Why Does Trinidad and Tobago Need a Different Fiscal Regime for Gas?

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Introduction

The continued increase in the crude oil price since 2004 has given credence to analysts’ assertion of change in market dynamics. According to Rafael Ramirez, “the oil market has gone through a definitive structural change.” While demand patterns are expected to respond to these changes, the “dash for gas” becomes more glaring and inevitable. This has resulted in higher rates of gas consumption. For example, in India the growth rate of gas consumption in the last decade was about four times that of coal. Analysts hope that gas “…will have a far-reaching impact on the world economy, bringing new opportunities and risks, new interdependences and geopolitical alignments.”

This optimism has resulted in more exploration and production activities in many gas-rich countries. This has been the situation in Trinidad and Tobago in the past few years. In the Americas, the nation has become the largest supplier of liquefied natural gas (“LNG”). About 80 per cent of US imports are produced in Trinidad and Tobago. The favourable economic terrain and stable polity has contributed immensely in attracting energy companies from across the globe. In the euphoria of an expected energy boom, the nation is yet to design a unique fiscal regime for gas despite the increase in gas exploitation. Against this background, the author questions the appropriateness of using basically the same fiscal structure for gas. The paper attempts to answer the research question using a descriptive analysis. By highlighting the inherent inadequacies of the existing (oil) tax structure used for gas exploitation, the answer becomes obvious. Five essential characteristics of tax regimes are the criteria used for evaluating the regime. They include neutrality, stability, government take, imposition and administration, and predictability.

These criteria are explained in the next section after a brief on the peculiarities of gas. The third section presents the existing regime and subsequently analyses it in relation to gas. Thereafter, the study is concluded.

Framework for analysis

This section briefly explains why gas is different from oil and other minerals. The discussion covers the nature of gas globally and in Trinidad and Tobago especially. It also explains the major features expected from a fiscal regime for gas in Trinidad and Tobago.

Peculiarities of gas

The international gas sector has experienced an increase in demand with supply increasing at a slower rate. While demand has remained fairly price inelastic, supply response to market signals has been slow due to risk considerations. The gradual peaking of production in major consuming nations raises supply-side concerns. The existence of reasonable proven reserves in very remote and politically troublesome countries has not helped matters. This explains the exodus of international oil companies (“IOCs”) into the few investor-friendly gas-rich countries.

Gas, in the international energy sector, is characterised by the following:

• Lack of a trading international market: Although there are three fully established regional markets, the development and production of gas requires a prospective buyer. Hence, the need for medium and long-term contracts between producers and buyers before development and production starts. The alternative of developing a domestic market is difficult. This is because it requires technology, investment and infrastructure that are lacking in most gas-rich countries/regions.

5 Nationals of Trinidad and Tobago.
6 Emphasis, here, shall be on LNG—a major chunk of TT’s gas reserves.
No single global reference price: Following from the above, the commerciality of a gas field can only be determined by the price in a contract or an identified market for that field’s production. Specifically, in most part of Europe and Asia-Pacific pricing of long-term contracts is indexed to crude oil price. The United Kingdom uses its National Balancing Point (“NBP”) gas price to index long-term contract pricing. Similarly, North America uses the Henry Hub gas price (for both pipeline and LNG contracts).13

Huge capital requirements for projects resulting in financial difficulties: Typically, the LNG supplier bears the cost of liquefaction, plant and harbour facilities.

Moderate exploration risk and few losses due to better technology.14

Reduced capital and operating costs of LNG vessels resulting in transportation advantage. This follows from the increasing number and sizes of new LNG vessels. Globally, nearly 60 carriers are being constructed with higher capacity over 150,000 m³.15

Increasing demand resulting from gas-power linkage and new technological innovation: At an annual 2.3 per cent rate of increase, global consumption of gas will almost double by 2030. Power generation, accounting for 59 per cent of the increase, would drive this growth. Combined cycle gas turbines would contribute most to this given its low capital costs, construction lead-time and low economies of scale.15 In the United States, for instance, new gas-fired plants are being built for electricity generation.16 Considering the advantages of such plants (over coal-fired ones), gas has overtaken coal (and oil) in the static sectors. The Energy Information Administration projects that gas would fire 80 per cent of new generating plants in the United States between now and 2025.15 Global capacity of gas-to-liquid plants, similarly, is expected to reach 2.4 million barrels per day by 2030.14

In addition to the above features, the gas industry in Trinidad and Tobago:

is growing at a very fast rate relative to the stagnant oil industry: production and utilisation of natural gas increased by 17.8 per cent and 41.2 per cent respectively between October 2003 and June 2004;18 has a proven reserve of 20.8 tcf (trillion cubic feet) projected to last 20 years at the current rate of depletion18; possible of 5.9 tcf and probable of 8.6 tcf;19

is experiencing rising prices especially in the export market; in the past three years, gas price in the United States (major buyer), have grown by 700 per cent20; has a thriving domestic market that consumed 13.76 billion m³ of gas in 2003.21

The above features basically make the economics of gas projects, especially in Trinidad and Tobago, different from oil.

Criteria for evaluating a fiscal regime for gas

Given the above, this subsection presents the basic characteristics of a tax regime suitable for the gas sector in Trinidad and Tobago.

Neutrality

Neutrality of a fiscal regime implies that “it should not alter decisions on which projects within the (gas) industry are undertaken and which are not, or on the techniques, the extent or the pace of production”.22 It is equivalent to the requirement for economic efficiency in taxation by not influencing economic behaviour.23

Alongside economic rent and discount rate, neutrality is fundamental to reconciling the interests of government and companies. Economic rent may be defined as “the difference between the cost of production for given deposit and the cost of production for a marginal deposit”.24 In other words, it is “the excess of total revenue derived from activity over the sum of the supply prices of all capital, labour and other inputs”.25 Discount rate is simply a measure of the time value of money and a major criterion for investment decisions.

Due to certain reasons, it is difficult to create the ideal neutral tax regime that captures economic rent.26 First, the variables involved make it practically complex to estimate the economic rent correctly. Secondly, the country risk and the manner in which the tax is perceived affect the discount rate. The discount rate itself is confidential. Finally, capturing all the economic rent may be inefficient.

Non-neutrality is important despite the difficulty in achieving neutrality. Therefore, a neutral tax system for gas should not:

1.8 See Webb-Vidal, n.5 above.
19 World Market Research Ltd, “Trinidad and Tobago to chair Gas Exporting Countries Forum, host April meeting” (www.worldmarketsanalysis.com).
20 V.M. Nazarov, Prospects of establishing the World (Global) Gas Market (UN Round Table, 2004).
21 CIA, Economy of Trinidad and Tobago (www.cia.gov).
to run out in 20 years from now. The government and governments reasonably need revenue early in the life of the project. This would enable government to mitigate the social and political risk that may arise from not collecting revenue early in the life of the project. Depending on the fiscal system, government take may come at different stages of the project. Because equity is a function of the quantitative nature of the regime. Therefore it should reconcile companies’ high discount rate with government’s need for secure revenue from the depletable resource. The regime, in essence, should reflect the economic and political realities of government. The importance of early tax take in a Trinidadian fiscal regime for gas is glaring.

Stability
Stability of the fiscal regime must remain unaltered. The potential of a tax system to raise revenue depends on investors’ perception of its stability. This is because, “in countries where governments make very frequent changes to their fiscal regimes, investors may react by putting a risk premium on their discount rates.” Therefore, stability is desirable because it minimises the perceived risk to the investor. Fiscal stability is a function of stability in government policy and flexibility of the regime.

A stable fiscal structure is not one that merely contains “stabilisation clauses” in the contracts. Rather it is one that adapts to changes in the prices of commodities and gas (in the various markets), production costs, productivity, recovery factor, and technology. Essentially, fiscal regimes change because of the changes in these variables. Unfortunately, stabilisation clauses ignore them. Attempts to capture them through “renegotiation clauses” fail because to anticipate and account for everything that may occur in the life of the agreement is nearly impossible.

Given the relatively stable polity in Trinidad and Tobago, a stable fiscal regime should reflect flexibility and adaptability. Adaptability may be realised simply by focusing the taxes mainly on profit or NPV. Stability is a useful criterion for evaluating regimes due to investors’ interest in political, legal and monetary stability for the duration of their venture.

Imposition and administration
Imposition and administration are two components of tax management. Imposition refers to the process of setting the variables and parameters for each of the tax instruments in the regime. It requires a firm understanding of how the economy works and is continuous. It is imposition that makes a tax efficient or otherwise because it sets the basis for effective administration. The product of this process is either a simple or a complex tax structure.

A developing economy, such as Trinidad and Tobago, requires a simple regime for easy understanding and adaptation in an already complex gas industry. Administration is the other side of the same coin—tax management. It is the process of enforcing the tax regime by assessing tax liabilities with the objective of collecting the appropriate revenue. Administration is also a continuous task and basically addresses issues of adequate tax specialists, as well as, administrative (assessing and collecting) costs. These

28. May also be called “early tax take”.
30. See Garnaut and Ross, n.22 above, p.88.
31. See Webb-Vidal, n.5 above.
33. See Garnaut and Ross, n.22 above, p.88.
35. See Garnaut and Ross, n.22 above, p.88.
36. See Johnston, n.29 above, p.174.
37. They include the tax rates, charges, duties, and the composition of the tax base.
issues should be of utmost concern in Trinidad and Tobago where "companies are exploiting a number of anomalies in the (existing) tax system".

These concepts are relevant because the neutrality of a fiscal regime depends on the ease of imposition and effective administration. It is ironic, however, that easily imposable taxes pose administrative difficulties. The reverse is the case for taxes that are difficult to impose. Generally, taxes may be in any of the above scenarios or difficult to impose and administer.

The ideal regime for gas in Trinidad and Tobago should be one that captures the basic concepts of transaction cost and risk allocation. This is because "complex tax packages which often need adaptation increase transaction cost both for initial contract negotiations and in terms of prompting subsequent renegotiation scenarios". 40

Predictability

The predictability of a fiscal regime depends on the general character of the tax structure. Predictability of a tax regime relates to issues of transparency and negotiation of fiscal terms. In other words, an investor should be able to determine the expected returns from investments after correctly calculating the potential fiscal obligations.

Too many variables should not be open to negotiation but rather be specified for uniformity. For gas, especially, the regime should provide a level playing field for all to encourage prospective new entrants. This characteristic is particularly essential in order to reflect better the growing importance of gas production in Trinidad and Tobago.

In this section the author has described the peculiarities of gas, as distinct from oil, in terms of market dynamics and project economics both in Trinidad and Tobago and internationally. The section has also covered the characteristics of a fiscal regime for gas with emphasis on what the regime should address. These criteria will form the basis for analysing the existing regime.

Fiscal issues

This section of the paper is divided into two. The first subsection presents the salient features of the modified oil fiscal regime now being used for gas projects. The second analyses the regime based on the various elements of government risk. These chosen criteria are not altogether exhaustive but they are key determinants of an effective tax package.

Other features

• Tax holidays: This is granted variously. The BG Group, for instance, got a 10-year tax holiday.
• Fees: Annual holding fee of $1 million payable during the market development phase. Certain expenditures are deductible from this fee.
• Duties and other employee income taxes: The contractor is expected to pay stamp duties for the appropriate transactions and personal income taxes on behalf of all expatriate staff. Varying excise duties are determined for payment on imported goods.
• Cost recovery oil: This occurs on a sliding scale but generally begins with a cap of 40 per cent per 25 million barrels of oil equivalent and on a first-in, first-out basis. Basically, all exploration operations, annual operating, and annual overhead costs are recovered on an expense basis in the same year of incurring the costs. Excess costs not recovered may be carried forward immediately to the succeeding year.
• Losses: For the purpose of computing taxes, losses are carried forward to the succeeding year.

Evaluation of the existing regime

These chosen criteria are not altogether exhaustive but they are key determinants of an effective tax package. The useful criterion of "government risk" was, however, not applied here. This is because "neutrality" and "early government take" fundamentally capture the various elements of government risk.

Is it neutral?

The number of profit-related taxes makes the regime appear to be moderately neutral. 45 This, however, is not the case because it does not augur well for the government’s interest. It creates incentive for companies to exaggerate costs. This is because, despite the different caps on cost recovery, companies rely on ‘cost carry forward’ to regain inflated costs. Furthermore, "questions of cost control, in particular of the parent company overhead charged very liberally to local subsidiaries, are not known, settled or even investigated in depth". 46 Neither does the bidding process help matters since the companies may opt to collude on any particular instrument/variable that would determine the winner.

The non-neutral nature of the regime becomes clearer when the issue of tax holidays is considered. The burden of the tax holiday given to BG Group, for instance, is still being borne by the Trinis. Meanwhile,
Exploration: 100%. Development and production: spread over four years—40%, 20%, Level varies or may not exist, depending on each PSC.

Through bidding or negotiation.

1.5% per cubic foot (domestic gas). 2% per cubic foot (export gas).

Training: through bidding or negotiation plus 6% per year. Research and development: through bidding or negotiation plus 6% per year. Technical assistance bonus: through bidding or negotiation. Administrative fee: $200,000 in the first year; plus 6% in subsequent years. Annual rental (US$ per hectare): 1st year—2.75; 2nd–3.00; 3rd–3.25; 4th–3.50; 5th–3.75; 6th–4.00; then plus 6% in subsequent years.

Cost recovery through bidding or negotiation.

Depreciation Exploration: 100%. Development and production: spread over four years—40%, 20%, 20%, 20%; G and A: expensed in the same year.

Ringfencing Yes—defined by contract area alone.

Govt participation Level varies or may not exist, depending on each PSC.

Minister’s share profit gas Through bidding or negotiation but it involves a sliding scale that increases based on production and price.

Domestic obligation No market obligations but there are various supply and contract obligations.

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<thead>
<tr>
<th>Fiscal instrument</th>
<th>Content</th>
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<tbody>
<tr>
<td>Bonuses</td>
<td>Signature: through bidding or negotiation. Production: through bidding or negotiation but on a sliding scale.</td>
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<tr>
<td>Royalty</td>
<td>1.5% per cubic foot (domestic gas). 2% per cubic foot (export gas).</td>
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<tr>
<td>Taxation</td>
<td>Corporate income (petroleum profit) tax: 50% of taxable profit. Unemployment levy: 5% of chargeable income. Withholding tax: depending on country of remittance, ranging from 10% to 25%. Oil impost: based on natural gas produced in the previous year.</td>
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<tr>
<td>Fees and rentals</td>
<td>Training: through bidding or negotiation plus 6% per year. Research and development: through bidding or negotiation plus 6% per year. Technical assistance bonus: through bidding or negotiation. Administrative fee: $200,000 in the first year; plus 6% in subsequent years. Annual rental (US$ per hectare): 1st year—2.75; 2nd–3.00; 3rd–3.25; 4th–3.50; 5th–3.75; 6th–4.00; then plus 6% in subsequent years.</td>
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Source: Extracted from nn. 43, 44, 45, 44 and 46 accordingly.

Specifying, the signature and production bonuses are far but the royalty rates are very low relative to international standards. Although there are varying arguments for the abolition or downward adjustment of royalties, this author thinks otherwise, especially in developing countries. The movement away from revenue and production-related taxes by petroleum-producing countries around the globe does not make it right. Rather, this paper emphasises that royalties, though fixed and relatively inflexible, create a strong incentive for companies to reduce costs and increase profit. It reduces that incentive for “gold plating” or inflating foreign overhead costs.

At present, the supplementary petroleum tax (applicable to oil) does not apply to the income from gas sales. This invariably means that the country has

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51 See Wing, n. 48 above.
52 See Rampersad, n. 38 above.
54 K. Bazzey, How have variations in and modifications to PSCs in Indonesia and Trinidad and Tobago impacted upon the collection of economic rent? (unpublished manuscript), p. 9.
56 See Johnston, n. 29 above, p. 71.
57 They are imposed on a company irrespective of whether it has revenue status.
58 They are imposed immediately production starts or revenue is generated, irrespective of profitability.
59 See Garnaut and Ross, n. 22 above, p. 109.
62 See Walde, n. 52 above.
63 See Artana, n. 53 above, p. 28.
foregone billions of dollars worth of revenue by the absence of supplementary petroleum tax on natural gas. 74

Is it stable?
The predominance of profit-related taxes actually depicts moderate stability in the regime. 75 The sliding-scale nature of the production bonus and the profit gas contributes increases its flexibility. The higher cost recovery limit, relative to oil, creates room for adaptability to changes in cost. The fact that the present regime was amended 13 years ago in 1992 further confirms this. Previously, however, there were several minor annual and biennial changes.

The continuous modification of the oil regime for gas projects, however, may affect its stability because, domestically and internationally, gas is quite different from oil. 66 For instance, the recent introduction of distribution system operators into previously existing PSCs is clearly destabilising. 76

The inherent nature of the regime as a PSC gives further credence to its stability because its twin features—production split and income tax—permit more flexibility. 70

Is it easy to impose or administer?
The market development expense credit charged against the annual holding fee makes the tax administration cumbersome. It practically complicates the process of liability computation and is open to “gold plating” by contractors. Furthermore, “the lack of the required highly informed and skilled tax collection ability means that the calculation and collection of the modern tax package is fraught with risk”. 71

Despite the deductibility of most expenses and costs for tax computation, the regime is clearly easy to administer. This is evident by the number of fixed fees, bonuses and other revenue-related taxes that are included in the PSC. Such instruments are basically easy to administer but difficult to impose. 72 The difficulty in setting the parameters arise from the amount of information required for achieving optimality. 72

The usage of these instruments in a PSC that is generally viewed as arduous and complex 73 clearly confirms that the regime is not easy to impose.

Is it predictable?
The predominance of profit-related taxes, bidding and negotiating processes makes the system non-uniform and unpredictable. It is good for the companies because they are able to factor in various exploration costs relative to the available information on the size and nature of the gas deposit. It is, however, difficult and less certain for government to estimate accruable fiscal revenues from these contracts due to the sliding scale nature of the instruments and allowances. Royalty that is certain, in the period of cost recovery, is quite low.

On the whole the regime appears unpredictable. The unpredictable and uncertain nature of the revenues accruing from gas is a reason for the creation of a stabilisation fund in Trinidad and Tobago. 76 Practical experience has shown, however, that such funds are no cure-all. 77

Conclusion
Designing a fiscal regime suitable for all mineral resources in one country is impossible. Resources, like projects, differ substantially with regard to costs, size and quality of reserves/deposit, as well as investors’ perception of risk. 75 This is clearly the case with oil and gas in Trinidad and Tobago. This paper has presented evidence that the existing tax package is unsuitable for gas. Basically modified from the oil regime, it seems to muddle up various instruments and incentives with different, incoherent and divergent objectives.

Generally, the regime is non-neutral and unpredictable. The entire package makes provision for early government take but the rates are either low or the realiseable value small. This invariably implies serious problems with imposing the appropriate tax instruments for early tax take. Furthermore, Trinidad and Tobago’s PSC for gas treats expenses favourably and is more attractive to IOCs as it makes the tax burden lighter relative to that in their home countries. 79 The fact remains, however, that the regime is stable and easy to administer.

Trinidad and Tobago’s existing fiscal regime for gas is very generous, despite assertions that it is “slightly above the global average”. 80 This author concludes that although the tax take of over 60 per cent is considered appropriate, 81 it is actually being explored and exploited by IOCs in the global race to secure natural gas contracts. 82 Given the low political risk, numerous gas projects and the available market (domestic and export), there is no justification for being overly generous. A separate fiscal regime for gas is, therefore, needed to correct some or most of the anomalies highlighted above.
QUERIES TO SWEET & MAXWELL

Q1. Since there are no tags for the sub-levels of “Criteria for evaluating a fiscal regime for gas” they are treated as H3 level. Please confirm if this is fine.

Q2. We have inserted citation for Table 1 here. We have also renumbered footnote from 44 to 55 in accordance with the position of the Table 1. Please check and confirm if this is OK.