An Examination of Variation in Petroleum Prices

by

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INTRODUCTION

Expenditure on petroleum continues to be a concern at the global, regional, national and household levels. In this note, we seek to identify some of the crucial factors causing the observed variation in the retail price of petroleum products across dealer locations. We focus specifically on two structural characteristics of retail petroleum markets: (i) the number of competing dealers; and (ii) the extent of controlling influence of marketing companies over dealers.

METHOD

Data Description and Source

The data set used in this study comprises information provided by the Consumer Affairs Commission (CAC) and the Petroleum Corporation of Jamaica (PCJ). The information from the CAC captures the posted pump prices of fuel grade 87 octane for a sample of 198 dealer locations while PCJ provided information on the price of refined petroleum sold to marketing companies. The data cover the period January-September 2011.

Competing Dealer Locations

The competitive landscape in this industry, however, comprise a set of distinct geographic areas within which dealers respond more readily to the price of other dealers located in these areas than they do to the price of dealers located outside the areas. For example, a dealer located in Kingston is more likely to lower its pump price in response to the lowering of the price of a dealer located Kingston than to dealers located in Westmoreland.

Degree of Retail Price Restraints

There are three levels in the distributive trade for petroleum. At the top of the supply chain is the state owned refinery, Petrojam, which refines imported crude oil to produce various petroleum products. The refined petroleum products are then sold to marketing companies. The prominent marketing companies operating in Jamaica are: Shell (controlled by Cool Petroleum), Total, Texaco, Epping, Petcom and Unipet. Marketing companies supply dealers with the refined products which are then retailed to final consumers (motorists). The distributive trade has been organized such that dealers receive petroleum from only one marketing company. The degree of influence which a marketing company exerts over the price charged by their dealers differs within and across marketing companies. As will be made clear later in this report, restraints imposed on dealers have important effects on the pump price. We identified two distinct platforms on which marketing companies supply petroleum to dealers:

- (i) *Platform 1*. This group comprises dealer locations where there is retail price maintenance in the sense that pump prices are set directly by the respective marketing company.
- (ii) *Platform 2*. This group comprises dealer locations where there is no retail price maintenance in the sense that pump prices are set by dealers independently of the marketing company.

RESULTS AND ANALYSIS

1. Price/Margin Trends during 2011

During 2011, the price of crude petroleum on the world market trended upwards during the first four months and then there was a subsequent reversal in trend from May through September (figure 1). Corresponding changes in the *ex-refinery* price of refined petroleum sold by PetroJam was less pronounced. For example, while the price of crude petroleum increased by 28% during the period January through April 2011, the increase in the ex-refinery price of refined petroleum during the corresponding period was only 7%. Similarly, there was a 10% price reduction in crude petroleum during the period May through September 2011 but only a 1% reduction in the ex-refinery price.

During the review period, the gross pump price margin earned jointly by marketing companies and retailers hovered consistently between 12-13%. The gross ex-refinery price margin was relatively more volatile declining from 25% in January to 4% in April (figure 2). To the extent that the price of crude oil increased by 28% during this period, it suggests that Petrojam absorbed a significant portion of increase in the price of crude petroleum. During the period May through September, gross ex-refinery price margin ranged from a low of 11% to a high of 21%. Given that the price of crude petroleum declined by 10% during this period, it means that Petrojam did not pass through all the price reductions to marketing companies.

¹ Gross pump price margin is calculated as the percentage increase of pump price over the price paid by marketing companies for refined petroleum. The price of refined petroleum is calculated as the ex-refinery price plus an additional 35% in taxes (*ad valorem* and special consumption taxes).

² Gross ex-refinery price margin is calculated as the percentage increase of the ex-refinery price over the price paid for crude petroleum on the world market. Data on the "(imported) refiner acquisition cost of crude oil" (in USD per barrel) was sourced from the US Energy Information Administration (downloaded from http://www.eia.gov/pub/oil_gas/petroleum/data-publications/petroleum_marketing_monthly/current/pdf/pmmt ab1.pdf (accessed January 24, 2012). One barrel of crude oil is equivalent to 158.99 litres.

Figure 1 Petroleum Prices, Jan-Sep 2011.

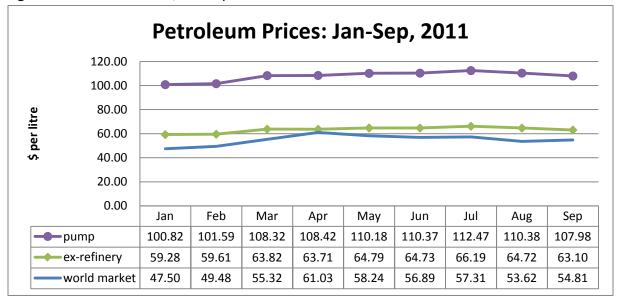


Figure 2 Gross Price Margins, Jan-Sep 2011.



An important issue which arises is whether motorists are benefitting from Petrojam's observed policy of dampening fluctuations in the price of crude petroleum. One way to resolve the issue would be to assess the current policy, relative to an alternative policy in which changes in the price of crude petroleum on the world market are transmitted instantaneously by Petrojam. Consumers are deemed to be better off under the current policy if the price paid under the current policy is less than the price which would have been paid under the alternative policy.

Table 1 Evaluation of PetroJam's Current Pricing Policy

Ex-Refinery Price (\$/Litre)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Current Policy	59.28	59.61	63.82	63.71	64.79	64.73	66.19	64.72	63.10
Alternative Policy*	59.28	61.76	66.65	70.40	60.79	63.28	65.21	61.94	66.15
Consumer benefit (loss)		2.15	2.83	6.69	(4.00)	(1.45)	(0.98)	(2.78)	3.05

^{*}Note: With January 2011 as the base period, prices under "alternative policy" are calculated using the percentage change in world crude oil price during the subsequent months.

Petrojam's current policy of absorbing price changes generated net benefits for marketing companies, relative to an alternative policy in which price changes are passed through instantaneously (Table 1). If Petrojam had instead adopted a strategy of changing its prices instantaneously to reflect changes in the price of crude petroleum, then marketing companies would have paid an extra \$2.15 for each litre of refined petroleum purchased in February. This \$2.15 per litre, therefore, is considered a net benefit to consumers attributable to the current policy. In May, marketing companies would have paid \$4.00 less for each litre acquired under the alternative policy. This \$4.00 per litre, by similar reasoning, is considered a net loss to consumers attributable to the current policy.

By averaging the monthly benefit/loss, we estimate that the current policy of absorbing price changes resulted in marketing companies paying \$0.69 less each month for each litre of refined petroleum acquired during the period.³ To the extent that marketing companies and retailers jointly maintain a constant price margin, reduction in the price of refined petroleum would be passed on to final consumers (motorists).

³ Admittedly, this method of evaluating the current policy would be enhanced if we used projected differences in monthly expenditure on refined petroleum to measure consumer benefit, rather than differences in ex-refinery price. An implicit assumption made in this analysis, therefore, is that monthly consumption of refined petroleum does not vary significantly.

The main conclusion in this section is that changes in the price of crude oil on the world market are not transmitted immediately by Petrojam, and this has generated a net benefit to consumers.

2. Distribution of Zones of Competition

We identified 67 zones of competition across Jamaica.⁴ Motorists typically have to choose among three dealers in each zone.⁵ In 23 zones, motorists have no choice as there is only one dealer. These single-supplier zones are distributed throughout Jamaica with at least one such zone in all parishes excepting for Manchester and St. James.⁶ At the other extreme, motorists in the vicinity of Spanish Town have as many as 11 dealers to choose from (Table 2).

Table 2 The Effect of Competition on Pump Prices

Number of	Number of	Average Pump	Savings due to	Average Joint Gross
Dealers	Zones	Price	Competition	Profit Margins
		(in \$ per litre)	(in \$ per litre)	(%)
1	23	103.86		15.6
2	16	102.61	1.25	14.2
3	9	102.21	1.65	13.8
4	5	101.13	2.73	12.6
5	7	99.65	4.21	10.9
6	1	103.62	0.24	15.4
7	3	97.91	5.95	9.0
8	0			
9	1	97.26	6.59	8.3
10	1	95.74	8.12	6.6
11	1	100.56	3.29	12.0

Notes: Average Joint Gross Profit Margins represents the mark-up of pump price over ex-refinery price.

Variation in prices is somewhat high within some zones (see *Appendix* A for a complete listing). In the 44 zones in which there are at least two dealers, the price spread was as high as \$7.80 per litre the Barbican/Shortwood/Dunrobin Area. Contrastingly, there are a few competitive zones (such as the Harbour View and New Kingston Areas in Kingston & St. Andrew) in which there are no difference in the price. While differences in prices are expected across different

⁴ Competition Authorities commonly refer to these areas as the relevant geographic markets. See the *Appendix B* for a list of each dealer location in each zone.

⁵ The mean number of dealers in each zone is 2.9 while the median number is 2.

⁶ In this analysis, Kingston and St. Andrew are treated as one parish. The only single supplier zone of competition identified in Kingston and St Andrew is the geographic area in the vicinity of the Norman Manley International Airport.

zones, variation in prices within zones in unexpected and could be reflecting impediments to competition in the respective zones.⁷

3. Competition typically lowers prices

The results confirm that motorists derive considerable benefits through more attractive (lower) prices due to competition among dealers. As indicated earlier, there are 23 zones served by only one dealer. Pump prices in these zones are determined in the absence of competitive pressures from rival dealers. Accordingly, these zones are referred to as *uncompetitive zones*. By similar reasoning, zones which are served by more than one dealer are referred to as *competitive zones*. The benefit of competition to motorists is assessed, therefore, by comparing the price of gasoline in uncompetitive zones with the price in competitive zones.

Gasoline in uncompetitive zones was sold at an average price of \$103.86 per litre. By way of comparison, gasoline was sold cheaper in competitive zones. For example, the competition resulting from rivalry between two dealers yielded savings of \$1.25 per litre, on average, compared to uncompetitive zones. This as gasoline was sold for an average price of \$102.61 per litre in the 16 zones in which there were only two dealers.

The benefits from the rivalry among three dealers is even more pronounced as motorists saved \$4.95 per litre compared to zones in which there is no rivalry. Specifically, in the 8 zones in which three dealers compete, gasoline was retailed at an average price of \$98.71 per litre. Similarly, rivalry among 4 dealers resulted in motorists saving \$6.00 per litre compared to zones in which there is no rivalry.

The greatest benefit to motorists due to competition is observed in the only zone (Spanish Town) where there are 10 dealers as gasoline was sold for \$95.74 per litre, representing benefits of approximately \$8.12 per litre when compared to zones where competition is absent.

The main conclusion in this section is that up to a point, gasoline is typically cheaper in areas where more dealers are located.

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⁷ Variation in prices is not necessarily inconsistent with competition. In instances where there is a variation in prices in a competitive market, however, studies have attributed this to limited searching on the part of consumers due to search costs. To the extent that dealer locations post prices conspicuously, we suspect that search costs within a zone are likely to be insignificant.

4. Marketing Companies typically influences prices upwards

The tendency for competition to lower the price of gasoline at the pump is appreciated by most motorists. What is probably less obvious is the tendency of prices to reflect the influence of marketing companies over dealers. We classify dealer locations in two broad categories: (i) price restraints (PR); and (ii) no price restraints (NPR). Dealer locations classified as PR are those at which the pump price is set directly by the marketing company. Similarly, dealer locations are classified as NPR if pump prices are set by the dealer.

NPR is the most common type of arrangement among dealers and marketing companies as there is at least one NPR dealer located in 59 of the 67 markets across Jamaica (Table 3). In fact, there are 15 zones in which only NPR dealer locations operate whereas there are 8 zones in which only PR dealers are located.

Table 3 Distribution of Dealer Types by Number of Dealer

# of dealers	PR locations	NPR locations	Both PR and NPR	Total
1	8*	15**	0	23
2	0	10	6	16
3	0	1	8	9
4	0	2	3	5
5	0	1	6	7
6	0	0	1	1
7	0	0	3	3
8	0	0	0	0
9	0	0	1	1
10	0	0	1	1
11	0	0	1	1
Total	8	29	30	67

Note: Classifications are based on information submitted by marketing companies in response to the FTC's request for information. A sample of the letter requesting the information is provided in Appendix C.

The data suggest that motorists tend to benefit more favorably from NPR dealer locations. Specifically, in the 8 single-supplier zones at which PR dealers are located, gasoline is sold at \$104.90 per litre while at the 15 single-supplier zones where NPR dealers are located, gasoline is sold at \$103.30 per litre, representing a saving of \$1.60 per litre at NPR locations. Further in zones in which two dealers are located, motorists save \$2.17 per litre on average where two

^{*:} The 8 PR locations are: (i) Unipet (Bent's)- Brampton; (ii) Marco Auto Transport Ltd.- Moneague; (iii) Epping- Manchioneal; (iv) Epping- Nain; (v) Epping- Highgate; (vi) Epping- Exchange; (vii) Epping- Bamboo, St. Ann; and (viii) Cool Oasis- Clarke's Town.

^{**:} The 15 NPR locations are: (i) Total (Hawthorne'e)- Spur Tree; (ii) Total- Holland; (iii) Texaco (Lyn's)- Lacovia; (iv) Texaco- Gutters; (v) Shell (Twin Palm)- Hopewell; (vi) Shell (Triple Star Station)- Ewarton; (Vii) Shell- Junction; (viii) Shell- Four Paths; (ix) Petcom (Y.P. Seaton)- Norman Manley International Airport; (x) Petcom (Simpson's)- Frankfied; (xi) Petcom (Petro South)- Southfield; (xii) Petcom (Norris Hill's)- Alexandria; (xiv) Petcom (Daniel's)- Golden Grove, St. Thomas; (xv) Petcom, Lluidas Vale, St. Catherine.

NPR dealers are competing rather than at locations where a NPR dealer is competing with a PR dealer. While the information points to a clear tendency for prices to be higher at PR locations, it should not be interpreted that marketing companies' influence necessarily causes prices to be higher- we would require more information to establish any causal relationship between the marketing companies and the higher prices. The higher prices at PR dealer locations could, for example, be driven by a policy for marketing companies to impose vertical restraints at locations where the price is typically higher.

The main conclusion in this section is that gasoline is typically cheaper at dealer locations where marketing companies do not exert a controlling influence over pump prices.

CONCLUSION

The factors behind the observed variation in retail gasoline prices concern the public in general and should, by extension, be of concern to policymakers. The preliminary results reported suggest that at the national level, the state's oil refinery policy of dampening the vagaries of the price of crude oil has inured to the benefit of motorists.

The preliminary findings of this study should be of import to policy makers- although more research is needed to confirm their general applicability. We are interested in the preliminary findings that prices are higher at dealer locations where marketing companies exert an influence. A more in depth study is needed to establish the primary reason for this statistical association.

The study also augments the voluminous body of empirical evidence from diverse industries which demonstrates that consumers typically derive benefits from competition. In this particular case, we observe that motorists extract greater surplus in geographic markets where more dealers are located. Notwithstanding the above, the study suggests that motorists may not be extracting all the benefits of competition. In some zones, difference in gasoline prices is as high as \$7.80 per litre, while in other zones there were no differences in prices. Such a situation could persist only if motorists in some zones do not routinely fill up at the most affordable dealer location within a given zone. Further research is needed to find out why this is the case. One possible explanation is that motorists may not be "shopping around" within a given zone because they are unaware of the potential gains to be extracted from the seemingly immaterial savings in pump price.

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⁸ In fact, the economic literature on vertical integration predicts that a vertically restrained dealer should charge lower retail prices due to the elimination of the "double-marginalisation" problem.

⁹ Future work could confirm the robustness of these results by (i) replicating the study over an extended period, say, at least three years; and (ii) using expenditure rather than price to evaluate Petrojam's current pricing policy.

Due to the huge volume in which gasoline is consumed, however, even small savings in pump price could amount to a significant reduction in expenditure annually. For instance, we conservatively estimate that there are 508,690 motor vehicles in Jamaica. ¹⁰ If we also assume that motorists purchase approximately 50 litres of gasoline per week, it suggests that savings as low as \$2.17 per litre on the pump price amounts to aggregate savings of approximately \$2.2 billion for motorists during the 39 week period January through September 2011.

If consumer inertia is confirmed to be a contributing factor of the observed price spread within zones, policymakers should publish the annual savings which could result from comparative shopping as part of a public awareness campaign aimed at encouraging motorists to shop around.

¹⁰ World Bank data indicate that in 2006, Jamaica's motor vehicles density (excluding motor bikes) was 188 per 1000 inhabitants. If we assume that this density has not declined since 2006 and use the fact that the latest population count was recorded at 2,705,800 at the end of 2010 (Statin, 2011), then we estimate that there are currently at least 508,690 motor vehicles in Jamaica.

APPENDIX A: Price Variation within Geographic Zones

Zone	Number of Dealers	Max. Price	Min. Price	Price Range (max - min)
1	3	95.80	94.70	1.10
2	2	99.10	98.60	0.50
3	7	97.20	95.70	1.50
4	5	98.40	94.24	4.16
5	5	103.80	96.00	7.80
6	7	99.54	97.40	2.14
7	3	101.90	99.90	2.00
8	2	99.90	96.90	3.00
9	10	99.10	93.50	5.60
10	1	n/a	n/a	n/a
11	2	102.20	102.20	0.00
12	9	102.00	95.56	6.44
13	4	96.60	96.20	0.40
14	2	100.40	100.40	0.00
15	2	98.90	97.80	1.10
16	5	99.20	97.00	2.20
17	5	102.80	99.80	3.00
18	3	96.50	93.27	3.23
19	1	n/a	n/a	n/a
20	1	n/a	n/a	n/a
21	2	100.50	100.50	0.00
22	1	n/a	n/a	n/a
23	3	108.00	104.80	3.20
	3			
24		98.90	98.80	0.10
25	4	106.90	100.50	6.40
26	2	104.90	102.00	2.90
27	4	104.90	103.90	1.00
28	2	111.50	108.30	3.20
29	3	112.70	110.50	2.20
30	1	n/a	n/a	n/a
31	1	n/a	n/a	n/a
32	3	104.50	103.80	0.70
33	1	n/a	n/a	n/a
34	6	104.40	103.10	1.30
35	2	108.10	104.50	3.60
36	1	n/a	n/a	n/a
37	1	n/a	n/a	n/a
38	7	100.70	98.50	2.20
39	11	103.30	98.40	4.90
40	5	105.20	99.50	5.70
41	4	103.90	98.90	5.00
42	1	n/a	n/a	n/a
43	1	n/a	n/a	n/a
44	2	100.70	100.10	0.60

45	1	n/a	n/a	n/a
46	1	n/a	n/a	n/a
47	2	105.30	104.50	0.80
48	1	n/a	n/a	n/a
49	1	n/a	n/a	n/a
50	1	n/a	n/a	n/a
51	1	n/a	n/a	n/a
52	1	n/a	n/a	n/a
53	5	100.90	99.00	1.90
54	1	n/a	n/a	n/a
55	3	102.50	101.90	0.60
56	2	104.40	103.10	1.30
57	3	108.60	105.70	2.90
58	2	103.85	102.90	0.95
59	1	n/a	n/a	n/a
60	1	n/a	n/a	n/a
61	1	n/a	n/a	n/a
62	2	106.40	106.40	0.00
63	2	101.40	100.30	1.10
64	4	99.90	98.90	1.00
65	5	102.80	101.70	1.10
66	2	103.70	103.70	0.00
67	1	n/a	n/a	n/a

Descriptive Statistics

Maximum Price Range: \$7.80 per litre

Minimum Price Range: \$0.00 per litre

Average Price Range: \$2.25 per litre

APPENDIX B: Zones

Zone 1	Zone 2	Zone 3	Zone 4
Shell - 84 Windward Rd.	Texaco - Papine Square	Cool - 92 Hagley Pk. Rd.	Shell - (Greg) Harbour
			Street
Total - 1A Victoria Ave	Total- Mona Road	Shell - 53 Hagley Pk. Rd.	Shell - Water Lane
Michael's - Victoria Ave		Shell - 146 Spanish Twn	Texaco- 55 East Queen
		Rd	Street
		Texaco - 178 Spanish Twn	Total - 152 Marcus
		Rd	Garvey Drive
		Total - 57 Waltham Pk Rd	Total - 77 Marcus Garvey
			Drive
		Total - 250 Spanish Twn	
		Rd	
		Hobbin's - Spanish Twn	
		Rd	

Zone 5	Zone 6	Zone 7	Zone 8
Texaco - 84 Barbican Rd	Epping - 70 Old Hope Rd	Petcom - Stony Hill Square	Shell - 211 C. Spring Rd
Shell - Upper Waterloo Rd	Shell - 94 - Old Hope Rd	Total - Golden Spring	Texaco - 141 C. Spring Rd
Total - 33 Shortwood Rd	Shell - 138 Old Hope Rd	Epping - Temple Hall	Total - Manor Park
Shell - 62 C. Spring Rd	Texaco - 115 Old Hope Rd		
LG Centre - C.Spring Rd.	Texaco - 230 Mountain View Ave		
	Total - Liguanea (Matilda's Cnr)		
	Total - Stanton Terrace		

Zone 9	Zone 10	Zone 11	Zone 12
Petcom - Slipe Road	Petcom - NMI Airport	Total - Harbour View Shop Ctr	Epping - HWT Rd
Unipet - Slipe Road		Total - 2 Seashore Place	Epping - Kew Rd
Texaco - 27 HWT Rd			Shell - 81 HWT Rd
Texaco - 31A Old Hope Rd			Texaco - 31 C. Spring Rd
Texaco - 3 Caledonia Ave			Total - 11 C. Spring Rd
Total - 23 HWT Rd.			Texaco - 55c Molynes Rd
Total - Heroes Circle			Texaco - 96c Molynes Rd
Johnson's 23 Beechwood Ave.			Unipet - Lyndhurst Rd
Michael's - Heroes Circle			Shell - Eastwood Pk Rd
Texaco - 54 HWT Rd			

Zone 13	Zone 14	Zone 15	Zone 16
Shell - 113 Reds Hill Rd	Texaco - 15 Trafalgar Rd	Shell - 77 Deanery Rd	Shell - Border Ave
Texaco 86c Red Hills Rd	Total - Dominica Drive	Total - 37 Deanery Rd	Shell - 301 Washington Blvd
Total 105 Red Hills Rd			Total Duhaney Drive
Total - 29 Mackville Terrace			Total - West Main Drive
			Total - Gilmor Drive

Zone 17	Zone 18	Zone 19	Zone 20
Cool - Paisley Ave	Petcom - Osbourne Store	Petcom - Frankfield	Shell - Four Paths
Shell _ May Pen	I & E Service - Osbourne Store		
Total - May Pen	Cool Oasis - Clarendon		
(Roundabout)	Park		
Total - (Tolan's) May Pen			
Texaco- Sinclair's (Sandy			
Bay)			

Zone 21	Zone 22	Zone 23	Zone 24
Cool - Busta. Drive, Lionel Twn	Shell - Hopewell	Shell - Lucea	Shell - Christiana
Cool - Water Lane, Lionel Twn		Texaco - Lucea	Petcom - Christiana
		Esso - Lucea	Cool - Christiana

Zone 25	Zone 26	Zone 27	Zone 28
Petcome - Mandeville	Texaco - Porus	Epping - Port Antonio	Texaco - Buff Bay
Shell - Mandeville	Unipet - Porus	Shell - Port Antonio	Epping - Buff Bay
Texaco - Mandeville		Texaco - Port Antonio	
Total - Mandeville		Total - Port Antonio	

Zone 29	Zone 30	Zone 31	Zone 32
Epping - Brown's Town	Epping - Manchioneal	Epping - Exchange	Epping - St. Ann's Bay
Shell - Brown's Town			Cool Oasis - St. Ann's Bay
Coo Oasis - Brown's			Total - St. Ann's Bay
Town			

Zone 33	Zone 34	Zone 35	Zone 36
Petcom - Alexandria	Petcom - Ocho Rios	Texaco - Claremont	Marco - Moneague
	Shell - Ocho Rios	Unipet - Golden Grove	
	Cool Oasis - Tower Isle		
	Texaco - White River		
	Ocho		
	Texaco - Main Street		
	Ocho		
	Total - Ocho Rios		

Zone 37	Zone 38	Zone 39	Zone 40
Petcom - Lludias Vale	Petcom - Portmore	Petcom - Angel's Spanish	Shell - Old Harbour Rd
	Parkway	Twn	
	Petcom - Braeton	Petcom - Twickenham Park	Shell - Bacchus Old Harb
	Petcom - Port Henderson Rd	Texaco - Young Street Sp Twn	Total - Old Harbour Rd
	Shell - Independence City	Shell - Bridgehouse Sp Twn	Texaco - Bushy Park
	Shell - Naggo Head	Texaco - John's Road Sp Twn	Multipet - Church Pen
	Total - Portmore	Total - Central Village Sp Town	
	Unipet - Gregory Park	Total - Brunswick Ave Sp Twn	
		Unipet - Angel's Plaza	
		Marco - Featherbed Lane	
		Jampet - Willowdeen	
		Jampet - Brunswick Ave	

Zone 41	Zone 42	Zone 43	Zone 44
Texaco - Linstead	Shell - Ewarton	Epping - Nain	Petcom - Black River
Shell - Bog Walk			Texaco - Black River
Lee's - Bog Walk			
Robinson's - Linstead			

Zone 45	Zone 46	Zone 47	Zone 48
Petcom - Southfield	Shell - Junction	Shell - Santa Cruz	Texaco - Gutters
		Nembhard's - Santa Cru	Z

Zone 49	Zone 50	Zone 51	Zone 52
Texaco - Lacovia	Total - Holland	Total - Spur Tree	Unipet - Brompton St. E

Zone 53	Zone 54	Zone 55	Zone 56
Cool - Barnett St MoBay	Epping - Highgate St Mary	Epping - Port Maria	Shell - Agualta Vale
Shell - St. James St MoBay		Cool Oasis - Port Maria	Texaco- Annotto Bay
Texaco - Union St MoBay		Shell - Port Maria	
Total - Barnett St MoBay			
Shell - Westgate MoBay			

Zone 57	Zone 58	Zone 59	Zone 60
Petcom - Morant Bay	Total - Yallas St. Thomas	Epping - Bamboo St. Ann	Petcom - Golden Grove Hanover
Shell - Morant Bay	Texaco - Albion St. Thomas		
Total - Church Cnr Morant			

Zone 61	Zone 62	Zone 63	Zone 64
Cool Oasis- Clark's Town	Total - Falmouth	Petcom - Whitehouse	Total - Ironshore MoBay
	Shell - Falmouth	Epping - Whitehouse	Texaco - AirPort MoBay
			Cool - Mt Salem MoBay
			Cool - Ironshore MoBay

Zone 65	Zone 66	Zone 67	
Total - Seatob St. Sav-La-	Shell - Negril	Petcom - Little London	
Mar			
Total - Dunbar River Rd	Texaco - Negril		
Petcom - Main St			
SavLaM			
Texaco - SavLaMar			
Shell - SavLaMar			

APPENDIX C: Sample Letter of Request for Information



November 8, 2011



Re: FTC's Research into the Pricing of Gasoline

Further to our telephone conversation with your Movember 8, 2011, we advise that the Fair Trading Commission has undertaken research on the price disparity of petroleum products among gasoline stations.

To this end, we ask that you advise us on the status of each of your gas stations, that is, whether they are:

- i) Company Owned & Company Operated
- ii) Company Owned & Retailer Operated, or
- iii) Retailer Owned & Retailer Operated

Further, for those stations which fall in category (ii), please indicate whether the prices of the various products are determined by the company or the retailers.

Thanks for your cooperation.



Commissioners: Dr. Derrick McKoy (Chairman); Jasper Burnett, C.D; Dorothy Carter-Bradford, C.D; Robert Collie; Christian Tavares-Finson. Executive Director: David Miller