularly off the coasts of Rio de Janeiro...
and Espírito Santo states. Current production is estimated at 2.5m bpd, but the government has begun an ambitious oil and gas exploration program that aims to transform Brazil into the sixth-largest oil producer by 2020 – with a target production of 5.2m bpd. Although Petrobras was very successful in raising funds for the exploration program through an initial public offering and corporate debt offerings, this target seems unrealistic. The oil and gas industry accounts for roughly 10% of GDP, but the pre-salt opportunity is likely to double the sector’s share by the end of the decade.

President Rousseff – and her PT in general – is a strong supporter of partial state intervention in sectors considered strategic, including oil and gas. The state is assigned a strategic role, either directly or through a state-owned company, but nevertheless maintains a predictable framework for private investment.

The government’s response to a November 2011 oil spill in the Frade offshore field (Rio de Janeiro state) has caused some concerns. The spill prompted a harsh response from the authorities against US company Chevron, which operated the field. The spill resulted in an $11bn civil lawsuit, the largest ever environmental damages case in Brazil and large fines from various regulators. The ANP suspended Chevron’s drilling rights in the country and a federal prosecutor filed criminal charges against 17 executives. The charges relate to a relatively minor incident – the leak of around 3,700 barrels of oil, prompting concerns that the charges may be disproportionate or politically motivated. Chevron accepted full responsibility for the incident and claims that it cooperated fully with the authorities. Petrobras has been responsible for larger and more damaging spills in the past, but prosecutors have not targeted its executives; Petrobras is also a minority partner in the Frade field. The measures against Chevron do not indicate a shift in official attitudes towards private investment in the oil sector, but they point to the increasing strength of the environmental lobby. The government will continue to welcome foreign investment and companies can expect a stable business environment for the foreseeable future. The ANP recently announced that Chevron will be able to resume its operations in 2013.

The ANP is expected to resume bidding rounds in 2013, with one in May for conventional oil fields and another in November for pre-salt reserves. Legislative hold-ups have delayed the 11th bidding round for five years. Although legislation recently has been enacted to more equally distribute royalties between producing and non-producing states, a powerful Congressional minority seeks to delay implementation of the new rules. The May bidding round will be a key indicator of how attractive Brazil’s oil and gas sector remains. Although the country has made massive discoveries, companies willing to operate in Brazil must contend with stiff local content requirements and the stifling dominance of Petrobras.

The nationalistic tone of many statements by government officials on Brazil’s oil finds is partly electoral pandering and partly the result of temporary euphoria over the prospect of becoming a major net energy exporter. The government is likely to seek...
increased revenues through higher taxes and royalties, but ultimately Petrobras’s need to share costs will ensure that contractual conditions for foreign investment in the sector remain sufficiently attractive. Radical state intervention in the form of nationalizations or expropriations is highly unlikely.

The government expects the pre-salt exploration to provoke a restructuring of Brazil’s industrial landscape, increasing demand for industry suppliers, including machine, equipment and consultancy services providers. As a result, local content requirements – which were voluntary until 2003 – have become more and more challenging in each bidding round (see table). By 2017, the government expects local content requirements will reach 95% in selected products. Companies have complained that the requirements are fueling rising costs and delays; a government-commissioned report published last year stated that currently the local supply chain is capable of meeting the oil and gas sector’s demands in only five of 24 key equipment categories.

**Local content in the oil and gas sector**

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<th>Year</th>
<th>Actual</th>
<th>Target</th>
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<td>57.3%</td>
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<tr>
<td>2004</td>
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<tr>
<td>2011</td>
<td>74.8%</td>
<td>65.6%</td>
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Source: Program for the Mobilization of the National Oil and Gas Industry (PROMINH)

Colombia is the fastest-growing major oil producer in the region. In 2012 the country had proven reserves of more than 2bn barrels of oil, the fifth largest in the region. Natural gas reserves are evaluated at 5.4 tcf, placing Colombia in ninth place regionally. The government expects local content requirements will reach 95% in selected products. Companies have complained that the requirements are fueling rising costs and delays; a government-commissioned report published last year stated that currently the local supply chain is capable of meeting the oil and gas sector’s demands in only five of 24 key equipment categories.

Colombia’s history of stability and pro-business governments means that the likelihood of companies facing political risks akin to those in neighboring Venezuela or Ecuador is relatively low. However, bureaucratic hurdles, especially delays in the concession of environmental licenses, are emerging as a challenge to smooth business operations.

Based on developments over the last five years, Colombia ranks third globally (behind Australia and Brazil) for the number of new oil and gas discoveries. The most significant basins are located in the Andes foothills, both in the Magdalena Valley and in the eastern plains (“Los Llanos”) departments of Casanare, Arauca and Meta. Significant reserves are also located near the coast and in several offshore areas. Colombia’s National Hydrocarbons Agency (ANH) held a two-part bidding round in 2012 (the Ronda Colombia 2012), awarding 49 blocks to 37 companies in the first round. Only one offer was received for the second round, according to ANH documents published in December 2012.

Only five of the 49 blocks awarded in the Ronda Colombia 2012 are expected to contain unconventional sources of energy, including shale oil. The government is determined to increase its...
confirmed reserves of these unconventional sources to more than 1bn barrels by 2030, and hopes that the first positive results from exploration and the beginning of production in the awarded blocks will increase investors’ interest in other unconventional areas.

The government has registered significant successes in its fight against the leftist guerrilla groups that continue to operate across Colombia, primarily the FARC and ELN. Peace talks with the FARC have a significant potential to put an end to the armed conflict in its current form, though an overall improvement in the security situation is unlikely, at least in the short-to-medium term.

Armed clashes between government forces and the FARC will persist as long as the peace talks continue. During this period, the group will remain a significant risk to oil and gas companies and their assets and personnel, and extortion-related crimes such as kidnappings and bombings of infrastructure are likely to persist. Attacks on oil and gas infrastructure were up by more than 250% in the first six months of 2012 compared with the same period a year earlier (67 in 2012 compared to 19 in 2011), a tendency that is likely to continue in the short-to-medium term. In 2013, there were 13 recorded kidnappings of personnel linked to the extractives sector. Given the expected power vacuum left by demobilized guerrilla groups in the immediate aftermath of any agreement, we expect a short-to-medium-term deterioration of security as non-demobilized splinter groups and rearmed criminal structures fight over the control of strategic businesses and territories.

In the long term, we forecast a gradual improvement of the security situation, with attacks against the security forces and infrastructure subsiding, persisting mostly in the context of unanswered extortion threats. But while security threats subside, social and environmental issues will become more important. Communities increasingly make use of their newfound freedom from decades of paramilitary and (to a far lesser extent) government-related repression to protest over social and environmental issues. Such actions are nowhere near levels found in other countries in the region, but numbers were up by more than 60% in 2012 compared with 2011, with more than 240 instances of road blockades in 2012 alone. We would expect some of these concerns to moderate should a peace agreement be signed, but do not anticipate the sweeping reforms needed to bring a drastic improvement in these deeply rooted problems. Social protests, especially by peasant and indigenous groups in rural departments like Arauca, Putumayo, La Guajira, Narino, Cauca and Chocó are therefore likely to continue and potentially even increase.

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Figures released in November 2012 showed that the government had succeeded in raising $300m of the $3.6bn it hopes to raise to compensate it for its decision not to open the Yasuní national park’s oil-rich Ishpingo-Tambococha-Tipinui (ITT) area to oil exploration. Correa admitted that the results of the fundraising drive have so far been disappointing; moreover, his government’s decision to award exploration licenses in the equally biodiverse south-east of the country has prompted accusations of hypocrisy from some quarters and may deter donors. The scheme looks unlikely to achieve its goals, but the prospects of the ITT area being opened up to oil exploration in the next few years are limited.

The key development in 2013 will be the auctioning off of 16 oil concessions in the south-west, near the border with Peru. Bidding for the concessions, in the provinces of Pastaza and Morona Santiago, will be open until May 2013, and it is hoped that contracts with successful companies will be signed by November. According to the Non-Renewable Resources Ministry, 20 companies are interested in bidding, including firms from Colombia, Peru, Canada, the US and China. In accordance with revised oil-sector legislation introduced in 2010, exploration and development rights will be awarded on the basis of service contracts; the state will retain possession of the oil, with companies entitled to a fixed per-barrel fee once production begins.

Ecuador is both a promising market and a challenging one for companies. Although it is home to large, unexploited reserves of crude oil, most are located in the remote Amazon region, creating significant logistical difficulties. Those areas not currently under exploration offer even more challenging conditions; according to Wilson Pastor, minister of non-renewable resources, only one in three exploratory wells drilled in the south-east is likely to yield commercially viable oil, compared with one in two in the north-east.

The operating environment is complicated by the persistent threat of indigenous activism. The Confederation of Indigenous Nationalities of Ecuador (CONAIE) and the Confederation of Amazonian Indigenous Nationalities (CONFENIAE) have already stated their opposition to the 2013 licensing round on the grounds that further oil exploration will have a negative environmental and social impact. Finally, the government’s determination to extend state control over the industry and to maximize its own profits means that, while outright nationalization of oil-sector operations is unlikely, companies face a threat of their contracts being renegotiated to increase the government’s share of the profit.

Oil exploration in the Guianas began in Suriname, where oil was first discovered in the western Nickerie area in the 1920s. Onshore drilling during the 1960s brought modest production led by state-run oil company Staatsolie. In neighboring Guyana, the government began looking for domestic sources of oil in the 1980s to reduce dependence on costly imports. Offshore exploration began in earnest, but was halted in 2000 following a flare-up of maritime border disputes with Suriname and Venezuela. Exploratory drilling in Guyanese territorial waters restarted in 2007. Similar exploration activities have been taking place in Suriname since 2004 and French Guiana since 2011.

Only Suriname is currently an oil producer. The country produced 16,000 bpd in 2011, all from onshore sources. However, the United States Geological Survey (USGS) has identified the waters off the northern coast of the Guianas as one of the most promising unexploited hydrocarbons sources in the Americas. In a report published in May 2012, the organization estimated that the area could contain up to 13bn barrels of oil, making it the third-largest unexploited oil reserve in South America after Brazil’s offshore Campos and Santos basins. In the same report, the USGS estimated that the area could be home to more than 30 tcf of natural gas, the fifth-largest unexploited reserves on the continent.

In September 2011 it was discovered that the Guyane Maritime block off the coast of French Guiana could be home to oil reserves of up to 840m barrels. Subsequent drilling efforts at the Zaedyus-2 well yielded no commercial oil, but companies remain optimistic that future wells will yield promising results. Drilling efforts offshore Guyana encountered a setback in July 2012 when Tullow Oil decided to abandon the...
Jaguar-1 exploratory well owing to safety concerns. Staatsolie announced that it would be terminating drilling activities in Suriname’s onshore Commewijne area after failing to discover viable reserves.

Despite many differences, one thing the governments of Guyana, Suriname and French Guiana have in common is that they are very keen to encourage offshore drilling and to develop a flourishing oil and gas industry. But with the hydrocarbons sector in the region still at an embryonic stage, none of the three has sufficiently robust legislation to support a fully developed oil industry. The Guyanese government is in the process of drawing up new oil-sector regulations; once these have been signed into law, it will be clear under what conditions private companies will ultimately be allowed to operate.

The French government, on the other hand, has yet to announce plans to update its Napoleonic-era mining code, which makes no provision for offshore drilling. A highly public decision in June 2012 to reverse the suspension of permits for offshore drilling in French Guiana was an indication of the government’s commitment to developing the industry, however environmental concerns and the lack of robust legislation create political uncertainty for the future.

January 2013 saw the launch of a bidding round for exploration rights in the offshore Demerara Plateau. Bidding closes in July 2013, and the winning bids are expected to be announced towards the end of the year. Elsewhere in the region, all eyes will be on the results of continued exploration off the coasts of Guyana and French Guiana (particularly in the Guyane Maritime sector), as well as on the progress of Guyana’s continuing efforts to reform its outdated hydrocarbons legislation.

Although widely viewed as a promising frontier prospect for oil companies, the industry in the Guianas faces substantial challenges if it is to get off the ground. First, the deep-water location of most of the region’s prospective oil reserves presents logistical challenges and safety concerns, particularly in the aftermath of the 2010 Deepwater Horizon oil spill. Other concerns include a deficient regulatory framework, the operational and integrity challenges posed by corruption and red tape (particularly in Suriname and Guyana), and – in the case of Guyana – an unresolved border dispute with Venezuela that complicates drilling in the waters off the disputed Essequibo region.
Peru has the oldest oil industry in South America, with a history of commercial oil production dating back to the late nineteenth century. In recent decades, a decline in production from existing reserves – primarily concentrated in the northern coastal departments of Piura, Lambayeque and Tumbes – and a lack of investment in exploration have led to a significant fall in production. Peru became a net importer of oil in 1992. Output has continued to decline since, falling by 25% between 1991 and 2011. However, over the past five years the government and state-owned Perupetro have displayed renewed interest in boosting domestic production. As part of its plans to revitalize the industry and return Peru to being a net oil exporter, Perupetro has outlined plans to drill 30 exploratory wells a year (up from 18 a year between 2008 and 2010), and to more than triple total production to 500,000 bpd by 2021. A key element of this involves attracting investors: approximately 40% of the Amazon basin is now licensed for oil exploration, and industry experts believe that with further bidding rounds already on the cards, this figure could soon reach 70%. There are also plans to increase natural gas output by expanding production at the Camisea field.

Recent news from oil-exploration efforts in the Peruvian Amazon has been mixed. Petrominerales in October 2012 announced that it had encountered light crude in the Sheshea-IX well it had drilled in Block 126 in the Ucayali Basin (Loreto department). However, one month earlier Canadian firm Talisman announced its decision to wrap up exploration efforts and exit Peru after eight years, citing its failure to encounter commercially viable oil in the four blocks that it operated or in which it had an interest (blocks 64, 103, 123 and 129).

Perupetro in October 2012 announced the opening of a bidding round to award a production contract for the onshore block 182, currently operated by Argentine firm Pluspetrol. With Pluspetrol’s contract due to expire in 2015, the state oil company is keen to reach an agreement with another private company before then to ensure that there will be no drop in production in the area. This will be followed by a further licensing round – due to take place at some point in 2013 – that would see the auctioning of exploration rights in 36 onshore blocks in the Amazon region.

Aside from the government’s eagerness to attract private investment in the oil and gas industry, a key part of Peru’s appeal to companies is its frontier status. Particularly where the relatively undeveloped oil industry is concerned, the remote and unexplored nature of many of the blocks being auctioned off raises the prospect of significant undiscovered reserves and potentially large profits for companies willing to take the risk. But this remoteness poses a number of challenges, not least the absence of even basic infrastructure in the areas where many concessions are located, obliging companies to shoulder the burden of infrastructure development. Furthermore, as the graphic suggests, the advent of drilling operations in the environmentally sensitive...
Amazon region has led to a rise in social unrest targeting oil and gas companies. According to Peru’s national ombudsman (Defensoría del Pueblo), November 2012 saw 19 social conflicts involving oil and gas operations, up from seven in the same month of 2011. Although this rise in unrest is highly unlikely to force the government to backtrack on its decision to develop the oil industry, it has the potential to disrupt companies’ operations. The development of the gas sector, meanwhile, has been put in jeopardy by the SL's resurgence in the areas around the Camisea gas project. With little prospect that Peru’s understaffed and under-resourced military will succeed in stamping out the SL threat any time soon, oil and gas service companies operating in the area will continue to face a challenging security environment characterized by the possibility of guerrilla attacks targeting their assets and personnel.

Commercial oil production in Venezuela began in earnest in Zulia state in 1914. Revenues from oil surpassed customs revenues from agricultural exports by the late 1920s, and oil has dominated the economy ever since. Traditional oil-producing areas are around Lake Maracaibo, though recent discoveries of heavy and extra-heavy crude in the Orinoco Belt have raised reserves and opened up the interior to production. PDVSA came under increasing government control under Chávez, particularly after a major staff purge following a 2002-03 general strike.

The government claims that Venezuela has the largest proven oil reserves in the world, its 296.5bn barrels surpassing Saudi Arabia’s 265bn barrels. It is difficult to substantiate the claim because of doubts over whether all of the oil in the Orinoco Belt is technically recoverable. However, Venezuela certainly possesses the largest reserves of any OPEC country outside the Middle East, and oil is the bedrock of the economy. With 185 tcf of proven reserves, Venezuela has the eighth-largest gas reserves in the world. Despite the size of its reserves and some impressive recent finds, the country remains unable to meet domestic demand for gas. Current gas production is almost exclusively of “associated gas,” a by-product of oil production, with much of it flared off at the wellhead or re-injected into the well to assist with “lift.”

Government policy is driven by Chávez’s brand of “21st-century socialism” – a state-led approach to the development of the oil sector that still allows space for foreign companies, many of them NOCs, as junior partners. Private oil companies operating in Venezuela were forced in 2006 to migrate into “mixed-company” schemes in which PDVSA had a majority stake. Chávez also increasingly turned to state-owned oil companies from “friendly” countries, such as China (CNPC), Russia (Lukoil) and Cuba (Cupet), as well as other majors such as Chevron, ENI, Total and Statoil. Given PDVSA’s deteriorating financial and operating position, the company’s ability to provide the investment required to develop the oil deposits of the Orinoco Belt and meet ambitious output targets (see table overleaf) will remain in doubt. It is unclear whether joint-venture partners will deliver on multi-billion dollar investment pledges (the government talks of $236bn of investment between 2013 and 2018) given the uncertain operating environment.
Although the Orinoco Belt oil finds increased proven reserves, relieving pressure on the country’s maturing fields, Orinoco crude is difficult to extract and has a low recovery rate. This means that the investment needed in production infrastructure and extraction technology is significant, and will depend on oil prices remaining high. Despite ambitious targets to increase production, output has remained stagnant.

Following the President’s death there will be more than the customary uncertainty over Venezuela’s future path. Chávez’s acknowledgement of his vice-president Nicolás Maduro as his chosen successor reduces some of the uncertainty surrounding the government’s succession planning, but the political outlook is far from clear.

Should Maduro succeed Chávez and see off an opposition electoral challenge, the outlook for the oil sector is one of broad stability, with no new bidding rounds and little improvement in the regulatory environment. Should the opposition defeat Maduro, significant improvements in the operating and regulatory environment could be expected, though these would not happen overnight.

Regardless of the broader political situation, PDVSA will continue to suffer the effects of politicization, lack of investment and maintenance, increased indebtedness and a debilitating expansion into non-core areas. Weighing on the company in 2013 will be two major arbitration cases filed by ExxonMobil and ConocoPhillips with the World Bank’s International Centre for Settlement of Investment Disputes (ICSID). Meanwhile, Liquid Natural Gas (LNG) development is seriously behind schedule after the failure of the 2010 bidding round for the Mariscal Sucre project, and despite government pledges to bring production on-stream by early 2013.

The sheer size of Venezuela’s oil reserves offers investors tempting prospects, but the Venezuelan government in its current format will not offer real contractual guarantees or judicial safeguards. The expropriations and arbitrary interventions of the past will continue to undermine investor confidence, just as the oil sector has rising investment requirements. Although Chávez’s death suggests change may be on the horizon, any transition is unlikely to bring immediate changes for companies seeking guarantees of contractual stability.
RISK RATING DEFINITIONS

POLITICAL RISK

Political risk evaluates the likelihood of state or non-state political actors negatively affecting business operations in a country through regime instability or direct/indirect interference, and also evaluates the influence of societal and structural factors on business. State actors can include domestic and foreign governments, parliament, the judiciary, regulatory bodies, state and local administrations and the security forces. Non-state actors can include insurgent groups, labour forces, campaign groups, lobbies, other companies, organised criminal groups and international organisations. Societal and structural factors can include corruption, infrastructure, ease of establishing and maintaining a functioning business, and bureaucratic and business culture. The impact on companies can include judicial insecurity, corruption, reputational damage, expropriation and nationalisation, contract uncertainty, international sanctions, bureaucratic delay, partiality in contract and tender awards, campaigns and protests. Political risk may vary for companies and investment projects according to factors such as industry sector and investor nationality.

INSIGNIFICANT
The environment for business is benign. For example: political stability is assured, investor-friendly policies are entrenched, there is no threat of contract re-negotiation or repudiation, and infrastructure for business is excellent.

LOW
Political and operating conditions are broadly positive. Occasional and/or low-level challenges do not significantly impede business. For example: government policies are investor-friendly with some exceptions, contracts are generally respected, non-state actors have little adverse influence over government decisions, infrastructure is generally robust or there is little risk of reputational damage.

MEDIUM
While the environment provides generally sound conditions for business, significant challenges can and do emerge. For example: hostile lobby groups exert disproportionate influence over government policy, political instability delays essential reforms, contracts are subject to uncertainty or occasional change, elements of the infrastructure are deficient, or the activities of unions or protest groups impede operations.

HIGH
The political and operating environment presents persistent and serious challenges for business. For example: there is a credible risk of contract repudiation or re-negotiation by state actors, political instability threatens fundamental alterations to the nature of the state, government policy is capricious or harmful to business, corruption is endemic across all levels of officialdom, or regulations are onerous and their implementation is capricious.

SECURITY RISK

Security risk evaluates the likelihood of state or non-state actors engaging in actions that harm the financial, physical and human assets of a company, and the extent to which the state is willing and able to protect those assets. Actors that may pose a security risk include political extremists, direct action groups, the security forces, foreign armies, insurgents, petty and organised criminals, protesters, workforces, local communities, indigenous groups, corrupt officials, business partners, and in-country company management and staff. The impact of security risk on companies can include war damage, theft, injury, kidnap, death, destruction of assets, information theft, extortion, fraud, loss of control over business, and disruption to operations caused by damage or denial of access to buildings or vital infrastructure caused by terrorist attacks, threats or official responses. Security risk may vary for companies and investment projects according to factors such as industry sector, investor nationality and geographic location.

INSIGNIFICANT
The security environment for business is benign. For example: the authorities provide effective security, there is virtually no political violence, public disorder is rare and there are no known active domestic groups or issues likely to fuel terrorism.

LOW
Security conditions are broadly positive and occasional and/or low-level challenges do not significantly impede business. For example: the authorities provide adequate security, organised crime only marginally affects business and protest activity rarely escalates into threatened or actual violence. Rare but large-scale terrorist attacks may pose indirect threats to personnel or assets, or low-level attacks do not target business and are not aimed at causing casualties.

MEDIUM
Aspects of the security environment pose challenges to business, some of which may be serious. For example: there are some deficiencies in state protection, organised criminal groups frequently target business through fraud, theft and extortion, domestic terrorist groups stage regular attacks that cause disruption to (but do not target) business or there are infrequent large-scale attacks and/or opportunistic small-scale attacks on foreign or business assets and personnel.

HIGH
The security environment presents persistent and serious challenges for business; special measures are required. For example: state protection is very limited, insurgents are engaged in a sustained campaign affecting business, kidnap poses a severe and persistent threat to foreign personnel, terrorist groups stage regular attacks against foreign or business assets, or weak security forces are incapable of dealing with the terrorist activity.

EXTREME
Security conditions are hostile and approaching a level where business is untenable. For example: there is no law and order, there is outright war or civil war, personnel constantly face the threat of targeted and potentially life-endangering violence, a terrorist group (or groups) is staging a sustained, high-intensity campaign that severely hinders business, or terrorists frequently target foreign personnel or business activity.
This is a modified version of Control Risks’ annual RiskMap, tailored to the oil and gas sector. Because political risk varies for investors and projects based on factors such as industry sector and investor nationality, Argentina has been allocated a High political risk rating on this map, reflecting the specific risk to this industry.