

**PRELIMINARY REPORT ON FISCAL DESIGNS
FOR THE DEVELOPMENT OF ALASKA NATURAL GAS**

BY
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For

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Section 2.3

What kind of fiscal stability can be secured by investors?

Part 2: Natural Gas Fiscal Design - Clarifications

2.3 What kind of fiscal stability can be secured by investors?

It is perhaps naïve of the oil and gas industry to expect stability of fiscal terms and sanctity of contract with governments when there is so much volatility and uncertainty permeating almost all other facets of the industry. History also tells us that during sustained periods of demand outstripping supply and resulting high oil and gas markets (the boom part of the cycle), governments of various persuasions frequently attempt to extract a larger fiscal share. Conversely, during periods of widespread recession, when supply outstrips demand and product prices are low there is limited flow of capital into the industry. In such circumstances governments are often forced to offer fiscal incentives to attract and compete for investment. Nevertheless, even the most stoical of observers have been surprised by the pernicious and innovative nature of strategies employed since 2003 by several governments to challenge and erode either contractual or fiscal value of international oil and gas projects. However, during the same period a few governments, in order to stimulate investments, generally in regions with limited reserves potential, have relaxed their fiscal terms (see Figure 2.3.5). It would therefore be incorrect to provide the impression that fiscal terms have become tougher for IOCs everywhere in the world where oil and gas is produced.

There are five progressive acts that governments can take to create an increasingly unstable fiscal environment:

1. Fiscal tightening with increased royalty and /or tax rate and /or removal of tax incentives applied to new leases and licences to be signed, but not applied to contracts that had previously promised fiscal stability. Such actions may not be unreasonable and merely puts IOCs on notice that the future will be different than the present. IOCs would probably continue to consider such a fiscal design as stable so long as they received the expected benefits they signed up to originally and the new terms were not highly regressive or involved government takes so high as to render many field developments in the region uneconomic on a post-tax basis.
2. Changes as for Point 1, but applied going forward to existing leases, licences or contracts, which though they may or may not have had some guarantees of fiscal stability issued with them by earlier governments may have led producers to believe at the time of signing that the fiscal terms would be more or less maintained over the life of the fields developed within them. This is really the first step toward fiscal instability because it changes the value of existing leases and units. It changes the economics of existing projects from IOCs' perspectives going into the future.
3. Changes as for Point 2, but applied retrospectively to existing leases and production, which may or may not have had some guarantees of fiscal stability issued with them by early governments. The longer the timeframe of retroactivity, the more unfair it will be viewed from an IOC standpoint.

4. Partial expropriation with part of the equity ceded to an NOC under a forced sale at a price below fair market value or through leveraged renegotiations of existing rights under contract or lease.
5. Outright nationalization of the asset. When a state or country is perceived as being able or willing to nationalize an asset, the IOCs will proceed carefully when dealing with this state or country. The IOCs will generally attempt to create contractual rights that minimize their capital outlay, shorten the timeframe of exposure until payout of that asset and seek fiscal stability clauses in their contracts. Guriev et al. (2008) state essentially the obvious in their analysis that over the period 1910 to 2006 there was a correlation between the number of oil and gas asset expropriations and oil price spikes. Note that United States contract law does not allow for nationalization.

Alaska has engaged in actions that fit within points 1 to 3 and some would argue that ongoing litigation / negotiation surrounding the Point Thomson unit can be construed as actions that fit within point 4 (some would argue point 5), which mean that according to these criteria, Alaska could be viewed as fiscally instable.

Some examples of recent government-induced erosion of IOC value in petroleum projects are:

- **Kazakhstan:** Increase in taxes by amending the tax code; impounding of equipment; claiming pre-emptive rights for NOC on assignment (giant Kashagan field) not specified in PSA (2004); negotiating equity share in Kashagan PSA as partial compensation for massive cost overrun and delay (2007/2008); large financial compensation sought from PSA IOCs in claims of environmental damage.
- **Russia:** Repeated increases in government fiscal take including significant rises in production tax (August 2004), export tax (January 2005) and a \$25/ barrel price cap (above which government revenue take increases to about 95%) add to a history since 2001 of fiscal instability; systematic dismantling of the privately owned Yukos Oil Company; procurement constraints in Sakhalin projects; extracting 50% control of Sakhalin II from Shell and its Japanese partners following massive cost overrun and delay (2006); large financial compensation sought from PSA IOCs in claims of environmental damage; BP forced by government pressure in 2007 to sell a major stake in its Kovykta giant gas field in Eastern Siberia (held by TNK-BP) to Russian state-owned gas monopoly Gazprom; TNK-BP shareholder disputes between BP and Russian shareholders in 2008 are also believed to have a political dimension behind them.
- **Nigeria:** Nigerian National Petroleum Corporation (the national oil company) claiming substantial back-in rights to some large deepwater discoveries (e.g. Agbami) based upon assignment and farm-in irregularities between IOCs and small Nigerian independent companies; enforced relinquishment of some undeveloped discoveries for redistribution to indigenous companies under more favourable fiscal terms; pressure to use indigenous contractors that do not have appropriate experience or skills to complete the work; IOCs caught in the middle of disputes between federal, regional and local government levels over social spending of taxation revenues paid by IOCs leading to major community unrest and interruption / loss of production; pressure applied in 2008 to persuade IOCs to supply the domestic gas-power market at subsidized prices in order to gain approval for new LNG export projects.

- **Bolivia:** Introduction of new Hydrocarbon Law following referendum in 2004; government increased royalties (from 18% to 50%) and taxes on existing licensees. Morales government in 2006 nationalised majority interests in the gas assets of IOCs (including Petrobras, RepsolYPF, ExxonMobil, BP and BG) and companies were given six months to sign contracts ceding major shares to a reformed national oil company YPFB (originally privatized in the 1990s); troops subsequently occupied the gas fields; the government in June 2008 expropriated U.S.-based Ashmore's 50% stake in Transredes, which operates pipelines that carry Bolivian natural gas to Brazil and Argentina.
- **Angola:** Assignment disputes with Sonangol (the national oil company) seeking greater contractual participation; ongoing procurement constraints and manipulation to use indigenous contractors.
- **Trinidad & Tobago:** Upward revision of fiscal take secured for older tax / royalty contracts (BP/RepsolYPF); renegotiations ongoing to impose harsher terms for existing PSAs following investment in four LNG trains.
- **Venezuela:** a recent history of expropriation and fiscal tightening began in 2004 with an increase in royalties (October 2004) on the four heavy-crude upgrading projects involving contracts with six IOCs (ChevronTexaco, Exxon Mobil, ConocoPhillips, BP, Total and Statoil) in the Orinoco Belt to 16.6% from 1%. In July 2007 Exxon Mobil and ConocoPhillips were forced to abandon their multi-billion dollar bitumen / heavy oil projects, while other IOCs (including Total, Statoil, BP, and Chevron) were forced to cede controlling interests in their assets to Venezuela's state-owned PDVSA. In April 2008 a windfall profits tax of 50% was imposed when oil prices exceeded \$70/barrel.
- **UK:** A 10% supplementary charge (SC) introduced in 2002 on corporation tax levied on profits as computed for the standard 30% ring-fence corporation tax, without allowing a deduction for financing costs; later in 2002 100% capital allowances and the abolition of royalty on oil and gas were also introduced as incentives; effective from the beginning of 2006 the SC was increased to 20%. Both the 2002 and 2006 changes were introduced suddenly without significant consultation with the oil and gas producers, leading to much uncertainty from the producers' perspective.
- **India:** Attempts in December 2004 by Indian government to levy a fixed-rate cess (the term "cess" means a tax, and it is generally used when the levy is for some special administrative expense) of some US\$3 / barrel on Cairn Energy's future production from its Rajasthan production sharing contract; Cairn Energy disputed who should pay the cess based upon the contract terms, which it interpreted to indicate that state-owned ONGC holds that liability.
- **Canada:** Alberta's fiscal terms were increased In October 2007; new oil royalty rates progressively increase to a maximum of 50% at an oil price of \$120/bbl and from 30% previously to 35% for the tier under lower price thresholds. The maximum gas royalty increased to 50% from the previous 35%, and tiers of royalty rates were eliminated for gas; royalty rate on oil sands production also increased from a flat pre-payout rate of 1% to a progressive rate of 1% for oil prices less than or equal to \$55/barrel in steps to a maximum rate of 9% when oil price is \$120/bbl or more; post-payout royalty on oil sands stays at 25% rate up to oil prices of \$55/barrel and increases in steps to a maximum of 40% at \$120/barrel.

- **United States:** Federal deepwater royalty relief incentives were removed in 2008 and royalty rate for new leases issued in March 2008 sales was increased from 16.66% to 18.75%; the State of Alaska replaced its old production-based production tax with a value based tax regime; a basic petroleum tax (BPT) and an additional progressivity component and 20% investment credits with further amendments (ACES) principally tightening the progressivity elements approved in December 2007 (see Section 3.1 for details).

From the foregoing it is clear that the international oil and gas industry is now permeated by fiscal and contractual instability, even in cases where PSAs at face value appear to offer guarantees of fiscal stability. Moreover, many of the arising disputes are ending up in protracted and costly litigation or arbitration that in itself poses risks and relationship / reputation implications for governments, NOCs and IOCs. It is also clear that fiscal instability is not just the preserve of developing nations. Past and possible future windfall profits taxes in the U.S. could also be cited in this regard. Operating in such an environment can be helped by:

1. Flexible and progressive fiscal designs.
2. Close alignment of all stakeholders going far beyond fiscal issues.
3. Political stability with a government displaying a good track record of promoting oil and gas investment.
4. Transparency of lease and procurement contract award process.
5. Part of the government's fiscal take being passed through to local communities.
6. Rapid and impartial dispute resolution / arbitration systems.
7. Recognising that political instability and fiscal instability are correlated.

Readers may wish to consider how Alaska ranks according to this list:

- (1) While the 2006 and 2007 fiscal reforms made Alaska less regressive than it used to be it can still not be characterized as a progressive fiscal design.
- (2) There may be more alignment on non fiscal issues such as increased drilling and hostility to federal environmental regulation, but the prevailing Alaska state and IOC relationship would probably not be characterized as 'aligned.'
- (3) Some would interpret the current Alaska administration's policy is to limit the control of the big three IOC producers on Alaska's oil and gas resources by taking credible actions to do so through ongoing contracting and leasing. Some would argue that Alaska has failed to secure investment from IOCs in a gas line and /or a modern LNG export facility because of a poor track record of promoting oil and gas investment spanning several decades.
- (4) Alaska is more transparent than most countries in its leasing and procurement processes.
- (5) Alaska does pass substantial fiscal revenues through to its communities. However some would dispute that what is passed through is sufficient or fairly distributed.
- (6) One of the major demands and resulting unpopularity of the Stranded Gas Development Act (SGDA) contract of the previous administration was moving dispute resolution out of Alaska's courts to arbitration. Some believe the state has been well served by its courts. On the other hand some IOCs seem to believe they cannot get a fair trial in Alaska.

- (7) Fiscal change and political change have gone hand in hand in recent years. Time will tell whether such change should be considered as instability.

Integrating Government and IOC Perspectives on Fiscal Stability

This section and the illustrations it presents summarize the author's observations over some 30 years of working in the international oil and gas industry and try to empathise with the positions of both governments and NOCs and draw some general conclusions. The illustrations have been published elsewhere by the author (e.g. Petroleum Review, 2005), but the points made are relevant to the issue of fiscal stability and have been updated to take account of more recent events.

Figure 2.3.1 outlines a basic approach to achieving long-term contractual stability between IOCs and governments represented by their national oil companies (NOCs) and various ministries and other government agencies. It seems a matter of straightforward common sense as expressed, but all too often the reality of contract negotiations ignores these basic principles. IOCs commonly fail to integrate all the issues and risks when negotiating contracts and valuing long-term upstream projects. They rely too heavily on legal, financial and economic assessments (performed by groups with limited on-the-ground exposure in the country where the agreement is to operate), without taking in the broader picture and recognising that long-term shared objectives require close alignment between all stakeholders involved.

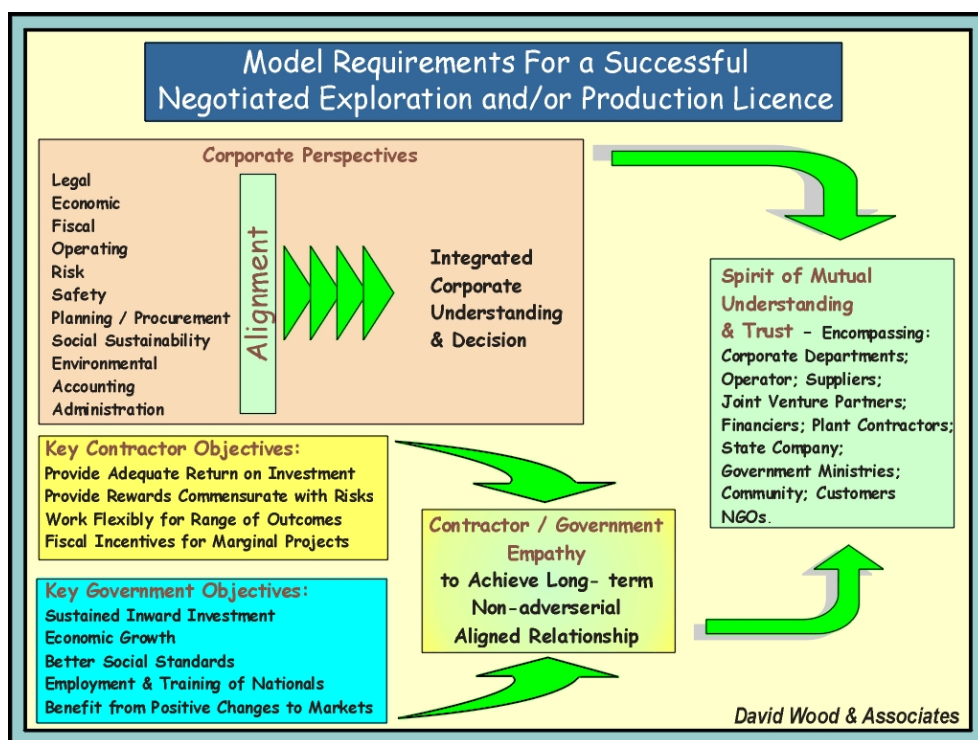


Figure 2.3.1 Basic requirements for stable long-term agreements. The word “alignment” is the key to this approach.

Governments and IOCs frequently fail to empathise with each other's objectives and look instead for ways to exploit opportunities independently and build on their individual strengths. This competitive approach works well in extracting value for the consumer in most corporate activity and is part of the rough-and-tumble of capitalism. However, it does not enhance the stability of long-term relationships in which the balance of power and value can oscillate dramatically between one party and the other. It is also not conducive to attracting investment into large, high-risk projects with long periods to payback.

Figure 2.3.1 also highlights the fact that it is not just two parties involved. Many assume that all key issues and agreements are polarised between IOCs and governments. This is far from reality. The side of the government consists of a number of ministries (treasury, tax, environment, planning, etc) and agencies (such as an NOC, not always as aligned as they should be to the same objectives), regional, state and local governments and local community representative bodies. On the side of the IOC are joint venture partners, suppliers, engineering contractors, debt and equity financiers, insurers, export credit agencies and, in some cases, corporate divisions with conflicting strategies. Non-government organisations (NGOs) and many other lobby and industry representative groups sit between the government and IOC groups.

Conflicts within the IOC and government groups sometimes arise and escalate into minor disputes (minor, that is, in terms of the overall long-term objectives). Such lack of cohesion (amongst the joint venture group for example) can undermine an operator's strategy and credibility with the government group and open areas which can be exploited by a government to its own advantage in cases where it wishes to extract tougher terms. This appears to have been a contributing factor in recent negotiations in the Kashagan field in Kazakhstan. Clearly defined and workable timeframes and principles for dispute resolution, adhered to by all parties, are therefore essential.

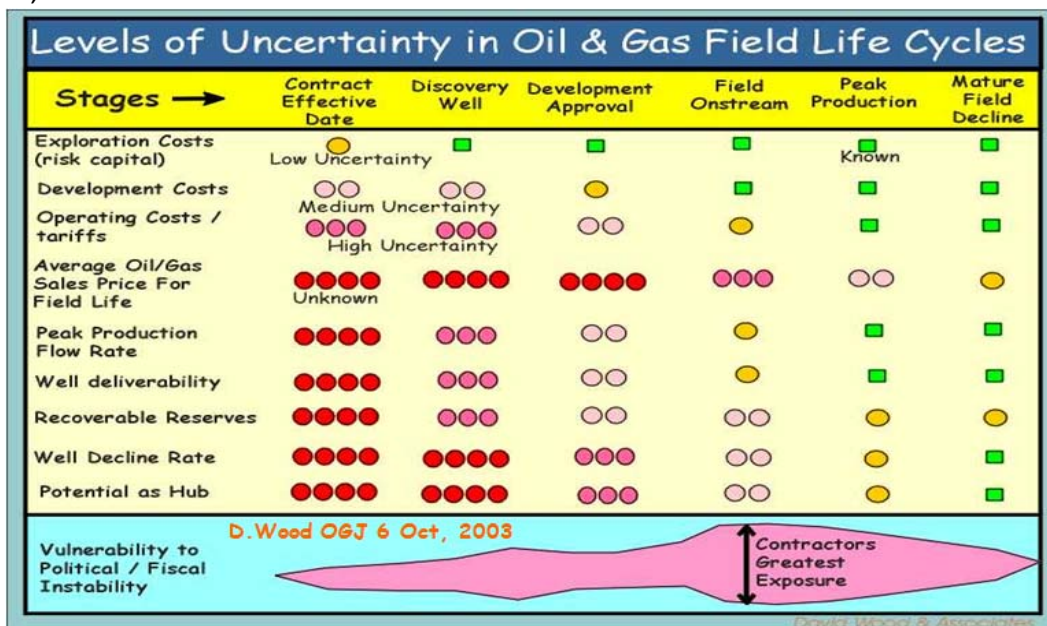


Figure 2.3.2 Uncertainty and risk change over lease, contract and field life cycles

The changing nature of uncertainty and financial exposure for the IOC through the upstream field cycle is illustrated in Figure 2.3.2. The pendulum of power in upstream contracts swings from the government during contract negotiations toward the contractor as it invests and discovers petroleum and then back toward the government as investment and technology is sunk into field and facilities development. The contractor is most exposed to contractual changes just before a field comes on stream (all investment spent; no revenue yet received) and it is here that governments have most power. During the production phase the volatility of market conditions cause value to oscillate back and forth between the parties, and governments are able to use their power to claw back value but frequently slow down investment and development as a consequence.

However, this cycle is now well established and companies and governments should be able to overcome their urges for short-term gains. A cooperative approach is usually in the interest of all parties. It involves empathy, shared vision, flexible fiscal mechanisms and agreed long-term objectives.

Many countries operate contracts with progressive and flexible fiscal elements or offer the opportunity to build in additional flexibility to suit the requirements of specific projects. It is important for a clear, unambiguous definition of the detailed cash flow mechanism of a fiscal framework to be formally defined (appended to the contract in the case of a PSA) and for an economic model with worked examples (ideally ratified by all parties, i.e. IOC and government) to be built and used to explore the workable limits and potential problems with a prevailing fiscal framework. The more flexible the fiscal design, the more it will vary the contractor versus government profit takes according to market and field performance variations and, crucially, the more likely it is to last and not require adjustment as field performance and markets evolve over the long term.

Some governments fear that it is more beneficial to IOCs to establish a common agreed economic model. However, uncertainty, ambiguity and lack of clarity can potentially lead to errors, oversight and at worst litigation that can damage all parties, tie up resources and delay decisions. More often than not transparency and general agreement between the parties lead to more trust and a more sustainable relationship between the parties.

Uncertainty is usually greatest at the time a field development project is provisionally sanctioned. Finding strategies to mitigate downside risks is usually the main focus of risk management, and rightly so as some risks can have catastrophic consequences for the project and stakeholders if not addressed. However, it is important not to lose sight of potential opportunities at the early stages of feasibility and front-end engineering and design (FEED). Likewise from the fiscal perspective it can be beneficial to seek out potential opportunities and build them into fiscal designs at an early stage (Figure 2.3.3). If opportunities are not captured early they are sometimes engineered out of the project and are not available for capture at a

later stage. This also applies to fiscal design options to promote investment over the project life cycle.

Risks and Opportunities: Two Components of Uncertainty

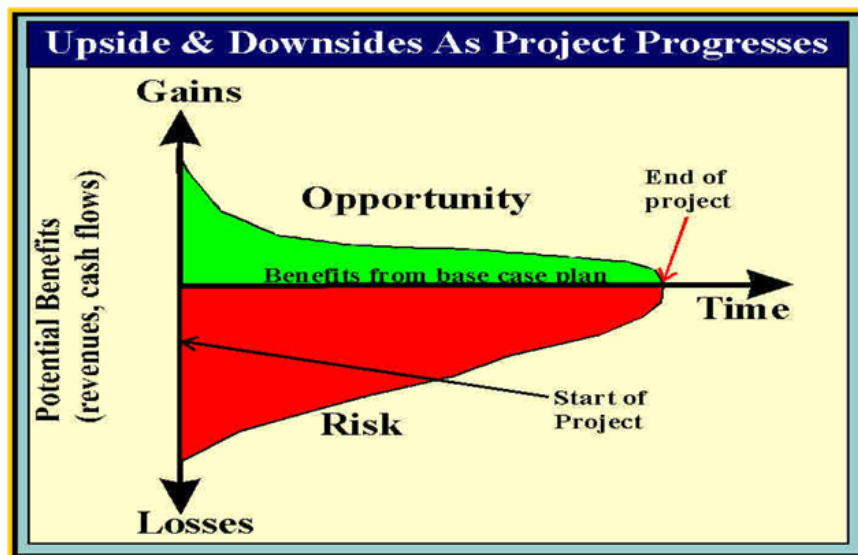


Figure 2.3.3 Risks usually outweigh opportunities, but it is important to capture opportunities early in the project cycle.

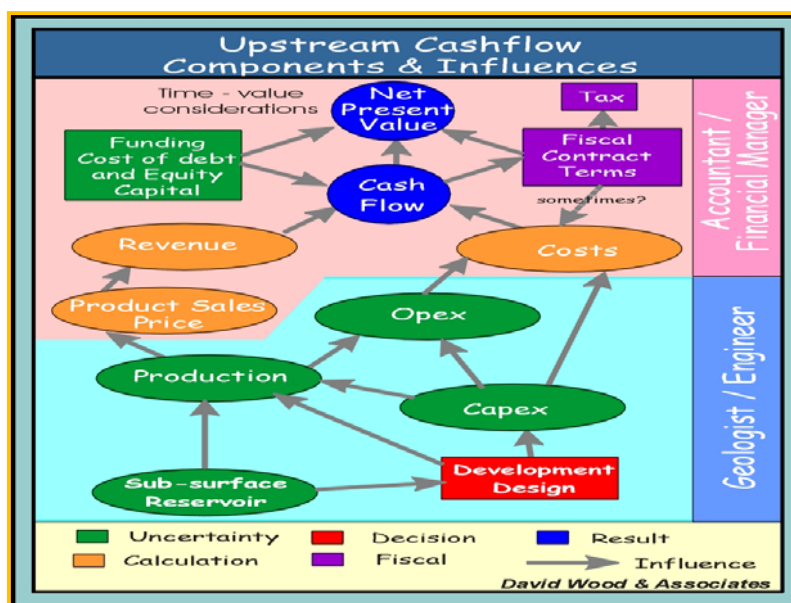


Figure 2.3.4 Production and costs are important components with significant influence on overall project value. They are strongly influenced by market prices and costs but also by the nature and the location of the reservoir and engineering designs applied to it. Fiscal designs should be integrated with engineering designs where possible and encourage project opportunities for expansion.

The influence diagram shown in Figure 2.3.4 highlights the fact that many influences on costs and revenues come ultimately from the characteristics of the petroleum reservoir and the engineering solutions imposed to optimize its production performance and reserves recovery. It is for this reason that much of the opportunity analysis must focus on the development design and the reservoir. The fiscal design should also be flexible enough to take account of the wide range of potential reservoir characteristics and the development alternatives they may require in order to produce them efficiently.

Fiscal Flexibility Does Not Guarantee Contract Stability

Notwithstanding the above, no matter how flexible the fiscal mechanism either legislated or negotiated and no matter how well it is defined by statute, law or contract, where the long-term objectives of the parties are not aligned or unstable political circumstances prevail, many governments will be pressured to increase their fiscal take and share of economic rent as and when circumstances allow. Some believe that Alaska is in such a position. Those IOCs that take this view and believe that future fiscal and contractual instability in Alaska is inevitable, are unlikely to commit to long-term \$ multi-billion investments. However, not all IOCs are likely to take such a view and reason that there are long-term mutual benefits for state and IOCs in maintaining commercial oil and gas operations over the coming decades which will help to moderate the influence of those political elements that continually advocate fiscal instability to achieve short-term gains for the state at the expense of long-term development benefits.

Indications of Potential Contractual Instability to Come

In several of the countries currently experiencing contractual instability some warning signs should have been picked up by astute IOCs during the negotiation period. In some cases IOCs by their actions or poor cost / project management performance have contributed to a government subsequently changing the fiscal terms. Some of these signs are listed below:

1. West Africa

In the 1990s in several West African countries (Nigeria and Angola in particular) IOCs persuaded the governments to ease the fiscal terms for deepwater exploration rights compared to their terms prevailing in shallow waters. In exchange IOCs agreed to pay substantial signature bonuses (hundreds of millions of dollars in some cases). Lures of large upfront cash payments to governments, with questionable motives in countries with track records of corruption and instability, were inevitably snapped up. When giant fields were discovered in these licences, the reality for subsequent governments was that they were going to see substantially less revenues from these projects because of the agreed terms (e.g. high cost-recovery allocations and low or no royalties). It is not surprising, therefore, that they have sought every opportunity and approval point to renegotiate fiscal terms and increase their take.

The IOCs' defence that high costs, technological challenges and risks associated with deepwater operations warrants more favourable terms has been progressively diluted as more and more large fields have been discovered and oil and gas market prices have increased. Whilst

honouring the PSAs, in principle any contractual irregularity on discovered fields (e.g. Texaco's farm-in to Famfa's licence covering most of the deepwater Agbami field, Nigeria) has been used to enable the NOC to increase its equity share. Procurement restrictions to local companies and approving assignments have offered other opportunities to exert further state influence.

Implications: Payment of high signature bonuses in exchange for diluted fiscal terms may secure upstream contracts on favourable terms in the short-term (particularly with corrupt regimes) but is hardly a recipe for aligned long-term objectives. Entertaining farm-in deals with small local players that improve an IOCs fiscal position at the expense of the government / NOC is also a strategy unlikely to survive the test of time.

2. Kazakhstan

Following the break-up of the Soviet Union in the early 1990s Kazakhstan, Azerbaijan and Turkmenistan all signed PSAs with IOCs for the highly prospective but technically challenging and remote Caspian offshore. They saw oil and gas development as a means of securing their independence from Russia. High political risk, high technical cost of drilling and facilities development and requirements for expensive export pipelines meant that PSA fiscal terms had to reflect those realities to attract foreign investors. Although these countries had split from the Soviet Union their mindsets have retained much of the old Soviet distrust for Western capitalism, political paranoia, and state interference in all aspects of business life and corruption.

In Kazakhstan, following spectacular technical success (Tengiz, Kashagan, Karachaganak – all world-class fields) built upon Western technology and large investment under PSAs, the high oil price environment of recent years has lead the government to adopt a highly adversarial stance, eroding value of the IOCs at every opportunity. The 2004 tax code amendments increased government take to between 65% and 85% of revenues, and rates of return for IOCs in the major field developments are now reported to be less than 10%. Further disputes over import duties, pre-emption and the reluctance of KazMunaiGas (the NOC) to pay its contractual share all indicate an ongoing scenario of further dispute and fiscal / contractual instability.

In 2007 a dispute arose between the IOC group for Kashagan (the biggest shareholders in the group -- Eni, Royal Dutch Shell, Exxon Mobil and Total -- each had 18.52% in the field, while ConocoPhillips and Inpex held the remaining interests) and KazMunaiGas when Eni, the operator, announced a revised development plan postponing by 2 years the start of production and reporting that the cost of the first phase of the project had nearly doubled to \$19 billion. The bill for the entire 40-year production life had jumped to \$136 billion from \$47 billion. Rumours of unrest in the joint-venture group had been reported prior to this announcement. The giant Kashagan field development poses many unusual challenges, including temperatures that range from 104° F. in the summer to -40° F. in the winter, high hydrogen sulphide content and a remote land-locked location.

In October 2007 Eni said that field start-up would still be in 2010. The government claimed that the delays and cost overruns in the Kashagan project were undermining the nation's financial

plans and preventing it from implementing other developments in the country and demanded compensation. A six-month period of negotiations ensued during which most development work on the field ceased. An agreement reached in January 2008 has several far-reaching consequences for the IOCs:

1. Eni will no longer be sole operator once production begins but will share that role with partners ExxonMobil, Shell, and Total.
2. Main IOC partners agreed to sell part of their Kashagan stakes to KazMunaiGas, giving the Kazakh state oil company a 16.81% stake in the project.
3. IOCs to make additional compensation payments to the Kazakh government based on the price of oil once the field comes onstream. These were rumoured in the press in January 2008 to be between \$2.5 billion and \$5 billion.

Eni expects Kashagan's output to reach 370,000 b/d when it eventually comes online and to reach peak production of 1.5 million b/d by 2019. However, field start-up was delayed to 2011 in January 2008 and then a further two years to 2012-2013 in May 2008.

The situation in Kazakhstan contrasts with that prevailing in Azerbaijan. In Azerbaijan the key development investment – building of the Baku-Tbilisi-Ceyhan (BTC) pipeline – was completed in 2005. It will be interesting to see if fiscal and contractual stability can be maintained. The pressures and hostility from its neighbours (Russia, Iran) plus political alignment with the West at government level should help to maintain stability in the medium term. The profit oil split of the Azerbaijan PSA is flexible and has several tranches linked to an R-factor that progressively increases the NOC's (SOCAR) entitlement from about 50% to 90%. Such flexibility should help both parties as projects progress through the production phase.

Implications: If a country and government retains a Soviet-style mindset, it is unlikely that the capitalist principles embodied in PSAs will result in contractual and fiscal stability and non-intervention by the state. A long-term, pro-Western political alignment at the governmental level going beyond the energy sector provides a better chance of contractual agreements being honoured and minimizes the risk of asset appropriations occurring. However, when IOCs enter into deals for large, complex field development projects claiming they have the appropriate skills and technologies to deliver production at specified budgets and schedules, it is imperative that they deliver on those promises. If the IOCs fail to deliver on their agreed work programmes and budgets, it is clear that they risk losing control and substantial value from the project, along with a loss in their credibility. This makes it easier for governments to toughen fiscal terms and take equity interests in projects once most of the risk has been taken. An additional consequence of such failures to deliver for the IOCs is difficulty in persuading other governments that they are able to operate and deliver complex upstream projects in the future.

3. Trinidad & Tobago (T&T)

The prolific eastern offshore oil and gas fields were discovered and developed by Amoco under mineral-interest (tax-royalty) licences signed in the 1970s. Developments focused on oil and condensate production, flaring large amounts of gas until the late 1990s when gas monetisation projects (fertilizers, methanol and eventually LNG) were developed. BP “inherited” these licences in its corporate takeover of Amoco in 1998. In order to stimulate exploration in its north and northwest territorial waters extending into deepwater, and in a region on trend with a gas province discovered in Venezuela in the 1980s, the T&T government entered into PSAs with a number of IOCs in the 1990s on quite lenient fiscal terms (about 50% government take of revenue) and several very large gas fields were discovered.

Several billions dollars of investment have been made since the mid-1990s to develop the Atlantic LNG (ALNG) plant (4 trains operating in 2008) taking gas from both the older licence areas and subsequently the PSA areas. Over a period of years the T&T government has, in a series of steps, extracted tougher fiscal terms for the approval of the IOCs to build each liquefaction train (without the liquefaction capacity there is no export route for the gas).

A LNG Train 4 which came on stream in January 2006 is an arm’s length gas processing entity (tolling plant) with no title to the gas and a fixed 8% rate of return. Title to the gas it liquefies remains with the upstream gas producers, which are subject to higher levels of taxation (55% petroleum profits tax versus 30% corporation tax for the downstream activities). A price cap of \$3.5 / mmbtu Henry Hub is also applied to the LNG from the fourth train, whereby proceeds from sales above that price are passed back to the upstream gas producers (and subject to taxation). In addition BP and its partners agreed to supply T&T with 100 million cubic feet / day of free gas that could be used to support a new gas-fired power generation plant, planned for La Brea in SW Trinidad. That joint venture provides all of the 450 million cubic feet / day for ALNG Train 4.

The T&T government announced in July 2004 that it had reached an agreement with BP and its partners regarding the payment of royalties for gas used for LNG. In October 2004 it announced plans to renegotiate its PSAs for LNG exported from ALNG because “the conditions of the contracts have changed” expressing its desire to change and tighten the fiscal term. The IOCs had by this stage sunk billions of dollars of investment into building the T&T LNG industry infrastructure, based upon specific long-term fiscal and contractual terms previously agreed with the T&T government. Not surprisingly the IOCs and other investors were not delighted, but had little choice but to agree if they wished to continue with the development of their gas reserves.

A complex chain of contracts and agreements is involved in Trinidad’s LNG industry which, contrary to most liquefaction projects, is developed on a non-integrated basis (i.e. liquefaction and field developments subject to different contracts and fiscal terms). Moreover, gas producers supplying gas to the different LNG trains have different types of agreement and fiscal mechanisms. The contractual terms of development for expansion of the LNG industry have occurred in isolated phases after the initial two trains were built. This has resulted in a creeping

increase in government take, albeit from the lower end of the scale in international terms, as U.S. LNG demand and natural gas prices have risen.

Implications: Complex contractual chains with different IOC groups operating on different contractual terms, profit interests and strategies make it easy for a government to pressure individual IOC project groups and play them off against each other. It is difficult to maintain a relatively lenient fiscal take over the long-term in large-scale international projects. Creeping increase in fiscal take and protracted fiscal renegotiations associated with each new project development also slows down the pace of industry development overall. However, this approach has seemed so far to work for T&T. Once one IOC group agrees to a change to more onerous fiscal terms, in exchange for future development approvals, the other project groups find it difficult to refuse. However, T&T government has some credibility issues now to overcome in negotiating and securing investment in long-term projects. Time will tell whether T&T will find it more difficult to secure foreign investment for future long-term development projects as a result of its short-term moves to increase its fiscal take. Moreover, the U.S. market has made moves in recent years to reduce its dependency on T&T for its LNG imports (some 65% in 2006).

4. Sakhalin II, Russia

The massive Sakhalin II project, due to commence full production later in 2008, comprises an oil field with associated gas (which has now been onstream for summer months for several years), a natural gas field with associated condensate, a pipeline, a gas liquefaction plant, and an LNG export terminal. Most of the LNG from the project will ultimately be exported to Japan.

The project's two fields have estimated reserves of some 1.1 billion barrels of oil and some 18 trillion cubic feet of natural gas. Up to 2007 Shell had held a 55% stake in one of the few PSAs signed in Russia, along with its partners Japan's Mitsui and Mitsubishi that held 25% and 20% interest in the PSA, respectively. The PSA had tax stabilisation clauses built into it supposedly limiting the government's ability to change taxation over its life. However, in 2006 Shell announced that project cost estimates had risen from some \$8 billion to \$22 billion. This was partly due to environmental issues associated with re-routing pipelines onshore and avoiding impact on gray whales' breeding grounds. The massive cost escalation infuriated Russian authorities, since under the PSA Russia only receives profits after the operator has recouped all costs (i.e. 100% cost recovery allocation to IOCs).

Increasing the costs meant that the IOCs were effectively pushing forward the date by which Russia would receive its first dividends. Former President Vladimir Putin's government had already expressed dissatisfaction with the PSA fiscal structures and was seeking excuses (e.g. it accused Shell of serious environmental damage to Sakhalin Island, including deforestation, toxic waste dumping and soil erosion and sought damages of \$5 billion) to try and undermine Shell's position as operator and renegotiate better terms. The cost overruns presented the opportunity. It became clear that it would be in Russia's interest to hold a major equity interest in the project rather than wait many years to receive revenues through profit allocations.

In January 2007 Gazprom acquired 50% plus one share in Sakhalin II for \$7.45 billion. Shell and Japan's Mitsui and Mitsubishi now hold 27.5%, 12.5% and 10% in the project and are still battling environmental damage claims.

Implications: Even with PSA tax stabilisation clauses, which many IOCs had relied upon since the 1980s to provide them with confidence that the fiscal terms would not alter in a project, fiscal stability is not certain. Russia and Kazakhstan have both shown in recent years that it is possible to use cost overruns, delays and environmental claims to effectively bully IOC groups into ceding substantial equity interests in giant oil and gas fields. PSA do not guarantee long-term fiscal stability.

In all the above cases the fiscal mechanisms in the contracts were well defined. However, the technical and commercial uncertainties surrounding the projects when the contracts were signed have evaporated following substantial investment, technical success and positive market movements. Rather than rewarding the IOCs for taking the initial risks and thereby promoting more risk-taking and inward investment leading to growth and faster development of their petroleum sectors, these governments have decided to focus on what they see, with many of the risk issues now removed, as reducing the inequitable economic returns accruing to the IOCs. These governments have used their increased power, due to the IOCs financial exposure, to adjust the terms in their favour. These examples suggest that tightly defined contracts on their own cannot secure long-term contractual and fiscal stability. There has to be longer term aligned objectives for both governments and IOCs for such situations to be avoided.

Comprehensive Risk Evaluation & Mitigation Strategies

IOCs and governments should analyse and evaluate the detailed components of fiscal and political risks associated with each country and region and reflect upon them and the government's long-term fiscal track record with respect to the oil and gas industry before negotiating and concluding an upstream licence or contract. It is not sufficient to just take a general political risk ranking factor for a country, produced by independent industry consultants, compare it with other country rankings or adjust it for offsets / opportunities. Recognising that a country is a high-risk investment but then assuming that such risks can be either offset by its prospectivity and potential for finding or accessing large reserves, diversified or removed through contractual arrangements, is probably unlikely to secure long-term alignment between the government and the IOC in almost all cases.

What is required is the development of a shared-risk mitigation strategy that not only focuses on optimising fiscal terms (for the long-term benefit of both government and IOC) but also attempts to achieve long-term alignment of goals, contracts and sustainable benefits for all stakeholders (IOC, government, local communities, local industry etc.). Such a **triple bottom line** approach (focus on optimizing value in terms of financial profit, environmental and societal benefits) can lead to more integrated shared objectives that act together to cement stability and jointly seek out opportunities within a unified vision for growth. Communities tend to

respond more positively to oil and gas developments when they see and are involved in direct tangible local benefits at multiple levels (i.e. financial, employment, environmental and societal). Alaska may wish to consider ways in which community and IOC relationships might be enhanced through such broader fiscal strategies. If such strategies are not a credible reality or cannot be realistically developed, it is probably sensible for IOCs to look elsewhere and for governments to recognise that they are adopting short-term opportunistic strategies that might work but may cause them some longer-term difficulties in securing future large-scale inward investments. It is difficult for both IOCs and governments to recognise when such a point has been reached, but it is in the interests of both parties to avoid such situations.

Tailoring Fiscal Design to Accommodate Maturing Provinces & Smaller Fields

In the UK, an increasingly short-term approach seems to be the only credible explanation for the government choosing to impose windfall profits taxes on an already ailing and contracting industry. A collective industry (operators, suppliers and service providers including the financial and legal sectors) risk-mitigation strategy is required to educate the government and other industry stakeholders about the long-term damage to investment, development and growth in the petroleum sector and dependent industries that such actions cause. To date the collective UK industry has failed to persuade the UK government that greater fiscal incentives for re-investment of profits in E&P and marginal field developments would ultimately yield a greater taxation return to the government than the short-term gains from increased tax rates on a declining production base. Until such persuasion succeeds, the risk of fiscal instability associated with small, high-cost field developments in the UK remains higher than it should be and will undoubtedly deter or delay substantial investment capital. Moreover such actions have damaged an aligned approach between government and industry that is crucial for sustained growth.

Countries Offering Complete or Partial Fiscal Stability in Contracts

Although several years old the 2002 study by Emil M. Sunley, Thomas Baunsgaard and Dominique Simard prepared as a background paper for the International Monetary Fund (IMF) conference on fiscal policy formulation and implementation in oil producing countries (June 5-6, 2002) and entitled “Revenue from the Oil and Gas Sector: Issues and Country Experience” divided developing countries at that time into three groups:

1. Countries offering a comprehensive fiscal stability clause: 70 countries (63%)
2. Countries offering a fiscal stability clause, excluding corporate income tax: 15 countries (14%)
3. Countries offering no fiscal stability clause: 26 countries (23%)

The countries included in each of those groups are listed below:

Group 1 Countries offering a comprehensive fiscal stability clause: 70 countries (63%)

Abu Dhabi	Algeria	Angola	Antigua
Bahamas	Bahrain	Bangladesh	Barbados
Benin	Brunei	Bulgaria	Burundi
Cambodia	Cameroon	Central African Republic	Chad
Chile	Colombia	Congo	Cote d'Ivoire
Croatia	Dominican Republic	Dubai	Egypt
El Salvador	Equatorial Guinea	Gabon	Gambia
Ghana	Guinea	Guinea Bissau	Guyana
Honduras	India	Indonesia	Jordan
Kazakhstan	Kenya	Kyrgyzstan	Laos
Liberia	Libya	Madagascar	Malaysia
Moldova	Mongolia	Morocco	Mozambique
Myanmar	Nepal	Niger	Nigeria
Oman	Panama	Peru	Philippines
Qatar	Romania	Somalia	South Africa
Sudan	Syria	Tanzania	Togo
Turkmenistan	Uganda	Vietnam	Yemen

Despite offering such assurances there are several countries in this list, some mentioned in the discussion above, that have clearly failed to adhere to such provisions.

These tables provide a snapshot of what is and has been offered in terms of fiscal stability around the world, mainly in developing countries. However, there are few parallels between many of the countries listed in these tables and Alaska, which has more in common with other U.S. states, and other OECD countries with significant gas resources to develop, e.g. Australia, Canada, Norway, UK and some U.S. states. In Section 2.5 of this report these OECD countries and regions are reviewed in more detail. Australia, Canada and European producing countries do not tend to guarantee fiscal stability.

Group 2 Countries offering a fiscal stability clause, excluding corporate income tax - countries (14%) **15**

Albania	Azerbaijan
Belize	China
Costa Rica	Ecuador
Eritrea	Ethiopia
Guatemala	Lebanon
Mauritania	Namibia
Pakistan	Senegal
Ukraine	

Group 3 Countries offering no fiscal stability clause – 26 countries (23%)

Argentina	Aruba	Bolivia
Brazil	Czech Republic	Fiji
Hungary	Jamaica	Lithuania
Nicaragua	Papua New Guinea	Paraguay
Poland	Russia	Seychelles
Slovakia	Suriname	Thailand
Tonga	Trinidad & Tobago	Tunisia
Turkey	Uruguay	Uzbekistan
Venezuela	Zambia	

Problematic Areas of the Future

Risk versus opportunity ratings and matrices help to identify potential areas where fiscal instability is likely to materialise or persist. Unfortunately many of the high-risk countries also have high potential rewards in terms of potential reserves yet to find. IOCs have to constantly make decisions about whether the balance of risk versus reward justifies an investment.

Fiscal stability is usually only one facet of risk that needs to be evaluated, and it is usually of lower significance to specific projects than political risk to which it contributes. There is no standard definition of political risk, but the author broadly defines it as an indication (either a qualitative or quantitative measure) that political events might adversely influence successful outcomes to commercial ventures through increased taxes, royalties and other fees, corrupt practices, delays in project approvals, business interruptions including labour and community disputes, and more extreme levels of fiscal instability leading, in the worse cases, to asset appropriation.

The author believes that two components of political risk can be usefully distinguished:

National and international level political risk (NI political risk): focused upon high-level but wide-ranging global political issues, including: government instability, tensions with neighbouring countries (geopolitics), potential to become embroiled in civil and military conflicts, uncertainty over access to export routes, major changes in political ideologies, potentially leading to interruptions to project cash flows or, in the worst case scenarios, asset appropriations.

Regional and local level political risk (RL political risk): focused upon local- and regional-level issues, including community disputes, fiscal takes and stability (at state and local levels), timeframe of regulatory approvals, risk of litigation, partisan local judiciary, local legislative changes impacting business activities, mistrust between regional and local government leading to a lack of cooperation and alignment, sensitive environmental issues, uncertainty over future access to certain regions for exploration and production, unrealistic expectations for local employment and training, etc.

Overall political risk: used here this term refers to the combination NI and RL political risks.

Both forms of political risk can lead to failure of major project investments. Almost all nations in which large-scale natural gas development projects are progressing have significant NI and RL political risks for investors to deal with. However, the major IOCs have been particularly impacted in recent years by NI political risks around the world and are facing increased competition from NOCs with international expansion aspirations to gain access to large scale international exploration and production projects. For those reasons they are keen to invest in countries with low levels of NI political risk and have become more reconciled to accepting that higher levels of RL political risks have to be managed. This is a positive factor for Alaska in that it can offer as part of the U.S. relatively low NI political risk even though it poses higher levels of RL political risk to the IOCs than other areas of North America. The author believes that it is because the IOCs seek NI political stability and access to large reserves that Alaska should be able to secure their investment without having to guarantee long-term fiscal stability.

Widespread fiscal instability around the international oil and gas industry also probably works in Alaska's favour. Many of the major IOCs have been embroiled in partial or full international asset appropriations in recent years. However, it does not appear to inhibit them significantly in terms of seeking out new opportunities in the very countries that have imposed tougher terms upon their existing projects (e.g. ENI has joined forces with Gazprom to sign provisional agreement with Venezuela in September 2008 for the Delta Caribe West gas liquefaction project and offshore gas field development). The IOCs are under pressure to gain access to reserves in order to replace the reserves they are currently producing. IOCs wish to reduce their high NI political-risk profiles, but many IOCs are prepared to take substantial RL political risk if it provides them access to large reserves. IOCs will be attracted by Alaska's low NI political risk and reserves potential for gas and oil. Many IOCs will not be deterred by either the recent history of fiscal change in Alaska or that in the post-Murkowski era it is deemed politically unacceptable to many to even consider offering a fiscal stability clause to potential gas pipeline investors. This does not mean to say that the demonstration of a clear fiscal strategy, with

stated intentions to promote and encourage commerciality through a flexible fiscal design offering progressive terms, coupled with targeted and time-limited fiscal incentives, would not enhance Alaska's fiscal credibility and potentially attract more investors, greater commitments from those investors and a more sustainable and cooperative relationship with the IOCs over the longer term.

Alaska could use the introduction of a flexible and progressive fiscal regime focused on upstream gas industry to demonstrate its intention to provide a fiscal framework that makes both small and large gas fields commercial at the same time as providing the State of Alaska with a share of economic rent that is appropriate for access to world-class reserves and exploration and production opportunities. In the author's opinion the prevailing Alaska fiscal system is too regressive, in spite of some progressive fiscal elements, to qualify as a flexible and progressive fiscal regime. The major IOCs are not deterred by tough fiscal terms (i.e. those that involve very high government takes in highly profitable circumstances) without guarantees of fiscal stability, if such terms are part of a flexible fiscal design that can cope with a wide range of market and reservoir conditions. This is clear from recent large gas deals signed by major IOCs in some high-risk countries, e.g. Angola, Indonesia, Libya, Nigeria and Papua New Guinea.

Alaska's Political Risk in a Global Perspective

My assessment of low NI political risk for Alaska is primarily based on the fact that it is a U.S. state and most analysts rate the U.S. as having low NI political risk. I would extend this to North America generally. However, when RL political risk is considered, there are a number of business, fiscal and environmental risks that raise Alaska's overall political risk profile (e.g. timeframe of regulatory approvals, risk of litigation, track record of recent fiscal changes, mistrust between government and IOCs that has evolved over decades, sensitive environmental issues and uncertainty over future access to certain regions for exploration and production). Although Alaska's RL political risk seems extensive, and ranks among the highest of OECD countries, they should be viewed in the context of the RL political risks of other major gas producing regions competing for \$ multi-billion investments around the world (e.g. all the countries included in Section 2.5 of this study), many of which have higher RL political risks than Alaska as well as substantial NI political risks.

However, when we look at IOC behaviours in the last few years, many of them (including large European and Asian organizations) have increased their willingness to invest in North American assets (deepwater Gulf of Mexico, Canadian tar sands, Lower 48 deep tight gas sands, shale gas etc.) because of the low NI political risk. Some would say the IOCs are running for cover, having been burned in some of the high NI political risk areas. Alaska is in a position to capitalize on this perception even if on a ranking of overall political risk it perhaps scores slightly less favorably than some other North American regions.

The other side of the uncertainty spectrum to risk is opportunity, and it helps to compare some risk and opportunity aspects of uncertainty in the oil and gas industry.

Grounding Opportunity-Risk Analysis in a Global Context

It is important in high-level strategic analysis that risks and opportunities are considered initially together with an integrated, systematic and rigorous approach that is grounded and presented in a global perspective relevant to the industry. There are several ways in which this can be done. The approach described below grounds the analysis in the context of proved reserves at the national level, in statistics that are readily available. Although the quality of the proved reserves volumes at the national level varies by region, and confidence in such numbers is rightly questioned for the unverifiable numbers presented by several resource-rich nations, they are useful for distinguishing the resource endowments on the order of magnitude scale that is required for this study. Other useful global statistics that could be used include oil and /or gas production volumes, export volumes and consumption statistics depending upon the strategy being evaluated or pursued. Gas reserves are used here as the backdrop to risk versus opportunity analysis. Many upstream companies (IOCs and NOCs) are seeking, as a strategic priority, new international opportunities to increase and diversify their gas resource bases and will use reserves potential as well as political uncertainty in their decision making.

Quick-look Risk-Opportunity Analysis that Provides Insight

Assigning a score to five factors broadly evaluating country risk and to another five factors broadly evaluating country opportunity provides a fast and effective way of systematically evaluating a large number of countries in a rigorous but superficial manner.

The five attributes used to evaluate for scoping **risk** analysis are focused mainly on political, business and fiscal risks:

- Expropriation / overall political instability
- Corruption
- High administrative burden (cost & time)
- Community/ labour disputes
- Regressive and inflexible fiscal terms

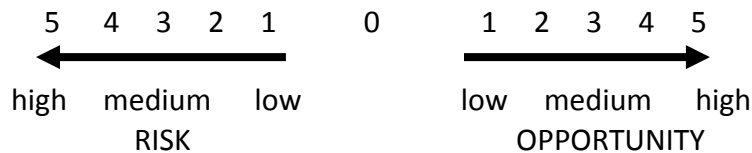
Note that the level of government take is not included as it is considered less important than the regressive nature of fiscal terms as a risk factor. IOCs are willing to sign up around the world to very high government takes, but regressive fiscal designs pose more risks for them in terms of maintaining project commerciality.

The five attributes used to evaluate for scoping **opportunity** analysis are focused mainly on technical, operational and financial risks:

- Access to large reserves
- Low finding and development costs
- Ease of operation
- Access to equity /debt funding

- Access to infrastructure / markets

Applying a simple scoring system makes the evaluation process quicker and more transparent. I use here a scale of 1 to 5 applied to both risk and opportunity, but extending in different directions from a zero point, such that:



Note that zero is an impossible score, implying an attribute with no uncertainty (i.e. a place with no risk and no opportunity), and a score of 100 is also equally unlikely (i.e. a place with infinite risk and infinite opportunity).

The proposed semi-quantitative scheme has the advantage of distancing points of high opportunity from those of high risk when cross-plotted graphically. It helps to have a clear verbal description of each score to reduce ambiguity and improve rigour. In this regard a more precise definition of each number could be:

- 1=very low (minimal)
- 2=low
- 3=moderate
- 4=high
- 5=very high (extreme)

If a score of 1 to 5 is assigned to each attribute and the scores of all five attributes of opportunity and risk are added separately to yield two scores, those scores can vary between 5 and 25. By subtracting 5 from the sum of the five attribute scores and multiplying that sum by 5 the total risk and opportunity scores are simply manipulated into an index scale from zero to 100 which is relatively easy to interpret and contrast amongst nations. Clearly reasonable knowledge and understanding of the petroleum industry in the nation being evaluated is required by the analyst to assign a reliable score to each attribute.

In Figure 2.3.5 Alaska is plotted along with the top 24 gas reserve-holding nations. That is nations with the largest natural gas proved reserves based upon proved reserves figures quoted in BP Statistical Review (June 2008). The risk-opportunity analysis is a snapshot conducted in 2008 by David Wood and is presented not as a rigorous objective analysis of each country, but rather as a quick-look analysis scored using the simplistic assessment presented above. Alaska is assessed twice: 1) In 2008, without a gas pipeline, and 2) in a decade (~2020) on the assumption that it has a gas pipeline, more gas reserves are proved and the fiscal regime has become more progressive (this of course assumes that all the countries shown do not change their positions over that decade). Note that in 2020 with a gas pipeline Alaska should be comparable with Canada and the rest of the U.S. on a risk-opportunity-gas reserves framework.

But in 2008 it has slightly lower opportunity, more risk and less gas reserves, plotting closer to Australia and Norway.

The global framework used to ground the risk-opportunity analyses can in some cases itself hide or obscure some opportunity. The confidence level of reserves used could be varied. In some instances it is appropriate to use proved reserves statistics (e.g. Figure 2.3.5) as these are the volumes which the industry, by definition, believes in with the highest levels of confidence. However, from an exploration and future development context it could make sense to use the lower-confidence categories of reserves (or reserves plus yet-to-find resources) in a region that may be more relevant to identifying future opportunities. Proved gas reserves for Alaska of some 35tcf look quite small in comparison with many of the top reserve holding nations, but factor in yet-to-find resources of some 137 tcf and the Alaska resource base becomes more significant.

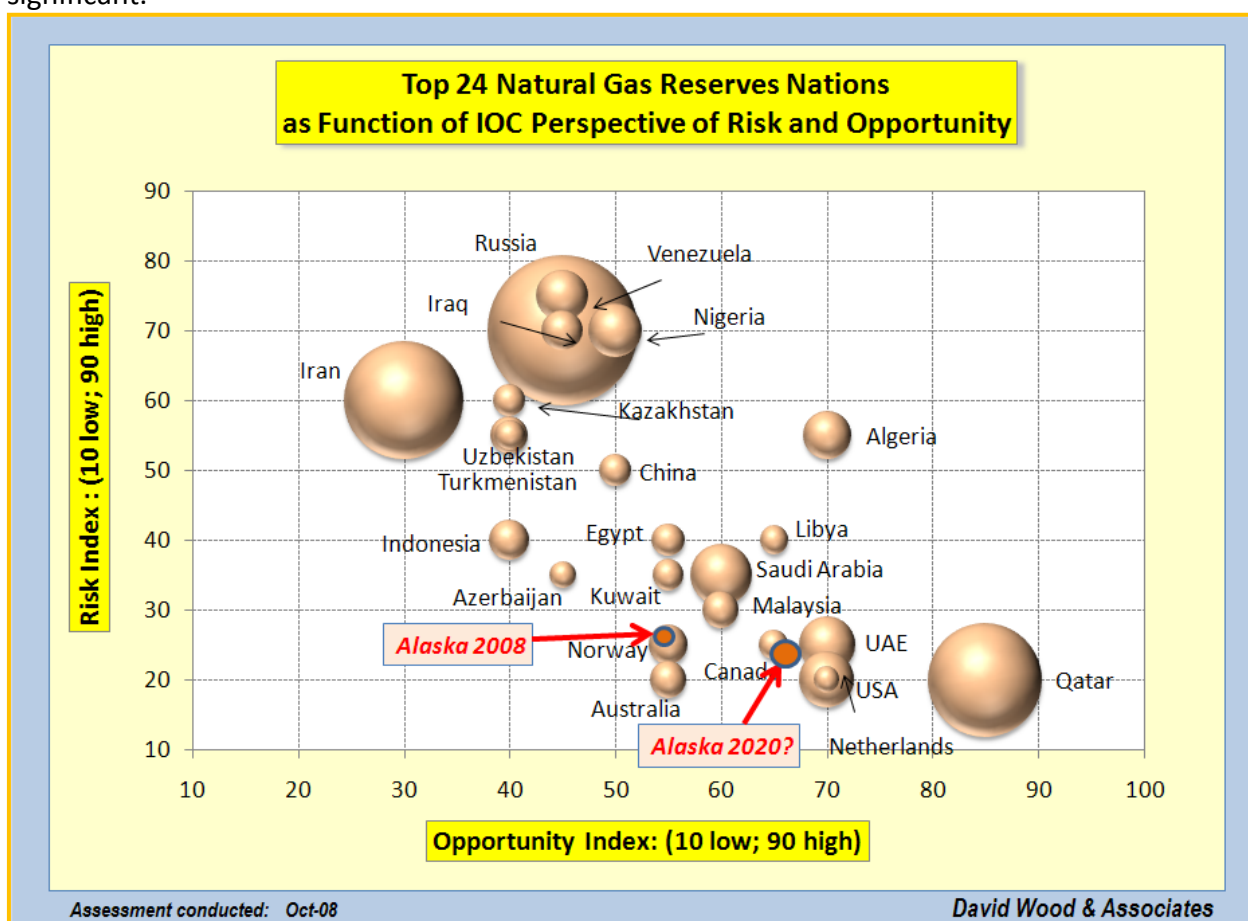


Figure 2.3.5 Risk – Opportunity indices evaluated for the top natural gas proved reserves holding nations. The diameters of the bubbles are proportional to proved natural gas reserve holdings as reported by BP Statistical Review (June 2008). This global framework analysis (excluding Alaska) is sourced from (David Wood, Oil & Gas Journal, in press).

The analysis illustrated in Figure 2.3.5 suggests that not only is Alaska low risk in comparison with other major global gas reserves holders, it also has substantial opportunity, which could

increase with the development of a gas pipeline and more gas reserves proved up by future drilling.

Changing Rules for Upstream Oil & Gas Fiscal Stability

Several recent articles (Bernardini, 2008; Cameron, 2007; Johnston, 2008; Stevens, 2008; Stark, 2007) highlight that high oil and gas prices have triggered reviews of existing fiscal terms by many host governments in many petroleum-producing countries across the political spectrum and covering both mineral-interest regimes and PSA contracts. They also point out that the changing landscape is due to a number of issues, not just oil and gas prices, that are changing the relationships between IOCs, NOCs, service companies and governments. Many in the oil and gas industry are now more focused on how to deal with and prepare for situations where fiscal instability arises rather than relying on legislation and contractual clauses that it now seems can offer only limited fiscal stability.

Stabilization and Adaption Clauses in Agreements between Governments & IOCs

A **stabilization clause** in a long-term oil and gas permit, project or infrastructure contract is an attempt to freeze the parties' division of costs and proceeds and their rights and obligations over the duration of the contract.

An **adaptation clause** is often added to provide for the renegotiation of the contractual conditions in the presence of an imposed change of circumstances that has the effect of unfreezing the parties' positions. It often ultimately leads to arbitration to resolve persisting dispute.

Doubts concerning the legal effectiveness of stabilization clauses (Bernardini, 2008) and many nations' desire to preserve their sovereign prerogatives to amend fiscal policy prompted an adaption clause such that if future laws or regulations enacted by the host state should affect the foreign investor's contractual position, negotiations shall be entered into in good faith in order to reach an equitable solution to maintain or restore the economic equilibrium of the agreement.

A clause illustrating this approach may be found in the Model Exploration and Production Sharing Agreement of 1994 of Qatar:

"Whereas the financial position of the Contractor has been based, under the agreement, on the laws and regulations in force at the Effective Date, it is agreed that, if any future law, decree or regulation affects Contractor's financial position, and in particular if the customs duties exceed . . . percent during the term of the Agreement, both Parties shall enter into negotiations, in good faith, in order to reach an equitable solution that maintains the economic equilibrium of this Agreement. Failing to reach agreement on such equitable solution, the matter may be referred by either Party to arbitration."

Another example of an adjustment clause is in the petroleum production-sharing agreement of 10 November 1995 between the state oil company of Azerbaijan (SOCAR) and a consortium of oil companies:

“The rights and interests accruing to Contractor (or its assignees) under this Agreement and its Sub-contractors under this Agreement shall not be amended, modified or reduced without the prior consent of Contractor. In the event that any Government authority invokes any present or future law, treaty, intergovernmental agreement, decree or administrative order which contravenes the provisions of this Agreement or adversely or positively affects the rights or interests of Contractor hereunder, including, but not limited to, any changes in tax legislation, regulations, or administrative practice, or jurisdictional changes pertaining to the Contract Area, the terms of this Agreement shall be adjusted to re-establish the economic equilibrium of the Parties, and if the rights or interests of Contractor have been adversely affected, then the State entity shall indemnify the Contractor (and its assignees) for any disbenefit, deterioration in economic circumstances, loss or damages that ensue there from. The State entity shall within the full limits of its authority use its reasonable lawful endeavours to ensure that the appropriate Governmental Authorities will take appropriate measures to resolve promptly in accordance with the foregoing principles any conflict or anomaly between any such treaty, intergovernmental agreement, law decree or administrative order and this Agreement”

Such clauses address broader potential amendments than changes to fiscal elements, but fiscal stability is one of the main aspirations of such clauses. The problem now exists that some contracts with such clauses are undermined by governments placing intense pressure on the IOCs to accept revised tougher terms or face dire consequences (e.g. \$multi-billion) exaggerated environmental claims or inflated audit claims, outright nationalization, or denied approvals to expansion projects or exclusion from future projects). Faced with such stark choices the IOCs often agree to accept modifications in order not to lose their entire asset (in which they may have sunk many billions of dollars), even if the agreements originally signed included stabilization and adaption clauses. Part of the reason for succumbing to such pressure is the recognition that litigation and arbitration is costly and time consuming with no guarantee of being able to press the host government to accept its contractual obligations. Even if arbitration finds in favour of the IOC, the process so polarizes the positions of IOC and government that future cooperation becomes difficult.

Johnston (2008) in his review of the “changing fiscal landscapes” provides an overview of fiscal changes and volatility that have permeated much of the international oil and gas industry in recent years. He refers to unpredictability of events in Algeria, Sakhalin-II, Bolivia, India, UK, and in the U.S., providing an account of fiscal changes introduced in Alaska in 2006 and 2007 contrasting this with California’s rejection of introducing a severance tax in 2006. In the case of California choice in 2006, Johnston says:

“Perhaps only Americans would be surprised that Californians voted down an initiative to increase oil industry taxes. This was put to a vote in 2006 under a ballot measure known

as Proposition 87. It failed with a margin of 54.7–45.3 percent. The proposition (if passed) would have imposed a severance tax of from 1.5 percent (at \$10/BBL) to 6 percent (with prices above \$60/BBL). Essentially the tax was designed to expire once \$4 billion had been raised. Overall government take in California (including US Federal taxes and all California taxes and royalties) was already 62 percent. Proponents claimed the oil companies out-spent them two-to-one in the public debate with newspaper, radio and television advertisements. This claim may have been true had it not been for one individual who donated \$46 million in support of the proposition. California oil industry led by ChevronTexaco, ExxonMobil and Shell financed their defence of the tax increase with \$94 million. Their prevailing arguments were that the proposition would (1) dry up oil supplies and (2) increase fuel costs.”

Perhaps more remarkable to the rest of the world is that such decisions were conducted in such public scrutiny with public opinion and advertising campaigns playing such a role in what elsewhere governments would debate behind closed doors before rolling it out to an unsuspecting industry. What is clear from Figure 2.3.5 is that fiscal changes have occurred in both direction and just as some countries are toughening terms others are introducing incentives to attract investment. This highlights perhaps the need for governments to retain their ability to change taxes to adjust terms from time to time in both directions.

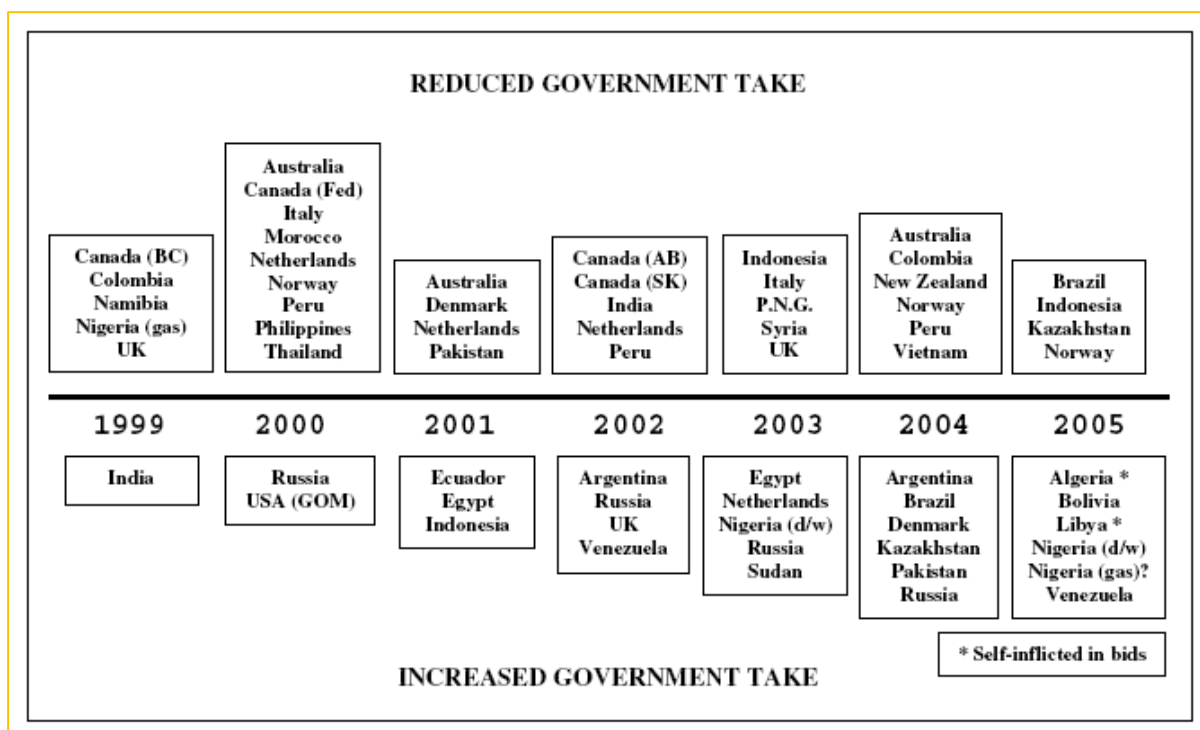


Figure 2.3.6 Johnston (2008) includes this diagram to identify the frequency of fiscal changes, both tightening and loosening of fiscal terms between 1999 to 2005. The diagram was originally published by Wood Mackenzie as an article by Graham Kellas “The terms, they are a changin’ . . .”, Industry Research – August 2006.

However, in contradiction to the views expressed by this author, Johnston (2008) concludes his article with a reference to what he believes is required fiscally for Alaska to secure a gas pipeline:

“While it appears that international law and modern jurisprudence have validated the use of stabilization clauses, for many high-risk mega projects of the future they are an economic imperative. Without it Alaska will have no pipeline. However, crafting agreements with the right combination of stability and progressivity is not something that is highly evolved in this industry. This will be a big part of the industry’s future. But it will not be easy. The risk of crafting an unintended loophole is magnified by the specter of accidentally creating something that gets ‘frozen’ for 20 years.”

This author does not agree with Johnston’s assertion that without a fiscal stabilization clause Alaska will have no gas pipeline. Whilst fiscal stability, or the opportunity to secure some elements of stability, is desirable from an IOC’s perspective, it is this author’s view that it is not essential either for individual upstream field developments or large-scale infrastructure investments. Moreover, it is desirable from an IOC’s perspective that flexible and progressive fiscal designs avoid the need for the state to repeatedly adjust fiscal terms as market conditions change. Flexible and progressive fiscal designs that avoid the need for repeated adjustments should form the basis of fiscally stable systems as they are designed to adjust to prevailing circumstances. However stability is not guaranteed by such systems as governments may change strategies and alter the fiscal design to deliver that new strategy, irrespective of whether the prevailing system is progressive or regressive. If a flexible fiscal design works in a highly volatile market, it should reduce the need for impromptu changes imposed by a government. In that context flexible and progressive fiscal designs can be said to promote, but not guarantee, fiscal stability.

Whilst some IOCs and industry analysts still believe that Alaska cannot deny any form of fiscal stabilization and still expect IOCs to invest in building a gas pipeline and develop the upstream projects that would be necessary to provide the gas to supply that pipeline, the evidence from around the world suggests otherwise, regardless of whether mineral-interest systems or PSA contracts are involved. The following points are significant:

1. Alaska has large reserves of gas; IOCs seek access to such reserves.
2. Alaska enjoys low overall political risk relative to many other countries offering access to IOCs to large gas reserves, but relative high RL political risk for an OECD region; IOCs are willing to take high overall political risk but prefer not to, if possible. Although they prefer not, IOCs are more prepared in an unstable world to take high RL political risk than NI political risk.
3. It is not in Alaska’s own interest to destroy the commerciality of a gas pipeline through unrealistic fiscal terms once a gas pipeline is operational, but that does not mean to say that some political elements may not be tempted to do so for short-term benefits. It is the interests of the state in its fiscal strategy statement to point out the importance of maintaining a commercially attractive environment for investors in the Alaska oil and gas sector and how a flexible and progressive fiscal design can help to do this. In the longer

term Alaska needs IOCs to find and develop more gas reserves to sustain long-term gas supplies to a pipeline. New field developments are unlikely to occur until well into the 2020s. They will not occur unless the fiscal terms make them commercial under a range of market conditions.

4. Fiscal flexibility and progressivity is in the interests of both Alaska and the IOCs and is far more important than a half-promise of limited fiscal stability to either party. Although guaranteeing fiscal stability is not considered essential that does not mean that a situation of fiscal instability with frequent strategic U-turns and changes in fiscal terms would be acceptable. Stability of a workable fiscal design remains desirable and in the interests of Alaska and the IOCs. Realists in both parties will accept that the prerogative to periodically and prudently adjust fiscal design is a right appropriately retained by the state.

The examples discussed in this section illustrate that even in circumstances where fiscal stability is offered, by contractual clause in the case of some PSAs or by legislation in the case of mineral-interest regimes, it is possible for such clauses to be circumvented by governments willing to exploit increased power provided to them by changing market conditions. IOCs have learned by experience that this is the case and although they seek guarantees of fiscal stability they know that in practice, as market circumstances change, they will often be forced to renegotiate terms. It might be argued that having such guarantees of fiscal stability in place provides the IOCs with a better bargaining position when a renegotiation cannot be avoided. In the examples provided here there is no evidence that supports such a view. Indeed, it seems that such clauses may actually promote partial appropriations (i.e. forced back-ins by state-owned entities) to extract a higher economic rent as an alternative to the governments' inability to easily adjust the rates applied to fiscal instruments.

In Section 1.2 of this study definitions are provided for three terms relevant to the discussions presented in this section. These terms are fiscal certainty, fiscal credibility and fiscal stability. The definitions will not be repeated here as those for fiscal certainty and fiscal stability are expanded upon in the discussion provided above. However, the term fiscal credibility does warrant some consideration as it depends upon its tax payers' (of which the IOCs are often among the largest) perception that a government is adopting realistic and appropriate fiscal policies and designs for the region's oil and gas asset base. If their perceptions are that fiscal policies are inconsistent, unpredictable and without clear long-term objectives, it is safe to conclude that the taxing authority lacks credibility among its major tax payers. The author believes that governments can achieve fiscal credibility without providing fiscal certainty or contractually guaranteeing fiscal stability for long periods of time. Fiscal stability is clearly a desirable aspiration but not, in the author's opinion an essential pre-requisite for securing investment. However, in order to attain and maintain fiscal credibility it is necessary for governments to exercise some prudence in the nature and timing of the fiscal changes they endorse and to avoid indulging in frequent fiscal changes that appear to be driven by short-term political opportunism and inconsistent fiscal strategies.