CHAPTER III

PETROLEUM FISCAL REGIMES

General

Petroleum exploration and development requires high investment and technology and is also a very risky business. Almost none of the host countries makes their own investment. Oil companies with expertise and equity are invited to invest in the petroleum activities and if economic petroleum fields are found and produced, profit will be then split between the State and the oil companies. Generally, the State will use the fiscal term considered most appropriate with regard to petroleum potential, energy's policy, and investment competition in the region.

There are several fiscal systems used in oil operations around the world. The most popular ones are Concession System, Production Sharing Contract, Participation Agreement, Hybrid System and Service Fee Arrangements. However, in the Asian region, three fiscal systems are used: Concession System, Production Sharing Contract System, and Hybrid System.

The concession system is the most popular one and is considered to provide more incentives than the other systems. Oil companies have much free hand in the resources management. This system also comprises various different choices of fiscal instrument. Some countries use simple concession system which consists of only royalty or only tax. Some use a more complicated one which consists of two fiscal instruments i.e. royalty and tax or tax and profit sharing. Some have three fiscal

instruments - royalty, tax, and profit sharing. Thailand falls into the third category having SRB as the profit sharing.

Production Sharing Contract (PSC) provides fewer incentives than the concession system as the State manages her own resources and give to the operating companies their share of profit. This system also consists of various fiscal instruments. Some PSC used consists of only production sharing, as in Vietnam. Some PSC has both the production sharing and tax. Some PSC has three fiscal elements, the production sharing, royalty, and tax, as in use in Indonesia, or production sharing, tax, and profit sharing, as in Sri Lanka, etc.

In some countries like Malaysia and China, Hybrid system is used by merging Production Sharing Contract to Participation Arrangement. So their fiscal instruments will consist of production sharing, government participation, tax, and royalty.

Thai Petroleum Fiscal Regimes

Thailand uses the concession system and during the 30 years of Thailand's petroleum activities, three fiscal regimes have been in use. The first one, Thailand I was officially introduced in 1971 when the Petroleum Act B.E. 2514 (1971) came into force. It was under this regime that the concessionaires found large petroleum fields and earned more than fair share of their profit. The second one, Thailand II, came into force in 1982 and became so unpopular as it was much in favor of the State and deprived the investors of their considered fair share of profit. Thus, came Thailand III in 1989 with the aim to balance the profit split between the State and the concessionaires. As each regime has no retroactive action, at present, Thailand has two fiscal regimes for her concessionaires: Thailand I and Thailand III (those

concessionaires under Thailand II had all exercised their right in applying to be under Thailand III).

Thailand I

International oil companies had been invited to explore for and produce petroleum in Thailand since 1962 and the earlier petroleum concessions were awarded under the Mining Act. When the Petroleum Act was first promulgated in 1971, all the petroleum concessions then became under the Petroleum Act B.E. 2514 (1971).

Terms of profit sharing between the State and the concessionaires under the Petroleum Act B.E. 2514 and the Petroleum Income Tax Act B.E. 2514 is called Thailand I. Major elements of Thailand I are fixed royalty rate of 12.5% of gross revenue and petroleum income tax of 50%. Royalty on petroleum sold domestically can be credited against petroleum income tax of each year. Simply stated, in Thailand I system, private sector make the investment and profit occurred will be split 50:50 with the State who own the resources.

Thailand II

In 1981, global oil price reached over US$30 per barrel and was on the increasing trend. In the Asian region, a number of new petroleum fields were discovered and the host countries began to exert and regain more control over the management of their resources in order to maximize economic rent as in Indonesia and Malaysia. In Thailand the year 1981 marked many important energy events: the first petroleum pipeline construction to bring onshore natural gas from the Gulf of Thailand was launched, Esso Exploration and Production Khorat Inc. discovered Nampong gas field in northeastern Thailand, and, especially, the discovery of

medium-size Sirikit oil field by Thai Shell Exploration and Production Co.,Ltd. in Lankrabuo Sub-district, Kampangphet Province which is the first oil field of economic value found in Thailand.

It was deemed by the Government at that time that vast acreage onshore should be opened for bidding as the chance of discoveries of medium size oil fields were high and with the increasing trend of oil prices, investment in petroleum exploration was likely to be very active. It was thus necessary that terms and conditions in petroleum law should be amended to provide more profit to the State. The Government had then in 1982 stipulated that applicants for petroleum concessions must propose additional special advantages to the State to be stated in their concessions . The terms in addition to those of Thailand I are:

1. Annual Benefit. The concessionaires shall limit its annual eligible cost deduction under the Petroleum Income Tax Act to not exceeding 20 % of the gross revenue of the year or else pay to the State the annual benefit in the amount equal to the excess cost.

2. Annual Bonus. The concessionaires shall pay to the State annual bonus (in addition to the royalty) based on the rate of oil produced as follows:

(a) 27.5% of revenue from oil produced between 10,000-20,000 BBL/day,

(b) 37.5% of revenue from oil produced between 20,000-30,000 BBL/day,

(c) 43.5% of revenue from oil produced above 30,000 BBL/day.

These new annual benefit and annual bonus and the former 12.5 % royalty rate and 50 % petroleum income tax is collectively called Thailand II . (At present, no concession is under Thailand II.)

However, later detailed analysis showed that Thailand II would only work well in favor of the government only if large scale oil fields were found and the oil prices were unusually high. And since exploration data from 1982 onwards indicated that oil fields expected to be discovered were more likely to be marginal ones with high investment cost per barrel and with the decreasing oil prices to about US$ 9-15 per barrel, a number of marginal fields could not be put to commercial development under Thailand II as the State would take most of the profit and the concessionaires could hardly cover their cost.

As Thailand I provided much incentives to the investors with less benefit to the State, Thailand II in opposite emphasized on the benefit in favor of the State without due regard to factors on capital cost of the investors which made it not attractive. A new system which would be more flexible and provide fair profit split to both the host country and the investors was then designed.

Thailand III

In 1989, Petroleum Act was amended and a new fiscal regime called Thailand III came into force with the aim to encourage development of marginal fields which are not cost-effective under Thailand I and Thailand II. However, in the case of windfall profit, the State will also earn in proportion additional profit share to that of the concessionaires.

It can be concluded that Thailand III is a profit sharing system that provided many incentives to investors. These incentives are as follows.

1. Royalty

The rate of royalty to be submitted to the State was changed from the fixed rate of 12.5% of gross revenue to a sliding scale royalty based on the level of production which range from 5% for low production of marginal fields to 15% for high production from large fields as follows:

The volume of petroleum produced (BBL/D)	Rate (%)
0 - 2,000	5
2,000 - 5,000	6.25
5,000 - 10,000	10
10,000 - 20,000	12.5
over 20,000	15

For natural gas produced, it should be deemed that the quantity of heating value of natural gas in the amount of 10 million BTU is equivalent to 1 barrel of petroleum.

This sliding scale rate will encourage development of marginal fields as the rate of royalty is much lower than that of Thailand I and Thailand II and at the same time royalty due from large fields will, in contrary, increase.

2. Petroleum income tax

The petroleum income tax remains the same as in Thailand I and Thailand II at 50-60% of taxable profit. However, tax computation is different. In Thailand I royalty from petroleum sold domestically can be credited against petroleum income tax while in Thailand III royalty is treated as tax deductible expense.

3. Special Remuneratory Benefit (SRB)

The Special Remuneratory Benefit was first introduced in Thailand III while Annual Benefit and Annual Bonus in Thailand II were excluded. This second tax or the Windfall Profit Tax will give the State additional benefit only if large oil fields are found or global oil prices are very high while exploration and production cost are low. Marginal fields will never be affected by SRB.

The introduction of SRB in Thailand III as a new fiscal instrument makes Thailand's concession system different from other countries' concession system, especially the unique SRB which is based on the ratio of revenue and cost in computing SRB rate using cumulative depth of well drilled (M) and geological constant (K) in place of expense (specially the K value which is designed on the geological patterns of areas and investment atmosphere is used only in Thailand).

The computation of SRB will be on an annual basis from petroleum profit before deduction of petroleum income tax. No SRB is payable if there is no annual petroleum profit. Petroleum loss can also be carried forwarded to subsequent years until it is recovered in full.

Petroleum Profit differs from Net Profit in that in computation of petroleum income tax, capital expenditure can be recovered in full, while the net profit under the petroleum income tax law will be on capital expenditure depreciation under the rules set by the Ministry of finance.

The fiscal regime of Thailand III and Example of Special Remuneratory Benefit (SRB) Calculation are shown in Table 3-1 and Table 3-2, respectively.

Table 3-1 Thailand III fiscal regime

ROYALTY Sliding Scale Rate based on production levels on a block-by- block

Prod. Level	Rate
0 - 2,000 B/D	5.00 %
2,000 - 5,000 B/D	6.25 %
5,000 - 10,000 B/D	10.00 %
10,000 - 20,000 B/D	12.50 %
> 20,000 B/D	15.00 %

PETROLEUM INCOME TAX 50-60% of Taxable Profit

- royalty and SRB to be treated as tax deductible expense.

SPECIAL REMUNERATORY BENEFIT (SRB)

- calculated annually, on a block-by-block basis.
- no SRB is payable if there is no Annual Petroleum Profit in that year.
- SRB will not apply unless Capital Expenditure has been recovered in full.
- SRB rate varies from year to year depending on the Annual Revenue per Meters Drilled + K (Baht/meter) in that year :

Annual Revenue per Meters Drilled + K (Baht/meter)	SRB rate
Up to 4,800	Zero
4,800 to 14,400	1 % per each B240 increment
14,400 to 33,600	1 % per each B960 increment
Over 33,600	1 % per each B3,840 increment

Table 3-2 Example of Special Remuneratory Benefit (SRB) Calculation

The cost and revenue listed below are supposed to be the worksheet for the tenth year of operation. Capital cost has by now been recovered except for the capital cost for this year. Thus, there is no loss to be carried forward.

Annual Gross Revenue	US$	89.5	million
Royalty	US$	8.7	million
Capital Cost	US$	10.3	million
Operating Cost	US$	7.1	million
Loss carried forward	US$	0	million
Uplift	US$	0	million
Annual Petroleum Profit	US$	63.4	million

Next, the SRB rate to be applied to the above Annual Petroleum Profit will be determined. However, the Annual Revenue per Meters drilled + K (A) must be calculated first.

Before finding A, this year's annual revenue need to be adjusted by inflation indices and currency exchange rate to reflect the true value of money at the time the concession was granted.

$$\text{Rev (adj)} = \text{Rev} \times \frac{I}{Ia} \times 0.5 \left[\frac{C}{Ca} + \frac{W}{Wa} \right]$$

and,

Rev = this year's annual gross revenue = 89.5 million US$ x 28 Baht/USD

= 2,506 million Baht

I = Rate of exchange of the year the concession is awarded = 26 Baht/US$

Ia = Rate of exchange of the Baht at the present time = 28 Baht/US$

Table 3-2 Example of Special Remuneratory Benefit (SRB) Calculation (continued)

C = Consumer price index of the year the concession is awarded = 124

Ca = Consumer price index of the present time = 157

W = Wholesale price index of the year the concession is awarded = 117

Wa = Wholesale price index of the year the present time = 143

Hence, the adjusted Annual Revenue is = $2{,}506 \times \frac{26}{28} \times 0.5 \left[\frac{124}{157} + \frac{117}{143} \right]$

= 1,868.6 million Baht

Suppose the Cumulative Meter Drilled at the end of the year is 80,547 meters

Thus, Rev = 1,868.6 million Baht

K = 150,000 meters

M = 80,547

Hence, $A = \frac{Rev}{K+M} = 8{,}105.07$ Baht/meter

SRB; when A is from 0-4800 Baht/meter 0% rate

A is from 4800-8,105.07 Baht/meter progressive rate

Since from 4800 to 8,105.07 Baht/meter the difference is 3,305.07 Baht

But the rate increases at 1% for every 240 Baht

Thus, the SRB rate $= \frac{3305.07}{240} = 13.77\ \%$

= 14% (rounded up)

Hence, the amount of SRB = 14% of the Annual Petroleum Profit

= 0.14 X 63.4 million US$

= 8.88 million US$

Block Ringfencing Concept

This concept is to design boundary using block by block concept in computing fiscal terms of sliding scale characteristic as in Thailand III which uses sliding scale royalty rate ranging from 5 - 15% based on the volume of production. Thus in the computation, Block Ringfencing concept is applied to determine and limit the volume of production to one block. Also as Thailand III prescribes SRB at sliding scale rate based on revenue per the depth of well drilled plus a constant, boundary of revenue and depth of well are also prescribed using block by block concept. It is also stipulated that SRB will be payable when profit shows, boundary of profit return is also based on block basis.

As computation of royalty and SRB is on Block Ringfencing basis, the royalty will then be computed from the volume of petroleum produced from those specific fields, either small or large, in that block, and for SRB, capital expenditure in another block(s) cannot be deducted from the producing block(s) as petroleum profit is calculated from each single block which unlike the computation of petroleum income tax where petroleum loss from one block can be used to deduct from the other profiting block.