Upstream Taxation

Alex Kemp looks at oil prices and government take

Introduction

The dramatic rise in the world oil price has consequences for all stakeholders including investors in exploration and production (E and P), their host governments, contractors to the E and P sector, consumers, and governments in consuming countries. Petroleum production and consumption are subject to substantial taxation and/or profit oil sharing arrangements around the world. In some countries such as the UK and Norway substantial taxes are levied on both activities. The policy considerations for the two activities are different. At the production stage the objective is to secure to the state an adequate share of the economic rents. At the consumption stage the objectives are generally a combination of easy revenue from products the demand for which are price inelastic, the internalisation of external costs such as pollution, and the charging for transport-related infrastructure. The coexistence of multiple objectives with one instrument can readily produce confusion and contradictory positions in policy debates.

A conceptual distinction can be made between economic rents and monopoly profits. The former is compatible with competitive market while the latter emanates from restrictive practices such as by a production cartel. Increases in oil prices can emanate either from cartel behaviour or from changes in the underlying demand/supply balance. In the last couple of years the latter phenomenon has been operative with the key driver being the acceleration in world oil demand above the trend over the preceding decade. While the world market does not conform to the textbook definition of a competitive market the increased returns from production correspond to a change in the underlying economic rents.

The great unknown is whether the price increase reflects a permanent or temporary change in market conditions. The more cautious view is that demand growth will moderate and supply will increase leading to a price fall. In that case the current increased returns will constitute only a temporary windfall. The alternative view is that investment in new productive capacity will be limited and oil prices will continue at relatively high levels.

Implications for Taxation and Profit Oil Sharing Mechanisms

Host governments in all producing countries are keenly interested in obtaining a substantial share of any economic rents from petroleum exploitation. Some contractual arrangements have inherent mechanisms for ensuring that they automatically receive a major share of the benefits from a price increase. From the government's viewpoint a system can be progressive in relation to the price change, meaning that the take increases proportionately more than the price. This is the case with many production sharing contracts, especially those with profit oil sharing mechanisms related to profitability. Typically these are in the form of R-Factor or rate of return based schemes incorporating a formula whereby the government's share of profit oil automatically increases as the achieved return increases.

In general these schemes have the potential to cater for large fluctuations in oil prices such that both parties share in the upside potential (with the government typically receiving an increasing share of successive price increases), and in the downside risks (with the government typically bearing a major share of the price falls). Skill is, of course, required in the design of the schedules determining the respective shares of the parties. Thus an R-Factor or rate-of-return based system which is very steeply progressive and incorporates extremely high marginal rates may discourage cost-consciousness and possibly even incremental investments where the government's share of the incremental return is very high.

> "A conceptual distinction can be made between economic rents and monopoly profits"

Well-designed profit-related contracts thus offer the prospect of being acceptable to both parties in a world of fluctuating prices. Given that they are often designed to last for 30 years or more the prospective range is very wide and, despite these inherent stability-promoting features, renegotiation has sometimes been deemed necessary in a number of cases over the past decade. On closer inspection these have generally emanated not so much from the profit oil sharing terms (unless these were unrelated to project profitability), but from the timing of the benefits from production determined by the cost recovery mechanisms. Host governments have sometimes perceived that the cost recovery provisions were unduly postponing the time when they were able to significantly share in the benefits. This aspect of contract design is just as important as the profit-sharing terms. The issue has, of course, arisen not only in countries employing production sharing contracts but in those where licences with taxes and royalties are employed. A historic example is the UK in the early 1980s when the need for acceleration of revenues led to the introduction of Supplementary Petroleum Duty and then Advance Petroleum Revenue Tax.

In general sophisticated profit-sharing mechanisms whether involving production sharing contracts or tax arrangements, such as the resource rent tax employed in countries such as Australia, Papua New Guinea, Namibia and the Faroe Islands, offer better prospects for producing shares of the rents acceptable to both parties than those involving more conventional royalties and income taxes. These are generally inherently less flexible in response to substantial movements in the oil price or other factors determining project profitability.

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In concession systems royalties are generally fixed in the licence but taxes are free standing at the government's discretion. (In production sharing contracts such discretion is normally very constrained). In the event of a major price change, particularly in systems where the marginal rate is not progressively related to the price, there will always be a temptation to make a discretionary change. The result obviously depends on the nature of the change. Recently substantial royalty-related changes have been announced in few countries. These enhance government revenues including those in the near term. Because investment and operating costs are mostly not deductible these are not well-targeted on economic rents. There is then a danger that they may discourage incremental and other high-cost investments which could be viable on a pre-tax basis and which should be encouraged when the oil market is very tight.

This problem will become more acute when the price subsequently falls. There has generally been a natural reluctance by host governments to reduce their take by discretionary action when they are in any case suffering from reduced revenues. The result is greater investment disincentives. Discretionary changes to a highly profit-related tax are generally economically more efficient. When increased as a result of a large price increase, they are less likely to discourage high cost incremental and other investments, particularly when the costs are speedily deductible. But clearly the extent to which project returns are reduced is an important consideration.

The world investment climate covers a wide range of prospects from mature provinces with relatively small fields such as in the North Sea and onshore USA and Canada, and immature areas such as deepwater Angola and Nigeria where there are prospects of very large fields. The opening-up of Libya to foreign investment now offers highly prospective low cost territory. Tax increases have to be seen in this competitive environment. In countries where the expected size of fields is relatively low the net present values (NPVs) will be relatively small as well, though the internal rates of return (IRR) may be quite high if the cycle time to first production is quick. In countries with large fields the NPVs will also be relatively large, and, other things being equal, the host governments can levy higher taxes and still remain competitive.

Recently there has been much discussion of windfall gains resulting from the oil price increases and associated latte of windfall taxes. The concept is not very clearly defined but brings to mind the Crude Oil Windfall Profit Tax introduced in the USA in the 1970s but abolished some time ago. This was directly related to price and was really an excise tax based on the difference between a base price and the market price. It was not well-targeted on economic rents because no account was taken of the investment and operating costs associated with production. A number of base prices were introduced including a relatively high one designed to encourage tertiary recovery. The scheme in practice became highly complex and its unsound conceptual basis caused many problems such as the artificial encouragement to investors to claim that their investments were for secondary or tertiary recovery purposes.

In Russia both the rates of the Mineral Extraction Tax and the Export Duty increase with world oil prices. The marginal rate becomes very high. The non-deductibility of costs is again causing a problem relating to the higher effective rates applied to low productivity and high unit cost projects. Currently the government is examining various proxies for costs (such as well productivity) to ameliorate the burden of the tax on such investments. The conceptually sound way to collect the economic rents would simply be to allow the relevant costs to be deductible.

> "Discretionary changes to a highly profit-related tax are generally economically more efficient"

Tax changes also have announcement effects. If they are in the form of increases this will generally have a negative effect on the investment climate, though (less likely), if an uncertainty is felt to be removed by the change, the clarification of the position may also have a positive effect. A tax reduction will generally have a positive effect on the investment climate. Much will depend not only on the effect on investment but on the perception of the likely degree of permanence of the new system. In the current environment there would be a keen interest in knowing whether any scheme was likely to last for some time and whether it would be modified in the event of significant price falls.

Pedro Van Meurs considers the future of the government take

[Government take here will be defined as follows: Government Take = Government Revenues/ (Gross Revenues – Expenditures) x 100 percent. The government take is usually applied with respect to the calculation of a specific project, such as a new oil or gas field. Government revenues include all payments to government, such as royalties, corporate income tax, profit oil and profit gas, etc. Expenditures are capital and operating expenditures. In this article government take is determined on an undiscounted basis.]

Developments during the Last Two Decades

Over the last 20 years the world arithmetic average government take for oil and for gas has typically declined, from high levels of about 75 percent during the energy crisis in the late 1970s to about 60 percent today.

The main reason for the decline of the average government take has been the relative 'over supply' of exploration and development opportunities until recently. This was caused by two separate trends:

- new jurisdictions opening up for investment, and
- increased access to petroleum basins through improved technology.

The government take is determined by competition among governments. In essence, the government take is the 'price' for the 'petroleum properties' that a government has available. A large increase in new opportunities creates a drop in 'price'. Governments have been forced to lower government take in order to attract investment or maintain or expand petroleum production. The decline in government take has been stronger for gas than for oil due to the new pipeline and LNG opportunities and large volumes of 'stranded' gas.

From the early 1980s, important new acreage became available for petroleum exploration and production in the People's Republic of China, the former Soviet Union and Eastern Europe, Venezuela, Argentina, Brazil, Bolivia and Peru, Vietnam and Cambodia, and Saudi Arabia and Iran.

During the last two decades we have also seen many new investment opportunities as a result of improvements in technology. Companies now are able to develop oil and gas discoveries in 2000 metre water depth. New pipeline technology, including deepwater pipelines, has resulted in connecting many new areas to markets, such as Algeria to Europe. LNG developments now make it possible to ship LNG from Qatar to East Asia.

This significant increase in new development opportunities has resulted in a gradual lowering of the government take during the last two decades.

Current Situation

This process is now coming to a halt. Except for Kuwait and Iraq, there are no important jurisdictions left in the world that can still be opened up. Most of the continental shelves and slopes are now accessible. Most petroleum basins in the world are connected to markets through pipelines or LNG shipments. From now onwards, petroleum companies will be forced to 'pick over' the existing acreage in order to identify new exploration and development targets.

At the same time a large number of new 'buyers' of 'petroleum properties' have come in the market. During the last two decades many new petroleum companies from China, Russia, Latin America, Europe, Asia and the Middle East have entered world petroleum exploration and development. Also many small Canadian, Australian and British companies have decided to go 'international'. These new investors bid aggressively in the available bidding rounds in order to acquire new acreage positions.

Will these new trends in conjunction with the high oil prices drive the government take back up?

The Future

There are two types of fiscal systems with respect to high oil and gas prices:

- Systems that are progressive with price, whereby the government take adjusts upward automatically with higher prices, and
- Systems that are regressive or neutral with price, whereby the government take remains about the same or even declines somewhat with higher prices.

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A considerable number of countries have progressive systems. There are two ways in which the upward adjustment in government take is occurring:

'One Way' adjustments. These are systems that are based on cumulative profitability. In these systems a higher government take 'locks in' once certain levels of IRR, profitability ratios or cumulative revenues are being reached. In other words if the oil price should decline again, the government take will stay high. These jurisdictions include:

- IRR based profit oil and gas shares such as in Angola, Russia and Azerbaijan and IRR based profit shares or taxes, such as in Saudi Arabia, the Canadian frontier areas, Australia and Kazakhstan.
- Profit ratio based profit oil and gas shares in Libya, Qatar, Azerbaijan and India, profit ratio based royalties and taxes in Peru and Tunisia,
- The PRT in Algeria.

'Two Way' adjustments. These are systems that are based on price related formula or shares. In these systems the government take goes up when

prices are high but it comes down when prices decline again. This is done through windfall profit taxes, supplemental payments, uplifts or other mechanisms. Examples are the fiscal systems of Alberta, Colombia, Trinidad and Tobago, Malaysia, Pakistan, Thailand, Indonesia, East Timor, Norway and the Netherlands.

Certain countries have service contracts with fees which are not price sensitive, such as in Iran, Mexico and Venezuela. These countries receive the entire price upside.

As can be seen from the above list, there will be an automatic upward adjustment of government take in a large group of important petroleum-producing countries as a result of higher oil and gas prices. In all countries this upward adjustment applies to oil as well as gas, except for Trinidad and Tobago and Qatar where it applies only to oil.

Price Upside Countries. The countries with regressive or neutral fiscal systems are 'price upside countries', where investors will earn a significant 'wind fall' as a result of the price increases.

These countries can be divided into two groups:

- Countries with systems that primarily consist of royalties and corporate income tax. In almost all of these countries there are no fiscal stability provisions and therefore governments are free to impose new petroleum taxes.
- Countries with production sharing agreements whereby the percentage profit oil or gas to government is determined on production levels only, rather than certain formulas. Many of these contracts are subject to fiscal stability provisions.

Countries with royalty-tax systems include the United States (federal as well as state fiscal systems), certain provinces of Canada, the Venezuelan concessions, Argentina and Brazil, onshore Australia and the new licences in the UK.

Countries with production level based production sharing agreements include Congo, Gabon, Egypt, Sudan, Yemen, Bangladesh, certain Indonesian contracts, Vietnam and China.

Trends. The oil supply shortage will induce many countries to have new bidding rounds for remaining acreage or acreage that is being relinquished. The high oil prices and the large number of new companies interested in acreage will result in high bids.

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The high bids and the automatic upward adjustment of the government take in many jurisdictions with progressive systems creates a 'competitive space' for price upside countries. It makes it easier for these countries to adjust their government take upward without becoming less competitive. This will have the following effects:

- In countries that are not subject to fiscal stability provisions, it can be expected that certain governments will review their fiscal terms in order to determine whether the government take should be adjusted upward through new or increased taxes.
- In countries with contracts that are subject to fiscal stability, it can be expected that a higher government take will be established for new model contracts. In some cases, governments may try to renegotiate certain production sharing contracts.
- Price upside countries will consider moving to price progressive fiscal systems.

Some nations are already in the process of reviewing or adjusting their fiscal terms. Venezuela cancelled the royalty holiday on heavy oil development and is currently trying to force investors into the new concession terms. The political unrest in Bolivia is creating an environment where it is attempting to go back to the higher government takes that used to exist in the early 1990s. Trinidad and Tobago is reviewing its terms. Kazakhstan is considering new fiscal terms with a very high government take. In the case of Kazakhstan the proposed increase is so strong that it may be counterproductive. Norway introduced a number of interesting small improvements in its fiscal terms, but this process may now come to a halt.

Although it can be expected that the government take for oil will start to increase, the strong developments in gas pipeline and LNG technology are still creating significant new gas development opportunities. Therefore, the government take for gas may stabilise on average, with some countries leaving government take the same and other countries increasing or decreasing their take on gas.

The speed with which these new trends develop will depend in part on political developments that could create significant new opportunities, such as

- A stabilisation of the security situation in Iraq and an opening of Iraq to new investment based on attractive contracts.
- The re-introduction of production sharing contracts in Russia.
- A strong opening of Mexico, in particular the deep water acreage.
- Resolution of political issues in Iran together with the introduction of more attractive upstream contracts.

Robert Arnott emphasises the importance of striking the right balance in fiscal tightening

Over the past twelve months, as the oil price has risen to heights not seen in real terms since the 1970s, the issues of nationalisation and fiscal tightening have re-emerged as threats to the International Oil Companies (IOCs). In Russia, the fragmentation of Yukos was seen by many as the start of a process by which the Russian government sought to regain control over the oil and gas industry. In Venezuela, the government surprised the oil industry by increasing royalty rates earlier than anticipated and even suggested that the contracts signed during 'Apertura' were in fact illegal. For the IOCs, such actions are cited as major threats to corporate profitability and they are also considered to undermine international investment confidence in the country concerned. However, how important are these recent events to the IOCs and should the IOCs themselves shoulder some of the blame?

It has been well documented that during the 1960s to the end of the 1980s most resource owners nationalised the oil and gas assets which in many cases led to the departure of the IOCs from these regions. These companies desperately needed to find new sources of oil and gas reserves and this was achieved during the 1990s with the opening up of a new political landscape and the development of new technology. With new oil and gas provinces opening up, the issue was not so much lack of opportunity but more lack of capital during a period of relatively low oil prices and corporate cost-cutting. It is only in the past five years, after a period of major industry consolidation that companies have tried to kick-start upstream growth. However, they have found that in this new global economic environment opportunities are constrained and there are new competitors.

In marked contrast, host governments and national oil companies (NOCs) have at last begun to wake up to the fact that the IOCs do not have unlimited opportunity sets, they do not have the option to switch major investments elsewhere and in any event, if they were to go elsewhere there would be plenty of other companies who would step into their place. With this realisation, governments have recognised that they no longer needed to try to attract new investment simply by offering attractive fiscal terms. Indeed with the increased levels of competition there is even a case for more punitive fiscal terms.

Against this background, are the IOCs facing a wave of renationalisation or are fiscal terms simply responding in a natural way to higher oil prices? Evidence to date suggests that fiscal terms are responding to higher commodity prices and that renationalisation remains unlikely. This is because most host governments no longer need to resort to the extreme measure of confiscating oil and gas reserves but can use more sophisticated tools to extract a greater share of the economic rent.

> "The strong nationalist sentiment of the Venezuelan government has also filtered out to the rest of Latin America"

Such tools started to become more commonplace even before the recent rise in the oil price. Production sharing contracts (PSC) which used to be based on simple sliding scales of production at varying thresholds have now in the main been superseded by rate of return based contracts. Such contracts are awarded to the company which offers the lowest rate of return on the concession. This has the merit of effectively capping the reward to the IOC when oil prices are very high and maximising the rent to the host government. The extent to which IOCs are prepared to push down rates of return was highlighted in the recent bidding round in Libya where many companies bid a percentage rate of return of just 7 percent on a number of blocks, very close to their weighted average cost of capital. Therefore even in the event of exploration success, it is very unlikely that these companies will add shareholder value from the concessions they were awarded.

Of course host government tools to control fiscal revenue can be a little cruder. For example, in Russia the government has effective control over the oil transportation network and has introduced an effective super-tax of 90 percent of all profits when oil prices exceed $30 per barrel. In other words, the government not only benefits from higher oil prices but it can also control exports of crude oil. But can this really be described as renationalisation? It is only in the highly publicised Yukos case that such an argument can be made.

Elsewhere in the world there have been calls for renationalisation of oil and gas assets, most notably in Latin America. The influence of the socialist government of Hugo Chávez of Venezuela in this cannot be understated. Even though his government has not renationalised the oil and gas industry, it has accelerated the increase in royalty payments made by IOCs in the syncrude projects and it has indicated that new contracts will contain significantly harsher fiscal terms.

The strong nationalist sentiment of the Venezuelan government has also filtered out to the rest of Latin America and Chavez's cross-border initiatives aimed at spreading the socialist message have recently been stepped up. Calls for nationalisation of the oil and gas industry in Ecuador and Bolivia have spread alarm amongst the international oil and gas industry but none have yet to be fulfilled. In Ecuador, the country actually stopped exporting crude oil in August 2005 as protestors called on the government to nationalise the industry and take a greater share of profits. In Bolivia there are still calls for nationalisation of the oil and gas industry by the mainly indigenous population. In both cases the rallying cries of nationalism have alarmed the governments but they have not yet acted to nationalise the oil and gas industry for fear that such an act would undermine their heavily indebted domestic economies. Several companies operating in Bolivia have already cut back on expenditure plans fearing that they will lose their asset base at some point in the near future.

Whilst the Latin American examples cited above highlight the potential risk of renationalisation, in reality the outcome has only been a moderate tightening of existing fiscal regimes and in the case of Venezuela an acceleration of harsher fiscal terms that were already incorporated in contracts with IOCs. For most other countries around the world fiscal tightening in PSC rates have not been applied retrospectively to existing concessions, only to new concessions. For example, in West Africa, harsher terms for new PSCs are being introduced with new concessions but existing terms have not been changed.

It is only in tax and royalty concessions, such as the UK North Sea, that existing terms are being changed. In the UK, which has undergone frequent changes in fiscal terms in response to higher oil prices, the additional 10 percent corporate tax rate was added even ahead of the recent increase in oil prices. Frequent changes to the UK tax regime are often cited as being a reason why investment in the region has lacked stability. Elsewhere, in Kazakhstan the corporate tax rate has been increased significantly for oil and gas companies and the region no longer stands out as offering one of the most lenient fiscal regimes in the world. Such a change was perhaps one of the main reasons behind the development delays to the Kashagan field.

Of course host governments must strike a balance between sustaining tax and investment. Those governments that have maintained a strong control over their tax regimes and have not responded to the lobbying of IOCs are the ones that have been most successful in sustaining oil and gas investment. For example, only two years ago the IOCs operating on the Norwegian continental shelf were crying out for an easing of Norway's tax terms in order to attract new investment. The Norwegian government responded in 2004 with only minor changes aimed at taking the exploration risk off newcomers, but in essence it left the tax regime unchanged. Eighteen months later those same companies are quoted as saying the regime is 'satisfactory' and they have commended the government for its 'fairness and stability'.

Elsewhere, even against a backdrop of high oil prices, some countries are actually loosening fiscal regimes in order to attract investment. For a long time, the Indonesian PSC regime was recognised as being one of the harshest in the world with marginal tax rates often as high as 90 percent. However, with declining production and the country now an effective importer of crude oil the government recognised the need to loosen terms in order to attract new investment. Such changes have indeed attracted new entrants but may have come too late to make a real difference to levels of investment going forward.

"Of course host governments must strike a balance between sustaining tax and investment"

The issue of fiscal tightening is therefore more an issue of balance and one which the IOCs had better face up to soon or risk losing new investment opportunities. This brings me back to my earlier point that although governments are often seen as the pariahs when it comes to fiscal tightening there is some evidence that IOCs do themselves no favours.

During the 1990s, the IOCs instilled a new sense of fiscal discipline in their organisations. Return on capital employed targets were set. Furthermore, as part of the policy of improving profitability, capital was constrained and projects were set relatively high hurdle rates before they were approved. It was not uncommon for companies to claim that they could generate double digit rates of return on projects based on a long-term real oil price of $12 per barrel. Even with higher oil prices, the IOCs still claim that they would not give project consent unless they generated returns in excess of their cost of capital at $25 per barrel. They argue that oil prices are likely to remain volatile and they point out that given the average life of a project from development consent to abandonment could be as long as 25 years it would be fiscally unwise to base investment decisions on current high oil prices.

Whilst such logic is music to the ears of IOC shareholders, it does instil a deep suspicion in the eyes of host governments and the general public of 'profiteering'. Of course, in the current climate of high oil prices, IOCs who maintain a very public stance of screening projects at an oil price that is less than half the spot price are an obvious target for raising additional revenues. No wonder then that in the consuming countries IOCs are now being discussed as being potential targets for windfall profits taxes and in the producing countries they are likely to suffer from higher production taxes.

As in all things in life, it is a question of balance. Yes, the higher oil prices have resulted in harsher fiscal terms for the IOCs and terms which are likely to tighten even further. But equally, the higher oil prices have given the IOCs returns on their investment far in excess of what they could have originally anticipated. To generate returns on capital employed of more than three times the average cost of capital is of course something that every IOC shareholder must dream of. But in a low inflationary environment and against a background of high commodity prices the IOCs must strike the right balance between the requirements of the shareholder and that of the host nation, even if this means accepting lower returns from harsher fiscal terms going forward. Those companies that do not strike the right balance are likely to lose out in the global chase for new development opportunities.