

# **THE INTERNATIONALISATION PROGRAMME OF PETRÓLEOS DE VENEZUELA S.A. (PDVSA)**

A study by  
Dr. Juan Carlos Boué

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Rafael Ramírez Carreño

Minister of Energy and Mines of the  
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## **Definition, Chronology, Organisation**

Internationalisation is the name given to a long-term strategic investment programme implemented by the Venezuelan national oil company, PDVSA. The programme seeks to integrate vertically, through the direct ownership of assets, oil exploration and production activities in Venezuela with refining, distribution, storage and retail marketing activities in certain countries which are among the most important consumers of petroleum in the world.

The internationalisation programme began in late 1982, with the establishment of a joint venture with Veba Oel in Germany (Table T1). This transaction took place at the tail end of the presidential administration of Luis Herrera Campíns (1978–1982). The administration of his successor, Jaime Lusinchi (1984–1988), ordered the suspension of the programme in 1984, due to the prevailing perception that its costs were too steep and its alleged benefits too uncertain. However, the weakening of the oil market in late 1985 gave the programme new momentum. Thus, in 1986, PDVSA acquired shareholdings in five refineries located in the USA, Sweden and Belgium, and it also leased a refinery in Curaçao, thereby increasing its net refining capacity outside of Venezuela by nearly 600 MBD. Since then, ten additional refineries have been added to the programme, which now involves a total of 19 refineries located in the United States, the Netherlands Antilles, the U.S. Virgin Islands, Germany, Sweden, Belgium and the United Kingdom. Currently, the refining capacity at the disposal of PDVSA outside of Venezuela is close to 2 MMBD. The company also owns a pair of large storage facilities in the Caribbean, and some of its affiliates in the USA and Germany are among the most important sellers of petroleum products at the retail level in those key centres of consumption.

**TABLE T1. PDVSA: CHRONOGRAM OF REFINING AND STORAGE ASSETS OUTSIDE OF VENEZUELA (1983–2002)**

<i>Name and location</i>	<i>Refineries</i>	<i>Date</i>	<i>Country †</i>	<i>PDVSA share</i>	<i>Partner (if applicable)</i>	<i>Seller (if applicable)</i>	<i>Capacity MBD/MMB*</i>	<i>Cost MMUSD</i>
Ruhr Oel GmbH., Gelsenkirchen		1983	FRG	50%	Veba Oel	++++	250	250
Oberrheinische Mineraloelwerke GmbH., Karlsruhe @		1985	FRG	16.5%	Veba Oel	++++	174	55
Erdoel Raffinerie Neustadt GmbH, Neustadt @@		1985	FRG	12.5%	Veba Oel	++++	144	
Refinería Isla (Curazao), S.A., Emmastad		1986	NeA	++++	++++	Leased	320	++++
Nynäs Petroleum NV, Antwerpen		1986	B	50%	Axel Johnson	++++	15	23.5
AB Nynäs Petroleum, Göteborg		1986	S	50%	Axel Johnson	++++	12.5	
AB Nynäs Petroleum, Nynäshamn		1986	S	50%	Axel Johnson	++++	28	
Citgo Petroleum Corporation, Lake Charles		1986	USA	50%	Southland	++++	320	290
Champlin Refining Company, Corpus Christi		1987	USA	50%	Union Pacific	++++	165	93
Champlin Refining Company, Corpus Christi		1988	USA	50%	++++	Union Pacific	165	156
Citgo Petroleum Corporation, Lake Charles		1989	USA	50%	++++	Southland	320	675
The Uno-Ven Corporation, Lemont		1989	USA	50%	Unocal	++++	151	145
Seaview Petroleum Company, Paulsboro		1990	USA	50%	Seaview	++++	84	35
Petrochemie & Kraftstoffe Schwedt AG, Schwedt @@@		1991	FRG	18.75%	Veba Oel	Treuhandanstalt	240	18.67***
Seaview Petroleum Company, Paulsboro		1991	USA	50%	++++	Seaview	84	49
Citgo Asphalt Refining Company, Savannah		1992	USA	100%	++++	Amoco	28	15
Briggs Oil Ltd., Dundee		1992	GB	50%	Fortum	Tarmac	10	66.5
Eastham Refinery Ltd., Ellesmere		1992	GB	25%	Fortum**	Tarmac	12	
Lyondell-Citgo Refining Company, Houston		1993	USA	42.1%	Lyondell	++++	265	632
The Uno-Ven Corporation, Lemont		1997	USA	50%	++++	Unocal	151	250
Chalmette Refining LLC, Chalmette		1998	USA	50%	Mobil	++++	184	319
HOVENSA, St. Croix		1998	USVI	50%	Amerada Hess	++++	525	625
Merey Sweeny LLC, Sweeny		1998	USA	50%	Phillips	++++	205	269
<i>Storage terminals</i>								
Refinería Isla (Curazao), S.A., Emmastad		1986	NeA	++++	++++	Leased	18	++++
Bonaire Petroleum Corporation N.V., Bonaire		1989	NeA	100%	++++	Northville/Paktank	9	50
Bahamas Oil Refining Company International		1990	Bahamas	100%	++++	Chevron	20	120

@ Amalgamated in 1996 with Esso's Karlsruhe refinery; PDVSA's share in Mineralölr Raffinerie Oberrhein GmbH & Co. KG is now 11% (Other partners: BP 11%; Shell 32.25%; Esso 25%; Conoco 18.75%).

@@ Amalgamated in 1998 with BP/AGIP Vohburg-Ingoldstadt refinery; PDVSA's share in BAYERNOIL Raffineriegesellschaft mbH is now 12.5% (Other partners: OMV AG 45%; AGIP Deutschland AG 20%; Deutsche BP 10%; BP Refining and Petrochemicals 12.5%).

@@@ Other partners in the consortium: BP Refining and Petrochemicals 18.75%; Shell 37.5%; Agip/TotalFinaElf 25%.

\* Distillation capacity for refineries; storage capacity for terminals.

\*\* A Shell subsidiary controls 50% of this refinery.

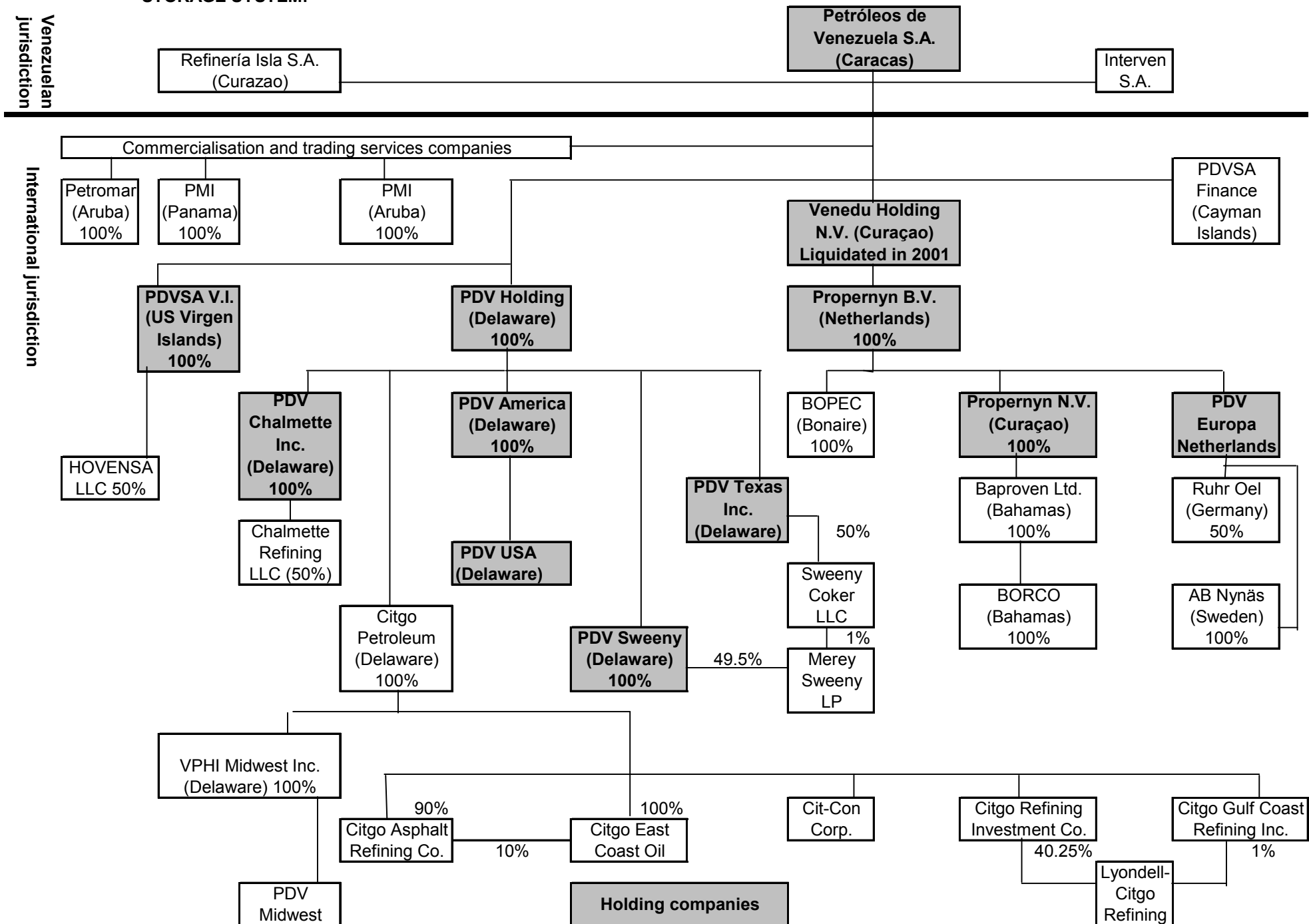
\*\*\* Up-front cost only; does not include PDVSA's share in the DM 1.3 billion which consortium had to pledge to invest to bring the plant to German environmental standards.

† FRG=Federal Republic of Germany; B=Belgium; NeA=Netherlands Antilles; GB=Great Britain; S=Sweden; USVI= US Virgin Islands.

The complex organisational scheme underlying PDVSA's international refining and marketing operations is presented in Graph G1. This structure is a product of the application of financial engineering criteria aimed at channelling the profits generated within this system to a pair of holding companies which have served as the remote parent companies for PDVSA's international refining affiliates throughout most of the history of the internationalisation programme: Propernyn B.V. (domiciled in the Netherlands) and Venedu Holdings N.V. (domiciled in Curaçao). PDVSA's affiliate Interven has supposedly been in charge of the management of the internationalisation programme, but this company's scope of activities has been restricted to the compilation of information, the collation of statistics and the preparation of performance evaluation reports. In practice, the two holding companies mentioned above were entrusted with the task of concentrating and distributing resources for investment and expenditures within the framework of the programme, up until December 2000 inclusive. The location of these two companies made it possible for PDVSA to use the various double taxation treaties subscribed by the Netherlands to circumvent the payment of withholding taxes in the various jurisdictions where PDVSA's refining and marketing affiliates had generated the funds remitted to their remote parents.

In December 2000, Venedu and Propernyn (as well as PDV Holding Inc., domiciled in Delaware) transferred all their shares to PDVSA in Caracas, in anticipation of Venedu's liquidation during 2001. The reasons behind the dissolution of this holding company were threefold. Firstly, during the second half of the 1990s, PDVSA became a party to several structured finance vehicles which rendered redundant Venedu's functions as the concentrator and distributor of the cash flows generated by PDVSA's international affiliates. In second place, the signature of a double taxation treaty between Venezuela and the USA made it possible for some other of its functions to be discharged directly by PDV Holdings Inc. in the United States (and Propernyn B.V. in Europe). Finally, as a result of changes to both the Curaçao fiscal regime and the Netherlands-Aruba-Netherlands Antilles double taxation treaty, companies domiciled in the Caribbean Dutch dependencies found themselves no longer able to use the double taxation treaties subscribed by the Netherlands and, by extension, to exploit the attractive fiscal optimisation opportunities that this faculty had afforded them in the past.

**GRAPH G1. PETRÓLEOS DE VENEZUELA: SIMPLIFIED ORGANISATIONAL DIAGRAM OF INTERNATIONAL REFINING, MARKETING AND STORAGE SYSTEM.**



## **Acquisition and Investments Costs, and Dividend Policy**

As can be appreciated in Table T1, PDVSA has spent a total of 4,380 MMUSD in direct cash outlays between 1983 and 2002 on the acquisition of refining, storage and marketing assets outside of Venezuela, including a total of 250 MMUSD in annual lease payments for the Curaçao refinery. In addition, the company has made 1,590 MMUSD in equity contributions to its affiliates over the same period, and invested 502 MMUSD in Refinería Isla, for a grand total of 6,480 MMUSD. This is equivalent to a gross outlay of 1.27 USD for every barrel of the 5,070 million barrels of Venezuelan crude exported between 1983 and 2002 to refineries controlled by PDVSA.

From a conceptual viewpoint, this gross outlay is not necessarily the best indicator of the real cost of the internationalisation programme, because it overlooks the potential reduction in these acquisition costs that would come as a result of these international affiliates' channelling some of their income back to PDVSA. However, when this element is duly taken into consideration, it is possible to see that, in fact, there is no appreciable difference between the gross and net outlays associated to the programme. This is because PDVSA has allowed its affiliates to retain (for reinvestment purposes) practically the whole of the cash flows generated by their operations, and has never sought their repatriation to Venezuela by claiming the payment of dividends.

The dividend policy that has characterised the internationalisation programme has been justified in terms of double taxation complications. Because Venezuela and the United States (the country where the majority of the PDVSA's international assets are found) only subscribed a double taxation treaty recently, it was posited that PDVSA had no alternative but to reinvest retained earnings, so as to avoid the payment of withholding taxes on dividends declared by its American affiliates. This has been the explanation given for the fact that, on a number of occasions, PDVSA has adopted measures to limit the ability of its international affiliates to declare dividends, notwithstanding the magnitude of the expenditures associated with the programme, and the financial straits in which a succession of Venezuelan governments have found themselves. For instance, as soon as Citgo became a wholly-owned affiliate of PDVSA (in 1990), this company negotiated new credit lines and financial agreements that were considerably

more restrictive in terms of Citgo's ability to declare dividends (its dividends shrank from an annual average of 40 MMUSD for the 1986–1990 period to 13 MMUSD for the 1990–1995 period). In the same way, all the bond issues that PDVSA has placed in international capital markets since 1991 contain clauses which constrain the leeway that its affiliates have for declaring dividends.

PDVSA's explanation for the meagreness of the profit remittances of its international affiliates to Caracas has never been questioned, even though throughout the past twenty years or so these companies have in fact declared hundreds of millions of dollars in dividends to their respective holding companies. The majority of the monies involved came from PDVSA affiliates in the United States, but these flows attracted no withholding taxes because, as has been explained before, the route that they followed to reach the Netherlands Antilles (from PDV Holding Inc. in the United States to Propernyn B.V. in the Netherlands to Venedu in Curaçao) was laid out with the objective in mind of allowing PDVSA to take advantage of the double taxation treaties between the United States and the Netherlands, on the one hand, and the Netherlands and its Caribbean dependencies, on the other. These flows could have been sent on to Venezuela (not necessarily in the form of declared dividends), again without incurring any withholding tax, under the aegis of the double taxation treaty between the Netherlands Antilles and Venezuela. However, Venedu opted for recirculating these funds to PDVSA's foreign affiliates, in order to finance the acquisition of new refining, marketing and storage assets. This financing generally took the form of loans bearing no interest, payable on demand, subordinate to any other debt incurred by the affiliates and convertible at Venedu's option into ordinary shares of the affiliates (it is safe to assume that the loans were payable on demand because of the perceived risk that they would have to be liquidated quickly if these financing operations ever came to the attention of Venezuelan fiscal authorities).

In 1998, President Chávez manifested his annoyance at the fact that, up until that moment, none of the profits generated by the internationalisation programme had ever found their way back to Venezuela. The president gave orders that the affiliates (especially Citgo, by far the largest among them) should make a contribution to ameliorate the fiscal crisis in which the Venezuelan government found itself as a result of the

collapse in the international price of oil. As a result of this, Citgo declared 468 MMUSD in dividends for that year, a figure which exceeded by 401 MMUSD the total amount of dividends that it had declared throughout the eight years in which PDVSA had been its sole shareholder. In Venezuela, public opinion assumed, incorrectly as it turned out, that all these funds were destined for the government's coffers. In fact, the beneficiary of the dividend payment was Citgo's parent company, PDV America, which in that same year declared only 268 MMUS in dividends to its own parent, PDV Holding Inc. It is unclear whether and to what extent this amount was further reduced in its transit first through Propernyn and then through Venedu. In other words, no one appears to know what proportion of the dividend originally declared by Citgo finally reached Venezuela.

As can be seen, President Chávez's administration assumed a more demanding stance than those adopted by preceding administrations with regard to the fiscal responsibilities of PDVSA's international affiliates. However, even if all the flows sent through the years to Venedu had been repatriated to Venezuela, the internationalisation programme would still have entailed a significant fiscal sacrifice on the part of the Venezuelan government, because of the way in which the transfer price mechanism between PDVSA and its affiliates operates. Thanks to this mechanism, PDVSA's affiliates abroad buy crude and products at prices significantly below those that prevail in the open market. This has a negative effect on the Venezuelan government's fiscal income because, due to an inter-ministerial accord dating from 1985, the fiscal obligations (royalties, income tax) derived from the export sales of Venezuelan petroleum are allowed to be calculated on the basis of the price declared by the taxpayer (i.e. PDVSA), with no distinctions drawn (as is done in the rest of the world) between transfer prices and true arm's-length prices.

### **Discounts in Venezuelan Crude Oil Supplies**

PDVSA's international refining businesses revolve around very long term (i.e. twenty years duration) crude supply contracts. The central planks of these contracts are the mechanisms used to determine the prices of Venezuelan crude shipments to these plants. These mechanisms fall within three categories:



1) Accounting mechanisms: PDVSA determines the prices of shipments to Ruhr Oel and Refinería Isla (Curaçao) S.A. by means of an *ex post* accounting adjustment method. The first step in this process consists of adding the proceeds from the sales of petroleum products from the refineries, on the one hand, and the total costs associated with the manufacture of these products (processing, storage, maintenance, insurance, freight costs, finance, marketing, overheads and administration, and so on), on the other. The resulting figure is divided by the volume of crude sent to the refinery, and this is the unit price imputed to the refinery's crude supplies. In this way, the earnings before tax of these refineries always equals zero.

2) Netbacks: The realisation prices for shipments to Nynäs, Citgo, Citgo Asphalt, Lyondell and PDV Midwest (the latter until 1997) are calculated by means of complex formulae structured around the market prices of a basket of refined products, whose composition is determined according to the yields obtainable from Venezuelan crudes in typical operational conditions in a representative refining configuration for the representative market. A number of deductions are then made to the Gross Product Worth thus obtained: refining costs, transportation costs, taxes and import duties, as well as an assured refining margin, whose amount (always substantial) varied according to the crude in question.

3) Price formulae referenced to marker crudes: Prices for shipments sent to PDVSA's most recent joint ventures (Hovensa, Merey-Sweeny), as well as PDV Midwest after 1997, are calculated on the basis of price formulae referenced to marker crudes. These formulae incorporate a fixed discount (called a "competitive allowance"), but they incorporate neither product prices nor guaranteed margins. The Merey price formula for Hovensa, for instance, is based on the price of Mexican Maya crude, adjusted for quality and transportation differences, minus a competitive allowance of 0.20 USD/B.

Graph G2 presents a comparison between the realisation prices for PDVSA's arm's-length sales against the (volume weighted) prices generated by each one of these methods. As can be appreciated, the more onerous discounts are those associated to netback formulae. The discounts associated with prices adjusted by accounting mechanisms follow closely, but the volume sold through the first method is considerably larger and the attendant fiscal losses consequently graver. The marker crude formulae

generate prices roughly similar to those that can be observed in the open market (i.e. in arm's-length transactions). Finally, when one compares arm's-length prices with transfer prices one can see that the former exceed the latter by a substantial margin (2.10 USD/B in the last five years). However, it should be pointed out that this difference does not accurately reflect the discounts at which shipments to PDVSA's affiliates are invoiced, because the average quality (API gravity and sulphur content) of the crude that the company's non-affiliated clients lift is better than that of affiliated clients.

**GRAPH G2. PDVSA: COMPARISON OF SALES PRICES TO AFFILIATED AND NON-AFFILIATED CLIENTES, BY TYPE OF PRICING MECHANISM (1998–2002)**

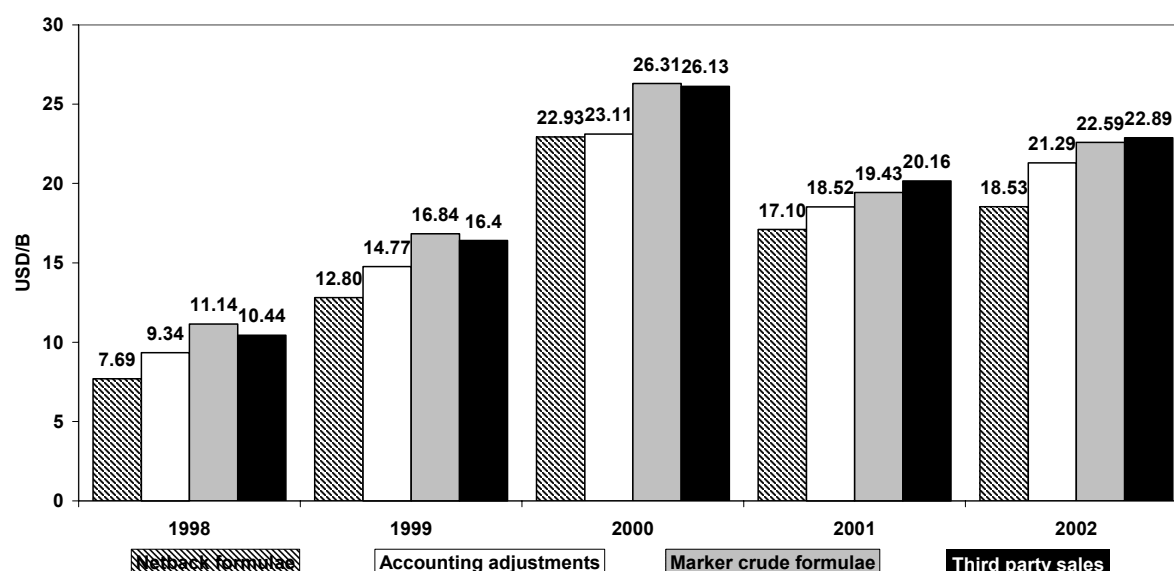


Table T2 shows a detailed breakdown of the average prices, by type of crude, paid by every one of PDVSA's refining affiliates between 1998 and 2003. These data can be compared against both the realisation prices for sales to non-affiliated refineries operating in the same markets as PDVSA's affiliates, and the realised prices for non-Venezuelan crudes of similar quality. The table confirms the existence of marked differences between the prices to affiliates, on the one hand, and the prices to non-affiliates as well as the prices of non-Venezuelan crudes of a similar quality, on the other. These differences tend to be greater for heavy crudes than for lighter grades, although this is not always the case. These data also confirm that the more favourable transfer prices

**TABLE T2(a). PDVSA: FOB PRICES, VOLUMES AND QUALITY PARAMETERS OF CRUDE SUPPLIES, BY MARKET AND TYPE OF CLIENT, 1998–2002.**

	1998	1999	2000	2001	2002
<b>GEOGRAPHICAL ZONE: CARIBBEAN</b>					
Maya crude price (21.5°, 3.5%), Caribbean, Central America (USD/B)	7.88	13.72	22.23	17.01	20.68
Isthmus crude price (33°, 1.6%), Caribbean, Central America (USD/B)	11.94	16.71	28.32	22.69	24.1
<b>HOVENSA</b>					
Vol. light crude (MBD)	28.3	182.1	170.7	165.5	183.2
API Gravity (°)	30.00	30.04	30.93	32.90	33.29
Sulphur (%)	0.88	0.88	0.84	0.82	0.78
Price light crudes (USD/B)	9.74	16.76	27.2	22.4	24.05
Vol. heavy crudes (MBD)	NA	NA	NA	NA	40.2
API Gravity (°)	NA	NA	NA	NA	16.50
Sulphur (%)	NA	NA	NA	NA	2.49
Price heavy crudes (USD/B)	NA	NA	NA	NA	22.33
<b>REFINERÍA ISLA</b>					
Vol. light crude (MBD)	187.8	175.1	131.7	132.0	87.1
API Gravity (°)	30.74	30.49	29.68	29.09	29.66
Sulphur (%)	1.07	1.10	1.25	1.39	1.46
Price light crudes (USD/B)	10.41	15.46	25.44	20.98	22.87
Vol. heavy crudes (MBD)	76.9	65.6	52.9	70.8	50.0
API Gravity (°)	12.72	13.98	12.12	13.32	12.62
Sulphur (%)	2.68	2.59	2.74	3.05	2.60
Price heavy crudes (USD/B)	9.53	13.02	17.80	14.62	18.47
<b>Non-affiliated clients (Caribbean, Central America)</b>					
Vol. light crude (MBD)	149.1	123.9	178.0	163.0	144.7
API Gravity (°)	30.4	30.43	31.38	32.39	31.45
Sulphur (%)	0.95	0.91	0.85	0.82	0.86
Price light crudes (USD/B)	11.96	18.24	28.14	23.37	24.32
Vol. heavy crudes (MBD)	57.2	19.2	59.7	26.6	5.4
API Gravity (°)	17.24	20.21	19.07	21.63	15.71
Sulphur (%)	2.01	2.04	2.14	2.03	2.61
Price heavy crudes (USD/B)	8.14	13.31	24.2	18.59	21.71
<b>Non-affiliated clients (South America)</b>					
Vol. light crude (MBD)	14.1	35.8	26.0	18.1	NA
API Gravity (°)	32.79	32.89	34.61	31.12	NA
Sulphur (%)	0.78	0.77	0.66	0.83	NA
Price light crudes (USD/B)	11.94	17.86	29.27	23.56	NA
Vol. heavy crudes (MBD)	81.0	31.0	31.0	26.6	101.9
API Gravity (°)	18.8	20.42	19.23	18.37	15.83
Sulphur (%)	2.32	2.14	2.24	2.42	2.74
Price heavy crudes (USD/B)	8.83	16.57	24.28	17.31	20.45

**TABLE T2(b). PDVSA: FOB PRICES, VOLUMES AND QUALITY PARAMETERS OF CRUDE SUPPLIES, BY MARKET AND TYPE OF CLIENT, 1998–2002**

	1998	1999	2000	2001	2002
<b><i>GEOGRAPHICAL ZONE: EUROPE</i></b>					
Maya crude price (21.5°, 3.5%), Europe (USD/B)	8.32	14.43	22.25	18.15	20.63
<b><i>NYNAS</i></b>					
Vol. heavy crudes	65.7	53.7	51.0	29.2	33.6
API Gravity (°)	11.99	11.25	11.24	11.10	11.33
Sulphur (%)	2.52	2.68	4.74	2.72	2.72
Price heavy crudes (USD/B)	7.50	13.14	18.37	15.69	19.80
<b><i>RUHR OEL</i></b>					
Vol. heavy crudes	26.4	20.4	18.3	11.7	8.9
API Gravity (°)	24.84	24.80	21.5	18.99	22.92
Sulphur (%)	1.95	1.76	2.08	2.40	3.35
Price heavy crudes (USD/B)	12.18	15.00	21.73	16.20	24.38
<b><i>Non-affiliated clients</i></b>					
Vol. heavy crudes	42.8	34.5	32.1	59.2	44.15
API Gravity (°)	13.32	12.69	11.68	12.42	10.9
Sulphur (%)	2.8	3.05	3.16	2.83	3.11
Price heavy crudes (USD/B)	8.71	13.48	21.19	16.43	19.66

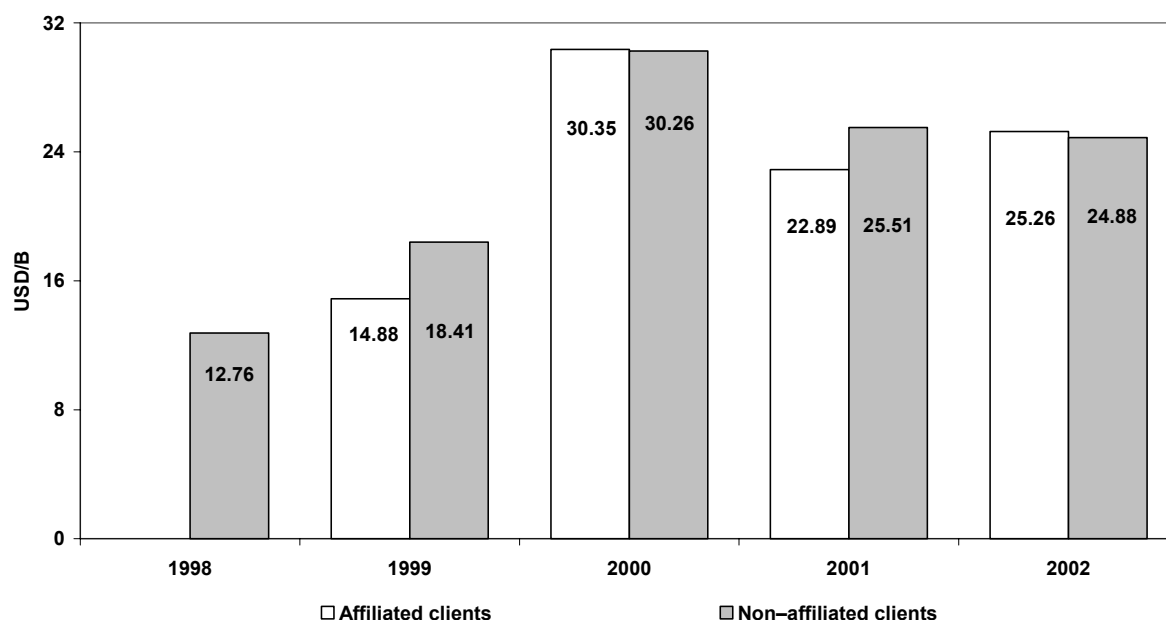
**TABLE T2c. PDVSA: FOB PRICES, VOLUMES AND QUALITY PARAMETERS OF CRUDE SUPPLIES, BY MARKET AND TYPE OF CLIENT , 1998–2002**

	1998	1999	2000	2001	2002
<b>GEOGRAPHICAL ZONE: UNITED STATES</b>					
Maya Crude price (21.5°, 3.5%), USA except West Coast (USD/B)	8.70	14.23	23.01	16.95	20.98
Isthmus crude price (33°, 1.6%), USA (USD/B)	11.94	16.71	28.32	22.69	24.15
Olmecca crude price (39°, 0.9%), USA (USD/B)	13.1	17.91	28.92	23.92	25.06
<b>Citgo</b>					
Vol. light crude (MBD)	54.7	50.0	51.0	34.4	25
API Gravity (°)	32.73	31.60	32.54	32.11	32.59
Sulphur (%)	0.75	0.88	0.86	0.82	0.73
Price light crudes (USD/B)	10.96	16.73	27.35	19.76	24.11
Vol. heavy crudes	233.6	171.8	181.7	222.7	209.3
API Gravity (°)	23.37	22.85	23.24	22.29	22.12
Sulphur (%)	1.9	1.91	1.95	2.09	2.16
Price heavy crudes (USD/B)	8.53	13.39	24.83	18.56	19.74
<b>Lyondell–Citgo</b>					
Vol. light crude (MBD)	3.9	14.9	26.0	4.3	N.A.
API Gravity (°)	30.09	30.00	30.41	30.43	N.A.
Sulphur (%)	0.88	0.88	0.81	0.88	N.A.
Price light crudes (USD/B)	4.80	5.54	21.00	16.22	N.A.
Vol. heavy crudes	228.7	170.0	175.3	208.4	199.0
API Gravity (°)	16.96	16.31	15.08	17.38	18.24
Sulphur (%)	2.34	2.29	2.41	2.21	2.42
Price heavy crudes (USD/B)	6.11	11.95	21.92	16.04	16.12
<b>Citgo Asphalt</b>					
Vol. heavy crudes	67.9	61.6	65.3	56.9	63.7
API Gravity (°)	12.14	11.46	11.21	11.24	10.77
Sulphur (%)	3.61	4.00	3.93	3.78	3.86
Price heavy crudes (USD/B)	7.77	11.50	20.34	14.16	19.11
<b>Merey–Sweeny</b>					
Vol. heavy crudes	N.A.	N.A.	34.6	142	146.3
API Gravity (°)	N.A.	N.A.	17.53	16.49	16.52
Sulphur (%)	N.A.	N.A.	2.52	2.54	2.49
Price heavy crudes (USD/B)	N.A.	N.A.	20.74	15.61	20.26
<b>PDV Midwest</b>					
Vol. light crude (MBD)	40.9	29.0	12.5	8.8	1.5
API Gravity (°)	30.00	30.40	30.22	30.33	30.00
Sulphur (%)	0.88	0.87	0.88	0.88	0.88
Price light crudes (USD/B)	11.97	15.83	26.2	23.60	24.06
<b>Non-affiliated clients in the USA (Atlantic Coast)</b>					
Vol. light crudes (MBD)	410.7	381.5	277.6	184.5	187.7
API Gravity (°)	32.16	32.1	32.72	32.59	33.00
Sulphur (%)	0.82	0.88	0.81	0.78	0.74
Price light crudes (USD/B)	11.93	17.62	28.42	22.82	24.45
Vol. heavy crudes	389.2	274.5	262.2	205.2	128.1
API Gravity (°)	19.07	17.32	17.87	17.63	16.21
Sulphur (%)	2.4	2.56	2.48	2.51	2.62
Price heavy crudes (USD/B)	8.74	14.44	23.21	16.9	20.68

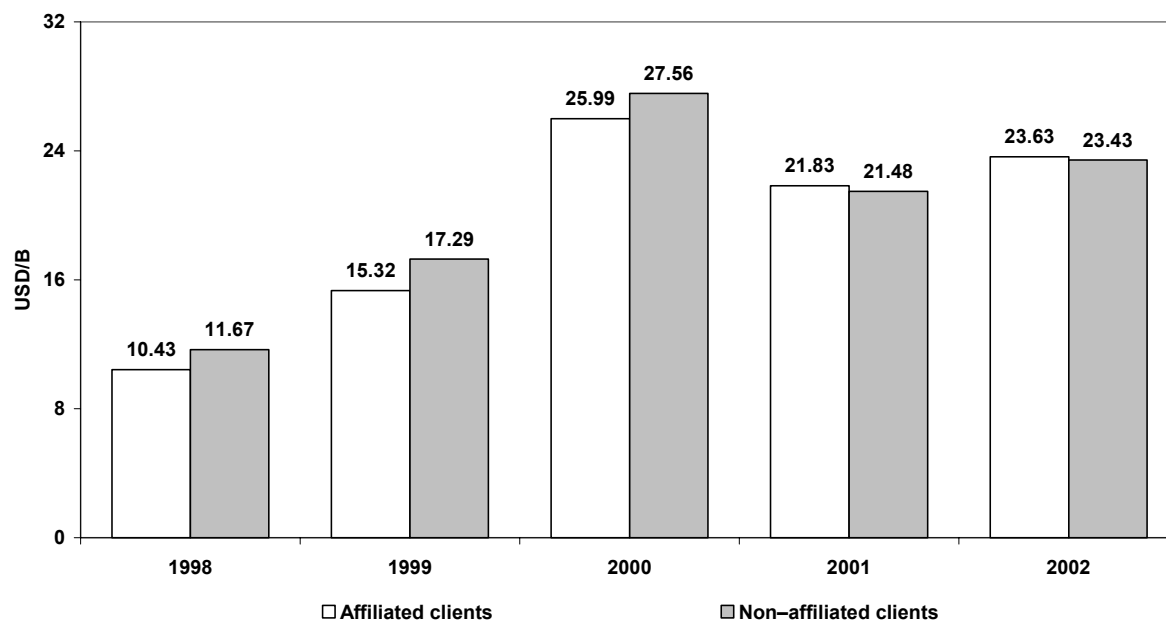
are those calculated by means of formulae referenced to marker crudes. In fact, in the case of Hovensa, there have been moments when the realised prices for this affiliate have exceeded the prices obtained in arm's-length transactions, and even the prices of non-Venezuelan crudes. This comparison is misleading, though, because sales to this affiliate are done on an "Ex-tank" basis (i.e. with transfer of title taking place, in a just-in-time basis, when the crude passes a flange in a storage tank in the refinery), and the invoice price does not reflect storage costs of the crude in the U.S. Virgin Islands (these costs, as explained below, end up being absorbed by the Venezuelan treasury). Similarly, crude supplied to the Merey Sweeny LLC joint venture have to be subjected to desalination in one of the atmospheric towers at the Puerto La Cruz refinery. The price, however, does not reflect the additional costs that this operation entails.

Graphs G3, G4, G5 and G6 show a comparison between the prices invoiced to affiliated and non-affiliated clients for shipments of some of the most important Venezuelan commercial crude segregations (Santa Bárbara, Mesa, Merey, and Boscán). Once again, it is clear that transactions with affiliates have consistently generated unfavourable results in comparison with open market transactions, with the partial exception

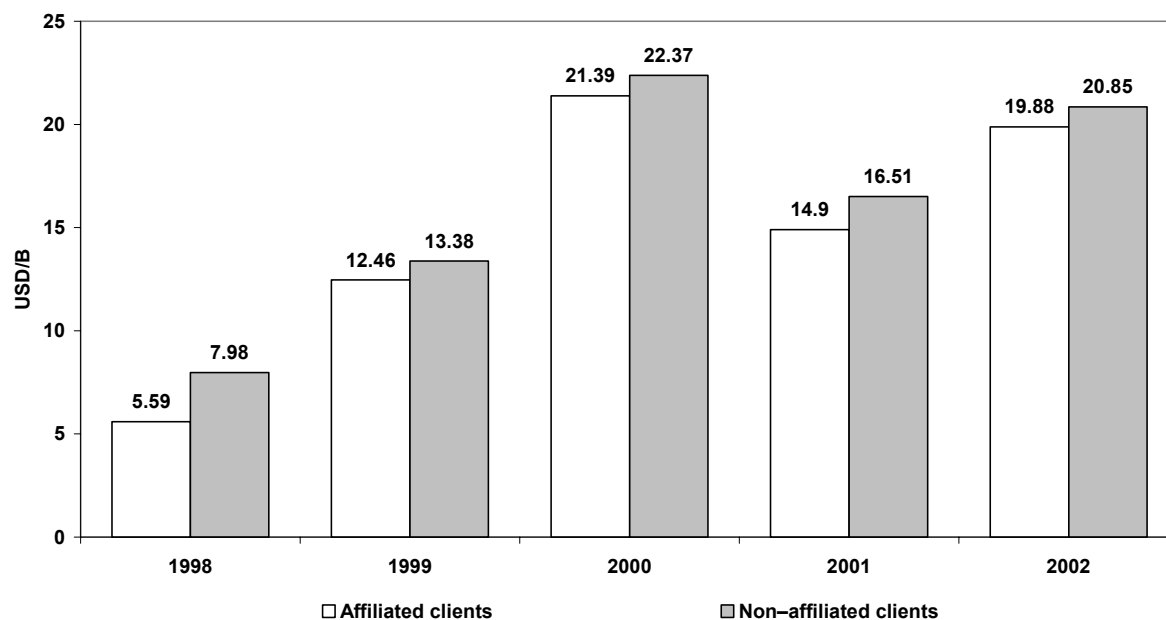
**GRAPH G3. PDVSA: COMPARISON OF REALISED SALES PRICES FOR SANTA BÁRBARA CRUDE, BY TYPE OF CLIENT (1998–2002)**



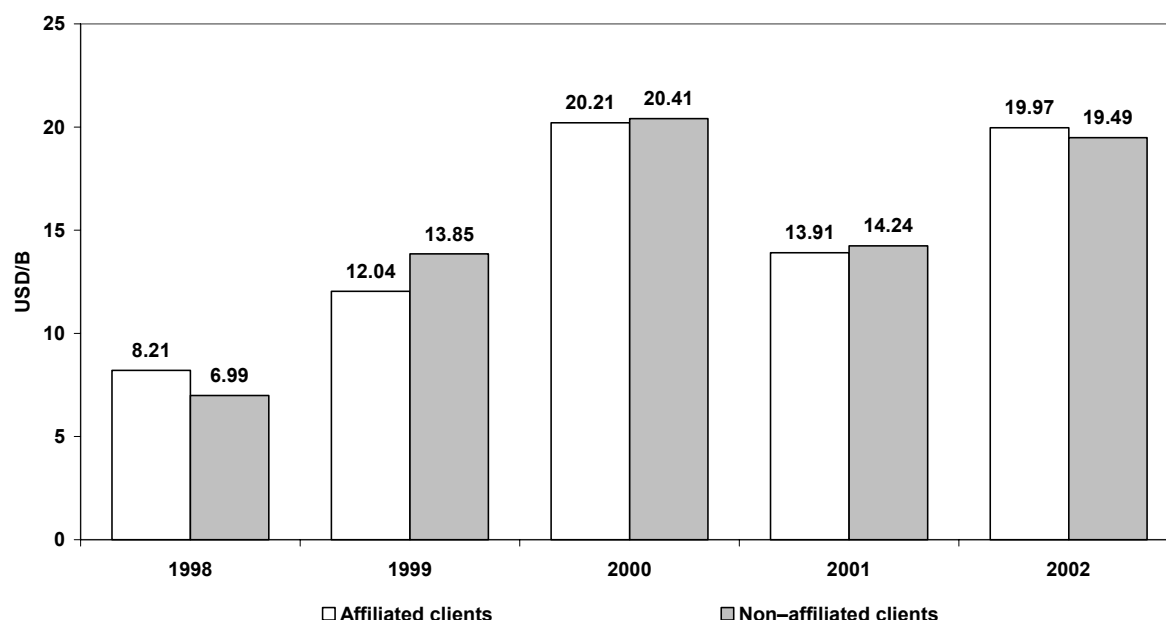
**GRAPH G4. PDVSA: COMPARISON OF REALISED SALES PRICES FOR  
MESA/FURRIAL CRUDE, BY TYPE OF CLIENT (1998–2002)**



**GRAPH G5. PDVSA: COMPARISON OF REALISED SALES PRICES  
FOR MEREY CRUDE, BY TYPE OF CLIENT (1998–2002)**



GRAPH G6. PDVSA: COMPARISON OF REALISED SALES PRICES  
FOR BOSCÁN CRUDE, BY TYPE OF CLIENT (1998–2002)

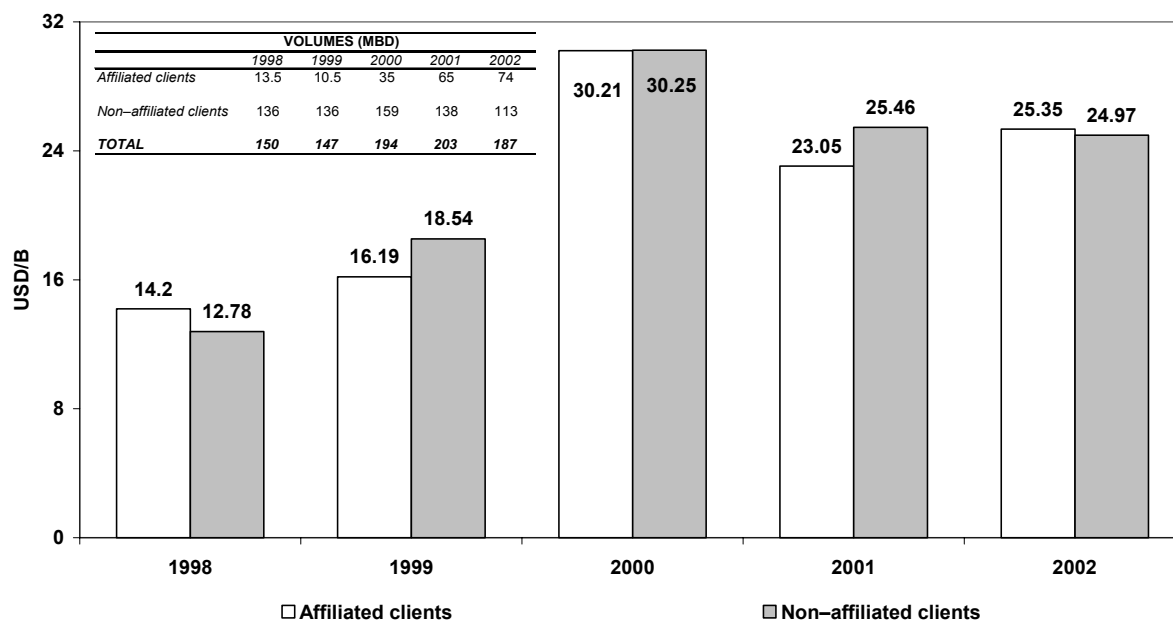


of the years 2000 and 2002. During these two years in particular, the relative prices of supplies to PDVSA's international affiliates were the highest ever recorded in the history of the internationalisation programme (and, even then, the discounts did not completely disappear). It should be noted that, in 1998, the average price of Merey crude (16.5°API, 2.5% sulphur) shipped to affiliates was significantly below the average price of Boscán crude (10.5° API, 5% sulphur) sent to affiliates: 5.59 USD/B versus 8.21 USD/B. This distortion arose again in 2002, although on that occasion the difference was not as marked (0.09 USD/B).

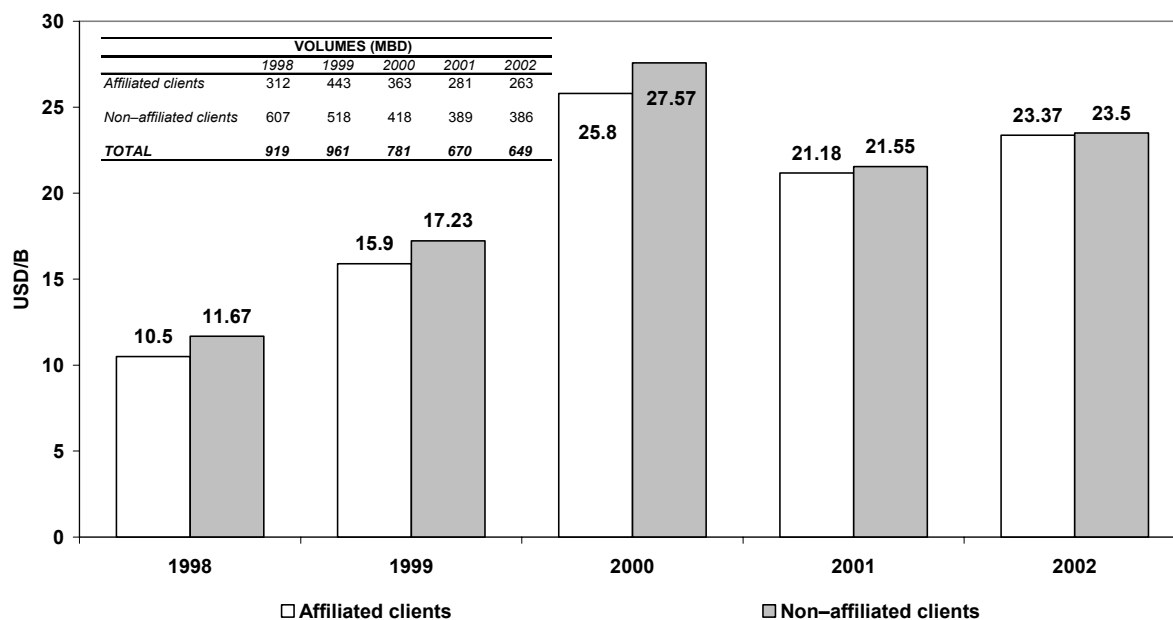
In the next four graphs (G7, G8, G9 and G10) are shown PDVSA's sales of crude oil by type (light, medium, heavy and extra-heavy), and by type of client (affiliated or non-affiliated). As can be seen, sales to affiliates account for a relatively minor proportion of PDVSA's sales of light crude (35°API or more): 21 per cent. In contrast, sales to affiliates are responsible for 42, 61 and 62 per cent of PDVSA's sales of medium, heavy and extra-heavy crudes, respectively. This means that, on average, 51 per cent of Venezuela's total exports over this period of time was sold at prices below those that could have been obtained in the open market.

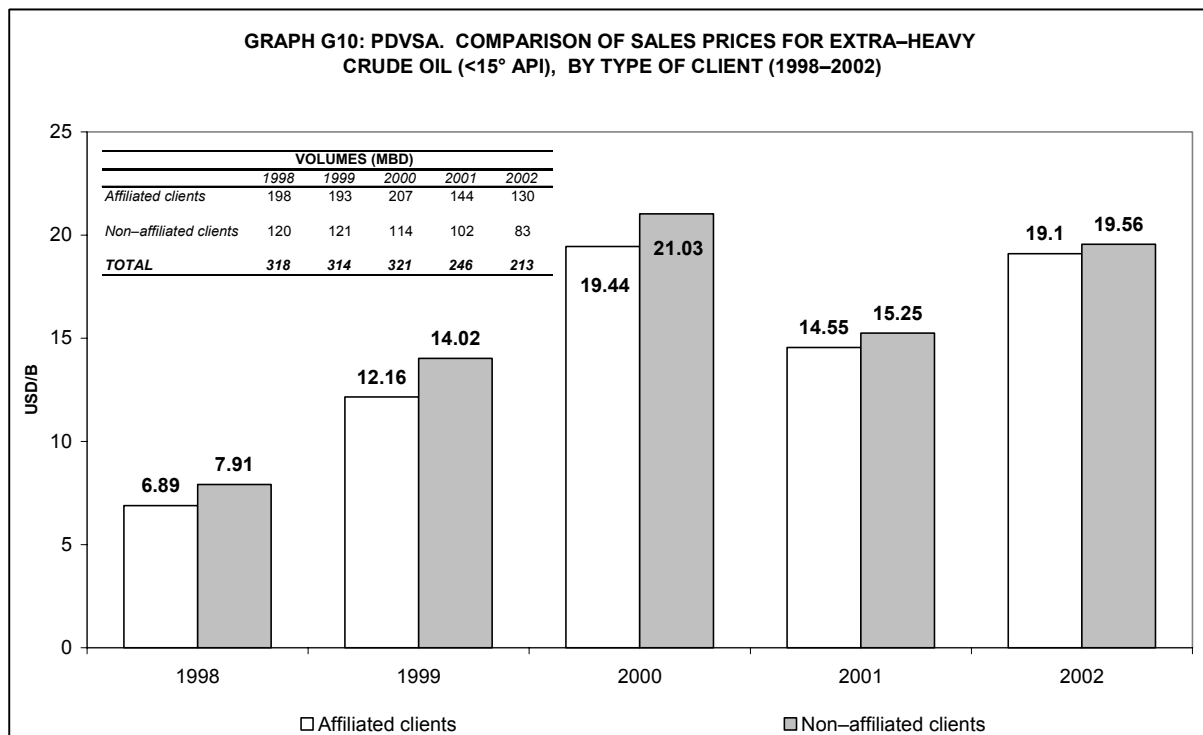
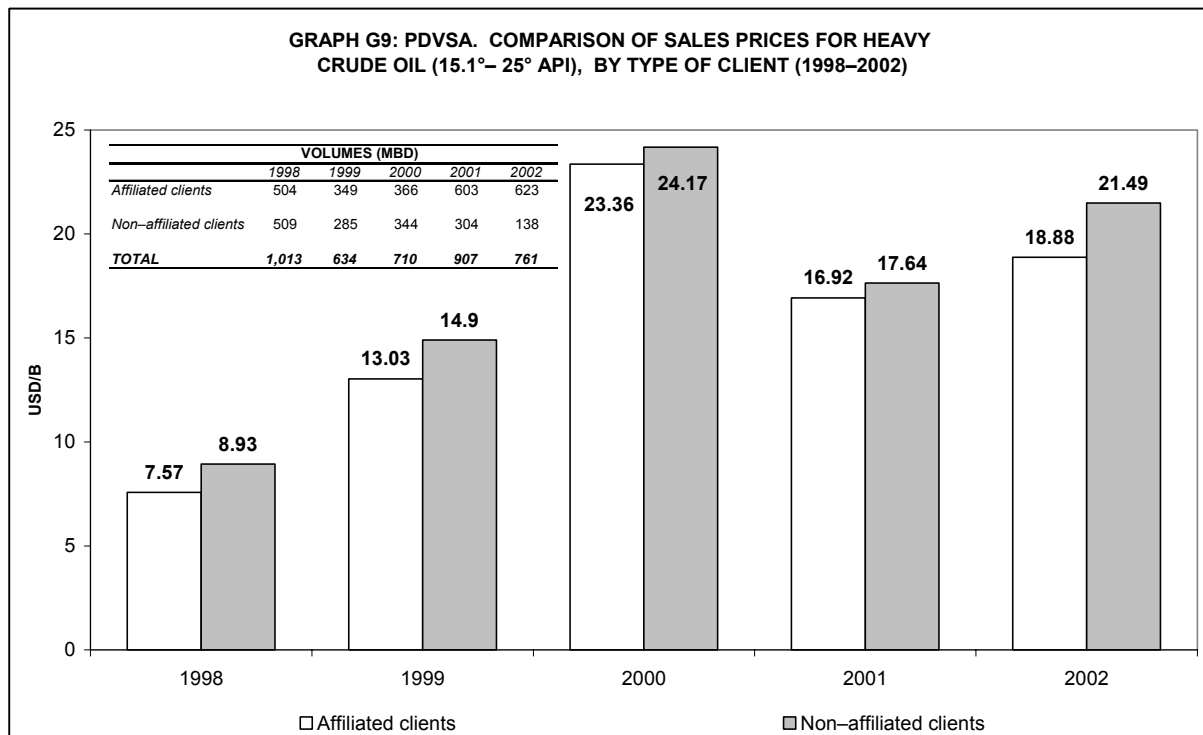


**GRAPH G7. PDVSA: COMPARISON OF SALES PRICES FOR  
LIGHT CRUDE OIL (35°+ API), BY TYPE OF CLIENT (1998–2002)**



**GRAPH G8. PDVSA: COMPARISON OF SALES PRICES FOR MEDIUM  
CRUDE OIL (25.1°–35° API), BY TYPE OF CLIENT (1998–2002)**





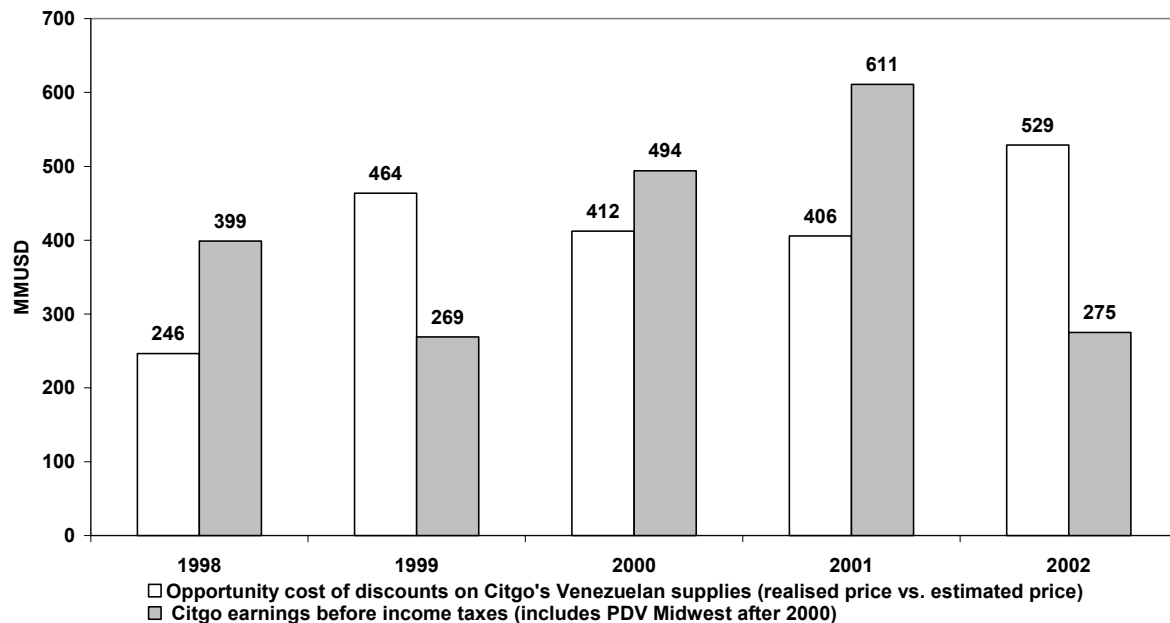
The discounts implicit in PDVSA's transfer prices are relevant for the purpose of evaluating the internationalisation programme because the net present value of the

flows that both PDVSA and the government forego throughout the life of the supply contracts with affiliates have to be seen as part of the cost of acquiring these foreign refineries. The potential opportunity cost of the discounts comes to more than 7,500 MMUSD (to the end of 2002 inclusive). This figure has been calculated by multiplying the total volume of crude that PDVSA has sent to its refineries abroad between 1983 and 2002 (5,070 MMB) times an average discount of 1.50 USD/B, estimated on the basis of the quality-adjusted figures available for the years 1998–2002.

The profitability of PDVSA's international refineries is strictly a function of the discounted prices at which they are able to obtain their Venezuelan crude supplies. Graph G11 compares the net income posted by Citgo during the period 1998–2003, against the total value of the discount to their crude supplies (which is the difference between the invoice price and the price for similar crude of similar quality estimated by means of an econometric quality-adjustment model, calibrated in accordance with US Gulf Coast refining conditions). As is quite clear, during the period under consideration, the profits generated by this company would have been insignificant (or even negative) in the absence of the discounts it obtained by virtue of its affiliation to PDVSA. The same can be said for all the other refineries within PDVSA's international system that have been obtained the bulk of their supplies from Venezuela throughout the programme's history.

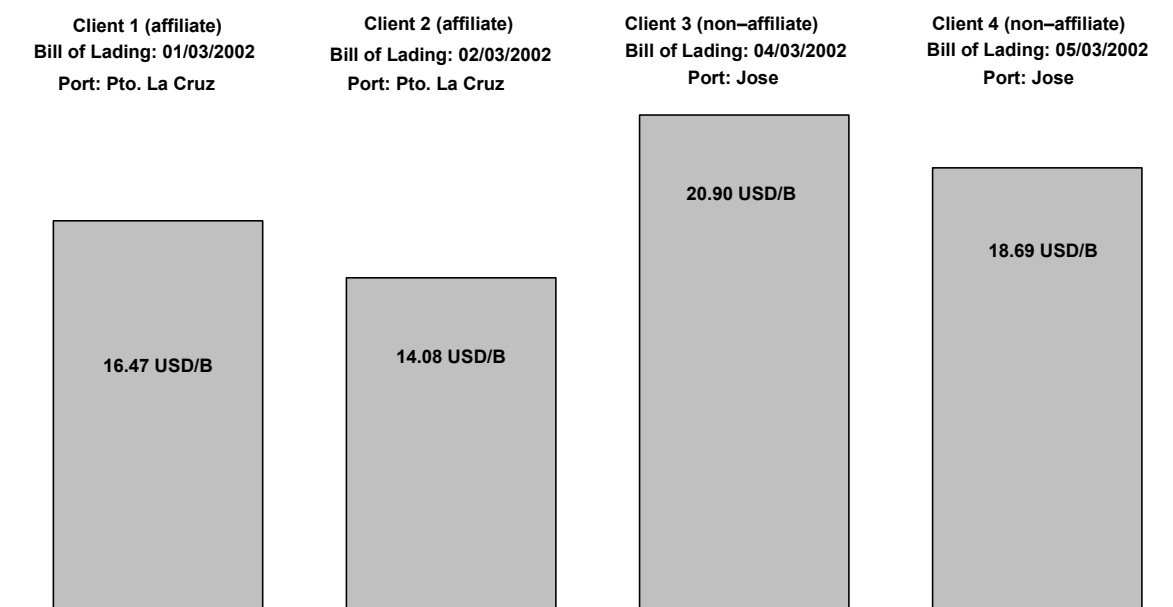
On a number of occasions, PDVSA's joint venture partners in some of these refineries have decided to divest their shareholding in the plants. The amount paid by PDVSA in order to buy them out has been determined by the net present value of the cash flows that the plants would have received as a result of the discounts throughout the time left for their contracts to run. For instance, in the specific case of the Lemont refinery, the implicit discount calculated in accordance to the econometric model mentioned above (on the basis of the Venezuelan crude acquisition costs for this refinery that PDV America reported to the *Securities and Exchange Commission* for the period 1993-96) was 2.30 USD/B. The 250 MMUSD that PDVSA paid Unocal for the second half of this facility are basically equivalent to the net present value of this discount applied to its contractual volume of 120 MBD for a period of 10 years (the contract was to expire in 2007).

GRAPH G11. CITGO: EFFECT OF PREFERENTIAL ACQUISITION PRICES FOR VENEZUELAN CRUDE OIL ON PROFITABILITY, 1998–2002.



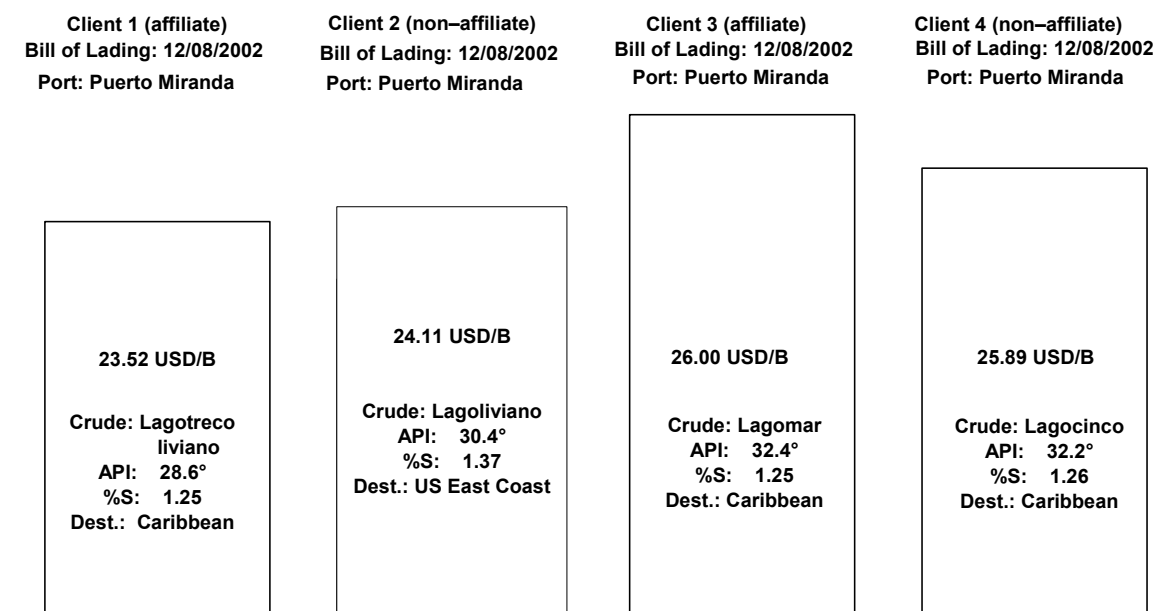
The magnitude of these implicit discounts begs the question as to why they generated no objections within the Venezuelan government until very recently. Part of the explanation should be sought in the fact that, up to 1998 inclusive, PDVSA's official line regarding its transfer prices was that they exceeded open market prices. Evaluating the validity of these assertions entailed a multiplicity of complications for Venezuelan fiscal authorities, due to the opacity that is characteristic of PDVSA's international trading operations and procedures. The key element in PDVSA's commercial policy is the reliance on constant and direct price negotiations with clients, something which makes it possible for two shipments of the same crude lifted on the same day to have very different prices. As a result of this, Venezuelan fiscal authorities are rendered unable to select any one specific transaction as the basis for evaluation (be it with an affiliated or a non-affiliated client), because the price of each individual shipment will depend on several factors: the concrete commercial position of the buyer at the time the cargo was negotiated; on the urgency that PDVSA had to place the cargo; and on the strength or weakness of the oil market in general and specialty markets in particular, and so forth (Graph G12).

**GRAPH G12. PDVSA: COMPARISON OF PUNCTUAL FOB PRICES FOR CARGOES OF MEREY CRUDE TO THE US GULF COAST, MARCH 2002**



The task of the fiscal authorities was further complicated (indeed, still is complicated) as a result of the sheer number of Venezuelan commercial segregations (which number more than 40, including upgraded crudes and blended extra-heavy crudes from early production originating from the Orinoco Oil Belt strategic association). Some of these segregations are distinctive and their number is a reflection of both the age and the complexity of the Venezuelan upstream sector. But there are many that are virtually identical (and even load in the same ports), while others are “blends of blends”. This combination of price opacity, on the one hand, and abundance of segregations, on the other, dissipated whatever information is generated in the open market for Venezuelan crudes (that is, in true arm’s-length sales) and contributes to making transactions with affiliates refractory to fiscal scrutiny (Graph G13).

**GRAPH G13. PDVSA: COMPARISON OF PUNCTUAL FOB PRICES FOR CARGOES OF  
LAKE MARACAIBO LIGHT CRUDE OIL, AUGUST 2002**



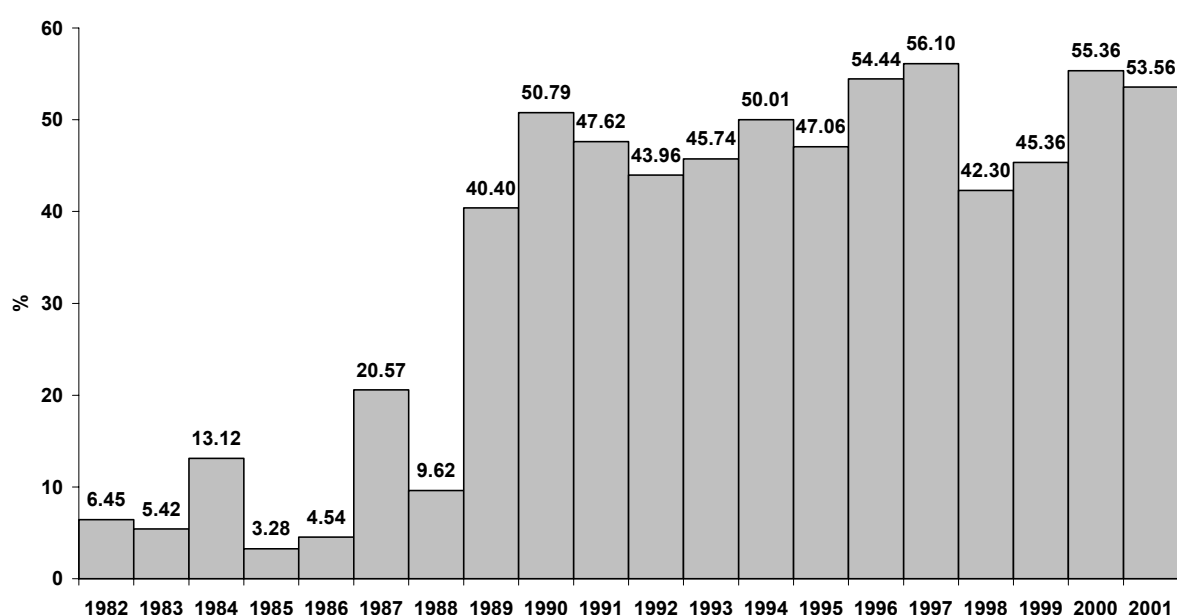
## Cost Importation

The negative fiscal effects associated with the internationalisation programme go beyond the discounts in the price of Venezuelan supplies to affiliates. This is because PDVSA's businesses abroad are organised in a way that allows the importation to Venezuela (a jurisdiction where E&P activities attract a high rate of taxation) of costs incurred in jurisdictions where the prevailing rates of corporate taxation are comparatively low. This flow of costs, prompted by loopholes in the ring fence around the Venezuelan upstream, goes in the opposite sense to the flows associated to the discounts implicit in transfer prices, which allow the movement of monies from a high tax jurisdiction to jurisdictions where taxes are lower. In fact, the cost import and transfer mechanisms that underlie the internationalisation programme are complementary and symmetrical: whereas the objective of the former is to bring back to Venezuela as many costs as possible, the objective of the latter is to achieve the exact opposite with regard to income.

The year 1990 saw the consolidation of Citgo's accounts with those of PDVSA, in the wake of the latter company's acquisition of a 100 per cent share in the former. This consolidation of accounts led to a marked increase in PDVSA's gross income, due to

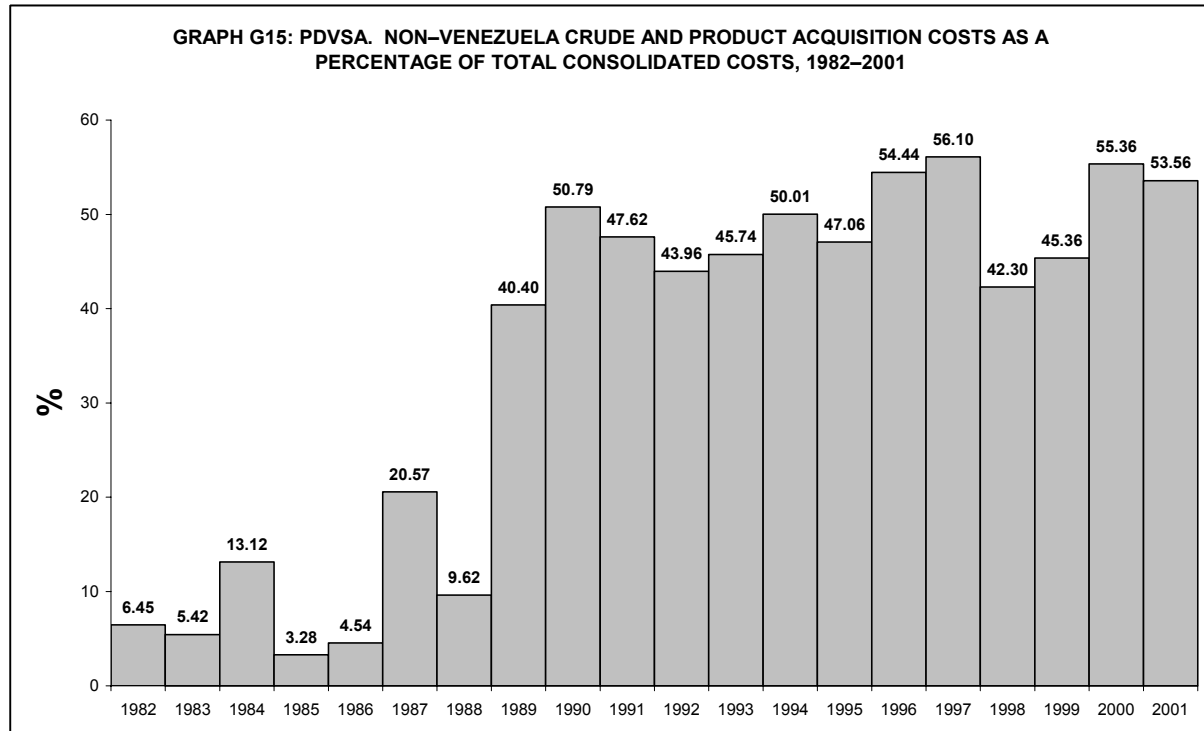
the inclusion of Citgo's US sales. The rise in PDVSA's costs, however, was proportionally higher. The increase in costs is almost wholly attributable to the cost of acquiring non-Venezuelan crude oil and petroleum products: as Graph G14 shows, from 1990 onwards, this particular item on average has accounted for 40 per cent of PDVSA's consolidated (i.e. global) costs. Since 1990, PDVSA's annual acquisition costs for non-domestic crude and products have represented around 59 per cent of the corporation's costs incurred outside of Venezuela but have been equivalent to 72 per cent of the company's non-domestic revenues. In other words, the petroleum acquisition costs for PDVSA's international refining system seem to absorb a substantially larger proportion of the income than the costs generated in that system. This would appear to indicate

**GRAPH G14. PDVSA: NON-VENEZUELA CRUDE AND PRODUCT ACQUISITION COSTS  
AS A PERCENTAGE OF TOTAL CONSOLIDATED COSTS, 1982-2001**



that some of these costs must end up being deducted in Venezuela. Graph G15 lends support to this notion: the consolidation of accounts led to a fall in PDVSA's income tax payments related to export sales and domestic market sales. This fall cannot be explained in terms of a change of the nominal rate of income taxation, because the rate was the same before and after consolidation took place. Indeed, the year 1990 marks a watershed in the history of the nationalised Venezuelan petroleum industry, because it was the first time since the creation of PDVSA in 1976 when the percentage share of

costs in the industry's global gross income was greater than the share of royalties and taxes.

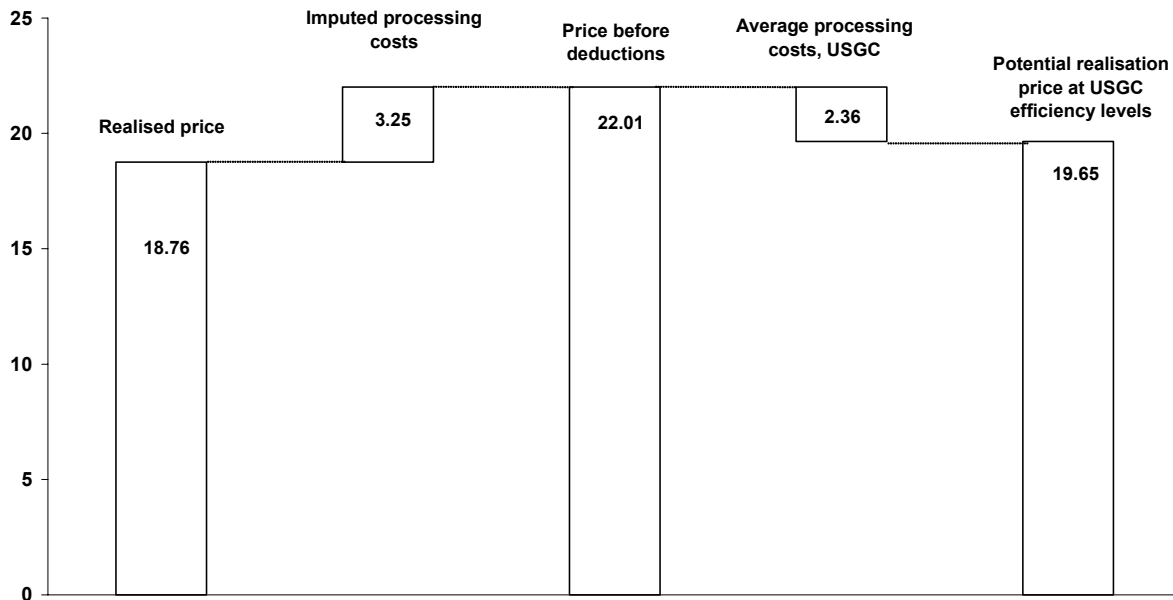


One of the reasons why PDVSA's crude and product acquisition costs are so high can be traced to the manner in which PDVSA supplies some of its affiliates abroad (mainly Ruhr and Isla) through affiliated service companies (PMI in Panama, Petromar in Aruba). As has been already pointed out, the FOB price of supplies to these refineries is calculated by deducting from their sales proceeds all the costs associated to the refining of Venezuelan crude and the marketing of products obtained thereof (transportation, insurance, processing, distribution, as well as commissions paid to these service companies). This mechanism imputes a number of cost items to the price of Venezuelan crude, even though these are associated to activities not carried in Venezuela (in other words, these netbacks serve to import costs directly, without PDVSA having to go to the additional trouble of doing it through its income tax statement). As if this were not enough, this mechanism makes it possible for any inefficiency arising in the processing chain to be charged against the price of Venezuelan crude: Graph G16 shows the Refinería Isla processing costs, the realised FOB price for the barrels sent to this refinery,



and the price at which they could have been sold had the processing costs of Refinería Isla been comparable to those of an average refinery located in the US Gulf Coast.

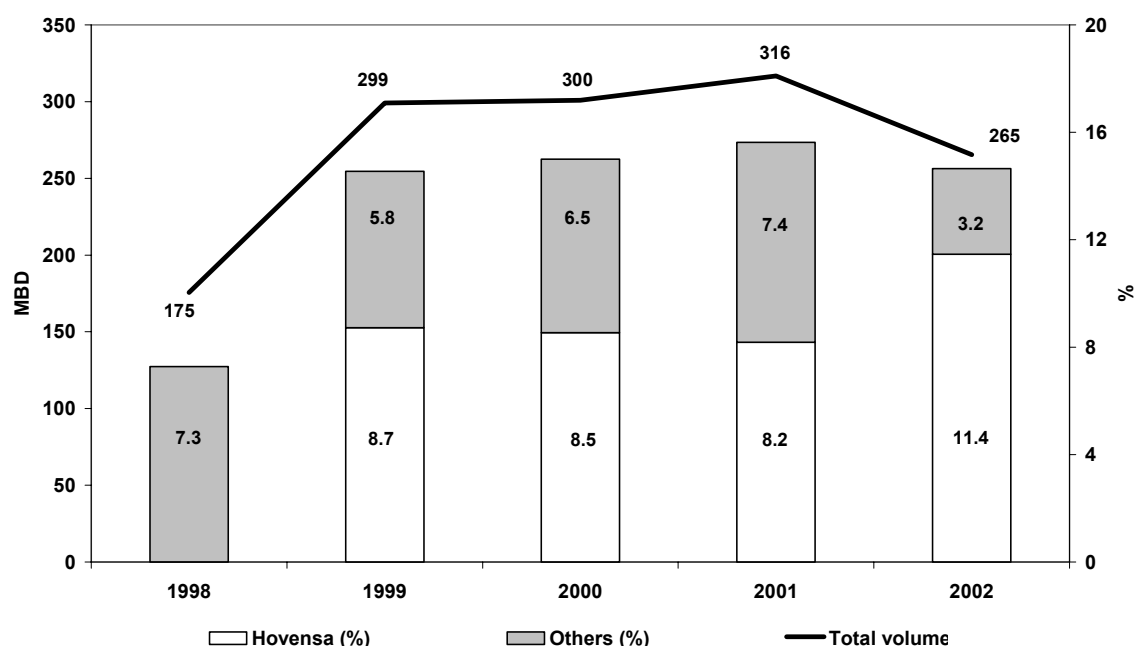
**GRAPH G16. EFFECT OF OPERATIONAL INEFFICIENCY ON REALISED PRICES FOR SHIPMENTS OF VENEZUELAN CRUDE OIL TO REFINERÍA ISLA, 2001 (USD/B)**



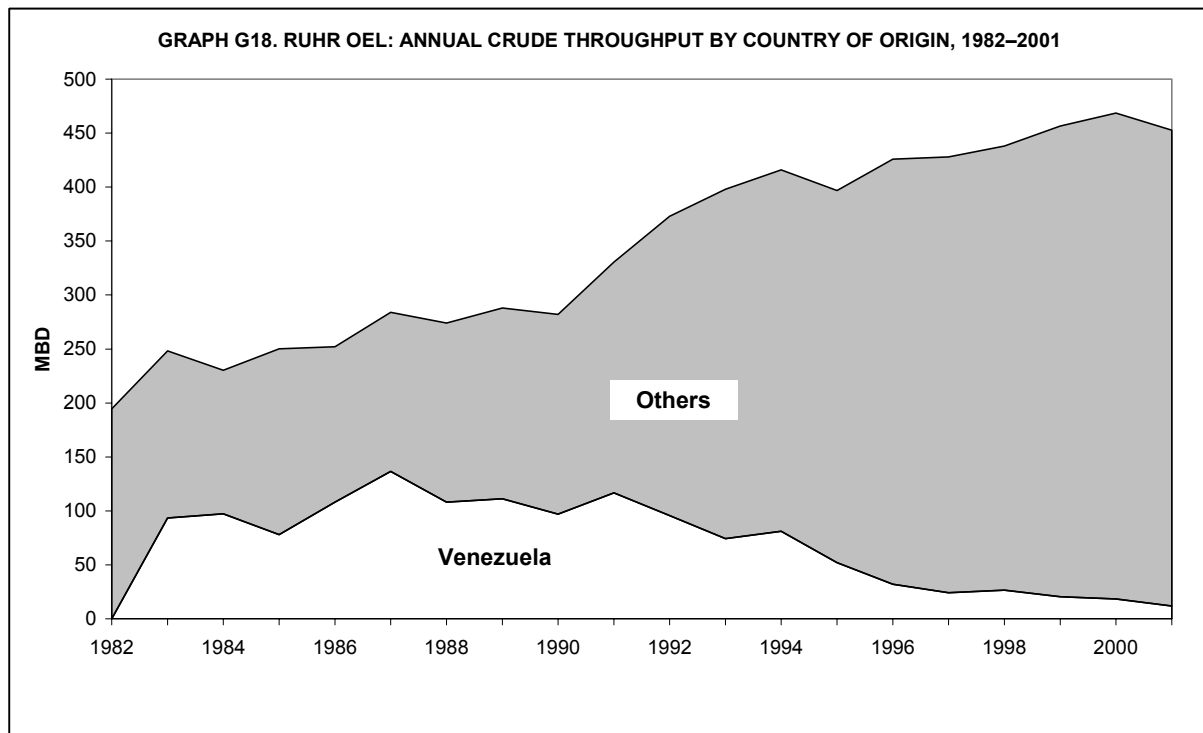
Another way in which the internationalisation programme contributes to shrink PDVSA's taxable base is related to the company's practice of using the Caribbean terminals that it controls (Borco in Bahamas, Bopec in Bonaire, Isla en Curaçao, and Hovensa in St. Croix) as points of sale for a significant proportion of Venezuela's crude oil exports (Graph G17). Realised FOB prices in these terminals are not subject to any fiscal adjustment. This means that cargoes loaded in these terminals are considered, for all intents and purposes, to have loaded in Venezuela. The problem with this is that the costs of both transporting crude to these locations and storing it for its subsequent sale (which together must amount to at least 0.50 USD/B) thereby become deductible as Venezuelan costs for income tax purposes (at a nominal income tax rate of 67.7%), even though these activities were again undertaken abroad. Cost importation considerations are likewise behind PDVSA's decision to transport most of the crude it sells to affiliates in vessels that it owns directly, in spite of the financial and operational risks that this entails, and the poor investment returns associated to the ownership of oil tankers. Out of all the sales of Venezuelan crude to affiliates shipped to refining affli-

ates in the continental USA, approximately 300 MBD are transported in PDV Marina vessels, as are all the crude shipments for Curaçao and St. Croix, and all crude sent for storage purposes to Bopec, Borco and Isla. PDVSA Marina credits the freight costs associated to these shipments against the income generated by these exports.

GRAPH G17. PDVSA: VENEZUELAN CRUDE OIL SALES FOB CARIBBEAN PORTS, 1998–2002

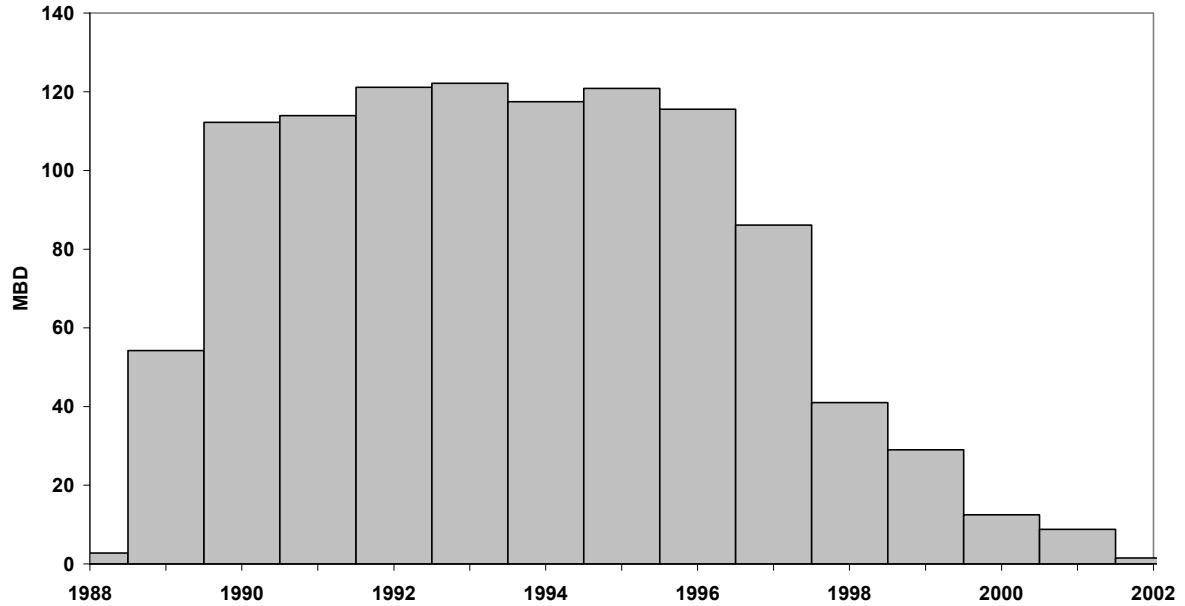


It is ironic that the imperative to integrate PDVSA's operations vertically has been wielded as the main justification for the internationalisation programme, because a large proportion of these costs exist in good measure because PDVSA's refining and marketing system, far from being integrated in the traditional sense of the word (*à la* Exxon, say), runs significant deficits in crude and products. On the crude oil side, the deficit is magnified by the fact that some of PDVSA's foreign refineries process very small volumes of Venezuelan feedstock. This is true for all Ruhr Oel facilities (Graph G18) but especially so in the case of the Schwedt refinery, which has never processed a single barrel of Venezuelan crude. As far as the Lemont refinery is concerned, Venezuelan crude runs at this plant contracted sharply in 1997, after PDVSA bought Unocal out of the Uno-Ven joint venture (Graph G19). In other words, when this refinery belonged in equal parts to PDVSA and Unocal, it sourced much more feedstock from Venezuela than it has done ever since it came under PDVSA's exclusive control.

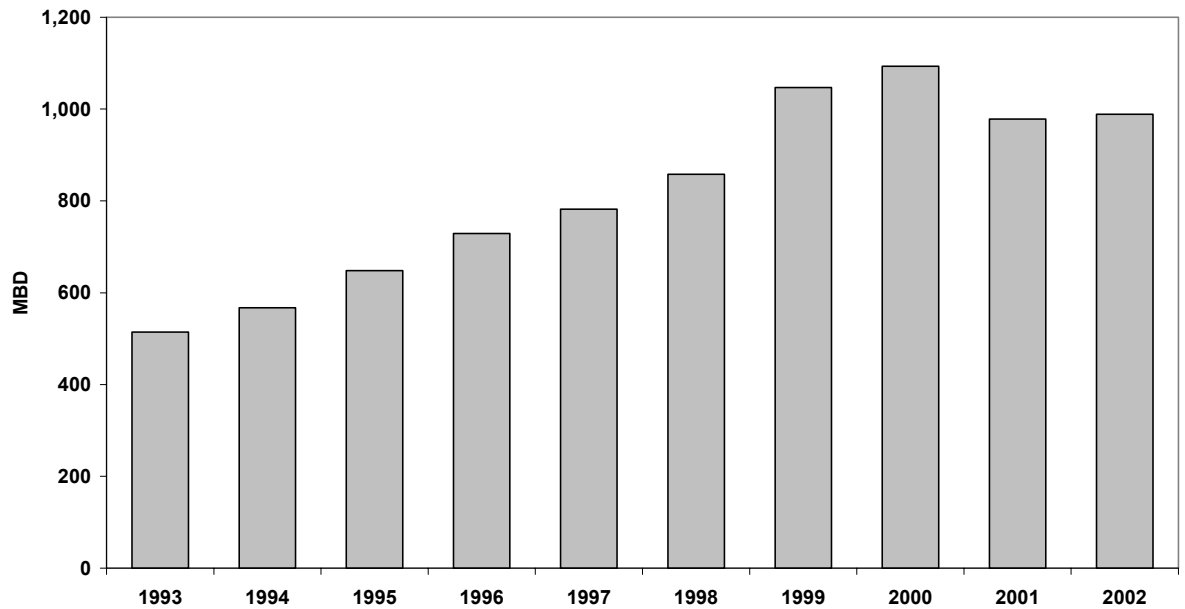


The imbalance in Citgo's product retail operations is even more striking still (Graph G20). In gasoline alone, Citgo's deficit throughout the 1998–2003 period is equivalent to 53 per cent of its sales volumes (890 MBD). However, logistical requirements, time differences and product quality imbalances actually require that the company buy a much larger volume than this in the open market (643 MBD on average, equivalent to 72 per cent of sales volumes). The profitability of retail sites supplied with products purchased for resale, which account for the majority of the 13,540 gasoline stations that fly Citgo's flag, is compromised by the fact that the retail margin on such products is considerably lower than the margin on Citgo produced material. In its business evaluations, Citgo does not segregate manufactured products from products purchased for resale, and the company says that it is not in a position to measure how changes in the volume of products it purchases for resale affect its profits. However, to form an idea about the negative impact that barrels purchased for resale have on Citgo's profitability it is sufficient to bear in mind that product acquisition costs are

**GRAPH G19. PDV MIDWEST LEMONT: ANNUAL IMPORTS  
OF VENEZUELAN CRUDE, 1988-2002**



**GRAPH G20: CITGO PETROLEUM. PURCHASES OF GASOLINE  
AND OTHER PETROLEUM PRODUCTS, 1993-2002**



equivalent to 60 per cent of its cost of sales. Ironically, PDVSA has used the unimpressive profitability of Citgo's unbalanced retail operations in order to underscore the eco-

nomic attractions of buying even more refining assets whose gasoline output could then be used to supply Citgo's station network (that has been the case with the Lyondell-Citgo, Hovensa and Chalmette Refining plants). At no point has there been a serious evaluation of the option that Citgo retire its flag from some of the many marginal stations that it has to supply with volumes purchased in the open market.

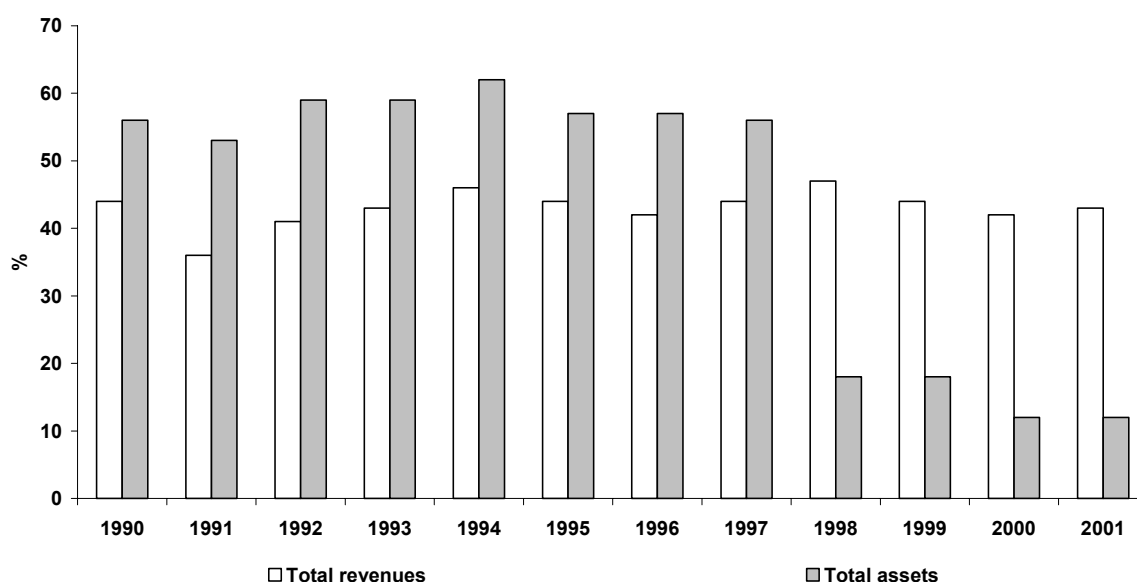
The role of retail marketing activities within the overall framework of the internationalisation programme is not restricted to the generation of costs (although they excel in this department). An even more important function is to ensure that a constant flow of discounted crude will be going through PDVSA's refineries in the USA at all times. In order to achieve this, Citgo sells gasoline to its distributors on the basis of net-back formulae linked to the retail prices of other companies from the areas where Citgo's distributors operate. These formulae guarantee Citgo distributors a gross margin of approximately 10 cents on every gallon of gasoline that they *buy* from the company (Citgo's competitors give their distributors a similar margin on every gallon of gasoline that they *sell*). This, in turn, gives Citgo distributors a clear incentive to maximise their orders from the company and to keep their inventories full at all times, even during periods of uncertainty and volatility in the market. However, even with this mechanism in place, the flow of Venezuelan crude through Citgo's refineries (and the other refineries that keep Citgo supplied with product: PDV Midwest, Chalmette, Lyondell-Citgo, Hovensa) could conceivably be affected temporarily as a result of changes in local market conditions which could render Citgo's gasoline prices uncompetitive against those of some of its competitors. In order to avoid this eventuality, Citgo sells its gasoline at prices which, on average, are consistently the lowest in its peer group (in 80 per cent of the metropolitan markets in which it maintains a retail presence, Citgo's prices are the lowest among the majors operating in those areas).

## **External Audit**

Due to the way in which the internationalisation programme has been structured, the auditors of PDVSA's consolidated financial statements have no direct access to the books either of PDVSA's service companies domiciled in tax havens, or to those of its operating affiliates abroad and their respective holding companies (Graph G21 indicates

the percentage of PDVSA's consolidated assets and income that the auditors have been unable to look at directly since 1990, when Citgo's and PDVSA's accounts were consolidated). Thus, the audit function of the internationalisation programme in Venezuela has had to be carried out exclusively on the basis of cost and income figures contained in financial statements that have been aggregated, consolidated and audited abroad. Although this aggregation and consolidation has been done in keeping with international accounting rules, it has nonetheless rendered the finances of the internationalisation programme opaque to questions aimed at determining the fiscal impact of the programme in Venezuela (questions such as why PDVSA has to pay significant commissions to compensate its service affiliates for the crude oil that these companies sell to their sister refining companies abroad, and how is it that these commissions end up being deducted as costs in Venezuela?). For this reason among others, the Venezuelan government has found itself unable to carry out a truly effective audit function leading to the quantification and assessment of the real costs of the internationalisation strategy, especially as far as the fiscal dimension of these costs is concerned.

**GRAPH G21. PDVSA: PERCENTAGE OF TOTAL REVENUES AND ASSETS NOT AUDITED BY THE AUDITORS OF CONSOLIDATED FINANCIAL STATEMENTS, 1990–2001**

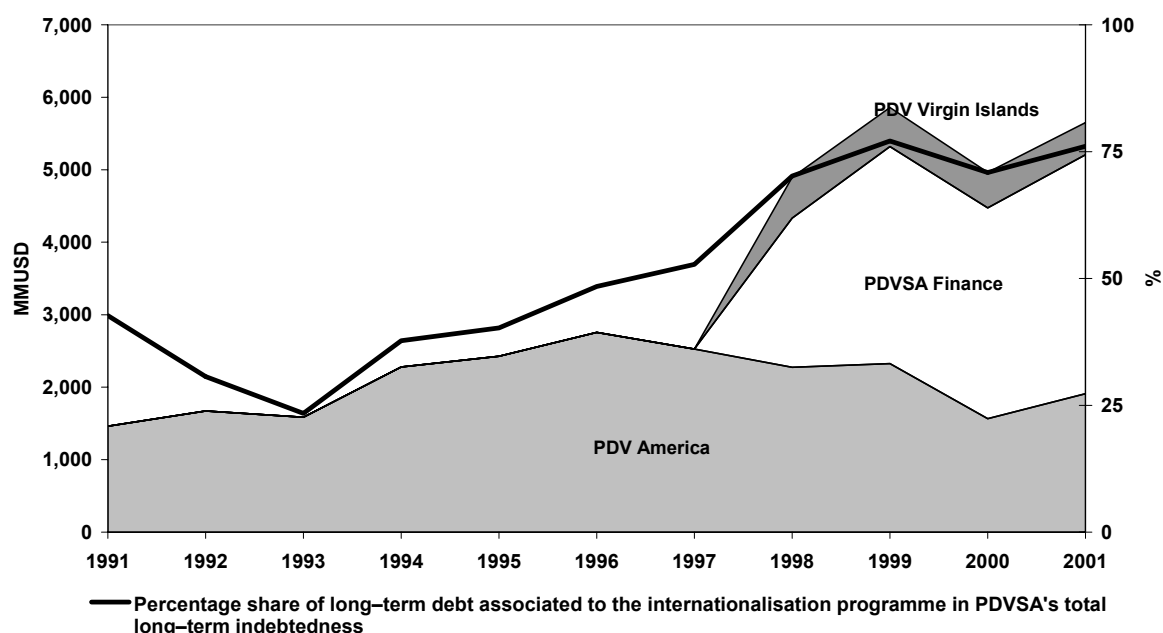


## Debt

From the beginning of the 1990s, the issuance of debt in international capital markets has gradually replaced the recirculation of retained earnings through complex share-holding chains as the main financing mechanism for the internationalisation programme. The leveraging of assets through bond issues is a more attractive option than financing through internally generated funds, for a variety of reasons. Firstly, it allows the cash flows associated to the discounts on Venezuelan crude supplies – the true source of profitability for PDVSA's foreign refining operations – to be pledged as collateral of sorts before they are even generated. Secondly, it allows PDVSA to avoid the risky option of having to concentrate large sums of cash in an entity like Venedu. Thirdly, the discounts make the placement of the bond issues among institutional investors much easier, precisely because they are the guarantee that PDVSA's foreign affiliates will always generate cash flows large enough to cover their financial obligations. Fourthly, the debt issuance in itself functions as a guarantee of the ongoing integrity of the programme, because the contractual commitments that PDVSA and its affiliates have assumed restrict the leeway that the Venezuelan government has to interfere with the affiliates' dividend policies or the disposition of their assets (the debt covenants restrict the capability of affiliates to carry out a series of actions without the previous consent of creditors: declaring dividends, selling assets, contracting new unsubordinated debt, and acquiring new assets, among others). Finally, the interest payments accruing to the bonds are paid from Venezuela, and can therefore be deducted for Venezuelan income tax purposes (on those occasions when the debt issuance has been carried out by a PDVSA affiliate outside Venezuela, interest payments have been relocated to Venezuela by means of a straightforward financial engineering mechanism, with the issuing affiliate lending the net proceeds of the debt emission to PDVSA (the Caracas holding company, that is), and receiving in exchange Mirror Notes for the same amount, bearing the same interest rates.

To an important extent, the expansion of the internationalisation programme drove PDVSA's significant increase in long term debt throughout the 1990s (Graph G22). However, a look at the chronology of the PDVSA-backed debt issuance

GRAPH G22. PDVSA: CONSOLIDATED LONG TERM DEBT ASSOCIATED WITH THE INTERNATIONALISATION PROGRAMME, 1991–2001



associated with the internationalisation programme shows that the first bond issue only took place during 1991, a full eight years after the programme got underway. Given the apparent advantages of asset leverage as a financing mechanism for PDVSA, this begs the question: why did the company take so long to go down this route? The answer is simple: up until the end of 1989, PDVSA did not have a 100 per cent interest in any refinery outside of Venezuela, chiefly because of the existence of a ministerial directive that explicitly forbade such a thing. This precluded PDVSA's joint ventures from being geared at the expense of their capability to declare dividends, because the company's partners in these ventures had no reason not to want to receive dividends (the exact opposite was the case, in fact). The situation changed when Southland (PDVSA's partner in the Lake Charles refinery), under the threat of bankruptcy, decided to sell off its participation in this plant. PDVSA successfully argued that the potential buyer shortlist was full of undesirable partners, and that the best option involved acquiring the part of Citgo that it did not already own. The Venezuelan government of the day gave its consent, in the understanding that PDVSA would try to sell off half of the refinery as soon as it was feasible. Instead of keeping its side of the bargain, though, PDVSA proceeded to leverage the assets by means of a 400 MMUSD bond issue, which thereafter effec-



tively made the sale of these assets highly unlikely. Later on, during 1993, there took place the so-called “recapitalisation of PDV America”, an operation in which this affiliate placed 1,000 MMUSD worth of bonds with international institutional investors. PDV America used part of the proceeds to liquidate an internal credit facility that Venedu had had to extend Citgo in connection with the latter’s 1991 bond issue (Venedu also made a further 200 MMUSD equity contribution to Citgo, in order to fund the acquisition of the Savannah refinery and the initial shareholding in the Lyondell-Citgo joint venture). In this financing operation, PDVSA also availed itself of the mirror note mechanism so that the payment of the interest borne by the notes would be carried out from Venezuela and not the United States.

In recent times, most of PDVSA’s external indebtedness has been channelled through PDVSA Finance, a corporation domiciled in the Cayman Islands and established in 1997 for the issuance of unsecured debt and the acquisition from PDVSA of accounts receivable derived from its sales of crude oil and petroleum products to designated customers in the United States. Strictly speaking, these bonds are not linked to PDVSA assets abroad in the same way that the PDV America bonds were, for instance. The great attraction of this type of structured finance vehicle is that it allows national oil company issuers like PDVSA and PEMEX (the Mexican national oil company) to “pierce the sovereign ceiling”; in other words, to obtain money at better rates of interest than those which creditors are prepared to extend to the sovereign debt of the governments that own them. This is possible because these special purpose vehicles significantly reduce the risk of default: the money used to carry out interest payments comes from designated accounts administered by a fiscal agent, through which all the proceeds of sales to a set of designated customers have to pass before being sent on to their final destination (in Mexico or Venezuela, for instance).

In PDVSA’s particular case, because its American affiliates generate around 50 per cent of the accounts receivable from which institutional investors are paid, there are clauses in the PDVSA Finance agreements that stipulate that PDVSA may not remove any designated customer which is an affiliated customer without the previous consent of the PDVSA Finance board (constituted by PDVSA’s CFO, Treasurer and Manager for Financial Planning and Control, as well as the director of the Cayman Islands Monetary

Authority). The potential consequences attached to a breach of the PDVSA Finance contractual covenants are extremely serious. For this reason, these covenants have probably become the best protection for the internationalisation programme against the interference of the Venezuelan government. For instance, in the hypothetical case that the Venezuelan government had tried to force through the sale of PDVSA's refining assets in the United States, the fiscal agent for the special purpose vehicle could have declared PDVSA in breach of covenant and then proceeded to retain the *whole* of the accounts receivable generated by designated clients in the United States until enough funds were available to pay off the creditors of the vehicle (the balance of PDVSA Finance bond issues to the end of 2001 was 3,300 MMUSD).

The indebtedness associated to the internationalisation programme is not limited to bonds guaranteed by PDVSA. PDVSA's non-consolidated affiliates Lyondell-Citgo, Hovensa, Nynäs, Merex Sweeny L.P.) also have significant amounts of long term debt outstanding (1,400 MMUSD). The net present value of these affiliates is probably less than the sum of their long term liabilities, on the one hand, and the sums that PDVSA has ploughed into them through time (i.e. direct acquisition costs and equity contributions plus the capitalised discounts on crude supplies), on the other hand. This is because the cash flows that these assets would generate in the hands of an operator not affiliated to PDVSA would be significantly lower than those they generate currently, because the high processing rates achieved in these facilities are a function of the discounts in their Venezuelan feedstock. Thus, even if the long term liabilities of these refineries do not entail any claims on the patrimony of the Venezuelan Nation, their magnitude is such that, were these plants to be liquidated, the Venezuelan government would only recoup a fraction of the capital that has been invested in them.

### **Security of Outlet**

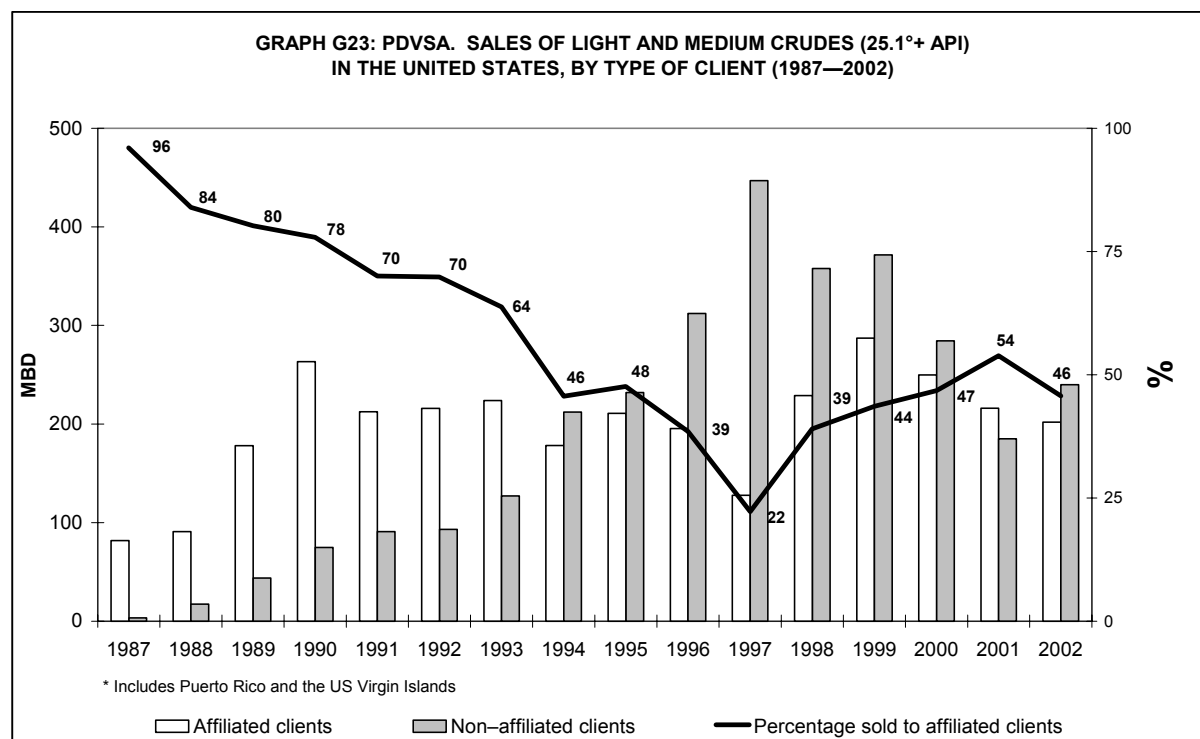
The internationalisation programme has transformed PDVSA into the fourth or fifth largest refining company in the world (in terms of distillation capacity), but only at a very high cost to Venezuela. The programme has had a deleterious impact on the income accruing from Venezuelan petroleum exports due both to the discounts implicit in transfer price formulae and the importation of costs through a porous fiscal ring fence.

The cashflows associated to these discounts have been leveraged in a way that constrains net income after tax and interest payments, so an attempt on the part of the Venezuelan government to force PDVSA to declare significantly higher dividends could conceivably lead to the technical bankruptcy of the company (which can only meet such demands by taking on short term liabilities). Moreover, because potential buyers of these assets would not have access to these discounts – their elimination, after all, would be the whole point of selling the refineries – the amount of money that PDVSA can be expected to realise from their sale will be significantly lower than the value of the capital that has been invested in them (particularly if this value is calculated on the basis of PDVSA's true cost of capital, which is considerably higher than the figures the company uses for project evaluation purposes).

In a nutshell, the strategic objective of placing large volumes of crude in facilities under PDVSA's control has led to erosion in the patrimonial retribution that the Venezuelan Nation receives in exchange for allowing the exploitation of a non-renewable natural resource over which it holds exclusive property and dominion rights. This is grave in itself, but is made even more so by the fact that available evidence indicates that this sacrifice was unnecessary.

A significant proportion (39 per cent, equivalent to 1,976 MMB) of the total volume of crude exported under the auspices of the internationalisation programme is constituted by light and medium crudes (that is, with a gravity of 25°API or greater), whose commercialisation poses no great problems. The bulk of the Venezuelan volume that PDVSA has sent to Ruhr since 1983 has been light crudes (30° API average gravity). In the same way, the volume of light and medium crude processed at Refinería Isla between 1986 y 2002 (135 MBD on average) has exceeded by a significant margin the volume of heavy crude processed (60 MBD on average). This is not surprising, given the rather simple configuration of this refinery. What is more surprising is that, taken as a group, PDVSA's highly complex refineries in the USA (including the American Virgin Islands) have been the most important destination for Venezuelan light and medium exports over the 1986–2002 period (Graph G23). In fact, the ratio of lifting by affiliates against total exports for this period is comparable for heavy grades (53 per cent), on the one hand, and light and medium grades (51 per cent), on the other. This is due to the

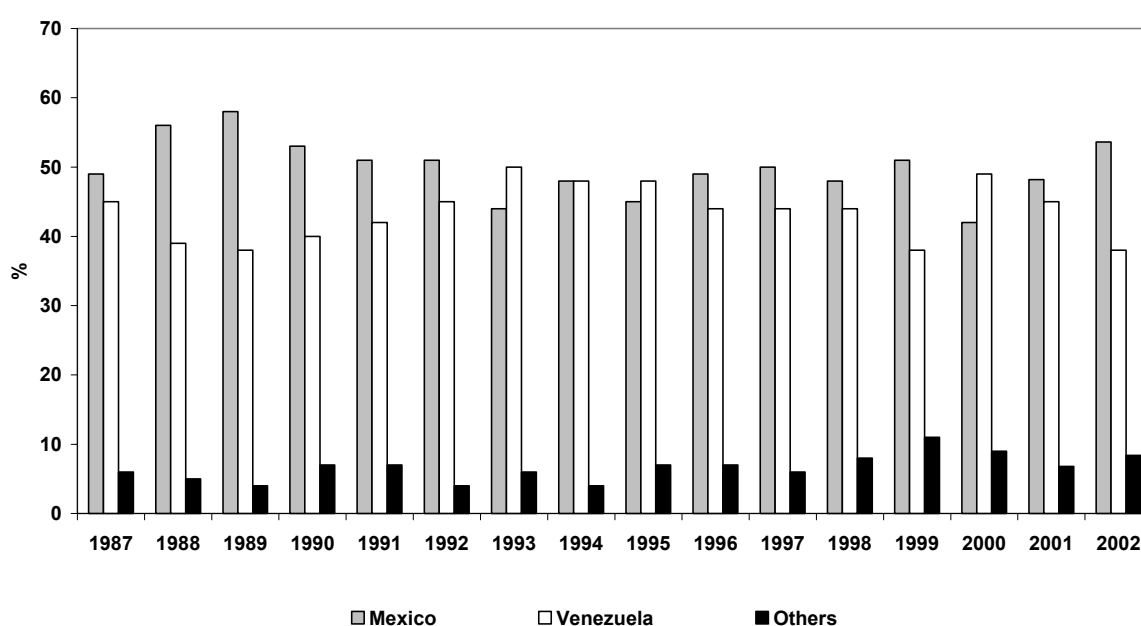
fact that at the end of the 1980s, PDVSA's affiliates in the United States were lifting around 90 per cent of the light and medium crudes exported to this market.



The majority of Venezuelan exports are constituted by heavy (less than 25° API gravity) viscous crudes, with a high content of sulphur, metals, nitrogen and naphthenic acids. The market for such crudes is inefficient and prone to vertical market failure, because they can only be processed in very costly high conversion facilities that convert residual streams into light products. However, although marketing these crudes poses a variety of problems, the lack of international refining assets has not necessarily hampered other oil producers which, like PDVSA, have to sell large volumes of low quality crudes. PEMEX, the only company whose heavy sour crude oil sales are comparable in magnitude to those of PDVSA, has seen its sales of Maya crude oil (22° API, 3.5% sulphur content) in the American market go from 412 MBD to 1,148 MBD. Proportionally, this increase is greater than that registered by PDVSA's sales of Venezuelan crudes with a gravity of 25° API or less, which have gone from 410 MBD in 1987 to 900 MBD in 2002 (this figure does not take into account the fall in Venezuelan exports caused by the strike that paralysed the Venezuelan oil industry at the end of that year). The in-

crease in Mexican exports took place even though the cumulative lifting by the only PEMEX refining affiliate in the United States (located at Deer Park, Texas) only represent about 10 per cent of the total sales of Maya crude in this market since 1987. As can be appreciated in Graph G24, PEMEX's share in the US Gulf Coast heavy sour crude market, the largest of its type in the world by far (and the most important one for both Mexico and Venezuela), is slightly higher than that of PDVSA.

GRAPH G24. ORIGIN OF HEAVY CRUDE OIL IMPORTS BY REFINERIES  
IN THE UNITED STATES GULF COAST (1987-2002)



### The Internationalisation Programme and the Chávez Administration: the Recovery of Fiscal Control

President Chávez inherited from his predecessors an urgent necessity to secure a stable petroleum rent and to halt the collapse in the fiscal contribution of the Venezuelan oil industry. It soon became evident to members of his government that the internationalisation programme was incompatible with reaching either of these two objectives, because PDVSA's international refining and marketing assets made a disproportionate contribution to the company's costs but a negligible contribution to its taxable income, and they also had a negative effect on the liquidation price of Venezuelan crude. However, in the short term, this situation could not be remedied administratively, because the supply contracts between PDVSA and its foreign affiliates were deeply intertwined

with a series of commitments that the company had assumed as a result of bond issues (Citgo 1991 and 1996, PDV America 1993, PDVSA Finance 1997) in international financial markets.

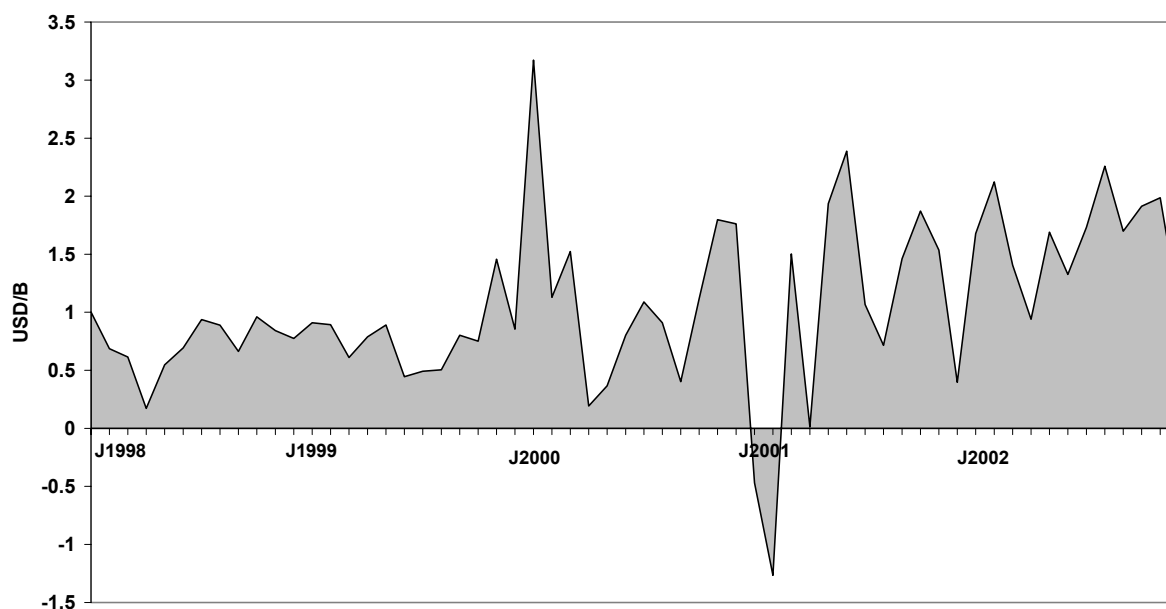
The main action that the government of President Chávez could take in order to prevent further fiscal harm was to refuse PDVSA permission to incorporate additional refineries to the programme. In the year 2000, PDVSA tried to buy Lyondell out from the Lyondell-Citgo joint venture, in order to become the sole owner of a refinery whose supply contract is the most onerous of all the ones in the internationalisation programme. The Ministry of Energy and Mines ordered the immediate suspension of this operation when it was discovered that PDVSA's claims to the effect that it had managed to obtain especially advantageous terms from Lyondell, but for a limited time only, were baseless. The apparent discount in the acquisition price was attributable to the fact that, as part of the original acquisition package for the refinery, PDVSA had been granted a call option on approximately 8 per cent of the joint venture's stock. This call option, whose existence had not been revealed to the Ministry of Energy and Mines, would expire in September 2000; hence PDVSA's urgency to conclude the deal. Later on, during April 2001, PDVSA management overrode the previous objections of the Ministry of Energy and Mines and signed a letter of intent to purchase Lyondell's remaining interest in the joint venture (57.1 per cent of the shares), as soon as the refinancing of the partnership's credit facilities had been finalised. By then, PDVSA had already agreed to guarantee and back any possible loss related to Citgo's investment in Lyondell-Citgo. Once again, the acquisition fell through because the Ministry of Energy and Mines refused to grant its approval, as it considered that liquidating a partial shareholding in a business generating substantial losses was a better option than buying the whole business outright.

As has already been explained, the rescission or unilateral renegotiation of the internationalisation supply contracts or the enforced sale of PDVSA foreign refineries would probably have entailed unacceptable costs for both the Venezuelan government and the country at large. Thus, the government of President Chávez determined that redressing the negative effects on public finances derived from the internationalisation programme was an aim that had to be pursued through fiscal means. As a first step in the process, in September 1999, the Ministry of Energy and Mines gave PDVSA notice

that it was no longer prepared to recognise the royalty agreements in force at that moment, because they allowed prices from transactions with affiliates to be used for royalty assessment purposes. The Ministry of Energy and Mines also notified PDVSA that it wanted to negotiate new agreements that would only use true arm's-length prices to assess royalty obligations. The reason behind the Ministry's objection to the inclusion of transfer prices in the royalty calculation mechanism is not hard to fathom: it is one of the golden rules of fiscal practice worldwide that transfer prices are open to manipulation and, hence, it cannot be accepted that they be used to determine the amount of the taxes or royalties that an enterprise will have to pay. As has been pointed out before, the observance of this elementary principle in Venezuela had lapsed in 1985, when the ministries of Energy and Mines, on the one hand, and Finance, on the other, agreed that financial obligations arising from the export of Venezuelan petroleum would be assessed on the basis of prices declared by the taxpayer, without any distinction being drawn between transfer prices and arm's-length prices (*Gaceta Oficial*, January 11, 1985, No. 33,142).

Graph G25 shows that the volume weighted average liquidation price for Venezuelan crude exports is significantly higher when it does not include transactions with affiliates. Calculating royalties in this way, therefore, would have had a very beneficial impact on the precarious fiscal position of the Venezuelan government. Despite this, PDVSA refused to obey the directive whereby the Ministry ordered the company that royalty assessments be carried out on the basis of arm's-length transactions only. The company's stonewalling only ended in April 2002, when many of its incumbent top managers were removed from office because of their involvement in an attempted rebellion that sought to oust President Chávez from power. Now that this controversy regarding the liquidation of royalties has been resolved (at least in principle), the next step in this process of recovery of fiscal control should be applying the selfsame rule in the calculation of PDVSA's income tax obligations.

GRAPH G25. PDVSA: EFFECT OF EXCLUDING TRANSACTIONS WITH AFFILIATES ON  
THE CALCULATION OF MONTHLY ROYALTY OBLIGATIONS, 1998–2002



Finally, it should be pointed out that one of the fundamental objectives of the new Hydrocarbons Organic Law is to prevent the collection of petroleum rent by the government from being compromised by the integration of exploration and production activities, on the one hand, with transportation, refining and marketing activities (both within and without Venezuela), on the other. Because of this, the Hydrocarbons Organic Law stipulates that oil companies with operations in Venezuela henceforth have to ring fence their operations, maintaining segregated accounting in terms of both volumes and prices for their upstream and downstream operations. As far as PDVSA's international refining and marketing operations are concerned, this legal requirement will lead to the discounts that underpin the profitability of the internationalisation programme being made transparent at last, and hence open to public scrutiny. In addition, it can be expected to align the commercial objectives of the company more closely with the fiscal objectives of the government, and also to prompt PDVSA to restructure its international operations, lest these become as onerous for the company in the future as they have been for the Venezuelan government throughout the last 20 years or so.