



**Fiscal Regimes and Oil Revenues in
the UK, Alaska and Venezuela**

Bernard Mommer

Oxford Institute for Energy Studies

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1 INTRODUCTION

In this paper we shall discuss the performance of three oil fiscal regimes over the past 25 years: the UK, Alaska, and Venezuela. This empirically oriented paper is based on our previous more theoretical paper on the subject of oil fiscal regimes,¹ but it can be read independently. Nevertheless, a reminder of a few points made in that paper may be helpful.

We distinguished between two types of rent-collecting devices. The first type is based on gross income. To quantify gross income levies requires at most information about volumes and prices; examples of these levies are bonuses, rentals, fixed and percentage royalties, and severance taxes. The second type is based on net income, i.e. profit, and/or excess profit. To quantify net income levies requires, on top of volumes and prices, information about costs and investments. Hence, the second type is more complex, and entails higher observation, surveillance costs, and legal costs.

More important, however, is the theoretical and political difference. The starting point for the first type of levy is the observation that a company has a licence, explores and/or produces. If this is the case, a payment is due; whether there is a profit or not is irrelevant. Hence, gross income levies can be conceived as a payment to a property owner, i.e. a ground rent. Therefore, fiscal regimes based on gross income may be called *proprietary fiscal regimes*. The leeway they concede to the company to minimise its liabilities is minimal. As far as the market sets prices, there is no other relevant parameter it is able to manipulate but volumes. The second type of levy applies only if there is a profit, or even only if there is an excess profit. Hence, the company may also manipulate costs and investments, which are very complex variables and difficult to control. The tax collector has to demonstrate that there is a profit in the first place, or an excess profit. Moreover, net income levies can be conceived just as ordinary taxes, and they may be associated with the liberal ideal of natural resources as a free gift of nature. Therefore, fiscal regimes based on net income may be called *liberal fiscal regimes*.

Of course, in both cases, indistinctively, the company will minimise its fiscal liabilities. But beyond the daily – or yearly – business to do so, there is the strategic issue of how to shape the fiscal regime according to its interests. Strategically, the first objective is to transform a proprietary fiscal regime, where there is one, into a liberal regime, or vice versa,

¹ Bernard Mommer: *Oil Prices and Fiscal Regimes*, Oxford Institute for Energy Studies, 1999.

to prevent a liberal regime from becoming a proprietorial regime. Even if there is no immediate gain, the company is then in a much stronger position regarding the future, to make the fiscal regime more and more 'flexible'. Step by step, the political argument will always be the same. In a modern economy taxes are supposed not to distort the flow of investment. Hence, whatever the levy, a case is constructed where the existing levy is actually a disincentive, deters a potential investment or, even worse, creates perverse incentives. This is actually an easy thing to do, because although a 'pure' rent may exist in theory, whenever there are two parties interested in collecting that rent, it no longer remains 'pure'. The existence of a rent that can be shared will affect the behaviour of both parties and, hence, the flow of investment. With a liberal fiscal regime, however, the company is not only theoretically but also practically in a much stronger position. The licence may continue in force, and the licensee may explore and produce, without paying anything to a natural resource owner. On the contrary, in proprietorial fiscal regimes not one single barrel is produced without the payment of a ground rent.

The argument that profit-based taxes may be difficult to collect applies to income taxation generally. The extraordinary bargaining power of corporations regarding high-income taxation is a well-known fact. For example, in the USA federal corporate income tax rates soared with the Second World War to hitherto unknown levels, from less than 15 per cent pre-war, to about 50 per cent in the post-war period, and they remained at this level until 1986. Nevertheless, between 1950 and 1985, the corporate sector succeeded in bringing down the effective rate from about 87 per cent of the legal rate in 1950, to about 35 per cent in 1985 (Figs. 1 and 2). The corporate sector lobbied successfully for all kind of exceptions, allowances, and investment credits, threatening local and national politicians and authorities to withhold investment, or even to move elsewhere. Finally, the Tax Reform Act 1986 brought down the official rate from 46 per cent to 34 per cent. However, this reform also largely eliminated those exceptions, allowances, and investment credits, and it was argued that the new law would actually generate higher, not lower, fiscal revenues.

Figure 1: US Corporate Income Tax: Legal and Effective Rates 1950–2000

Source: Joseph A. Pechman: *Federal Tax Policy*, Washington, 5th ed. 1987; Table 5-3.

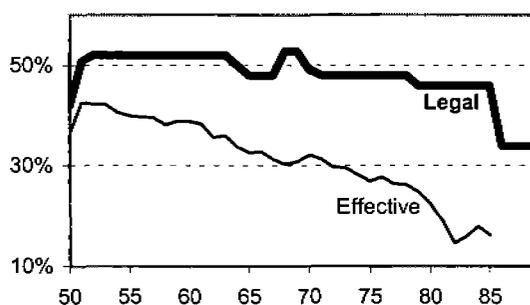


Figure 2: US Corporate Income Tax: Effective Rate as Percentage of Legal Rate 1950–1985

Source: Figure 1.

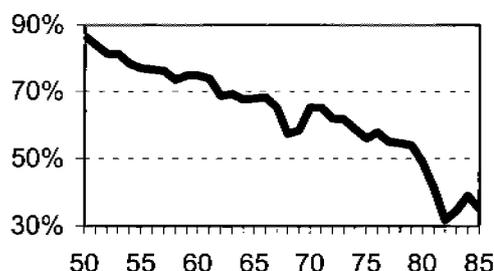
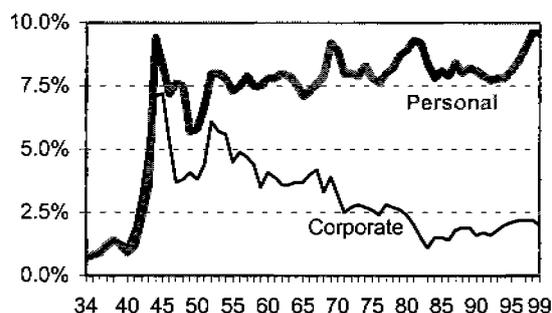


Fig. 3 seems to confirm this. It also shows that regarding income taxes, wage and salary earners are in a much weaker position. They are basically captives. Employers retain their taxes, the law strictly regulates their allowances, and they are hardly in a position to threaten not to work in order to achieve lower levels of taxation, or to move abroad. Hence, the post-war increase in their taxation level turned out to be irreversible. Notwithstanding the voting power of wage and salary earners, massive but diffuse, compared with the corporate sector they clearly lost out in the period under consideration. One may actually argue that individual income taxes are quite similar to gross revenue levies.

Figure 3: US Corporate and Personal Income Taxes as Percentage of GDP 1935–1999

Source: Budget of the United States Government, Fiscal Year 2000, Historical Tables, Table 2.3: *Receipts by Source as Percentages of GDP: 1934–2004.*



A pure liberal fiscal regime is to be found in the UK. However, strictly speaking, we will never find a pure proprietorial fiscal regime in oil if we do not exclude the corporate tax at its usual rate and as applied to the corporate sector generally. Given this assumption, Alaska provides an example of a pure proprietorial fiscal regime. On the other hand, Venezuela, as we shall see, keeps moving in between. In the case of the UK and Alaska, the period under consideration – the past 25 years – covers their whole history as oil producers. The UK emerged as a new oil-producing country in 1977. Four years later it became a net exporter of crude oil and petroleum products and, at present, it exports (net) as much as 40 per cent of its production. Oil production in Alaska took off with the completion of the Trans-

Alaska-Pipeline in 1978, running from the oil-rich North Slope on the Arctic Ocean to the southern port of Valdez. Alaska became an important oil-‘exporting’ state within the USA, ‘exporting’ almost all of its production to the lower 48 states. On the other hand, Venezuela is a traditional Third World oil-exporting country and founding member of OPEC. In this case we shall focus on the period after nationalisation, i.e. from 1 January 1976 to date.

The three cases represent very different environments, politically as well as economically, and also regarding their fiscal regimes. But they have in common one important feature. All of them, over the last twenty years at least, were oil-exporting provinces. Hence, one might presume that they were interested in higher rather than lower oil prices, and in ‘efficient’ rent-collecting fiscal regimes. Yet, as we shall see, our empirical findings do not match this simplistic *a priori* view.

We shall proceed as follows. First, we present a description of each fiscal regime and its performance, giving an initial interpretation of what we observe. Then we shall discuss the three cases together to reach some general conclusions.

2 UNITED KINGDOM

2.1 FISCAL REGIME

The first licences in the British North Sea were granted in the mid-1960s.¹ The blocks covered about 250 km² each. There was a modest licence fee and a royalty of one-eighth. The latter was obviously in line with the American reference. From the very beginning there was, however, one important difference in the way the British government administered the – publicly owned – natural resource. Licences were granted in a discretionary process, a procedure that allowed the government, incidentally, to maximise the participation of national enterprise in the development of this new oil-producing province. It did so most successfully. Foreign companies had to pledge good behaviour, and there was a strong incentive to comply, as their performance was taken into account in new licensing rounds. If it had not been for this policy – and a similar policy in Norway – the development of North Sea oil could have been handled from the Gulf of Mexico, then the only fully developed off-shore producing province of the world.

So far eighteen licensing rounds have been held and about one thousand licences were granted. They were granted through a bargaining process, the government negotiating investment levels and other conditions of the licence. Remarkably, bonuses were rarely used and when they were the sum involved was very modest, even after it had become clear that North Sea oil would be highly profitable. The first company to announce a big discovery, in December 1969, was British Petroleum (BP), soon followed by others in the early 1970s. Thus, many important discoveries preceded the OPEC revolution. By 1973 very huge profits were to be expected. To collect them, the British government adopted a new approach which was significantly different from OPEC's as well as from the old US system.

To cope with excess profits, in 1975 the (Labour) government introduced a Petroleum Revenue Tax (PRT). This tax is based on the accumulated cash flow. Investments are treated as current costs. PRT has to be paid as soon as the accumulated cash flow becomes positive. At that point, obviously enough, investors have already recovered their original investment. Moreover, there are several safeguards to provide investors, on top of their investment, with additional benefits, presumably to compensate them for interest payment (and to protect them

¹ For the development of the British North Sea in general, see Paul Horsnell and Robert Mabro: *Oil Markets and Prices - The Brent Market and the Formation of World Oil Prices*, Oxford University Press, 1993.

from the effect of inflation). Thus, there is an 'oil allowance', a volume free of PRT, and there is an 'uplift' on investment expenditure, recognised as a cost for the purpose of PRT. For example, for every investment expenditure of UK£ 100, the investor is credited an additional UK£ 35 (originally, the additional credit was UK£ 75 taking into account the relatively high inflation levels at that time). Still, no PRT will be paid as long as the internal rate of return has not exceeded 15 per cent. Furthermore, if PRT has been paid but the accumulated cash flow turns out to be negative in later years, it is paid back with interest. This applies for the lifetime of the licence (sometimes up to 40 years), which moreover is extendable. In other words, excess profits are ultimately defined not on a yearly basis but over the lifetime of a reservoir. PRT applies to the individual reservoirs as the basic unit of production, which is ring-fenced to prevent excess profits being reduced, nationally or internationally, through the 'export' of profits or 'import' of costs. By the same token, the whole of the United Kingdom Continental Shelf was also ring-fenced regarding corporate income tax generally.

PRT was specifically designed to collect excess profits, or Ricardian rents, i.e. not to obstruct the free flow of the marginal investment, or the extraction of the proverbial marginal barrel. PRT would apply to all licences, already granted or not. Hence, contrary to the American bidding system, which intends to collect *expected* Ricardian rents or excess profits through bonuses, PRT intends to collect them only *after* they have actually materialised.

In 1975 the applicable rate of PRT was set at 45 per cent, but after the second oil shock (1979) this rate was raised, reaching 70 per cent in 1980. Then, with the persistence of extraordinarily high petroleum prices, in 1981 the (Conservative) government introduced a Supplementary Petroleum Duty (SPD), basically a severance tax of 20 per cent with some safeguards. SPD was abolished after only two years, in 1982. Simultaneously, royalty – a contractual levy – was also abolished, albeit only for new fields, i.e. fields developed after March 1982. In contrast, PRT was raised again, to 75 per cent. Hence, by 1983 the fiscal regime in the British North Sea had been transformed into a purely liberal one, at least insofar as new fields and licences were concerned.

Thus, from now on, the political debate on the fiscal regime was centred, exclusively, on profits and excess profits, on incentives and disincentives to production and investment. The idea that something should be paid for the natural resource – for example a royalty – had disappeared. At the same time the fiscal regime was definitively transformed into a liberal one. A first big hole was drilled into the ring-fence: a cross-field exploration allowance was introduced as incentive to exploration. Practically speaking, this meant that the whole of the

British North Sea could be explored using profits generated by the highly profitable fields, which otherwise would have been taxed at the PRT-rate of 75 per cent. Next in importance, in 1987, a cross-field development allowance was introduced. Finally, in 1993, those holes in the ring-fence were sealed but as part of a deal to bring PRT down to 50 per cent, and to abolish PRT for all new fields.¹

Regarding corporate income tax, PRT is treated as a cost, and when PRT is refunded, as a negative cost. The applicable corporate tax (CT) rates, like royalty initially, followed US standards. Until 1984 the relevant rate was 52 per cent. In 1985 it was lowered to 35 per cent – for the same reasons already discussed in the case of the USA – and it was further lowered over the following years. Finally, in 1999, the (Labour) government brought the rate down to 30 per cent. Great Britain has now one of the lowest CT rates in the world.

In Table 1 we summarise the various taxation rates of the oil fiscal regime. As can be seen, gross income levies, representing the proprietorial component of the fiscal regime, were strengthened only temporarily and exceptionally, in 1981–2, with the introduction of SPD. The survival of royalties in old fields, on the other hand, is due to their contractual character, whereas SPD was just a tax, which can be introduced, varied, or abolished by the government at will. However, excess profit taxation – i.e. PRT – increased continuously. As a result, the marginal fiscal take increased from 58 per cent in 1974 to 90.3 per cent in 1981–2. Then the PRT rate was increased again, and at the same time SPD was scrapped. The effect on the old fields was minimal, as far as the marginal fiscal take was concerned, which fell from 90.3 per cent to 89.5 per cent. Yet the proprietorial component had been weakened very significantly. It was now much more price and cost-elastic than before. In new fields the proprietorial component disappeared completely, though the marginal fiscal take was only slightly lower, at 88 per cent. Later this percentage came down to 65 per cent by 1993, due to the lowering of PRT and CT rates. In new fields, i.e. fields developed after March 1993, PRT disappeared completely, bringing down the marginal fiscal take to 35 per cent, and finally to 30 per cent. The official argument was that, whether already discovered or not, the new fields were marginal anyway.

¹ Ian Rutledge and Philip Wright: 'Taxing Petroleum: Don't forget the upstream', *Financial Times Energy, Energy Economist Briefing*, October 2000.

Table 1: UK Fiscal Regime – Fields developed before, between and after March 1982 and March 1993.

<i>Per cent</i>	1974	1975	1979	1980	1981-2	1983	1986	1993	1999
Royalty	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
SPD	0	0	0	0	20	0	0	0	0
<i>Gross Inc. Levies</i>	12.5	12.5	12.5	12.5	32.5	12.5	12.5	12.5	12.5
PRT	0	45	60	70	70	75	75	50	50
CT	52	52	52	52	52	52	35	35	30
<i>Net Inc. Levies</i>	52.0	73.6	80.8	85.6	85.6	88.0	83.8	67.5	65.0
Marg. Fisc. Take	58.0	76.9	83.2	87.4	90.3	89.5	85.8	71.6	69.4

Note: The entire table refers to those fields, which received consent of development before March 1982. The slightly grey area refers to those fields, which received consent between March 1982 and March 1993. The darkest area refers to new fields, which received consent thereafter.

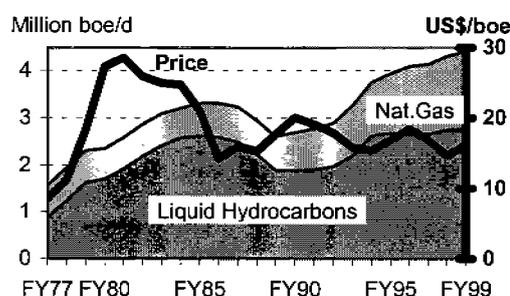
All in all, the fiscal regime in British oil expanded until 1982, and then began to shrink, qualitatively and quantitatively. It is certainly not too risky to predict that royalty will be phased out too, sooner rather than later. Regarding PRT, the situation is more complex. In some old fields PRT may turn negative, especially with decommissioning approaching. Hence, though one can safely predict that PRT will also be phased out, this will be a more complicated and protracted process.

2.2 FISCAL REVENUE

Fig. 4 shows the development of oil and gas production from FY77 to FY99,¹ and Figs. 5 and 6 show the evolution of fiscal revenues and gross income. The effective percentage of royalty, up to 1982, including (modest) licence fees and (rare and modest) bonuses, averaged about 10 per cent,² but after that date it declined as the new royalty-exempt fields came on-stream. At present this average is about 3 per cent.

Figure 4: UK Oil and Gas Production and Prices

Source: Department of Trade and Industry: *Development of UK Oil and Gas Resources*, 2000.



¹ In the UK the fiscal year 1991 (FY91), for example, begins 6 April 1991 and ends 5 April 1992.

² Royalty is paid at wellhead-prices. Gross petroleum income, however, is reported at landed prices. Therefore the legal 12.5 per cent royalty represents a lower percentage at the latter prices.

Figure 5: UK Fiscal Revenue and Gross Income

CT: Corporate Tax
 PRT: Petroleum Revenue Tax
 SPD: Supplementary Petroleum Duty
 R&R: Rents and Royalties

Source: Department of Trade and Industry: *Development of UK Oil and Gas Resources*, 2000.

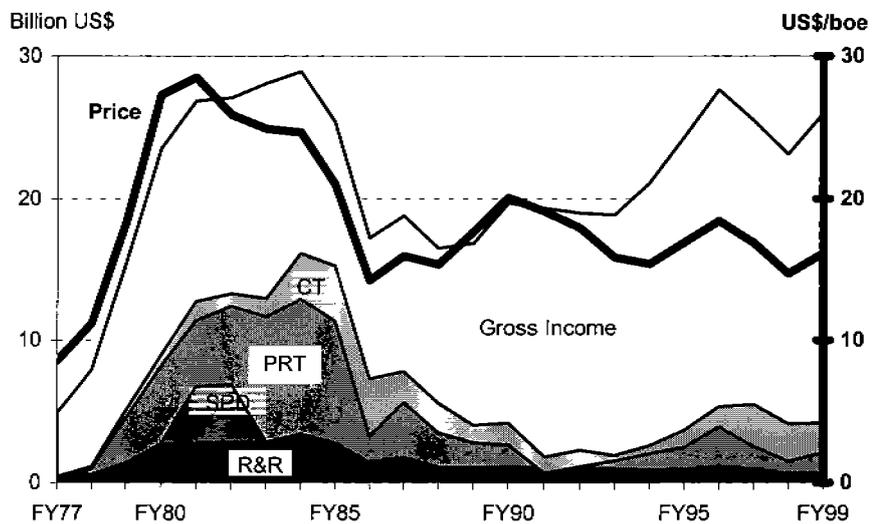
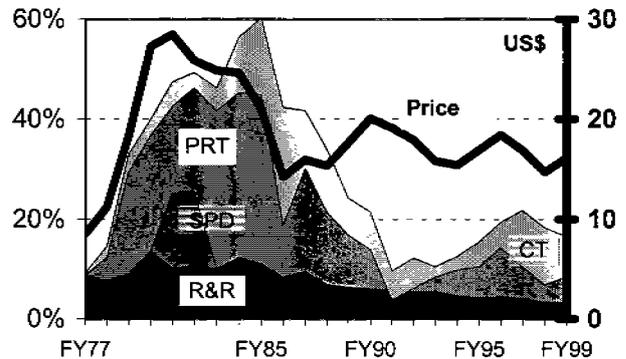


Figure 6: UK Fiscal Revenue as Percentage of Gross Income

Source: Figure 5.



PRT became payable as early as FY78. It increased sharply, in absolute and relative terms, with prices, volumes, applicable rates, and later with the disappearance of SPD and royalty, and reached its highest levels in the years 1983 to 1985. Not surprisingly, it came down drastically in 1986 with falling oil prices. PRT was designed to collect rents in the upswing, but also to be downward-flexible regarding prices. In FY91, PRT on the whole of British North Sea production became negative. In other words, the government paid PRT back to the industry in that year. PRT was designed to be upwards flexible regarding costs. The objective was that so long as the companies were able to produce an additional barrel, even at sharply increasing costs, they should be motivated to do so. And this, as we have seen, extended to the whole of the British North Sea regarding exploration and, partially at least, also to field development costs. Not surprisingly, then, even before the PRT reform of 1993, this tax was losing rapidly in importance.

The importance of corporate tax was greatest, somewhat surprisingly, in 1986, due to the sharp fall of PRT in that year. Thereafter it fell until FY93, and then regained some of its former importance, probably due to the new PRT-exempt fields coming on-stream. All in all, the big picture that emerges from Figs. 5 and 6 is that once a purely liberal fiscal regime was put in place, a fall of fiscal revenues follows over the years. The British North Sea is nowadays by far the lowest-taxed and most profitable oil province of the world.¹ It is not only consumer friendly, in the sense that it aims at maximising output since it considers natural resources as free gifts of nature, but it is also investor friendly, in the sense that it is very lenient regarding the collection of excess profits.

2.3 INCENTIVISING PRODUCTION

As can be seen in Fig. 4, the production of liquid hydrocarbons in the UK peaked first in FY85, at 2.62 million b/d. It then fell to 1.88 million b/d in 1988–9. A remarkable recovery to 2.82 million b/d followed in FY99 (generally believed to be the definitive peak). Since this recovery was obviously not due to prices, one may thus ask whether it had something to do with lower taxation levels introduced in 1983 and subsequent years. A detailed study on this subject² concluded that, in 1995, out of a total production of 2.676 million b/d, about 355 thousand b/d would not have been produced without those tax reductions. Let us note here that fiscal revenue from this additional production, over the lifetime of the fields, was estimated at UK£ 2 billion. Yet the tax rebates granted to old fields were estimated at UK£ 5.3 billion.³ Consequently, there was an overall loss in fiscal revenues of UK£ 3.3 billion.

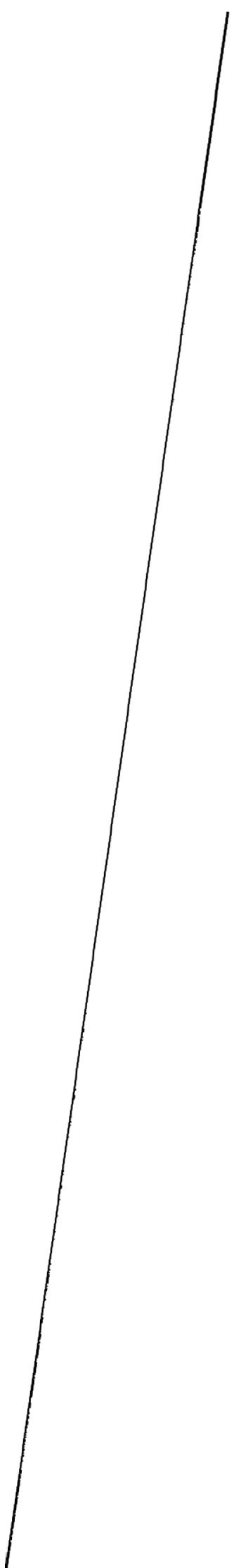
There is no doubt that the lower level of taxation had a positive impact on production. Nevertheless, a property-conscious government would not have been very pleased by this overall result. But for business and consumer-friendly liberal Britain the outcome that involved the maximisation of output instead of fiscal revenues was perfectly acceptable. From a proprietorial viewpoint the alternative course of action would have been to wait for technology to develop and/or prices to increase but would not have been a tax reduction in the

¹ According to Barrows: *World Fiscal Systems for Oil*, New York 1996; p.13, the UK ranked sixth amongst the 144 fiscal systems which were analysed. However, the analysis of these systems is based on model calculation, and none of the first five countries offering even more advantageous conditions was actually producing oil. For a more focused and detailed study see Ian Rutledge and Philip Wright: 'Profitability and Taxation in the UKCS Oil and Gas Industry: Analysing the Distribution of Rewards between Company and Country', *Energy Policy*, Vol. 26, No. 10, 1998; pp.795-812.

² Steve Martin: *Tax or Technology? The Revival of UK North Sea Oil Production*, Oxford Institute for Energy Studies, SP8, October 1997.

³ This estimate does not take into account additional fiscal revenues due to the fact that the above-mentioned loopholes were closed at the time PRT was lowered.

interval. In fact, had these additional 334 thousand daily barrels not been produced, this might have caused prices to rise encouraging a subsequent increase in production. In other words, the alternative that should be considered is not simply 'to produce or not to produce', but 'to produce now or to produce later'. A liberal fiscal regime, however, wants oil to be produced as soon as it is profitable to do so from the viewpoint of the private companies, which is considered to be the only relevant criterion.



3 ALASKA

3.1 FISCAL REGIME

In the USA oil fiscal regimes are based on lease contracts, which specify rents and royalties. In Alaska, where almost all of the oil is produced on public lands, the law defines a minimum royalty rate of one-eighth; the most common of the customary rates in the USA in private leases. One-eighth was the fixed royalty rate in the famous North Slope bidding round of 1969, which brought in US\$ 900 million in bonuses.¹ However, beginning in 1973, the bidding rounds were based on a royalty rate of one-sixth, and beginning in 1979 on one-fifth, the bidding parameter still being a bonus. Alaska also experimented at that time with a net profit share (NPS), between 30 per cent and 40 per cent. In fact, both royalty and NPS were used occasionally as bidding parameters, and a royalty rate as high as 43 per cent was achieved in at least one case. But after 1983 the one-eighth royalty became once again the usual rate in new leases, with a bonus as the bidding parameter.²

There is also a production tax, i.e. a severance tax. This is another kind of royalty; the difference being that its rate is fixed by law and not by contract. It is therefore subject to the state legislator. In 1968, it was set at 3 per cent. With increasing oil prices this rate was raised. In 1977, it reached 10 per cent for natural gas and 12.25 per cent for crude oil. The rate for oil was raised again to 15 per cent in 1981, although the rate of 12.25 per cent still applied for the first five years of a new development. These increases went hand in hand with the development of a sliding scale, a so-called 'economic limit factor' (ELF), first introduced in 1977. For crude oil, for example, no production tax is paid if output per well is 300 b/d or less. For gas, the lower limit is 3000 mcf per well and per day (about 535 boe/d). While the increasing rates were designed to capture higher fiscal revenues in response to higher prices, at the same time the scale became more flexible downwards regarding volumes. The minimum rate is zero and no longer 3 per cent as it was before 1973. This rate structure meant that in the fiscal year 2000 (FY00)³ Prudhoe paid a 14 per cent production tax, Pt. McIntyre

¹ At the time this huge amount came as a surprise and, with the benefit of hindsight, it heralded the forthcoming oil crisis in the USA. Production actually peaked in 1970.

² State of Alaska, Department of Natural Resources, Division of Oil and Gas: *2000 Annual Report*, pp.105-6: Summary of State Competitive Lease Sales.

³ In Alaska the fiscal year 2000 (FY00), for example, begins 1 July 1999 and ends 30 June 2000.

9.6 per cent, and Kuparuk 9 per cent. These three fields accounted for over 99 per cent of all production tax revenues.¹

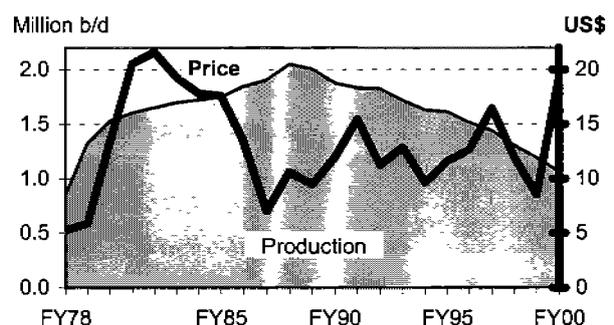
On top of royalties and production taxes, there is a state corporate tax, a net income tax, which was set at a maximum rate of 9.4 per cent in 1975. In 1978 the oil companies were 'ring-fenced' in order to quantify properly their profits originating within Alaska, i.e. to prevent them from diluting their profits nation-wide or internationally. Yet this arrangement met with stiff resistance from the companies. Ring-fencing was finally repealed in 1981, and worldwide combined profit reporting was now accepted. This was actually in line with what was happening at the same time at the federal level. The implicit loss of revenue was supposed to be compensated by the already mentioned increase of the production tax for crude oil from 12.25 per cent to 15 per cent. Finally, there is a federal corporate tax. Its rate evolved as already shown in Fig. 1.

3.2 FISCAL REVENUE

Production of crude oil in Alaska took off in FY78, and peaked in FY88 at 2.05 million b/d. Oil prices followed, of course, the pattern of world market prices (Fig. 7). Gross income – i.e. crude oil production multiplied by wellhead prices – peaked in FY82 (Fig. 8), and so did fiscal revenues. In relative terms, comparing fiscal revenues with gross income, they had peaked already in FY80, at 50 per cent. In both cases there was a sharp fall after FY82. Ever since the fiscal share of gross income has varied between 30 and 40 per cent (Fig. 9).

Figure 7: Alaska: Production and Prices

Source: State of Alaska, Department of Natural Resources, Division of Oil and Gas: *2000 Annual Report*.



¹ State of Alaska, Department of Revenue, Tax Division: *Fiscal Year 2000 Annual Report*; pp.42-3.

Figure 8: Alaska: Fiscal Revenue and Gross Income

SCT: State Corporate Tax
 FCT: Federal Corporate Tax
 R&R: Rents and Royalties

Source: State of Alaska, Department of Revenue, Tax Division: *Fall 2000 Revenue Resources Book*; p.91: Table I, Historical Petroleum Revenue. State of Alaska, Department of Natural Resources, Division of Oil and Gas: *Oil and Gas Revenue From State Leases – Fiscal Years 1990 Through 2000*.

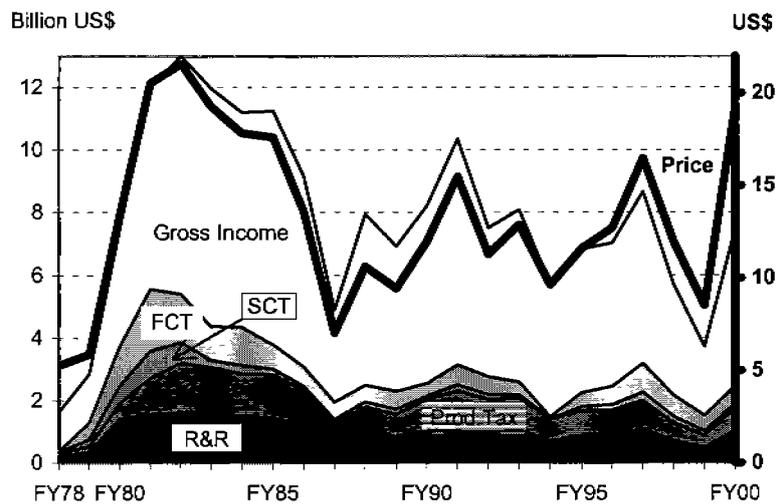
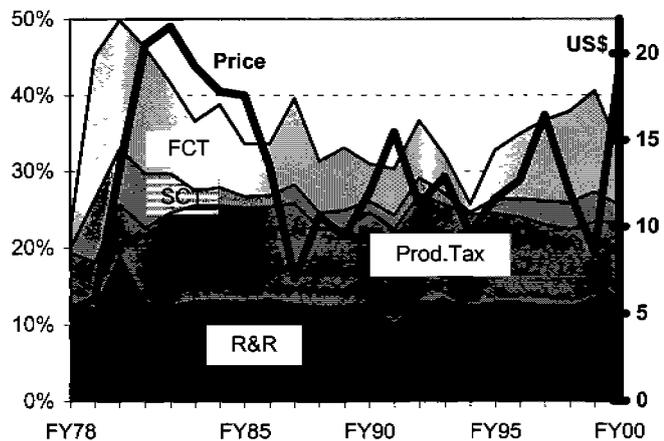


Figure 9: Alaska: Fiscal Revenue as Percentage of Gross Income

Source: Figure 8.



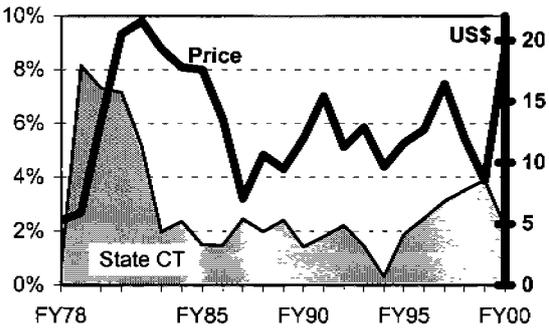
As can be seen, royalties, rents and bonuses – royalties representing about 98 per cent of that total – present a very stable percentage of gross income, on average about 12.9 per cent. The peak in FY80 is due to an exceptional bonus payment. There is a trough in FY91, which we are unable to explain. Production tax had been increasing over the first five years (1978–82), and decreasing since FY93. This is consistent with the production profile, and the operation of the safeguards mentioned earlier, which are redundant when output increases but are triggered in by falling production. Another factor which played a role was the new and more flexible legislation regarding the ELF adopted in 1989. Nevertheless, at present those gross value levies average about 23 per cent of gross income.

The absolute and relative fall in fiscal revenue observed in the early 1980s is entirely due to the corporate tax. As Fig. 10 shows, it was certainly not due to falling prices. The political deal ending ring-fencing but increasing production tax by 2.75 percentage points

(from 12.25 to 15 per cent),¹ fell obviously short of the desired outcome: to compensate for the removal of the fence. The actual loss in fiscal revenue to the state of Alaska was far higher than anticipated. During the years of ring-fencing, FY79–FY81, state corporate income taxes averaged 7.5 per cent of gross revenues. Then they fell sharply, averaging about 2 per cent, and this happened before prices collapsed in 1986. Once in the realm of federal corporate income taxation and worldwide combined profit reporting, the companies were in a strong position to minimise taxes, as pointed out earlier. It seems that Alaska suffered the consequences of the sharp fall in effective federal corporate tax rates during these years (Fig. 1), to which state corporate income taxes were now directly linked by a simple formula.

Figure 10: Alaska: State Corporate Tax as Percentage of Gross Income

Source: Figure 8.



We could not find any data on federal corporate income taxes paid on profits originating in Alaska. Hence, we used the data on state corporate tax to estimate federal income taxes. This was done according to the differences between the highest rate of federal corporate tax (Fig. 1) and the rate in Alaska (9.3 per cent over the whole period). We have further assumed that in the years of ring-fencing (1979–81) state corporate tax was twice as high as it was after the removal of the fence.

3.3 CONCLUSIONS

Although during the years following the OPEC revolution some features of liberal governance appeared in Alaska, such as a ring-fenced state corporate tax and a net profit share in some leases, this happened during the oil price *upswing*. In the end the lasting outcome was an increase in the production tax, although it became somewhat more flexible at low production levels.

¹ State of Alaska, Department of Revenue, Tax Division: *Fiscal Year 2000 Annual Report*; p.30, pp.42–3.

4 VENEZUELA

4.1 FISCAL REGIME

In Venezuela the customary royalty rate has been one-sixth since 1943 – which was the higher of the customary rates in the USA – though in different bidding rounds royalties of up to one-third were achieved. However, with nationalisation the higher rates were abolished. The national oil company, *Petróleos de Venezuela (PDV)*,¹ was only subject to the customary rate of one-sixth. When *Apertura Petrolera* was introduced and private investors returned, PDV asked for, and the Ministry of Energy and Mines consented to, a reduction of royalty to 1 per cent for some of the marginal fields granted to private investors in 1992. Over the next five years, 33 of these so-called operating agreements were granted in three bidding rounds and individual negotiations. The bidding parameter in the first round was the working programme, in the second round it was the operation fee, and bonus bidding was used in the third one. Bonuses totalled US\$ 2.2 billion in this latter case. However, whereas the first two rounds offered abandoned or inactive fields, in the third round the fields under offer were producing about 77 thousand b/d. Hence, part of the bonuses covered the price of the existing producing facilities.² At present, the 33 operating agreements produce 510 thousand b/d.

PDV entered into four joint ventures with private partners in the Orinoco Belt to produce extra-heavy oil to be upgraded and converted into synthetic crude (syncrude). These ventures also pay only a 1 per cent royalty for the first ten years, and one-sixth (16.67 per cent) thereafter. One of these projects started operating in February 2001, another is to follow later this year, and all of them will be operational by the year 2005. At that time they will process about 650 thousand b/d of extra-heavy crude, producing some 550 thousand b/d of syncrude. Finally there are seven so-called profit-sharing agreements in conventional crudes – exploration and production – subject to a sliding-scale royalty, starting at 1 per cent, and linked to the internal rate of return (IRR). Once the IRR reaches 15 per cent, the royalty rate reaches one-sixth. So far none of these profit-sharing agreements have reached the production stage.

¹ The national oil company *Petróleos de Venezuela, S.A.*, is known in Venezuela by the acronym PDVSA, but PDV is the usual acronym internationally.

² For more details, see Bernard Mommer: *The New Governance of Venezuelan Oil*, Oxford Institute for Energy Studies, 1998.

PDV is subject to an income tax rate of 67.7 per cent, to be compared with the usual rate of 34 per cent in the non-oil sector. But there is a 2 per cent investment allowance, which reduces these percentages to 65.7 and 32 per cent. More importantly, the Nationalisation Law granted PDV a 'legal contribution' of 10 per cent of export profits, free of income taxation, to provide the company with an investment fund. Hence, the relevant income tax rate for petroleum exports was 59.13 per cent [= 65.7%*90%]. The 65.7 per cent rate fully applies to the domestic market, but profits there are low, due to low prices fixed by the government. Hence, in what follows we may ignore that rate. Finally, in 1993 Congress introduced in the income tax law some allowances for inflation. Consequently, as we shall see, the effective income tax rate fell sharply.

The operating agreements mentioned above, as well as the four joint ventures in upgrading extra-heavy crude, are only subject to the usual income tax rate of 32 per cent. The profit-sharing agreements in conventional crude, however, are subject to income tax at 65.7 per cent. What is more, the bidding parameter was a surtax of up to 50 per cent. Beyond that 50 per cent, there was a bonus as a tiebreaker. Bonuses totalled US\$ 245 million.

Until 1996 PDV was subject to a production tax, although this tax was levied in a very peculiar form. Indeed, as strange as it may sound, PDV had to pay a so-called income tax on gross income. Income taxation in petroleum exports was linked to a 'fiscal export value' (FEV), a percentage to be defined by the government. This percentage was multiplied by the relevant income tax rate, and the resulting percentage had to be paid on gross export income.¹ For example, if FEV was set at 30 per cent, the relevant income tax rate being 59.13 per cent, then an excise tax of 17.74 per cent [= 30%*59.13%] had to be paid. Moreover, this tax was levied legally as part of income taxation and, therefore, it could not be accounted for as a cost. Hence, if we want to compare this peculiar tax with a production tax in the rest of the world, conventionally accounted for as a cost when computing income taxes, then those 17.74 per cent have to be multiplied by 2.45 [= 1/(100% - 59.13%)]. In other words, a FEV of 30 per cent was equivalent to an *ad valorem* tax of 43.4 per cent on exports, duly accounted for as a cost regarding income taxation. In the following we will refer to the latter percentage as FEV(CT).

¹ This system had developed in the oil-exporting countries in the 1960s in a – successful – effort to compensate for falling prices. See Bernard Mommer: *Die Ölfrage*, Institut für Internationale Angelegenheiten der Universität Hamburg, Nomos Verlagsgesellschaft Baden-Baden, 1983.

Table 2: Fiscal Regimes in Venezuela

PETRÓLEOS DE VENEZUELA				
<i>Per cent</i>	1976-81	1982-5	1986-92	1996->
Royalty	16.67	16.67	16.67	16.67
FEV(CT)	39.58	36.17	28.94	0.00
<i>Gross Inc. Levies</i>	<i>56.25</i>	<i>52.84</i>	<i>45.61</i>	<i>16.67</i>
CT	59.13	59.13	59.13	59.13
<i>Net Inc. Levies</i>	<i>59.13</i>	<i>59.13</i>	<i>59.13</i>	<i>59.13</i>
Marg. Fisc. Take	82.12	80.72	77.77	65.94

	OPERATING AGREEMENTS; UP-GRADING EXTRA-HEAVY CRUDE	PROFIT-SHARING AGREEMENTS
<i>Per cent</i>	1992 ->	1996->
Royalty	1 or 16.67	1-16.67
<i>Gross Inc. Levies</i>	<i>1 or 16.67</i>	<i>1-16.67</i>
CT	32	65.50
Surtax	n.a.	0.00-50.00
<i>Net Inc. Levies</i>	<i>32</i>	<i>65.50-82.75</i>
Marg. Fisc. Take	32.68 or 43.33	65.85-85.63

The Venezuelan government was also empowered by law to set the FEV(CT) at whatever rate it felt appropriate. In 1976, it was set at 39.58 per cent. Then, in order to transfer financial resources to the newly founded national oil company, the FEV(CT) was lowered the following three years. It was raised again with the second oil price shock (1979-80). It peaked at 41.39 per cent in 1981. But in 1982 Congress limited the power of the government to a maximum of 36.17 per cent [i.e. FEV at 25 per cent] for the years 1983 to 1985, and to 28.94 per cent [i.e. FEV at 20 per cent] from 1986 onwards. Finally, in 1993 Congress phased out the system by the year 1996. On the other hand, with *Apertura Petrolera* private investors were exempt from this production tax, although they had been subject to it before nationalisation. In Table 2 we summarise the features of fiscal regimes as applied to the different companies and types of contracts.

Finally, in 1996, the year when the FEV was abolished, the government fell back on dividends, which constituted the only device left to siphon off the profits after rents, royalties,

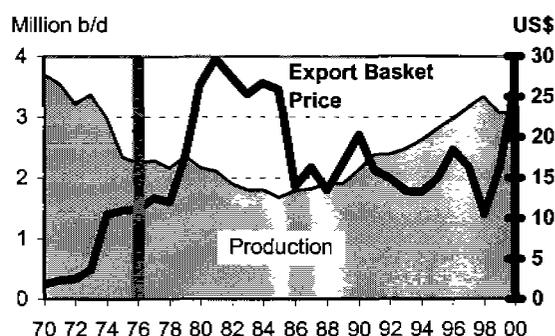
and taxes. Until then PDV had never paid dividends, as the FEV had provided the government with the necessary device to skim off all excess profit.

4.2 FISCAL REVENUE

In Venezuela production peaked in 1970 at 3.7 million b/d. When the industry was nationalised, on 1 January 1976, production had fallen to 2.4 million b/d partly due to the exhaustion of its aging reservoirs. (Venezuela had been the biggest oil-exporting country for 43 years, from 1928 until 1970). The fall was also due to a lack of investment, as the most important oil concessions to foreign companies were about to run out in 1983 and 1984. After nationalisation, PDV managed to maintain the level of production until 1979. Then it started to decline again, but this time due to a lack of demand induced by high prices and, after 1983, because of OPEC quotas. In 1985, production was down to 1.7 million b/d. Thereafter it started to recover, and peaked again in 1998 at 3.3 million b/d, before production had to be curtailed again due to OPEC quotas (Fig. 11).

Figure 11: Venezuela Production and Prices

Source: República de Venezuela, Ministerio de Energía y Minas: *Petróleo y otros datos estadísticos*.



Figs. 12 and 13 show gross income and fiscal revenues.¹ Gross income includes all hydrocarbons, exports as well as domestic consumption, the former representing always over 85 per cent of the total. Somewhat surprisingly, royalty remained constant in absolute terms, and fell in relative terms during the years of high prices (1980–1985). This was because royalty is subject to a conventional price, and the Ministry of Energy and Mines (MEM) froze the conventional price of royalty oil during those years. At the same time, however, the FEV(CT) was raised. Taking all these factors together, the result was that gross revenue levies actually increased. After the collapse of oil prices in 1986 MEM signed new royalty agreements with PDV. Accordingly, royalty would be paid at the average market price. In January 1985 the MEM had officially abandoned the fiscal control of prices, with retroactive

¹ In Venezuela the fiscal year coincides with the calendar year.

effect for the year 1984. PDV price declarations would be accepted at face value, even if the volumes involved were not sold in the open market but transferred to its foreign affiliates. This is a noteworthy fact, which goes against common sense and practice anywhere else in the world. This move was linked to PDV's internationalisation policy initiated in 1983 with the acquisition of its first refinery outside the country.¹

Figure 12: Venezuela: Fiscal Revenue and Gross Income

Source: República de Venezuela, Ministerio de Energía y Minas: *Petróleo y otros datos estadísticos*.

CT: Corporate Tax
FEV: Fiscal Export Value
Div.: Dividends

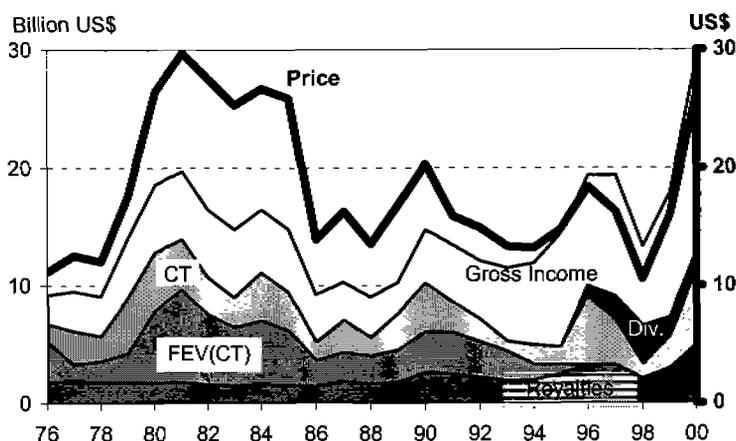
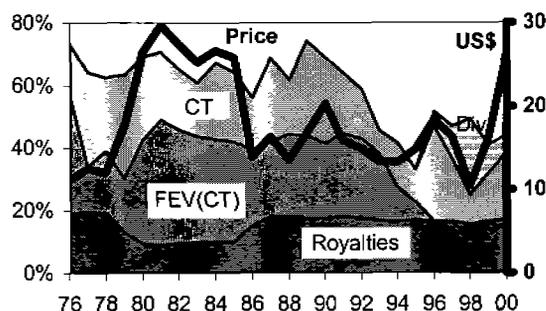


Figure 13: Venezuela: Fiscal Revenue as Percentage of Gross Income

Source: Figure 12.



FEV(CT) evolved as already explained earlier, although the percentages in our figures are slightly lower. The reader has to keep in mind that these percentages as quoted above were based on gross exports, whereas in Figs. 12 and 13 they are represented as a percentage of gross income, arising from both exports and the domestic market. All in all, the gross income levies averaged, until 1993, about 40 per cent. Thereafter this proportion fell to one-sixth.

¹ Since then PDV has used transfer pricing to convey financial resources to its affiliate abroad. There are two benefits to the company. On the one hand, tax levels are significantly lower abroad and, on the other, profits are thus brought outside the reach of the government, notwithstanding the fact that the government is its sole shareholder. In the 1990s, these transfers may have averaged as much as US\$ 500 million a year. For a detailed study on this subject see Juan Carlos Boué: *The Market for Heavy Sour Crude Oil in the U.S. Gulf Coast – A Study in Duopoly* (working title), Oxford Institute for Energy Studies, forthcoming.

In the last year before nationalisation (i.e. 1975), a 75 per cent income tax rate applied to the private oil companies. To favour the national oil company after nationalisation this rate was lowered, as already mentioned, to 59.13 per cent. With the phasing out of FEV(CT), one might have expected that income taxes would have become more important. The contrary happened (Fig. 14), because of increasing costs and generous allowances for inflation introduced at the same time in the Income Tax Law. The latter caused a sharp fall of the effective tax rate (Fig. 15). Compared to gross revenue, the importance of income taxes came down from an average of about 23 per cent (years before 1994), to 16 per cent.

Figure 14: Venezuela: Income Tax as Percentage of Gross Income

Source: Figure 13.

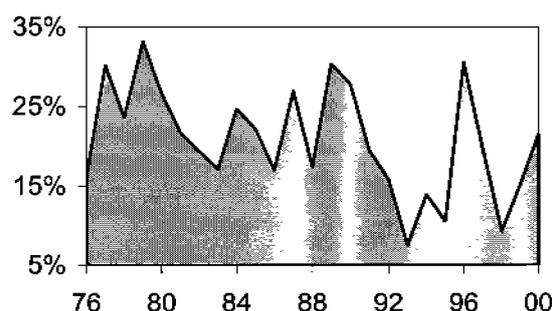
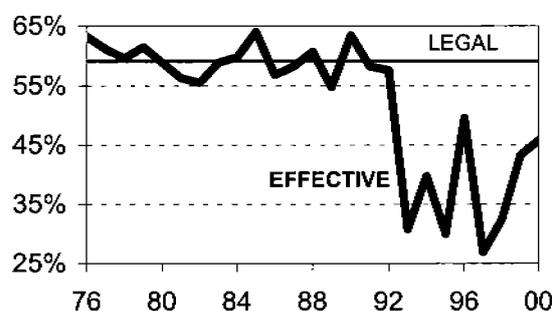


Figure 15: Venezuela: Income Tax Legal and Effective Rates

Source: República de Venezuela, Ministerio de Energía y Minas: *Petróleo y otros datos estadísticos*. – We estimated the effective tax rate comparing income taxes, net of FEV (see below), with consolidated net after-tax profits of PDV. On the other hand, there were some bonus payments in the years 1995 to 1998 we did not include in our calculations. These payments were related not to current but to future production.



Finally, in the year when the FEV was abolished the government fell back on dividends, the only device left to siphon off the profits after rents, royalties, and taxes. Until then PDV had never paid dividends, as the FEV provided the government with the necessary device to collect revenues. However, the government was not able to claw back through the dividends what it had lost in rents, royalty and taxes since 1993. From 1976 to 1992, fiscal revenues averaged about 66 per cent of export sales; between 1993 and 2000, the average was 36 per cent, without taking into account dividends, and 44 per cent including them.

4.3 OUTLOOK

The upstream contracts entered by Venezuela with private investors after 1989 show a trend towards lower taxation levels, the profit-sharing agreements being an exception. But there is a general trend towards liberal fiscal regimes, also revealed by the profit-sharing agreements. These contracts with the private companies chart the path that the national company itself would like to follow sooner rather than later, although the political events over the last few years brought both trends, at least for the time being, to a hold. Yet over the next few years all those upstream contracts will become operational, and their production will account for about 40 per cent of Venezuela's total oil output by the year 2010. While the transformation of the proprietorial fiscal regime into a liberal one may have come to a halt, and may even be reversed, the contracts entered upon when this transformation was initiated will cause fiscal revenue to continue to fall over the next decade, if not longer.¹

¹ Bernard Mommer: *Venezuelan Oil Politics at the Crossroads*, OIES Monthly Comment March 2001, <http://associnst.ox.ac.uk/energy/>.

5 THE POLITICS OF FISCAL REGIMES

In Fig. 16 we compare prices in the UK, Alaska, and Venezuela. However, one has to keep in mind, firstly, that UK prices refer to barrels of oil equivalent (crude oil and gas), whereas Venezuelan prices refer to the export basket (crudes and products), and in the case of Alaska we deal with the price of crude oil only. Secondly, prices reflect the average of fiscal years, defined differently in each case. However, Alaska has the lowest prices, which is largely due to its high pipeline transport costs, whereas overall the highest prices are to be found in the UK, which is due to the quality of British oil. In Fig. 17 we compare fiscal revenues as a percentage of gross income. Obviously, the marked differences we observe cannot be entirely explained by price differences. Nor can the evolution of taxation levels over the 25-year period in each case be explained by variations of production costs. To explain their evolution, we have to go back not only to the fiscal regimes themselves and their nature, but also to the governance structure in which they are embedded.

Figure 16: The UK, Alaska and Venezuela: Prices

Source: Fig. 6, 9, and 13.

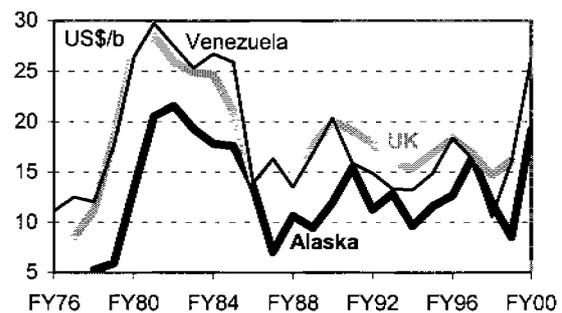
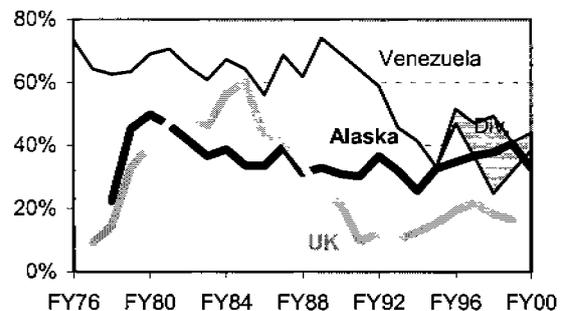


Figure 17: The UK, Alaska and Venezuela: Fiscal Revenues as Percentage of Gross Income

Source: Fig. 6, 9, and 13.



5.1 THE UNITED KINGDOM

Until 1960 fiscal regimes in oil everywhere in the western world tended to reproduce the American model, of which Alaska is just one example (see below). In the British North Sea,

however, a new oil-producing province began to emerge in the late 1960s. At that time the American reference was already weakening and being pushed aside by the oil-exporting countries. They wanted higher fiscal revenues and higher prices. In the 1970s and 1980s the UK, too, abandoned the American reference, but from an opposite viewpoint, that of a consuming country. The oil fiscal regime in the UK emerged and evolved in the shadow of the OPEC revolution, the UK being a consuming country. Hence, the objective was to produce as soon as possible and as much as possible. Accordingly, the UK developed, after some vacillations, a radical liberal fiscal regime. The decisive year was 1982. Next, and foreseeably, it fell prey to the permanent lobbying of the industry to bring down taxation levels. Hence, the British fiscal regime today is both consumer and company friendly, but radically hostile to any claim of natural resource ownership. Consumers benefit from lower-than-otherwise prices due to the supply-side of the equation, whereas companies benefit from low levels of taxation. Fiscal revenues came down, and today they are only a few percentage points above the level of corporate taxation, usually applied to all enterprises of whatever kind. As a matter of fact, since 1993, new fields paying neither a royalty nor PRT are only liable to corporation tax. The losers are taxpayers generally who otherwise would benefit from lower taxation levels on income or expenditures.

The liberal governance of British oil is an extremely solid and robust structure. The way petroleum policy has been structured means that the oil-exporting feature of the UK economy – significant in terms of the volumes involved, of one million barrels daily – is simply irrelevant. Indeed, it is so irrelevant that the British public at large is unaware of it; and the British government continues to consider higher oil prices as promoted by OPEC a threat to the world economy and, hence, to the British economy.

Britain champions not only low up-stream but also high down-stream taxation. Nowhere in Europe is petrol more expensive than in the UK. In 1999, upstream petroleum taxation amounted to UK£ 2.6 billion compared with UK£ 29.7 billion downstream.¹ Most remarkably, in the confrontation between governments and truck owners and drivers about petrol prices in Europe in 2000, this governance structure turned out to be strong enough to keep the public debate focused exclusively on downstream taxation. Upstream profits attracted little attention. The point that these profits are there to stimulate production and not

¹ Ian Rutledge and Philip Wright: 'Taxing Petroleum: Don't forget the upstream', *Financial Times Energy, Energy Economist Briefing*, October 2000; p.3.

to be taxed by the government seems to be accepted at least implicitly or as the French would say: *ça va sans dire*.¹

This is actually a very important point, nationally and internationally. The UK has become the textbook example and the model pupil of liberal governance in oil. This country is the ideal reference of the consuming countries in their tug-of-war with OPEC. Increasing taxation upstream would set a bad example. Of course, if higher oil prices last for several years, taxation may be increased but this will always take the form of an excess profit tax based on net revenue. In the political culture that informs the UK oil policy today, royalties are simply 'outmoded'.²

5.2 ALASKA AND THE USA

It is in Alaska – surprisingly enough not in Venezuela – that the perception of a business relationship between the natural resource owner and the producing companies is the most deeply rooted. Although almost all of the oil and gas in Alaska is produced on public lands, the understanding of this relationship has to be seen against the background of a very strong tradition of private mineral property in the United States, a feature unique to that country.³ There is also a legal and constitutional tradition that links mineral royalties on public lands to education and other social programmes. Thus what is observed in Alaska is similar to what can be observed in any other oil-producing state of the United States, whether they are oil 'exporters' or not. What makes Alaska unique is that it is sparsely populated (622,000 in 1992), resembling the Emirates of the Persian Gulf. Every citizen in Alaska is aware of *his or her* share in public mineral ownership. What is more, Alaska created by public vote in 1976 a Permanent Fund (an investment fund) to which over 25 per cent of rents and royalties accrue. The establishment is enshrined in the state constitution. Last year it paid a dividend of US\$ 2000 to every Alaskan citizen.

The state of Alaska has been subjected to pressure from the international companies and independent consultants, backed by international financial institutions, the IEA or, more recently, the Energy Charter Treaty, to convince them of the merits of more 'flexible' fiscal regimes. As already noted, they were not totally unsuccessful regarding the production tax

¹ Of course, there are always some outsiders like Rutledge and Wright.

² Kemp, Alexander G., Linda Stephen and Kathleen Masson (1997), *A Reassessment of Petroleum Taxation in the UKCS*, North Sea Study Occasional Paper No. 65, University of Aberdeen; p.11.

³ Bernard Mommer: *Private Landlord-tenant Relationship in British Coal and American Oil: A Theory of Mineral Leases*, Oxford Institute for Energy Studies, 1997.

and ELF. More recently, a discussion of 'Petroleum Fiscal Systems' appeared in the *Fall 2000 Revenue Resources Book*,¹ which was very much inspired by the British debate on the virtues of PRT. Accordingly, gross revenue levies are qualified as 'regressive' and net revenue levies as 'progressive'. Yet Alaska so far has been less than receptive to these ideas, and the question of *expected* Ricardian rents or excess profits continues to be settled through bonus bidding.

The same goes, as a matter of fact, for the whole of the United States. What can be observed in the United States since 1920 – when the policy of leasing public mineral lands in lieu of transferring them to the private sector came into being – is an extraordinary stability of the traditional fiscal regime, based on gross revenue levies and bonus bidding, obviating excess profit taxation based on net revenue. Notwithstanding extreme price variations and economic ups and downs in the 140 years of oil history, the contractual structure of the USA upstream, based first on private leases and later, after 1920, also on public leases, was rarely questioned. The fiscal regime evolved accordingly, and public and private leases were equally subject to severance taxes. It was not the fiscal regime that was adapted to make marginal lands profitable; the adjusting variable was the price. As a matter of fact, in response to growing scarcity, royalty rates and severance taxes slowly increased during the twentieth century. After the OPEC revolution, in Texas and Louisiana, for example, a 20 per cent royalty has become the customary rate for new leases. In Texas there is also a severance tax of 4.6 per cent on crude oil, and of 7.5 per cent on natural gas; in Louisiana 12.5 per cent on crude oil, and 6.43% on natural gas. Only at the margin as observed in the case of Alaska, does the regime display some flexibility downwards.

The USA became a net importer in 1947. At present the country imports about 60 per cent of its needs from abroad, and is currently the biggest oil importer in the world. Due to the development of the offshore fields, about 60 per cent of its production (the USA is still the second biggest oil producer in the world) comes today from public lands. Notwithstanding these facts, liberal governance has progressed very little at the state level. Things are somewhat different, however, in the deep waters (beyond 200m) of the Mexican Gulf, which are completely under federal control. At that level the interests of the USA as a consuming country are politically much stronger, and only a few big international companies have the necessary technologies. In 1995 – an unprecedented event in the USA – the Minerals

¹ State of Alaska, Department of Revenue, Tax Division: *Fall 2000 Revenue Resources Book*; pp.19–21.

Management Service (MMS) was authorised to offer tracts with royalty suspensions for either a limited period of time, or a limited volume, or a specified threshold for the accumulated gross value of production, in ‘order to make the new production economically viable’.¹ This new legislation has actually already been applied to four major fields.

However, the Mexican deep water is as far away as it can possibly be from private mineral properties. Yet 40 per cent of US oil is still produced on private lands, and one has to keep also in mind that royalty applies – though rates may be different – to all minerals, not just oil. Hence, to implement liberal governance in oil everywhere may be a very difficult if not impossible task, even in the states’ offshore. Where public mineral ownership coexists with private mineral ownership, it is difficult to argue that natural resources should be considered a free gift of nature in one case but not in the other. To be able to treat oil as a free gift of nature on public lands, one would need to abolish private ownership of minerals, which is politically inconceivable. In states like Texas and Louisiana, oil and gas royalty owners constitute strong and widespread interest groups; in many other states mineral royalty owners also constitute strong and widespread interest groups at least at local levels. Last but not least, the federal nature of the US constitution extends the reach of these local interests straight into Congress and the White House.

This also explains why, even in extreme situations, in the USA there is no excess profit taxation *based on net revenues*. Traditionally, the approach has been price control, for example during the First and Second World Wars, the Korean War, and more recently after the two OPEC price shocks. In these two latter cases, the system first differentiated between ‘old’ and ‘new’ oil. The former one, obviously, had already been profitable at the old oil price level and, therefore, was subject to price control. The latter was allowed to adjust to market prices to provide incentives for the exploration for, and production of, ‘new’ oil. In 1980, price controls were lifted and a ‘windfall profit tax’ (WPT) was introduced instead. Technically quite complex, it was based on price differentials, i.e. gross values and not profits – actually a kind of severance tax – and it was conceived from the very beginning as a transitional measure to phase in higher oil prices. The tax became ineffective with the price collapse of 1986, and was formally repealed in 1988.

The problem with excess profit taxation lies in the definition of excess profits. At least theoretically, this definition has to be based on the concept of a normal profit and, ultimately,

¹ Outer Continental Shelf Deep Water Royalty Relief Act (Public Law 104-58, 43 U.S.C. § 1337).

of a normal profit rate. It is hard to see, however, such an approach not leading to the questioning, in the first place, of the legitimacy of royalties. 'Profit rates' of royalty owners, so to speak, are infinite since they never invest a penny. After all, natural resources are, by definition, a free gift of nature; but the question is, a gift to whom? The first principle of liberal governance is that the right thing to do is to tax heavily royalty owners if not to expropriate them altogether.¹ Hence, royalty and working interests in oil and other minerals will do everything to prevent the issue from being discussed, and so far they have been successful. Even in the exceptional circumstances of the Mexican Gulf deep waters, the flexibility downwards is defined in terms of volumes and prices, not profits or profit rates. Of course, one cannot exclude absolutely the nationalisation of the mineral reservoirs in the future in the USA; after all, coal deposits were nationalised in Great Britain in 1938 by a Conservative government. But for the foreseeable future, this seems most unlikely.

5.3 VENEZUELA

The development of the oil fiscal regime in Venezuela is somewhat surprising. As a founding member of OPEC, this country had been at the forefront in developing a proprietorial fiscal regime. Yet nationalisation brought down a firewall. Whereas foreign companies had only limited access to the President of the country, to the Legislator and, most importantly, to national public opinion, PDV had no such limitations. The first signs that the basically proprietorial fiscal regime² was about to be transformed into a liberal one, were neglect in collecting royalties, and the question of transfer pricing. The foreign companies would never have got away with not paying royalties properly or abusing the transfer price mechanism. Then PDV lobbied successfully in Congress against the Executive power and the FEV. Finally, in the chaotic year 1993 – after two failed military coups d'état in 1992, and the successful impeachment of President Carlos Andrés Pérez – the national oil company convinced Congress to scrap the system of FEV completely, and to introduce at the same time several allowances which would reduce significantly the effective rate of income tax. Then

¹ This is actually the conclusion of Robert J. Bradley Jr.: *Oil, Gas, and Government: The U.S. Experience*, 2 vol., Cato Institute, Rowman & Littlefield Publishers, 1996; pp. 59–74. See also my review of this book in *The Journal of Energy Literature*, Vol. II, No. 2, December 1996; pp. 79–83.

² The 59.13% income tax rate applied to PDV was then not as high as it may look today. At the time it was fixed at that level, in 1976, the corporate tax in the USA was 48%, and the usual rate in Venezuela was 52%.

PDV started to lobby for scrapping royalty completely, to base the fiscal regime entirely on excess profit taxation and, ultimately, on dividends.¹

As surprising as it may seem, the national oil company not only embraced the liberal ideal but also was able to implement it. The first fact is to be explained, of course, by the economic and political decay of the country, which began shortly after nationalisation and which has continued ever since. The leadership of PDV concluded at an early date that to spend a dollar was always a better option than paying an additional dollar in taxes. The second fact is explained by the way nationalisation was structured. The traditional institutional seat of Venezuelan oil nationalism, the Ministry of Energy and Mines, was marginalised and displaced by PDV, which today dominates public opinion almost completely. The latter is overwhelmed by the large flow of company news and investment projects, provided by private companies or PDV, and information on prices, volumes, and *export* revenues. The sharp fall of fiscal revenues after 1993 is not an issue of public debate. It is actually an almost unknown fact. However, the MEM has not disappeared completely and, as already mentioned, it has made a systematic effort to fight back in the last two years.

¹ Ramón Espinasa: “El Marco Fiscal Petrolero Venezolano: Evolución y Propuesta”, *Revista del Banco Central de Venezuela*, Foros 3 / 1999. At the time Espinasa was PDV’s Chief Economist.

6 CONCLUSIONS

The liberal governance of UK oil is not just a national issue. It is central to the ongoing worldwide tug-of-war between the advocates of liberal and those of proprietorial governance. The oil-exporting countries and OPEC confronting the international companies and their cartel started this 'war' a long time ago. But soon after the companies' defeat, the governments of the consuming countries entered the scene. They too closed ranks, founding the International Energy Agency. Surprisingly, however, proprietorial fiscal regimes have their strongest and deepest roots in the USA, a consuming country, because of the existence of private mineral property rights, and not in the oil-exporting countries; and liberal governance is strongest in the UK, which is an oil-exporting country.

In the oil-exporting countries where all mineral rights are under public ownership, politics play a much larger role, but this can work in opposite ways. The ability of these countries to impose very high ground rents and prices is significant, but so is their ability to bring ground rents down to zero and promote lower prices. Even Third World oil-exporting countries, which developed an extreme proprietorial fiscal regime in the past, are vulnerable to adopt a liberal fiscal regime, as can be observed in the case of Venezuela. Whatever the internal conditions of the country might have been, there is no doubt that PDV, at least after 1989, was the victim of an elaborate strategy of 'agency capturing' by the consuming countries.¹ The same strategy can be observed at this very moment in other exporting countries, albeit with varying success.

Contrary to the economic literature on the subject, which stresses purely economic variables, political variables of the kind described in this paper are much more important to the future of fiscal oil revenues. Typically, the economic literature bases its analysis on *ex-ante* models, but nowhere is there an *ex-post* analysis of the actual outcome, as attempted in this paper.²

One may wonder what the overall long-term trend might be. According to our examples, we can identify two different models. First, there is Alaska, a state subject to a federal power and still able to collect a very significant amount of ground rent. Secondly there is Scotland. Indeed, about two-thirds of British oil is actually produced in Scottish waters. But

¹ Bernard Mommer: *The New Governance of International Oil – The Changing Rules of the Game*, OIES Paper WPM 26, Oxford Institute for Energy Studies, 2000.

² See for example Barrows: *World Fiscal Systems for Oil*, New York 1996.

within the centralised political system of the UK, no claim for proprietorial governance could ever prosper in Scotland, nor has 'devolution'¹ changed anything in this regard. Instead some of their Universities specialise in teaching and propagating liberal governance in oil. Both worlds coexist in global oil today and, I believe, will continue to coexist. This is because the reasons that justify one system or the other are very complex and the attachment to each system is deeply embedded within each society.

¹ Since 1999 Scotland has its own regional and freely elected parliament and government.

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