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COST RECOVERY ANALYSIS IN PRODUCTION SHARING CONTRACT IN UPSTREAM OIL AND GAS INDUSTRY (STUDY ON GAS UPSTREAM INDUSTRIES INDONESIA)

Kasman Arifin[1], Dina Hidayat[2]
[1,2)] Universitas Islam Riau, Pekanbaru, Indonesia

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Corresponding author: Second Author

E-mail:
dinahidayat@eco.uir.ac.id

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Abstract: This study aims to: 1) analyze empirically and test the effect of cost recovery in the Production Sharing Contract (Oil and Gas Production Sharing). 2) empirically analyze and test the effect of cost recovery in the upstream Oil and Gas Industry on State Revenues. The unit of analysis of this research is the upstream oil and gas industry managed by the Indonesian government with a Production Sharing Contract system with 44 companies or contract operator cooperatives. The population includes those who work as operators of cooperation contract contractors and SKK MIGAS with 62 manager levels, 51 professionals and 18 university researchers. And the researchers also used secondary data in SKK MIGAS in the 1984-20019 period. This research uses a qualitative approach, and the analysis of the data used is descriptive analysis, because the data analysis is done not to accept or reject hypotheses, but in the form of descriptions of observed symptoms, which are not always in the form of numbers or coefficients between variables . However, the emphasis is not on hypothesis testing, but on efforts to answer research questions through formal and argumentative ways. The results of the study indicate that there is a relation between the Cost Recovery component and the terminology in the Production Sharing Contract in the Upstream Oil and Gas Industry in Indonesia . By placing the right cost post on cost recovery will be able to reduce production costs from the Cooperation Contract Contractor (KKKS).

Keyword: Cost Recovery, Production Sharing Contract, Oil & Gas Industry.

INTRODUCTION

Upstream Oil and Gas Industry, managed in the form of Production Sharing Contracts, while the rationale for oil and gas management in Indonesia has actually been designed for a long time. The idea of the Production Sharing Contract was sparked by Bung Karno, who was inspired by the practices that apply in the management of agriculture in Java, where most farmers (Marhaen) are not owners of rice fields. Farmers get their income from profit sharing (paron), while management is in the hands of their owners.

In the Production Sharing Contract (PSC), management is in the hands of the government, the contractor as the operator which has an obligation every time he wants to develop the field he must submit a POD (Plan of Development) or development planning, WP&B (Work Program and Budget) or work program and funding and AFE (Authorization for Expenditure) or expenditure authorization so that expenses can be controlled.

The PSC began in Indonesia in 1966 between Pertamina and IIAPCO, and similar contracts were made in Peru 1971. Then many countries adopted them including oil exporting countries: Indonesia, Egypt, Malaysia, Syria, Oman, Angola, Gabon, Libya, Qatar, China, Algeria and Tunisia.

The success of this formula is because in developing countries there is an economic transition due to several interests including contractual relations (oil companies are no longer direct holders of mining rights) and the concept of production sharing, in addition to greater state power over activities oil companies, as service providers or contractors.

The state or state company as the holder of mining and oil companies (which lend or fund the capital needed) has the technical capability and sources of funds so that the operator will still have the largest share of production. Because this revenue sharing is from this divided production, it can be seen in the annual report and not in total reserves. The contractor is responsible for financing and carrying out operations and obtaining cost recovery and profits if commercial inventions are developed.

Cost recovery differs between countries even within a country depending on the agreement when the contract was signed. In a production sharing contract, the contractor is entitled to receive a refund for as long as it does not exceed a certain percentage of annual production in the contract area. This proportion is known as cost oil. Shortages which have not yet been obtained are carried forward for recovery in the following year. The following year, with the same principle, cost oil is valued using the market price of crude oil before it is compared with recoverable cost.

The Minister of Energy and Mineral Resources, Ignasius Jonan explained "Give the example of Chevron in Riau in the Rokan, Minas, and Duri WK (Working Area). For the outcomes the country can reach 90%, Chevron can be 10%, but after deducting the costs. Why not, "said Jonan in Minas Field, PT Chevron Pacific Indonesia, Siak Regency, Riau, Saturday (detikFinance 12/18/2016).

According to Jonan, the state often has to bear the burden of cost recovery which is often inflated, which makes the state's oil ration end up shrinking drastically. In fact, the high cost recovery is often also caused by inefficiency.

In Indonesia since the enactment of Law No. 8 of 1971, known as Production Sharing Contract (PSC), in which revenue received by oil and gas companies is not directly the result of product multiplication with price. Because basically these companies do not have oil, and they get fees which include cost recovery and contractor share of profit oil. In some PSCs, the cost of capital is depreciated and the amount of depreciation can be returned or taken from revenue. Revenue after reducing recoverable cost is called profit oil which must be shared between the government and the contractor. The company gets a fee as compensation for oil and gas business that is from cost recovery and split of profit oil while the government will

receive the rest called government take. The flowchart of this division can be simply described as Figure 1.

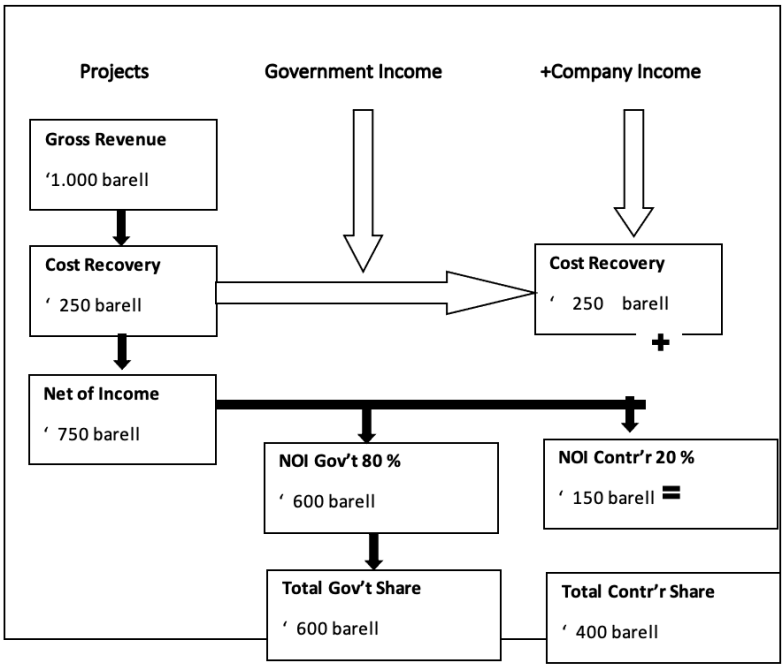


Figure 1. Revenue Flow Based on PSC

In the example assumed in the distribution of products, gross revenue amounts to 1,000 barrels with a cost recovery of 250 barrels. At the point of revenue received by the company is 1,000 barrels. Net of income available for the government and companies is 750 barrels. Assuming the division between the government and the company is 80:20, the government will get 600 barrels of crude oil and the company will get 150 barrels of crude oil.

If the distribution is assumed to be in nominal financial amounts, then gross revenue is $ 100 million with a cost recovery of $ 25 million. That is, at the point of revenue received by the company is US $100 million. Net of income available for the government and companies is USD $75 million. Assuming the division between the government and the company is 80:20, the government will get US $ 60 million and the company USD $15 million.

This study aims to find out and get an in-depth picture of the components that make up Cost Recovery in the Oil and Gas industry in Indonesia. In addition to examining the components in cost recovery, this study also aims to explain the mechanism of cost recovery, authorization and billing of cost recovery to the Government.

LITERATURE REVIEW

Indonesian Upstream Oil & Gas Industry

Considering the strategic role of oil and gas in national development, the government on August 20, 1968 decided that oil and gas exploitation must be carried out by a state company.

The company appointed to carry out the government policy is the National Oil and Gas Mining Company (PN Pertamina).

According to Law Number 8 of 1971, Pertamina is responsible for managing Indonesia's oil and gas resources in all related aspects such as exploration, exploitation, production, processing, transportation and sales of oil and gas.

Industry in general is a certain business group that has the same techniques and methods in generating profits. Petroleum (English: petroleum, from Latin petrus-coral and petroleum-oil), also known as black gold, is the result of a natural process in the form of hydrocarbons under atmospheric pressure and temperature conditions in the form of a liquid or solid phase, including asphalt, mineral wax or ozokerite, and bitumen obtained from the process of mining Oil and Gas (Act Number 22 of 2001).

The oil and gas industry is different from other industries in general, both in terms of characteristics, the regulations that govern it and the accounting treatment therein. The oil and gas industry has special regulations created to regulate the practices and activities of the perpetrators. In Indonesia, this regulation is stipulated in, among others, Law Number 22 of 2001 concerning oil and gas explaining the definition, activities and procedures for oil and gas industry practices in Indonesia, and most recently PP Number 79 of 2010 which contains additional regulations regarding the cost recovery component in the production sharing contract in the oil and gas industry. It was not previously regulated in Law Number 22 of 2001.

Production Sharing Contract

Since the enactment of Law Number 8 of 1971, a new era of petroleum and natural gas management has become known as a new form of cooperation, where Pertamina can work with other parties, while the forms of cooperation include:

1) Contract of work, in this contract the distribution is based on profits, while management and ownership of assets are in the hands of the contractor.
2) Production sharing, management and asset ownership contracts are in the hands of Pertamina, which is divided into production after deducting operating costs.

After Law Number 22/2001, all arrangements and forms of agreements in the upstream oil and gas industry have changed drastically, Pertamina's authority has been cut. The authority in the upstream sector is handed over to the Oil and Gas Implementing Agency (BP MIGAS) while in the downstream is handed over to the Regulatory Agency (Legal Review No. 35 / TH III August 2005, 11).

The soul of the provisions of the Articles of Production Sharing Contract / Cooperation Contract can be seen from the scope of the existing contract, consisting of five main paragraphs, namely:

1. Paragraph 1 This contract is a production sharing contract.
2. Paragraph 2 SKK MIGAS will have rights and responsibilities for operations management, and the contractor is responsible for oil and gas operations.
3. Paragraph 3 The contractor provides all financing and technical assistance.
4. Paragraph 4 The contractor bears the risk of operating costs and interest costs incurred to finance operations.

5. Paragraph 5 Throughout the agreement in the contract, the total production is divided into sequences.

Regarding profit sharing in the PSC (Production Sharing Contract) it is a matter that is always being negotiated. For Indonesia, it still adheres to the law, that in making contracts, it must always prioritize the interests of the nation. (Ernst G. Tehuteru, Legal Review No. 35 / TH III August 2005, 32).

Looking at the development of the contract of work model as well as the production sharing contract or cooperation contract, the dominance of foreign parties or the influence of investors is very thick, even for the first generation contract the concept is made by the company's legal experts concerned.

In order to make this cooperation contract attractive to foreign investors, various ways are carried out by the government by providing incentives. So that this incentive does not reduce and guarantee government revenue, the contractual obligation includes the contractor's obligation to deliver his first production, known as First Tranch Petroleum (FTP) and so that the supply of oil and gas for domestic needs is guaranteed, a regulation known as the Domestic Market Obligation .

In the upstream oil and gas industry, this fiscal system is more emphasized and becomes an inseparable part of the contract as stated by Johnston, D. (2003: 13) It is a clear tendency (obvious) in the 1980s and 1990s. Many countries are developing fiscal systems for oil and gas by taking the option to use Production Sharing Contracts (PSCs). What is certain is that the lower limit is the same as the royalty / tax system, depending on the aggregate level of royalties, taxes and business continuity. Political and philosophical aspects are included, however, profits will always be the main choice of Production Sharing Contracts (PSCs).

The government sees the use of the fiscal system in a macroeconomic emphasis in which the profits from the upstream oil and gas industry are immediately recognized as state revenue, while the company sees this fiscal system from the opportunities given to companies in order to generate maximum profits.

Cost Recovery

Operating cost recovery is introduced in a Production Sharing Contract (PSC) since the first generation towards the mid 1960. Until now, the implementation, application and method of calculating the cost recovery has reached the third generation and will still develop according to the conditions.

Cost recovery is the return of costs incurred by the contractor for the purposes of exploration, development and operating costs beyond gross income. Most production sharing contracts have limits on the amount of contractor income recognized to get a refund but not all costs can be requested for repayment, such as last year's funding and refunded in the event year. The limitation of cost recovery or the limit of the refund limit as commonly known ranges from 30% - 60%. (Johnston, D., 1996: 56)

In petroleum operations generally there are cost controllable costs in administering administration, while uncontrollable costs include efforts to find additional reserves through exploration and development activities and the addition of production facilities.

Cost recovery in the calculation of equity to be split between the government and the contractor has a very significant effect. The greater the refund of costs that can be requested by the contractor back to the government, the smaller the state revenue.

Te cost recovery path in the upstream oil and gas industry in Indonesia can be described as follows:

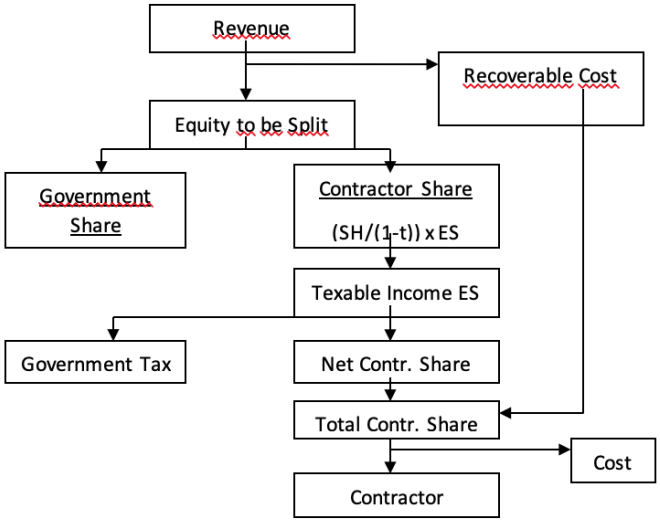


Figure 2. Flow Cost Recovery in Product Sharing Contract

Previous Research

Based on the research, it turns out that the production sharing contract still provides benefits above the fairness of the contractor and the way to calculate the cost. It is still not in accordance with general accounting principles. (Sutadi, 1999).

Sitorus, B ,. (2001: 15) says that the return into place costs is a return of costs (sunk cost capital & operating cost) made in kind from the results of production of the mining work area (WKP) after the activity is completed and the assets have been utilized according to their functions.

Rezky Sri Wibowo (2005), stated that, extractive economy also gives a significant contribution to Indonesia's foreign exchange income or reserves (exports), especially in the early times of the development process of the economy. This research is trying to prove that the extractive sector of the economy, government or private, is very closed, especially when it comes to income gained from PSC (Production Sharing Contracts). The origins of oil and gas income realization numbers are barely traceable in the national budget (APBN) documents. If one intends to trace the details of income the calculation is then said to be connected to "cost recovery".

Daniel Johnston, (2004), science of petroleum engineering is always one step ahead in analysis and design compared to other sciences. One of its key aspects that is never left out is its standard terminology with the fiscal analysis system. Sometimes people use the term "Shared Fund" to identify income components not profit.

The government often loses information during a period of exploration and the focus of calculation then shifts to Internal Rate of Return. From all the problems found in the

production sharing contracts for many countries, the most staggering problem lies in the articles of the contracts, and until a contract is agreed upon by all parties, the contract must be first reviewed by an accountant or a group of accountants or a consultant to protect the economic interests of the country whose oil and gas belongs to.

RESEARCH METHODS

The research method that will be used in this study is a qualitative research method with a descriptive analytical approach based on case studies. Qualitative methodology according to Bodgan and Taylor (1975) is defined as a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. This approach is directed at these settings and individuals. So, in this case it should not isolate individuals or organizations into variables or hypotheses but look at them in part. In line with this definition, Krik and Miler (1986) in Moleong (2008) define that qualitative research is: "certain traditions in social science that fundamentally depend on human observations in their own region and relate to these people in their language and in terminology "

So, a qualitative method is a research procedure that produces descriptive data in the form of written or oral words from people and behavior that can be observed and supported by literature studies or literature studies based on the deepening of literature review in the form of data and numbers so that reality can be understood well (Moleong, 2008).

While the case study approach is in-depth research on a particular case whose results are a complete and organized picture of the research (I Made Wirartha, 2006).

Qualitative research is descriptive because the data analysis is done not to accept or reject hypotheses (if any), but in the form of descriptions of observed symptoms, which are not always in the form of numbers or coefficients between variables. However, the emphasis is not on hypothesis testing, but on efforts to answer research questions through formal and argumentative ways.

Description of the conditions of research respondents can be seen in the results of descriptive analysis in the form of frequency tables and descriptive statistics including minimum values, maximum values, average values and standard deviation.

The population in this study is the Oil and Gas management agency, abbreviated as SKK MIGAS, which oversees 95 Cooperation Contract Contractors (KKKS), 18 JOB / JOA and 5 TACs in which as many as 44 KKKS have produced.

The population of this research is employees who work in KKKS and BP Oil and Gas at the level of managers, professionals and researchers from tertiary institutions, with the composition as shown in Table 1 below:

Table 1. Composition of the Study Population

Population	amount	years of service			
		>20	15 - 20	10 - 15	5 - 10
Level Manajer	62	31	17	11	3
Professional	51	21	6	16	8

College	18	0	8	10	0
Total Population	131	52	31	37	11

The sample is determined through 3 stages, namely (1) cluster sampling, (2) quota sampling, and (3) random sampling. The cooperation contract contractors that became the sampling area of this study all numbered 44 companies with three working areas (regions I, II and III)

RESULT AND DISCUSSION

Descriptive Analysis

Indonesian Upstream Oil & Gas Industry

Fiscal System The fiscal system in the upstream oil and gas industry in this study is examined through five indicators as follows: oil and gas liberalization (X.1.1), upstream oil and gas management (X.1.2), recording method (X.1.3), system oil and gas taxation (X.1.4), cooperation contract model (X.1.5). The results of tabulation of data from respondents obtained the percentage of respondents 'answers to fiscal system factor variables which can be seen in Table 2. as follows:

Table 2. Percentage of Respondents' Answers for Variables Fiscal System Factor

Score	X.1.1	X.1.2	X.1.3	X.1.5
1	0.80	0.00	0.00	0.00
2	0.80	0.00	0.80	0.80
3	24.40	11.50	10.70	14.50
4	51.90	61.00	69.50	64.10
5	22.10	27.50	19.00	20.60
Total	100.00	100.00	100.00	100.00

Descriptive analysis of respondents' answers to fiscal system variables produces average values and standard deviations for each oil and gas liberalization indicator (X.1.1), upstream oil and gas management (X.1.2), oil and gas recording method (X.1.3), model oil and gas cooperation contracts (X.1.5), as shown in Table 2.

Based on the table it can be said that basically respondents have a good perception of the fiscal system. Where in Table 1 it appears that more than 95% of respondents answered score 3, score 4 and score 5.

Oil and Gas Liberalization (X_1 C_1)

Indicator of oil and gas management liberalization (X.1.1) is a government policy in the oil and gas industry, the main objective of which is to prosper the Indonesian people through the inclusion of investment from abroad, and release the government's attachment in determining fuel prices.

Testing the indicators of oil and gas liberalization to the fiscal system is done by asking 10 questions to 131 respondents.

The level of influence of oil and gas liberalization indicators on the fiscal system, can be seen in the following:

Table 3. Indicators of Oil and Gas Liberalization to the Fiscal System

Level of Influence	Score	Total	Skor	Persentase (%)
Very Influence	5	26	130	25
Influence	4	68	272	53
Don't Know	3	35	105	21
Not Influence	2	1	2	0
Not Very Influence	1	1	1	0
Total		131	510	100
Average Score			3.89	

Table 3 illustrates the average results of respondents' answers with an average score of 3.89. This states that the influence of oil and gas liberalization indicators on the fiscal system is included in the high category at 53%.

Upstream Oil and Gas Manager (X_1 Є$_2$)

The upstream oil and gas management indicator (X.1.2) is an approach in the management of the upstream oil and gas industry mandated by law in order to overcome obstacles and inefficiencies in large-scale organizations, as well as overcome bureaupathology and organizational dysfunction.

The testing of the upstream oil and gas management indicators on the fiscal system was carried out by submitting 22 questions to 131 respondents.

The level of influence of upstream oil and gas management indicators on the fiscal system, can be seen in the following:

Table 4 Indicators of Upstream Oil and Gas Managers on the Fiscal System

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	36	180	33
Influence	4	77	308	57
Don't Know	3	18	54	10
Not Influence	2	0	0	0
Not Very Influence	1	0	0	0
Total		131	542	100
Average Score			4.14	

Table 4 illustrates the average results of respondents' answers with an average score of 4. This states that the influence of upstream oil and gas management indicators on the fiscal system is included in the very high category, which is as much as 57%.

Method of Logging (X_1 Logging Є$_3$)

The method of logging (X.1.3) is the method of logging adopted by a contractor under a cooperative contract, in which the logging is applied to the rules that are common to the oil industry.

An indicator test of the method of logging the financial system was conducted by asking 15 respondents to 131 respondents.

The level of influence of the indicators of logging on the fiscal system can be seen in Table 5 below:

Table 5 Indicators of Fuel Recovery Methods for Fiscal Systems

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	24	120	23
Influence	4	93	372	70
Don't Know	3	13	39	7
Not Influence	2	1	2	0
Not Very Influence	1	0	0	0
Total		131	533	100
Average Score			4.07	

Table 5 illustrates the average results of respondents' answers with an average score of 4.07. This states that the effect of the method of recording method on the fiscal system for production sharing contracts is included in the high category, which is as much as 70%.

Oil and Gas Tax System (X_1 ϵ_4)

Oil and gas tax system indicator (X.1.4) is a taxation system that is carried by each company where in the taxation provisions in America, so that all failure costs can be recognized as an element of tax deduction, there must be legal affirmation.

In Indonesia the oil and gas taxation system is regulated through the Taxation Law and applies to all oil and gas exploration and exploitation activities in Indonesia without exception or in other words there is no *Lex Specialis*.

To test the indicators of the oil and gas taxation system against the fiscal system this is done by asking 15 questions to 131 respondents.

The level of influence of oil and gas taxation system indicators on the fiscal system, can be seen in the following

Table 6 Indicators of the Oil and Gas Taxation System on the Fiscal System

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	31	155	29
Influence	4	72	288	55
Don't Know	3	28	84	16
Not Influence	2	0	0	0
Not Very Influence	1	0	0	0
Total		131	527	100
Average Score			4.02	

Table 6 illustrates the average results of respondents' answers with an average score of 4.02. This states that the influence of oil and gas taxation system indicators on the fiscal system is included in the high category, which is as much as 55%.

Employment Contract Model (X_1 ϵ_5)

Indicator of the cooperation contract model (X.1.5) is a form of contract based on Oil and Gas Law Number 22 of 2001, which among others took the form of cooperation contracts, joint operating agencies, and technical assistance, *enhancing oil recovery*.

To test the indicators of each model of oil and gas cooperation contract with the fiscal system, this is done by asking 25 questions to 131 respondents.

The level of influence of oil and gas work contract model indicators on the fiscal system, can be seen in the following Table 6:

Table 7. Indicators of the Oil and Gas Contract of Work Model for the Fiscal System

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	26	130	25
Influence	4	86	344	65
Don't Know	3	18	54	10
Not Influence	2	1	2	0
Not Very Influence	1	0	0	0
Total		131	530	100
Average Score			4.05	

Table 7. illustrates the average results of respondents' answers with an average score of 4.05. This states that the influence of the cooperation contract model indicator on the fiscal system is included in the high category, which is as much as 65%.

Cost Recovery

Indicator of cost recovery is the reimbursement of costs incurred by the contractor for operational costs (X2.1), capital costs (X.2.2), depreciation costs (X.2.3), exploration costs (X.2.4), development costs (X2.5)) and non-capital costs (X.2.6). The results of tabulation of data from respondents obtained the percentage of respondents answers to the variable factor (cost recovery cost recovery) can be seen in Table 7.

Table 8 Percentage of Respondents' Answers for the Factor Variable *Cost Recovery*

Skore	X.2.1	X.2.2	X.2.3	X.2.4	X.2.5	X.2.6
1	1.50	0.80	0.80	0.80	0.80	0.00
2	0.80	3.10	1.50	0.80	0.00	1.50
3	7.70	10.60	13.70	16.80	14.50	22.90
4	53.40	60.30	48.10	51.10	58.70	48.10
5	36.60	25.20	35.90	30.50	26.00	27.50
Total	100.00	100.00	100.00	100.00	100.00	100.00

Descriptive analysis of respondents' answers to the variable cost sharing average values and standard deviations for each operating cost (X.2.1), capital costs (X.2.2), depreciation costs (X.2.3), exploration costs (X .2.4), development costs (X.2.5) and non-capital costs (X.2.6), which can be seen in Table 9.

Table 9. Mean Values and Standard Deviations of Each Indicator of The Factor Variable *Cost-Return*

Indicator	Average	Deviation Standard
X.2.1	4.23	0.750
X.2.2	4.06	0.742
X.2.3	4.17	0.776
X.2.4	4.10	0.753
X.2.5	4.09	0.684
X.2.6	4.02	0.754

Source: Processed Products

According to the table, it can be said that basically the respondent has a good perception about cost recovery. Where in Table 8 it can be seen that more than 95% of respondents answered score 3, score 4 and score 5. In Table 9 it appears that the average value of each indicator of the variable cost recovery factor is in the range of 4.

Operating Costs (X_2 Є$_1$)

Operating cost indicators (X.2.1) include all expenses incurred and obligations incurred to carry out petroleum operations including activities ranging from exploration, extraction development, production, transportation and marketing.

To test the cost of operating indicators of cost recovery is done by asking 17 questions to 131 respondents.

The level of influence of the operating cost indicator on cost recovery, can be seen in the following Table 10:

Table 10. Indicator of Operating Costs on Cost Returns

Level of Influence	Value	Jumlah	Skor	Persentase (%)
Very Influence	5	52	260	47
Influence	4	67	268	48
Tidak Tahu	3	9	27	5
Tidak Berpengaruh	2	1	2	0
Sangat Tidak Berpengaruh	1	2	2	0
Jumlah		131	559	100
Rata-Rata Skor			4.27	

Table 10. illustrates the average results of respondents' answers with an average score of 4.27. This states that the effect of operating cost indicators on cost recovery is included in the very high category, which is as much as 48%.

Capital Costs (X_2 Є$_2$)

Capital costs (X.2.2) are expenses for purchasing goods that are incidental, these goods are not used up in one period (for example one year), still have a sale value after once or several times worn. These capital expenditures are usually large and are carried out at the beginning of the project and sometimes run several years before the company gets from production.

To test the indicators of capital costs on cost *recovery is* done by asking 5 questions to 131 respondents.

The level of influence of the capital cost indicator on cost *recovery*, can be seen in Table 11 below:

Table 11 Indicators of Capital Costs to Cost Returns

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	30	150	29
Influence	4	76	304	59
Don't Know	3	14	42	8
Not Influence	2	10	20	4
Not Very Influence	1	1	1	0
Total		131	517	100
Average Score			3.95	

Table 11 illustrates the average results of respondents' answers with an average score of 3.95. This states that the effect of the capital cost indicator on cost recovery is included in the very high category, which is as much as 59%.

Depreciation Costs (X_2 C_3)

Depreciation costs (X.2.3) are the allocation of costs of capital goods used in the upstream oil and gas industry in an effort to obtain production that is depreciated or charged as costs based on the technical age of the capital goods .

To test the depreciation cost indicator for cost recovery, this is done by asking 7 questions to 131 respondents.

The level of influence of depreciation cost indicators on cost recovery can be seen in the following table:

Table 12. Indicator of Depreciation Costs on Cost Returns

Level of Influence	Value	Total	Score	Percentase (%)
Very Influence	5	48	240	44
Influence	4	61	244	45
Don't Know	3	20	60	11
Not Influence	2	1	2	0
Not Very Influence	1	1	1	0
Total		131	547	100
Average Score			4.18	

Table 12 illustrates the average results of respondents' answers with an average score of 4.18. This states that the effect of the depreciation cost indicator on cost recovery is included in the high category, which is as much as 45**Exploration Costs (X_2 C_4)**

Exploration costs (X.1.4) are costs incurred in the identification and determination of the area investigated whether or not it has a prospect of oil and gas reserve content.

To test the indicator of exploration costs on cost recovery, this is done by asking 5 questions to 131 respondents.

The level of influence of the exploration cost indicator on cost returns, can be seen in Table 13. follows:

Table 13. Indicator of Exploration Costs on Cost Returns

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	42	210	39
Influence	4	65	260	48
Don't Know	3	23	69	13
Not Influence	2	0	0	0
Not Very Influence	1	1	1	0
Total		131	540	100
Average Score			4.12	

Table 13 illustrates the average results of respondents' answers with an average score of 4.12. This states that the effect of the exploration cost indicator on cost recovery is included in the high category, which is 48%.

Development Costs (X_2 Є$_5$)

Development costs (X.2.5) are development costs or *development costs* are costs incurred in the development of exploration wells.

To test the development cost indicators for cost recovery, this is done by asking 5 questions to 131 respondents.

The level of influence of development cost indicators on cost recovery, can be seen in the following Table 14:

Table 14. Indicators of Development Costs for Cost Returns

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	37	185	34
Influence	4	74	296	55
Don't Know	3	19	57	11
Not Influence	2	0	0	0
Not Very Influence	1	1	1	0
Total		131	539	100
Average Score			4.11	

Table 14. illustrates the average results of respondents' answers with an average score of 4.11. This states that the effect of development cost indicators on cost recovery is included in the high category, 55%.

Non-Capital Costs (X_2 Є$_6$)

Non-capital costs (X.2.6) are operating costs incurred in connection with the current year's operations, including survey costs and intangible drilling costs for exploration wells and development wells.

To test the non-capital cost indicator for cost recovery, this is done by asking 5 questions to 131 respondents.

The level of influence of non-capital cost indicators on cost returns, can be seen in Table 15. follows:

Table 15. Indicators of Non-capital Costs to Cost Returns

Level of Influence	Value	Total	Score	Persentase (%)
Very Influence	5	38	190	36
Influence	4	62	248	47
Don't Know	3	29	87	16
Not Influence	2	2	4	1
Not Very Influence	1	0	0	0
Total		131	529	100
Average Score			4.04	

Table 15 illustrates the average results of respondents' answers with an average score of 4.04. This states that the effect of operating cost indicators on cost recovery is included in the high category, 47%.

Discussion

Indonesian Upstream Oil & Gas Industry

The oil and gas industry, both in Indonesia and globally, has experienced significant volatility in the last five years. Global geopolitical and economic considerations play a significant role in driving the sensitivity of oil prices. Records show that from its peak in mid-2008 (US$ 145 per barrel), the oil price collapsed by more than 70% and ended 2008 at US$ 40 per barrel following the global financial crisis. As market confidence returned, buoyed by confidence in growth in China and other emerging markets, crude prices rose again to an average (on an annual basis) of approximately US$ 94-98 a barrel of West Texas Intermediate (WTI) from 2011 to 2014. (www.pwc.com/id Oil and Gas in Indonesia Investment and Taxation Guide, May 2018)

Indonesia's oil and gas (hydrocarbon) sector is vital to the economy. However, the country's hydrocarbon resources are not handled in an economic manner, and the sector performs well below par. The sector needs to be substantially reformed-urgently-given the issues at stake, the fallout from the regional crisis, and the conditions in the global oil industry.

The main problems Indonesian Upstream Oil & Gas Industry are: (a) petroleum product prices are heavily subsidized at the aggregate level and distorted at relative levels, and thus need to be rationalized within an economic framework; (b) the functions and role of the State oil and gas company (Pertamina) are problematic, and therefore Pertamina must be fundamentally restructured to eliminate the conflicts of interest and inefficiencies; (c) some of the provisions of the production sharing contracts (PSCs) are relatively regressive (particularly under market conditions of low oil prices), and need to be re-evaluated with a view to maximize the contribution of the sector to the economy, and to increase upstream investment by the private sector; (d) existing laws and regulations are inadequate and must be replaced; (e) petroleum products are of poor quality and must be improved, particularly by phasing out the lead from gasoline; and (f) energy sector institutions are weak and must be strengthened.

The issues are complex and although it is always difficult to institute sweeping changes, given the new political climate, this is an opportune time for Indonesia to begin the process. As a first step, preparing an official and comprehensive declaration of Government policy for the hydrocarbon sector is critically important, to outline the vision for the sector, the policy objectives, and the policy actions required to achieve these objectives, including measures to solve the sector's problems. Such a declaration would help to provide an overall framework for sector reform and assurance to all stakeholders in the sector.

Production Sharing Contract

The Study reviewed the issue of whether the PSCs between the Government and private oil companies are appropriate, both with respect to the type of the contract and their actual provisions. With respect to the type of contract, the basic principle of the PSC is appropriate and should be retained. Further, the fiscal and non-financial terms of Indonesian PSCs are not out of line compared to PSCs in other countries. Nevertheless, some of the provisions of the fiscal regime are not sufficiently progressive, particularly under conditions of low oil prices.

Consequently, some re-designing of these provisions should be considered with a view to achieve higher total investment by the private sector, and higher overall State revenue in the medium and long term. .

Over 90% of Indonesia's oil and gas is produced by the private sector, mostly major international oil and gas companies, and virtually all are governed by production sharing contracts (PSCs). One issue is whether the PSCs between the Government and private oil companies are appropriate, both with respect to the type of the contract and their actual provisions. With respect to the type of contract, the PSC, which is the most prevalent "Cooperation Agreement" between the Government (i.e., Pertamina) and private oil companies, is a tried and tested vehicle for upstream investment that can deliver most of the Government's objectives effectively. And in reality, the same Government objectives and economic outcomes can be achieved with either the PSC model (primarily pioneered by Indonesia), or the principal altemative (which is a fiscal-based regime where the Government looks to royalties and taxes as the means of taking the national share of the profits), or some combination of the two. Hence, we consider the basic principle of the PSC to be appropriate and should be retained. It is the substance of the fiscal terms that matter. Both structures can be conducive to efficient regulation of the sector and Government revenue collection, provided these functions are properly allocated.

The Government's overall objective in the upstream, and thus from the PSC model, should be to ensure the development and extraction of the hydrocarbon resources to maximize the contribution of the sector to the national economy and to maximize the generation of revenue. Specific objectives should include:

a) encouraging a high rate of upstream investment by the private sector, particularly now that worldwide investment levels are being curtailed and capital inflows into Indonesia are badly needed for oil and gas;
b) developing an optimum fiscal regime such that incentives to explore for and develop hydrocarbons are retained for fields with low profitability, but ensuring that the State is paid a progressively increasing share of life-of-field profits once the private investor has earned a reasonable return on investment (in particular, to retain investment incentives at

low oil prices, while ensuring the State is paid a high share of profits should oil prices rise again to higher levels); and

c) handling oil and gas operations efficiently and transparently, including ensuring compliance with good oil field practices and acceptable environmental standards, requiring investors to undertake national personnel training programs, and ensuring active acreage management through work and expenditure obligations and phased relinquishments.

On the other hand, investor objectives are to obtain a reasonable return on their investment, to see stability in the investment environment, and to experience transparency and objectivity in policy administration.

PSCs have been the most common type of JCCs used in Indonesia's upstream sector. Under a (conventional) PSC, the Government and the Contractor agree to take a split ofthe production, measured in terms of revenue, based on PSC-agreed percentages. Operating costs are recovered from production through Contractor cost oil formulas as defined by the PSC, and the Contractor has the right to take and separately dispose of its share of oil and gas (with title to the hydrocarbons passing at the point of export or delivery).

PSCs have evolved through five "generations" with the main variations on the production sharing split. The second and third generation PSCs issued after 1976 removed the earlier cost recovery cap of 40% of revenue and confirmed an after tax oil equity split of 85/15 for SKK Migas and the Contractor, respectively. The third generation model of the late 1980s introduced First Tranche Petroleum (FTP) and offered incentives for frontier, marginal and deep-sea areas. In 1994, to stimulate investment in remote and frontier areas (the Eastern Provinces), the Government introduced a 65/35 after tax split on oil for contracts in the region (fourth generation).

Since 2008, a fifth generation of PSC with cost recovery mechanism has been introduced. While the after tax equity split is negotiable, the latest model limits the items available for cost recovery (negative list for cost recovery as regulated under GR 79 in conjunction with GR 27) and offers incentives in other areas such as via investment credits.

On 29 March 2017, MoEMR issued Regulation No. 26/2017 ("Regulation 26", as later amended by MoEMR Regulation No. 47/2017) stipulating the mechanism for PSC Contractors to recover their (unrecovered) "Investment Costs" at the termination of the PSC. Investment costs are essentially costs incurred by PSC Contractors to conduct activities with an objective of maintaining an equitable level of production as stated in the PoD and/or Work Program & Budget (WP&B). (PWC 2018;53)

Cost Recovery

Cost Recovery varies between countries even within a country depending on the agreement when the contract was signed. In a production sharing contract, the contractor is entitled to receive a refund for as long as it does not exceed a certain percentage of annual production in the contract area. This proportion is known as cost oil. Shortages that have not been obtained are carried forward for recovery in the year. The following year, with the same principle, cost oil is valued using the market price of crude oil before it is compared with recoverable cost.

The maximum limit of cost oil is known as a cost stop (cost recovery ceiling), varies depending on the country and the contract, but usually ranges between 30 and 60%, although it can be 100%. Cost stop prices affect the economy, the greater the better the return on investment.

Cost Recovery is the means by which the contractor recoups the costs of exploration, development, and operations out of gross revenues. Most PSC's have a limit to the amount of revenues the contractor may claim for cost recovery but will allow unrecovered costs to be carried forward and recovered in succeeding years.

Cost recovery is an ancient concept.

The cost recovery mechanism is one of the most common features of a PSC. It is only slightly different than the cost recovery techniques used in most concessionary systems.

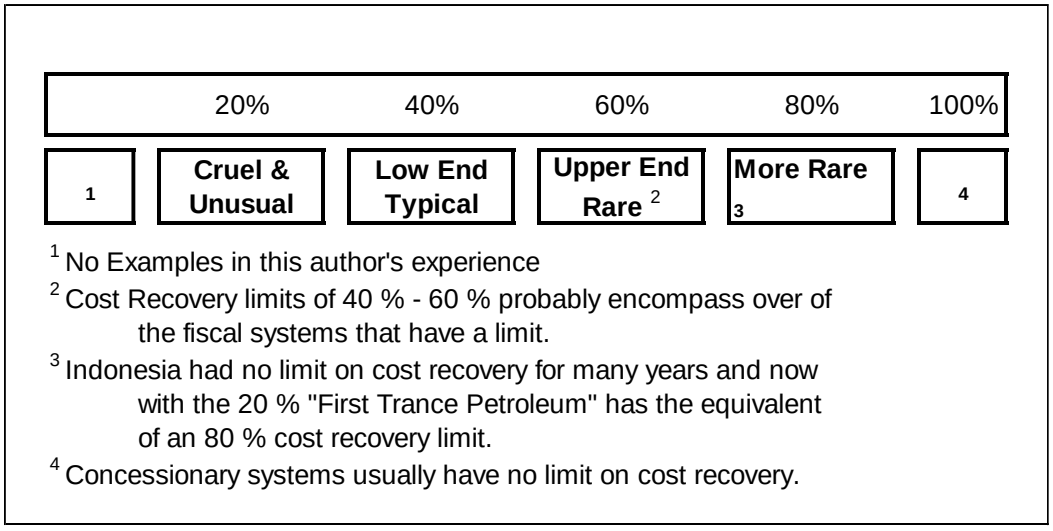
Sometimes the hierarchy of cost recovery can make a difference in cash flow calculations. This is particularly the case if certain cost recovery items are taxable. Cost recovery or cost oil normally includes the following items listed in the order:

1. Unrecovered costs carried over from previous years.
2. Operating Cost
3. Expensed Capital Cost
4. Current Year DD&A
5. Interest on Financing (usually with limitations)
6. Investment credit (uplift)
7. Cost recovery fund recovery

Unrecovered Carried Forward Costs

Most Unrecovered costs are carried forward and are available for recovery in subsequent periods. The same is true of unused deductions. The term sunk cost is applied to past costs that have not been recovered. There are four classes of sunk cost:

1. Carried Forward Tax Loss (TLCF)
2. Unrecovered Depreciation Balance
3. Unrecovered Amortization Balance
4. Carried Forward Cost Recovery.



[1] No Examples in this author's experience
[2] Cost Recovery limits of 40 % - 60 % probably encompass over of the fiscal systems that have a limit.
[3] Indonesia had no limit on cost recovery for many years and now with the 20 % "First Trance Petroleum" has the equivalent of an 80 % cost recovery limit.
[4] Concessionary systems usually have no limit on cost recovery.

Figure 3. Cost Recovery Spectrum

Based on the Cost Recovery Spectrum above, the contractor entitlement in Indonesia is calculation as follows:

Contractor Entitlement	=	Cost Recovery
	+	Investment Credit
	+	Contractor Equity Share (profit oil)
	-	Domestic market requirement (adjustment)
	-	Government tax entitlement

The Cost Recovery Limit (which is largely the only mechanical difference between the concession system and the PSC) has changed dramatically over the years in Indonesia.The first generation contract of the 1960s had a 40% limit. The second generation contract after 1976 does not meet the cost recovery limits.

The elements that make up cost recovery are usually recovered on a first-in, first-out basis. Every expense made from the previous years is recovered first. The order is as follows:

1. Amortization of merchandise not capital
2. Depreciation of capital carried
3. Previous year's costs that have not yet recovered
4. Non-capital costs for the current year (operating costs)
5. Current year depreciation of capital costs
6. Investment Credit

Basic cost-recovery principles include allowing the following items:

a. Current-year capital (being current-year depreciation charges) and non-capital costs;
b. Prior years' unrecovered capital and non-capital costs;
c. Inventory costs;
d. Home-office overheads charged to operations; and
e. Insurance premiums and receipts from insurance claims.

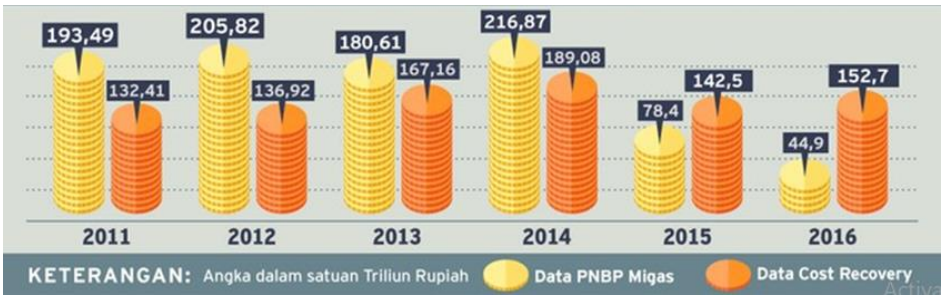
Other principles have been developed over time via SKK Migas / BP Migas / Pertamina and Indonesian Tax Office (ITO) regulations. For example, oil-generating PSC Contractors generally obtain an after-tax equity share of 15%. However, the DMO must be out of this "equity" oil or gas. A Contractor therefore typically earns a return of less than 15%. This is because there is no cost recovery or tax deductibility for the unsuccessful "fields" and because of the DMO requirements. FTP arrangements have also separately enabled the Government to share in production before the Contractor has fully recovered its costs.

Cost recovery is the operational costs incurred by the cooperation contract contractor (KKKS) to produce oil and gas, these costs can be claimed by the KKKS to be reimbursed by the state.

Until June 30, 2017, the cost recovery that had been issued was US $ 4.87 billion, aka Rp. 64.77 trillion (assuming a dollar exchange rate of Rp. 13,300). While the ceiling set in

the 2017 State Budget is US $ 10.58 billion. So the cost recovery until the middle of the year is 46% of the maximum limit.

Since 2011 Cost Recovery has always approached PNBP (Non-Tax State Revenue) every year, as shown in the following figure;



Sources: CNN Indonesia | Thursday, 01/19/2017 18:02 WIB

Figure 4

The biggest cost allocation in cost recovery is to support operating activities and depreciation costs.

Component of operating costs (Operating Cost) of Production Sharing Contracts.

Definition,

- Includes all expenses and obligations incurred to carry out petroleum operations.
- Petroleum Operations are activities ranging from Exploration, Development, Extraction, Production, Transportation and Marketing that are authorized in the contract.
- Expenditures prior to production recognition to be postponed until production starts. contrary to the new Taxation system.

Operating Cost Components

- If any calender year, the Operating Cost exceeds the value of the crude oil produced and saved hereunder and not used in petroleum operations, then unrecvered excess shall be recovered in succeeding years.
- During the year when commercial production occurs, Operating Cost consists of three categories, namely:

- Current Year Non Capital Cost
- Current Year's Depreciation for Capital Costs
- Current Year allowed recovery of Prior Years unrecovered Operating Costs

Past Cost Status of prior year's unrecovered in operating costs is Current Year, so there is no known term Loss or past expense or no debt burden.

Non Capital Costs

Operating costs incurred in connection with the current year's operations, including survey costs and intangible drilling costs for exploration and development wells.

Capital Costs

Costs that generally have a useful life and have annual depreciation, there are 4 main classification groups, namely: Construction Utilities and Auxiliaries, Construction Housing and Walfare, Production Facilities and Movables.

Depreciation

- Starting when Capital Place Into Services is a full year
- DD DDB method for contracts signed before 1985 and contracts after denan factor depreciation to book value at the beginning of the year
- Contracts signed before 1985 can change the DDB system to Straight Line based on the remaining useful life at the time it benefits the Contractor, and subsequent contracts for the benefit of refunds at the end of the useful life may be withdrawn entirely.

Other costs

- Includes the allocation of overhead costs, non capital inventory, interest recovery and insurance.
- Overhead Allocation of overhead is based on a study and is applied consistently every year and must be periodically agreed by the PN
- Non Non-capital inventories after lended at the import port can be included as operating costs
- Interest recovery is the interest of loans from affiliates, holding companies and third parties as long as the interest does not exceed general interest and is only for capital investment only and there must be approval from the PN.

IMPLICATIONS OF THE FINDINGS

Indonesian Upstream Oil & Gas Industry

Fiscal provisions in the upstream oil and gas industry will revolve around the tax / royalty system and production sharing contract. Fiscal meaning is the regulatory provisions regarding the division of income between the state as the land owner and the company or contractor of the cooperation contract. In accordance with the current agreement, the amount of government revenue ranges from 30% to 90%.

For investors, fiscal provisions have a major influence on the economic level of exploration and production activities, because the principles of exploration and exploitation agreements are commitments in the determination of rights and obligations as well as ways of sharing income between investors and landowners. This provision is often used by the government to control the rate of exploration activities.

In the upstream oil and gas industry, this fiscal policy is more emphasized and becomes an inseparable part of the contract as expressed by Johnston Daniel, (2003: 13). An obvious trend in the 1980s and 1990s. many countries develop petroleum fiscal systems by adopting the option of using a Production Sharing Contract (PSC). To be sure the baseline is the same as the R / T system, depending on the aggregate level of royalties, taxes and sustainability. Political and philosophical aspects are included, however, profits will always be the main choice of the Production Sharing Contract (PSC).

This difference in perspective on fiscal policy, between the government's point of view, has emphasized the macroeconomic emphasis, while the upstream oil and gas industry places more emphasis on managing fiscal policy from a microeconomic perspective.

The purpose of fiscal policy in the upstream oil and gas industry as expressed by Johnston Daniel, (1998; 145) Many government and company laws try to respect the views of counterparts. But this is not easy. There are four main issues that need attention from the parties (government and national oil companies), namely:

- Control costs
- Maximize the level of efficiency in production
- Evaluation of companies visiting from other countries
- Terminology.

In responding to an ideal fiscal system design, Johnston Daniel, (2003: 149) said: Here it seems that there is a reasonable understanding between academics and practitioners on measures for an efficient, effective petroleum fiscal system. The ideal regime is:

- Ensure a stable business environment and minimize sovereign risk.
- Avoiding speculation.
- Unlock the potential for an equitable sharing between government and companies, balanced risk and mutual respect.
- Reducing complexity and limiting administrative burdens (both government and companies).
- Provide sufficient flexibility to accommodate changing perspectives and economic conditions. Increase fair competition and efficient markets.

The proposed system design is based on the assumption that the government has a strong enough power in the government or ministry that has enough authority to build the system in such a way through negotiations in connection with and recognition of terminology and respect for contracts.

Production Sharing Contract

The basic principles of the model PSCs should be retained, but for new PSCs: (i) the rate of First Tranche Petroleum, or the proportion accruing to Government under the standard contract, should be reviewed with a view to reducing it, particularly for high cost fields and under conditions of low oil prices; (ii) contractors should receive the world price for any supply they provide to the domestic market in the period before the domestic market and refineries are liberalized; (iii) the investment credit should be applied more equally, extended to all areas, and the rate and mechanism applicable should be reconsidered to enhance the attractiveness of fiscal regime; and (iv) the State profit oil/gas share should be linked directly to a measure of achieved cash flow.

Only if mutually agreed with the contractor, should the Government renegotiate the terms of existing PSCs along the lines recommended above for new PSCs.

Upstream Oil and Gas business activities are carried out by Business Entities or Permanent Establishments based on Cooperation Contracts with the Oil and Gas Implementing Agency (BPMIGAS / SKKMIGAS).

Business Entity is a company in the form of a legal entity that runs a permanent, continuous and established type of business in accordance with applicable laws and regulations and works and is domiciled within the territory of the Unitary Republic of Indonesia. Permanent Business Entity is a business entity established and incorporated outside the legal entity the territory of the Unitary Republic of Indonesia that conducts activities in the territory of the Unitary State of the Republic of Indonesia and is obliged to comply with the applicable laws and regulations in the Republic of Indonesia.

Cooperation Contracts are production sharing contracts or other forms of cooperation contracts in exploration and exploitation activities that benefit the State and the results are used to the greatest extent for the prosperity of the people.

Cooperation Contract Contractor is a business entity or permanent business entity that is bound by an agreement in a Cooperation Contract with the Government of the Republic of Indonesia in a Work Area to carry out exploration and exploitation of oil and gas, where the management of operations (supervision and control) is in the hands of the government in terms of This is SKKMIGAS.

Contractors of Cooperation Contracts have an interest that supervision and control efforts are carried out as efficiently as possible and bring added value to the conduct of business activities so that both profits for the government and shareholders can be jointly increased.

Cooperation Contract Contractors also have an interest that their activities in Indonesia meet international standards in the oil industry.

Cost Recovery

Cost recovery is the reimbursement of costs incurred by the contractor for the purposes of exploration, development and operating costs beyond gross income. Most Production Sharing Contracts have a limit on the amount of contractor income recognized to get a refund but not all costs can be requested for repayment for last year's financing and returned in the event year. The limitation of cost recovery or the limit of the refund limit as commonly known ranges from 30% - 60%. (Johnston Daniel 1996: 56)

Cost recovery was introduced in the Production Sharing Contract (PSH) since the First Generation towards the mid 1960s. Until now, the implementation, application and method of calculating the cost recovery has reached the third generation and will still develop according to the conditions.

Although all operating costs are entitled to recover their costs, they contain elements of validity and feasibility of costs (expenditures eligible for cost recovery). Costs are not a problem as long as the contractor has not produced. In the exploration and development period, despite cost recovery, formal approval from the Government cq. BPMIGAS as the Management of KBH Contractors and audits must always be conducted. Approval of the object and its value is very dependent on the perceptions and understanding of business people in the upstream oil and gas activities bearing in mind there are no clear, clear and detailed operational instructions (technical guidelines).

In a Cooperation Contract the cost of returning is a factor determining the size of the Indonesian portion as well as the profits of the Foreign Contractor. How to recover costs have

changed three times to adjust to the general provisions in the calculation of costs. All of these changes are aimed at improving the condition of state revenues so that they can follow the pattern of rising crude oil prices on the international market.

Based on research, it turns out that this Production Sharing Contract still provides benefits above the fairness of the contractor and the way of calculating the cost is also still not in accordance with general accounting principles (Sutadi, 1999).

CONCLUSION AND SUGESTION

In the upstream oil and gas industry, this fiscal policy is more emphasized and becomes an inseparable part of the contract as expressed by Johnston Daniel, (2003; 13) An obvious tendency in the 1980s and 1990s. Production sharing contracts where production is divided based on a certain percentage agreed upon. The contract between SKK Migas and the Contractor is used as the basis for Oil and Gas Exploration and Exploitation activities in a Work Area.

Production Sharing Contract (PSC), which requires contractors to provide investment, skills and technology to work on oil and gas working areas. When the area is in production, the state and the contractor will share profits after the state revenue is reduced by a number of deduction factors, including a return on operating costs or cost recovery. So, cost recovery is an investment without which upstream oil and gas business activities might not be able to run and generate state revenue. Cost Recovery exists because the state needs bailout funds to run this business. This bailout also protects the country from exploration risks, because cost recovery will only be carried out if commercial reserves are found. What distinguishes the cost recovery of the PSC from other contract systems, especially the concession system, is that in the PSC, the company must first obtain approval from the authorized government to be able to obtain the return of the operating costs. That is, in the cost recovery system in the PSC, government supervision is much tighter compared to the concession system. https://ekonomi.kompas.com/read/2014

The fiscal system for production sharing contracts / cooperation contracts has an effect on cost recovery, which is the better order in the sub-variable accounting methods, the oil and gas work contract model and the management of the upstream oil and gas sector in the fiscal system for production sharing contracts / cooperation contracts then the cost recovery system will be controlled or can be controlled properly, which in turn will increase state revenue from the oil and gas sector through oil and gas revenue sharing.

Cost recovery influences PNBP, because the more controlled the cost recovery is, the more revenue the country receives. This situation can occur if the contractor of the cooperation contract and the upstream oil and gas management body has worked efficiently and effectively, where the cost recovery can be reduced in such a way that the allocation of oil and gas revenue sharing for the country becomes larger (which is divided into production after costs are incurred). The amount of production in the part of the country will directly affect the profit sharing funds.

RECOMMENDATIONS

The cost refund requested by the contractor for a cooperation contract must have a maximum limit of up to 50%. There must be courage from the government to implement strict sanctions on cooperation contract contractors who violate the provisions of cost recovery. And give

awards to those who can provide or reduce production costs to below USD 6.5 per barell. Request for returns for costs during the POD period after a field of production is carried out based on "feet" for each well that is producing not PAD especially by Area Mining Work. To obtain clear and transparent information and avoid differing interpretations between the contractor of the cooperation contract and the government, then in the "Appendix C" of the Oil and Gas Cooperation Contract, the accounting principles, the cost method used and the accounting period used the same as the recording period carried out in the APBN. Implement PERMEN ESDM 08/2017 regarding Gross Split Production Sharing Contracts for all Production Sharing Contract Contractors.

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