

GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND  
TOBAGO

TEAM TO REVIEW THE  
OPERATIONS OF  
PETROTRIN AND MAKE  
RECOMMENDATIONS FOR  
ITS RESTRUCTURING

REPORT

01 June 2017

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## 1. ACKNOWLEDGMENTS

The Team to review the operations of Petroleum Company of Trinidad and Tobago Limited (Petrotrin) and make recommendations for its restructuring, acknowledges the important contributions of the Executive Leadership Team at Petrotrin, the Oilfields Workers' Trade Union (OWTU), Mr. Anthony Chan Tack, former Board Member and Refinery Manager, Petrotrin and the administrative support provided by staff members of the Ministry of Energy and Energy Industries (MEEI).

## 2. TERMS OF REFERENCE

Cabinet by Minute No. 365 of February 23, 2017, agreed to the appointment of a Team to conduct a review of the operations of the Petroleum Company of Trinidad and Tobago Limited (Petrotrin) and make recommendations for its restructuring. The Team comprised the following persons:

Name	Position
Mr. Selwyn Lashley	Chairman, Permanent Secretary, Ministry Energy and Energy Industries (MEEI)
Ms. Helen Drayton	Member
Professor Chandrabhand Sharma	Member
Mr. Robert Riley	Member
Mr. Wilfred Espinet	Member
Mr. Gregory Marchan	Member, Representative of the Oilfields Workers' Trade Union (OWTU)
Mr. David Abdulah	Member, Representative of the Oilfields Workers' Trade Union (OWTU)

Subsequent to the second meeting of the Team held on March 27, 2017, Professor Sharma recused himself from its membership, in light of his position as Chairman of TOSL Engineering Ltd., which created a potential conflict of interest.

The Team was appointed to undertake the following tasks:

- i. Conduct a review of the operations of Petrotrin
- ii. Make recommendations for the restructuring of the Company
- iii. In respect of (i) and (ii) above, submit its First Report on June 1, 2017

### 3. EXECUTIVE SUMMARY

Petrotrin is, by almost any measure, one of the largest and most complicated Corporations in Trinidad and Tobago that actively manages some of the most complex oil production and petrochemical activities in an industry that is inherently dangerous, innately high in geological, operational and financial risk, and hazardous in terms of health, safety and the environment.

Petrotrin over the years has operated in a state of confusion and it is in a very fragile condition today. The company lacks a clear purpose and identity, which has caused it to at times engage in activities that are not consistent with professional practices of a commercial enterprise.

The absence of a comprehensive integration plan when each entity was consolidated into one company resulted in serious deficiencies in its operations and the safety and environmental track record. Varying experience and cultures among management and an unwieldy structure make the company complex and unmanageable.

The history of changes in management and demands imposed that were not consistent with the interests of the company, further crippled its performance. Today, Petrotrin is overburdened with debt, which substantially resulted from poor investment decisions. It is unprofitable and the outlook is for a worsening of its operations unless there is capital injection for: (a) the completion of the Ultra-Low Sulphur Diesel Plant (ULSD); (b) increased oil production; and (c) asset integrity – all of which will further increase its liabilities. The poor condition of the company's assets and a workforce that is losing its technical competence daily through attrition is a recipe for collapse. There is the need for a major paradigm shift in the governance and management of Petrotrin.

We believe if that issue is not properly addressed and mechanisms that will sustain good governance and management are not put in place then the other issues raised, will not be dealt with effectively. In that regard, the imperative is clarity in the roles of the

Government and the Board of Directors, and a structure that facilitates stability at the levels of governance and executive management if Petrotrin is to operate efficiently, sustain profitability, pay taxes and dividends, meet HSE standards, and earn foreign exchange.

To this end, the Team has made two recommendations:

1. Governance Arrangements
2. Organizational Structure

#### 4. METHODOLOGY

The Team collected data through: 1) Review of pertinent documents submitted by Petrotrin and 2) Consultations with key stakeholders.

##### 1. Review of Documents

The Team reviewed a number of reports submitted by Petrotrin and the OWTU, which are listed in **Appendix I**.

##### 2. Consultations with key stakeholders

The following stakeholders were invited to present their views on the operations of Petrotrin.

- i. Management Team of Petrotrin (Strategic Plan Phase 1) – March 22, 2017
- ii. Mr. Anthony Chan Tack, Former Board Member and Refinery Manager, Petrotrin –April 29, 2017
- iii. President General of the Oilfields Workers’ Trade Union (OWTU) (Organizational Restructuring of Petrotrin and Quick Wins) –May 02, 2017
- iv. President and Vice Presidents of Exploration & Production (E&P), Refining & Marketing (R&M) and Human Resources and Corporate Services (HRCS) of Petrotrin –May 09, 2017

In addition to the above data collection meetings, the Team held discussion meetings as follows:

- March 22, 2017
- March 27, 2017
- April 27, 2017
- April 28, 2017
- April 29, 2017
- May 02, 2017
- May 09, 2017
- May 23, 2017
- May 31, 2017



## 5. BACKGROUND OF PETROTRIN

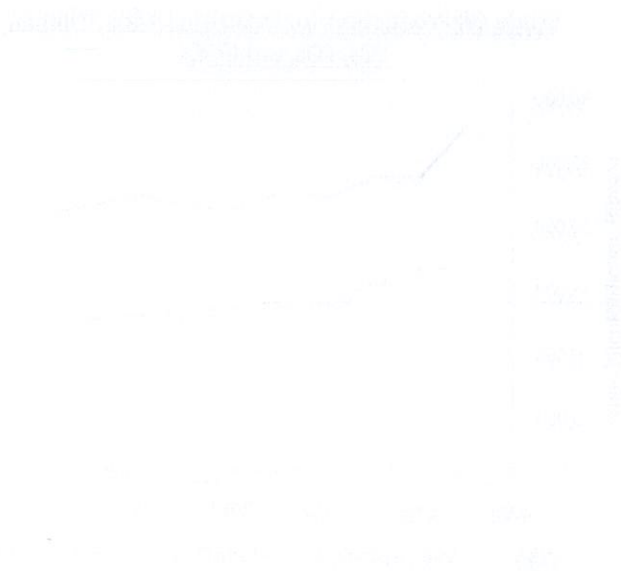
Petrotrin is 100% state owned, with the shareholder being the Corporation Sole. It is governed by a Board of Directors and reports to the Ministry of Finance (MOF) and to its line Ministry, the Ministry of Energy and Energy Industries (MEEI). Other regulatory bodies, which Petrotrin must comply with include the Occupational Safety and Health Agency (OSHA), Environmental Management Authority (EMA), Trinidad and Tobago Fire Services (TTFS) and Customs & Excise Division of MOF.

Petrotrin was formed in 1993 from an amalgamation of local and international oil companies, all of which played important roles in the development of the energy sector. The companies that were eventually consolidated into Petrotrin included Shell, Texaco, British Petroleum and Trinidad Tesoro. In 2000, Petrotrin consolidated with Trinmar following the change in ownership structure of that company. At the peak of its production, the combined acreage of this amalgam of companies produced 60,677 barrels of crude oil per day (BOPD).

However, although there was structural and financial consolidation of the amalgamated companies, apparently, the various cultures did not cohere to one corporate value system through a process of change management initiatives to achieve synergies across the core businesses and support services groups of the company. The company has failed to address these legacy issues, which have had a lasting, adverse effect on teamwork and productivity.

Today, Petrotrin employs 5322 employees (3841 – *Permanent* and 1481 – *Temporary*) with 1676 (1197 – *Permanent* and 479 – *Temporary*) in the Upstream including Trinmar (oil production), 1835 (1328 – *Permanent* and 507 – *Temporary*) in the Refining and Marketing and 1463 (1055 – *Permanent* and 408 – *Temporary*) in Corporate and Administration and the President's Group 354 (261 – *Permanent* and 93 – *Temporary*). It now produces about 42,646 BOPD on 189,004 acres of land and 810,892 acres of offshore licensed include Trinmar, SWS, and other non-producing areas.

Over the period fiscal 2011 to fiscal 2015, Petrotrin has paid no dividends to the Corporation Sole and tax payments of TT\$20.2 Billion.

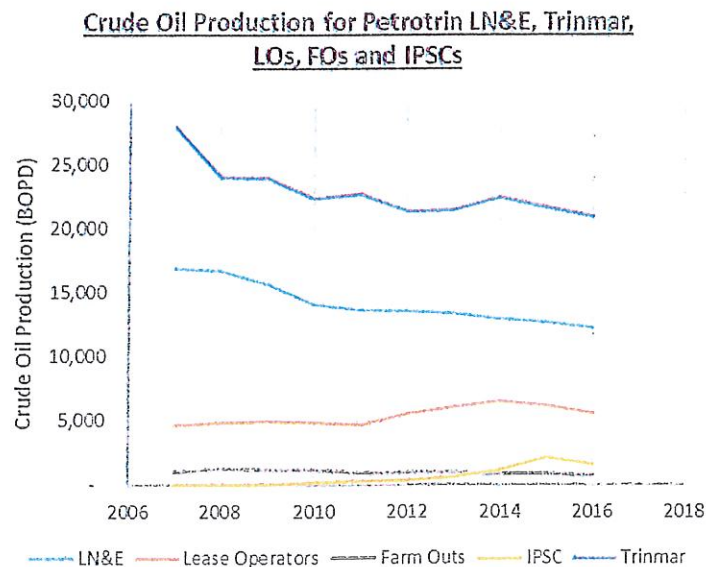


## 6. PETROTRIN CURRENT STATE

### 6.1.Exploration and Production

Petrotrin's proved oil and gas reserves as at September 30 2015 were approximately 170 million barrels of oil equivalent (boe). Under the operations of the Exploration and Production (E&P) Division, Petrotrin produced 15,102,428 barrels of crude oil or 41,263 BOPD of crude oil in 2016, which represented a decline from 18,489,020 barrels or 50,655 BOPD in 2007. **Figure 1** shows the crude oil production from Petrotrin from 2007 to 2016.

Petrotrin's oil production has been in decline over the period 2006 to 2016, decreasing by approximately 26% over the ten-year period. Petrotrin projects that if this decline is arrested by a combination of Enhanced Oil Recovery (EOR) technology, know-how and new capital injection, it would result in production of 63,297 BOPD by 2021. However, at the current rate of decline, the production will be approximately 32,000 BOPD in 2021.



*Figure 1: Crude Oil Production for Petrotrin LN&E, Trinmar, Lease Operators, Farm Outs and IPSCs for FY 2007 to FY 2016*

Over fiscal years 2007 to 2016, Petrotrin's Land, North and East Coast (LN&E), Trinmar and Farm Outs (FOs) crude oil production decreased, while that of the Lease Operators (LOs) increased. We found this occurrence to be interesting and one, which requires further investigation and understanding. A consensus of views indicated that the most productive acreage maybe offshore. However, offshore oil production over the period 2007 to 2016 declined by approximately 15%.

Almost by every measure, Petrotrin's upstream operations are third or fourth quartile and undercapitalised. In addition, there are endemic and critical safety problems with its well stock, well production equipment, logistics, platforms, pipelines and storage tanks. Turning around operations will require significant expenditure and expertise as well as know-how in integrity management and late field life recovery. Petrotrin's recent history of on-going leaks and seeps would suggest that it is almost a "burning platform".

It is clear that there is productive acreage on land and offshore that requires considerable capex, know-how and technology to be captured. Further analysis and work is required to assess the potential and best approaches to arresting decline and efficiently producing this oil. It is equally clear that this is a valuable source of income and very importantly foreign exchange earning potential. There is a great opportunity to harvest this potential, but significantly, improved stewardship is required urgently.

The financial position of the Exploration and Production Division is "cloudy" at best. However, it clearly indicates that at current oil prices Petrotrin is substantially underperforming, relative to similar operations elsewhere. Little benchmarking is done and, at best, there is poor capital and OpEx discipline.



The management accounts of the E&P Division for the period 2010 to 2015 were reviewed and the following profitability margins were computed:

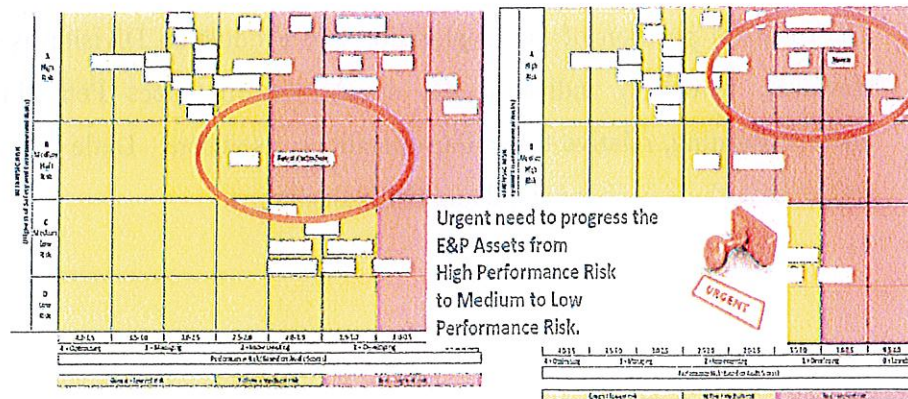
- (i) Gross Profit Margin = Gross Profit / Total Revenue;
- (ii) Operating Profit Margin = Operating Profit / Total Revenue; and
- (iii) Net Profit Margin = Net After Tax Profit / Total Revenue.

*Table 1: Profitability Margins of the Exploration and Production Division over the years 2010 to 2015*

Year	2010	2011	2012	2013	2014	2015
Gross Profit Margin	90.37%	88.15%	88.11%	84.60%	85.16%	79.60%
Operating Profit Margin	22.32%	27.23%	25.93%	22.53%	24.55%	21.34%
Net Profit Margin	10.67%	11.32%	9.55%	9.77%	11.08%	6.59%

Asset Integrity

The E&P assets were deemed to be at high risk and in need of urgent attention as seen in Figure 2. There are asset integrity initiatives within the next 10 years to upgrade berths, sea lines, port facilities, tanks, pipelines and on the E&P side to implement a repair program for pipelines, tanks, platforms and for the safe and proper abandonment of wells. While these initiatives would equate to significant improvements in asset integrity, the cost is estimated at TT 3.4 Billion.



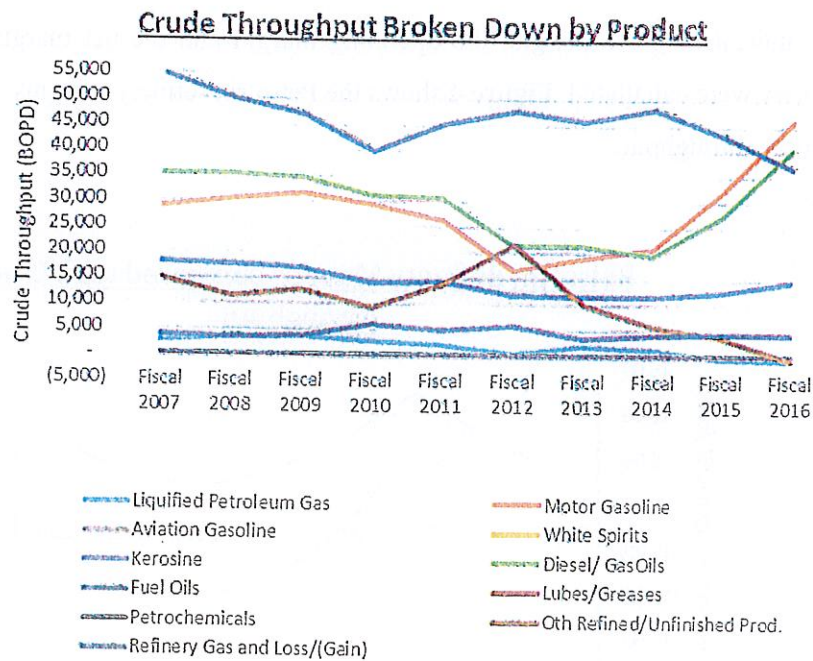
*Figure 2: E&P Results of National Facilities Audit in Matrix of Performance Risk vs Intrinsic Safety Risk*



## 6.2. Refining and Marketing

### Crude Throughput

The current refinery capacity is 168,000 BOPD. There was an overall decrease in refinery throughput to 51,313,428 barrels in 2016 from 57,798,022 barrels in 2007. In 2016, Petrotrin's production of indigenous crude oil accounted for approximately 29% of the refinery throughput, as compared with 32% in 2007. Imported crude oil made up the remainder of the crude oil throughput processed in the refinery. The importation of more foreign crude increased the cost of sales. **Figure 3** shows the crude oil throughput in the refinery, broken down by product, over the years 2007 to 2016. These figures are provided in **Appendix II**.

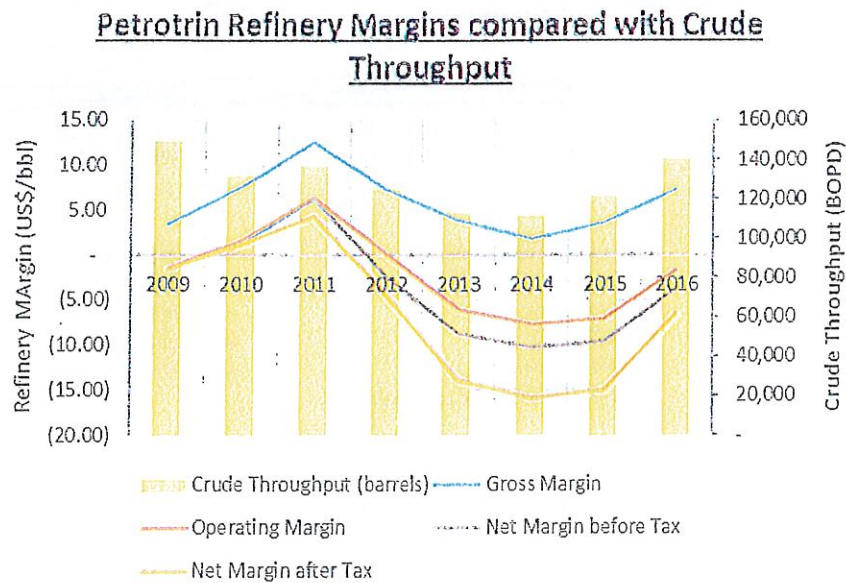


*Figure 3: Crude Throughput of the refinery, broken down by refined products for FY 2007 to FY 2016*

The production of motor gasolines and diesel/gas oils both increased in fiscal years 2015 and 2016, while the production of fuel oil decreased. The total crude throughput has been on the decline since fiscal year 2007 and continued to decrease until fiscal year 2014, with the anomaly of an increase in the fiscal year 2011 over the figure in year 2010. The overall decrease in crude throughput is attributable to a combination of planned shutdowns of refinery process units for upgrades as part of the Gasoline Optimization Project (GOP) and to unplanned shutdowns because of aged infrastructure coupled with the inefficient turnaround of equipment and other operational inefficiencies. With the completion of the GOP in fiscal year 2015, the crude throughput of the refinery increased in fiscal years 2015 and 2016.

### Refining Margins

The indicative gross margin, the operating margin and the net margin of the Petrotrin refinery were calculated. Figure 4 shows the Petrotrin refinery margins compared with the refinery throughput.



*Figure 4: Petrotrin Refinery Margins compared with Crude Throughput*

While the crude throughput of the refinery declined, the operating margin continued to decrease at a higher rate each year because of annual increases in operating expenses. The refinery has not been profitable for the past six (6) years. One major contributor to the decline in the gross margin was the low refinery throughput during the period 2011 to 2015. Petrotrin has forecasted that their refinery margins will gradually increase within the next five (5) years. This is dependent on the completion of the ULSD plant in the year 2020.



Figure 5: Forecasted Indicative Margin for 2017 to 2021

### Asset Integrity

Arising from the National Facilities Audit, there is an urgent need to reduce the risk of the refining assets. This process can start with implementing an Asset Integrity Management System and repairing tank, pipeline and berths, as well as an introduction of Process Safety Management programs. The actual expenditure on asset integrity repairs in fiscal 2015 was TT\$168 million, while in fiscal 2016 it reduced to TT\$100 million. The budgeted expenditure for fiscal 2017 is expected to significantly increase to US\$630 million.

More specifically, it is estimated that approximately TT\$700 million and TT\$380 million will be spent on asset integrity improvements for tankage and berths respectively throughout fiscal years 2017 to 2021. However, the options, which Petrotrin proposed for funding such projects, seem highly unlikely to be achieved given its financial state. In



addition, there appears to be gaps in a systematic approach to maintenance and a quality system for assessing and managing routine and non-routine maintenance. There are major gaps in operating approaches to the refinery, which exacerbate the problem of asset maintenance and integrity.

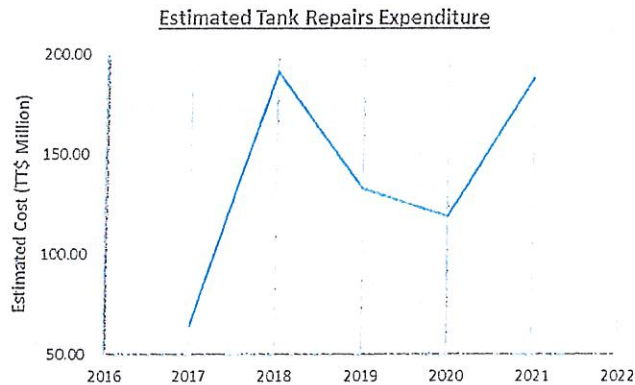


Figure 6: Estimated Tank Repairs Expenditure for 2017 to 2021

Figure 7 highlights the Petrotrin Refinery at a high Safety and Environmental Risk and at a moderate performance risk.

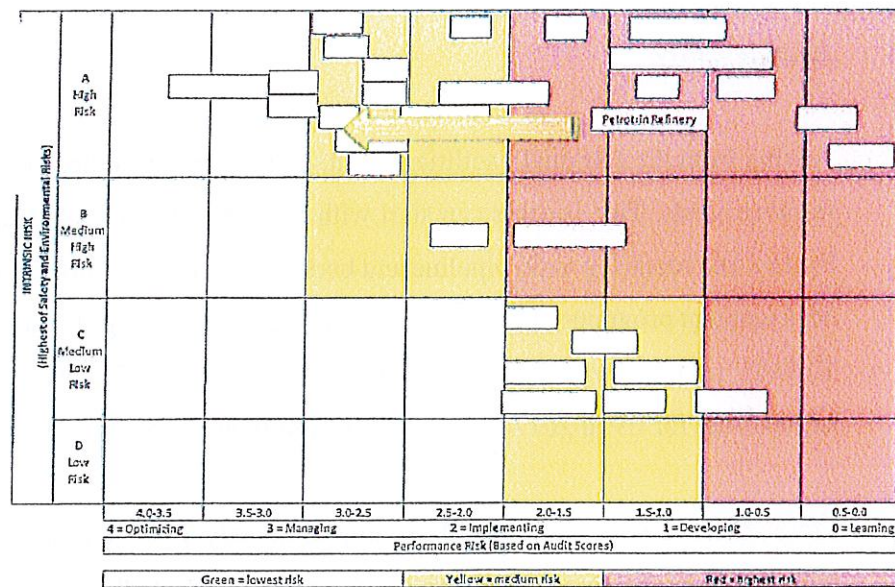


Figure 7: Refinery Results of National Facilities Audit in Matrix of Performance Risk vs Intrinsic Safety Risk

## Areas for Improvement

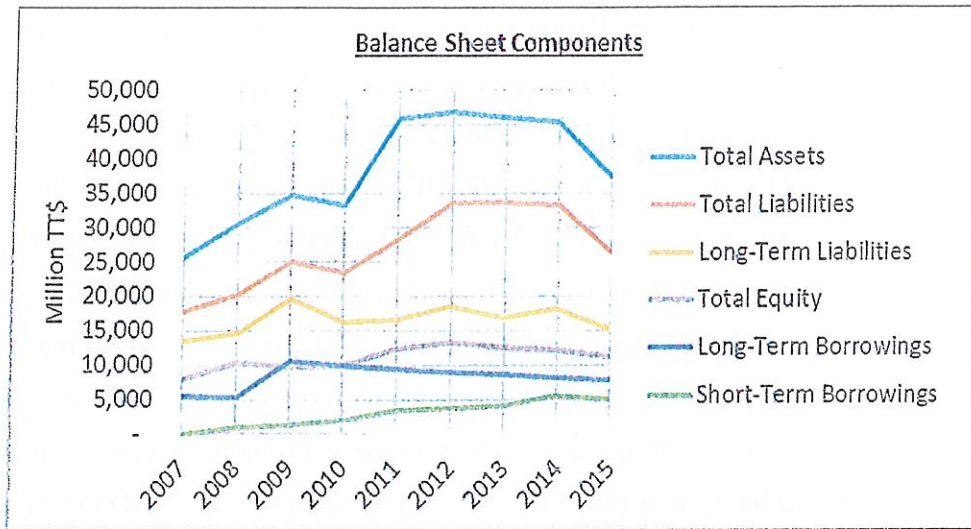
In light of the foregoing, the three main areas that the refining and marketing section can improve on are:

- **Operating expenses.** In order to reduce the refinery's operating expenses, Petrotrin needs to reduce flaring, improve energy efficiency and gas recovery, reduce process inefficiencies, (operating efficiency and operating approaches significantly lag comparative refineries) reduce overtime, reduce equipment rentals, and manage shift personnel. However, to effect these, Petrotrin would require strong corporate and administration support to reduce operating costs. While staffing is significantly higher than comparative refineries, this is not a root issue but a symptom of the underlying management problems. While there is need for more work, it appears that priority urgent problems to be addressed are the gaps in the operating practices and the skills and capability of senior and frontline management.
- **Refinery margins.** Petrotrin needs to complete the ULSD Plant in order to achieve a margin uplift of US\$6 per barrel, approximately TT\$2.2 million – TT\$3.5 million per month according to forecasts. In addition, Petrotrin is attempting to recapture the lucrative bunker market to also increase margins.
- **Equipment reliability and asset integrity.** Petrotrin first needs to implement the road map to close the gaps from the current state to the desired state. More importantly, Petrotrin requires the capital to fund the asset integrity projects to completion. These projects would also assist in achieving margin uplift, once completed, quite apart from reducing the large risks associated with incidents resulting from failed assets (tanks, pipelines, berths, etc.).
- **Feedstock choices and product choices.** More insight needs to be obtained but it appears that a combination of greater use of Trinidad crude (to be obtained by improved output from the E&P sector of Petrotrin) needs to be combined with improved methods and practices in supplemental crude import purchases and assurance of the quality and value of the crude imported. Product run and the practices to achieve this need substantial improvement.



### 6.3. Financial Analysis

The trends in the company's balance sheet components - assets, liabilities, equity and long-term liabilities – over the years 2007 to 2015 can be seen in **Figure 8**.



**Figure 8 - Petrotrin's Balance Sheet Components**

**Table 2 - Extracts from Petrotrin's Balance Sheet (Million TT\$)**

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Assets	25,653	30,668	34,651	33,161	45,870	46,771	46,065	45,394	37,508
Total Liabilities	17,699	20,249	24,879	23,279	28,178	33,472	33,569	33,260	26,375
Total Equity	7,956	10,418	9,773	9,883	12,283	13,299	12,496	12,134	11,133
Long-Term Liabilities	13,486	14,536	19,676	16,276	16,519	18,518	16,870	18,136	15,214
Long-Term Borrowings	5,440	5,285	10,505	9,904	9,352	8,967	8,581	8,114	7,715
Short-Term Borrowings	60	913	1,233	1,967	3,431	3,689	3,980	5,565	4,984

Over the period examined, Petrotrin's current ratio has consistently declined, while its cash ratio appears to have stabilized at approximately 0.13, which means the company has been rapidly utilizing its cash, having moved from TT\$ 4.1Bn in 2007 to TT\$ 1.7Bn in 2015. The company has managed to bring its receivables and inventories ratios within the range of its 2007 values of approximately 90 days. The reduction in the company's cash position indicates a high potential for difficulties to arise in servicing its current liabilities.

It should be noted that this phenomenon is occurring while it is equally clear that there has been a significant under investment of capital in the E&P sector and on safety critical replacement or repair of key assets. In other words, the company is effectively in a vicious downward cycle. The oil and gas industry is a highly capital intensive sector, however, Petrotrin's debt ratio of approximately 0.70 may be considered significantly higher than industry norms. Further, the company's weak cash position, as well as its deteriorating, times interest earned, are of concern as a large long-term bond is due to be retired in 2019.

*Table 3 - Extract 1 from Financial Ratios*

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Current Ratio	2.33	2.04	2.27	1.53	1.26	1.15	1.02	0.88	0.59
Cash Ratio	0.98	0.52	1.08	0.35	0.24	0.13	0.14	0.12	0.16
Debt Ratio	0.69	0.66	0.72	0.70	0.61	0.72	0.73	0.73	0.70
Times Interest Earned	14.72	24.50	-0.07	4.23	17.42	3.06	0.90	0.69	-0.78

The significant decline in crude oil prices since 2014 has resulted in a more than 50 percent decrease in the company's revenues from TT\$37 billion in 2012 to TT\$16 billion in 2016. The returns that Petrotrin achieve are directly co-related to the prevailing oil prices and the associated product prices that it can fetch. The historical data clearly shows this relationship, as both the Return on Assets (ROA) and the Return on Equity (ROE) trend positively with higher oil prices. However, even though the prevailing oil prices in 2012, 2013 and 2014 were well above the prices available in 2011, (and those projected given

what many experts predict as the medium term outlook) the ROA and ROE declined in those periods. This would suggest that there are other factors contributing to the increasing annual operational expenditures and eroding the company's margins. These include: inefficiencies in operations; poor management of shift personnel and high overtime; poor asset integrity resulting in shutdowns and loss of revenues; inefficiencies in risk management; increasing debt; weak project management skills, inventory management and; low productivity, among other markers of underperformance. Whether in periods of high or low oil prices the model of operations is not sustainable. A deeper investigation would identify the specific management and governance issues accountable for the company's poor performance.

*Table 4 - Extract 2 from Financial Ratios*

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
ROA	5.69%	7.96%	- 2.24%	-0.50%	5.23%	2.17%	0.23%	- 0.80%	- 2.67%
ROE	18.34%	23.43%	- 7.96%	-1.69%	19.54%	7.64%	0.85%	- 2.98%	- 9.00%
Gross Profit Margin	15.12%	15.89%	6.96%	12.13%	16.46%	9.99%	6.20%	6.33%	2.52%
Operating Profit Margin	11.79%	13.22%	- 0.12%	3.89%	12.89%	8.12%	3.03%	2.36%	- 3.80%
Net Profit Margin	5.52%	6.09%	- 3.53%	-0.64%	6.50%	2.70%	0.33%	- 1.24%	- 5.07%

Figure 9 shows the trend in Petrotrin's crude oil prices and selected financial ratios (Table 4), while Figure 10 shows the trend in the weighted average Petrotrin crude oil prices with local ex-refinery product prices over the years 2007 to 2015 (Appendix III).



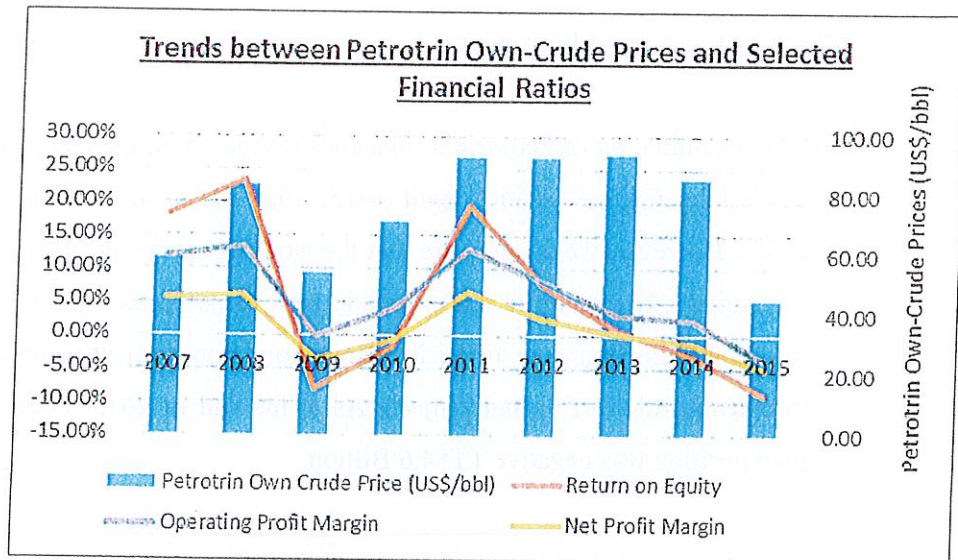


Figure 9 - Trends between Weighted Average Petrotrin Crude Prices and Selected Financial Ratios

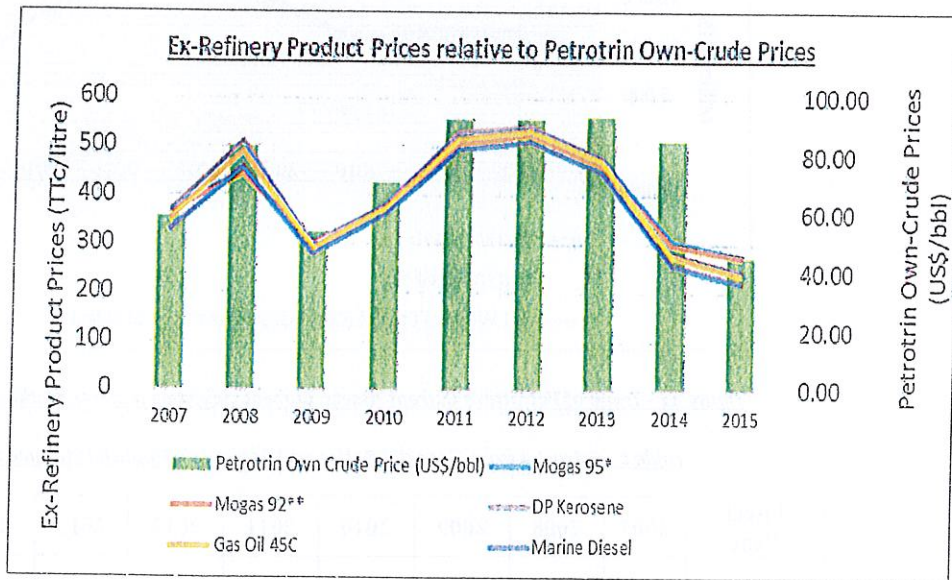
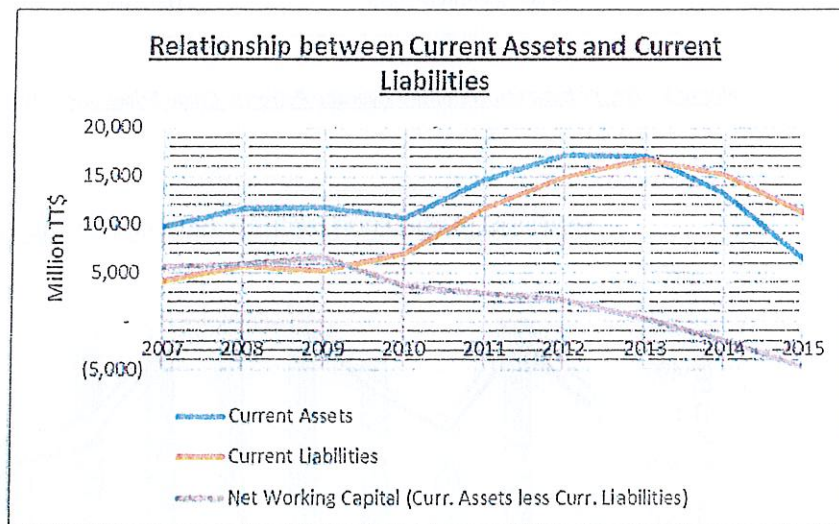


Figure 10 - Trends between Weighted Average Petrotrin Crude Prices and Ex-Refinery Product Prices

Working Capital and Borrowings

Further examination of Petrotrin’s financials revealed that the company was in a positive Net Working Capital position until 2013, after which the company’s position turned negative. However, we are not sure that the working capital positions in those years are a true positive. The belief is that it should have been greater and masks the underlying unsatisfactory performance, under investment and poor project management discipline in the implementation of capital projects. As at the end of 2015, Petrotrin’s Net Working Capital position was negative TT\$4.6 Billion.



*Figure 11 - Trend of Petrotrin's Current Assets, Current Liabilities and Net Working Capital*

*Table 5 - Extract 3 from Financial Ratios and Petrotrin's Financial Statements*

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Current Assets	9,800	11,628	11,806	10,691	14,678	17,179	17,060	13,253	6,536
Current Liabilities	4,213	5,714	5,203	7,003	11,659	14,954	16,699	15,124	11,161
Net Working Capital (Current Assets less Current Liabilities)	5,587	5,914	6,603	3,688	3,019	2,226	361	(1,871)	(4,625)



## Long-Term Borrowings

Petrotrin's major long-term borrowings comprise two bonds:

- (i) US\$750 Million, 6.00% – 08 May 2007; and
- (ii) US\$850 Million, 9.75% – 14 August 2009.

The US\$750 Million bond is amortized with the final instalment being payable in May 2022. This bond was utilized to finance a portion of the Gasoline Optimization Programme (GOP). The GOP was an extensive upgrade, the objective of which was to enable Petrotrin to produce increased volumes of higher quality, environmentally satisfactory gasoline. The units, which were upgraded/constructed were:

- (i) Fluidized Catalytic Cracking Unit (FCCU) - upgrade;
- (ii) Naphtha Pre-Fractionation Unit (PFU);
- (iii) Isomerization Unit;
- (iv) Continuous Catalytic Regeneration Platformer Unit (CCR); and
- (v) Alkylation Unit/Acid Plant.

Petrotrin is currently servicing this bond from its cash flows. These upgrades, while resulting in increased refinery throughput, have not led to the predicted increase in the gross refinery margin.

The US\$850 Million bond includes a bullet principal payment payable in August 2019. The funds were used to finance the remaining portion of the GOP as well as the ULSD. The ULSD plant would have allowed Petrotrin to produce improved quality diesel that will meet new local and international quality specifications. The ULSD would also allow the refinery to process a broader range of crude oils, and can result in the substitution of relatively expensive crudes with less expensive ones. These objectives have not been met since extensive re-working of the Plant is required, which has delayed the completion from 2012 to 2020. Furthermore, an additional US\$150-200 Million is estimated to complete the project.

Petrotrin is currently servicing the coupon payments on that bond however, the bullet payment is a critical issue, given the company's existing financial position.

*Table 6 - Extract from Notes of Petrotrin's 2015 Audited Consolidated Financial Statements  
(Note 22. Borrowings, p.58)*

	As at September 30		
	2015 ('000)	2014 ('000)	2013 ('000)
Gasoline Optimisation Project/Ultra Low Sulphur Diesel Plant	5,349,063	5,351,312	5,395,013
Gasoline Optimisation Project	2,757,435	3,155,132	3,580,804
Other (NGC loan to Trintomar)	62,347	62,411	62,711
<b>Total borrowings (at fixed rates)</b>	<b><u>8,168,845</u></b>	<b><u>8,568,855</u></b>	<b><u>9,038,528</u></b>
<i>of which:</i>			
Current portion	454,185	454,479	458,016
Non-current portion	7,714,660	8,114,376	8,580,512
	<b><u>8,168,845</u></b>	<b><u>8,568,855</u></b>	<b><u>9,038,528</u></b>
<b>Maturity of non-current borrowings</b>			
Later than 1 and less than 3 years	785,559	785,890	792,259
Between 3 and 4 years	5,742,877	393,910	397,036
5 years and after	1,186,224	6,934,576	7,391,217
	<b><u>7,714,660</u></b>	<b><u>8,114,376</u></b>	<b><u>8,580,512</u></b>

#### World GTL Trinidad Limited

World GTL Trinidad Limited (WGTL), a jointly controlled entity between World GTL St. Lucia Limited and Petrotrin, is a limited liability company incorporated in Trinidad and Tobago. At its inception in 2006, Petrotrin held 49% of the common stock shareholding in WGTL. Pursuant to the Guarantee Contribution Agreement of 2007 January 12, relating to the funding requirements for the Gas-to-Liquid plant, Petrotrin financed cost overruns, which were to be borne by World GTL Inc.

Due to significant increases in costs and the inability to meet project completion dates, Petrotrin, in its capacity as lender, placed the jointly controlled entity in receivership on 2009 September 25. The asset was fully impaired and no additional impairment losses or reversals of previous impairment losses were recorded in the years ended 2010 September 30 to 2015 September 30. As a result, Petrotrin's share of losses/profits could not be determined.

Petrotrin commenced arbitration against WGTL Parties seeking the transfer of the common stock shares of WGTL to Petrotrin as required by the Guarantee Contribution Agreement. On 2015 April 07 the Parties entered into a Settlement Agreement and on 2015 April 08 they requested the confirmation of the Final Arbitration Awards. As a result, WGTL is now a wholly owned subsidiary of Petrotrin. The value of the shares owned by Petrotrin in WGTL has been reported at \$1, until a valuation by an independent consulting firm is completed.

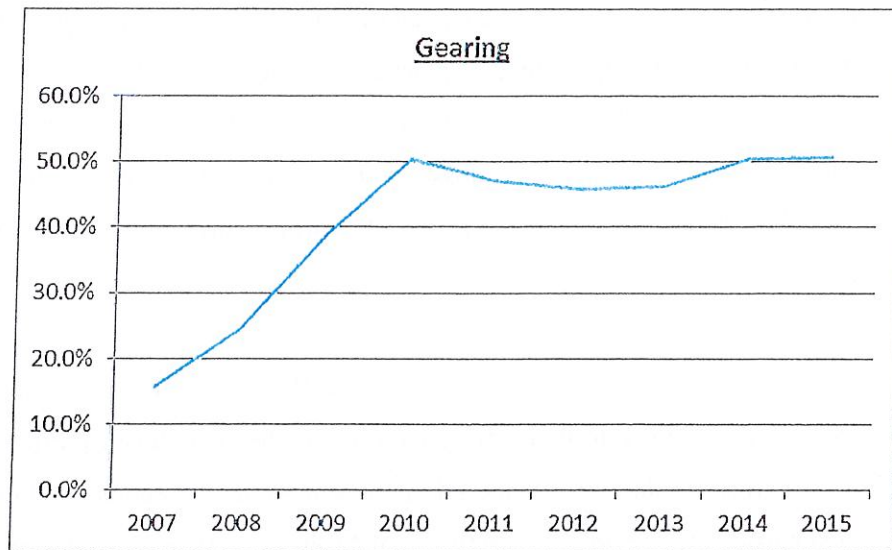
The following tables were extracted from the Notes of the Audited Consolidated Financial Statements for the Fiscal Year ended September 30, 2015.

#### Gearing

According to Petrotrin's 2015 Financials, it is the company's policy to maintain a gearing ratio of less than or equal to 50%. The trend in the company's gearing ratio was calculated for the years 2007 to 2015 and the results are shown below and in **Appendix IV**.

The 50% is relevant only if the treatment of deferred tax of \$4.48Bn as an asset can withstand the scrutiny of auditors and financiers. This issue is under discussion between Petrotrin and its auditors. Petrotrin has to demonstrate that it can make a profit and improve its cash flow in the very near future. Barring price increases, improvement in margins is dependent on completion of the ULSD plant in the year 2020 and addressing the management and governance issues.





*Figure 12 - Trend in Petrotrin's Gearing*

With Petrotrin at the limit of its preferred gearing ratio, any further changes to the company's debt level or asset base can potentially have a negative impact on the company. If the company has to write-off the deferred tax, it would result in a reduction in the company's Retained Earnings and in the Total Equity of the company. Therefore, assuming the company writes-off the asset and refinances the bonds without getting additional paid-in capital to offset the reduction in retained earnings, the company's gearing would exceed 60%. Given the need for financing, it is imperative that these ratios show a positive trend.

*Table 7 - Deferred Tax Asset Impact on Gearing*

Fiscal Year	2015 (existing)	2017 onwards
Total Borrowings	13,153,239	13,153,239
Net Debt	11,421,321	11,421,321
Total Equity	11,132,959	6,648,390
Total Capital	22,554,280	18,069,711
Gearing	50.6%	63.2%



In addition to the unfavourable prices and the negative outlook, the company is burdened with high debt servicing costs, increasing operating costs, falling oil production, lower refinery margins, a salary and wage bill of over 50% of its operating cost and poor asset integrity. Its revenues cannot support its cost structure.

The company's credit rating has been downgraded on several occasions by two separate rating agencies – Moody's and Standard and Poor's (**Refer to Appendix V**) – most recently, on the basis that government would provide budgetary support. The government provided guarantees in 2016 for short-term loans of US\$230 Million to support its operations and to meet financial obligations. This has had a negative impact on the government's debt profile. Petrotrin has not fulfilled its financial obligations to the Treasury in recent years and consequently, is a cost to the taxpayer.

The Petroleum Company of Trinidad and Tobago Limited (Petrotrin) owes the Board of Inland Revenue taxes related to the monetization of crude oil. The company currently owes the Board of Inland Revenue the sum of \$1,268,805,964.80, comprising Petroleum Profits Tax of \$659,379,587.52 and Supplemental Petroleum Tax of \$588,533,124.00. (**Refer to Table 8**)

*Table 8: Petrotrin's Taxation, Royalty and Other Liabilities Up To 28 Feb 2017 (Based On Letters to the MEEI Dated 08 March 2017)\**

	Amount Payable	Amount Recoverable/ Receivable	Net Amount Payable	Comments
Supplemental Petroleum Tax	588,533,124.00	-	588,533,124.00	
Petroleum Profits Tax	1,189,885,587.52	(530,506,000.00)	659,379,587.52	
	-	(741,616,666.12)	(741,616,666.12)	Subsidy Receivable as indicated by Petrotrin
	-	(33,635,389.53)	(33,635,389.53)	Interest on Subsidy Receivable as indicated by Petrotrin
Green Fund Levy	-	-	-	
Value Added Tax	17,202,722.00	-	17,202,722.00	
Royalties	1,210,868,765.05	(572,565,482.25)	638,303,282.80	Petrotrin perceives that they overpaid royalty in the amount of \$572,565,482.25. The MEEI does not agree with this perceived royalty overpayment of \$572,565,482.25. The MEEI is still awaiting feedback from Office of the Attorney General on this matter.
Production Levy	127,536,025.28	-	127,536,025.28	
Oil Impost	-	-	-	
Head Licence Obligations	13,103,278.85	-	13,103,278.85	
<b>Total</b>	<b>3,147,129,502.70</b>	<b>(1,878,323,537.90)</b>	<b>1,268,805,964.80</b>	

\* Information received in response to Senate Question No. 27 of the 2016/2017 Session of Parliament

## 7. FINDINGS

1. **Lack of a Consistent Mandate for Petrotrin:** Petrotrin is an amalgamation of companies in the petroleum industry acquired by the Trinidad and Tobago Government over time with multiple cultures, operating philosophies and practices many of which persist. The absorption of Trinmar has only compounded this problem and has been, at least in part, reason for the deterioration in the performance of those assets. Petrotrin is a large complex and unwieldy entity that frequently has had senior management changes and mandates. The company has had to implement elements of Government's Policy, while seeking to retain its core mandate as a Commercial Enterprise.

This hybrid suffers and continues to be plagued with an identity crisis that needs urgent correction, clarification and structural intervention. The confusion of purpose has led to a collapse of governance, a lack of transparency in performance and accountability, resulting in the Company's performance falling to the bottom of benchmarks of comparable companies in the industry. It would be fair to say that benchmarks of companies in the industry are not entirely comparable as the purpose and focus of the competition is largely clearer. Further impediments to the company's commercial success have resulted from frequent changes in board and management. This is not in alignment with an industry that has long-term horizons.

Poor choices for members of the board and management, a depletion of experience skills and competence and the frequency and magnitude of bad decisions on capital projects have burdened the company with debt and concomitant servicing obligations without an increase in revenues. Further, these mandates and board changes have created an environment of uncertainty that make it difficult to attract and retain the best available talent. Petrotrin has significantly underperformed over the years and given the current economic realities of Trinidad and Tobago, it has become necessary to review the performance of the company with the objectives of



reducing its dependence on the State and creating value for present and future generations of the country.

For the first of our findings, the most important question to be addressed is “**what is the purpose of Petrotrin and what is the State’s expectation?**” If it is to sustain profitability, pay taxes and dividends, meet HSE standards and earn foreign exchange, then it must be governed and managed as a competitive business enterprise. The Company’s mandate as a business must be unambiguous and it should not be used as a vehicle for advancing other objectives.

2. **Petrotrin’s complex organisation:** the structure makes the company difficult to manage and creates conflicting mandates. Even the structures of large multinational companies such as BP, Shell and Exxon are not aggregated like Petrotrin’s. It creates ambiguity, lack of transparency of “underlying problems”, and at best diffuses accountability. These multinationals find it difficult to identify senior management who have tested knowledge and experience to manage the Upstream and Midstream businesses. Such talent is scarce and difficult to attract, so with the current state of affairs, it is unrealistic to expect that Petrotrin can sustainably attract and retain senior management who have the ability to turn around and successfully manage a large, complex set of commercial activities.

The management is unable to focus on key strategic areas and accountability is adversely affected. Disaggregation is therefore necessary to form more manageable business units and to facilitate a higher level of transparency, leadership and accountability. In addition to disaggregation and simplifying the structure, Petrotrin needs management who have an international perspective of the business and relevant expertise to run an enterprise that is competitive in all its markets. While management has the responsibility to organize the available resources to achieve set targets and oversee the day-to-day operations of the company, as a state entity, the ultimate control has rested with the Government.



Appointing the Board of Directors has been just one element of control. However, the process by which the boards have been appointed is viewed as detrimental to effective governance of the company. For each change in government, virtually the entire board of directors changes as is evident in **Appendices VI and VII** (highlights the board of directors and executive leadership team from 2007 to present). That situation resulted in:

- little room for continuity and planning successful projects beyond a 5-year horizon;
- creating an unnecessary disruption of business strategies;
- a lack of consistency in strategic direction;
- a lack of corporate governance experience and skills;
- poor decision-making;
- loss of institutional memory;
- power distance between policy/strategy and operational management;
- loss of confidence and instability;
- constant challenges for its engagement with major stakeholders including the representative Trade Union and;
- a loss of morale among the employees.

3. **Operations:** Apart from management and governance issues, lack of safe operating practices, poor asset integrity management with consequences for safety and the environment, are priority concerns. Petrotrin has obligations and a legacy issue that must be addressed. Currently, Petrotrin's cash flow is tight, its working capital eroded, margins are negative, salaries are estimated at 50% of operating cost, and the company has an overleveraged system.

Based on the Solomon Consultants report, this estimate is too high against any benchmark. It is a management problem and the result of a long-term failure to address the cultural and operations systems and practices of the company as well as talent renewal and skills development at all levels. Significant change on all these fronts are required if this company is to survive even in its current state. However,

the company has deteriorated while industry players all over the world have been wringing changes to get fit for purpose in a dynamic economic climate for the oil industry. As mentioned earlier capital projects have burdened the company with high debt and while capital has to be injected, it must be managed and employed at the appropriate rate with a reasonable return on capital. In 2016, total debt reached 12.51 billion TT dollars.

The unsustainable high debt profile and alarming lack of returns on investments in capital-intensive projects such as Gasoline Optimization Programme, which yielded negligible returns, have strangled the company. Though refinery throughput has increased from 130,000 BOPD in 2010 to 158,000 BOPD, the upgrades executed to date, incurred considerable cost overruns and delays. Petrotrin has had studies done pointing to activities that can curb wastage, reduce expenditure, increase efficiencies and productivity. Also, it has to apply capital and insert technology management for each of the core areas. However, simply putting more money into the company will not resolve the problems, unless the company has the right governance model; the appropriate organization structure and there is confidence that its employees are capable of properly leading and managing the organisation.

4. **Asset Integrity:** With the recent oil spills in December 2013 and May 2017, Petrotrin can no longer ignore its poor asset integrity. Infrastructure is a serious problem and high priority area. The National Facilities Audit report identifies substantial integrity issues with both the Refinery and Exploration and Production Operations. Without the improvement in the E&P asset integrity, the objective of increased crude oil production cannot be achieved. While there are numerous contractors that offer maintenance services, there are concerns about the efficacies and cost of the work done and services provided. In addition to implementing a proper procurement policy, the frequency and quality of inspections should reside in house. There are plans to implement overdue inspections to address these issues.
  
5. **Capital Injection:** Raising the capital on its own would prove difficult. In order to do so at manageable costs, financiers and investors must have confidence in the company's ability to manage large capital projects within budgets and deadlines, and to achieve an appropriate return on investments. A viable future for the company depends on a departure from low levels of efficiency. The company undeniably has substantial potential with total oil and gas reserves estimated at 170 million barrels of oil equivalent (mmboe) as of September 30 2015. Petrotrin's land, Trinmar and joint venture operations is thus rich with oil and gas assets and can add to the national coffers substantially but to do so, Petrotrin simply cannot continue to operate in its current state.
  
6. **Strategic Outlook:** There are undoubtedly both opportunities and risks ahead for Petrotrin based on the dynamic energy industry environment and the fact that Petrotrin has significant assets of oil reserves. The company has developed proposals within the context of a strategic plan to take advantage of these opportunities and to its key risks. This plan has been reviewed and approved by the current Board of Directors. Our interrogation of this was of necessity, not of a detailed technical nature given the limitations of the Team's resources and time. The strengths, opportunities, critical issues and weaknesses are summarized in Appendix VIII.



## 8. RECOMMENDATIONS

Having regard to our findings and given our mandate to “make a recommendation for the restructuring of Petrotrin”, the Team proposes the following two recommendations. The two, we firmly believe, are the strategic decisions, which must be taken to ensure that subsequently, the Company implements the appropriate technical, financial and management actions necessary for it to become “a sustainable profitable entity that pays taxes, meets the HSE standards of the Nation, pays dividends, and earns significant foreign exchange.”

### 1. Governance Arrangements

To enable the Company to have a consistent, focused mandate, facilitate long term planning and avoid the frequent changes in Board and Management, we recommend:

- a. The members of the Board of Directors are selected through a process, which provides for comprehensive and transparent input and feedback from key stakeholders to ensure that members possess the relevant experience and capabilities to address priority matters critical to the transformation and sustainable development of the company.
- b. Petrotrin adopts and adheres to the laws and regulations that apply to publicly listed companies, especially with respect to transparency and accountability.
- c. Petrotrin adopts a policy whereby the Board of Directors terms of office are cycled in such a manner as to ensure that, at all times, there is continuity of membership of at least 50% of the Board.

### 2. Organizational Structure

To enable the Executive and Senior Management to focus on strategic and operational responsibilities of managing profitable businesses for which they will be held accountable, we recommend:



- a. The establishment of three operationally independent business units namely;
  - Trinmar
  - Land Exploration and Production
  - Refining and Marketing
- b. That each of these business units be led and managed by persons who would be responsible for organizing all the resources (financial, human, physical) within the unit in order to achieve the established targets; and be held accountable for the business' performance.
- c. That the Office of the President of the Company be accountable for ensuring the implementation of policy across all business units, providing oversight and strategic leadership of the Company.

## 9. APPENDICES

## APPENDIX I - List of documents reviewed by the Team

1. Mc Kinsey Report;
2. 2015-2016 Management Accounts Separated by Business Unit (Trinmar, Land and R&M);
3. 2015-present Average Lifting Cost (Trinmar and Land), Refining Cost, Selling Price;
4. 2015-present Cost of Corporate Services;
5. Sources and Uses of Cash TTD;
6. Sources and Uses of Cash USD;
7. Man-power allocation/distribution for each Business Unit (Trinmar, Land and R&M);
8. Reserves Report;
9. Action plan detailing activities to address issues identified in the Solomon Report/s;
10. Breakeven costs of current operations including lifting and refining; and
11. Solomon Report for R&M.
12. Snapshot of all non-payments

APPENDIX II: Crude Throughput of the refinery, broken down by refined products for fiscal years 2007 to 2016

Crude Throughput (barrels)	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016
Liquified Petroleum Gas	993,960	1,209,318	1,291,480	956,385	725,184	160,270	663,251	406,060	(180,960)	(289,044)
Motor Gasoline	10,546,579	11,068,349	11,450,594	10,670,170	9,585,083	6,064,729	6,890,803	7,621,135	11,683,708	16,755,776
Aviation Gasoline	14,633	(1,390)	(2,330)	(9,454)	(418)	(1,747)	(139)	17,272	(7,212)	671
White Spirits	(1)	-	-	-	-	-	-	-	-	-
Kerosene	6,577,415	6,437,445	6,181,139	5,167,628	5,217,957	4,274,128	4,218,892	4,238,169	4,528,444	5,353,046
Diesel/ Gas Oils	12,849,803	12,883,841	12,645,927	11,361,688	11,226,167	7,880,906	7,862,997	7,116,485	9,949,435	14,785,741
Fuel Oils	19,962,857	18,229,998	17,176,910	14,506,482	16,505,920	17,462,763	16,714,342	17,620,716	15,742,177	13,422,097
Lubes/Greases	(4,402)	(13,979)	(525)	-	-	83	-	-	-	-
Petrochemicals	(3)	(1)	-	(31)	-	-	-	-	-	-
Other Refined/Unfinished Prod.	5,438,147	4,173,034	4,639,674	3,385,210	4,978,496	7,817,481	3,672,280	2,109,015	1,343,684	(230,997)
Refinery Gas and Loss/(Gain)	1,419,034	1,262,311	1,298,706	2,190,906	1,764,135	2,078,223	1,213,134	1,445,344	1,540,643	1,516,138
<b>TOTAL - Crude Throughput</b>	<b>57,798,022</b>	<b>55,248,926</b>	<b>54,681,575</b>	<b>48,228,984</b>	<b>50,002,524</b>	<b>45,736,836</b>	<b>41,235,560</b>	<b>40,574,196</b>	<b>44,599,919</b>	<b>51,313,428</b>

Note: A negative number indicates a stock draw during the period



APPENDIX III: Crude Oil Prices in US\$/bbl and Ex-Refinery Prices in T/Tc/Litre for fiscal years 2007 to 2016

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brent (US\$/bbl)	65.33	106.02	56.97	76.94	105.66	111.66	109.25	107.74	61.13	42.83
WTI (US\$/bbl)	64.60	107.83	57.24	77.25	92.78	95.66	95.60	99.26	56.63	41.49
Weighted Average Local (US\$/bbl)	59.76	100.58	52.37	72.70	95.18	102.38	99.01	97.93	56.41	38.19
Petrotrin Own-Crude Price (US\$/bbl)	59.17	83.45	54.20	71.08	93.03	92.85	93.57	85.42	45.19	37.66

Product	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Mogas 95*	369.7	446.1	302.8	378.4	507.7	533.5	513.4	474.4	307.8	276.7
Mogas 92**	366.6	443.0	299.7	375.3	504.6	525.3	499.5	460.6	296.5	272.1
DP Kerosene	368.8	510.1	295.4	379.9	528.7	541.9	518.4	478.6	278.3	242.4
Gas Oil 45C	349.5	489.2	290.6	373.6	515.6	532.0	514.3	470.3	276.3	235.9
Marine Diesel	327.2	455.4	277.7	360.6	493.3	510.0	493.4	449.8	257.7	219.2

\*exclusive of filling and handling charges and excise duty

**APPENDIX IV: Petrotrin Gearing Ratio calculations from 2007 – 2015**

Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Borrowings	5,596,593	6,297,639	1,1845,090	12,444,595	13,568,677	13,113,459	13,018,496	14,133,861	13,153,239
Net Debt	1,486,832	3,350,868	6,222,715	10,014,974	10,930,206	11,233,910	10,722,465	12,325,561	11,421,321
Total Equity	7,955,582	10,418,214	9,772,714	9,882,532	12,283,114	13,299,163	12,495,648	12,134,372	11,132,959
Total Capital	9,442,414	13,769,082	15,995,429	19,897,506	23,213,320	24,533,073	23,218,113	24,459,933	22,554,280
Gearing	15.7%	24.3%	38.9%	50.3%	47.1%	45.8%	46.2%	50.4%	50.6%

APPENDIX V: Petrotrin's Credit Rating History from 2001 – 2017

Moody's

Date	Rating	Rating Action
23 Apr 2001	Baa3	New
9 Aug 2005	Baa2	Upgrade
25 May 2006	Baa1	Upgrade
21 Dec 2006	Baa2	Downgrade
31 July 2009	Baa3	Downgrade
01 May 2015	Ba1	Downgrade, Negative
21 Jan 2016	Ba1	On review for downgrade
18 Mar 2016	Ba3	On review for downgrade
19 Apr 2016	Ba3	Affirmed, Negative
26 Apr 2017	B1	Downgrade, Stable

Standard & Poor

Date	Rating	Rating Action
14 Sep 2005	BBB-	Affirmation
11 Jan 2007	BBB+	Upgrade
30 July 2009	BBB	Downgrade
7 May 2014	BBB-	Downgrade
15 April 2015	BB+	Downgrade
24 Nov 2015	BB	Downgrade, Stable
24 Dec 2015	BB	Affirmed, Stable
15 Apr 2016	BB	Affirmed, Stable
25 Apr 2017	BB	Affirmed, Stable

Fitch	S&P	Moody's	Rating grade description (Moody's)	
AAA	AAA	Aaa	Investment grade	Minimal credit risk
AA+	AA+	Aa1		Very low credit risk
AA	AA	Aa2		
AA-	AA-	Aa3		Low credit risk
A+	A+	A1		
A	A	A2		
A-	A-	A3		
BBB+	BBB+	Baa1	Moderate credit risk	
BBB	BBB	Baa2		
BBB-	BBB-	Baa3		
BB+	BB+	Ba1	Speculative grade	Substantial credit risk
BB	BB	Ba2		
BB-	BB-	Ba3		
B+	B+	B1		High credit risk
B	B	B2		
B-	B-	B3		
CCC+	CCC+	Caa1	Very high credit risk	
CCC	CCC	Caa2		
CCC-	CCC-	Caa3		
CC	CC	Ca	In or near default, with possibility of recovery	
C	C			
DDD	SD	C	In default, with little chance of recovery	
DD	D			
D				

**APPENDIX VI: Board of Directors at Petrotrin from 2007 – present**

2007 (20 Jun)	2008 (07 Oct)	2009 -2010	2011-2012 Jan	2012 (08 Oct)	2013 (29 Apr)	2013 (06 Sep)	2014 (22 Sep)
Malcolm Jones (Chairman)	Malcolm Jones (Chairman)	Malcolm Jones (Chairman)	Lindsay Gillette (Chairman)	Lindsay Gillette (Chairman)	Lindsay Gillette (Chairman)	Lindsay Gillette (Chairman)	Lindsay Gillette (Chairman)
Charmaine Baptiste	Charmaine Baptiste	Charmaine Baptiste	AleemHosein (Deputy Chairman)	AleemHosein (Deputy Chairman)	AleemHosein (Deputy Chairman)	AleemHosein (Deputy Chairman)	AleemHosein (Deputy Chairman)
RamnarineRamdass	RamnarineRamdass	RamnarineRamdass	Charles Baisden	Charles Baisden	Charles Baisden	Charles Baisden	Charles Baisden
Andrew Jupiter	Andrew Jupiter	Andrew Jupiter	Peter Burke	Carl Hector	Carl Hector	Carl Hector	Carl Hector
Harry Pritheesingh	Harry Pritheesingh	Harry Pritheesingh	Carl Hector	Peter Inglefield	KehmramJokhoo	KehmramJokhoo	Reshard Khan
Garvin Chimming	Garvin Chimming	Garvin Chimming	Peter Inglefield	KehmramJokhoo	Reshard Khan	Reshard Khan	RudranathMaharaj
Anthony Chan Tack	Anthony Chan Tack	Jillian Stephens	KehmramJokhoo	Reshard Khan	RudranathMaharaj	RudranathMaharaj	Arnold Ram
Angela Hamel-Smith	Jillian Stephens	LawfordDupres	Reshard Khan	RudranathMaharaj	Arnold Ram	Arnold Ram	Vernon Paltoo
		Kerwyn Garcia	RudranathMaharaj	Arnold Ram	Vernon Paltoo	Vernon Paltoo	Sayyed Ali
		S. Andrew McIntosh	Arnold Ram	KrishendathRamoutar		Sayyed Ali	Neil Bujun
			KrishendathRamoutar			Neil Bujun	Dominic Rampersad
						Dominic Rampersad	Surendra Solomon
2014 (31 Dec)	2015 (28 Jul)	2015 (01 Oct)	2016 (21 Jun)	2016 (Aug)	2016 (Sep)	2017 (Mar)	
Lindsay Gillette (Chairman)	Lindsay Gillette (Chairman)	Andrew Jupiter (Chairman)	Andrew Jupiter (Chairman)	Andrew Jupiter (Chairman)	Andrew Jupiter (Chairman)	Andrew Jupiter (Chairman)	
AleemHosein (Deputy Chairman)	AleemHosein (Deputy Chairman)	Beverley John	Beverley John	Beverley John	Beverley John	Beverley John	
Carl Hector	Carl Hector	Zameer Mohammed	Zameer Mohammed	Zameer Mohammed	Zameer Mohammed	Zameer Mohammed	
Reshard Khan	Reshard Khan	LennardPrescod	LennardPrescod	Linda Rajpaul	Linda Rajpaul	Linda Rajpaul	
RudranathMaharaj	RudranathMaharaj	Linda Rajpaul	Linda Rajpaul	RandhirRampersad	RandhirRampersad	RandhirRampersad	
Arnold Ram	Arnold Ram	RandhirRampersad	RandhirRampersad	Roy Lloyd	Roy Lloyd	Roy Lloyd	
Vernon Paltoo	Vernon Paltoo		Roy Lloyd	SookdeoHeeralal	SookdeoHeeralal	SookdeoHeeralal	
Sayyed Ali	Sayyed Ali				Damon Selman-Carrington	Damon Selman-Carrington	
Neil Bujun	Neil Bujun					Camille Cumberbatch-Dhoray	
Dominic Rampersad	Dominic Rampersad						
Surendra Solomon	Surendra Solomon						
	Rodney Jagai						



**APPENDIX VII: Executive Leadership Team at Petrotrin from 2007 – present**

<b>Position</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Executive Chairman/President	Malcolm Jones	Malcolm Jones	Malcolm Jones	Kenneth Allum	Kenneth Allum	Khalid Hassanali
VP Exploration & Production	Victor Mitchell	Victor Mitchell	Kain Look Yee	Kain Look Yee	Steve Baldeosingh	Jamaludin Khan
VP Refining and Marketing		Kenneth Allum	Kenneth Allum	Louie Forde	Roy Lloyd	Roy Lloyd
VP Finance/CFO	Kevin Singh	Kevin Singh	Kevin Singh	Sheriba Ali-Rajack	Sheriba Ali-Rajack	Carl McLean
VP HR & Corporate Services	Preston George	Preston George	Preston George	Preston George	Khalid Hassanali	Keith Ramnath

<b>Position</b>	<b>2013</b>	<b>2014 (Jan)</b>	<b>2015 (01 May)</b>	<b>2016 (01 Mar)</b>	<b>2017</b>	<b>2017 (Apr/May)</b>
Executive Chairman/President	Khalid Hassanali	Khalid Hassanali	Khalid Hassanali	Fitzroy Harewood	Fitzroy Harewood	Fitzroy Harewood
VP Exploration & Production	Jamaludin Khan	Jamaludin Khan	Jamaludin Khan	Stephen Awah	Stephen Awah	Stephen Awah
VP Refining and Marketing	MadoBachan	MadoBachan	Jonathen Barden	Jonathen Barden	Astor Harris	Astor Harris
VP Finance/CFO	Carl McLean	Carl McLean	Ronald Huff	Ronald Huff	Carmen Persad	Carmen Persad
VP HR & Corporate Services	Keith Ramnath	Keith Ramnath	Keith Ramnath	Neil Derrick	Neil Derrick	Alvin Stephenson

**APPENDIX VIII: Petrotrin's Strengths, Opportunities, Critical Issues and Weaknesses**

Strengths	Opportunities	Critical Issues and Weaknesses
<ul style="list-style-type: none"> <li>• Large land and marine acreage</li> <li>• Regional market share</li> <li>• Integrated upstream and downstream operations</li> <li>• Industry knowledge</li> <li>• Partnering expertise</li> <li>• Gas optimization project</li> <li>• Workforce skills, expertise, and opportunity for continuous improvement</li> <li>• Capability to address and resolve production incidents</li> </ul>	<ul style="list-style-type: none"> <li>• Capital injection—remodel company to facilitate cash for equity</li> <li>• Increase partnerships - <i>Seventy-five percent of TT's unexplored acreage exists in deep waters.</i></li> <li>• Increase exploration, extraction of hydrocarbons/oil production</li> <li>• To acquire competencies through equity partner in new generation techniques to explore existing acreage in deep waters.</li> <li>• Stabilize Governance and Management</li> <li>• Improve refinery performance</li> <li>• Improve operational efficiency and reduce cost</li> <li>• Increase Reliability</li> <li>• Collaborate with Employee Representatives</li> <li>• Improve Margins</li> <li>• Improve liquidity management</li> <li>• Hedging to mitigate impact of market risks.</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate governance/poor decision-making</li> <li>• Profit Margins/Cash flows</li> <li>• Capex</li> <li>• Retiring large debt</li> <li>• Increasing operational costs</li> <li>• Declining equity oil production</li> <li>• Management skills/Project Management skills</li> <li>• Organization Culture</li> <li>• Transparency and accountability</li> <li>• Procurement</li> <li>• Asset integrity-Refinery reliability</li> <li>• Maintenance</li> <li>• Health and Safety</li> <li>• Reserve Management</li> <li>• Risk Management</li> <li>• Supply chain management</li> <li>• Inventory Control</li> <li>• Pipeline, Storage, Tank, and Farm management</li> <li>• Employee Relations/Labour Relations</li> <li>• Employee development</li> <li>• Succession planning (aging workforce)</li> </ul>