

Chapter VII

Alignment of Oil Sector Reforms with National Agenda

Carrying out reforms in Oil Sector is like conducting a surgery in the heart of body politicks. Reforms in Oil Sector has to be conducted in such a manner that while Oil Sector achieves its desired goal, the national agenda remains focused. The functional integration between Oil Industry and other sectors are to be explored and their alignment needs to be examined.

Reform measures are like policy intents of the Government. Government cannot make things to happen in the economy by fiat. Reform measures will shape the economy, based on how numerous economic agents, namely consumers, producers, traders and corporate houses react to the reform measures. The impact of Oil sector reforms on the national economy has been analyzed in detail in the previous chapter (Chapter VI). In this chapter, attempt has been made to see whether the result of the reform in the oil sector is in line with those what was intended from the perspective of national economy.

This chapter is organized in terms of the following sections:

1. Integrated Reform in Economic Growth, Energy and Environment
2. Taxonomy of Economic Reform
3. Taxonomy of Reforms in Oil Sector
4. Alignment / Misalignment of Reforms in Oil Sector with those in National Economy
5. Growth with Social Justice
6. Degree of Congruence

A Study of its Compatibility with National Economic Reforms

Section 7.1: Integrated Reforms in Economic Growth, Energy and Environment

The reforms in hydrocarbon sector in India have to be aligned with: a) reforms in energy sector, b) reforms in economic policy for growth and equity and c) environment.

Within the above framework, hydrocarbon sector in India need to aim at supporting increasing income, output and services, without causing ecological damage.

7.1.1 Supply Security

In global oil market, there has been an exogenous shock to energy prices (encouraged by the endogenous consequences of low investment in exploration and production (E&P), followed by asset sweating in the last two decades). As supply is just meeting the demand and prices have been on a rise, the focus of energy policy has shifted from privatization, liberalization and competition towards greater emphasis on the security of supply. (Helm, 2005)

Against this backdrop, India's short to medium term concern has to be oil supply security. This is not just a question of getting physical access to oil. It is also a matter of financial predictability. Today, the country faces not just a growing import burden but also the uncertainty associated with oil price volatility.

Government has already initiated three steps to tackle these concerns. (Detailed in Section 3.5 in Chapter III) These should be continued, subject to the threshold conditions of sound commercial logic.

One, to harness India's indigenous hydrocarbon reserves through the continued offering of acreage for exploration with attractive terms and conditions. This has to be done on flexible and internationally competitive terms to Indian and overseas companies.

The NELP VI round of bidding closed on 15th September '06 for oil and gas blocks in India's sedimentary basins has evoked encouraging response. A record 165 bids have been received for the 55 oil and gas blocks on offer for exploration and production. The total estimated investments in pipeline are 8 to 10 billion dollar, higher than the aggregate funds flow in the five previous rounds. An unprecedented 35 foreign and 31 Indian bidders have participated in the NELP VI round. The move underlines the need for a world class licensing regime for

E&P that is in step with international best practices. Good data quality and its timely availability are imperative for informed investment decisions, as is sound regulatory environment for hassle free operations.

As round six is over, preparation for the seventh round (NELP-VII) is on fast track. The success of the sixth round has encouraged the government to prepare "improved" terms and conditions for NELP-VII. The intention is to attract even a larger number of E&P companies. One of the objectives is also to attract American companies. NELP-VI was criticized for the conspicuous absence of American firms like ExxonMobil and Chevron in the bids. Government argued that American firms were more interested in producing blocks (where hydrocarbon discovery is established) rather than exploratory blocks. The idea is to cash in on the country's recent success in hydrocarbon discoveries and attract a large number of global E&P firms to bid for the 80-100 blocks proposed to be offered in NELP-VII. The petroleum ministry and the directorate general of hydrocarbon (DGH) are busy analyzing strengths and weaknesses of the previous NELPs and plan to make irresistible offers to E&P companies in the seventh round without compromising on government's share (profit petroleum or profit gas). While a final picture is likely to emerge in the next couple of months, some consensus seems to have emerged on certain vital issues related to eligibility criteria and evaluation parameters. There has been a thinking to allow emerging firms to bid for hydrocarbon blocks. It is argued that as an eligibility criterion, the latest net worth of the company should be considered instead of its net worth during the last three years. Advocating that experience does not come without work, it has been indicated that the operator's (E&P firms) experience in shallow water blocks might also be considered for deepwater blocks. After all, experience and expertise can be outsourced. It is also being considered to do away with the 'technical capability' as one of the pre-qualifications criterion for smaller blocks. But for deepwater blocks, technical capabilities would get more weightage as exploration and production in deepwater require a high degree of skill. Weightage under it is accorded on the basis of acreage holding, operator experience, annual accretion, annual production and geological assessment. On the fiscal side, there has been a thinking that bids for the profit share should increase progressively in favor of the government in terms of profit petroleum. In order to avoid regressive bidding, it has also been argued that the progressive sharing of profit with the government would be followed with minimum 5% increase in government's profit share in each progressive tranche. In NELP-VII, it is expected that some weightage would be given to experience.

NELP VII will be the last round under NELP bidding and is likely to witness one of the fiercest competitions in the sector, as the government is planning to move to Open Acreage Licensing Policy (OALP), which gives companies a round-the-year window to pitch for oil and gas in blocks of their choice. Typically, open acreage licensing works better for countries where hydrocarbon resources are few. Although the Ministry of Petroleum maintains that India is well endowed in

hydrocarbon reserves, it accepts that all the easy oil in the country has been discovered.

Second, to maximize the value of already discovered reserves through the application of advanced exploration and drilling technology and innovative low cost development techniques.

Third is to build up the portfolio of equity crude overseas, through exploration (Sakhalin) and / or acquisition of producing fields (Angola / Sudan).

Sakhalin I is an important initiative in India's quest for energy security. Trying to reduce costs even as it seeks to tap gas from Sakhalin-I in Russia, India is exploring the possibility of swapping or selling ONGC Videsh Ltd's gas blocks there in return for gas that Japan sources from West Asia. Under the swap deal, it is proposed that our share of Sakhalin gas will be supplied to Japan and Japan's imports of gas from West Asia can be sent to India. If it happens, India and Japan could reduce transportation costs of gas. Japan is closer to the Sakhalin Islands and, in turn, India is closer to where Japan is sourcing West Asian gas from.

The Sakhalin I project includes three offshore fields: Chayvo, Odoptu, and Arkutun Dagi. Exxon Neftegas Ltd is the operator for the multinational Sakhalin-1 consortium with ExxonMobil Corp. having a 30% interest in the consortium. The other partners include SODECO of Japan, with 30% interest, RN-Astra of Russia with a 8.5% stake, Sakhalinmorneftegas-Shelf of Russia with 11.5% stake and ONGC Videsh with its 20% stake. In return for its \$1.7 billion (Rs7,140 crore) investment in the Sakhalin-I project, ONGC Videsh is expecting two to four million tonnes of crude oil annually and five to eight million cubic metres of gas per day. This is partially expected to meet India's growing demand for petroleum products from the present levels of 112 million tonnes per annum (mtpa) to 135mtpa by 2012.

India's policy makers have to recognize the global nature of the energy markets and that a nation's energy security does not end at its national boundaries. The Economist (April 30th to May 6th, 2005) writes, "A young Winston Churchill, on the eve of the first world war, took a gamble that changed the course of history. As First Lord of the Admiralty, he decided to convert the British navy from Welsh coal to imported oil. The resulting gains in speed gave Britain's navy a decisive advantage over Germany's. It also set off a geopolitical scramble as Britain sought to secure oil supplies before its rivals did. Churchill believed that "safety and certainty in oil lies in variety and variety alone."

By mid 20th century, America was the super power scrambling to secure oil supplies around the world. Fearing depletion of its vast domestic store of petroleum, America forged an alliance with the then new oil province of Saudi Arabia. Driven by the same desire for energy security, today's aspiring super

powers are in a similar race. China and India have recently tried to bribe, bully or buy their way into 'equity oil' in Latin America, Canada, Russia and Africa.

And yet the billions they are spending on this quest for energy security could well be wasted. Thanks to the spectacular rise of futures trading, oil has become a fungible global commodity. The conventional notion that stakes in oil fields add up to energy security no longer holds up: if there is an oil shock, then the market price of every barrel of oil in the world will shoot up past \$100 barrel."

There are threats to oil importing country's acquiring oil fields abroad. There are chances of foreign investors being expropriated by the countries in which they have invested. Russia has on bogus environmental grounds cancelled Shell's license in the giant Sakhalin II oilfield, and now seeks to force British Petroleum out of the giant Kovykta gas field. Venezuela has abrogated contracts with foreign oil companies and acquired majority rights in most oilfields. Bolivia has done the same. This highlights the perils of strategic oilfield purchases or oil diplomacy as it is called. If India acquires fields abroad and they turn out to be small, they achieve little strategic purpose. If they turn out to be really large, they might, if situation so arises in the host country, be expropriated. The Rostam and Raksh oilfields that India once owned in Iran were nationalized for a pittance in 1978. (Aiyar, 2007)

Government has also decided to make a strategic oil reserve of five million metric tonne (MMT) at a cost of Rs 2,400 crore to meet the demand of the oil sector and has created a special purpose vehicle (SPV) for the purpose, by the name of Indian Strategic Petroleum Reserves Ltd (ISPRL) has been created as a wholly-owned subsidiary of OIIB. The ISPRL will construct crude oil storage at three locations namely Vishakhapatnam, Mangalore and Padur.

The government has also launched the National Gas Hydrate Program (NGHP) with Directorate General of Hydrocarbons as its coordinator and OIIB as the funding agency. So far, the government has spent about Rs 200 crore on NGHP and is studying eastern and western offshore areas of the country for identification of hydrates.

7.1.2 Renewable sources of energy

The global and national concern on energy security has triggered the interest in renewable energy. Besides security, the need to focus on environment friendly sources for energy and the finite nature of fossil fuels has put renewable energy in the spot light. The country's policy planners have realized that tapping the potential renewable is critical to achieve the aim of 'power for all by 2012'. The cost of power has to be kept low and also the reach expanded to over 25,000 remote villages. In conventional sources, the capital investment in power generation and distribution is in the ratio of 1:1. The cost of producing,

transmitting and distributing 1 MW of power is Rs 7 – 8 crore. In the case of power generators dependent on renewable for local consumption, the capital investment for generation could be higher than thermal (Rs 4 crore per MW) and lower than hydro, but there is no investment in transmission and no T&D losses. That makes renewable power source economically viable, especially for rural electrification.

During last two years, there have been policy initiatives that have supported the use of renewable sources of power. The Electricity Act 2003, the National Electricity Policy and the draft National Tariff Policy each of these policy pronouncements have underlined the importance of renewable power. Chapter VII of Planning Commission's document on Integrated Energy Policy (2005) details the options available on renewable and non conventional energy front.

IX Plan also had a detailed view on 'new and renewable sources of energy' (Chapter 6, section 6.279 to 6.291), including one 'integrated rural energy program' (Chapter 6, section 6.292 to 6.328). Agency like 'Indian Renewable Energy Development Agency (IREDA) was created in March 1987. Functioning of these programs and agencies has to be reviewed and to be revamped with technology, capital and managerial talent. X Five Year Plan document also makes a detailed discussion on 'renewable sources of energy' in Chapter VII, Section 7.3.18, Vol II.

Studies have identified tremendous potential of biomass gasifiers in providing thermal and / or electrical energy services for a variety of applications in India. (Ghosh, 2006) The study is based on experience and lessons from India, which has had extensive gasifier development and dissemination activities over the last two decades. Gasification offers a useful route of biomass conversion where the biomass, derived from a variety of sources (sources include fuel wood, crop residues and agro industrial wastes) is thermo-chemically converted into 'producer gas' which is a mixture of hydrogen, carbon monoxide, methane and other non combustible gases. 'Producer gas' can be utilized for process heat purposes, electricity generation or combined heat and power application.

7.1.3 Nuclear Energy as complement to Fossil fuel

On July 18, 2005, India signed the nuclear deal with the US. Under this agreement, the US administration reversed a nearly 30 year old policy by agreeing to work with Congress to amend US non proliferation laws to allow civilian nuclear trade with India. Although strategically, this had major ramifications for India in the global league, it also included a new opening for India in its quest for energy security. India could now hope to accelerate its plan on nuclear energy as the pact would enable India to source technology and fuel on a sustained basis. This deal (Hyde Act) has received Presidential accent on 18th December 2006 and has become a law.

India needs to source every form of energy available to meet its growing needs. Given the paucity of resource availability, it can hardly afford to pick and choose. So while Indo-US pact would provide a nuclear energy option for India, its parleys with oil rich countries need to be pursued at the same pace to meet the hydrocarbon hunger. It is at no point a question of nuclear or hydrocarbon as some may would like to see. India with its growing energy appetite could lap up all from hydrocarbon to nuclear to renewable.

Section 7.2: Taxonomy of Economic Reforms

India flagged off its journey of economic reforms in mid 1991. A conscious move towards a more liberal economic organization proceeded with the stabilization cum structural adjustment policies. Since then a paradigm shift in economic management from an inward oriented economic system to an outward looking one with progressive integration into the world economy unleashed the forces of liberalization, privatization and globalization. A greater reliance was made on the market mechanism for optimal allocation of resources across sectors.

With the regime shift, varied degrees of domestic and external sectors reforms were envisaged. Industrial reforms consisted of relaxation in entry norms with de-licensing and de-reservation for private and foreign participation in the public utility services and infrastructure – telecom, roads, ports, power and petroleum. A strategic disinvestment of public ownership in public sector units on priority was considered, with the setting up of a disinvestment commission. Foreign direct investment (FDI) was encouraged by setting up Foreign Investment Promotion Board (FIPB). Rationalization of tax with switchover from specific to VAT on industrial production was considered. Financial sector reforms led to introduction of more instruments: commercial papers, certificate of deposits, repos and *ad hoc*

treasury bills of shorter duration to make the money market more liquid. Banking sector reforms included relaxation in statutory controls of public sector banks, and private and foreign participation. A policy framework for non banking financial intermediaries (NBFIs) was laid. The capital issues control act was repealed and Security Exchange Board of India (SEBI) became active for regulatory and functional reforms of capital market. Foreign Institutional Investors (FIIs) were allowed to trade in all kinds of securities with full repatriation of profit. Insurance sector was thrown open for private and limited foreign participation along with the establishment of Insurance Regulatory Development Authority (IRDA). The fiscal reforms aimed at reduction of fiscal deficit through budgetary reforms: (i) expenditure controls, demonetization of deficits and progressive reduction of subsidies; (ii) revenue generation through simplification of tax structure – reduction and rationalization of personal income and corporate tax rates; and (iii) improvement in public savings by restructuring and disinvestment in and closure of sick PSUs. The external sector reforms consisted of trade and exchange rate reforms. The former aimed at abolition of quantitative restrictions on tradable, phased reduction of tariffs and removal of import licensing on all imports. India moved to a unified exchange rate since March 1993 and has a managed float from April 1993. For making exports competitive, a two fold twenty percent devaluation of the rupee in July 1991 was made. The current account became fully convertible from August 1994. These progressive changes opened many opportunities.

Following Chart presents a schematic diagram of measures of economic reform taken in various sectors:

Chart: Taxonomy of Economic Reforms

Economic Reforms						
Removal of Structural & Institutional Rigidities						
Stabilization and Structural Adjustment Programs						
<ul style="list-style-type: none"> • Liberalization (Internal & External) • Privatization (Transfer of ownership from state to market) • Globalization (Integration with world economy) 						
<u>INDUSTRIAL</u>	<u>TRADE</u>	<u>FISCAL</u>	<u>MONEY MARKET</u>	<u>CAPITAL MARKET</u>	<u>INSURANCE</u>	<u>EXCHANGE RATE</u>
<ul style="list-style-type: none"> + Relaxation of entry norms (de-licensing & de-reservation) + Welcome to FDI (automatic approvals by setting up of FIBPs) + Strategic disinvestment in PSUs (Disinvestment Commission) + Rationalization of Taxation (switching to VAT) 	<ul style="list-style-type: none"> + Abolition of import licensing on all tradables (except for finished consumer goods) + Phasing out non-tariff barriers + Phased reduction of tariff rates (progressive move to fulfill WTO conditions) + Reduction of excise and customs duties + Removal of quantitative restrictions on imports 	<ul style="list-style-type: none"> + Reduction of budget deficits + Progressive reduction of subsidies + Expenditure control + Demonetization + Lowering of Govt. stake in PSUs + Closure of sick PSUs + Reduction and rationalization of direct tax rates + Lowering indirect taxes 	<ul style="list-style-type: none"> + Introduction of new instruments, making money market liquid + Relaxation in statutory controls (SLR, CRR) + Imposition of prudential regulatory measures + Deregulated interest rates + Participation of private sector banks & foreign banks + Policy framework for NBFIs 	<ul style="list-style-type: none"> + Regulatory reforms (SEBI Constituted) + Functional reforms (on line trading) + FII's permitted to invest 	<ul style="list-style-type: none"> + IRDA constituted + Private & limited foreign participation allowed 	<ul style="list-style-type: none"> + Two step devaluation of rupees + Move towards unified exchange rate + Fully convertible current account
Direct Impact on the Economy						

These instruments of reform had far reaching impacts within the country and outside the country as well. As far as internal reforms were concerned, it took the economy closer to the masses; and external reforms took Indian economy closer to the rest of the world.

7.2.1 Business Expectations

Economic reforms have helped to create an optimistic business environment. Business confidence surveys conducted by various agencies present a mixed short term outlook for the economy. As Table 7.1 below indicates 'Business Confidence Survey' conducted by the Federation of Indian Chambers Commerce and Industry during the third quarter of 2006-07, the overall business confidence index increased by 4 percent over the previous quarter. According to the Reserve Bank's latest 'Industrial Outlook Survey' conducted during December 2006 – January 2007, the business expectation index based on assessment for January – March 2007 declined by 1 percent. However, the business expectation index based on expectations for April – June 2007 also declined by 1.4 percent over the previous quarter. The indices were, however, higher by 2.2 percent and 4.4 percent, respectively, than a year ago.

Table 7.1: Business Expectations Survey

Agency	Business Expectations		Growth over a year ago	Growth over previous round
	Period	Index		
Dun & Bradstreet	January – March 2007	Business Optimism Index	16.0	9.8
NCAER	January – June 2007	Business Confidence Index	3.9	3.2
FICCI	January – June 2007	Business Confidence Index	- 2.1	4.0
RBI	April – June 2007	Business Expectation Index	4.4	- 1.6

Source: Reserve Bank of India Bulletin, May 2007

The decline in the expectations index for April – June 2007 over the previous quarter was on account of fall in expectations for major parameters of the survey such as overall business situation, production, working capital finance, order books, capacity utilization and profit margin. Expectations of increase in employment, exports, imports and selling prices were, however, higher than the previous quarter.

7.2.2 External Sector & Corporate Sector Performance

A striking feature of the Indian corporate sector in the post reform era is its growing engagement with the global economy. Apart from merchandise trade in goods and services, this growing integration has taken the form of large scale cross border merger and acquisition activities. Thus, not only India is a recipient of foreign direct investment, but the corporate sector is also exploring opportunities to invest abroad. Following the phased liberalization in the regime for Indian investments overseas, investment in joint ventures and wholly owned subsidiaries abroad have emerged important avenues for promoting global business by Indian companies. Indian firms are acquiring firms abroad to leverage comparative advantage of foreign locations, to acquire appropriate technologies and to have a marketing and distribution base with the ultimate objective of attaining economies of scale and productivity gains.

The reform measures taken in respect of the external sector have clearly been very successful. Merchandise exports have increased from 6 to 13 percent of GDP between 1990-91 and 2005-06; imports have also increased from 10 to 24 percent of GDP over the same period; foreign exchange reserves increased from \$ 1.5 billion to \$ 165 billion.

Industrial growth was very high during the 1992-97 periods in the immediate exuberance of industrial policy reforms. However, there was a significant slowdown during 1997-2002. As tariffs were reduced, import controls were lifted and domestic competitive threats emerged at the same time, the initial protective effects of the *ex ante* real devaluation of 1991 wore off and the Indian corporate sector, particularly in manufacturing, found itself in difficulty. The Indian corporate sector was therefore in the throes of significant technical restructuring, business process restructuring and financial restructuring, all at the same time. Evidently, though this process resulted in an industrial slowdown then, it has contributed to the industrial competitive resurgence that is now observed. There is a revival of the manufacturing sector now. A competitive company can be found in almost every industrial sector now. Some indicators of this competitiveness can be seen in Table 7.2 below:

Table 7.2: Some Indicators of India's Openness

Percent of GDP

Year	Export of Goods	Import of Goods	Export of Services	Import of Services	Receipts of Transfers and Incomes	Payments of Transfers and Incomes	Current Receipts	Current Payments	Current Account Balance
1990-91	5.8	8.8	1.4	1.1	0.9	1.3	8.2	11.2	- 3.1
1991-92	6.9	7.9	1.9	1.4	1.7	1.5	10.5	10.8	- 0.3
1992-93	7.3	9.6	1.8	1.5	1.8	1.5	10.9	12.6	- 1.7
1993-94	8.3	9.8	1.9	1.7	2.2	1.3	12.4	12.8	- 0.4
1994-95	8.3	11.1	1.9	1.7	2.9	1.3	13.1	14.2	- 1.0
1995-96	9.1	12.3	2.1	2.1	2.9	1.3	14.1	15.8	- 1.7
1996-97	8.9	12.7	1.9	1.8	3.6	1.2	14.4	15.6	- 1.2
1997-98	8.7	12.5	2.3	2.0	3.4	1.3	14.4	15.8	- 1.4
1998-99	8.3	11.5	3.2	2.7	3.0	1.3	14.5	15.5	- 1.0
1999-00	8.3	12.3	3.5	2.6	3.2	1.2	15.0	16.1	- 1.0
2000-01	9.9	12.6	3.5	3.2	3.5	1.7	16.9	17.4	- 0.6
2001-02	9.4	11.8	3.6	2.9	4.1	1.7	17.0	16.3	0.7
2002-03	10.6	12.7	4.1	3.4	4.2	1.5	18.9	17.6	1.3
2003-04	11.0	13.3	4.5	2.8	4.4	1.5	19.9	17.6	2.3
2004-05	12.2	17.1	6.2	4.0	3.8	1.5	22.2	22.6	- 0.4
2005-06	13.1	19.6	7.6	4.8	3.9	1.5	24.6	26.0	- 1.3

Source: Reserve Bank of India Bulletin, December 2006

The performance of the Indian corporate sector has been highly encouraging in the last three years. The previous occasion, when such healthy performance was demonstrated by the corporate sector was in the early 1990s, i.e., during the initial period of exuberance immediately after the economic reforms program was initiated in India. But during the latter part of the 1990s, around 1997, the momentum in the corporate sector slowed down in sync with the general economic slowdown. The recovery since then is remarkable in all important parameters: sales, gross profit, profit after tax, all have recorded robust growth rates during 2002-03 to 2004-05, as shown in Table 7.3 below:

Table 7.3: Select Indicators of Corporate Performance (Percent)

Year	Sales Growth (Y-O-Y)	PAT Growth (Y-O-Y)	Working Capital / Sales	Debt / Sales
1994-95		55.4	52.2	50.8
1995-96	29.9	22.7	53.2	47.7
1996-97	19.4	- 0.5	54.8	47.8
1997-98	19.3	13.5	51.9	49.6
1998-99	6.1	- 2.8	50.0	43.8
1999-2000	13.8	9.2	47.6	37.8
2000-01	21.6	23.6	42.2	31.8
2001-02	22.9	0.2	41.1	31.3
2002-03	3.7	51.8	43.2	27.1
2003-04	16.2	30.7	39.5	25.0
2004-05	13.0	28.4	24.7	52.6
	18.5			

Source: Reserve Bank of India Bulletin, December 2006

The current exuberant run of corporate sector performance has continued well into its fourth year as evidenced by the corporate sector results for the first quarter of 2006-07. The strong sales performance has resulted in an improved bottom line for the corporate sector as a whole. Powered by a strong top line performance, gross profits of the Indian corporate sector grew at a sturdy rate of 34 percent in the quarter ending in June 2006 on top of a 20 percent growth recorded in the full fiscal year 2005-06. The interest costs have been plummeting in the recent years due to an overall softening of interest rates and lower debt equity ratios, which is an outcome of conscious policy driven measures.

7.2.3 External & Financial Sectors

A dominant characteristic of reform in the external sector on trade account is that the approach was to indicate the direction and to encourage participants to equip themselves better. In this context, a distinction needs to be made between promoting growth and enhancing efficiency in the context of economic reforms. Trade reforms in India were designed to enable domestic firms to restructure and spread the costs of adjustments overtime – thus enabling enhanced efficiency through a gradual process. Growth is promoted on a longer term basis in view of efficiency gains that were made possible by the gradualist approach.

On the capital account also, there has been a continuous resetting with a view to the accelerating gradual pace of liberalization depending on the domestic and global situation but the direction has not been compromised. While there is full convertibility on the current account, and also for all authorized inflows as well as outflows on the capital account, the process of managing the capital account consists of operating two routes, namely automatic and non-automatic. As far as foreign direct investment is concerned, consistent rebalancing in the desired direction is done by expanding the automatic route and by moving most of the prohibited transactions to the non-automatic but approval route and at a later stage, to an automatic or deregulated regime. There is full convertibility for portfolio flows through Foreign Institutional Investors as far as equity markets are concerned. As regards residents, a distinction is made between resident individuals, the corporates and financial intermediaries – and a process of gradual liberalization for each category, as appropriate, is the general approach. Currently there is virtually full capital account convertibility for Indian corporates.

Section 7.3: Taxonomy of Reforms in Oil Sector

Reform in Oil Sector has its own logic and logarithm. Oil Sector is a subset of energy sector. The energy sector, given its importance for the economy as a whole, has traditionally been a field of strong government involvement both in industrialized and developing countries. Governments act in the energy sector for a variety of reasons and in several ways. Many instances and types of intervention are explicitly designed or intended to support energy policy goals and are specific to the energy production-supply industries or to the final use of energy. Other actions, designed to support broader economic, political or social objectives, also affect the supply and use of energy among a range of goods and services. In practice, because energy is an essential input to most economic and human activity, almost all government actions impinge on the energy supply and demand in different way.

Reform measures undertaken in Oil Sector is broad based and comprehensive. It is not sweeping, in the sense that measures have been undertaken on various fronts as required basis, keeping the spirit of economic reform and national agenda in view. Chapter V has made a detailed analysis of reform measures undertaken in Oil Sector. The Chart given below presents the reform measures undertaken in downstream oil sector in a schematic format.

Chart: Taxonomy of Reforms in Oil Sector

Downstream Oil Sector Reforms				
Removal of Structural & Institutional Rigidities				
Stabilization and Structural Adjustment Programs				
<ul style="list-style-type: none"> • Liberalization (Internal & External) • Privatization (Transfer of ownership from state to market) • Globalization (Integration with world economy) 				
INDUSTRIAL	PRICING	MARKET	TRADE	FISCAL
<ul style="list-style-type: none"> + De-licensing of refinery + Allowing parallel marketing of almost all petroleum products + Allowing PSU Oil companies to form JV with private / foreign companies + Allowing foreign companies to have equity investment in India's PSU marketing companies + Disinvestment through strategic sales (IBP) + Divesting government equity of PSU marketing 	<ul style="list-style-type: none"> + Abolishing APM in selling product pricing + Abolishing retention pricing concept in refinery transfer price and crude + Dismantling OCC pool accounts + Freeing the prices of lubricating oils and other industrial fuels + Making auto fuels import parity in principle + Allowing Oil companies to resort to risk management practices to protect their margin on 	<ul style="list-style-type: none"> + Allowing PSU Oil marketing companies to come up with value added products with discriminating pricing + Add on services and products like In & Out store, Club HP etc. + Passing the Downstream Petroleum Regulatory Bill + Liberalizing the dealers and distributors selection and appointment process 	<ul style="list-style-type: none"> + Bringing almost all products under OGL + De-canalizing all products including crude oil + Reduction of tariff on crude and on all products (reduction of tariff protection for Indian refineries) + Allowing export oriented refineries + Giving deemed export status to domestic sale for some products 	<ul style="list-style-type: none"> + Reduction of excise duty rate on almost all products and adding an element of specific rate in excise duty + Removing cross subsidies of all petroleum products except on LPG (domestic) and SKO (PDS), which are to be provided from budget + Issuing special bonds to PSU Oil marketing companies to alleviate the impact of un-recovered cost + Formula for sharing the un-recovered cost of

<p>companies</p> <ul style="list-style-type: none"> + Allowing autonomy in investment decision (Navaratna status) + Listing PSU Oil marketing companies' share in stock exchanges + Merging stand alone refineries with marketing companies 	<p>physical exposure</p> <ul style="list-style-type: none"> + Free pricing for branded products and value added services 			<p>PSU oil marketing companies</p>
<p>Impact on other Sectors in the Economy</p>				
<p>Impact on the Economy</p>				

A broad survey of these two schematic presentations brings out the similarity in the format of reforms, undertaken at two different stages; the former one pertains to national level and the latter to the sectoral level. The interrelations between these two have been analyzed in previous chapter (Chapter VI).

Section 7.4: Alignment / Misalignment of Reforms in Oil Sector with those in National Economy

Economic reforms aims to have growth with social justice at the national level. Reform at the Oil Sector would like to attain highest level of efficiency, keeping in mind the need of the economy. Oil sector aims at meeting the energy needs of national economy at an affordable price. The way reform measures have been undertaken in the Oil sector (Chapter V) and the economy is behaving (Chapter VI), one takes a *prima facie* view that Oil sector reforms have enabled the other sectors of the economy to perform well and the economy as a whole has grown on desired path.

For a developing country like India, the problem of economic growth and demand for oil to sustain such growth are exacerbated by change in demographic profile. Towards the transition from the rural economic system to industrialized ones, the

economic reform and oil sector reform both have to grapple with the following features:

- The high difference in per-capita income of population as a consequence to uneven and heterogeneous distribution;
- The large presence of poverty regions;
- The prevailing style of living strongly linked to rural and local conditions;
- The existence of many economic and social barriers to the widespread adoption of technologies.

7.4.1 Industrial Reforms

Notwithstanding the fact that economic reforms have primarily focused on industry, it has failed to grow at rates exceeding the rate of growth of GDP as a whole. Though substantial progress has been made in a number of areas such as industrial licensing, import liberalization, small scale industry reservation, industrial growth exchange rate management and rationalization of interest rates, industrial growth has not picked up in a major ways. Reforms are required in several other areas like: a) labor market reform and bankruptcy law; b) improving infrastructure; c) restraint on fiscal deficit. (Panagariya, 2007)

A significant feature of the strengthening of economic activity since 2003-04 has been the resurgence of manufacturing activity in the country. After recording high growth in the mid 1990s, the manufacturing sector exhibited stagnation till 2001-02. Since then, manufacturing has registered a gradual pick up which is being sustained till now.

Led by manufacturing, the upturn in the industrial sector entered its fifth year of expansion in 2006-07. Based on movements in the index of industrial production (IIP), growth in manufacturing activity accelerated to 11.8 percent during April-August 2006 from 9.6 percent in the corresponding period of 2005. As shown in Table 7.4 below, all sectors excepting consumer non-durables have exhibited acceleration. Notably, growth in capital goods production accelerated to nearly 19 percent, even on a high base, reflective of strong investment activity in the economy.

Table 7.4: Index of Industrial Production (IPP)

Sector	Weights in IIP	Growth Rate (Percent)			
		April - March		April - August	
		2004-05	2005-06	2005	2006
IIP	100	8.4	8.1	8.7	10.6
Basic Goods	35.6	5.5	6.6	6.9	8.3
Capital Goods	9.3	13.9	15.8	13.8	18.6
Intermediate Goods	26.5	6.1	2.4	3.5	9.5
Consumer Goods	28.7	11.7	12.0	13.7	11.3
i) Consumer Durables	5.4	14.4	14.9	13.0	16.6
ii) Consumer Non-Durables	23.3	10.8	11.1	13.9	9.5

Source: Reserve Bank of India Monthly Bulletin

Six infrastructure industries have recorded only modest improvement to 7.3 percent during April - September 2006 from 6.1 percent in the corresponding period of 2005. This improvement was helped by a turnaround in the production of crude oil and petroleum refinery products, the two sectors had registered negative growth a year ago as can be seen in Table 7.5 below:

Table 7.5: Infrastructure Activity

Sector	Weights in IIP (percent)	Growth in Percent (y-o-y)			
		April - March		April - Sept.	
		2004-05	2005-06	2005	2006
Electricity	10.2	5.2	4.9	4.7	6.7
Coal	3.2	6.2	7.0	6.0	5.3
Finished Steel	5.1	8.4	8.0	13.7	7.2
Cement	2.0	6.6	12.3	11.4	10.0
Crude Oil	4.2	1.8	-5.3	-5.0	4.1
Refined Petroleum Products	2.0	4.3	2.1	-0.7	12.3
Composite Infrastructure Index	26.7	5.8	5.3	6.1	7.3

Source: Reserve Bank of India Monthly Bulletin

The resilience shown by the industrial sector against the hardening of global oil prices is reflective of inherent strengths and capabilities that the industrial sector has built over the years since the initiation of economic reforms in the country. There is evidence of growing competitiveness in respect of sectors such as automobiles and pharmaceuticals, with potential to emerge as a manufacturing base for global production. At the same time, in the face of challenges from

infrastructural bottlenecks, elevated input costs from higher oil and other commodity prices, likely imports from China and the possibility of emerging shortage of domestic skilled labor, the domestic manufacturing sector will have to continuously improve its productivity and competitiveness in order to sustain the current growth momentum.

Reform measures undertaken in the sphere of industrial policy in Oil Sector runs in line with those done in economic reforms at national level. Basically, the objective is to bring in competitive spirit by inducting multiple (private and foreign) interests to it. Second objective is to bring in additional capital into infrastructure sector, may it be foreign direct investment.

On both these accounts, that is competition and private / foreign capital, Oil sector has so far not accomplished much of success, as analyzed in paragraph below.

Competition

After de-licensing of refinery, two refineries were built around 1999, namely Reliance at Jamnagar and MRPL at Mangalore. The entry of these two refineries have added to the refining capacity of the country and the total refining capacity has become temporarily surplus (127 MMT refining against 116 MMT consumption). In 2006, Essar refinery at Jamnagar came on stream. As a result, some refineries are forced to export their yield out and find a value for their products in the overseas market. But overall, there is not much of competition amongst the refineries with regard to their domestic market share. The domestic market is huge and growing, in such a manner that all refineries have got accommodated in the market. There has of course been a period of adjustment when the Supply Plan Management under OCC was suspended in 2001-02 and the Oil Industry had to do its own logistics planning and product exchange arrangement amongst the companies. For the first time, each Oil Company got alerted as far as product sourcing is concerned. So there was threat of product denial in case of deficit, depending upon product and location. In that sense, each Oil Company became conscious of the logistics cost. For the first time, element of competition has set in at the company level; at operating level, which might have brought about operating efficiency. Oil marketing companies have got into focused Supply Plan Management system.

But the reach of competition has not yet covered the market for all products. The customers of auto fuel are yet to taste the fruits of competition. This has not happened mainly due to pricing policy, which is not being freed from the government control (as discussed in Chapter V, Section 5.3). However, for lubricating oil and industrial fuel like naphtha, furnace oil and LSHS, the competition has yielded the desired result. There are multiple players, multiple sources, including overseas source and the customers are getting a competitive price.

Customers in auto fuel segment have got a choice of product in branded fuels (petrol and diesel). Oil Companies are selling branded fuels at competitive market driven price. (Details in Section 7.4.3 in this Chapter)

In case of industrial fuel, the efficiency of fuel use, the right type of fuel, economic value of the fuel from both the buyer and seller's point of view and the carbon emission has to be studied for each industry, each location and each application to take the outcome of reform process further.

Exhibit - 13

Industrial Reforms – Competition

Refinery

- ✓ New Refineries; capacity addition of existing refineries
- ✓ Economic product positioning, logistics plan, export option
- ✓ Cost consciousness at operating level
- ✓ Operational efficiency *wrt* crude oil sourcing & refining

Capital and infrastructure building

Oil sector has not met the objective of getting private / foreign capital into building capacity and facilities. (Chapter VI, Section 6.2) The reasons are to be found in: a) the strategic nature of the sector itself, because of which the sector could not be opened up indiscriminately; b) political polarization centering around inroad of private interest in to Oil retailing, and c) the pricing policy followed did not provide much leeway for private profit (Chapter V, Section 5.3).

World over there is a trend in increasing level of deregulation and widespread implementation of privatization process. (Focacci, 2005) The speed up in the latter precisely assumes relevant importance, considering that the higher

expected investment return rates are a direct consequence of the higher business risks faced by private companies. Furthermore, with the higher inflow of foreign capital, the system tends to increase the global competitive rate of the sector and the mix of technologies to improve the operating efficiency level.

The investment climate in India as perceived by foreign capital for direct investment is not so high as to attract MNC capital to India. Investment in India has a price for: a) corruption, b) bureaucracy and c) political divide at regional and local level. The sordid experience of Enron at Dhabol was an unfortunate damper and signal against foreign direct investment in energy sector in India. It is ironical that Dhabol was once billed as India's biggest foreign investment and that turned out to inflict lasting damage to India's prospects as an investment destination.

Irrespective of whether the flows are of the FDI kind or of portfolio investment in primary or secondary market, investors are said to be led by perceptions about the earning prospects of corporations. In other words, the rate of return on portfolio / direct investment, net of taxes, would be one of the critical factors in the decisions to invest. Other major determinants of foreign investment flows, including the credit worthiness of recipient countries are: a) economic situation in the source countries, b) regulatory framework in both the source and recipient countries and c) the perceptions of investors about the need for diversifications of their investments, based on calculations of the probability of the associated risks.

After 1993, when capital account was partially liberalized, it was hoped that capital inflows would contribute towards our economic growth. However, studies have shown that 'capital inflows have not contributed towards either industrial production or economic growth. The reasons could be two fold: One, the amount of capital inflows to the country has not been enough. Second, the amount of capital that does flow in is not utilized to its full potential.' (Mazumdar, 2005)

Further, studies have shown that liberalization of FDI policy may be necessary but not sufficient for expanding FDI inflows. The overall macroeconomic performance continues to exercise a major influence on the magnitude of FDI inflows by acting as a signaling device for foreign investors about the growth prospects for the potential host economy. Hence paying attention to macro economic performance indicators such as growth rates of industry through public investments in socio-economic infrastructure and other supportive policies and creating a stable and enabling environment would crowd-in FDI inflows. Studies have shown that policies that facilitate domestic investment also pull in FDI inflows. While investment incentives may not be efficient, active promotion of FDI by developing certain viable projects and getting key multinational enterprises in them could be useful in attracting investments in desirable direction.

Exhibit - 14

Industrial Reforms – Capital & Infrastructure building

Oil Sector has not met the objective of getting private / foreign capital into building capacity and facilities:

Reasons:

- **The strategic nature of the sector, because of which the sector could not be opened up indiscriminately;**
- **Political polarization centering around inroad of private interest into oil retailing;**
- **Pricing policy followed did not provide much leeway for private profit.**

Industrial Performance of the PSU firms

The PSU Oil marketing companies have a good professional track record and they behave like responsible corporate social citizen. Their record of dividend payment to share holders and their performance in stock exchanges are testimony to their sound commercial operation and management. (Chapter VI, Section 6.4)

There is a line of argument that the PSU Oil Companies are performing in a regulated and protected environment. Looking at the environment in which these companies are operating, this charge can not be denied. However, *prima facie*, when we survey international market and see the operating style of multinational companies, we hold a view that Indian PSU oil marketing companies can work well under any environment. They are rendering their services with the best performance, meeting the commercial and national objectives placed before them.

Privatization

Privatization in general was a measure to reform the PSU companies. Disinvestment of profit making enterprises by public offering of shares was desired to take India towards a greater number of companies with dispersed shareholding and would avoid concentration of economic power.

In the Oil sector, privatization was attempted through many ways: First, by divesting the Government of the minority part of the share of some PSU Oil marketing Companies. By this process, Government could mobilize some funds and the share of these blue chip companies came to be held by public and financial institutions. Secondly, IBP was sold by disinvestment commission through public auction; there by, it was taken over by IOC. Thirdly, stand alone refineries were taken over by other PSU Oil Companies like, IOC & BPC. By this process, Government could make some capital revenue. Fourth and lastly, Government wanted to sell out HPC & BPC, but failed in its effort for want of full support of Parliament. (Section 5.6 and 6.4 of Chapter V & VI, respectively)

All these measures are in line with national economic reforms. Only problem is that the privatization in Oil Sector could not be taken to its conclusion. There is difference of opinion on this count between the alliance partners of ruling UPA, namely Congress and Communists. In a sense, the peculiarities or the strategic nature of Oil Companies is coming in the way of privatization. There is lack of political consensus with regard to the advisability of privatizing profit making and strategic companies like PSU Oil Companies.

Looking from the point of view of management of Oil Companies, the privatization has been a big drama thrust upon them and that has made the job of running these companies difficult. Ever since the commencement of reform, the threat of privatization is hanging on the head of management of PSU Oil Companies. That is keeping the issue of ownership of these companies hanging on fire. Indirectly, the legitimacy of the incumbent management is being tried for a protracted period. In a very subtle but sure way, this has affected some long term strategic decisions of these companies.

From the point of view of alignment with the economic reform, there is no discord with regard to privatization. Privatization in Oil Industry was attempted by the Disinvestment Ministry. Then Petroleum Minister, Mr. Ram Naik was of course not much in favor with the move. If the goal of privatization has not been reached, it has less to do with Oil Sector so much and more to do with national political scene.

Exhibit - 15

Industrial Reforms – Privatization

Objectives:

- Reform the PSU oil companies
- Mobilize capital for the Government
- Disperse ownership of the companies for better corporate governance
- Avoid concentration of economic power

Actual

- Privatization measures undertaken in oil industry is inline with national economic reforms
- The process could not be taken to its conclusion

Autonomy of decision making

The PSU Oil marketing companies have been accorded 'navaratna' status, which allows them some freedom in taking decision in investment. This is in keeping with the spirit of reform.

Similarly, the Board of PSU Oil marketing Companies have been recast with induction of independent directors. This is also in line with the spirit of corporate governance.

Both these are in line with the spirit of reforms, which encourages decision making on commercial lines. The question of autonomy, however, still for a large measure remains on paper and meets the formalities. Decision making in practice to a large extent remains in the hands of bureaucrats in Delhi.

Exhibit - 16

Industrial Reforms – Autonomy in decision making

<u>Aligned move</u>	<u>Actual</u>
<ul style="list-style-type: none"> • Navaratna status of Oil PSUs • Independent directors in the Board (corporate governance) 	<ul style="list-style-type: none"> -Still mandarins In Delhi pull the string -Part of overall Government culture

Public vs Private

The Oil Industry today, from 2002 onwards, is having the presence of both public and private sector. There is a bit of irony that at times one sector is discriminated against the other, by sheer abuse of money and power. PSU Oil Companies work under a lot of constraints. One main disadvantage they face vis-à-vis their competitor in private sector is that PSU Oil companies are not allowed to diversify into supplementary and complementary lines of business. Private Oil Companies can diversify into associated business, which gives them ability to take risk that can be mitigated by countervailing results from other business units. Reliance for example is contemplating to venture into nuclear power, which has got all commercial justifications associated with risks. Such risk taking and venturing out initiatives can seldom be taken by the management of public sector enterprises. Public sector enterprises always have to operate within the mandate given to them by the majority shareholders, which is Government.

From the reforms point of view, entry of private players into domain so far reserved for public sector is a welcome development that has taken place. But the fruits of reforms will be reaped only when there is free and fair competition.

That leads to an observation that carrying out reforms is only the first step, managing the state of affairs through reforms is the next step, which is very important. Financial sector has taken a few steps in this direction. (Singhal, 2006)

PSU Oil Companies have gone in a big way into 'non - fuel' business. It is a combined outcome of competition, erosion of profit from the core activity and the spirit of privatization. 'Non - fuel' business is taking the PSU Oil companies towards 'public private partnership' model. By this process, PSU Oil Companies are entering into retailing and are leveraging their own network. Secondly, they have brought 'customer' to the centre stage of their marketing interface. Thirdly, these companies have gone to a great length to capitalize their brand names, which are well established across the length and breadth of the country.

In this respect, Indian PSU Oil firms have learnt from their MNC counterparts. 'Indeed for BP and Shell, a symbol alone is enough to recognize the brand. BP, Shell and Exxon all exploit the value of their names and benefit from added sales and market share that they can gain simply on the trust that buyers have in their brand name. One only need to look at the impact that the BP and Shell brand names have had when new franchises have been opened in Russia, China and other developing countries. None of the larger oil companies need to spend money to gain brand recognition, leaving them free to focus on making customers aware of what services and goods are actually on offer. Whilst it is impossible to put a value on the brand name, it gives massive leverage in enabling other parts of the business to be established and for new products to be introduced. In short, the global brand name is a source of huge competitive advantage.' (Antill, 2002)

Deregulation in the utility industry in Europe and subsequent consolidation has facilitated the formation of a whole new set of multi-utility companies that can offer the customer a range of products and utility services (gas, electricity, water), information products (printed media, video, voice and data), and goods and services (durables, consumables and household services). The multi-utility company is a product of the energy value chain restructuring. The natural gas value chain and electricity value chains are converging at a number of points, including the retail segment.

Currently, there is a trend of joint ownership of business, mostly seen in risky ventures, which is called PPP (private public partnership). (Chapter IV, Section 4.5.2) The nascent trend of private sector companies partnering PSUs for overseas ventures or specific projects could be a win-win for both. Following the footsteps of the ONGC Videsh and Mittal Investment tie-up to bid for oil resources overseas, Reliance Communications now wants to partner MTNL for telecom projects in other countries. Reliance Industries has also collaborated with Oil India Ltd in one of its 21 exploration bids in NELP VI round of bidding which closed on 15th September '06. Bharat Petroleum has reached an agreement with Videocon Industries Limited to acquire all the shares of En Cana

Brasil Petroleo Limitada, a Brazilian Company. En Cana Brasil has interests in 10 off shore exploration blocks in Brazil. Such high profile joint ventures between PSUs and private sector ones reflect the importance of the public sector / government link when it comes to overseas bids. These are not, however, state imposed marriages or opportunistic alliances made to curry favor with the government but market dictated tie-ups when both partners bring something to the table. The state owned company brings years of experience and strong networks. The private sector partner, in turn, brings a more professional management and outlook.

To summarize, the parameters of industrial reforms, namely: a) competition, b) capital and infrastructure building, c) performance, d) privatization, e) autonomy and f) public vs private, together converge in achieving the goal of reform process, which is to optimize growth with social justice. The reform measures undertaken with respect to all these parameters are interrelated and together these measures impact the outcome of reforms.

Exhibit - 17

Industrial Reforms – Private vs. Public

Aligned move

- Effective 2002, private players are active
- Non fuel business,
- Energy value restructuring
- Private public partnership
- Customer centric

Actual

- Level playing field is lacking
- Trend towards multi-utility multinational & brand building

7.4.2 Pricing

Pricing is the key to competition. It is one of those components which are used by a firm to play effectively in a competitive market. It assumes a special significance in Oil Industry, as Oil Industry all these years was operating under administrative pricing mechanism (APM). It was a momentous decision which scrapped APM at one stroke effective 1st April 2002. There was of course frequent and long pronouncements for doing away with APM. Right from the Sundararajan Committee Report published in early 1995 and Govt. notification for phased dismantling of APM in 1997, there was news and anxiety in the air about APM to go. What was not clear to the Industry members was the system that was to replace APM. Apparently, there was no credible and operationally feasible replacement in place. Industry took it as a challenge and resorted to import parity price (IPP). Due to unprecedented rise in crude oil price in international market, IPP however did not work, as analyzed in Section 5.3.5 in Chapter V.

During 2006-07, prices of the 'fuel, power, light and lubricants' group (weight: 14.2 percent) increased by 1 percent as against 8.3 percent in 2005-06. The average price of Indian basket of crude, as estimated by RBI, increased from US \$ 55.4 per barrel in 2005-06 to US \$ 62.4 per barrel in 2006-07, as shown in Table 7.6 below. In terms of monthly averages, the price of the Indian basket increased from US \$ 66.8 per barrel in April 2006 to US \$ 71.1 per barrel in July 2006, but declined to US \$ 57.3 per barrel in October 2006 and further to US \$ 53 per barrel in January 2007 before increasing to US \$ 60.4 per barrel in March 2007. In view of the intra year decline in the average price of the Indian basket of crude, domestic retail prices of petrol and diesel were reduced in two stages: at end November 2006 and again in mid February 2007 by around 6 percent.

**Table 7.6: International Crude Oil Prices
And Indian Basket Crude Price**

US dollars per barrel

Year / Month	Dubai	Brent	WTI	Average Crude	Indian Crude Basket Price
2001-02					22.4
2002-03	21.8	23.2	24.1	23.0	26.6
2003-04	25.9	27.6	29.2	27.6	27.8
2004-05	26.9	29.0	31.4	29.1	38.9
2005-06	36.4	42.2	45.0	41.3	55.4
2006-07	53.4	58.0	59.9	57.1	62.4
March 2004	60.9	64.4	64.7	63.3	31.9
March 2005	30.5	33.8	36.7	33.7	48.8
March 2006	45.6	53.1	54.2	50.9	59.6
	57.7	62.3	62.9	60.9	

April 2006	64.1	70.4	69.5	68.0	66.8
May 2006	64.9	70.2	70.9	68.6	67.2
June 2006	65.1	68.9	70.9	68.3	66.7
July 2006	69.1	73.9	74.4	72.5	71.1
August 2006	68.8	73.6	73.0	71.8	70.9
September 2006	59.8	62.8	63.8	62.0	61.1
October 2006	56.5	58.4	58.9	58.0	57.3
November 2006	56.8	58.5	59.1	58.1	57.5
December 2006	58.7	62.3	62.0	61.0	60.2
January 2007	52.0	54.3	54.2	53.5	53.0
February 2007	55.7	57.8	59.3	57.6	56.6
March 2007	59.1	62.1	60.6	60.6	60.4

Source: Reserve Bank of India Monthly Bulletin, May 2007

One would perhaps be justified in taking a view that, the dismantling of APM was an experiment in failure. Firstly, APM did not give way to another operating system. IPP did not work. Oil Companies were not allowed to revise the prices of auto and cooking fuels. In fact revision in selling prices of auto and cooking fuels still are decided by the Government. Today's situation is worse than APM, as there is no pool mechanism to absorb the shocks. Today, shock is directly coming on the PSU Oil Companies and *ad hoc* arrangements are being made to manage the un-recovered costs of the Oil Companies.

Since prices are not market determined and do not reflect the economic value, there is massive distortion in the market. Firstly, private players are not coming forth to market, due to the inflexible pricing policy being dictated on socio-political consideration. No private company can absorb the kind of loss that PSU Oil Companies are thrust upon. Secondly, the PSU Companies are suffering from an artificially depressed bottom line, leading to their internal management problem, including depressed morale of their staff. Thirdly, products which are subsidized are being used inefficiently, leading to wasteful consumption and carbon emission. Fourthly, long term investment decisions in marketing infrastructure are not coming forth, PSU Oil Companies are not sure of their own finances. Fifthly, as PSU Oil Companies are resorting to heavy market borrowing for their working capital, the money and credit market is getting strained, leading to pressure on interest rate. Sixthly, incomplete pass over of international price to consumers is creating pressure on fiscal deficit and public debt. All these dysfunctional features put together created an unstable pricing regime and there is no easy way out. Rangarajan Committee (2006) of course has suggested a trade parity basis and Government has announced on 6th June 2006 its acceptance. Still, these are yet to be practiced. The Oil Industry is in a doldrums, because of this single reason. This alone is emitting signal as if reform process in down stream Oil Industry is half way through and is at a roadblock.

On account of pricing of petroleum products, the reform in downstream oil sector is definitely not in line with the economic reform. Even when oil prices were not revised in proportion to import parity, prices of petroleum products have fuelled inflation, as discussed in Section 6.3, Chapter VI. This has happened despite monetary authorities taking care to manage the external balance front and internal price level with a view to contain inflation, as discussed Section 6.2 & 6.3, Chapter VI.

Planning Commission (2006) has well appreciated this issue and in its draft approach to XI Plan mentions: 'The most important policy issue in oil sector relates to pricing of petroleum products. The recent increase in oil prices (in international market) is now expected to persist for some years and although prices of some petroleum products (in domestic market) have been raised, the increase still leaves a large uncovered gap. This gap is being borne partly by the oil companies and partly by the issue of bonds by the government to the companies, which is equivalent to a government subsidy'.

The distortion brought about by freezing oil prices acts against efficiency and equity objectives of reform. 'Oil price freeze prevents economy in the use of petro products in production, consumption and investment, raises the oil import bill and reduces thereby national income and welfare through a fall in GDP and adverse movement in the terms of trade. Since substitution possibilities are larger in the medium and long run, longer term costs of substituting petro products tend to be larger as technology, allocation of investment, production structure and pattern of absorption are not adjusted optimally to the change in oil prices.' (Rakshit, 2005)

'In the longer run, the only viable policy to deal with high international oil prices is to rationalize the tax burden on oil products overtime, remove fat which may exist in existing pricing mechanism which give the oil companies an excessive margin, realize efficiency gains through competition at the refinery gate and the retail prices of petroleum products, and pass on the rest of the international oil price increase to consumers, while compensating targeted groups below the poverty line as much as possible.' (Planning Commission, 2006)

'From the view point of allocation efficiency, subsidizing a product is justified only if its use generates positive externalities. Since in the case of hydrocarbon, externalities are negative, petro products are required to be taxed rather than subsidized. Second, given the difficulty and costs of raising taxes in a country like India, there is a strong case for taxing oil even if one ignores its adverse effect on the environment. Apart from the low cost of collecting duties on crude oil, the relatively inelastic demand for petroleum products implies that loss of social welfare on account of such duties is relatively small. Again, remembering that the oil shock requires an increase in the tax-GDP ratio, it is optimal to raise taxes on oil, not lower them.

Subsidizing petro products is generally justified on equity considerations. However, not only is such subsidy grossly distortional and inefficient in benefiting the target group, but it can be no substitute for safety net or income transfer to the poor. Second, even if subsidies help the poor, the benefit has to be weighed against the opportunity cost. For an enduring improvement of the poor's lot, the money would perhaps be better spent on social sector investment, rural reconstruction or guaranteeing gainful employment to members of poor families.' (Rakshit, 2005)

Studies have observed that, 'LPG subsidy is largely used by the higher expenditure groups in the urban sector. It is regressive and is unlikely to have much effect on biomass use. Kerosene on the other hand is widely used and is more likely to displace biomass use. However, on a per capita basis, the urban sector receives a larger subsidy, which may not have been a desired objective. The limited availability of subsidized kerosene in rural areas biases its use in lighting rather than cooking. Further, the rural subsidy is regressive as higher expenditure groups receive more subsidized kerosene than lower income groups. The kerosene subsidy is also very expensive as about half of the subsidized kerosene supplies is diverted and never reaches consumers. The strongest case for a kerosene subsidy comes from the urban sector where the subsidy use is greater among the lower expenditure groups thanks principally to the fact that higher expenditure groups shift out of kerosene to other fuels. The subsidization of the urban poor could be even larger if the poor had equal access to subsidized kerosene.' (Gangopadhyay, 2005)

Summarily, it is one thing to find misalignment of pricing with reform process along with all attendant distortions as highlighted above. But looking from the point of view of growth with social justice, the steps undertaken seem to be justified. From the perspective of consequence, there are two issues: a) price hike affects inflation, which in turn hits the poor hardest; b) non-price hike hits the bottom line of oil marketing PSU companies.

What has happened in fact is that both the issues have been managed with a number of *ad hoc* measures. Prices of petroleum products, specifically auto and cooking fuels, have not been allowed to rise in line with international fluctuation and thereby a stable domestic price line is maintained. At the same time, under recoveries of PSU marketing oil companies have been compensated by the upstream Oil companies and by the Government, with partial pass over to consumers.

7.4.3 Market Scene

Post reform oil market scene in India is a sea change from that of yester years. The change is reflected in respect of the following:

- Customer has come to occupy the centre stage of the marketing activity
- Number of players are more than ever; entry and exit is restricted by market condition, rather than by regulation
- Continuous innovation is taking place with regard to product, product features, package and delivery service; everything suiting to the use and the user
- PSU marketing companies have undergone a restructuring process involving business process re-engineering; since, however, there is no change in ownership and management, there is hardly any visible and external impact
- Private company like Reliance has entered the market with a big bang for last five years, its impact in market penetration has happened only in 2005-06. Reliance has reportedly usurped 7 to 9 percent of auto fuel market. Market penetration has not been easy for them as the existing PSU companies are zealously guarding their market
- Gas market is just unfolding, with a lot of restrictions still being there.
- Downstream oil and gas regulatory bill has been passed in April 2006, after an incubation of about four years. The constitution of the Regulatory Board has been announced in July 2007.

In the emerging market, petroleum products will be sold not as a commodity, but as a product with brand name. Similarly, the Oil companies will also be evaluated for their brand value. Such things have already started to happen in India. For example, Bharat Petroleum has become a market leader in the branded fuels segment. The company was recognized as the Forecourt Retailer of the year 2005 by Images, the leading retail publishing house. Through the 'Pure for Sure' retail network, the company is able to deliver superior value to the customer. BPCL was the first company to introduce the pre-paid debit card with smart chip as a mode of payment. The 'Petro card' and 'Smart Fleet' programs have been well received in the market. Automation at the retail outlets is another area of focus with the objective of providing assurance on the quality and quantity to the customer. The BPCL brand has been selected as one of the super-brands in India and the country's third most valuable brand with an assessed brand value of just over \$3 billion.

The demand for branded fuel is rising sharply. The increase in average daily volume sales of branded petrol was 41 per cent between 2005-06 and 2006-07. For diesel, the figure was around 55 per cent, according to IOC. This is much higher than the growth in overall sales of petrol (7 per cent) and diesel (about 8

per cent.). Branded fuel, however, still accounts for a small percentage (low single digits) of overall fuel sales in the country. Per day average volume sales of petrol for Indian Oil, Bharat Petroleum and Hindustan Petroleum put together went up from 4,145 kilo liter in 2005-06 to 5,858 kilo liter in 2006-07. Their diesel sales went up from 6,828 kilo liters per day in 2005-06 to 10,560 kilo liters per day in 2006-07. IOC data show that conversion from regular to premium petrol in India is 20.1 per cent. For diesel, the conversion rate is 12.1 per cent. However, the base for diesel is larger than petrol. BPCL data show that the conversion rate to premium petrol increased from 20 per cent in 2005-06 to 26 per cent in 2006-07. For diesel, this went up from 5.68 per cent to 10 per cent. Bihar and Gujarat have been the front-runners in the switchover. For IOCL's branded products, Gujarat has shown a conversion rate of up to 30 per cent, followed by Bihar with a 29.3 per cent conversion rate. For diesel, Bihar has clocked the highest conversion rate, of 22.4 per cent. IOC being a more highway-centric brand, BPCL and HPCL have a better presence in the urban centers. The companies are now focusing on the non-automobile areas like pumps and generators. IOC has made premium petrol available at 45.8 per cent of its 16,542 outlets. Premium diesel is sold at 57.3 per cent of its outlets. Out of BPCL's 7,798 outlets, 29.2 per cent sell premium petrol and 18.1 per cent premium diesel. Out of HPCL's 7,986 outlets, 25 per cent sell premium petrol and 38 per cent premium diesel. The companies foresee don't perceive any threat to the regular fuel.

Oil market reforms are in line with the national economic reforms. It is true that market has not fully opened up, primarily due to pricing reason. But it must also be kept in view that market in India has its own peculiarities. Along with economic reforms, customer profile is changing, so is income structure. Energy structure is also undergoing a transformation. Under these dynamic conditions, it is not proper to expect that reforms in oil sector will progress on predicted line. Except pricing, all conditions in the market point towards a competitive market conditions, giving rise to efficient delivery of energy to a growing economy.

Experience of reforms in energy sectors in other socialistic countries have brought out that 'success of any transition country depends much more on the institutional infrastructure than on short term macroeconomic policies' (Hirschhausen, 2000) It has been found untrue to believe that transition is a unidirectional process with a pre-determined outcome, assumed to be generally known and accepted. Not all the formerly soviet countries were able or willing to proceed on a pre-defined reform path. Even with similar reform packages put in place, the institutional reforms proceeded quite differently, leading to diverging transition process with different implications.

The objectives of energy sector reforms in all Eastern Europe and CIS countries were that non monetary relations be replaced by monetized contractual relations, that the true cost be *used for investment decisions, that companies operate under commercial* – not political – budget constraint criteria and that the

government and consumers (industrial, distribution companies and households) see energy supply as a product or service with a certain price. However, in energy sector, systemic change cannot be introduced by decree, but requires a minimum societal consensus on the degree of commercialization, the distribution between public service obligation vs. private supply and the resulting socio-economic effects, e.g., environment and employment.' (Hirschhausen, 2000)

Exhibit - 18

Market scene and structure is in alignment with economic reforms

- | | |
|--|--|
| <ul style="list-style-type: none"> ● Customer centric ● Multiple players, entry and exit unrestricted ● Continuous innovation ● Internal business process re-engineering | <ul style="list-style-type: none"> ● Private companies in the market ● Gas market is just unfolding ● Downstream Petroleum Regulator ● Gas Pipeline bill |
|--|--|

7.4.4

Trade

Trade reforms in downstream oil sector are very much in alignment with the economic reforms at the national level. Oil is a global commodity and India is therefore not possible to keep indigenous oil market insulated from the international market. Today, almost all petroleum products can be imported and exported freely, except in some cases permission from Ministry of Petroleum and Natural Gas is required. Crude import is de-canalized. There are no quantitative restrictions. Tariff rates have been moderated to a very reasonable extent. (Section 5.3.5, Chapter V) Multinational Oil Companies including trading companies are active in Indian market, without much of encumbrance.

There is an irony when we look at the dynamics of trading conducted by PSU Oil marketing companies. They are under severe restriction for carrying out trading for making money. They have been permitted to undertake risk management only to the extent of their underlying physical exposure with a view to protect their margin. Indian PSU Oil marketing companies need more freedom to conduct trading and risk management to take the best out of the liberalized trading regime. All that is required is an internal system and policies to be in place. Regulatory bodies are there in the system like Forward Market Commission, SEBI, RBI *et al* to set the boundary for them and to monitor them.

If Indian PSU downstream Oil Companies have to make the best out of liberalized trade regime under the setting of a free global market, then the country has to provide for infrastructure to handle large scale operation. Liquid Oil operates on economies of scale. India unfortunately has not built the kind of infrastructure to avail the benefit of scale. Peninsular India is strategically located between two active trading zones, namely Persian Gulf in the west and Asia Pacific in the east. Oil handling requires matching marine and navigational facilities, storage facilities and downstream handling facilities. Country needs a few Single Buoy Moorings (SBM), a few off-shore terminals, some stretches of sub-sea pipelines and may be some floating storage. There is a talk to put up a SBM at Kochi by CRL or one at Haldia or Paradeep by IOC for a long time. These proposals have not been taken seriously in comparison with the potential that these proposals promise.

In the context of oil trading, multilateral diplomacy has a potent role to play. This runs in line with India's diplomatic ties with trading blocks, supported by India's economic interest. Oil industry world over is a free market. Still there are trading blocks like OPEC (Organization of Petroleum Exporting Countries), OECD (Organization for Economic Cooperation and Development) and FSU (Formerly Soviet Union). There are subtle but sure attempts by super powers to hold control on oil reserves through MNCs (multinational oil companies). Under this background, India's recent effort under the leadership of former Minister Mr. Mani Shankar Iyer to address India's oil security assumes significance. Asia holds about sixty percent of world's oil reserve and currently supplying forty percent of world's exports. There are four major Asian buyers of Oil, namely India, China, Japan & Korea. It makes sense to unite the Asian buyers with Asian sellers and create a forum for mutual interest. India took a pioneering initiative in January 2005 by convening a round table of the four principal Asian oil consuming countries getting into dialogue with the principal oil producing countries of West Asia and South East Asia.

There is a proposal that Oil exporting countries have to share a part of their income to promote an energy transition in poor households that would enhance their human development. It might involve levying an incremental price increase on petroleum that could be termed an 'energy – poverty alleviation' levy, then using the funds collected to provide cleaner burning fuels such as kerosene or

LPG for meeting the household energy needs of the poorest part of humanity. (Sagar, 2005) The operational feasibility of this has to be advocated in multilateral trade forum in line with western countries move their interest through WTO.

Reforms on trade account in Oil Sector have brought about a condition for free trade in line with national economic reforms. That has helped the country in the following ways:

- It has helped the country to strike commodity balance in the oil sector. That means, deficit crude oil and products have been imported and surplus products have been exported possibly at the best deal. Refineries have operated at full capacity, unconstrained by any crude cut due to non availability of crude. The economy with its growing output trend has got its full oil requirement.
- Due to free access and multiple buyers and sellers, perhaps price discovery process has improved.
- Information technology has provided the required information timely for pricing, logistics and inventory management.
- Logistics support providers, namely Indian ports, Indian railways, road transports; all have got enhanced business volume and have contributed to their output.
- Financial market (MCX) has taken benefit by way of making oil products a commodity (or a contract) to trade with.

India emerged as an oil exporting country, which was as envisaged in the X Five Year Plan. (Section 4.52, Chapter 4. Tenth Five Year Plan, Vol I). The relevant portion reads, 'the highest export growth during the Tenth Plan is expected in petroleum products'. During last 5 years, (2000-01 to 2004-05), India earned Rs 14,300 crore per year on average from export of petroleum products, constituting 5% of India's export earnings. In 2004-05, the export realization was in fact Rs 28,386 crores, constituting 7.8% of India's total export earnings, as detailed in Section 3.3, Chapter III.

India's merchandise exports have been registering strong growth ever since 2002-03, posting an average growth of 23.3 percent during 2002 – 2007, with the year 2004-05 witnessing the highest growth (30.8 percent) in the last three and half decades. As a result, India's share in world merchandise exports reached 1.0 percent in 2006 from 0.7 percent in 2000.

Commodity composition of India's exports basket has undergone structural changes during 2002 - 2007. The changing structure reveals that petroleum

products, engineering products and ores and minerals emerged as the major drivers of export growth, while the shares of traditional items like handicrafts, textiles and related products, gems and jewellery, agricultural products and leather showed reduction. Petroleum products contributed 26% of total export growth during 2002 – 2007. Together with engineering goods, ores and minerals, petroleum products contributed 63 percent of total export growth during 2002-2007. The tilt in commodity profile towards the exports of engineering goods, petroleum products and chemicals and related products reflect the growing competitiveness and the increasing technological sophistication of India's manufacturing exports.

The changing commodity composition of India's exports also reflects the shift in India's relative share in world exports of commodities as shown in Table 7.7 below. While India's share in world agricultural exports remained constant between 2000 and 2005, the share in world exports of machinery and transport equipment, fuels and mining products and chemicals showed an improvement. Apart from the Government's reform policies towards strengthening India's trade sector, the recovery in global investment, reflected in a notable increase in exports of world trade in capital goods, also provided conducive environment for stimulating technology oriented engineering goods exports from India.

Table 7.7: India's share in World Exports

Sr. No	Commodities	1990	2000	2005
I	Agricultural Products	0.8	1.2	1.2
II	Fuels and Mining Products	0.3	0.4	1.1
III	Manufactures	0.5	0.7	1.0
1	Iron and Steel	0.2	0.9	1.7
2	Chemicals	0.4	0.8	1.0
3	Machinery & Transport Equipments	0.1	0.1	0.3
4	Textiles	2.1	3.8	3.0
5	Clothing	2.3	3.1	3.0
	Total Merchandise Trade	0.5	0.7	0.9

Source: Reserve Bank of India Monthly Bulletin, June 2007

Export of petroleum products played a significant role in bringing about a recovery of India's exports during 1999 - 2001. (Veeramani, 2007) The most visible change in the structure of merchandise exports is the rise in the share of petroleum exports from about 2 percent in 1993 to about 11 percent in 2005. Available estimates for the year 2006 show that the share has further increased to 16 percent, as Table 7.8 below:

Table 7.8: Value of Petroleum Products in the Commodity Composition of Exports, India and World (Excluding India)

Percentage Composition of Petroleum Products in	Percentages			
	1993	1997	2002	2005
India's Exports	1.83	1.07	5.04	11.31
World Exports	5.54	5.18	6.78	8.60
India's Share in World Exports	0.21	0.14	0.63	1.25

Source: Veeramani, 2007

India's exports during the post reform period have been growing faster than the rate of growth of world exports. This is in contrast to the pattern observed for the pre-reform period, particularly during 1950 – 80. India's exports showed signs of recovery during 1999 – 2001 by growing at about 10 percent per annum. The growth rate of merchandise exports declined to about 7.6 percent if petroleum exports, which sky rocketed from \$ 55 million in 1999 to \$ 1,929 million in 2000 are excluded from the total. As the world economy fully recovered after the Asian crisis, India's merchandise exports showed a high growth rate of about 25 percent per annum during 2002 – 05 (22 percent, if petroleum products are excluded).

With a view to ensuring energy security for the nation and earning foreign exchange, the Union Petroleum and Natural Gas Ministry has drawn up an ambitious plan to substantially expand the capacity of the refineries in the country from 148 million tonnes at present to 235 million tonnes by 2011-12. With petroleum emerging as one of the highest foreign exchange earners in 2006-07, the Ministry is all set to go pro-active on raising the internal refining capacity to emerge as a petroleum hub for the Asia-Pacific region. Under this plan, Indian Oil Corporation (IOC) has drawn up a plan to set up a new 15 million tonne refinery-cum-petrochemicals complex at Ennore on the outskirts of Chennai in Tamil Nadu with an investment of around Rs. 25,000 crore. IOC plans to build the Ennore refinery, mainly catering to the export market, four years after it commissions its East Coast Paradip refinery in Orissa. The 15-million tonne Paradip refinery is scheduled for commissioning in 2011 and the Ennore refinery will come up sometime in 2015-16.

Free trade conditions have helped outside world to get market access to India. The terms of trade in global oil market is of course third party neutral. There are established rules and conventions in buying and selling in international market. How much of that can be converted to India's benefit, is something that India's PSU Oil companies have to work for.

Free trade would enable India to earn more, if India is developed as a hub in oil trading. (Patra, 2001 b) The free trade environment in India and elsewhere in the

world provides opportunity to Indian PSU oil marketing companies to taste the shore and soil across the oceans. Indian Oil Corporation (IOC) has taken the lead on this front, by taking over a part of market by its subsidiary Lanka Indian Oil Corporation (LIOC). Similarly, IOC has opened marketing and trading subsidiary in Mauritius and Dubai. BPCL has announced its desire to open office at Singapore by forming a subsidiary. MRPL has tied up contract to export its products to Mauritius.

Similar cases are there for Indian down stream PSU companies to emulate. Petronas of Malaysia is among the most active and most successful MNC in Asia. With net profits of more than \$ 2 billion a year, Petronas has the cash to invest overseas. In 1998, the company took over South Africa's leading oil company, Engen and has projects being developed in Algeria, Pakistan, Sudan, Syria and Turkmenistan. Petronas has targeted high-risk areas that the western majors have avoided. Although it is behaving like a western major (MNC), Petronas is still owned by the Malaysian government.

Exhibit - 19

Trade Reform in Oil Industry is in alignment with Economic Reform

- | | |
|--|---|
| <ul style="list-style-type: none"> • All petroleum products including crude oil are in OGL for import • All surplus products can be exported • No quantitative restriction in import or in export | <ul style="list-style-type: none"> • Tariff barriers have been moderated • Tariff protection to Indian refineries have been slashed to a great extent • All MNCs & trading companies have offices in India |
|--|---|

Trading and risk management by Indian PSU Oil companies are in a nascent stage. Given the right freedom, this will grow.

7.4.5 Fiscal

Oil sector contributed significant revenues to the country, as detailed in Section 6.1 in previous chapter. Reform measures under taken in the oil sector with respect to fiscal variables are in line with the fiscal policy reforms adopted in the mainstream national economy.

Fiscal consolidation still remains a matter of concern in India. Two important areas need to be addressed which would result in fiscal empowerment. One is elimination of subsidies, which are not directly targeted and the second one is elimination of most of the tax exemptions, which are distortions in the tax structure. Aggregate stock of public debt of the Centre and States as a percentage of GDP is high, currently at 75 percent.

Public debt management in India has got some unique features, which imparts overall stability to macro economy. First, States have no direct exposure to external debt. Second, almost the whole of public debt is local currency denominated and held almost wholly by residents. Third, public debt, of both Centre and States is actively and prudently managed by the Reserve Bank of India, ensuring comfort to financial markets without any undue volatility. Fourth, the government securities market has developed significantly in recent years in terms of turnover, depth and participants. Fifth, stable contractual savings supplement marketable debt in financing deficits. Finally, direct monetary financing of primary issues of debt has been discontinued since April 2006. Hence, the high stock of public debt relative to GDP has not so far been a matter of concern as far as stability is concerned, while it is recognized that long term sustainability would call for a gradual reduction to prudential levels.

The fiscal management of Central Government is broadly in the direction of achieving the targeted ratio of gross fiscal deficit (GFD) to 3 percent and eliminate revenue deficit (RD) by 2008-09.

Combined Government finances were budgeted to improve in 2006-07, with key fiscal ratios placed 0.8 – 1.0 percentage points of GDP lower than in 2005-06, reflecting the improvements in the finances of both the Central and State Governments, as shown in Table 7.9 below:

Table 7.9: Key Fiscal Indicators

Year	Percent to GDP		
	Revenue Deficit	Gross Fiscal Deficit	Primary Deficit
Centre			
2003-04	3.6	4.5	- 0.03
2004-05	2.5	4.0	- 0.04
2005-06	2.6	4.1	0.4
2006-07 BE	2.1	3.8	0.2
2006-07 RE	2.0	3.7	0.1
2007-08 BE	1.5	3.3	- 0.2
States			
2003-04	2.2	4.2	1.3
2004-05	2.2	4.5	1.5
2005-06	1.2	3.5	0.7
2006-07 RE	0.5	3.2	0.7
2007-08 BE	0.1	2.7	0.2
Combined			
2003-04	6.6	9.6	3.1
2004-05	5.8	8.5	2.1
2005-06	3.7	7.5	1.4
2006-07 RE	3.1	7.4	1.6
2007-08 BE	2.2	6.4	0.8

Source: Reserve Bank of India Monthly Bulletin, May 2007

The reduction in deficit ratios experienced during last 5 years mainly reflected buoyancy in revenue receipts, which more than offset the increased expenditures, particularly, in respect of interest payments, fertilizer and interest subsidy and non defence capital outlays.

Reforms in oil sector have a great deal of fiscal impact, which has been detailed in Section 6.1, Chapter VI. Directionally, fiscal variable in Oil Sector are in line with the economic reform at national level. Rates of taxes and duties are decided by Finance Ministry. Finance Ministry's primary concern is to mobilize revenue for the Government. In case Oil Sector, of course, Finance Ministry keeps the Oil Sector's priorities in view. A lot of pressure is brought upon Finance Ministry by Petroleum Ministry to set the Oil Sector's priorities high in their agenda.

Subsidies on Kerosene and LPG are charged to Consolidated Funds of India effective 2002-03. *Details of Subsidy amount is given in Section 5.3.4, Chapter V. Subsidy on POL account effective 2002-03 is adding to the revenue expenditure of Government of India. This is against the expenditure discipline of the Government. However, as shown in the Table 7.10 below, subsidy on account of POL products is proportionately getting reduced.*

Table 7.10: Details of Subsidies by the Central Government

	Rs. Cores							
	1991-92	1994-95	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05
Total Subsidy	16,428	18,414	22,026	49,929	42,350	43,533	44,256	46,514
POL Subsidy @	4,175	6,560	9,360	23,091	11,140	5,225	6,292	3,553
% of POL to Total	25.41	35.63	42.50	46.25	26.30	12.00	14.22	7.64

@: POL subsidy did not form a part of Government Budget up to 2001-02
 Source: Indian Petroleum & Natural Gas Statistics, Government of India, Successive issues

Expert view on subsidy is to 'reorient public expenditures away from large, non-merit subsidies and towards education, health and infrastructure'. (Acharya, 2006)

Further, issuance of special bonds to PSU Oil Companies to compensate the unrecovered cost of, as given in Table 5.4 in Section 5.3.5 in Chapter V, is bringing strain on public debt operation of Government of India. This enhances interest liability of Government of India, which again creates strain on the revenue expenditure of the Government, as detailed in Section 6.1 in Chapter VI. Primarily, the problem is with the pricing of petroleum products, which have been discussed in Section 5.3 in Chapter V and Section 7.4.2 in this Chapter.

Summarily stated, taxes and duties on oil products do add up to a significant part of total budgetary receipts, both at the Centre and in the states. But the fact remains that the levies on petrol, diesel, etc, are much too high. For one, it points at incomplete reform in the indirect tax regime. For another, it means glaring distortions in pricing right across the oil economy and beyond. What is clearly needed are levies and effective duties that are reasonable and non-cascading so that tax is paid only on the value added as is the case for sundry other goods and services in a VAT regime. As has been noted earlier, about 53% of the retail price of petrol in Delhi and 31% of that of diesel is accounted for by central and state levies. Local levies are high as 33% on petrol in Andhra and 28.75% on diesel in Madhya Pradesh.

Recently the *ad valorem* component of the excise duty on petrol and diesel has been reduced from 8% to 6%, with addition of a 'specific' excise of Rs 5/litre on petrol and Rs 1.25/litre on diesel. But as the Rangarajan Committee has recommended, it makes sense to shift from the current mix of specific and *ad valorem* levies to a "pure specific levy". The practice of imposing *ad valorem* rates in a scenario of buoyant oil is a debatable issue. *Ad valorem* rates exacerbate the burden on the consumer and result in the government raking in revenues at the expense of oil users. Instead of such windfall tax gains now and again, surely a fixed, specific levy is warranted.

Tariffs on oil products need to be rationalized too. During the reform process, there has been a gradual reduction of tariffs on crude and petroleum products. This is in tune with external sector liberalization as per WTO guidelines. Tariff protection available to Indian refineries has been gradually brought down. Still it is being maintained at a positive level. As the Planning Commission maintains, the effective duty differential between crude oil and products is far too high. The extant tariff protection for products may appear nominal but the fact remains that the value-added in oil refining is minimal. Even nominal duty differential means high effective tariff walls for the value added component. Such as duty structure, along with *effective ring fencing of retail oil sales actually implies monopoly marketing rights* and much possibility for unearned rents. What are surely required is zero duty differentials between crude and products and opening up of oil marketing to independent retailers, so as to have much-needed pricing reform in oil.

Further, the principle of freight equalization needs to be terminated forthwith. The fact is that the current prices of petrol and diesel include a component of equalized freight for all locations across the country. Such a pricing policy is clearly economically inefficient with no real incentives for better logistics. It leads to misallocation of resources plain and simple and so needs to be summarily done away with.

Balance Score Card in the Results of Reforms in Downstream Oil Sector

To summarize the points in Section 7.4; reforms have been assessed at two levels:

- Measures of reforms
- Results of reforms

Looking from the perspective of results of reforms in downstream oil sector, a balance score card is presented in the chart below: The positive section of the chart lists those areas where results are seen in line with the intended objectives of reforms and the negative section presents the converse of that.

Reforms Areas	Account	Results	Observation
Positive (aligned with economic reforms)			
INDUSTRIAL			
Industrial	Growth in Infrastructure activity	Production of crude and refined oil helped in growth of economic infrastructure sector	Oil sector in line with growth in industrial production
Industrial	Oil Refining	Entry of private and joint sector refineries is outcome of de-licensing and emerging demand for refined petroleum products in Asian region	In line with economic reforms; competitive domestic market and exposed to global competition
Industrial	Oil marketing	For lubricating oil and industrial fuels like naphtha, Furnace Oil, non-domestic LPG and non-PDS kerosene; pricing is free, free entry for new players, free from any EXIM restriction	In line with economic reforms; competitive domestic market and exposed to global competition
Industrial	Auto fuels and cooking fuels customer segment	Customers have got choice of product in: a) branded fuels at market price, and b) non fuel retail service	In line with economic reforms; competitive market, value added service and customer convenience
Industrial	PSU Oil firms	PSU Oil companies have performed in professional line; they have paid handsome dividend to shareholders; their stocks have performed well in the bourses.	In line with economic reforms; vibrant capital market providing value to investors
Industrial	Privatization	PSU oil marketing companies have resorted to 'public private partnership' (PPP) model for non-fuel retailing, leveraging their core competence and capitalizing their brand	In line with de-regulation in utility industries in other countries; following the trend of MNCs; taking economic reforms a step ahead

Reforms Areas	Account	Results	Observation
Industrial	Customer service	PSU oil companies have brought in a series of customer centric measures	In line with economic reforms
PRICING			
Pricing	For industrial fuels and feed stocks	APM was abolished wef April 2002 and prices are determined on commercial consideration by the marketing oil companies	In line with economic reforms; competitive pricing, thin margin for producers and surplus for consumers
MARKETING			
Marketing	Brand	Branded fuels, premium products have been introduced by all PSU oil marketing companies; privileged service to elite customer segments, niche marketing	A progressive step in line with economic reforms
Marketing	Product development	Continuous innovation is taking place with regard to product features, packaging and customer specific delivery service	A progressive step in line with economic reforms
Marketing	Organization structure	PSU Oil marketing companies have undergone organizational restructuring and business process re-engineering	In line with economic reforms
Marketing	Entry of firms	New private and joint sector refineries have entered into refining and marketing of petroleum products, import and export are done without any quantitative restrictions, tariff barriers have been lowered to a great extent	In line with economic reforms within the country and on external fronts
Marketing	Regulatory body	Downstream oil and gas regulatory body has started functioning	Fairness in competition, in line with economic reforms

Reforms Areas	Account	Results	Observation
TRADE			
Trade regime	Tariff and non-tariff Barrier	Almost all petroleum products are under OGL for export and import, Crude oil import was de-canalized from April 2002; no quantitative restriction, moderated tariff	In line with economic reforms and WTO compliant free global market
FISCAL			
Fiscal	Tax rates	Average tax rates have been reduced to a level required to mobilize revenue for the Government, mixture of <i>ad-valorem</i> and specific tax introduced, maintaining <i>buoyancy in tax revenue</i>	In line with reform policy of reducing the rate and increasing the revenue
Fiscal	Subsidy	<i>Cross subsidy in all products removed, subsidy is provided from general budget</i>	In line with economic reforms; reduction in revenue expenditure and fiscal consolidation
Negative (mis aligned with economic reforms)			
INDUSTRIAL			
Industrial	Auto fuels and cooking fuels	<i>Price control by Government of the day is still not abolished</i>	Not line with the <i>competitive spirit</i> of economic reforms
Industrial	Capital investment & infrastructure development	<i>Not much private capital has come to downstream oil sector for infrastructure development</i> Price control in auto and cooking fuels did not provide sufficient attraction for private capital investment	<i>Not in line with the spirit of reforms; however,</i> experience in other sectors is not much different. The investment climate in India has not attracted FDI (much larger issue, outside the scope of the study)

Reforms Areas	Account	Results	Observation
Industrial	Privatization	Privatization of Oil Companies was done by disinvestment and merger of standalone refineries. However, privatization of BPCL & HPCL did not take place.	In line with the spirit of reforms; however, the process of was not complete, due to absence of political consensus in a coalition government.
Industrial	Public sector autonomy	PSUs are <i>navaratna</i> companies; have been vested with enhanced managerial autonomy with independent directors in Board. Government being the majority share holder; key decisions are influenced by political and bureaucratic considerations.	Largely in line with the spirit of reforms; still the management of PSU oil companies is far away from being a commercial enterprise. However, overall experience in the country is not much different.
PRICING Pricing	For auto and cooking fuels	APM was abolished wef April 2002, but pricing is not yet market determined and do not reflect economic value. Due to unprecedented surge in crude oil price in international market, domestic product pricing remained unstable.	Not in line with economic reforms; but supportive of national objective of price stability and social justice
Pricing	Subsidized LPG & Kerosene	Subsidy for domestic LPG and PDS kerosene has been reduced to a great extent; still it is there and is being funded at ceiling level from Consolidated funds of India.	Not in line with economic reforms, but justified on equity consideration, in a democratic set up.

Reforms Areas	Account	Results	Observation
FISCAL			
Fiscal	Subsidy administration	Subsidized products is creating distortion in pricing, leading to suboptimal use	Not in line with economic reforms; against expenditure discipline of government
Fiscal	Tax rate	Tariff rate on petrol and diesel (price inelastic products) is still at high level	Incomplete reforms in indirect taxes
Fiscal	Tariff protection to indigenous refineries	Despite reduction in rate of duty, still duty differential between crude oil and products is high	Against free trade, leading to monopoly rent for Indian refineries

Exhibit - 20

Fiscal variables in Oil Industry are in alignment with Economic Reforms

- Gradual reduction of tariffs on crude and petroleum products
- Positive tariff protection for Indian refineries

- Drastic reduction of subsidies, charged to consolidated funds of India
- Special bonds to PSU Oil companies is a way of financing the unrecovered cost through pricing

Section 7.5: Growth with Social Justice

Poverty reduction has been a major goal of development policy in India since the country became independent. Achievement of a minimum standard of living for all section of populace within a reasonable period has been the implicit or explicit objective of all socio-economic endeavors initiated under various Five Year Plans. This objective was sought to be achieved by attaining higher growth of national income. There have been numerous attempts for direct assault on poverty by raising the purchasing power of the poor with endowment of land and assets; by generating employment opportunities; through public intervention of consumption by undertaking large scale food-for-work program. Poverty alleviation programs targeted at the poor have been supplementing market forces and generic growth strategies.

Oil sector have played complementary role in achieving the national agenda of growth with social justice through the following instrumentalities:

Studies have shown that irrigation and diversification in agriculture are two major positive factors in escaping poverty in Indian villages. (Krishna, 2006)

Petroleum products are used as input in farm and transport sector. Mere uninterrupted availability of petroleum products across the length and breadth of the country is a condition for promotion of farm sector. This eliminates the denial of income and growth opportunities to the farmers who are considered to be poor and are regionally well dispersed with concentration in rural area.

Availability of petroleum products with subsidized price for those used in farm sector has helped to remove inequality of income and opportunity. Even in the post reform era, petroleum products like Naphtha and Furnace Oil used for fertilizer were enjoying subsidy. To quote celebrated development *economist*, Gunnar Myrdal, "An equalization in favor of the low income strata was also a productive investment in the quality of people and their productivity."

Inequality can impede growth. A potentially important factor in developing countries is the extent of the income disparities between urban and rural sectors. The existence of earnings and other income disparities between urban and rural sectors is clearly an important dimension of overall inequality in India.

Studies have shown that improved agricultural performance is definitely associated with reductions in the incidence of poverty. There is clear evidence of an inverse relationship between rural poverty and agricultural performance. Fluctuation in poverty incidence simply mirrors the movement in agricultural production per head and this inverse relationship is even more firmly identifiable when account is taken of the lags involved. (Ahluwalia, 1978)

Another factor influencing the impact on poverty of non-farm economic growth is the productivity of the main competing sector for workers, namely farming. For example, by allowing multiple cropping, irrigation and the spread of high yielding varieties will probably increase aggregate demand for agricultural labor, thus bidding up wages for new entrants into an expanding non farm sector.

Studies find that higher farm yields, higher state development spending, higher (urban and rural) non-farm output and lower inflation were all poverty reducing. (Ravallion, 2002) Oil Industry has consistently ensured sustained availability of petroleum products, more particularly diesel all across the country and specifically in rural areas. Diesel is a major input for lift irrigation and mechanized farming practices. By making fuels available all across the country as per demand at all time, Oil Industry has contributed to the development and poverty eradication program of the nation. Prices of petroleum products have not been revised upwards in line with international price in the post APM period. This single step of non-revision of prices is in line with the socialistic underpinning of the national agenda.

In a nutshell, oil sector all along have played contributory role in reducing poverty by making petroleum products available at affordable prices all across the country, so that people of all economic strata got opportunity to undertake productive enterprise and improve their lots. Secondly, oil sector has helped to abridge the gap between rural and urban, farm and non farm sectors.

Section 7.6: Degree of Congruence

Taking into account of the taxonomy of reforms in national economy and that in oil sector, we have attempted to workout degree of congruence between the two. The objective of analysis in this section is to examine:

1. The extent to which, oil sector reform measures are in line with the mainstream reforms in the national economy.
2. The extent to which, the outcome of reforms in oil sector have contributed to the reform exercise carried out in other spheres of the economy.

Answers to these two questions would sum up the findings of the study, which are presented in Chapter VI & VII. In this section, a numerical assessment of the findings has been attempted to validate the hypothesis of the thesis. The numbers in the Table 7.11 below are assessment arising out of the analyses made across the study and also borne out of expert views taken from the practitioners in Industry.

Table no. 7.11 estimates that there is 77 percent degree of congruence between reform measures undertaken in national economy and those done in oil sector.

Table 7.11: Alignment of Oil Sector Reforms with National Economic Reforms

National Economic Reforms			Oil Sector Reforms			Alignment Coefficient
Economic Reform Parameters	Parametric Weight for Economic Reforms	Imputed Economic Reform Parameters	Oil Sector Reform Parameters	Parametric Weight for Oil Sector Reforms	Oil Sector Reforms Score Card	
1	2	3	4	5	6	$7 = (6/3 \times 100)$
Industrial	20	20	Industrial	20	18	90
Trade	15	15	Trade	20	15	100
Fiscal	20	20	Fiscal	20	18	90
		25	Pricing	20	10	40
		20	Market	20	13	65
Money Market	15					
Capital Market	15					
Insurance	5					
Exchange Rate	10					
Total	100	100		100	74	Average 77

Table 7.11 presents a parametric analysis of alignment between reforms that have taken place in national economy and in oil sector. The alignment coefficient indicates the percentage by which oil sector reforms has run parallel to the economic reforms, in terms of measures taken, process followed and result achieved.

This analysis is based on the taxonomy Charts constructed in previous two Sections (7.2 & 7.3). The parameters in those Charts have been attached weights in terms of their relative importance. Imputed parameters in column 3 are weights for 'economic reform parameters with respect to oil sector'.

The scores in column 6 are outcome of the study, converted into numerical. Views and comments coming in press and personal discussions carried out with senior executives in Oil Industry have also gone into making of the numerical. The numbers (in column 6) thus encapsulate observations, analyses, impression, assessment and views, all in one.

If we assess the reform score card in Oil Sector (column 6), it is 74 out of 100. When we assess the reform results in the light of the overall economic agenda, then the score is 77 out of 100. This validates the observation we have made

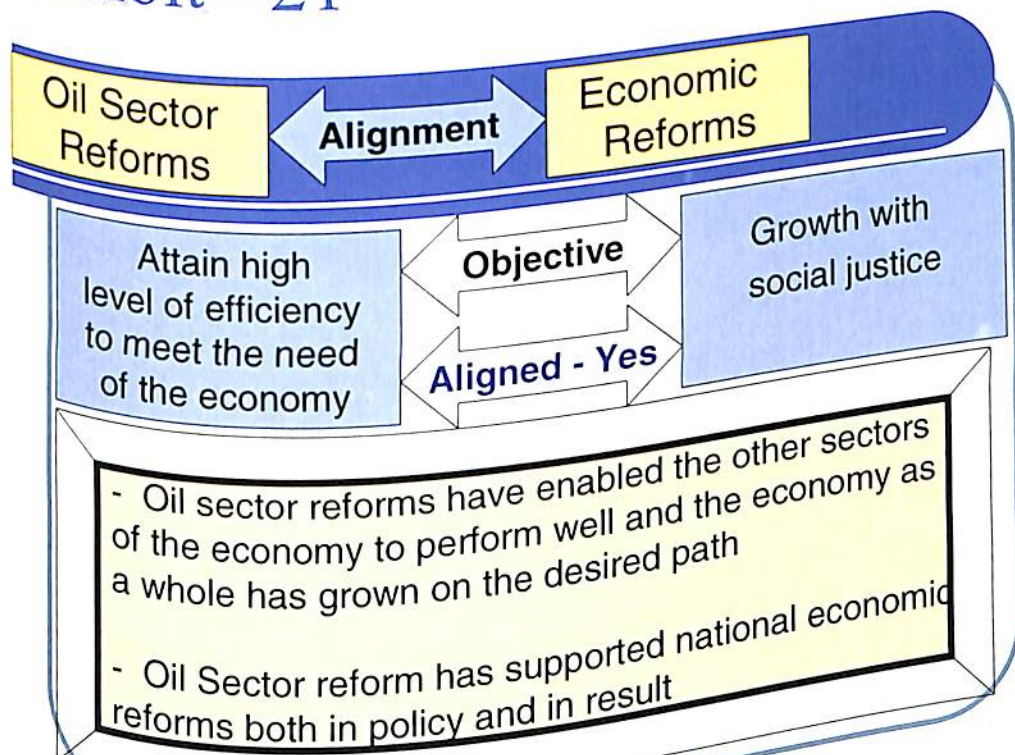
A Study of its Compatibility with National Economic Reforms

elsewhere in the study that oil sector reform might have not fully lived up to expectation of oil industry, but it has certainly gone well with the economy and its impact on other sectors. An oil sector reform has served the purpose of the economy as a whole. This partially validates the remark in Exhibit 20, 'Oil price reform has failed the industry, but served the nation'.

Looking at the individual segments in oil industry, we find that 'trade reforms' in oil sector has the highest alignment coefficient with respect to 'trade reforms' in national economy and by, implication, has delivered the best. As contrast, 'pricing' in oil sector has the least congruence with reforms in national economy. Same observation to a lesser degree applies to 'oil market' in terms of reform measures.

Summary

Exhibit - 21



To summarize, worldwide, around the turn of the century, there was a shift in the focus of energy policy. One policy paradigm in energy has been provided by the set of ideas surrounding privatization, liberalization and competition developed in the 1980s. This paradigm provided more private ownership, the removal of restrictions on trading and the promotion of competition. Around the turn of the century, new concerns notably the issue of security of supply and of climate change has put the paradigm under stress. (Helm, 2005)

Experience of reform undertaken in other democratic countries has brought out that the interplay between energy sector reform and democratic governance is as important as complex. 'The need for energy sector reform to be acceptable to the public and for the public to be involved in shaping the reforms emerge as an inescapable lesson from failures in recent years. Less obvious but also very important are the ways that viable energy sector reforms can strengthen democracy, not only by enhancing prosperity and therefore stability, but also by providing an example to other economic sectors of the importance of the fundamental underpinnings of liberal democracy, including the rule of law and effective public involvement.' (USAID, 2005)

'Many countries are trying to resolve the conflict between the unwillingness of the public to tolerate economic pain – especially pain whose justification may be dubious and whose promised benefits will arrive years in the future – and the need for various energy sector changes that disrupt settled relationships regarding rates, investment returns, social welfare and employment. Major governance issues in the energy sector will need to be dealt with, if reform is to be seen as legitimate and if the institutions implementing reform are to be credible. While success in energy sector reform is never assured, the chances of success are much greater when the reforms are perceived by the public to be legitimately arrived at and implemented with an ongoing concern for fairness and justice. For such a consensus to exist in a democracy, certain preconditions must exist. These preconditions pertain to the public's ability to influence the adoption of laws and the appointment of officials and also to its ability to influence the tariffs, the investments and the environmental impacts of day to day decision making in the reformed energy sector.' (USAID, 2005)

An important feature of the process of policy reform underway in India is that it is gradualist. The socio-political and economic system is being subjected to much strong pressure for efficiency and modernization, but at a controlled pace. The rationale for this gradualist approach lies in the logic that the system should be subjected to pressure commensurate with its ability to respond. Reforms need to be pursued in a framework of macroeconomic stability.

Oil Sector reforms is a broad based dynamic initiative. The initiative has moved alongside the economic reforms process. These initiatives are continually interacting with the economy, whose profile itself is constantly changing, as the economy is growing. Our analysis and findings have borne out the fact that Oil Sector occupies a special position in the national economy. The reform process in oil sector has been progressing in line with the market forces and in tandem with the overall economic progress. In most of the cases, Oil Sector has supported and promoted the economic reforms at the national level. There is high degree of convergence between the trend in reforms in oil sector and reforms in national economy. Oil sector reforms has supported, promoted and boosted the national economic agenda. Even in the areas where oil sector

reforms have not shown predictable forward steps (kind of set backs), those have invariably been done to keep pace with the national economic reforms. However, in two cases, Oil sector has acted in adversarial way. One is pricing of petroleum products and second one is privatizing the Oil PSUs. In both the cases, political leadership has failed to give up control, whereas the management of the Companies has risen up to the occasion. The shortcomings of political leadership have been made good by the professional managers, by now allowing the situation to worsen to an extent that these companies did not turn up sick. This realization to further shape up the oil sector reforms has come up at many levels, but environment was not conducive for a favorable move in that direction.

Exhibit - 22

Oil price reform is misaligned

Stable domestic price line is maintained



Under recoveries of PSU oil companies are compensated

Oil price reform has failed the Industry, but served the nation.

In the next chapter, we will examine the possibility of overcoming whatever shortcomings the PSU downstream Oil Companies are suffering from. During the course of analysis, we will try to set an agenda for downstream Oil Industry for the XI Plan period.

Recap: Chapter VII

Led by manufacturing, the upturn in the industrial sector entered its fifth year of expansion in 2006-07. Based on movements in the index of industrial production (IIP), growth in manufacturing activity accelerated to 11.8 percent during April August 2006 from 9.6 percent in the corresponding period of 2005. Six infrastructure industries have recorded only modest improvement to 7.3 percent during April – September 2006 from 6.1 percent in the corresponding period of 2005. This improvement was helped by a turnaround in the production of crude oil and petroleum refinery products, the two sectors had registered negative growth a year ago.

After de-licensing of refinery, two refineries were built around 1999, namely Reliance at Jamnagar and MRPL at Mangalore. The entry of these two refineries have added to the refining capacity of the country and the total refining capacity has become temporarily surplus (127 MMT refining against 116 MMT consumption). In 2006, Essar refinery at Jamnagar came on stream. As a result, some refineries are forced to export their yield out and find a value for their products in the overseas market.

During 2006-07, prices of the 'fuel, power, light and lubricants' group (weight: 14.2 percent) increased by 1 percent as against 8.3 percent in 2005-06. The average price of Indian basket of crude, as estimated by RBI, increased from US \$ 55.4 per barrel in 2005-06 to US \$ 62.4 per barrel in 2006-07.

LPG subsidy is largely used by the higher expenditure groups in the urban sector. It is regressive and is unlikely to have much effect on biomass use. Kerosene on the other hand is widely used and is more likely to displace biomass use. However, on a per capita basis, the urban sector receives a larger subsidy, which may not have been a desired objective. The limited availability of subsidized kerosene in rural areas biases its use in lighting rather than cooking. Further, the rural subsidy is regressive as higher expenditure groups receive more subsidized kerosene than lower income groups. The kerosene subsidy is also very expensive as about half of the subsidized kerosene supplies is diverted and never reaches consumers.

Export of petroleum products played a significant role in bringing about a recovery of India's exports during 1999 - 2001. The most visible change in the structure of merchandise exports is the rise in the share of petroleum exports from about 2 percent in 1993 to about 11 percent in 2005. Available estimates for the year 2006 show that the share has further increased to 16 percent.