Report on
Proposed Mexico Model Contract and Bid Conditions for First Shallow Water Bid Round
March 25, 2015 version

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EXECUTIVE SUMMARY

On December 11, 2014, the Comisión Nacional de Hidrocarburos (CNH) released the Bid Conditions for the First Shallow Water Bid Round for Mexico. The Bid Conditions included the proposed model form of Production Sharing Contract (Model PSC) that would be awarded to successful bidders for shallow water blocks. CNH requested comments on the Bid Conditions and the Model PSC. As a result the authors published a report on December 15, 2014 with a review of the Bid Conditions and the Model PSC that included 38 recommendations.[3]

On March 25, 2015, CNH published new versions of the Bid Conditions and the Model PSC. This report reviews these new versions. It is written by us as independent international petroleum experts in response to CNH's request for public commentary. It was not commissioned by any party, and was not reviewed by any party prior to its release.

Background

The changes in the Mexican Constitution and enactment of secondary legislation have created a good framework for attracting foreign investment in Mexico's petroleum industry. It holds the promise that Mexico can increase oil and gas production, grow government revenues from oil and gas, attract new investors and investments, develop business opportunities and employment and provide opportunities for PEMEX to grow into an internationally competitive company.

In our December 15 report, we concluded that the terms of the Model PSC published in December were tough compared to other petroleum contracts for similar opportunities because it features:

- fiscal terms for shallow water conditions that are not competitive
- small contract areas
- tough minimum work commitments
- short time frames for implementation of exploration and development activities
- a large number of non-recoverable cost items

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[3] That report is available at http://petrocash.com/documents/free/63201020.pdf

- a lack of an economic structure for investment in commercialization facilities
- a large number of discretionary decision requirements on the part of CNH
- extensive administration and reporting requirements, and
- early termination and penalty provisions for breach of non-fundamental contract provisions.

We were concerned that the application of such terms to Mexico's mature shallow water conditions may significantly reduce the interest in the bidding round, in particular under the current declining oil prices.

The March 25 versions of the Bid Conditions and the Model PSC include a significant number of improvements. The main improvements are as follows:

- The fiscal terms were mildly improved
- Conditions for a profitable midstream were created
- The overhead allocation was improved
- The initial term of the contract was increased from 25 years to 30 years
- The exploration period was improved from three plus one plus one years to four years plus two years
- The minimum work commitments for most contract areas were reduced
- The work program definition was improved by introducing an effective work unit system
- Exploration work performed in excess of minimum requirements can be carried forward to fulfil exploration work obligations in the next period
- The bid formula was streamlined by including work units rather than expenditures
- The extra work unit bid can be applied to the first or second exploration period
- The measurement point can now be either inside or outside the contract area
- A proper netback system was introduced
- The contract price procedures now include reference to fair market value
- The contract price and sales price matching provision was deleted
- A deemed approval procedure is introduced in case CNH does not respond in time
- The accounting procedure was improved
- The Contraprestacion determination procedure was clarified
- Sharing production at the measurement point was guaranteed

Nevertheless, from a short term perspective, we remain concerned that the issues remaining may significantly reduce the interest in the possible bidding round, in particular due to the fact that oil prices are now anticipated to remain low during over the coming months.

There are four main issues that could derail the bidding round. In order to avoid that outcome, it is important that the Government of Mexico understand that in order to attract investment to the shallow water of Mexico:

(1) Competitive fiscal and contractual terms need to form the basis for the minimum bid terms,

(2) The perception of considerable country risk needs to be dealt with through adequate contractual provisions that rely less on possible future regulations or discretionary decisions and more on contractual guarantees,

(3) A number of the time limitations need to be extended to properly reflect the necessary time requirements, and

(4) Certain provisions designed to increase competition need to be adjusted to avoid unnecessary obstacles to investment.

From a medium and long term policy perspective we are concerned that the above issues lead to an overall policy framework that may not result in maximizing the benefits for Mexico from the oil and gas resources. The Mexican upstream petroleum policy that seems to be emerging consists of the following:

(1) An excessive focus on rent collection on a dollar per barrel equivalent basis, rather than a focus on broad based development of a wide range of Mexican oil and gas resources in order to enhance production, revenues, employment and economic growth;

(2) A lack or seriousness about the avoidance of "gold plating", which will lead to encouraging companies squander money and to propose sub-optimal and expensive developments rather than promoting an efficient and technologically advanced petroleum industry;

(3) The creation of an overly complex administrative and fiscal framework, which will have the potential of crippling the effective development of the Mexican resource base and could lead to a relationship of conflict between government and investors;

(4) Significant reliance on "applicable norms" (regulations), which create an environment in which the current policies of opening the Mexican petroleum industry to foreign investment can be easily reversed in the future under different political frameworks; and

(5) Incorporation of significant discretionary decision making powers for government officials, which in certain cases could create opportunities for corrupt behavior.

This report contains our views on the March 25, 2015 version of the Bid Procedure and the Model PSC. We have had detailed discussions with various parties with respect to our earlier report. As a result, we have changed some of our recommendations, with respect to matters that have not yet been dealt with.

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1. INTRODUCTION

This report contains a review of the Mexico Model Contract for shallow water (Model PSC) and Bid Procedure as announced March 25, 2015 by CNH. During the announcement, not only interested parties, but also the public was requested to make comments on the documents provided.

This report is written by us as independent international experts in order to provide such comments. This report was not requested by any party. Nor was this report reviewed with any party prior to its release.

The comments in this report are provided from the view of ensuring a further successful implementation of the policies of the Government of Mexico to benefit the Mexican state by the promotion of petroleum development in Mexico.

2. IMPROVEMENTS IN THE BID PROCEDURES AND MODEL CONTRACT

2.1 Fiscal Conditions improved

The fiscal conditions were improved somewhat. Nevertheless, "gold plating" remains a major issue. A detailed discussion of the new fiscal terms and the gold plating issue is contained in chapter 3 of this Report.

2.2 Requirement for a profitable midstream framework

The December 11 version did not explain how companies would make economic investments the midstream investments. This was a very serious omission in the Model PSC.

In our December report[4], the authors recommended that the concept of "tariffs" for pipelines and gas processing would be introduced in the price netback provisions. Tariffs for transportation and gas processing include a rate of return.

A very significant improvement in the Model Contract is that the concept of tariffs for the midstream is now included in Annex 3.

This in turn will now guarantee that companies that invest in the midstream operations can expect a level of profitability on their investments. The rate of return will be a regulated rate of return pursuant to CRE regulations for pipelines and SENER regulations for gas processing plants and storage facilities. It is anticipated that CRE and SENER will adopt procedures similar to those used in other countries.

On this basis it is profitable for the Contractors to create separate companies dedicated to midstream investments.

As indicated in our previous report, the legislation requires that upstream operations can only be carried out by companies dedicated to exploration and production. Therefore, it can now be recommended to clarify in the Contract that the downstream operations have to be carried out by a separate company.

Recommendation # 1: It is recommended to clarify in the Contract that all operations downstream of the measurement points have to be carried out by separately incorporated companies that are different from the companies constituting the Contractor, but could be

[4] Available at http://petrocash.com/documents/free/63201020.pdf

owned by the same owners, and that such operations need to be carried out based on the respective permits from CRE and SENER.

2.3 Overhead Allocation

The December version of the Model PSC Accounting Procedure include an extremely restrictive limit of only 0.25% for all overhead costs.

Most Accounting Procedures distinguish between local overhead and foreign headquarters overhead. Only foreign headquarter overhead is limited by a percentage due to the fact that it is difficult to audit. Usually PSCs include a sliding scale starting at 1% or 2% going downward with larger operations for such headquarter costs.

It was therefore recommended to make (previous) section 2.3(cc) of the Accounting Procedure applicable only to overhead costs of the parent company and establish a reasonable sliding scale based on the recoverable costs.

The newly proposed Accounting Procedure establishes a limit of 1.5% all overhead costs.

This is a limit for all overhead costs of the parent company as well as the local subsidiary, rather than just the parent company. Such a limit will not create an incentive to bring local overhead in Mexico. This could mean the loss of attractive jobs.

Recommendation # 2: It is our recommendation that the 1.5% limitation on overhead only applies to foreign overhead of a parent company. There should be no percentage limitation on overhead incurred in Mexico.

2.4 Contract Term, Renewals and Exploration Period

Contract Terms and Renewals

Clause 3 of the Model PSC did provide for a contract term of 25 years and two renewals of 5 years each. This means that the Model PSC terminates after 35 years. The renewals were subject to presenting an enhanced recovery program.

The contract was to be transferred to a "third party" upon the termination of the contract, pursuant to clause 18.7.

We recommended that there would be continuous renewals of 5 years each until the end of commercial production and that the requirements for an enhanced recovery program would be deleted.

Model contract is now for 30 years, with two renewals for 5 years each. The obligation to invest in enhanced recovery no longer applicable. This is a significant improvement in the Model PSC.

Nevertheless, renewals are still subject to entirely discretionary economic terms. Therefore, there is no certainty for Contractors that, if they comply with all technical provisions, their contract will be renewed.

Of course, it is reasonable that economic contractual terms be adjusted after 30 years.

However, to make the economic provisions entirely discretionary opens the door to non-transparent decisionmaking and could result in arbitrarily denying the Contractor the right to a renewal.

Recommendation # 3: It is our recommendation that renewal of the contract be under the same terms or under prevailing terms at the time of the renewal, at the option of the CNH.

Based on this option the Contractor is guaranteed to get either the terms existing under the contract or prevailing terms for Mexico.

Also providing the contract to a third party without any process governing the award, could equally lead to discretionary decisions with respect to such third party and create the opportunity for corrupt behavior. If the Government is of the view that the contract has to be terminated at some point in time, a more objective option is to make the transfer of the contract subject to an open bid process in which the original Contractor is permitted to participate.

Recommendation # 4: It is recommended, that where the Government is of the view that the contract cannot be continuously renewed, that the transfer of the contract to a new party would be made subject to an open bid process in which the original Contractor is permitted to participate.

Exploration Period

In the December version of the Model PSC, the exploration period was three years plus two renewals of one year. This was a short period by international standards. It was recommended to have a longer period.

The new contract includes an initial period of four years with a renewal of two years. This is a better package and will make it possible for Contractors to offer an attractive work program for the first four years.

2.5 Minimum Work Obligations, Work Program Definition and Work Unit Bid

Minimum Work Obligations

As discussed in our December report, the PSC Contract Areas of the 14 blocks are very small compared to international PSC areas. Mexico offers 116 – 501 sq km. Internationally, blocks are typically 500 to 2500 sq km.

Yet minimum well requirements in the first 3 years was for most areas 2 wells per block. This compares with typically one well per block internationally.

Therefore, it was recommended to reduce the minimum well commitment to one well per block during the initial period.

Well commitments were reduced to 1 well for 11 of the 14 contract areas. This provides for a far more realistic framework that the original provisions.

Work Program Definition

Section V of the December version of the Bid Conditions listed the number of wells that need to be drilled in the contract area and the amount of the expenditures that is estimated to be required for these wells. For example for contract area # 1, the minimum number of wells is two wells. The estimated expenditure is $112,585,000. It was not clear how these two obligations related to each other.

Best international practice is to concentrate on work, not on the expenditure of money. It was our recommendation to concentrate the work program on work to be carried out.

An effective Work Unit system has been introduced. Part V of the Bid Conditions and Annex 5 of the Model Contract now include a Work Unit system that is up to international standards and will create a more flexible approach to the work to be carried out, as well as a precise definition of the work obligations under the Contract.

Some small improvements can still be suggested.

It is not clearly spelled out that only total work units matter, in other words: drilling can be replaced with geophysics. The table in the Part V of the Bid Conditions displaying the Work Units required for each Contract Area, breaks down the work units in drilling, exploration studies and geophysics. This may reflect how the total Work Units were derived. Nevertheless from a

contractual point of view only the total amount of Work Units that matter, and not the break down among different types of exploration work.

Recommendation # 5: It can be recommended to only provide the total work units in the table of Part V of the Bid Conditions and Section II of Annex 5 to the Contract.

The Work Unit system contains a price adjustment feature for the value of the Work Units. This is an unnecessary complication and could result in disputes. It is not necessary to have such a price adjustment. Under low oil prices, this could provide some extra support to investors in terms of guaranteeing the work with a bank guarantee. However, as indicated, it is not necessary to have it.

Recommendation # 6: To delete the price adjustment feature from the work unit value determination.

Work Program Carry Forwards

An omission in the December 11, 2014 Model PSC was that there is no carry forward to the next exploration period of work carried out in excess of the minimum work program.

It was recommended to include such a provision.

Clause 4.3 now includes this provision.

Bid Variable Definition

In the December 11, 2014 Bid Conditions, the bid variables consist of a combination of the economic proposal and the work program proposal. The previous recommendation was to base the Minimum Work Program on well depth.

Actually, the increase in Work Units was adopted. This is better than the recommendation made in our December report.

Ability to carry out extra work bid during the entire exploration period.

A very attractive feature of the new work bid concept is that the extra work can be carried out during the initial exploration period and the extension of the period, provided the additional work is guaranteed.

This will encourage companies to look carefully at offering an attractive work commitment bid.

2.6 Measurement Point Definition

In our December report we described how in the mature shallow waters of Mexico it is highly likely that operations have to be integrated. Many of the blocks on offer are adjacent. In order to achieve the most economic production it can therefore be contemplated that production from one contract area may be separated and treated on the platform of another contract area.

Therefore, it was recommended to delete the words "dentro del Area Contractual" from the definition of Measurement Point in the Model PSC, so the Measurement Point could be in or outside the Contract Area.

The definition now permits a Measurement Point inside or outside the Contract area. This is an important clarification.

However, the next level of problems is that now a single Measurement Point may measure production from various Contractors. For this reason, additional measurements of gross production are now required. It is not clear yet how gross production measurement points would be dealt with.

Recommendation # 7: To include in the Contract the requirement for gross production measurement points, where the Measurement Point is outside the Contract Area and to establish the procedures for allocating production and costs to individual Contractors.

2.7 Contract Price, Netback Concept and Sales Price Matching

Netback Concept

The December 11, 2014 Model PSC did not contemplate the complex integrated operations that may occur in the upstream and midstream of the shallow water operations. It was written far too simplistically to handle these more complex situations with respect to the Measurement Points.

It was therefore recommended to develop an Annex to the Model PSC that would describe in detail the various adjustments that have to be made in order to properly determine the Contract Prices at the Measurement Points.

New sections 1.7 and 1.8 in the March 25, 2015 version of the Model Contract provide a great deal more clarification.

However, further improvements can be made, for instance, with respect to netback values for wet gas from gas processing facilities.

Recommendation # 8: To make some further improvements and refinements in the definition of the netback procedure. For instance, important improvements that can be recommended are:

(1) to include a reference to gas processing tariffs and tariffs for conditioning of gas related to sulfur and CO2 removal as part of the netback procedure, and

(2) to clarify that the value of condensates (for royalty and Contraprestacion purposes) at the exit of gas processing plants is part of the wet gas value at the Measurement Points.

Contract Prices

It was previously recommended in our December report to make improvements in the section in Annex 3 of the Model Contract with respect to Contract Prices. In particular the gas pricing clauses required improvement.

Significant improvements have been made in the Contract Price. These provisions now directly link in many cases to the fair market value. The introduction of the concept of "Reglas de Mercado" in general is an important improvement in the Model PSC.

However, the section could be simplified and improved further.

Recommendation # 9: To make some further improvements and clarifications in the Contract Price provisions. For instance, it is not necessary to include in the contract detailed formulas for the crude oil and condensate values It is sufficient to refer to calculations proposed by the Contractor and approved by SHCP based on "Reglas del Mercado".

Contract Price and Sales Price Matching

It was unclear what Section 1.3 of the Annex 3 was trying to achieve in the December 11, 2014 version of the Model Contract. It was difficult to see, for example, how the sales values of the "Comercializador" can be matched with the Contract Price of the Contractor.

The improvements in the Contract Price definition now make it no longer necessary to match contract prices and sales prices of the Comercializador. **Therefore, old section 1.3 was removed.** This is a major improvement in the Model PSC.

2.8 Deemed Approval Procedures

It is likely that CNH will initially face problems to administer the petroleum contracts owing to the significant number of discretionary approval and consent requirements contained in the Model PSC.

We suggested a system which is similar to that utilized by ANP in Brazil and ANH in Colombia in order to deal with circumstances where CNH will not be able to handle the work load.

The contract now includes a number of CNH approval requirements where failure by CNH to respond in the required time, the request is considered approved.

We recommend to include this deemed approval procedure also in some other areas in the Contract.

Recommendation # 10: To expand the use of the "deemed approval" procedure in the Model PSC.

2.9 Improvements in Contraprestacion definition and Accounting Procedures

The addition of a section 9 to Annex 3 of the Contract, clarifies a number of issues and firmly anchors the contract as a Production Sharing Contract.

The Accounting Procedures were improved by including the concept of "Eligible Costs" in the Contract and by adding Section III.

An important omission in the Accounting Procedure was that the procedure did not deal with the provision of services by the Contractor to other Contractors. Under typical PSCs the income of such services is typically credited against the cost recovery. We therefore recommended adding this provision. **This provision is now included in the new PSC.**

Nevertheless, the Accounting procedure still fails to deal with some other credit issues related to recoverable costs. Therefore it is recommended to make some further improvements.

Recommendation # 11: It is recommended that some further credit provisions be included in the Accounting Procedure.

2.10 Other Improvements

Some other improvements were made in the Contract. For example, it is important that the working interest percentages of the various parties to the contract are no longer fixed.

2.11 Conclusion

In conclusion, very important and material improvements and clarifications were included in the March 25, 2015 Model PSC and Bid Provisions. In general, these improvements will be an added incentive for investors to look favorably at the Mexican bidding round.

Nevertheless, as explained in the following chapters, important issues remain to be addressed.

3. FISCAL TERMS

3.1 The rentals, royalties and corporate income tax.

As discussed in our December report, the rental (Cuota Contractual), royalty and corporate income tax provisions of the LISH provide a viable starting point for fiscal terms for all of the resources of Mexico.

3.2 The Contraprestacion to the Contractor for Cost Recovery.

3.2.1 Cost Recovery Framework

Our December report explained that a 60% cost limit reasonably matches the international average at this point in time.

3.2.2 Budget Process

In general the Accounting Procedure is consistent with international standards. However, a number of suggestions can be made.

Clause 11 in the Model PSC is a rather standard clause in PSCs. It is common that the annual budget is approved as part of the annual work program and budget approval procedure under a PSC.

Clause 11.7 states that the budget approval procedure by CNH is solely for the purpose of authorizing the Contractor to incur the relevant expenditures. However, SHCP will decide whether these costs are recoverable or not, regardless of whether the costs have been approved by CNH. Therefore CNH does not play any role in the cost recovery approval process.

Given this situation, Clause 11 is in principle an unnecessary bureaucratic requirement.

Nevertheless, based on further discussions it is clear that some investors may take comfort from the fact that they would be investing on the basis of approved budgets. Therefore it is now suggested by us to leave this clause unchanged.

3.3 Adjustment Mechanism Options – the IRR sliding scale.

3.3.1 The IRR Concept

The IRR concept

In our December report we explained that the concept of developing a fiscal feature based solely on the rate of return is completely contrary to current international experience, because such contracts invariable result in massive gold plating.

"Gold plating" occurs when an incremental investment would result in a lowering of the Contraprestacion in an amount that is greater than the incremental investment. For example, an incremental investment of $100 million in a set of additional development wells would result in a reduction of $200 million in Contraprestacion to the Mexican state. This would make the investment in the wells profitable for the investor regardless of the merits of this investment, because each dollar spent on development results in two dollars of reduced Contraprestacion to Mexico. In other words, it is an invitation to squander money.

Given this situation, it is very detrimental to Mexico that the Government continues to propose in the Model PSC an adjustment mechanism based solely on the IRR with significant "gold plating".

Contract based IRR system not effective.

We also mentioned in our December report that contrary to international practice for similar IRR systems, the IRR system in the Model PSC is proposed for the total of the Contract operations, not for the individual fields or projects in the Contract. This means that the IRR will be a blended IRR for all projects and field in the Contract Area. This could erode significantly the perceived benefit from an IRR from Mexico's perspective.

IRR not a viable profitability index

We also argued that the IRR would not be a viable profitability index to determine whether windfall profits are taking place under Mexican mature conditions, since joint facilities will have to be used that distort the IRR.

Un-risked Production Based IRR not viable

The proposed rate of return is only the **un-risked** rate of return for the exploration and extraction operations. The proposed rate of return therefore does not take into account the dry hole risk.

For many smaller fields the risked rate of return would be well below the un-risked rate of return and therefore the proposed rate of return is not a reasonable reflection of overall profitability.

New IRR Proposal

It is therefore very detrimental for Mexico that Adjustment Factor of the Model PSC continues to be based solely on the IRR.

Nevertheless some improvements were made in the formula for the March version of the Model PSC by increasing the IRR benchmarks to 20% and 35% and by increasing the final Contractor share to 25% of the bid value.

3.3.2 Lack of Volume Progressivity

Lack of Volume Progressivity

It was also argued in our previous report that a very serious shortcoming of the Model PSC is a complete lack of volume progressivity. **The new formula does not include volume progressivity.**

3.3.3 Economic Analysis of the Proposed IRR System

As in the previous report, an analysis was done on the fiscal terms contained in the Annex 3 of the Model PSC, assuming an initial Government Contraprestacion of 20% of the Profits. This means the Contractor would have a profit share of 80% below 20% IRR before tax and 20% above 35% IRR. The analysis was done for standard shallow water fields costing $20/bbl capital and operating costs. Field sizes in the range of 20 to 1000 million barrels were evaluated.

The proposed terms were compared with shallow water terms for Brazil, Colombia, the US Gulf of Mexico and the UK. These are jurisdictions whose petroleum regimes will be competing for private investment capital that Mexico will want to attract.

It should be noted that the assumption of an initial 80% - 20% split of the profits in favor of the Contractor is an important assumption. It is obvious that if SHCP insists on a higher minimum split for government that the economic benefits to the Contractor would be considerably less.

Therefore we are now also analyzing a 60% - 40% split in favor of the Contractor to demonstrate the impact of a split that is tougher to the Contractor than an 80%-20% split.

Three different cases will be compared:

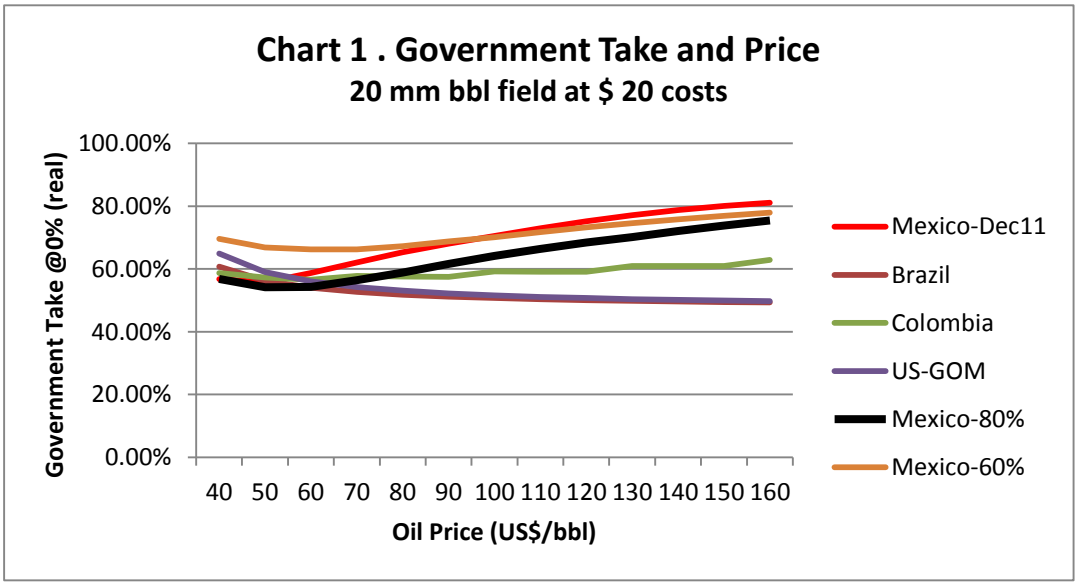
(1) The original December proposal **("Mexico-Dec11"),**

(2) An 80%-20% split in favor of the Contractor under the March 25, 2015 proposal **("Mexico-80%"),** and

(3) A 60% - 40% split in favor of the Contractor under the March 25, 2015 proposal **("Mexico – 60%")**.

Government Take Analysis. The undiscounted government take ("GT0") in real terms was evaluated for changes in price, volume and costs. The results are provided in Charts 1 through 3.

With respect to **price**, in Chart 1 the GT0 for Mexico-60% is well above the competing countries for the entire price range and is therefore completely uncompetitive. The Mexico-Dec11 becomes higher than the competing countries over $60 per barrel and is therefore also uncompetitive. The Mexico-80% system is competitive up to $80 per barrel, but loses competitiveness at higher prices.



With respect to **volume**, Chart 2 illustrates how at a price of $80/bbl and $20/bbl the Mexico-60% and Mexico-Dec11 systems are uncompetitive for most of the range of field sizes, except for the very large fields. The Mexico-80% system would be fully competitive for this price and cost range. In fact this system would provide attractive volume upside, due to the lack of volume progressivity of the fiscal system.

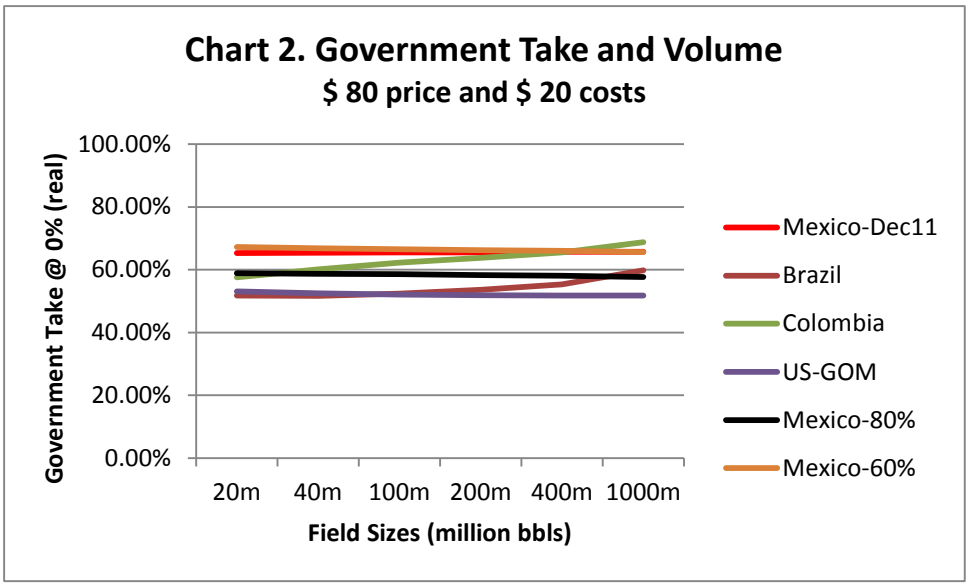
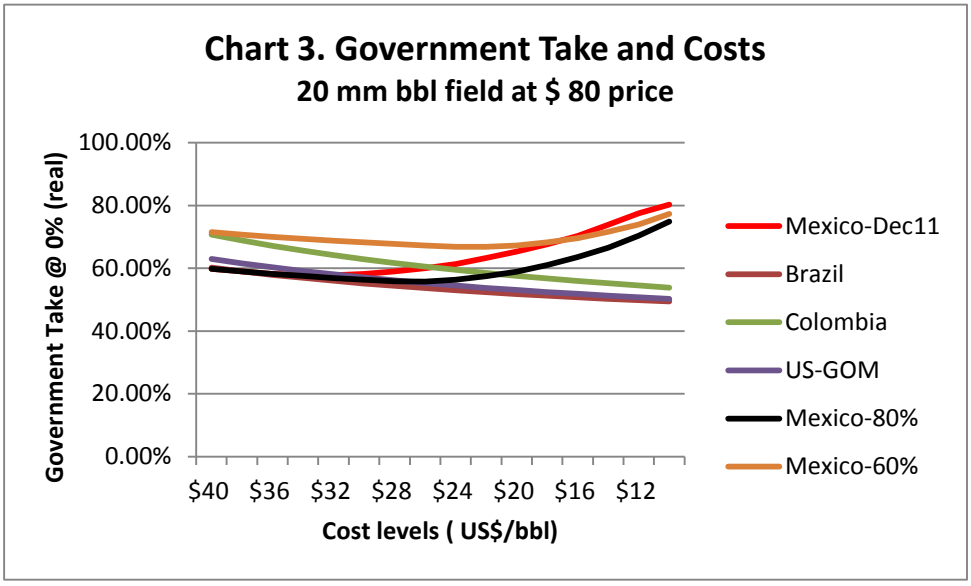


Chart 3 illustrates the economics under different **costs.** The Mexico-60% system would be uncompetitive for any level of costs. The Mexico-Dec11 and Mexico-80% systems are competitive at high costs, but are uncompetitive at low costs.



Un-risked Profitability Analysis. Charts 4 and 5 show the un-risked profitability analysis.

As can be expected, the IRR results for the proposed terms are very favorable because up to the first benchmark ("U1") the Contractor receives a significant share of the profits.

Despite this favorable behavior the Mexico-60% system is uncompetitive over $ 80 per barrel on an IRR basis. The other two systems perform better with an attractive and competitive IRR up to price levels of respectively $ 100 and $ 130 per barrel.

It is, however, a significant error to judge the profitability solely on the IRR. Once minimum profitability levels are reached, companies pay considerable attention to the discounted Net Present Value.

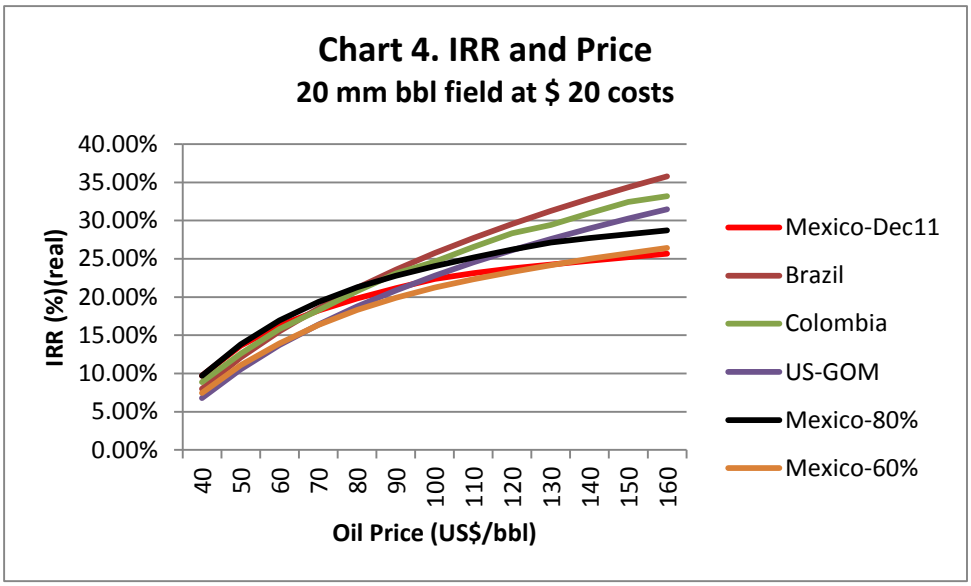
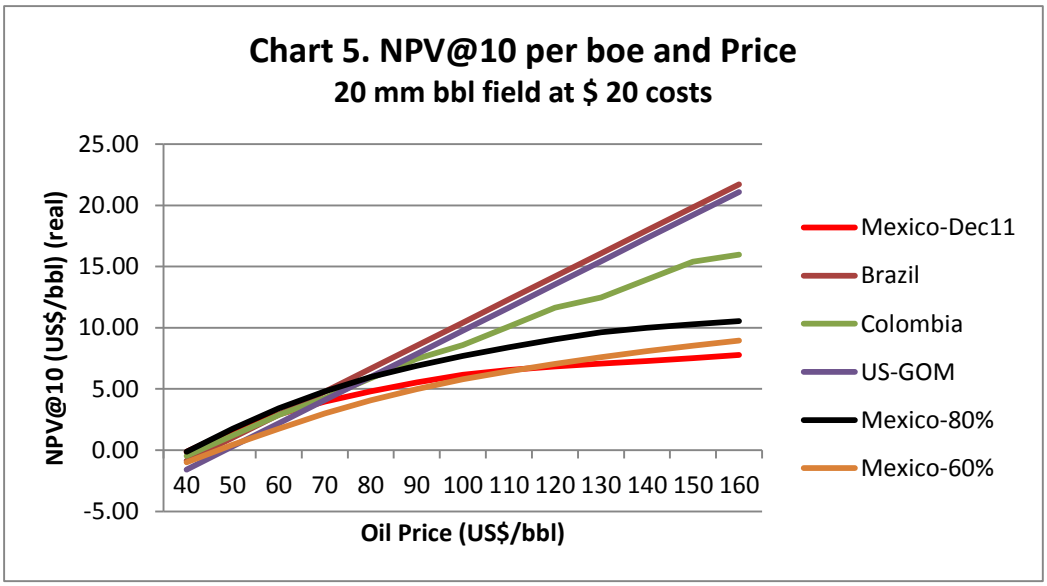


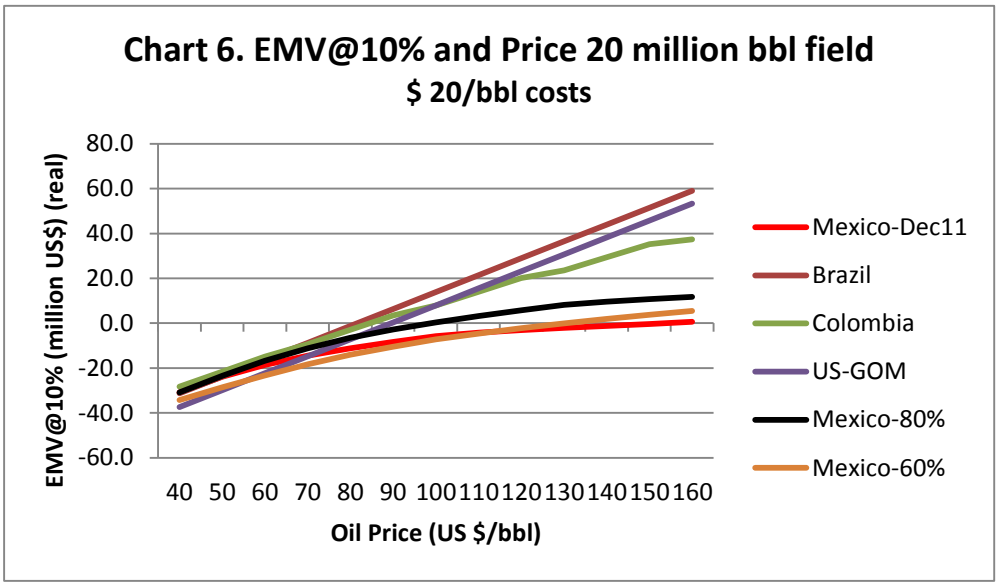
Chart 5 shows the NPV@10% per barrel for different price levels. This analysis shows how the Mexico-60% system is uncompetitive when the oil price is over $ 60 per barrel, the Mexico-Dec11 system is uncompetitive over $ 70 per barrel and the Mexico-80% system is uncompetitive over $ 90 per barrel.



Risked Profitability Analysis. The Expected Monetary Value @ 10% ("EMV@10%) is calculated for an exploration project assuming a probability of a dry hole of 80% and a probability of discovering a 20 million barrel field of 20%. The EMV@10% is the weighted average of the dry hole cash flow and the discovery cash flow.

It can be seen in Chart 6 that the Mexico-Dec11 and Mexico-60% systems do not create economic exploration conditions for any price level, except very high prices. The Mexico-80% system creates very low EMV values over $ 100 per barrel.

None of the three systems will therefore create acceptable exploration economics for small fields. This is a major deficiency of the proposed fiscal terms, since it is likely that most targets will be small fields.



3.3.4 Gold Plating Analysis of the Proposed IRR System

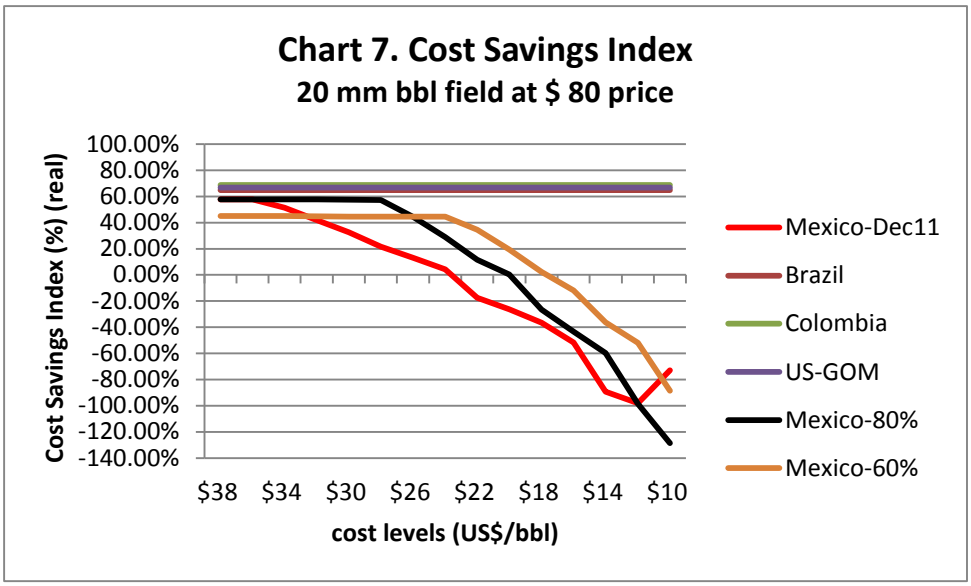
Cost Savings Index analysis. Chart 7 provides the cost savings index. The cost savings index measures how much an investor retains when saving a dollar of cost. In other words, if the cost savings index is 60%, the investor retains $0.60 when it reduces cost by a dollar. If the cost savings index is below 20% the system becomes very difficult to administer from a cost control concept, since the Contractor has little incentive to minimize costs. A negative cost savings index indicates gold plating, which means that the investor has no incentive to save and in fact has an incentive to increase costs.

The chart assumes an $ 80 per barrel price. The chart shows how the system becomes very difficult to administer at the following cost levels:

- At $ 28 for Mexico-Dec11
- At $ 24 for Mexico-80%, and
- At $ 20 for Mexico-60%

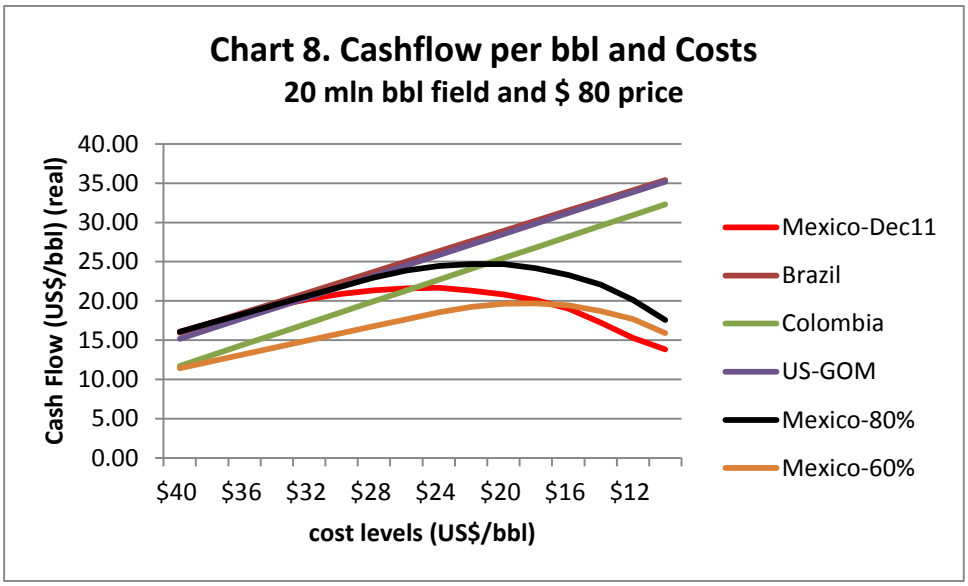
The chart also shows how the systems feature rampant gold plating at the following cost levels:

- At $ 24 for Mexico-Dec11
- At $ 20 for Mexico-80%, and
- At $ 18 for Mexico-60%



Cash Flow per barrel Analysis. Chart 8 shows the Undiscounted Cash Flow per barrel. Under normal systems the Cash Flow per barrel increases if the company is more efficient. This can be seen for the fiscal systems of Brazil, Colombia, the US Gulf of Mexico and the UK. This is actually the normal fiscal system in most countries in the world.

All the three Mexican systems shows the bizarre result that the cash flow to the company becomes less over certain cost levels. This means that the company is actually "punished" for being efficient and for achieving low costs.



3.3.5 Conclusion and recommendation on competitiveness of the fiscal terms

Conclusion. The proposed systems:

- **Is attractive for investors relative to other fiscal systems under low prices (less than $60/bbl) and under high costs (more than $32/bbl),**
- **Is too tough for small fields (such as a 20 million barrel field in shallow water),**
- **Is not competitive over a price of $70/bbl (assuming $20/bbl costs) or for costs under $20/bbl (assuming a price of $80/bbl),**
- **Is uneconomic for exploring small fields at any price level, and**
- **Results in severe gold plating.**

Because of the very unfavorable terms under so-called "upside" conditions, and the unattractive exploration economics, the terms proposed in the Model PSC are not fully competitive for the shallow water opportunities offered in the first bid round.

The minimum conditions set for the percentage of the Contraprestacion to Government has a very significant impact on the economics and could derail the bidding round if this percentage is set too high. In fact the best practice for the proposed shallow water bidding round is not to set any minimum levels and let the market decide what the appropriate government take is.

The severe gold plating creates very difficult administrative cost control conditions for the Government and will lead to squandering of money and sub-optimal development plans. This in turn results in administrative risk for the Contractor. It also results in Mexico likely receiving a lesser return for their oil and gas resources than would be the case for a system with the same government take but without gold plating.

<u>Recommendation #12:</u> The Government of Mexico should make significant and material revisions to the fiscal provisions in the Model PSC. The best option is to create a fiscal system that combines modest IRR or R-factor based features with significant volume based and other technical factors in the Adjustment Mechanism. The resulting system should not feature gold plating and should be competitive with other countries.

<u>Recommendation #13:</u> The Government of Mexico should avoid setting minimum fiscal conditions that are too high for the percentage Government share of the Contraprestacion and preferably should not set a minimum at all.

4. COUNTRY RISK AND CONTRACT STRUCTURE

It should be noted that until December 20, 2013 foreign oil companies were not allowed to explore and produce oil and gas in Mexico other than under risk service contracts. The change in policies to open up Mexico has been a dramatic achievement. There is every reason to believe that this policy change will produce significant benefits to Mexico compared to the previous situation, so that the new petroleum investment policy will be durable.

However, a number of Latin American states have made petroleum investment policy changes that enhanced investment opportunities, and then later reversed them. This has happened in recent years in Argentina, Venezuela and Bolivia.

Foreign investors will perceive that the country risk of policy changes in Mexico is significant. Therefore, international oil companies will seek assurances in their contracts rather than in regulations that the agreements reached will be honored.

Under the current version of the Model PSC, companies remain rather significantly exposed to political risk in two ways:

(1) Early termination provisions that are tougher than in most contracts in the world and seem to leave the opportunity open that the contract can be terminated after the Contractor has committed very large capital investments.

(2) Government decision procedures which are based on regulations, which can be easily changed by future governments, and do not give certainty to the investors that Government decisions will be made fairly.

4.1 Early Termination Provisions

As described in our December report, the Model PSC contains two types of early termination provisions.

Clause 23.1 deals with administrative rescission, defining a series of serious breaches which entitle CNH on behalf of the government to terminate the petroleum contract, after the Contractor is given 30 days to respond and rectify its default. This clause implements in the Model PSC the required provisions for administrative rescission contemplated by Article 20 of the Hydrocarbon Law. Disputes in respect of administrative rescission are to be dealt with in Mexican courts.

Clause 23.2 expands the list of causes which entitle CNH to terminate the petroleum contract beyond the list established in Article 20 of the Hydrocarbon Law. Some of the listed grounds are reasonable and suitable (for example, insolvency or bankruptcy of the Contractor, or breaching

the anti-corruption clause). However, a number of the grounds for termination are much less serious grounds. For example, termination of the contract will occur where:

- failing to present the exploration plan or first work program within 45 days of its due date[5]
- any delay of 180 days in implementing any work program or development plan[6]
- failure to perform 90% of the work units[7]
- any assignment or change of control occurs without CNH approval[8]

Moreover, unlike Clause 23.1, the termination provisions of Clause 23.2 do not provide for any notice to the Contractor or any opportunity to remedy the default where a remedy would be appropriate solution (except for breaches of clause 23.2(J)).

The March version of the Model PSC does contain some improvements in this area compared to the December version. The provision that permitted termination for filing a false or inaccurate report has been deleted (as this issue was repetitive of Article 23.1). Also, a new provision has been added (Article 23.3) that better defines the process for administrative rescission (but not contractual rescission).

Early termination is the state's 'nuclear weapon' for enforcing compliance with a petroleum contract. It is an appropriate power for CNH to have in its toolbox, but it should only be used for significant, material breaches following notice and a reasonable opportunity to remedy. Improvements to Clause 23.2 will give comfort to investors that their petroleum contract has reasonable assurance of stability.

<u>Recommendation # 14:</u> Early termination provisions of Article 23.2 of the Model PSC should be altered to allow early termination only for fundamental or repeated breach, and provide for adequate notice of default and an opportunity to dispute or remedy.

The Model PSC has been made available in both 'individual' and 'consortium' formats, with appropriate changes for each situation. We note that the early termination provisions of both forms read in the same way. This means that the bankruptcy or insolvency by one member of a consortium, or the commission of a corrupt action by one member of a consortium, would result in the termination of the petroleum contract for all parties. In our view, solvent joint venture participants, or those innocent of a corrupt act, should not suffer the consequences of their defaulting joint venturers.

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[5] See clause 23.2(A)

[6] See clause 23.2(B)

[7] See clause 23.2(F).

[8] See clause 23.2(G). A more suitable remedy would be to provide that any such assignment is invalid and has no legal effect

Recommendation # 15: The early termination provisions in the consortium form of the Model PSC should clarify that breach of a final judgement, insolvency, bankruptcy or a corrupt act of a member of the consortium does not result in the termination of the petroleum contract for other solvent or innocent members of the consortium.

4.2 Discretionary decision making

One of the issues that is of the greatest concern to investors is whether they will be entitled to develop a discovery that they make during the exploration period and which proves to be commercial. It is important to provide assurances to the investor that administrative discretion cannot be used in a way in which development of a project is rejected when the investor is prepared to pay for and conduct development operations.

The Model PSC does not pass this important test because Clause 6.2 gives discretion of CNH to approve or reject the Development Plan following receipt of the information required by the Applicable Norms.

Recommendation # 16: In order to provide more certainty to a Contractor that the Contractor can benefit from the production of a Commercial Discovery, it is recommended to include in Clause 6.2 the specific conditions under which a development plan can be rejected.

It is also important that it is understood among the parties that an oil or gas field may develop in various phases. The reference to "final maximum recovery factor" in Clause 6.2 may be interpreted to mean that the Development Plan has to include all phases. This would be an error.

4.3 Quantity of Administrative Decisions

Annex A of our December report is a table which lists all the decisions which are to be taken pursuant to the Model PSC (excluding its annexes). The table lists:

- the relevant authority
- the decision which it is required to take
- the frequency of the decision
- whether there are defined criteria in the Model PSC which govern that decision, and
- whether the Hydrocarbon Law or the Model PSC impose a time frame in which the decision must be taken

As noted earlier, it is positive that there is no Management Committee established by the Model PSC. However, as shown in Annex A, in place of a Management Committee, the Model PSC has created a **thirty** types of decisions that will be taken by a number of different state authorities. This is certainly more than is common in other jurisdictions. This promises to be administratively burdensome for both the government and oil and gas companies.

Annex B of our December report is a table listing all of the reports that are required to be delivered to a governmental authority according to the Model PSC (excluding its annexes), and information and data access rights which the Contractor must give to the government. This table shows that there are twenty-four types of reports and access rights. While it is international practice that oil companies provide regular reporting of relevant petroleum operations, rarely is such an extensive reporting requirement seen other jurisdictions. These two tables are instructive to help understand how significant an administrative and regulatory burden is being created by the Model PSC.

4.4 Necessity of Administrative Functions

Our December report discussed how the Model PSC establishes a large number of administrative decisions and approvals required of Mexican public authorities. Only a few of these were adjusted in the March version of the Model PSC. The many approvals or administrative functions required by the Model PSC includes a number which are not typically seen in international practice. In the interest of reducing the regulatory burden and being consistent with international practice, it is recommended that at least some of these approval requirements or administrative functions be:

- eliminated
- circumscribed with criteria that guides the decision (if the Model PSC does not already include this)

The following are some examples of functions which should be considered for removal or clarification.

Article 3.3(a) and (b): as discussed earlier in this report, the necessity of requiring a new fiscal regime as a condition of five year extensions of the term introduces a significant discretion at the critical time of extension. No standard is established to define what new fiscal terms would be suitable. This type of naked discretion in relation to a decision that has a major impact on a Contractor's interest may be challenging for CNH. In other jurisdictions, extension criteria are simpler: if production is continuing, then the term will continue, subject to the adoption of the then-current fiscal terms applicable in the state, and subject to reduction of the contract area to cover only the remaining production area. As recommended earlier in this report, it would be better to require that the fiscal terms for the extension period should match those of the most recent awards made by the state in comparable situations.

Article 24: CNH has broad discretion over the approval of any assignment or change of control. Approving assignments or changes of control of a Contractor is a valid discretionary decision point for a petroleum regulator. Transparency of such decisions can be improved if the Model PSC or other CNH regulations creates a set of empirical criteria for approving such decisions, and 'safe harbors' such as provisions that would allow assignment to:

- any company who qualified to bid for a similar petroleum contract in a prior bid round, or
- any company who currently holds a similar petroleum contract that is in good standing.

<u>Recommendation # 17:</u> The list of government decision requirements in the Model PSC be reviewed with a view to removing decisions where a discretionary decision is not necessary for proper petroleum administration, or to add objective decision criteria to govern the use of discretion.

4.5 Anti Corruption Provisions

The Model PSC contains a strong anti-corruption provision that prohibits a Contractor from making payments to public officials or political parties in relation to petroleum matters, where such payments are designed to obtain or retain business. This language matches anti-corruption legislation that is enacted by all OECD countries and who will likely be the home jurisdictions of most oil companies who will be bidders for the Mexican petroleum contracts.

Mexico also has strong anti-corruption legislation applicable within Mexico applying to both investors and public officials.

The procedures contemplated by the Hydrocarbon Law and the Bid Procedure also reflect modern requirements for transparent public bidding in the award of petroleum contracts. Moreover, the Hydrocarbon Law requires extensive reporting procedures to ensure that there is transparency of Mexico's petroleum industry.

These rigorous anti-corruption and transparency provisions could be further enhanced by reducing the number of situations in which government discretion is utilized in the administration of the petroleum contracts. The Model PSC involves a large number of decisions to be taken by Mexican public organs[9]. Some of these do not involve a defined set of criteria for taking those decisions.

There can be no possibility for an illegal payment where there is no scope for a government official to make a decision that affects petroleum operations, or where the scope to take any such decision is circumscribed by objective criteria. Reducing the number of decision points and the number of interactions between Contractors and government officials will further help to make petroleum administration corruption-proof. Where discretionary decisions are required as part of petroleum administration (as is the case in every jurisdiction), it will help if those decisions are taken in the context of objective criteria which are defined in the Model PSC or regulations. The recommendations made in our December report can help attain these objectives.

[9] This was discussed in detail in Section 9 of our December report, including an annex listing 30 types of discretionary decisions and 29 types of reports and access provisions. Section 9 of that report contains a series of recommendations for improving these provisions, some of which were adopted in the March version of the Model PSC, but many of which remain.

5. TIME LINES

Many Governments seem to believe that creating unrealistically short time lines is good management and will lead to early production of oil and gas. In fact, often the opposite is true. Reports and plans prepared in time frames that are too short are usually deficient and need to be redone. Therefore, regulation and contracts should permit for time lines that enable the work to be carried out properly.

5.1 Timelines for evaluation and development

As mentioned in our earlier report, the times lines contained for the evaluation and development process are very short.

The following timelines apply in the March 25 version:

- Clause 4.7: 15 days after a discovery for submitting a report on a discovery
- Clause 5.4: 30 days after the Appraisal period for submitting an Appraisal Report (This was made shorter than the 60 days contained in the December 11, 2014 version)
- Clause 6.1: 60 days after the Appraisal period for making a Declaration of a Commercial Discovery
- Clause 6.2: 120 days after the Declaration of a Commercial Discovery for presenting a Development Plan (This was made 30 days longer than in the December 11, 2014 version).

Although there are some similarly short time lines in some other PSCs, it is not in the interest of Mexico to have such a rushed approach to the development of the oil and gas fields.

As described in our earlier report, in particular a Development Plan should be carefully prepared. It is not possible to present a Development Plan for offshore installations without doing some initial engineering studies. These studies have to be done properly in order to ensure safe operations, an adequate protection of the environment and the optimization of the facilities. It is in the interest of Mexico that Contractors carry out these operations meticulously and professionally. Therefore, a time frame of one year after the Declaration of a Commercial Discovery is a reasonable period.

<u>Recommendation # 18:</u> Therefore, the following time lines can be recommended:

- **Clause 4.7: 30 days after a discovery for submitting a report on a discovery**
- **Clause 5.4: 90 days after the Appraisal period or Significant Gas Discovery Period for submitting an Appraisal Report**
- **Clause 6.1: 90 days after the Appraisal period or Significant Gas Discovery Period for making a Declaration of a Commercial Discovery**
- **Clause 6.2: 365 days after the Declaration of a Commercial Discovery for presenting a Development Plan.**

5.2 Timelines for bid preparation

The final version of the Model PSC is now planned to be provided on May 29, 2015. Thereafter, by June 29, 2015, the final consortium members have to be selected. On July 15, 2015 the proposals have to be presented.

Again these are short time lines and may result in companies not participating in the shallow water bidding round.

Recommendation # 19. It can be recommended to delay the date of final consortium selection to June 15, 2015 and the final bid date to August 15, 2015.

6. COMPETITION FRAMEWORK

There are four provisions which are included apparently for the purpose of promoting more competition in the bids but are in fact counterproductive to attract investment:

1. Prohibition of consortia that include more than one company producing 1.6 mmboepd (III.4.1 (e)).
2. Prohibition for a company to participate in more than one consortium (III.12.2(c)).
3. Restrictions on working interest percentages (III.12.2 (d)).
4. Restrictions on amount of blocks that can be bid (III.15.3).

6.1 Large company association prohibition

In principle there are 15 companies that might be interested in participating in Mexico, which have production of more than 1.6 mmboepd as illustrated in the table below.

Rank	Company	MMBoepd
1	Gazprom	9.7
2	ExxonMobil	5.3
3	PetroChina	4.4
4	British Petroleum	4.1
5	Shell	3.9
6	Pemex	3.6
7	Chevron	3.5
8	Total	2.7
9	Petrobras	2.6
10	Rosneft	2.6
11	Lukoil	2.2
12	ENI	2.2
13	Statoil	2.1
14	ConocoPhillips	2.0
15	Sinopec	1.6

The prohibition to form consortia of companies that produce more than 1.6 million barrels of oil equivalent does not exist internationally, except for the United States. Most countries would be happy if groups of large companies would be interested in exploring and producing oil and gas in their countries and make large financial commitments to this effect. The whole purpose of opening Mexico to investment by foreign oil companies is to bring in additional capital to increase exploration and production for oil and gas. It is therefore somewhat perplexing that the Government of Mexico now seems to oppose such large scale investments.

A similar prohibition only exists in the United States, but was introduced under very different circumstances. In makes no sense for Mexico to copy US provisions for no particular reason and under conditions that are not comparable. It should be noted that at the time only large US and European companies were operating in the United States. This was a far more limited number of companies than is at this time potentially interested in Mexico. Also the United States, of course, did not have a national petroleum company, such as PEMEX in Mexico.

With as much as 15 companies today in this category the chance that a particular group would create monopoly powers in Mexico is not a realistic expectation. Even if after the first few bidding rounds it seems that an undesirable level of concentration is being created, Mexico can always introduce certain restrictions at that time.

The limitation may have negative impacts on participation of:

- Russian companies, which have already strategic alliances with other large companies and prefer not to be operators, and
- Chinese companies, which prefer not to be operators and prefer to associate with other large companies as operators.

This may inhibit 5 of the 15 companies to participate. Also some of the other 10 companies will be short of cash due to the low oil price and therefore may not wish to participate unless they can align with other large companies.

It is also unusual to restrict Mexico's state oil company, Pemex, from joint venturing with a large company. We are not familiar with any state that so restricts the participation of its state oil company.

Recommendation # 20. It is suggested to delete paragraph III.4.1(e) from the Bid Bases and corresponding paragraph III.12.2 (f).

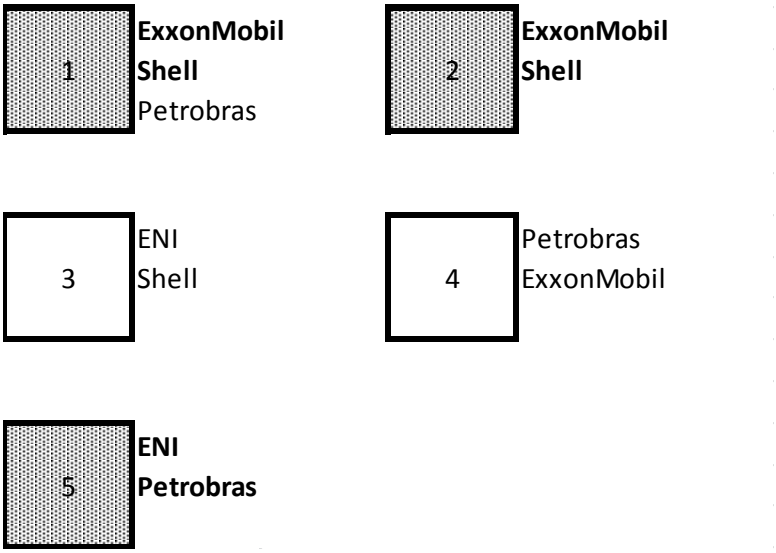
6.2 Prohibition to participate in more than one consortium

Companies, generally like to associate in joint ventures in order to share risk. This is in particular the case during periods of low oil prices.

However, companies have often different geological concepts.

Therefore, they are likely to be interested in participating in different consortia for different blocks. The following Chart 9 illustrates a hypothetical situation of the interest of 4 companies in 5 blocks.

Chart 9. Possible Block Configuration



If companies can only participate in one consortium, it is obvious that it would be difficult to get interests in all five blocks.

Assuming companies do not want to go it alone, based on the restriction and the above example, only two consortia would be formed to bid on three blocks: ExxonMobil and Shell (with exclusion of Petrobras) for blocks 1 and 2, and ENI and Petrobras for block 5. Without the restriction, five different consortia would have been formed to bid on all five blocks.

Preventing companies from participating in more than one consortium therefore limits participation in the bidding round and is a counter-productive provision.

Obviously, it would not be appropriate if the same company participates in different consortia for bids on the same block. However, provision III.4.1(d) will ensure that this cannot happen.

Recommendation # 21. It is recommended to delete III.12.2 (c) of the Bid Bases.

6.3 Percentage share of Non-Operators

It is a widely adopted practice that operators should have a significant interest in a block in order to ensure that the operator is fully at risk with respect to its activities.

However, requiring non-operators to have a lower percentage than the operator would complicate formation of consortia and reduce participation in the bidding round. For instance, if an operator does not want an interest larger than 30%, such Operator would need to find 4 to 5 companies to create a consortium. This is a very significant complication and would likely reduce the number of consortia that can be formed and would bid.

It is more logical to set a minimum percentage for the Operator. In this case a minimum percentage of 30% would be a number that would be reasonable. There is no problem whatsoever with a consortium in which the Operator has 30% and a non-operator 70%.

Recommendation # 22. It is therefore suggested to modify III.12.2(d) to state that the operator should have at least a 30% interest in the joint venture, but not restrict the working interest of non-operators.

6.4 Block number restrictions

Restricting the number of blocks on which a consortium can bid to only 5 may reduce the number of bids per block.

Some consortia like to make low bids on a large number of blocks, apart from making higher bids on the priority blocks, in order to increase the chance that they end up with at least one or two blocks. Such a practice increases the number of bids per block.

The provision to limit bids to 5 blocks is therefore counterproductive. Even in the extremely unlikely case that one bidder, other than PEMEX, would win the bids for all 14 blocks, at least PEMEX and a significant other consortium or company would be working in Mexico rather than only PEMEX.

Recommendation # 23. It is suggested to eliminate in III.15.3 the provision that companies are restricted to bid on more than 5 blocks.

7. OTHER ISSUES

7.1 Relinquishments of the Contract Area

Clause 7.1 of the Model PSC includes relinquishment clauses which are rather standard for international PSCs. However, internationally, these clauses apply to much larger contract areas.

Given the very small size of the Contract Areas, the obligation to relinquish as much as 50% of the area could seriously impede further exploration. Clause 7.4 may result in a retention of some more acreage but this clause is discretionary and therefore does not guarantee that there will be reasonable acreage available for exploration.

At the same time the relinquishment of very small pieces is not very relevant for Mexico, because such small areas may not result in viable new contract areas.

Recommendation # 24: Therefore, it can recommended to delete provisions 7(1)(b) and 7.4.

7.2 Relinquishment of Deep Formations

The Hydrocarbon Law includes the innovative concept of relinquishing deeper formations. This is a modern concept that is now increasingly necessary to promote the development of unconventional resources and deeper formations.

Clause 7 of the Model PSC does not include a relinquishment provision of deep formations.

The concept of deep formation relinquishment and possible subsequent bidding rounds for these areas, requires that the concepts of Field Areas or Appraisal Areas are no longer exclusive. Field Areas of shallower formations can overlap Field Areas of deeper formations. The same applies for Appraisal Areas. New Contract Areas may be created below existing Field Areas or Appraisal Area.

Deep rights relinquishment is not applied currently in PSCs and would therefore require new types of administration provisions. Mexico will have a very significant challenge to establish the proper petroleum administration for the PSCs. So it seems logical not to introduce right away the concept of deep rights relinquishment and delay this extra complication for later implementation.

The Contractor should be provided the reasonable opportunity to fully develop the Field in the Development Area. As indicated above the field development may involve several phases.

Recommendation # 25: For these reasons, it can be suggested to include a Clause 7.5 in the Model PSC requiring deep rights relinquishment upon the termination of the initial term of 30 years.

This is an encouragement to fully develop any deeper formations in the Development Area prior to the end of the first 30 years.

7.3 Bid formula

The bid formula is the following:

VPO = 0.9 * Participation + 0.1 * Additional Investment Factor

The Additional Investment Factor is furthermore limited by applying the following formula:

Additional Investment Factor = (2500 (Investment Increment))^0.5

In other words a proposed increase in investment of 100% results in an Additional Investment Factor of only 50%.

Finally, provision 17.1 (m)(ii) of the Bid Bases includes the somewhat absurd provision that a company is not allowed to offer more than a 100% increment in the work.

This means that the formula is excessively oriented towards the Government Participation.

In general, the bid formula suggests that the goal of the Government of Mexico is to squeeze every last dollar out of only the most profitable oil and gas fields, without having a broader based strategy of developing the Mexican oil and gas resource base to the maximum benefit of the nation.

The highly detrimental nature of the bid formula to Mexico can be illustrated with a simple example.

It should be noted that despite the small size of the blocks it is likely that some blocks may have more than one prospect. In fact, the minimum work requirements published in December 11, 2014 required the drilling of two wells per block. This indicates that the Government of Mexico must be of the view that most blocks contain at least two drillable targets.

It is a widely accepted international principle that you cannot require an oil company to make investments in exploration and development in a block that are considered uneconomic by the investor (other than the committed minimum exploration work program). The Model PSC also adheres to this concept. It is up to the Contractor to decide whether they want to drill exploration wells in addition to the minimum program. It is also up to the Contractor to decide whether a discovery is commercial.

Finally, the Government Participation that is being offered applies to the entire block. That means to all prospects in the block.

As an example, it can be assumed that there are two prospects in the block:

(1) Prospect 1 – a low geological risk - average cost prospect with a potential average estimated cumulative production of 30 million barrels. The drilling of this prospect would satisfy the minimum work units. The bidder calculates that the maximum Government Participation that can be offered on Prospect 1 is 45%

(2) Prospect 2 – a deeper high geological risk - high cost prospect with a potential average estimated cumulative production of 100 million barrels. The bidder calculates that the maximum Government Participation that can be offered on Prospect 2 is 21%.

If the bidder wants to win the bid, based on the suggested formula, there is no other option than to offer 45%. However, offering 45% would make Prospect 2 automatically uneconomic to pursue. This means that Prospect 2 will not be drilled. The bid formula suggests that the Government of Mexico somehow considers it in the national interest ***not*** to drill Prospect 2. Yet, if Prospect 2 would have been a discovery, it would have increased the government revenues enormously and due to the high costs it would have created significant employment and business opportunities.

Therefore, the bid formula does not make sense if the goal of the Government of Mexico is to achieve the maximum benefit from its oil and gas resources.

Assuming that the Government does want Mexico to achieve a maximum benefit from its oil and gas, a re-balancing of the formula can be strongly suggested.

Recommendation # 26. To re-balance the bid formula as follows:

(1) Change the formula to:

VPO = 0.5 * Participation + 0.5 * Increment in Work Units.

(2) Delete the Additional Investment Factor formula,

(3) Delete paragraph 17.1(m)(ii) of the Bid Bases, and

(4) Base the "Increment in Work Units" simply on the percentage additional work units offered above the minimum required.

Based on this formula the bidder would have been encouraged to offer a large number of additional work units in order to drill Prospect 2 based on a Government Participation of 21%.

One might argue that Prospect 2 would have been relinquished at the end of the exploration period and this would make it possible to offer such prospect again. This might be true, but it would mean a 5 year delay or more in the drilling of this prospect. Also if the prospect is

partially within and partially out of the remaining contract area, it would involve unitization problems which would reduce the value of the prospect.

7.4 Significant Gas Discovery provisions

As stated in our previous report, the Model PSC does not have a Significant Gas Discovery procedure.

Mexico needs more gas for its growing economy. Yet, due to the low gas prices at this point in time, the development of gas discoveries will be a challenging proposition. Often whether or not gas discoveries are commercial or not, can only be determined after commitment to pipeline and gas processing infrastructure are made. Also often several gas discoveries need to be combined to create a commercial project. It is for this reason that it is common to permit the Contractor to make a "Significant Gas Discovery". A significant gas discovery is a discovery that may be commercial subject to infrastructure and other discoveries.

After declaring a significant gas discovery the Contractor is typically permitted a certain time frame, say up to a maximum of 10 years, to evaluate whether such a discovery can be developed for the domestic markets or as part of an LNG or other project. This is an important aspect of monetizing gas resources under conditions of very low gas prices. Prior to the end of the 10 year period the Contractor has to declare a Commercial Discovery or relinquish the area.

Recommendation # 27: It can be recommended to include in the Model PSC the possibility for a Significant Gas Discovery and include a 10 year period for the evaluation of possibilities for the commercial development of such discovery.

7.5 Contradictory provisions on Petroleum Operations

As stated in our previous report, the Bid Procedure and Model PSC are unclear as to the type of petroleum operations that can be carried out by the Contractor and how such operations are being dealt with.

Article 22.1(b) of the Bid Procedure indicates that only companies that are **exclusively** involved in exploration and extraction of hydrocarbons can enter into a PSC contract. This wording is copied from Article 31(II) of the LISH. Recommendation # 1 of this report already suggests that this matter should be clarified in the Model PSC.

However, Clause 15.5 of the Model PSC contemplates that the Contractors may necessarily have to build **Commercialization Installations** downstream of the Measurement Point in order to sell the crude oil, condensates and natural gas.

Since there cannot be operations downstream of the Measurement Point, it is obvious that the Contractor cannot construct and operate Commercialization Installations. This leads to the following recommendation.

Recommendation # 28: To delete clause 15.5 and the concept of Commercial Installations from the model contract.

7.6 Evaluation Period

Article 5.2 of the Model PSC splits the Evaluation Period in two separate periods of 12 months each. A period of only 12 month is typically not enough to evaluate a discovery. Therefore, Article 5.2 creates unnecessary bureaucracy and complicates the evaluation program.

Recommendation # 29. It can be recommended to have a single simple Evaluation Period of two years.