REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

UNION GOVERNMENT
NO. 19 (COMMERCIAL) OF 1995

PRICING OF PETROLEUM PRODUCTS
THE WAKE OF ECONOMIC LIBERALISATION

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CONTENTS

PREFACE

A reference is invited to Report No. 1 of 1995 of Comptroller and Auditor General of India wherein it has been mentioned that separate reports are issued to the Government based on review conducted by this Department.

A review of the existing pricing arrangement for petroleum products and the oil industry pool accounts administered by the Oil Co-ordination Committee, functioning under the administrative control of the Ministry of Petroleum and Natural Gas, was conducted and the results thereof have been included in this Report. The review also covers the recent developments in the petroleum sector in the wake of economic liberalisation and their impact on the oil industry pool accounts.

OVERVIEW

I. Introduction

India's consumption of petroleum products rose from 22.35 million tonnes in 1973-74 to 62.3 million tonnes in 1993-94. India is one of the countries which have the highest growth rate in the consumption of petroleum products. Its demand for petroleum products is expected to go up to 107.9 million tonnes by 2003-04 and to 150 million tonnes by 2010.

(Paras 1.1.0 & 1.1.1)

The country's indigenous production of crude oil as well as the refining capacity are not sufficient to meet the overall demand for petroleum products. The gap between the supply and demand is increasing and is met by imports. The net oil import bill for the year 1993-94 was Rs. 16,221 crores.

(Paras 1.1.4 & 1.1.5)

Production/import of crude oil, its refining and marketing of petroleum products (with the exception of lubricants to a certain extent) were till recently done only by the public sector under administered pricing. A change is, however, taking place in the petroleum sector for the last couple of years. Oil fields have been offered for exploitation by foreign/Indian companies in the private sector. Private sector has been allowed to set up refineries. Import of a number of products has been decanalised and parallel marketing of kerosene and LPG under free pricing has been allowed for private sector. These changes and the changes in the international prices of petroleum products have a significant impact on the Government's policies on the distribution and marketing of petroleum products as well as the administered pricing mechanism with consequent effect on the performance of public sector petroleum producing, refining and marketing companies.

(Para 1.2.0)

This study is a review of the existing oil pricing arrangement, namely, `administered pricing mechanism' (APM) in the light of the recent developments in the petroleum sector.

(Para 1.3.0)

II. Pricing Policy for Petroleum

Till 1974, import parity was the basis on which the prices of petroleum products were fixed. Pooling of the indigenous and imported prices of crude oil for the purpose of determining the price of crude oil in the product prices was introduced with effect from March, 1974. With the acceptance of the recommendations of the Oil Prices Committee 1976, retention margins to the refineries and marketing companies were introduced. A few more changes were made as a result of recommendations of the Oil Cost Review Committee (OCRC) in 1984. Though the Government of India set up the Oil Prices Review Committee in 1989, its recommendations (1991) have not been accepted by the Government so far (September, 1995). Thus, even today, the framework of the pricing policy for petroleum products is built on the OPC's recommendations with modifications based on OCRC's recommendations.

(Para 2.1.0)

BPC extracts special cut Naphtha from the normal Naphtha and supplies the same to a private sector company at market determined prices. The extraction of special cut Naphtha results in yield loss of HSD which is imported at a high cost, higher than the administered `transfer' price of Naphtha. The value of yield loss absorbed by the pool accounts on the 680216 tonnes of special cut naphtha sold by BPC from October, 1991 to December, 1994, worked out to Rs.20.81 crores.

(Para 2.3.2 & 2.3.3)

III. Pricing of crude oil

The price paid to indigenous producers of crude oil was fixed at Rs. 1021/- per tonne in July, 1981. This did not undergo any change till September, 1992, when it was raised to Rs. 1506/- per tonne and further in April, 1993 to Rs. 1741/- per tonne.

(Para 3.1.1)

Fixing a uniform price for crude at Rs. 1741 per tonne both for ONGC and OIL did not meet the stated objective of compensating the oil producing

companies for the cost of production and a 15 percent post-tax return on capital employed as the costs of production and capital employed by them were different.

(Para 3.1.3)

The price of crude oil paid by the refineries was uniformly fixed at Rs. 1700/- per tonne in 1986. This was a pooled FOB price on the basis of the then prices of indigenous and imported crude oil and their respective quantities. This has not been revised. The non-revision of the pooled FOB price has an adverse impact on the working capital requirements of the refining companies.

(Para 3.2.0 & 3.2.1)

The Government has been levying an oil development cess on indigenous crude oil. There have been periodical increases in the cess. The cess so collected was meant to be given to the Oil Industry Development Board (OIDB) for use in the development of oil industry. While the cess collected till 1994-95 was Rs. 23,228.50 crores, the amount handed over to OIDB till that time was only Rs. 902.40 crores. In fact, no funds were transferred to OIDB during the last three years ending 31 March, 1995. The funds generated from the cess are not being applied for the basic purpose for which it was levied.

(Paras 3.3.1 to 3.3.5)

IV. Refining cost and related matters

The fixing of standard throughput and the standard product pattern of each refinery is important as it is at this level of throughput that the refinery gets full compensation for the cost incurred and capital invested. Any refinery processing less than the standard throughput is likely to lose and a refinery processing more than the standard throughput will get an extra margin. In respect of most of the refineries the actual throughput was more than the standard throughput during 1990-91 to 1993-94.

(Paras 4.2.4 to 4.2.6)

The fixing of standard throughputs of HPC, Bombay, BPC, Bombay and IOC, Mathura refineries at a comparatively low level resulted in an extra margin of Rs. 2937.82 lakhs in 1992-93 alone to these companies.

(Paras 4.2.7 to 4.2.11)

Some crude oil is consumed as fuel and lost in the process of refining. The ceiling fixed for fuel and loss in refineries is generally high, higher than even the actual loss. Thus, there is no deterrent against higher percentage of fuel and loss.

(Paras 4.3.2 to 4.3.6)

Refineries which have facilities for filling LPG cylinders do not use the facility to full capacity despite an incentive for extra filling as they stand to gain more by maximising bulk supply and minimising supply in cylinders. This is because, under the existing pricing mechanism, the refinery gets compensated for its entire costs, some of which are not even incurred, even without operating LPG bottling plant for filling cylinders.

(Paras 4.5.1 to 4.5.9)

V. Marketing and Distribution

The marketing companies are compensated for their marketing costs, stock losses and return on capital under the retention concept. Analysis of certain selected items of marketing costs revealed that salaries and wages and overheads account for the major portion of the expenditure. Norms for manpower requirement for various marketing activities have not been developed. The marketing margins have not been fixed with reference to norms. In the existing retention concept for compensation of marketing costs, there is no incentive to attempt cost reduction.

(Paras 5.1.3 to 5.1.7)

The marketing companies are permitted to sell petroleum products as restricted by a sales plan entitlement (SPE). The present scheme of SPE allows a uniform growth to all the marketing companies. A company exceeding its SPE has to

surrender a portion of its marketing margin to the deficit company. The SPE in its present form inhibits marketing initiative.

(Paras 5.2.0 to 5.2.4)

VI. Return on Capital

The existing scheme of compensation for return on capital has resulted in generation of adequate internal resources with the oil companies as envisaged, but it has not helped in the deployment of those funds in the business of the oil companies.

(Paras 6.1.2 & 6.1.3)

During the years 1989-90 to 1991-92, the cash rich oil companies earned considerable amount of interest on their investments in financial instruments. The increase in the net worth on account of such earnings also earned 12 per cent post tax return under the administered pricing. On the other hand, for a company which operates at relatively high debt-equity ratio, the returns are less even if the borrowed funds are deployed within the company.

(Para 6.1.4)

The return on capital build up in the existing pricing mechanism is 12 percent post tax on net worth. However, the actual returns on net worth earned by the oil companies during the years 1991-92 to 1993-94 were higher.

(Paras 6.1.5 & 6.1.6)

VII. Product selling prices

The ex-refinery prices of petroleum products have not undergone any change since 1986. Similarly, C & F and FSP surcharges included in the price build up have also remained frozen since 1986. This is not to say that there were no increases in cost of crude oil and other elements. These increases were sought to be recovered through adhoc increases in the Product Price Adjustment without revising the related elements in the price build up.

(Para 7.1.5)

The total subsidies on various petroleum products have been estimated at about Rs. 8500 crores for the year 1994-95. The net impact on account of subsidies will however be much less as these subsidies are offset to a large extent by higher prices fixed for Motor Spirit, ATF, etc.

(Paras 7.3.0 to 7.3.3)

The prices of Naphtha, FO and LSHS supplied for use as feedstock for manufacture of fertilizer are subsidised. However, it was noticed that the prices of these products supplied to fertiliser industry for use otherwise than as feedstock are also subsidised. This is against the Government policy. Though the Government directed (September, 1992) the OCC to develop norms for these products required as feedstock in the fertilizer industry, no concrete steps have been taken in this regard so far (September, 1995).

(Paras 7.4.1 to 7.4.4)

Bitumen is sold in bulk as well as packed in steel drums. The selling price of packed bitumen is higher than the selling price of bulk bitumen as there is an element of extra cost in the form of drums and filling charges in selling bitumen in packed condition. The higher price charged for packed bitumen vis-a-vis bulk bitumen is not commensurate with the additional costs involved in packing it. Further, the cost of drum and filling costs have been going up over the years but at no time after 1986, the cost of drums in the price build up of packed bitumen was revised. Thus, there is an element of inbuilt subsidy in the price of packed bitumen though it is the policy of the Government to promote sale of bulk bitumen. The impact of this subsidy during 1992-93 alone was Rs. 80 crores. In the existing pricing scheme, there is no incentive either to the consumer or to the seller for buying/selling bitumen in bulk.

(Para 7.5.1)

VIII. Oil Industry Pool Accounts

Ever since 1989-90 and until 1993-94, there was a net outflow from the oil pool account each year. This resulted in the net pool balance becoming a deficit of Rs. 605.87 crores by the end of 1993-94 against a surplus of Rs. 9266.94 crores at the

end of 1988-89. The main reason for the deficit in pool account was that while the costs of crude oil, refining and marketing had gone up, the selling prices of petroleum products did not increase correspondingly.

(Para 8.1.2)

The funds of the pool are kept in the `Public Account' of the Government of India. During the year 1990-91, the Government appropriated an amount of Rs. 2300 crores from the pool's money kept in the Public Account to the Consolidated Fund of India. This was written off by OCC from the pool funds. This had contributed to the subsequent net deficit in the pool accounts. If such appropriations to Consolidated Fund of India from the deposits of OCC in the Public Account take place in future also, the possibility of bigger net deficits in the pool accounts cannot be ruled out.

(Para 8.1.3)

The pool owes substantial sums of money to oil companies. While the pool's deposits in `Public Account' do not earn any interest, the pool pays interest at 10.5 percent on the amounts due to the oil companies.

(Para 8.1.4 & 8.1.5)

IX. **Liberalisation and petroleum Industry**

To meet the growing demand for petroleum products and in tune with the policy for economic liberalisation, the Government has opened up the petroleum industry to private sector. Discovered oil/gas fields of ONGC/OIL have been offered to private sector for exploitation under preferential terms which are not available for ONGC/OIL. Thus, there is no level playing field.

(Para 9.1.3)

The Government has also issued letters of intent for setting up a number of new refineries in the joint/private sector. However, the actual setting up of the new refineries will depend, to a large extent, upon the Government's final policy decision regarding pricing and deregulation in the petroleum sector. Continuation of

administered pricing would mean subsidising the new refineries in the private and joint sector by the existing public sector refineries because cost of production in the new refineries would obviously be high. It would also mean continuation of the attendant deficiencies of a `cost plus' system.

(Paras 9.1.4 to 9.1.6)

In the wake of liberalisation, parallel action was not taken to suitably adjust the administered prices. As a consequence, fluctuations in the international prices of some of the decanalised products (which when sold by the public sector major oil companies are under administered pricing) coupled with reduction in customs duty on a number of petroleum/petrochemical products affected the public sector petroleum companies and the exchequer adversely.

(Para 9.2.1)

Because of the unrealistic administered pricing of inputs used in the manufacture of value added free trade products like Benzene, PPFS etc., the public sector major oil companies could not market these products at competitive rates and there was under utilisation of indigenous capacity for manufacture of these products resulting in loss of value addition and avoidable imports.

(Paras 9.4 & 9.5)

The import of RPC was decanalised with effect from April, 1992. However, the administered pricing continued till July, 1993. As the administered price of RPC was much higher than the landed cost of imports the consumers of RPC, started importing the product which resulted in stock piling in the refineries threatening shut down.

(Para 9.6)

Chapter 1

INTRODUCTION

1.1 Petroleum Scenario

1.1.0 India's consumption of petroleum products rose from 22.35 million tonnes (MMT) in 1973-74 to 35.84 MMT in 1983-84 and to 62.3 MMT in 1993-94. The demand for petroleum products is expected to go up to 107.9 MMT in 2003-04 and to about 150 MMT by 2010.

1.1.1 The total consumption of petroleum products during 1982 and 1992 as well as per capita consumption in 1992 of 15 selected countries across the world is shown in the following table:-

Country	Total consumption (in million tonnes) 1982	1992	Percentage increase in 1992 over 1982	Per capita consump--tion in 1992 (in Kgs)
USA	706	781	11	3091
Canada	73	76	4	2798
Brazil	53	60	11	NA
Mexico	61	74	21	NA
France	92	94	2	1656
Italy	91	94	3	1630
Germany	126	134	6	1677
Netherlands	31	36	16	2391
Spain	48	50	4	1282
UK	76	82	8	1430
China	82	128	56	111
India	**35**	**62**	**77**	**72**
Indonesia	22	35	59	194
Japan	208	259	25	2089
S.Korea	24	71	196	NA

1.1.2 It may be observed from the above table that though India's per capita consumption of petroleum products is abysmally low compared to that of the other countries, India has the

second highest growth rate in the consumption of petroleum products, next only to South Korea.

1.1.3 Crude oil is the raw material from which petroleum products are produced by refining. Crude oil in India is produced by the two public sector companies viz. Oil & Natural Gas Corporation Limited (ONGC) and Oil India Limited (OIL). As part of liberalisation in the upstream petroleum sector, the Government of India has also offered some of the proven oil/gas fields of ONGC/OIL for development by foreign/Indian companies in the private sector in joint venture with ONGC/OIL and entered (October,1994/December, 1994/June, 1995) into production sharing contracts with them. The requirement over and above the indigenous production is imported and the import is canalised through Indian Oil Corporation Ltd. The crude oil is refined in the following thirteen refineries in the country all of which are in the public sector at present:-

Refinery	**Owned by**	**Installed capacity for crude throughput as on 31.05.95 in million tonnes**
Guwahati	IOC	1.00
Barauni	IOC	3.30
Gujarat	IOC	9.50
Haldia	IOC	2.75
Mathura	IOC	7.50
Digboi	IOC	0.50
Bombay	HPC	5.50
Vizag	HPC	4.50
Bombay	BPC	6.00
Madras	MRL	6.50
Cochin	CRL	7.50
Bongaigaon	BRPL	2.35
Narimanam	MRL	0.50
		57.40

1.1.4 The table below shows the supply-demand balance of crude oil and petroleum products in the country over the years:-

(in million tonnes)

	Crude oil production	Crude oil import (net)	Refinery capacity	Crude throughput	Production of products.	Import (net)	Consumption/ Demand excluding Refinery fuels	Total net import bill (Rs.in crores)
1979-80 (end of V Plan)	11.77	16.12	45.55	27.47	25.79	4.72	29.88	3246
1984-85 (end of VI Plan)	28.99	7.16	45.55	35.56	33.23	5.16	38.80	3527
1989-90 (end of VII Plan)	34.09	19.49	51.85	51.94	48.69	3.97	54.10	5648
1993-94	27.03	30.8	53.25	54.30	51.08	8.04	60.68	16221

1.1.5 It may be seen that the indigenous production of crude oil and the refining capacity in the country are not sufficient to meet the overall demand of petroleum products and that the gap between production and demand is increasing both for crude oil and for products. As mentioned earlier, the demand for petroleum products by the end of 2003-04 is expected to go up to 107.9 MMT per annum. Against this, while the crude production is expected to stagnate by 1997 at about 45 MMT per annum, the refining capacity is expected to go up to 94.05 MMT per annum. This gap between supply and demand and the international prices for crude/products have a major impact on the balance of payment position of the country as well as on the pricing of petroleum products.

1.1.6 The refined products are marketed by four public sector oil marketing companies (also called major oil companies), namely, Indian Oil Corporation Limited (IOC), Bharat Petroleum Corporation Limited (BPC), Hindustan Petroleum Corporation Limited (HPC) and IBP Co. Limited (IBP). Some special products are, however, directly marketed by the refineries. Lubricants are also marketed by other companies in private/public sector (called minor oil

companies). The marketing of a few products like LPG, kerosene and LSHS have been thrown open to private sector recently under a system of parallel marketing. Under this, in addition to the marketing of these products at administered prices by the major oil companies, the private sector is also permitted to freely import and sell LPG and kerosene at market related prices.

1.1.7 A list showing the petroleum products that are marketed in the country and their classification with reference to pricing is given in Annexure I.

1.1.8 The prices of a majority of petroleum products marketed by the major oil companies are administered by the Government. About 98 per cent of the petroleum products by volume are under administered pricing. Even in respect of free trade products like lubricants, benzene etc., the prices of feedstock and fuel used for their manufacture are administered. The margins to the refineries and marketing companies to meet their operating costs and earn a return on their investments are on the retention concept. Under the administered pricing and retention margins, the oil companies adjust their claims and surrenders in an oil industry pool. For this purpose, a number of pool accounts are operated and administered by the Oil Co-ordination Committee (OCC). A net deficit in the pool account would mean that the Government of India has a liability to pay a corresponding amount to the oil companies.

1.2 Changing Indian scenario

1.2.0 A sea change is taking place in the petroleum sector for the last couple of years. A number of oil fields have been offered for exploitation by foreign/Indian companies in the private sector. Similarly, refining and, to some extent, marketing of petroleum products have been thrown open to private sector. Public sector oil companies have been allowed to form joint ventures with foreign as well as Indian companies in the private sector. Import of a number of petroleum products, which was hitherto canalised through Public Sector Undertakings, has been decanalised. Custom/Excise duty rates on petroleum products have been significantly changed. These changes and the changes in the international prices of petroleum products have a significant impact on the Government's policies on the distribution and marketing of petroleum products as well as administered pricing scheme with consequent effect on the performance of public sector petroleum producing, refining and marketing companies.

1.3 Scope of audit

1.3.0 The oil pricing arrangement in the country was last reviewed by the Comptroller & Auditor General of India in Audit Report (Commercial) No.7 of 1989 of the Union Government. That report covered the period upto 1987-88. The present study is essentially a review of the existing oil pricing arrangement in the light of the recent developments in the petroleum sector in the country and their impact on the oil industry pool accounts. The review also covers a study of fixing of standard throughputs of refineries, incentives and marketing arrangements. For this purpose, all relevant data for the period from 1988-89 to 1993-94 (1994-95 figures wherever available) have been collected and analysed. An attempt has been made to study the impact of decanalisation and removal/reduction of tariff on import of various petroleum products in the wake of economic liberalisation.

Chapter 2

PRICING POLICY FOR PETROLEUM PRODUCTS

2.1 Historical background

2.1.0 Prior to 1974, import parity was the basis on which the prices of petroleum products were determined. The concept of import parity was abolished in the year 1974 and the pooling of prices of indigenous and imported crude oil for the purpose of fixing the prices of the petroleum products was started from March, 1974. The main reasons for the abolition of import parity was that the imports formed less than 10 percent of the total demand of the country and that the additional requirement of petroleum products in the future years was expected to be met by refining additional indigenous crude oil in India. The Government of India set up the Oil Prices Committee (OPC) in 1974. The recommendations of OPC were accepted by the Government in 1976. Retention margins were introduced for refining and marketing activities. A few more changes were made as a result of recommendations of the Oil Cost Review Committee (OCRC) in 1984. Though the Government of India set up the Oil Prices Review Committee in 1989, its recommendations (1991) have not been accepted by the Government so far (September, 1995). Thus, even today the framework of the pricing policy for petroleum products is based on the OPC's recommendations with modifications based on OCRC's recommendations.

2.2 Salient features of the present pricing policy

2.2.0 The salient features of the present pricing policy for petroleum products are:-

a) Well head price of the indigenous crude oil to the crude oil producers at the weighted average of cost of production of ONGC and OIL plus 15 per cent post-tax return on capital employed.

b) Pricing of crude oil at a uniform FOB cost to all the refineries based on the pooled FOB price of indigenous and imported crude oil irrespective of whether they process indigenous crude or imported crude. Other costs of bringing the crude oil to the refineries are reimbursed at actuals. In the case of imported crude, ocean loss of oil at 0.5 percent on C & F cost of crude oil is allowed.

c) Refining costs and return (refining margins) on retention basis. Every three years, the Government determines the standard refining cost and return on capital employed for each refinery. The standard refining cost plus return on capital employed when divided by the crude throughput gives the retention margin per tonne for that refinery. This remains constant for that refinery during the three year period. However, certain types of annual escalations are allowed over and above the retention margin.

d) Retention price of petroleum products for each refinery - The retention price per tonne of a product is arrived at by first arriving at the retention price per tonne of crude throughput. Retention price per tonne of crude throughput comprises cost of crude oil plus refining cost and return on capital. This is then allocated to each product by a set of indices. The index of kerosene has been taken as 1. The indices of other products have been developed taking into account factors like present and prospective demand and supply, ability of individual products to bear additional charges, their end use pattern etc.,

e) Product-wise uniform ex-refinery price, which is the weighted average of retention prices of all the refineries taken together for that product plus a uniform addition of Rs.25 per selling unit (KL or MT). This is the price at which the refineries transfer the product to a marketing unit. The difference between the retention price and the ex-refinery price is surrendered to/claimed from the oil pool account.

f) Marketing costs and return (marketing margins) on retention basis.

g) Return on capital employed (net fixed assets plus normative working capital) at 12 percent post tax on the portion attributable to net worth and at the actual average cost of borrowings for the portion attributable to borrowings separately for refining and marketing.

h) Product-wise uniform ex-storage point price at the refinery point by averaging the marketing margins- The ex-storage point price consists of ex-refinery price, excise duty, marketing margins, various surcharges built into the price to cover specific under-recoveries due to charging uniform consumer price irrespective of actuals incurred and product price adjustment (PPA). PPA is the medium

through which cross subsidisation of product prices on socio-economic considerations takes place.

i) Refineries as primary pricing points and demarcation of pricing zones attached to the pricing point. The price of petroleum products at all primary pricing points will be uniform. The price at a location within the pricing zone assigned to a pricing point will be the ex-storage point price plus notional railway freight to that location from the pricing point plus local taxes.

j) Updation of refining and marketing margins once in three years.

2.2.1 A flow chart showing the build up of ex-refinery, ex-storage point and consumer retail price of petroleum products is given in Annexure II.

2.3 Product indices

2.3.0 For allocating the total cost of production of the refinery to individual products, the OPC 1976 evolved a set of indices for different products. These indices were developed keeping the index of kerosene, which is an article of mass consumption, as 1. The ex-refinery price of a product with an index of more than 1 will be higher than ex-refinery price of kerosene and vice-versa. That is why the ex-refinery price of MS and Naphtha, the indices of which are less than 1, are lower than that of kerosene and the ex-refinery price of LPG which has an index of 1.15 is more than that of kerosene. In the words of OPC, "these indices are based on the considered judgement of the committee which took into account factors like present and prospective demand and supply, ability of individual products to bear additional charges, their end use patterns, refinery economics and other relevant technical factors. Broadly, these indices reflect the national requirement as we have been able to assess". The indices worked out by OPC were modified by OCRC based on the then supply and demand position in the country, prevailing international prices of the various petroleum products, the need to encourage production of deficit products to conserve foreign exchange and discourage production of products which were surplus to our country's requirements. The table below indicates the indices as recommended by OPC in 1976, as considered by Government of India in 1984 on the basis of recommendations of OCRC and existing as on date, and as recommended by OPRC (1991) in respect of certain products:-

	OPC from 1976	As existing from 1984	Rec by OPRC in 1991
SKO	1.00	1.00	1.00
MS	1.05	0.95	1.10
Naphtha	0.98	0.90	0.90
HSD	0.95	0.95	0.95
LPG	1.15	1.15	1.20
RPC	-	0.70	0.70

2.3.1 As mentioned earlier, the recommendations of OPRC have not been accepted so far (September, 1995) and the indices as fixed in 1984 continue even to-day.

2.3.2 These indices have a limited role. They provide a basis for allocating the total cost of production of a refinery to fix the product-wise retention prices. The ultimate price to the consumer is, however, largely determined by the Product Price Adjustment (PPA) element. These indices assume a significance when certain special cuts, which are not in the main stream, are taken. For instance, the index for naphtha is low at 0.90 (though it is a high value product) mainly because its production is surplus to the requirements. In 1987, BPC entered into an agreement with a private sector petrochemical company for the supply of Special Cut Naphtha (110-140 cut). Initially, BPC was supplying the wide cut (normal) naphtha under normal administered pricing. The special cut was extracted by the customer. Later, BPC installed (1991) facilities at a cost of Rs.32.52 crores for taking out the special cut and started supplying the special cut from October, 1991. Extraction of special cut naphtha affects the production of HSD, which is imported by the public sector at a high cost and sold at a subsidised price. It was estimated (December, 1987) by OCC that the yield loss in HSD would be 100 tonnes for every 75 tonnes of special cut naphtha supplied to the customer. An earlier decision (April, 1988) by the Government of India to impose a yield penalty of Rs.306 per tonne on this special cut naphtha was withdrawn (August, 1988) even before implementation.

2.3.3 The existing arrangement is that wide cut naphtha consumed by BPC for taking the special cut is treated as a feedstock at the administered price for naphtha and the special cut naphtha is sold by it to the customer as a free trade product at market prices. The loss to the exchequer due to reduction in the production of HSD and its consequent import is, however, not compensated. The value of yield loss absorbed by the pool accounts on the 680216 tonnes

of special cut naphtha sold by BPC from October, 1991 to December, 1994, calculated at the rate of Rs.306 per tonne, worked out to Rs.20.81 crores.

2.3.4 The Ministry stated (September, 1995) that the transfer price of Naphtha was fixed in such a manner that interest of pool account was adequately protected. The Ministry further stated that production of Naphtha was more than its demand and what was not consumed had, therefore, to be exported.

2.3.5 The Ministry's reply was not relevant as the above audit point relates to the extraction of special cut Naphtha in particular and not to Naphtha in general. The Ministry's reply was also silent about the loss to the exchequer due to reduction in production of HSD and its consequent import. As already mentioned, HSD is a deficit product and its import cost is higher than its administered selling price. Any shortfall in production is to be made good by additional imports and the price differential is borne by the exchequer.

Chapter 3

PRICING OF CRUDE OIL

3.1 Price of indigenous crude oil

3.1.1 The price paid to the indigenous producers of crude oil was fixed at Rs.1021 per tonne with effect from 11 July, 1981 by the Government on an adhoc basis. Thereafter the base price was not revised for a considerably long period till 16 September, 1992 when it was raised to Rs.1,506 per tonne and further increased to Rs.1,741 per tonne with effect from 1 April, 1993. The Ministry stated that these revisions were based on the following considerations:-

i) Due to unremunerative price of indigenous crude oil, ONGC and OIL were unable to generate resources for developing more oil fields and undertake exploration in new areas.

ii) The domestic well head price of crude oil should be so determined as to compensate ONGC and OIL for the cost of production and to give a reasonable return on investment. The well head price of crude oil is weighted average of cost of production of ONGC and OIL plus 15% post-tax return on capital employed.

3.1.2 The table below indicates the cost of production of crude oil (including return on investment @ 15%) by ONGC and OIL for the three years ending March, 1993:-

(Rs.per tonne)

	1990-91	1991-92	1992-93
ONGC	1228	1460	1714
OIL	1662	2067	1990

Note:-The above costs do not include the royalty and cess which are initially paid by the oil producing companies but subsequently recovered from the refineries/pool accounts.

3.1.3 As can be seen from the above table, the cost of production of crude oil of ONGC and that of OIL are not the same. Therefore, the fixing of crude oil price by the Government at a uniform price of Rs. 1741 per tonne for both the companies did not meet the objective of compensating the oil producing companies for the cost of production and a 15 per cent post tax return on capital employed.

3.2 Pooled FOB price of crude oil

3.2.0 As mentioned earlier, the price of crude oil paid by the refinery is a pooled FOB price which is determined by pooling the indigenous and imported price of crude oil. The pooled FOB price was uniformly fixed at Rs.1700 per tonne in 1986. This has not been revised since then even though the international crude price in terms of Indian rupees and the cost of production of indigenous crude as also their respective proportions had changed substantially.

3.2.1 The non-revision of pooled FOB price has an impact on the working capital of refining companies. The working capital compensation to refineries is based on pooled FOB cost. Whereas the actual cost of holding has gone up steeply, the pooled FOB price which was fixed at Rs.1700 per tonne way back in 1986 has remained at that level itself.

3.2.2 The Ministry stated (September, 1995) that as the existing pricing mechanism was based on the principles indicated by OCRC and the pooled FOB price of Rs.1700 per tonne was fixed as per their recommendation (July, 1984), the pooled FOB price had not been revised. The Ministry also stated that in the retention concept of compensating oil companies, it did not affect the working of refineries.

3.2.3 The non-revision of the pooled FOB price does affect the calculations for requirement of working capital and hence the return thereon to the refineries. The refineries initially pay for the crude acquired by them at the market price/administered price depending on imports/ indigenous crude. Then, as and when the crude is processed by these refineries, the difference between the pooled FOB cost and the actual cost is adjusted in pool accounts. Therefore, for the holding period of the crude, the working capital of the refineries is affected.

3.2.4 Further, the existing pooled FOB price has no relation to the present cost of crude oil.

3.3 Oil industry development cess

3.3.1 The Government has been levying oil development cess on indigenous crude oil for the specific purpose of generating funds for investment in oil industry. There have been periodical increases in the rate of cess. The last such increase was with effect from 1st February, 1989 when the cess on crude oil was revised from Rs.600/- per tonne to Rs.900/- per tonne.

3.3.2 The table below indicates the position of cess collected by the Government and the amounts handed over to Oil Industry Development Board (OIDB) for funding the development of oil industry:

(Rs. in Crores)

Year	Net proceeds of cess credited to Consolidated Fund of India	Payments to OIDB under Sec. 16 of the OIDB Act	Grants/Assistance to Oil Industry by OIDB		
			Grant	Loan	Total
From inception upto 1986-87	4,311.07	604.50	27.94	1484.59	1512.53
1987-88	1,794.50	-	5.42	242.01	247.43
1988-89	2,000.15	63.09	11.37	260.39	271.76
1989-90	2,895.04	50.00	8.64	241.09	249.73
1990-91	2,766.50	89.81	6.52	294.94	301.46
1991-92	2,483.88	95.00	9.71	1029.83	1039.54
Sub Total	**16,251.14**	**902.40**	**69.60**	**3552.85**	**3622.45**
1992-93	2,192.91	-	11.29	706.20	717.49
1993-94	2,160.89	-	12.22	915.82	928.04
1994-95*	2,623.56	-	26.15	276.27	302.42
Sub Total	**6,977.36**	-	**49.66**	**1898.29**	**1947.95**
Total	**23,228.50**	**902.40**	**119.26**	**5451.14**	**5570.40**

* Provisional figures.

3.3.3 As can be seen from the above table, out of net collection of Rs.16,251.14 crores upto 1991-92, only Rs.902.40 crores was handed over to OIDB. Further, no funds were transferred to OIDB during the past three years out of a total collection of Rs. 6977.36 crores made during this period.

3.3.4 The standing committee of Lok Sabha attached to the Ministry of Petroleum & Natural Gas had noted (November, 1994) that the Finance Ministry had not increased the allocations to the OIDB even when the petroleum sector was starved of resources and observed, *"it is regrettable that the large funds collected for a specific purpose have been utilised by the Government to control their budgetary deficit".*

3.3.5 As the funds generated from the cess are largely not being applied for the basic purpose for which it was levied, the imposition of cess itself loses much of its justification.

Chapter 4

REFINING COST AND RELATED MATTERS

4.1 Retention Price for Refinery

4.1.0 The concept of product-wise retention price for each refinery, which was introduced in 1975 in substitution of earlier concept of import parity price, consists of three major elements viz., cost of input (crude oil), refining cost and return on capital. The retention price, which is specific to each refinery, is worked out taking into account the following:-

(i) the delivered cost of crude;

(ii) the level of crude throughput (standard throughput);

(iii) standard pattern of production;

(iv) the cost of processing and refining; and

(v) a reasonable return on capital employed.

4.2 Standard Throughput

4.2.0 For the purpose of calculating the retention price for the products for each refinery, OPC 1976 fixed a standard crude throughput and standard product pattern for each refinery taking note of crude availability, secondary processing facilities available, off-site facilities and other relevant technical factors.

4.2.1 The fixing of standard throughput and standard product pattern for each refinery is important as it is at this level of throughput and production that the refinery gets full compensation for the costs incurred by it and the return on its investment. In other words, standard level of throughput thus fixed is designed to ensure full recovery of their cost/return through the unit rate fixed. If the refineries are not able to achieve the standard throughput, there will be under-recovery in respect of fixed expenses and return and in case a refinery achieves a throughput more than the standard fixed, it gets an extra margin.

4.2.2 As per the practice, the standard throughputs of the refineries are reviewed by OCC if any major expansion schemes/new projects are commissioned at the refineries or whenever Ministry of Petroleum & Natural Gas directs for general updation of standard product pattern of the refineries. Whenever subsequent updations are carried out, all the improvements in actual performances are to be taken into account for fixing the new pattern.

4.2.3 Standard crude throughputs of the refineries are revised by OCC based on the recommendations of Expert Committee appointed for the purpose after taking into account the actual daily crude intake achieved on sustained basis with 20 days annualized shutdown and after allowing 5 percent contingency in the case of primary processing unit.

4.2.4 The last general updation of standard crude throughput/standard product pattern was made applicable from 1 April, 1993. Although the Ministry stated (September, 1995) that while fixing the new Standard Product Pattern, the new facilities, crude availability, secondary processing etc., were taken into account, the report of the Committee based on which the standard throughput was fixed was not furnished to Audit even though called for.

4.2.5 The standard and actual throughputs of various refineries for the three years ended 31 March, 1994 are given below:-

'000 tonnes

Refinery	Standard Throughput w.e.f.1.4.89	Actual Throughput 1991-92	1992-93	Revised S.T. w.e.f .1.4.93	Actual Throughput 1993-94
HPC, Bombay	5200	4700	5842	5500	5984
BPC, Bombay	6000	6950	7242	6750	7207
CRL, Cochin	4150	4849	5158	4700	4856
MRL, Madras	5100	5530	5314	5900	5715
HPC, Vizag	3900	3929	4535	4300	4485
IOC, Haldia	2500	3037	3050	2750	3113
IOC, Koyali	9000	9357	9749	9100	9431
IOC, Mathura	7100	8236	7835	7500	8532
IOC, Barauni	3000	2262	2287	2100	2221
IOC, Guwahati	800	862	810	800	861
IOC, Digboi	500	545	546	500	586
BRPL, Bongaigaon	1000	1162	1117	1100	1200

4.2.6 It may be observed from the above table that during 1992-93 in respect of all refineries except Barauni the actual throughput had clearly exceeded the standard throughput. The excess of actual throughput over the standard throughput ranged from 1.25 percent to 24.29 percent. Even with the revised standard throughput, the actual throughput in 1993-94 of all refineries except MRL, Madras had clearly exceeded the standard throughput. In case of Mathura refinery, it has exceeded the standard throughput by over one million tonnes and in case of HPC, Bombay and BPC by almost half a million tonnes. The excess of actual throughput in 1993-94 over the revised standards ranged from 3.32 percent to 17.20 percent.

4.2.7 The points noticed in a test check of fixing of standard throughput of three refineries are discussed below:-

HPC Refinery, Bombay

4.2.8 The standard throughput of the refinery was fixed at 5.2 million tonnes per annum with effect from 1 April, 1989. This corresponds to a level of 15,073 tonnes per day (TPD) based on 345 onstream days (20 days are for planned shutdown). As against this, the refinery achieved an actual throughput of 16679, 16176, 13623, and 16934 TPD during 1989-90 to 1992-93 respectively.

BPC Refinery, Bombay

4.2.9 The standard throughput of this refinery was fixed at 6 million tonnes per annum with effect from 1 April, 1989. This corresponds to a level of 17391 TPD based on 345 onstream days. As against this, the refinery achieved an actual throughput of 20501, 20149, 20269 and 20991 TPD respectively during the years 1989-90 to 1992-93. As a result, the actual throughput exceeded the standard throughput by 1.242 million tonnes (an increase of 20.70%) in 1992-93.

IOC refinery, Mathura

4.2.10 The standard throughput of this refinery was fixed at 7.1 million tonnes per annum with effect from 1 April 1989. This corresponds to a level of 20580 TPD based on 345 onstream days. As against this, the actual throughput achieved was 22662, 23872, 22710

respectively during 1990-91 to 1992-93. As a result the actual throughput exceeded the standard throughput by 1.136 million tonnes (an increase of 16%) in 1991-92.

4.2.11 It would be observed from the above data that the actual throughput achieved was much higher than the standard except in the case of HPC, Bombay for the year 1991-92. As mentioned earlier, in case a refinery achieves a throughput more than the standard, it gets an extra return. The additional return to these refineries in 1992-93 alone as a result of low level of standard throughput was Rs.626.08 lakhs in the case of HPC Bombay, Rs.1626.65 lakhs in the case of BPC Bombay and Rs.685.09 lakhs in the case of Mathura.

4.2.12 The method of fixing the standard throughput also indicated that OCC was not really looking at the technical improvements that were made during the years which have the effect of increasing the throughput capacity of the refinery.

4.2.13 The Ministry stated (September,1995):-

"The standard throughputs are fixed taking into account the normal achievable capacity and any increase in the throughput is attributable to the efficient functioning of the refineries, squeezing the shutdown period compared to standard due to better management of the resources. At times, due to higher seasonal demand in geographical location of the refinery and infrastructural shortcomings for imports, refineries are advised to operate at maximum achievable capacity. For example, Mathura refinery being the only refinery in Northern India feeding to major consumption zones is always forced to operate at peak performance level. The refinery would not get the normal schedule maintenance periods in view of product supplies. However, the expert Committee has taken note of consistent and sustained performance at higher level coupled with new facilities to be put up in the refinery while fixing the (revised) standard throughput."

4.2.14 The Ministry's reply is not convincing. Considering a figure which is lower than what was actually achieved in the past and thereafter providing for further contingencies cannot be termed as equal to the normal achievable capacity. When a refinery achieves a considerably higher actual throughput consistently over the years, it cannot be just considered as adjustments due to higher seasonal demand, infrastructural shortcomings for imports, etc. Further, reducing the preventive shutdown period from the normal standards on a consistent basis would only indicate that either the normal shutdown period is too long or the reduction

is not in the interest of the efficiency of the refinery. As regards Mathura refinery, even after revision in standard throughput to 7.5 MMTPA w.e.f. 1 April, 1993, the actual throughput was much higher at 8.532 MMT in 1993-94.

4.3 Fuel & Loss

4.3.0 In the course of refining process, the refinery itself consumes certain quantity of crude oil as fuel and certain quantity of crude is lost. Since both these factors ultimately reduce the net availability of crude oil for refining, they should be minimised with reference to a given pattern of production to achieve the maximum efficiency. For the purpose of working out the retention price, certain fixed percentages are allowed towards the fuel and loss for each refinery.

4.3.1 OPC 1976 recommended certain ceilings of fuel and loss in their interim report which were later on revised in their final report based on a detailed study conducted by the technical wing of OCC. These ceilings were further revised by OCRC 1984 taking into account the latest crude mix and secondary processing facilities which had been added to various refineries since OPC 1976.

4.3.2 The ceilings were revised by OCC in respect of certain refineries which went through expansion after OCRC report. Thereafter, the OCC further revised these ceilings with effect from April, 1989 and again from April, 1993. The following table gives the position of Fuel & Loss ceilings existing from time to time:-

(Figures in percentage of throughput)

Refinery	OPC 1976	OCRC 1984	Revised effective from April, 1989	Revised effective from April 1993
BPC, Bombay	5.81	5.06	6.9	5.9
HPC, Bombay	5.36	5.94	6.3	4.95
HPC, Vizag	7.44	8.64	6.5	6.53
MRL, Madras	8.77	7.36	7.8	6.8
CRL, Cochin	5.58	4.03	5.8	5.94
IOC, Guwahati	9.00	9.00	9.1	8.50
IOC, Barauni	7.55	7.17	8.5	9.05
IOC, Gujarat	5.35	7.50	6.0	5.53
IOC, Haldia	9.56	8.48	10.0	6.87
IOC, Mathura	...	6.61	5.7	5.76
IOC, Digboi	5.24	3.40	14.6	14.80
BRPL, Bongaigaon	...	11.00	9.8	7.64

4.3.3 The table below indicates the position of actual losses vis-a-vis their respective ceilings in respect of refineries:-

Refinery	Standard	Actual			Percentage excess of standard over actuals		
		90-91	91-92	92-93	90-91	91-92	92-93
HPC, Bombay	6.3	5.5	5.6	5.4	14.55	12.50	16.67
HPC, Vizag	6.5	6.8	6.4	5.7	(4.41)	1.56	14.04
BPC, Bombay	6.9	5.4	5.1	5.4	27.78	35.29	27.78
MRL, Madras	7.8	7.3	6.9	7.3	6.84	13.02	6.85
CRL, Cochin	5.8	4.9	5.5	5.1	18.37	5.45	13.72
IOC, Haldia	10.0	8.2	8.0	7.9	21.95	25.00	26.58
IOC, Koyali	6.0	5.5	4.7	4.9	10.91	27.66	22.45
IOC, Mathura	5.7	5.2	5.0	5.2	9.62	14.00	9.62
IOC, Guwahati	9.1	8.8	8.0	7.5	3.41	13.75	21.33
IOC, Barauni	8.5	8.3	8.0	7.5	2.41	6.25	13.33
IOC, Digboi	14.6	13.4	13.0	13.5	8.96	12.31	8.15
BRPL, Bongaigaon	9.8	7.5	7.4	7.4	30.67	32.43	32.45

(Actuals from 1993-94 onwards were not available).

4.3.4 From the above it is evident that as compared to ceilings fixed there has been saving in fuel and loss during all these three years in almost all the refineries and in terms of percentage the saving ranged between:-

BPC, Bombay	21.74 and 26.08
IOC, Haldia	18 and 21
BRPL, Bongaigaon	23.47 and 24.49
IOC, Koyali	8.33 and 21.67
IOC, Guwahati	3.30 and 17.58
CRL, Cochin	5.17 and 15.52
HPC, Bombay	11.11 and 14.29
IOC, Mathura	8.77 and 12.28
IOC, Barauni	2.35 and 11.76
IOC, Digboi	7.53 and 10.95

4.3.5 The above data indicates that the fixing of ceiling in respect of Fuel & Loss is on the higher side. It was observed that the percentage for fuel and loss for each refinery is basically fixed with reference to the historical data which is adapted or modified with reference to the product pattern. In other words, the loss in the previous years is made the basis for allowing the loss in future years. There is, therefore, no deterrent against a higher percentage of fuel and loss. On the other hand, inefficient operations get the advantage of higher percentage of fuel and loss which had been adopted as the basis for compensation. Wherever the standard fixed on this basis is higher than the achievable quantum of fuel and loss, the effect would be that a lower percentage of fuel and loss is obtained without any added efficiency resulting in better product pattern and consequential gain as provided in pricing arrangement.

4.3.6 Incidentally, it is to be noted that a study conducted by a consultancy firm of international repute at the behest of the Asian Development Bank in 1992 concluded that loss figures for Indian refineries were exceptionally high compared to typical refineries in the US and elsewhere. If the losses at India's refineries were reduced to acceptance levels, the savings

would amount to US $ 40-50 million per year. The standards and the actual losses, when viewed in the light of the above observation, would indicate that standards have been fixed liberally.

4.3.7 The Ministry stated (September, 1995) that the comparison of actual fuel and loss as a percentage of throughput with US refineries was not right in view of the substantial difference in the technology and the types of crude process. Depending on the increase in complexity of certain refineries to improve value addition, percentage of fuel and loss may increase in certain cases.

4.4 Throughput per employee

4.4.0 The following table shows the throughput per employee in respect of comparable refineries for the years 1991-92 to 1993-94:-

(in tonnes)

Refinery	Throughput per employee		
	1991-92	1992-93	1993-94
IOC, Koyali	3662.35	3618.71	3381.53
IOC, Mathura	4890.74	4644.25	4790.61
HPC, Vizag	3678.71	4107.72	3813.78
HPC, Bombay	3812.13	3894.80	3873.24
BPC, Bombay	2529.96	2800.46	2872.54

4.4.1 From the above, it could be seen that there is wide variation between refineries in terms of throughput per employee and also from year to year in respect of the same refinery. It is pertinent to note that while the standard throughput was fixed for each refinery, the standard manpower required to achieve the level of standard throughput had not been fixed. The OCRC had also commented that a critical review of manpower in refineries be made and where there was any surplus manpower, these should be more usefully deployed in new activities/projects in the long run. The non-fixing of standards for manpower for each refinery

was also commented upon in the Report (No.7) of 1989 of the Comptroller & Auditor General of India.

4.5 Incentive Schemes

4.5.0 Apart from the normal returns, the refineries are eligible for certain incentive schemes. Two such schemes were taken up for study and are dealt with in the following paragraphs.

LPG Incentive Scheme

4.5.1 Under the existing pricing mechanism, the operating cost and return on investment in LPG filling plants within the refinery are considered as part of the refinery cost and return. In respect of such refinery which has an LPG filling plant, standard quantities of LPG packed and LPG bulk filling have been fixed. From the total operating cost of the refinery, a notional sum calculated at Rs.200 per tonne for standard quantity of LPG (packed) and at the rate of Rs.50 per tonne for standard quantity of LPG (bulk) is reduced and only net operating cost is considered for the refinery.

4.5.2 For each tonne of LPG (packed) filled by the refinery, the marketing company pays a sum of Rs.200 per tonne to the refinery. Similarly, the marketing company pays a sum of Rs.50 per tonne to the refinery for LPG (bulk) supplied by the refinery.

4.5.3 To the extent of shortfall in actual quantity filled vis-a-vis the standard, the refinery is paid from the oil pool account a sum of Rs.200 per tonne for LPG (packed) and Rs.50 for LPG (bulk). Similarly, for any excess filling over and above the standard, the refinery surrenders a sum of Rs.200 per tonne for LPG (packed) and Rs.50 per tonne for LPG (bulk). In other words, the refinery gets back in full what is reduced from the operating cost of the refinery in working out the retention margins of the refinery irrespective of the fact whether LPG filling plant is operated or not.

4.5.4 In terms of an existing incentive scheme, to maximise LPG (packed) filling, the refinery is allowed to claim a sum of Rs.50 per tonne for LPG (packed) quantity filled by them over and above the standard quantity.

4.5.5 The table below indicates the standard fixed for LPG (packed) fillings which have been considered for each of the refinery vis-a-vis the actuals achieved there against during the three years ended 31 March, 1994 at some of the refineries:-

(Standards for LPG filling (packed) of refineries and actuals thereagainst.)

('000 MTs)

Name of Company and year	Standard Filling Qty.	Actual Filling	Diff.Qty. (2-3)
1.	2.	3.	4.
IOC-GUWAHATI			
- 1991-92	6	4.40	1.60
- 1992-93	6	3.51	2.49
- 1993-94	6	5.89	0.11
IOC-GUJARAT			
- 1991-92	102	61.06	38.94
- 1992-93	102	67.62	34.38
- 1993-94	102	54.62	47.38
IOC-HALDIA			
- 1991-92	20	0.31	19.69
- 1992-93	20	16.44	3.56
- 1993-94	20	18.73	1.27
IOC-BARAUNI			
- 1991-92	15	12.16	2.84
- 1992-93	15	7.01	7.99
- 1993-94	15	12.48	2.52
BPC-BOMBAY			
- 1991-92	156	160.57	(4.57)
- 1992-93	156	127.40	28.60
- 1993-94	156	119.13	36.87

4.5.6 As can be seen, there has been underfilling of LPG (packed) as compared to the standards inspite of the fact that there is an incentive of Rs.50 for every tonne packed over the standard filling quantity. This is because of the following reasons:-

4.5.7 The entire cost and return of the refinery filling plants are compensated fully irrespective of the actual filling. A shortfall in packed means an excess in bulk and vice-versa.

For underfilling LPG (packed), the refinery gets a compensation from the pool at the rate of Rs.200 per tonne whereas for excess LPG (bulk) filling it surrenders only Rs.50 per tonne. Therefore, by underfilling LPG (packed) and instead moving the LPG in bulk, the refinery not only saves on the costs for filling LPG (packed), but it also gains an undue benefit of Rs. 150 per tonne. Such undue benefit to the companies for the three years ended 31 March, 1994 amounted to Rs.338.53 lakhs.

4.5.8 The Ministry stated (September, 1995): "*LPG is a sensitive product and its movement both for packed and bulk is closely monitored on All India basis. In fact, the movement of LPG is based on the linkages given to the markets/consumption centres. The utilisation of bottling plants of the refinery as well as of the marketing companies, upto the standard level of filling capacities is subject to overall availability of LPG so as to ensure minimum cost on making the LPG available to the consumer. There is no undue benefit to the companies.*"

4.5.9 The Ministry's reply is not tenable as the existing scheme of compensation for shortfall in filling of LPG (packed) amounts to compensation for costs not incurred and hence to undue benefit.

Incentive payment scheme for improved product pattern

4.5.10 As per the scheme of incentive for improvement in product pattern, the refineries are allowed an additional margin if the actual performance in terms of Actual Product Pattern (APP) is better than the Standard Product Pattern (SPP). However, since the APP is not directly comparable to SPP, the actual production figures are adjusted to arrive at the corrected actual pattern (CAP) on account of following variations:-

i) Crude mix

ii) Crude throughput level

iii)Government directives

4.5.11 For the purpose of calculation of incentive claims, the production quantities of various products are converted into SKO equivalent production by using the indices of each product. The incentive claims of three refineries passed by OCC were taken up for test check. It was noticed that wherever the APP varied from SPP in respect of ATF, LDO and Bitumen, this was adjusted to standard levels with corresponding adjustment in other products namely SKO,

HSD, etc. although there were no Government directives to that effect. Such conversion after these adjustments resulted in undue benefit to these refineries to the extent of Rs.24.81 crores for the three years ending 1991-92.

4.5.12 The Ministry stated (September, 1995): "*As a consistent practice, products like ATF, Bitumen and LDO are treated as products to be adjusted for market fluctuations in the demand viz. production in the refinery. The production planning in a refinery is constantly monitored by OCC/Ministry. Therefore, the practice followed by OCC is an operational necessity of the scheme and could not be considered as undue benefit to the refineries. The incentive scheme for the refinery is implemented by OCC in spirit under which it has been introduced.*"

4.5.13 The reply is not tenable as such adjustment of APP in respect of ATF, Bitumen, and LDO is not covered under the existing incentive scheme.

Chapter 5

MARKETING AND DISTRIBUTION

5.1 Marketing costs

5.1.0 The price administered products from the refineries as well as the canalised imports are transferred to the marketing companies at a uniform ex-refinery price. The difference between the landed cost of imported products and the ex-refinery price is adjusted in the oil pool accounts. The marketing companies are compensated for their operating costs, product losses (specific cost) and return on capital under the retention concept. All the three put together constitute the marketing margin.

5.1.1 The table below shows the common marketing costs on functions like installation, distribution and administration allowed to the various marketing companies in different pricing periods:-

(Rs/Kilo litre)

Pricing Period	Company							
	IOC	% incr.	BPC	% incr.	HPC	% incr.	IBP	% incr.
1984-87	24.82		29.14		24.87		22.34	
1987-90	33.17	33.6	46.18	58.5	43.66	75.6	33.31	49.1
1990-93	45.53	37.3	62.51	35.4	62.64	43.5	54.06	62.3
% increase in 1990-93 vis-a-vis 1984-87	83.4		114.5		151.9		141.0	

Note:- The above analysis is exclusive of specific cost and return on investment. It denotes only common cost.

5.1.2 The basis on which the marketing margins were fixed and the connected detailed working papers were not made available by OCC for audit and as such Audit was unable to comment on the reasonableness of the margins. Although the Ministry stated that marketing margins were fixed by Government as per OCRC norms, the Ministry also did not furnish these details while forwarding their reply in September, 1995. Incidentally, it may be pointed

out that OCRC recommended uniform marketing margins which was not accepted by the Government and the Government fixed the marketing margins on retention basis.

5.1.3 An analysis of the certain selected items of marketing costs of all the four marketing companies during different periods is given below:-

	1982-83		1989-90		1992-93		1993-94	
	Rs. in crores	%on total	Rs. in crores	%on total	Rs. in crores	%on total	Rs. in crores	%on total
Salaries	53.51	46	183.00	40	293.71	42	321.39	38
Stores & spares/ power & fuel	7.90	6	42.44	9	45.30	6	55.50	6
R & M	14.98	13	58.11	13	72.10	10	90.14	11
Overheads	40.70	35	176.77	38	297.41	42	388.44	45
Total	117.09	100	460.32	100	708.52	100	855.47	100

5.1.4 As can be seen from the above table, salaries & wages and overheads account for more than 75 percent of the total. Norms for manpower requirement for various marketing activities have not been developed. The marketing margins have not been fixed with reference to norms. Further, as historical costs form the basis for compensation for marketing costs there is no incentive to control costs. Moreover, there is no differentiation or segregation of manpower costs that are required in the marketing of free trade products. While the oil marketing companies are getting their full costs reimbursed through the pricing mechanism, at the same time profits earned on the free trade products, which are outside the pricing arrangement, are also retained by them.

5.1.5 The Ministry stated (September, 1995) that the development of norms on uniform basis for all the oil companies was fraught with practical difficulties. The Ministry also stated that though norms were not developed for uniform margins, similar costs were compared for uniform type of operations between two oil companies. The Ministry added that even though precise norms were not developed for manpower costs, the oil companies closely monitored

manpower recruitment and deployment. As regards manpower employed for marketing of free trade products, the Ministry stated they were kept outside the pricing mechanism.

5.1.6 In the absence of detailed working sheets for the fixing of margins, the Ministry's contention regarding manpower for free trade products being kept outside the pricing was not verifiable in Audit. The Ministry's reasons for non-development of norms for marketing costs are also not tenable. Development of norms for various marketing activities is essential because full compensation of costs is given under the present pricing arrangement. In this connection, vide para 4.5 of the Audit report (No.7 of 1989) regarding analysis of oil pricing arrangement, it was observed that OCRC in 1984 favoured uniform margin for marketing but the same was not accepted by the Government of India. The OCRC noted that the retention concept implies an anomalous situation where efficiencies are not rewarded and inefficiencies are not penalised. The OPRC (June, 1991), which also looked into this aspect, favoured the continuance of retention margins but recommended that steps should be taken in the direction of uniform industry margin. Despite the recommendations of OCRC and the earlier report of Comptroller and Auditor General of India, norms have not been developed for various marketing functions and their costs. What is needed is development of norms applicable for each individual oil company.

5.1.7 In the existing retention concept for compensation of marketing costs, there is no incentive to attempt cost reduction as historical costs form the basis for future margins. While cost reduction in one pricing period might be beneficial, the same may prove to be detrimental for the fixing of margins for the next pricing period.

5.2 Sales Plan Entitlement

5.2.0 The petroleum products produced in the various refineries as well as canalised imports into the country are marketed by the four public sector oil marketing companies viz. IOC, BPC, HPC and IBP. The concept of sales plan entitlement (SPE) has been existing since 1976 for the marketing of the price administered petroleum products. The SPE of each company is pre-determined and the marketing companies are expected to adhere to the SPE for a regulated and economic marketing. The OPC recommended in 1976 that the marketing share of IOC, which was 65 percent, should be progressively brought down to 55 percent. Till 1988, product-wise SPE of the oil companies was worked out by giving 50 per cent weightage in incremental volumes to IOC and the balance 50 per cent was shared by the other oil

companies in the ratio of their market share in 1976-77. This way, the share of IOC was gradually reduced to 56.7 percent in 1987-88.

5.2.1 In 1988, the Government of India formulated a revised policy for SPE according to which the oil companies were allowed a uniform growth rate based on SPE of 1987-88 except in the case of LPG where IOC got 50 percent of the incremental growth and HPC and BPC shared the remaining 50 percent equally. The revised policy also stipulated the surrender of 100 percent of return on capital and 50 percent of common (operation) costs (60 per cent of the return on capital and 50 percent of the common costs in the case of MS/HSD retail sales) to the pool in respect of sales over and above SPE and corresponding claim from pool for the shortfall. The scheme was actually implemented from 1 October, 1989.

5.2.2 The table below shows the SPE and actual sales of each oil company during the period from 1990-91 to 1993-94:-

(Quantity in MMTs.)

		1990-91		1991-92		1992-93		1993-94	
		SPE	Act	SPE	Act	SPE	Act	SPE	Act
IOC	Q	30.5	29.9	31.5	30.9	32.7	31.6	33.3	31.8
	%	56.9	55.9	56.9	55.6	56.9	55.0	56.7	54.2
BPC	Q	10.0	10.1	10.3	10.4	10.7	11.0	11.0	11.7
	%	18.7	18.9	18.6	18.7	18.6	19.2	18.7	19.9
HPC	Q	10.2	10.4	10.6	10.9	11.0	11.3	11.2	11.7
	%	19.0	19.4	19.2	19.6	19.2	19.6	19.1	19.9
IBP	Q	2.0	2.3	2.1	2.5	2.1	2.7	2.2	2.8
	%	3.7	4.3	3.7	4.5	3.7	4.7	3.8	4.8
AOD/	Q	0.9	0.8	0.9	0.9	0.9	0.9	1.0	0.7
IOC	%	1.7	1.5	1.6	1.6	1.6	1.5	1.7	1.2
TOTAL(Qty.)		53.6	53.5	55.4	55.6	57.4	57.5	58.7	58.7

Q = quantity % = percentage Act = actual

5.2.3 It may be seen from the table that while IOC was unable to meet its SPE, BPC, HPC and IBP had exceeded their SPEs in all the years. An analysis of the product-wise SPE and sales revealed that in case of HPC and BPC, the excess in actual sales over SPE was mainly in MS and HSD. In other products, HPC and BPC were not able to meet their SPEs. The opposite was the case with IOC. This was mainly because IOC did not have adequate number of retail outlets for MS and HSD commensurate with its SPE.

5.2.4 SPE in its present form inhibits marketing initiative. In the context of liberalisation and allowing of parallel marketing, there is a need to review the present form of frozen SPE and surrender of margin in case of over achievement of sales and compensation for under-achievement.

5.2.5 The Ministry stated (September, 1995) that the point made out by Audit was noted.

5.3 Product Losses

5.3.0 The margins of marketing companies include compensation for stock losses in main installations and depots. The compensation varies from product to product. The compensation based on stock loss norms developed by OPC (1976) has not undergone any change in the subsequent revisions. The table below gives the norms for stock losses considered by OPC (l976) and OCRC (l984) and the compensation for stock losses per unit of product sold in respect of MS, HSD and SKO:-

Product	**Stock loss as a percentage of sales**		**Compensation in the marketing margins for stock losses Rs/KL of sales**
	OPC	**OCRC**	
MS	0.50	0.50	19.56
HSD	0.12	0.12	1.78
SKO	0.28	0.28	6.41

5.3.1 The actual stock losses/(gains) of various marketing companies during 1990-91 to 1993-94 were as follows:-

(as a percentage of Sales)

	MS				HSD				SKO			
	(Columns from 1990-91 to 1993-94 for each product)											
IOC	0.01	0.00	0.07	0.05	(0.10)	(0.08)	(0.05)	(0.07)	(0.05)	(0.02)	(0.01)	(0.05)
BPC	0.34	0.36	0.17	0.15	0.16	0.13	0.04	0.03	0.12	0.07	0.00	0.00
HPC	0.14	0.14	0.11	0.10	(0.02)	(0.02)	(0.06)	0.00	(0.03)	(0.00)	0.01	(0.03)
IBP	0.14	0.16	0.08	0.21	(0.08)	(0.19)	(0.12)	(0.11)	(0.10)	(0.28)	(0.32)	(0.20)

5.3.2 As mentioned earlier, loss norms fixed by OPC 1976 had not undergone any change even though there has been a considerable reduction in the actual losses and, in fact, there were gains in many instances. Therefore, there is a need for revision in the norms for stock losses.

Chapter 6

RETURN ON CAPITAL

6.1.0 With the adoption of retention concept for compensating the refining and marketing costs, the return on capital has become an important element in the refining and marketing margins. Based on the recommendation of OPC 1976, the Government fixed a return of 15 percent on capital employed (net fixed assets plus normative working capital) for refining, marketing and pipeline operations. The OCRC 1984, which examined this aspect in detail, recommended a change from the return on capital employed' to return on net worth'. The argument put forth by OCRC for the change was that the existing system did not generate enough internal resources with the companies for investing in future projects. The OCRC also said that the revised basis would generally give a better return to the companies enabling them to generate more funds for financing their future projects at least in part. The following scheme which is now in operation, is based on the recommendations of OCRC.

6.1.1 The capital employed is the sum of net fixed assets (employed in the refining and marketing of price administered products) and the normative working capital. This figure does not normally undergo a revision during the pricing period of three years. This is assumed to be first funded by the actual net worth as per the balance sheet. The balance capital employed is assumed to be funded by borrowed funds. While the net worth earns a post tax return of 12 percent, the figure for borrowings derived as above, is compensated at the weighted average interest rate of actual borrowings. Net worth for this purpose is the sum total of balance sheet figures of equity and free reserves and the net worth for a year is the average of the net worth as per the balance sheet at the beginning of the year and at the end of the year. The net worth of a particular year (usually at the beginning of the pricing period) is considered for fixing the return on capital in the retention price build up and subsequent increases in the net worth, upto the extent it does not exceed the capital employed (computed and frozen as above), earn the difference between 12 percent post tax and weighted average rate of borrowings as additional net worth claim from the pool.

6.1.2 The following table indicates company-wise figures of the capital employed (CE) considered in the price build up of the last two pricing periods i.e. 1987-90 and 1990-93 and the actual net worth (NW) of the last year of each pricing period:-

(Rs. in crores)

Company	CE 1987-90	CE 1990-93	% growth	NW 1989-90	NW 1992-93	% growth
IOC	2131	2598	22	2873.76	4950.47	72
BPC	897	1064	19	546.21	951.05	74
HPC	1103	1225	11	683.39	1102.97	61
IBP	62	76	23	66.22	95.25	44
MRL	318	315	(-)1	233.96	329.56	41
CRL	239	252	5	205.42	363.96	77
BRPL	44	41	(-)7	297.12	381.18	28

6.1.3 It may be seen from the above table that the rate of growth in the net worth was much higher than the rate of growth in capital employed. While it is true that the scheme for providing return on net worth as envisaged by OCRC has helped in generating more internal resources, it has not helped in the deployment of those funds in the business of the oil companies as was intended by OCRC. This is supported by the fact that in case of the largest oil company, namely Indian Oil Corporation, the net worth was substantially higher than the capital employed in business. Similar is the case with BRPL. Instead of deploying these additional funds generated in the oil industry, the oil companies deployed these funds in interest earning securities.

6.1.4 During the years 1989-90 to 1991-92, the oil companies earned considerable amount of interest on their investments under portfolio management scheme and a variety of short term deposits/investments. The increase in the net worth on account of such earnings also earned 12 percent post tax return under the administered pricing scheme. As these companies were cash rich, their borrowings were limited and they had a very low debt-equity ratio. On the other

hand, for a company which operates at a relatively high debt-equity ratio, the returns are less even if the borrowed funds are deployed within the Company.

6.1.5 As mentioned earlier, the return on capital built into the existing pricing mechanism is 12 percent post tax on net worth. The table below shows the actual post tax return on net worth (share capital plus reserves and surplus) earned by the oil companies during the three years 1991-92 to 1993-94:-

Company	1991-92	1992-93	1993-94	Three years' average
IOC*	18.2	13.7	13.6	15.2
HPC*	14.4	20.6	22.3	19.1
BPC*	18.6	17.9	18.7	18.4
IBP**	16.9	13.5	16.9	15.8
MRL***	15.8	21.53	14.77	17.4
CRL***	19.1	23.93	16.47	19.8
BRPL***	9.9	7.61	9.43	9.0

Note - * = refining and marketing company
** = only marketing company
*** = only refining company

6.1.6 It may be observed from the above table that the actual return on net worth earned by the oil companies was higher than the return envisaged in the retention concept except in the case of BRPL. Ninety-eight percent of all the products produced and sold by the oil companies come under the administered pricing. Even considering that the oil companies could earn a higher return on the remaining two percent sold under free pricing and also some non operating income, the overall return is much more than the return envisaged.

Chapter 7

PRODUCT SELLING PRICES

7.1 Ex-Storage Point Price

7.1.0 The ex-storage point price of administered products at the primary pricing point (refinery) consists of the following:-

1. Ex-refinery price (crude cost and refinery margins)
2. Marketing margins
3. Cost & Freight (C & F) surcharge
4. Freight (FSP) surcharge
5. Product Price Adjustment (PPA)
6. Other charges in the case of LPG & Bitumen
7. Excise duty

7.1.1 The consumer prices are arrived at by adding certain other elements like notional railway freight upto depot, local transportation charges, dealers commission, sales tax and other local levies to the ex-storage point price.

7.1.2 The ex-refinery price and the marketing margins have already been discussed. The C&F surcharge is intended to cover the net under-recoveries arising from variations in the cost of bringing crude oil to the refinery, variations between cost of imported products and the ex-refinery price (imported products are priced to marketing companies at the ex-refinery price), the difference between export price realisation and domestic price and other variations in the cost of production upto ex-refinery stage. The FSP surcharge is meant to cover net under recoveries in transportation of products as the transportation cost built in the consumer price is a notional railway freight. The present C & F and FSP surcharges are frozen at Rs.640 and

Rs.40 per selling unit (KL/MT) respectively since 1986. The adequacy of these surcharges is discussed in chapter 8.

7.1.3 The product price adjustment is a mechanism for cross-subsidisation of the consumer prices of various petroleum products on socio-economic considerations. As was observed earlier, the ex-refinery prices of various petroleum products differ only because of the fixation of artificial indices for allocating the cost of production to different products with the reference point of kerosene, whose index is taken as 1. It was only by the product price adjustment that the price of kerosene for domestic use is kept lower than the price of MS even though the ex-refinery price of kerosene is more than the ex-refinery price of MS.

7.1.4 The following table gives the ex-storage point price build up of MS, HSD, kerosene (non-industrial) and LPG (domestic) as on 1 March, 1988 and 1 March, 1994:-

Element of	**MS**		**HSD**		**SKO domestic**		**LPG domestic**	
Cost	**1.3.88**	**1.3.94**	**1.3.88**	**1.3.94**	**1.3.88**	**1.3.94**	**1.3.88**	**1.3.94**
	Rs.per litre		**Rs.per litre**		**Rs.per litre**		**Rs. per kg**	
Crude cost	1.53	1.53	1.82	1.82	1.78	1.78	2.69	2.69
Ref.Margin	0.17	0.17	0.17	0.17	0.17	0.17	0.20	0.20
Ex-refinery price	1.70	1.70	1.98	1.98	1.95	1.95	2.89	2.89
Mktg.Margin	0.10	0.16	0.07	0.12	0.07	0.12	0.64	0.83
Surcharges	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
PPA	3.00	10.31	0.04	2.94	(1.08)	(0.75)	(1.49)	(0.01)
Other charges	-	-	-	-	-	-	0.47	0.92
E.D	2.22	2.57	0.33	0.57	0.33	0.20	0.26	0.53
Total	7.70	15.42	3.10	6.29	1.95	2.20	3.45	5.84

7.1.5 It may be observed from the above table that even though there were increases in the product prices, there was no change in the ex-refinery prices since 1986. Similarly, there was no change in the rates of C & F and FSP surcharges. Only two changes were effected in the

marketing margins - one with effect from 15 October, 1990 and the other from 1 March, 1994. This is not to say that there were no increases in the costs of crude oil, imported products, refining and transportation of products. Whatever increases were there in the cost of crude oil, imported products and other inputs, they were sought to be recovered by adhoc increases through the mechanism of product price adjustment without revising the related elements like delivered cost of crude, refining costs and C&F and FSP surcharges in the price build up. Whether such recoveries through the PPA were adequate or not is discussed in chapter 8.

7.2 Differential pricing

7.2.0 Presently a scheme of differential pricing for various end uses is in operation in respect of the following products:-

1.	Kerosene	Industrial and other than industrial
2.	LPG	Packed domestic/non-domestic (essential/non-essential), bulk essential/non-essential
3.	Naphtha/LSHS/FO	Fertilizer use/other than fertilizer use
4.	Bitumen	Bulk/packed
5.	LSHF(HSD)	Bunker fuel/others

7.2.1 While the differential pricing in respect of Bitumen is to take care of the additional cost to be incurred in the form of drums and packing charges in respect of packed bitumen, the differential price in respect of other products is mainly to subsidise the price for certain uses on socio-economic considerations.

7.3 Subsidies

7.3.0 The Government's policy is to provide cheap fuel to the economically weaker sections of the society and also to promote the use of LPG as a cooking fuel in place of wood. Similarly, Naphtha/FO/LSHS supplied to the fertiliser industry for use as feedstock in the manufacture of fertiliser is subsidised as the ultimate consumers of fertiliser are the farmers.

7.3.1 Apart from the above subsidies arising from differential pricing, there is an element of inbuilt subsidy in respect of certain products like HSD, wax, bitumen (packed) etc., as the consumer prices of these products are much lower than the cost of producing these products.

7.3.2 The total subsidies on various petroleum products have been estimated at about Rs.8500 crores for the year 1994-95 as follows:-

(Rs. in crores)

Product	**Subsidy**
HSD	2205
SKO	4101
LPG packed	1199
Naphtha for fertilisers	539
FO/LSHS for fertilisers	296
Bitumen Packed	127
Waxes	20
Total	**8487**

7.3.3 Under the administered pricing, these subsidies are borne by the oil pool account. The net impact on account of subsidies will, however, be much less as these subsidies are offset to a large extent by the higher prices fixed for other products like MS, ATF, Naphtha used for other than fertiliser production etc.

7.3.4 In the wake of economic liberalisation, the import of a number of products like Naphtha, Lubricating oils etc., from which higher prices were realised in the administered pricing arrangement have been decanalised and made free. Consequently, the reserves that the oil industry pool account could build up from these products have come down. Some of these issues are discussed in detail in chapter 9.

7.4 Pricing of Naphtha/FO/LSHS

7.4.1 The differential pricing for Naphtha, FO and LSHS started in 1974, 1976 and 1979 respectively. There is a subsidy for use in the fertilizer industry. The OCRC observed: *"The principle of charging a concessional price in respect of Naphtha/FO/LSHS supplied to fertilizer industry for use as feedstock is based on sound considerations of public sector. This may continue. A similar concession for fuel use seems somewhat less justified. While. removing an existing concession may not be easy, it may be stipulated as a first step that norms of consumption for feedstock and for fuel should be laid down scientifically by FICC/Government. In the long run, the fertilizer industry should switch over to alternative fuels (other than petroleum products), wherever it is technically and operationally feasible."*

7.4.2 Based on the above, the Government of India issued a circular (November, 1986) for development of norms for consumption of petroleum products for feedstock and non-feedstock purposes in the fertilizer industry. However, no further action was taken in this regard. In September, 1992, Government of India decided that in the absence of norms for usage, as an interim measure, the portion of Naphtha/FO/LSHS used for non-feedstock purposes be determined on an adhoc rule of thumb basis to be worked out by OCC/supplying oil company and that no concessional price should be allowed to the extent non-feedstock use could be identified. Even after this, concrete steps in this direction have not been taken so far by OCC.

7.4.3 The table below gives the quantity of Naphtha, FO & LSHS supplied to fertilizer industry during 1990-91 to 1992-93 at concessional prices:-

(MTs)

	1990-91	1991-92	1992-93
Naphtha	2416	2345	2269
FO	1428	1590	1398
LSHS	918	1021	921

Note: i) Figures for 1991-92 and 1992-93 are as per Industry Performance Report (IPR) of 1992-93.

ii) Quantities of FO and LSHS for 1990-91 are based on total FO/LSHS quantity as per IPR of 1990-91 apportioned in the ratio of 1991-92 quantities.

7.4.4 The impact of subsidy given on Naphtha/FO/LSHS supplied for use other than feedstock is not ascertainable in Audit. The Ministry stated (September, 1995) that Department of Fertilisers was requested in 1987 to evolve norms of consumption for feedstock and for fuel in respect of Naphtha/FO/LSHS used in the Fertiliser Industry but the Department of Fertilisers had not responded despite regular pursuance. The Ministry also stated that the matter has since been discussed by the Committee of Secretaries whose recommendation/guidance was awaited.

7.5 Bulk and packed bitumen

7.5.0 Bitumen is mainly used in road building. The product is available in bulk as well as in packed condition. The table below indicates the Bitumen sold in bulk and in packed condition during the four years from 1989-90 to 1992-93:-

	1989-90	1990-91	1991-92	1992-93
Bulk (TMT)	968.1	946.3	1118.8	1237.4
Packed (TMT)	729.7	636.8	600.9	590.2
% of bulk to total	57	59.8	65.1	67.7

7.5.1 There is an element of extra cost in the form of drums and filling charges in selling bitumen in packed condition. Correspondingly, the ex-storage point price of packed bitumen is also higher than that of bulk bitumen. An analysis of the pricing of bitumen since 1986 shows that the difference in prices of packed and bulk bitumen was not in proportion to the additional cost involved in packing bitumen. For instance, the cost of drum (including excise duty) and filling charges assumed in the price build up of packed bitumen as on 1 October, 1986 was Rs.945.04 per MT. Against this, the inbuilt subsidy in the price build up (excluding excise duty and marketing margin) of packed bitumen over bulk bitumen as on that date was Rs.417.24 per MT of packed bitumen. The cost of drum and the filling costs have been going up over the years. At no time after 1986 was the cost of drums in the price build up of packed bitumen revised even though substantial amount of escalations year after year has been reimbursed to the oil companies. The subsidy is much more if one were to consider the escalations in the cost of drums and excise duty thereon paid to the oil companies from the pool accounts. The impact of inbuilt subsidy in the price of packed bitumen over bulk bitumen

during 1992-93 was Rs. 80 crores working out to approximately Rs. 1,000 per MT as against Rs.417.24 per MT on 1 October, 1986. Thus, in the present pricing set up, there is no incentive either to the seller or to the buyer to maximise sale/purchase of bulk bitumen which is cost effective and it was the policy of Government to promote sale of bulk bitumen.

7.5.2 While agreeing (September, 1995) that there was an extra element of cost involved in selling bitumen in packed drums as compared to bulk sales, the Ministry did not indicate any definite line of action for either removing or minimising the impact of the above anomaly.

Chapter 8

OIL INDUSTRY POOL ACCOUNTS

8.1.0 The major pool accounts in which the oil companies adjust their claims and surrenders arising on account of administered pricing and retention margins are:-

i) Crude Oil Price Equalisation (COPE) Account;

ii) Cost & Freight Adjustment (C&F) Account;

iii) Freight Surcharge Pool(FSP) Account;

iv) Product Price Adjustment (PPA) Account.

8.1.1 The overall pool account position during the years 1987-88 to 1994-95 is given in the following table:-

(Rs. in crores)

	1987-88	**1988-89**	**1989-90**	**1990-91**	**1991-92**	**1992-93**	**1993-94**	**1994-95**
Opening balance/ (deficit)	7452.08	8294.52	9266.94	6769.93	3223.46	52.48	(455.94)	(605.87)
Net inflow/ (outflow) on transactions during the year								
COPE	(274.99)	(69.82)	(2166.98)	(3638.28)	(6441.17)	(8737.29)	(9055.81)	(9875.93)
C & F	1345.91	943.33	(391.24)	(2381.73)	(6037.26)	(5774.63)	(8010.76)	(6935.55)
FSP	(147.71)	(158.04)	(331.59)	(427.84)	(482.61)	(663.80)	(964.27)	(1280.39)
PPA	11.86	225.34	431.10	5391.16	10169.07	15113.72	18728.18	19885.82
Others	(92.63)	31.61	(38.28)	(2489.78)	(379.01)	(446.42)	(847.27)	(510.95)
Closing balance/ (deficit)	**8294.52**	**9266.94**	**6769.93**	**3223.46**	**52.48**	**(455.94)**	**(605.87)**	**677.13**

8.1.2 It may be observed from the above table that the oil pool, which had a net surplus of Rs.9,266.94 crores at the end of March 1989, went into a net deficit of Rs.605.87 crores at the end of March, 1994. The overall impact of annual transactions each year was always in deficit from 1989-90 to 1993-94. This was mainly because while the costs of crude oil, refining and marketing costs had gone up, the selling prices of petroleum products did not increase correspondingly. There was, however, a net inflow of Rs. 1,283 crores during 1994-95 resulting in a net surplus of Rs. 677.13 crores at the end of March, 1995. This was mainly due to increase in prices of petroleum products with effect from February, 1994 and again from March, 1994.

8.1.3 The funds of the pool (except a portion for pool's day to day requirements) are kept as deposit in the 'Public Account'. The deposit of Rs. 8,900.05 crores as at the end of March, 1989 came down to Rs. 4,429.03 crores at the end of 31 March, 1995. Apart from withdrawals by OCC from the Public Account for liquidating pool's liabilities to oil companies, the Government also appropriated during the year 1990-91, an amount of Rs. 2,300 crores to the Consolidated Fund of India from this deposit kept in the Public Account and later this was written off by OCC from the accounts of the pool. This appropriation out of pool funds contributed to the subsequent net deficit in the pool account. If such appropriations to Consolidated Fund of India from the deposits of OCC in the Public Account take place in future also, the possibility of bigger net deficits in the pool accounts cannot be ruled out.

8.1.4 While the pool's monies are locked up in the Public Account, the pool also owes a substantial amount of money to the various oil companies, the major creditors being ONGC and IOC as per details given below:-

(Rs. in Crores)

	Dues outstanding from OCC as on				
Company	31-3-91	31-3-92	31-3-93	31-3-94	31-3-95
ONGC	1898.78	3069.95	2626.35	2319.90	1233.86
IOC	1138.91	2035.15	2279.06	2288.33	1470.95

8.1.5 Till 1987, the pool funds deposited in the Public Account were earning an interest at 5 percent on the minimum monthly balance standing in the Public Account. The Government decided in 1987 that these deposits were non-interest bearing. Thus, while funds deposited in the Public Account do not earn any interest, the pool had to pay interest at 10.5 percent on the

amounts due to the various oil companies. The net interest expenditure (after adjusting interest earned from oil companies and other deposits) incurred by the pool during the four years ended 31 March, 1995 was Rs.379.01 crores, Rs.446.42 crores, Rs.383.55 crores and Rs.130.42 crores respectively.

8.2 Crude Oil Price Equalisation (COPE) Account

8.2.1 The concept of the pooled FOB price of crude oil necessitated the establishment of an Oil Industry pool account called Crude Oil Price Equalisation (COPE) Account.

8.2.2 The purpose of this account is to equalise the price of crude oil received from various sources, both imported and indigenous, for issue to the refineries for further processing at a uniform price (i.e. pooled f.o.b. cost of crude). This would mean that in case the actual price of crude is higher than the pooled FOB price, the difference between the actual price and the pooled price will be borne by COPE Account. Similarly, the refineries which are processing crude obtained at a lower price will contribute the difference to the pool account. Thus, in principle, these transactions in COPE Account should broadly balance each other. However, as the pooled price is a pre-determined price fixed with reference to the prices prevailing at a particular date in the past, there is bound to be some surplus or deficit in this Account till necessary corrective action, based on the fluctuations in the crude prices, is taken to revise the pooled FOB price.

8.2.3 A review of the balances in this Account shows the following position:-

(Rs. in Crores)

Year	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
Net Inflow/ (deficit)	(274.99)	(69.82)	(2166.98)	(3638.28)	(6441.17)	(8737.28)	(9055.81)	(9875.93)

8.2.4 As can be seen from the above, the deficit in COPE Account is showing an increasing trend, from Rs.69.82 crores in 1988-89 to Rs.9875.93 crores in 1994-95. The main reason for the deficit in COPE Account is that the pooled FOB price of crude oil at which the refineries pay for the crude oil, which was fixed at Rs.1700 per MT in 1986, has not been revised since then even though international crude oil prices have increased. The deficit is more

pronounced since 1989-90 mainly because of increase in international crude oil prices and also due to the fact that the indigenous production could not match the increase in demand and more import had to be resorted to. Further, the price of indigenous crude oil was also revised in September, 1992 and again in April, 1993, which has also contributed to the deficit since 1992-93. There were increases also in cess and royalty. In spite of all these changes, there has been no revision in pooled FOB price of crude oil which contributed to the large deficit in COPE account.

8.2.5 The Ministry stated (September, 1994) that in an ideal situation transactions of the COPE Account were expected to match each other thereby rendering the COPE account self-balancing. The Ministry also stated that various expert Committees had continued with the concept of pooling the crude oil prices and that based on recommendations of OCRC, which was accepted by the Government, pooled FOB price of Rs.1700 per MT was fixed for the crude oil effective 1 April, 1986, which continues to date.

8.3 Cost and Freight Adjustment Account

8.3.1 This account which was showing a net surplus till 1988-89 has fallen into deficit since 1989-90. The C & F adjustment account comprises a number of sub-pool accounts. The main reasons for the deficit in this account were the following:-

i) As the refining capacity in the country has not increased matching with the increase in demand, a substantial quantity of petroleum products like HSD, Kerosene and LPG are imported. These products are imported by the oil companies at a price higher than the ex-refinery price. But they pay only the ex-refinery price under the administered price build up. The balance is borne from the C & F adjustment account. The deficit on this account alone was Rs.3135 crores in 1991-92, Rs.4040.48 crores in 1992-93, Rs.4554.80 crores in 1993-94 and Rs.4783.38 crores in 1994-95. Similarly, substantial quantities of surplus products like Naphtha are also exported at prices, which are lower than the retention prices, and oil companies are reimbursed the shortfall from the pool (Rs.365 crores in 1992-93, Rs.897.08 crores in 1993-94 and Rs.476.69 crores in 1994-95).

ii) The difference between the cost of bringing the crude oil to the refineries and the cost built in the retention prices of refineries is adjusted in C & F surcharge account. The continuous increases in these costs are reimbursed from the pool accounts. Such net reimbursements amounted to Rs.1206 crores in 1987-88, Rs.2635.24 crores in 1992-93 and Rs.2913.87 crores in 1993-94.

iii) The refinery incentive claims paid from the pool accounts have been continuously rising. While the net outflow on this account in 1987-88 was Rs.37.79 crores, in 1992-93 it was Rs.184.91 crores and in 1993-94 it was Rs.473.83 crores.

iv) The pricing of petroleum products does not rightly envisage any demurrage in the import of crude/products as the same is not a necessary cost and is also controllable. However, the demurrage on crude/products imports during the past few years has been steadily going up. The amounts of demurrages reimbursed to the oil companies from the pool accounts during the three years ending 31 March, 1995 amounted to Rs.83.06 crores, Rs.103.34 crores and Rs.126.36 crores respectively. In addition, in the case of crude oil imported through time chartered vessels, substantial detention charges are incurred, the figures for which were not separately available.

The main reason for the heavy demurrage in the import of petroleum products is inadequate port facilities resulting in longer detention time of vessels. With the projected growth in demand, the pressure on ports is expected to increase in the coming years. The major constraints are insufficient number of jetties, draft restrictions, lack of night navigation facilities, old and smaller diameter pipelines in some of the ports, etc.

LPG is a major deficit product and the same is imported. The quantum of deficit requiring import is expected to go up from about 600 TMT in 1994-95 to 3300 TMT in 2001-02 and to 7600 TMT in 2010-11. Besides, there is likely to be additional demand of 1100 TMT in 2001-02 and 1875 TMT by 2010-11. Against this, the import capacity available with the public sector as of 1994-95 was only around 500 TMT in only two ports, namely, Bombay and Vizag. Even though schemes for creation of additional import facilities by public

sector to the tune of about 3150 TMT by 2001-02 have already been sanctioned and are under various stages of implementation, considering the deficit, these require further augmentation not only for reducing demurrage but also for meeting the galloping demand.

Another method of reducing the port congestion is the establishment of single point moorings and virtual jetties off the sea coast. Viable schemes in this regard need to be cleared and implemented on priority. A recent proposal of IOC for the installation of a virtual jetty off Kandla Port showed that a one time investment of Rs.6.34 crores with an annual operating cost of about Rs.14 lakhs would result in a saving in demurrage of Rs.9.07 crores per annum.

v) There are certain levies of some State Government and local bodies which are not recoverable by the oil companies in the pricing mechanism. Such under recoveries are compensated from the pool funds. Further, the sales tax surcharge scheme was not being reviewed by OCC at reasonable intervals of time as may be seen from the fact that under recoveries on this account reimbursed from the pool account were Rs.106 crores in 1987-88, Rs.178 crores in 1988-89, Rs.192 crores in 1989-90, Rs.220 crores in 1990-91 and Rs.439 crores in 1991-92. This, however, has come down to Rs.53.98 crores in 1992-93 as a result of Government's direction for regular review of the scheme for appropriate adjustment/increase in the sales tax surcharge. The under-recovery, however, went up again to Rs.165 crores in 1993-94 and to Rs.175 crores in 1994-95.

vi) During the year 1991-92, the pool absorbed a substantial exchange variation of Rs.2,214.29 crores on Euro-currency loans taken by the Indian Oil Corporation, on behalf of the Government for financing import of crude oil. A copy of the scheme approved by Government for regulating claims on account of exchange rate variation on Euro currency loans, which was called for from the OCC (December, 1994) has not been made available so far (September, 1995).

8.3.2 While there were widespread increases on the above accounts, the C & F surcharge, which was fixed at Rs.640/selling unit in 1986, has not been revised.

8.4 Freight Surcharge Pool Account

8.4.1 This account was mainly intended to cover the additional costs of transportation on account of authorised out of zone movements', and road bridging' and coastal movements of petroleum products. The FSP surcharge built in the product prices remains unchanged at Rs.40 per selling unit since 1986. However, the deficit in this account has increased substantially over the years due to the following:-

i) The notional railway freight built in the depot prices is based on railway freight rates as applicable on 1 December, 1986. Subsequent increases in railway freight (except the railway freight increase of 1 April, 1992) have not been passed on in the prices. The under recovery on rail movements reimbursed to the oil companies from the FSP account during the years 1987-88 to 1994-95 was Rs.5943.10 crores.

ii) The coastal freight applicable to secondary pricing points at Vasco, Okha, Kandla and Calcutta have not been revised since inception and the resultant under recovery is being absorbed by pool accounts. The under recovery on this account reimbursed from the pool during 1987-88 to 1994-95 was Rs.1539 crores.

iii) The freight element built up in the consumer prices of petroleum products is a notional railway freight from the primary pricing point (refinery) to the supply point (depots). However, the products are not always moved by rail. Sometimes road movements are resorted to even between places connected by rail. This is known as road bridging'. Although FSP manual has not laid down any criteria for the compensation of road bridging and although there were specific instructions of the Government of India that additional costs on road bridging' should not be compensated, OCC is reimbursing under recoveries in the road bridging costs on the justification put forth by the oil companies on a case to case basis. The total under recoveries reimbursed from pool on this account during 1987-88 to 1994-95 amounted to Rs.320.34 crores.

8.4.2 While analysing the FSP transactions, it was also observed that a pipeline was the cheapest and also the safest mode of transportation. There is scope for increasing the throughput of the existing pipelines and also laying of new pipelines. It was, therefore, necessary to speed up the implementation of pipeline projects on hand and also to expedite the sanction of new pipeline projects.

8.5 Product Price Adjustment Account

8.5.0 This account has shown a gradual uptrend in the positive side (net surplus) during the period under reference. This was due to the increases in the prices of petroleum products made from time to time through this account and other surcharges levied.

8.5.1 The major increases effected in the price of petroleum products through the PPA during the period 1988-89 to 1993-94 were:-

i) Price increase w.e.f. 20.3.1990

ii) Gulf surcharge of 25 percent w.e.f. 15.10.1990

iii) Price increase w.e.f. 25.7.1991

iv) Price increase w.e.f. 16.9.1992

v) Price increase w.e.f. 2.2.1994

8.5.2 Thus, even though the pooled FOB cost of crude oil, ex-refinery prices as well as C & F and FSP surcharges have not been revised in the period under review, the increases in the costs of manufacture and distribution of petroleum products were sought to be recovered through the product price adjustments and surcharges under this account. But it is also clear that such increases in the PPA were not commensurate with the cost increases with the result the pool, which had an overall surplus of Rs.9266.94 crores by the end of 1988-89, fell into a deficit of Rs.605.87 crores by the end of 1993-94.

8.5.3 Each of the pool account was created for a specific purpose. The OCRC (1984) recommended that OCC should periodically review the need for individual oil industry pool accounts as also the possibility of their further simplification. While the number of pool accounts has increased with consequent clerical work associated with it, the necessary

revisions/adjustments in the various elements of the product price have not been made in the respective pool accounts. As a result, these pool accounts have lost their identity and purpose in the price build-up. Further, under the present system of effecting revisions on the product price by adhoc adjustments in the PPA account, it is difficult to clearly identify which product is really subsidised and by how much.

Chapter 9

LIBERALISATION AND PETROLEUM INDUSTRY

9.1.0 As mentioned earlier in paragraph 1.1.0, the demand for petroleum products is expected to go up from 62.3 MMT in 1993-94 to 107.9 MMT in 2003-04 and to about 150 MMT per annum by 2010.

9.1.1 To meet the growing demand and in tune with the policy for liberalisation of the economy, the Government has opened up the petroleum industry to private sector.

9.1.2 In the upstream sector, medium size already discovered oil/gas fields of ONGC/OIL have been offered for development by foreign/Indian parties in the private sector in joint venture with ONGC/OIL under production sharing contracts. Some small discovered fields have also been given for development exclusively by private sector. The crude oil produced by these joint ventures and private parties would be paid for at the international prices (around US $ 121.61 per tonne at the average rate of US $ 16.5 per barrel for comparable (Saudi Arabian light) crude during 1994-95) as against the administered price (currently US $ 100.23 per tonne inclusive of royalty and cess and US $ 55.28 per tonne net) paid to ONGC/OIL. Besides, these joint ventures have been given other concessions like `zero' customs duty, frozen royalty and cess etc., which are not available for the public sector ONGC/OIL. Thus, the public sector companies do not have a level playing field vis-a-vis the joint ventures and private parties.

9.1.3 In the downstream refining sector, presently, all the capacity of 57.4 MMT is with the public sector and the refineries operate under administered pricing and retention margins. To meet the projected growth in demand, the Government has issued letters of intent for capacity expansion/new grassroot refineries both in the public and private sectors. These are expected to add an additional capacity of about 64 MMT per annum as follows:-

i) expansion of existing refineries in the public sector	9.85 MMT
ii) new grassroot refineries in the public sector	6.00 MMT

iii) new grassroot refineries in the in the private/joint sector. 48.00 MMT

9.1.4 It may be seen that there would still be a wide gap of about 30 MMT between the refining capacity and demand by 2010. Though the Government has issued letters of intent for some more refineries in the private sector for a total refining capacity of about 32 MMT per annum, these are only at a very preliminary stage.

9.1.5 The deregulation in the petroleum sector and the setting up of new refineries, especially those in the private sector, are closely related to the pricing policy for petroleum products. Continuation of the administered pricing mechanism would mean subsidising the high cost new refineries of the private/joint sector by the depreciated and low cost existing refineries in the public sector. It would also mean perpetuation of the attendant deficiencies of the `cost plus' system. At the same time, in a market determined pricing mechanism, while the existing low cost refineries may have an edge over the new high cost refineries in terms of costs, the new refineries may have an edge over the existing ones in terms of technology, control of fuel and loss, yield of distillates, etc., The future consumption trend indicates that there would be more demand for middle and light distillates (mainly HSD, MS & LPG) and less for heavy ends (FO). The percentage of heavy ends produced by the existing refineries is rather high (26%) compared to modern refineries (16%). Unless the existing refineries are modernised for upgradation of heavy ends and improvements in product specifications, it would be difficult for them to compete with their new counterparts in the private sector or with imported products in a liberalised scenario. This is evident from the drop in the sales volumes of lubricants of public sector oil companies in the last couple of years consequent upon liberalisation in the lubricants sector.

9.1.6 The position in the marketing sector is slightly different. A number of products have been decanalised for import by actual users and import of LPG and kerosene and their parallel marketing under free pricing by private sector have also been allowed. Still a large volume of the petroleum products indigenously produced and imported through canalising agencies is marketed by the four public sector major oil companies under administered pricing. Thus, there is a situation where the same product is marketed by the public sector oil companies under administered pricing as well as freely imported at market determined prices.

9.2.0 Some of the petroleum products like Lube Oil Base Stock (LOBS), Naphtha, LPG, Kerosene etc., are under administered pricing if sold by the public sector major oil companies. At the same time, import of these products has also been decanalised. These are used as feedstock in the manufacture of other free trade products. For example, LOBS is used in the manufacture of lubricants; Naphtha is used in the manufacture of Benzene and Toulene and LPG is used in the manufacture of polypropylene feedstock (PPFS).

9.2.1 The fluctuations in the international prices of such decanalised products coupled with the general reduction in customs duty on these products and a number of related pertroleum/petrochemical products in the wake of economic liberalisation resulted in adverse consequences to the public sector petroleum companies and the exchequer. This happened mainly because alongwith liberalisation, parallel action was not taken to suitably adjust their administered prices. Two such instances - one of undue benefit to minor oil companies in the sale of Lube Oil Base Stock, and the other of loss due to simultaneous import and export of Naphtha arising from unrealistic administered pricing - were discussed in paragraphs 14.16 and 14.17 of Report No. 3 (Commercial) of 1995 of the Comptroller and Auditor General of India. These are included as Annexure III in the present report for ready reference. Some other cases are briefly discussed in the following paragraphs:-

9.3 Pricing and sale of lubricants

9.3.0 The selling prices of lubricants marketed by minor oil companies, who were free to fix their own selling price, were far higher than the selling prices fixed by the Government public sector oil companies. Thus, there was a peculiar situation of a market where the same product was treated as controlled product when sold by public sector oil companies and as a free trade product when sold by minor oil companies. In order to avoid this anomaly and to promote healthy competition in the lube sector, the Oil Price Review Committee, in their Report of June, 1991, had recommended placing of all grades of lubricants under free trade category. But the Government did not take a decision on the recommendation till October, 1993. At the same time, the public sector oil companies continued to claim price adjustments from the Pool Account in respect of price controlled lubricants. Even if a period of nine months from July, 1991 to March, 1992 is allowed for implementation of the OPRC's recommendation, the delay in decision by the Government from April, 1992 to October, 1993 resulted in an outgo of Rs.482.97 crores from the Pool Account.

9.3.1 Even in the case of free trade lubricants, the minor oil companies had an undue advantage vis-a-vis public sector major oil companies in the scheme of pricing of input materials like base oils and additives. This had arisen mainly because the administered price build up for major oil companies for inputs like base oils, taking into account all the surcharges and levies imposed by the Government till September, 1992, was more than the landed cost of the imported base oils including customs duty. With the introduction of the liberalised economic policy, the import of base oils was decanalised and the minor oil companies became free to import their requirements with effect from 1 March, 1992 without payment of any of the above surcharges. Secondly, the Gulf surcharge and budgetary surcharge in the case of major oil companies were applicable not only to the base oil component but also to the cost of additives, manufacturing cost and cost of packaging, etc. which go into the overall cost of lubricants, whereas a minor oil company paid these surcharges only on the base oil component and that too only when indigenous base oil was used. This had made even the free trade lubricants produced by the public sector companies uncompetitive with reference to similar products of minor oil companies.

9.3.2 These anomalies were brought to the notice of the Ministry in August, 1993. The necessary rectificatory steps in this connection were taken by the Government in October, 1993 by:-

i) fixing the transfer price of indigenous lube oil base stock at import parity;

ii) confining the SPE in respect of LOBS to the public sector oil companies only; and

iii) freeing the prices of finished lubricants from price control and making all lubricants and greases as `free trade' products.

9.4 Unrealistic pricing of inputs for manufacture and sale of Benzene

9.4.0 Benzene is a free trade product manufactured by the public sector oil companies. Naphtha, which is surplus to the country's requirements and hence exported at unremunerative prices, and Low Sulphur Heavy Stock (LSHS) are the feedstock and fuel respectively for the manufacture of Benzene. The prices of Naphtha as well as LSHS required for the manufacture of Benzene by the public sector oil companies are fixed by the Government and

the final selling price of Benzene is decided by the oil companies after taking into account the processing and other costs.

9.4.1 As a part of economic liberalisation, the Government decanalised the import of Benzene with effect from July, 1991. In the case of Benzene produced by oil companies, the price of Naphtha and LSHS were revised upward by the Government in September, 1992 by levying a surcharge. With this increase in the input costs, import price of Benzene became lower than the cost of Benzene produced indigenously. As a result, consumers of Benzene started importing it instead of buying it from indigenous producers. As the public sector oil companies could not match their selling price with international price, there was a substantial drop in their sales of Benzene from November, 1992 onwards. The situation aggravated further with the reduction in import duty of Benzene from 25% to 15% w.e.f. March, 1993. While the indigenous production capacity for Benzene was around 2,20,000 tonnes per annum, the upliftment during a year from November, 1992 to October, 1993 was only 1,17,457 tonnes.

9.4.2 The above situation led to a cut-back in Benzene production, as may be seen from the table given below:-

('000 tonnes)

Refinery	1992-93		1993-94	
	installed capacity	actual prodn.	installed capacity	actual prodn.
BPC, Bombay	85	56.7	85	22
CRL Cochin	87.2	61.4	87.2	44
IOC Koyali	51	37.6	51	37.9

9.4.3 This inhibited value addition and increased the availability of Naphtha (the production of which is already surplus to the requirements of the country) which had to be exported at unremunerative prices.

9.4.4 The average FOB price paid by importers in foreign exchange for import of Benzene during the period November, 1992 to October, 1993 was around US $ 277 per tonne. As against this, the average price realised by the oil industry on export of Naphtha was about US

$ 175.47 per tonne. Thus, for every tonne of Benzene imported into the country, the net outgo of foreign exchange was US $ 101. The net outgo would, in fact, be higher if the freight charges, both for import of Benzene and export of Naphtha, were also taken into account. The Naphtha that is rendered surplus for one tonne of Benzene not produced ranges between 1.0638 tonnes and 1.32 tonnes depending on the process. The net outgo of foreign exchange due to import of Benzene and export of equivalent quantity of Naphtha arising out of reduction in indigenous production of Benzene, because of the reasons mentioned above, ranged between US $ 8.756 million and 4.358 million (Rs.28.02 crores and Rs.13.95 crores) depending upon the process which determined the quantity of Naphtha required for one tonne of Benzene.

9.4.5 Between November, 1992 and October, 1993, all the surcharges and levy imposed by the Government for surrender to the Oil Coordination Committee (OCC) Pool Accounts amounted between Rs.6419.87 and Rs.6613.04 for every tonne of Benzene depending upon the Naphtha consumption. Against this, the recovery from exports of Naphtha and LSHS used for manufacture of one tonne of Benzene was only between Rs.2136.86 and Rs.2257.03. Thus, for every tonne of Benzene imported due to cut-back in indigenous production, the revenue lost to OCC was between Rs.4283.01 and Rs.4355.61. While there was no clear data about Benzene imported into the country during 1992-93, the quantity of benzene imported during 1993-94 was stated to be of the order of 1,01,600 tonnes. The amount of revenue lost by OCC on the quantity imported during the year 1993-94 was Rs.43.52 crores (calculated at Rs.4283.01 per tonne of Benzene).

9.4.6 The Ministry stated (February, 1994) that there were various reasons as to why imports of Benzene increased subsequent to its decanalisation and the fact that international suppliers might have slashed down prices to have a foothold in the post-liberalised market in India could not be ruled out. The Ministry further stated that the profits from sale of Benzene, if not possible, should be made good by the oil companies from increased profits on sale of other profitable free trade products.

9.4.7 The Ministry's reply is not convincing. The Ministry has not ruled out the possibility that international suppliers might have slashed down prices of Benzene to have a foothold in the Indian market. It is also a fact that the Government had also reduced the customs duty on imported Benzene from 40% to 25% (1992 budget) and to 15% (1993 budget). In the process of liberalisation, the Government should have also taken care of the domestic industry

especially when costs of inputs for manufacture of Benzene are fixed by the OCC/Government. The Ministry's contention that the loss of profits on Benzene should have been made good by increased profits on the sale of other free trade products is too general. In any case, surplus Naphtha was being exported.

9.4.8 The Ministry's reply was silent about value addition in manufacture of Benzene and net outgo of foreign exchange due to the resulting situation.

9.4.9 While the Ministry had earlier (October, 1993) stated that there had been no unrealistic pricing of inputs for manufacture and sale of Benzene, it issued a notification in November, 1993 abolishing all surcharges on Benzene and revised the transfer prices of feed and fuel by which the total costs to indigenous producers of Benzene like Bharat Petroleum Corporation Limited was reduced by a margin of Rs.1452.55 per tonne of Benzene.

9.4.10 While the Government's decision of November, 1993 partially remedied the then prevailing situation, no mechanism has been created to automatically adjust the price of feedstock with reference to international prices of Benzene periodically on the basis of a rational formula. Though the Benzene production and sale by oil companies had picked up in 1994-95 due to hardening of the international price of Benzene, there is no incentive to maximise Benzene production despite the fact that it is a deficit product in the country. This is mainly because the cost of indigenous Benzene is related to the administered price of Naphtha and LSHS rather than to the international prices of these two inputs. The Cochin Refineries Limited's plan for enhancement of Benzene capacity from 87.2 TMTs to 210 TMTs has also been put on hold.

9.5 Stoppage of PPFS separation plant due to uneconomic pricing of inputs

9.5.0 The Bharat Petroleum Corporation Limited (Company) set up a Plant in May, 1991 at a cost of Rs.22.50 crores for separation and supply of polypropylene feed stock (PPFS) to M/s Indian Petrochemicals Corporation Limited (IPCL), the exclusive customer of the Company, for making propylene from which IPCL makes the final product polypropylene.

9.5.1 PPFS is a free trade product. However, the transfer prices of the products used as feedstock (LPG) and fuel (LSHS) for manufacture of PPFS are determined by the Government. The Company decides the selling price of PPFS after considering the processing and other input costs. The price of PPFS (60% propylene content) prior to 16 September,

1992 was Rs.10,725 per tonne. In September, 1992, the Government levied a surcharge to bring the petroleum products for petrochemical use on parity with import prices. The surcharge was a specific levy on products based on the consumption of stream/feedstock and fuel. As a result of this levy, the price of PPFS went up by Rs.5882.59 per tonne to Rs.16,607.59 per tonne w.e.f. 9 October, 1992. With this increase, IPCL found it uneconomical to produce propylene/polypropylene and, therefore, stopped upliftment of PPFS from November, 1992.

9.5.2 The situation worsened when Government of India in its budget for 1993-94 announced a reduction in customs duty on imported propylene from 85% to 15%. The cost of imported polypropylene came down to as low as Rs.10,112 per tonne. This was lower than even the bare cost of feed and fuel of indigenous PPFS at Rs.13466.09 per tonne without any margins to the Company.

9.5.3 As IPCL was the sole customer of PPFS, in order to sustain production, BPC reduced its PPFS price by Rs.2746.65 per tonne after which only IPCL started (September, 1993) lifting the PPFS. The PPFS separation plant of the Company remained idle from December, 1992 to August, 1993, inhibiting value addition.

9.5.4 The Ministry stated that PPFS was a free trade product and prices of free trade products are fixed by the oil companies based on market conditions. The Ministry also stated that the oil companies derive their profits from a basket of products and that profits from sale of PPFS if not possible should be made good by oil companies with increased profits from other free trade products.

9.5.5 The Ministry's reply is not convincing. If a product was not going to give profits separately, there would be no incentive to the oil company to produce the product as it happened in this case where a plant installed at a cost of Rs. 22.50 crores remained idle for nine months resulting in loss of value addition.

9.6 Pricing of Raw Petroleum Coke

9.6.0 The Indian Oil Corporation's (IOC) three refineries at Barauni, Digboi and Guwahati produce Raw Petroleum Coke (RPC) as a by-product in the processing of crude oil. RPC is converted into calcinated petroleum coke (CPC), which is used by the Aluminium industry.

9.6.1 The demand for RPC in the country is more than its indigenous production. Until 31 March, 1992, import of RPC was canalised through IOC and the imported as well as indigenous product was sold under an administered price fixed by the Government. The price excluding excise duty as on that date (31 March, 1992) was Rs.3198.25 per tonne. The product was decanalised from 1 April, 1992 and anybody was free to import it. But the administered pricing continued. With effect from 16 September, 1992, the administered price of indigenous product was increased to Rs.5335.49 per tonne. Due to fall in the international prices coupled with increase in the price of indigenous product, the import became cheaper and the users of RPC started importing the product. This resulted in accumulation of stocks in the IOC's refineries and the stock as on 31 December, 1994 was 1.48 lakh tonnes as against 1.30 lakh tonnes as on 31 March, 1994, 0.63 lakh tonnes as on 31 March, 1993 and 0.14 lakh tonnes as on 31 March, 1992.

9.6.2 The Government removed RPC from administered pricing from 3 August, 1993. On the same date, the price at which refineries were to transfer RPC to marketing companies was also revised from Rs.2125 per tonne to Rs.4150 per tonne. Thus, despite removal of RPC from the administered pricing, the oil companies were not able to sell the indigenous product as import was cheaper than the transfer price from refinery to marketing company. IOC scaled down the selling price of RPC from Rs.4250 per tonne in August, 1993 to Rs.2922 per tonne ex-Digboi and to Rs.3500 per tonne ex-Guwahati from February, 1994 and also offered credit to its customers. Thus, for every tonne of RPC sold at the basic selling price of Rs.3500 per tonne, the loss to IOC was Rs.650. Even with this, the accumulated stock at the end of December, 1994 was 1,47,800 tonnes. Virtually, the entire stock of 1.30 lakh tonnes as at the end of March, 1994 remained unsold till December, 1994 resulting in a locking up of Rs.23.10 crores (at the least retention price of Rs.1775.72 per tonne).

9.6.3 This was because, while on one hand the Government decanalised the import of RPC, on the other, it increased the administered price of RPC by Rs.2137.24 in September, 1992 which resulted in the indigenous product becoming costlier than the import. Till August, 1993, the marketing companies had no role in the pricing of indigenous RPC. Even after August, 1993, the transfer price from refinery to marketing was fixed in a way which was not economical to market the indigenous product. These decisions led to the non-lifting of the indigenous product and consequent accumulation of inventories which even threatened stoppage of refineries.

9.6.4 While the Ministry stated in November, 1994 that the oil companies derived their profits from a basket of products and that the selling price of RPC was the commercial decision of the oil company, with a view to directionally integrate domestic RPC prices with international prices, it later revised (May, 1995) the RPC transfer price based on ex-US (Gulf) prices to be adjusted on a quarterly basis.

Bhmathur

New Delhi
The 06 MAR 1996

(B.P. MATHUR)
Deputy Comptroller and Auditor General -
cum- Chairman, Audit Board

Countersigned

New Delhi
The 05 MAR 1996

(C.G. SOMIAH)
Comptroller and Auditor General of India

Annexure I
(Referred to in para 1.1.7)

Classification of Petroleum Products

I Price Controlled Products

Motor Spirit (MS)
High Speed Diesel (HSD)
Aviation Turbine Fuel (ATF)
Superior Kerosene Oil (SKO)
Liquified Petroleum Gas (LPG)
Naphtha
Furnace Oil/Fuel Oil (FO)
Low Sulphur Heavy Stock (LSHS)
Bitumen
Light Diesel Oil (LDO)

II Free Trade Products

Lubricants
Benzene
Toulene
Xytol
Reformed Naphtha
Iomex/Aromex
Slack wax
Jute Batching Oil
Hexane
Mineral Turpentine Oil (MTO)
C_3/C_4
Raw Petroleum Coke (RPC)
Calcinated Petroleum Coke
Carbon Black Feedstock (CBFS)
Phenol Extracts
Propylene

Annexure II
(Referred to in para 2.2.1)

BUILD-UP OF EX-REFINERY PRICES

IMPORTED CRUDE OIL	POOLED FOB PRICE OF CRUDE OIL	INDIGENOUS CRUDE OIL

+
FREIGHT
+
OCEAN LOSS
+
INSURANCE
+
WHARFAGE
+
AUXILIARY DUTY

=

DELIVERED COST OF CRUDE

+

REFINING COST(Chemicals,catalysts & utilities, consumables,salaries and wages,repairs & maintenance/overheads,depreciation, etc.,)

+

RETURN ON CAPITAL EMPLOYED

=

RETENTION PRICE PER TONNE OF CRUDE THRUPUT

X

STANDARD THRUPUT

divided by

STANDARD PRODUCTION X INDICES OF EACH PRODUCT

X

INDEX OF EACH PRODUCT

=

RETENTION PRICE PER TONNE OF PRODUCT

WEIGHTED AVERAGE RETENTION PRICE FOR EACH PRODUCT ON INDUSTRY BASIS +Rs. 25

=

EX-REFINERY PRICE

BUILD-UP OF RETAIL PRICE

EX-REFINERY PRICE

+

CUSTOMS/EXCISE DUTY

+

MARKETING MARGIN

+

SURCHARGES

+

PRODUCT PRICE ADJUSTMENT

=

EX-STORAGE POINT PRICE AT REFINERY POINT

+

RPO CHARGES/SURCHARGES FOR MS/HSD

=

EX-RETAIL OUTLET PRICE WITHIN FREE DELIVERY ZONE

(excluding freight and local levies)

Annexure III
(Referred to in para 9.2.1)

14.16 Undue benefit to minor oil companies

The Indian Oil Corporation Limited was the sole canalising agent for the import of lube base oils till 29 February, 1992. According to the administered pricing system in vague, the difference between the actual landed cost of imported base oil (including the customs duty) and the transfer price (ex-refinery price, duties and surcharges) of the indigenous lube base stocks was allowed to be claimed from the Oil Industry Pool Accounts administered and maintained by the Oil Coordination Committee.

Under the policy of economic liberalisation, the import of the lube base oils was decanlised with effect from 1st March,1992 and import of lube base oils at the market rate of exchange became permissible. However, in actual practice, the Indian Oil Corporation Limited continued to act as canalising agent and passed on imported lube base oils to minor oil companies in the private sector at the lower transfer price instead of the actual higher landed cost for imports.

The average price of such imported lube base oils (HVI-150, a widely used lube base oil) during the period from April 1992 to August, 1992 was Rs. 10,379 per tonne for which the landed cost worked out to Rs. 24,120 per tonne. As against this, the administered transfer price fixed for sale from a major oil company in the public sector to a minor oil company in the private sector was only Rs. 17,227 per tonne.During the period, a total quantity of 18,486 tonnes was sold to the minor oil companies, which involved an unintended subsidy of Rs. 12.74 crores to them met initially from the Oil Industry Pool Account and ultimately passed on to the consumer. This happened because no timely action was taken to rationalize the administered transfer price.

The transfer price of lube base oil (HVI) supplied by the major oil companies to minor oil companies was revised to Rs. 21,404 per KL (Rs. 23,844 per tonne) with effect from 16th September,1992. With the revision of the transfer price by levy of an uniform surcharge of Rs. 5940 per KL (Rs. 6,617 per tonne), the price of indigenous lube base stock became higher than the landed cost of imports at that time. Thus the import of lube base oil became more attractive than buying indigenous lube base stock at the revised transfer price. As a result, the

unsold quantity of the lube base stock in refineries of major oil companies had been building up, imposing on them heavy carrying costs and even threatening the interfere with the production process due to problems of evacuation of stock. Indian Oil Corporation's inventory of lube base stock went up from 37,800 tonnes in April 1992 to 58,200 tonnes in April 1993 and that of Hindustan Petroleum went up from 20,758 tonnes in April 1992 to 44,035 tonnes in April 1993.

The Ministry stated (October ,1993):

" On the announcement of the new Import Export policy it was not immediately possible for the minor oil companies to find alternative source of lube oil base stock. On announcement of the Government policy during March 1992, they had to take steps to organise themselves to contact potential suppliers of this product before actual receipt of the lube based oil stock. Thus, the drawal of LOBS by minor oil companies was allowed till alternative arrangement to import on their own could be made at the earliest." As regards the situation that prevailed after 16th September,1992 when the import became cheaper than the administered prices as a result of levy, the Ministry stated that "Drop in sale during 1992-93 is because of stopping sale base oil to minor oil companies/private parties who started importing directly by themselves. Therefore, reason for increase in inventory build up on a particular date as indicated by Audit by an individual oil company could not be attributed to the increase in transfer price."

The Ministry's reply does not change the fact that the minor oil companies/private parties continued to draw base oil from the major oil companies at the administered transfer price even after decanalisation and once the administered price was raised they started resorting to import resulting in base stock piling up with the major oil companies. The undue benefit to the minor oil companies/private parties was the result of delay in adopting the administered price in time once import of lube base oil was decanalised and liberalised.

14.17 Administered price of naphtha.

Naphtha is produced in public sector refineries in the country and marketed by the three public sector oil companies viz. Indian Oil Corporation Limited (IOC). Hindustan Petroleum Corporation Limited (HPCL) and Bharat Petroleum Corporation Limited (BPCL). This naphtha is subject to administered pricing and the prices are fixed by the Government of

India. The price of naphtha is subject to administered pricing and the prices are fixed by the Government of India. The price of naphtha used for other than fertiliser production was fixed at Rs.6075.69 per tonne from 16th September 1992. This fixation was based on the import parity price prevailing at that time.

The production of naphtha is surplus to the requirement of the country. The exports during the years 1992-93 and 1993-94 were 1.518 million tonnes and 1.620 million tonnes respectively.

Till December 1992, the import, if any, of naphtha was being canalised through IOC. In December 1992, the Government of India decanalised its import and actual users were permitted to import their requirements.

Ever since September 1992 the international prices of naphtha have been falling. The price which was around US $ 180 per tonne in September 1992 fell to around US $ 162 per tonne in January 1993 and to around US $ 115 per tonne in January-March 1994. However, no revision in the administered price of indigenously produced naphtha was effected by the Government. This resulted in the direct import of naphtha by the actual users both in public sector and private sector taking advantage of the decanalisation as imported naphtha was cheaper than the indigenous product. Indian Petrochemicals Corporation Limited, a public sector company, imported 5000 tonnes in March 1994 at a delivered cost of Rs.5701 per tonne at Baroda. They further imported 35,000 tonnes in April/May 1994 (10000 tonnes at Rs.5796 per tonne and 25000 tonnes at Rs.6300 per tonne). The average cost of these imports was US $ 190 per tonne. At the same time, the average price realised by IOC in the export of 5,22,413 tonnes of surplus indigenous naphtha during January-March 1994 was only US $ 114 per tonne. After allowing for the transportation cost of US $ 14 per tonne for transportation from IOC's refinery at Koyali to Kandla Port, the net realisation was only US $ 100 per tonne.

Thus, while on the one hand, one PSU was exporting a product perforce at distress prices, on the other hand, another PSU was importing the product at much higher prices. If the 40,000 tonnes of naphtha imported by IPCL between March-May 1994 had been procured from IOC instead, based on the average price realised by IOC during January-March 1994 the saving to IPCL would have been about Rs.11.52 crores.

Apart from the loss and related drain of foreign exchange, such a situation also results in further strain on railway and port facilities by avoidable cross movements of the same product. Moreover, the possibility of the exported product against being imported into the country cannot be ruled out.

The Ministry stated (September 1994) that the domestic prices of petroleum products are not strictly comparable with the international prices. The Ministry also stated that the prices of naphtha in the international market are subject to violent fluctuations and the pricing of entire sale quantity of naphtha at international prices would have caused more losses to the Oil Pool Account. The Ministry also stated that the export of naphtha during 1993-94 has been 16,20,000 tonnes and sale to petrochemical units was 11,00,000 tonnes and that the import of naphtha by petrochemical units was 11,00,000 tonnes and that the import of naphtha by petrochemical units during this period is reported to be only 1,38,000 tonnes which is not very significant when compared to the volumes of export and sale.

The Ministry's reply is not tenable. The increase in administered prices of petroleum products in September 1992 was based on import parity price prevailing at that time. While the Ministry is concerned about the loss to the Oil Pool Account, it has not disputed the loss to the country that has been suffered. The Ministry has not commented on the possibility of an export parcel sold at a lower price coming back at a higher price.

List of abbreviations used.

I. Names of Institutions

AOD	Assam Oil Division (IOC)
BRPL	Bongaigaon Refineries and Petrochemicals Limited.
BPC	Bharat Petroleum Corporation Limited
CRL	Cochin Refineries Limited
FICC	Fertiliser Industry Coordination Committee
HPC	Hindustan Petroleum Corporation Limited
IBP	I. B. P. Company Limited
IOC	Indian Oil Corporation Limited
IPCL	Indian Petrochemicals Corporation Limited
MRL	Madras Refineries Limited
OCC	Oil Coordination Committtee
OIDB	Oil Industry Development Board
OIL	Oil India Limited
ONGC	Oil & Natural Gas Corporation Limited

II Petroleum Products

FO	Furnace Oil / Fuel Oil
HSD	High Speed Diesel Oil
LOBS	Lube Oil Base Stock
LPG	Liquified Petroleum Gas
LSHS	Low Sulphur Heavy Stock

MS	Motor Spirit
RPC	Raw Petroleum Coke
PPFS	Poly Propylene Feed Stock

III Others

APM	Administered Pricing Mechanism
APP	Actual Product Pattern
CE	Capital Employed
C&F	Cost and Freight Adjustment Account (a pool account)
COPE	Crude Oil Price Equilisation Account (a pool account)
ED	Excise Duty
FSP	Freight Surcharge Pool Account (a pool account)
IPR	Industry Performance Review
KL	Kilo Litre
LERMS	Liberalised Exchange Rate Management Scheme.
MMT	Million Metric Tons
MT	Metric Tons
NW	Net Worth
OCRC	Oil Cost Review Committee
OPC	Oil Prices Committee
OPRC	Oil Prices Review Committee
PPA	Product Price Adjustment Account (a pool account)
SPE	Sales Plan Entitlement

SPP	Standard Product Pattern
TMT	Thousand Metric Tons
TPD	Tonnes Per Day