Chapter IX

Summary and Concluding Remarks

The unique feature of the study of 'oil sector reforms in India' is that it explores and connects the linkage between Oil Industry on the one hand and national economy on the other. In the process, the study attempts to examine and evaluate the outcome of the reforms process in oil industry by putting it in the backdrop of economic reforms at the national level. As an outcome of that exercise, the study validates the reform process undertaken in the downstream oil industry in terms of macro economic agenda of growth with equity. The study at the end outlines a roadmap for the future.

This concluding chapter is organized in terms of two sections:

1. Summary
2. Concluding Remarks

Section 9.1: Summary

India's development history has a unique feature that it is experimental and experiential. Its path and tenor is guided by philosophy that is rooted deep into India's socio-economic reality. It goes to the credit of Indian policy makers that despite having some ideological proclivity, they have not lost sight of the national vision. Keeping the vision in mind, policy makers have tempered their ideology with pragmatism and experience.

India's oil policy has also treaded the path of experiment with a national vision of providing energy to the development process of the country. Oil Sector has found a place of special significance in the development policy from the beginning. Firstly, Oil is an essential ingredient in the country's development process. Secondly, the country did not have the requisite capital, technology and talent to explore oil in the beginning of the development era. Thirdly, India is not endowed with oil resources as much it would require for its consumption. Fourthly, when time came for the sector to open up to private investment and to foreign market, India did it with due care to its delicate market condition. Fifth and finally, Oil sector is so much entwined with other sectors in the economy that any step taken in Oil sector has got far reaching consequence some where else in the economy.

Objective of the Study Revisited

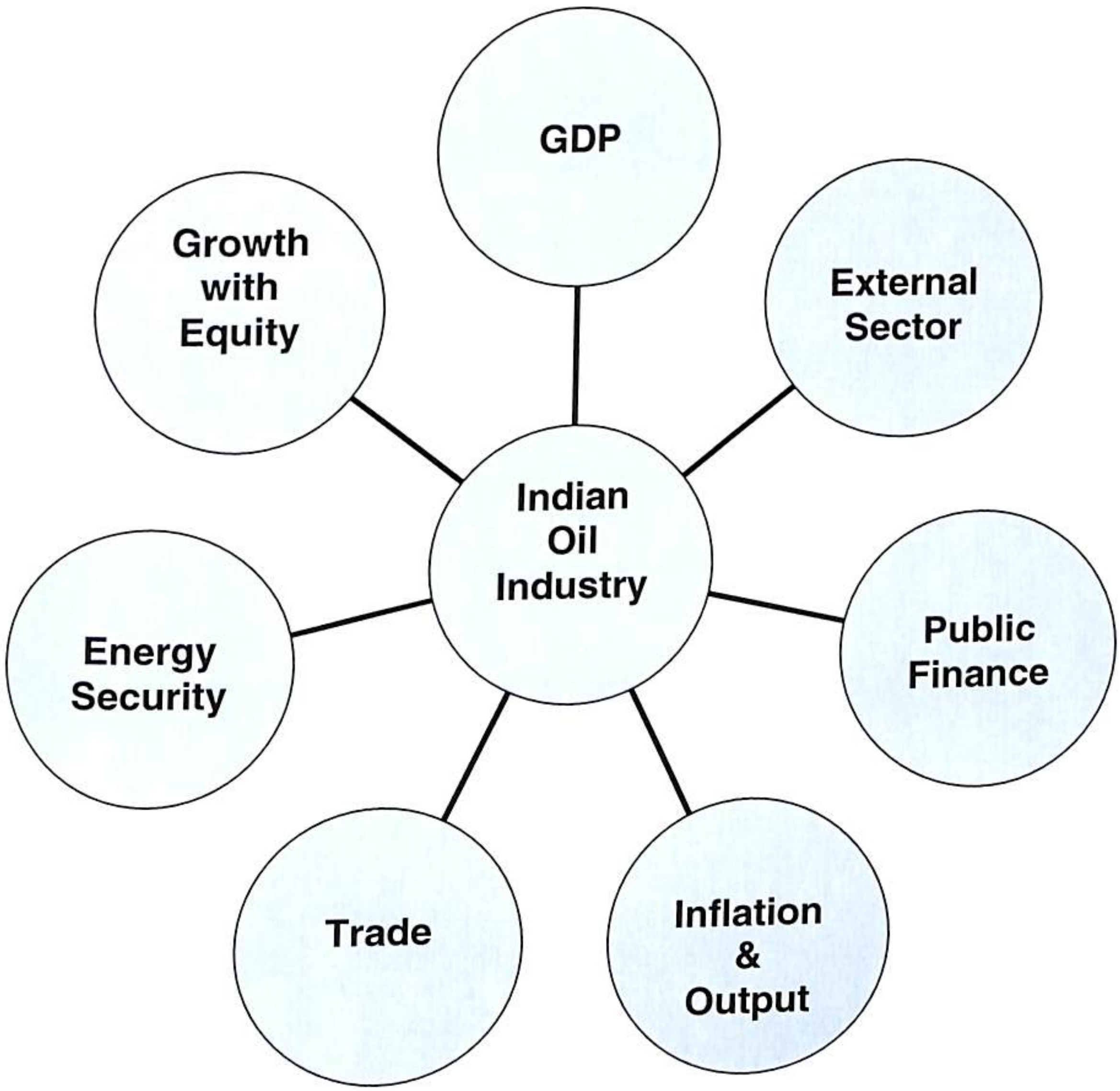
Objective 1: Analyze linkage between oil industry and the economy, in the light of India's planned development process and the economic reform process of last fifteen years

Oil Industry has three facets in the country's economy. First, it provides economic infrastructure to the country's growth process. Second, refining is basically a manufacturing activity, which creates value to the raw material that is crude oil. Third, it is a service industry. All these three segments of Oil Industry generate income, employment and output.

Besides contributing to income, employment and output, Oil Industry also creates ripples in other segments of the economy like external sector, inflation, public finance, trade etc, as brought out in Exhibit 25. All these directly and indirectly create impact on the mainstream economy. (Chapter II, III and VI)

Exhibit - 25

Oil Industry Economy Linkage



Oil Industry & Public Finance

In India, oil sector plays a significant role in the country's fiscal operation. Apart from the dividend paid by profit making PSUs under the Ministry of Petroleum & Natural Gas (8 PSUs paid above Rs 6,300 crores in 2004-05), two predominant sources of revenue for the Central Government are: (a) Union Excise Duties and (b) Customs duty; both from Oil sector. Besides, every State Government earns Sales Tax and each municipal body earns octroi on petroleum products.

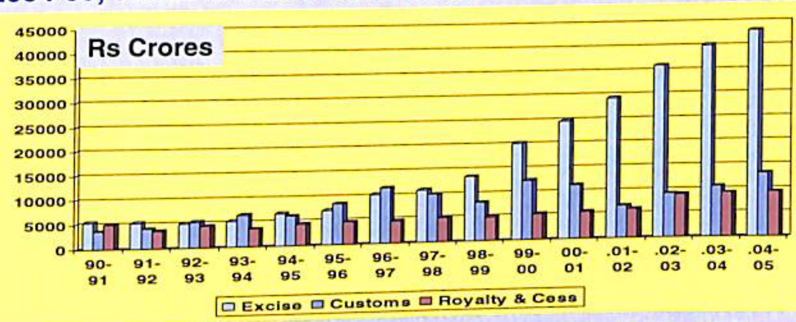
Central government alone earned Rs 56,395 crores (Rs 43,145 from Excise and Rs 13,250 from Customs) in 2004-05 from oil sector by way of Union Excise Duty and Customs Duty. It constitutes 17% of the total tax revenue of Government of India, on annual average basis for last 15 years.

During last 15 years, revenue from Union Excise duties grew at 16% and that from customs duties grew at 12% on annual average basis. One of the underlying bases of this nominal growth is the *ad-valorem* nature of our duties, which has a large degree of buoyancy with respect to volume of petroleum products consumed in the country. Union Excise Duties earned from petroleum sector constitutes 28% of total revenue on account of Union Excise Duties. Revenue earned from Customs Duties from oil sector constitutes 23% of total revenue earned by Government of India under that account.

Exhibit - 26

Revenue realization from POL products

8 Central PSUs under MOPNG paid a dividend of Rs 6,300 crores in 2004-05, which is a non-tax revenue for Central Government



Central government earned Rs. 56,395 crores in 2004-05 from oil sector from Union Excise & Customs duties; 17% of total tax revenue of Government of India, average for last 15 years.

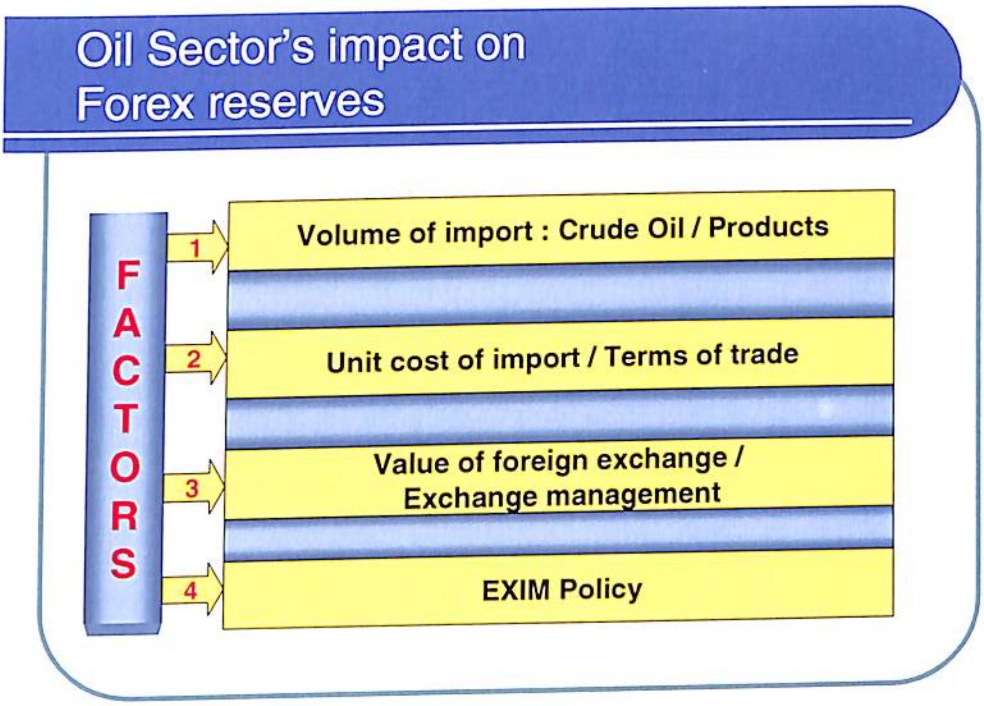
Upstream Oil Companies pay royalty and oil development cess to the State and Central Governments. On an average for last 15 years, over Rs 5,000 crores per annum is accruing to the state exchequer on this account.

Effective 2002-03, subsidy for LPG and Kerosene has been provided from the Union budget. In 2006-07, consumers availed a subsidy of Rs. 178.66 per cylinder on cooking gas, out of which Rs. 156.08 per cylinder was shared by oil marketing companies and the balance Rs. 22.88 was given in the form of budgetary support. Further, under-recoveries of Oil Companies, projected to be Rs. 73,500 crores in 2006-07, would be borne by upstream companies to the extent of Rs. 24,000 crores and by the marketing companies by Rs. 9,000 crores and Rs 28,300 crores would be settled by Government by issuing special bonds. All these directly or indirectly impact the fiscal affairs of the country.

Oil Industry & External Sector

India followed a restrictive external sector policy until 1991, mainly designed to conserve limited foreign exchange reserve for essential imports (petroleum goods and food grains), restrict capital mobility and discourage entry of multinationals. The external sector strategy since 1991, though gradualist in approach, has shifted from import substitution to export promotion and has the following key elements: (i) sufficiency of reserves, (ii) stability in the foreign exchange market, and (iii) prudent external debt management.

Exhibit - 27

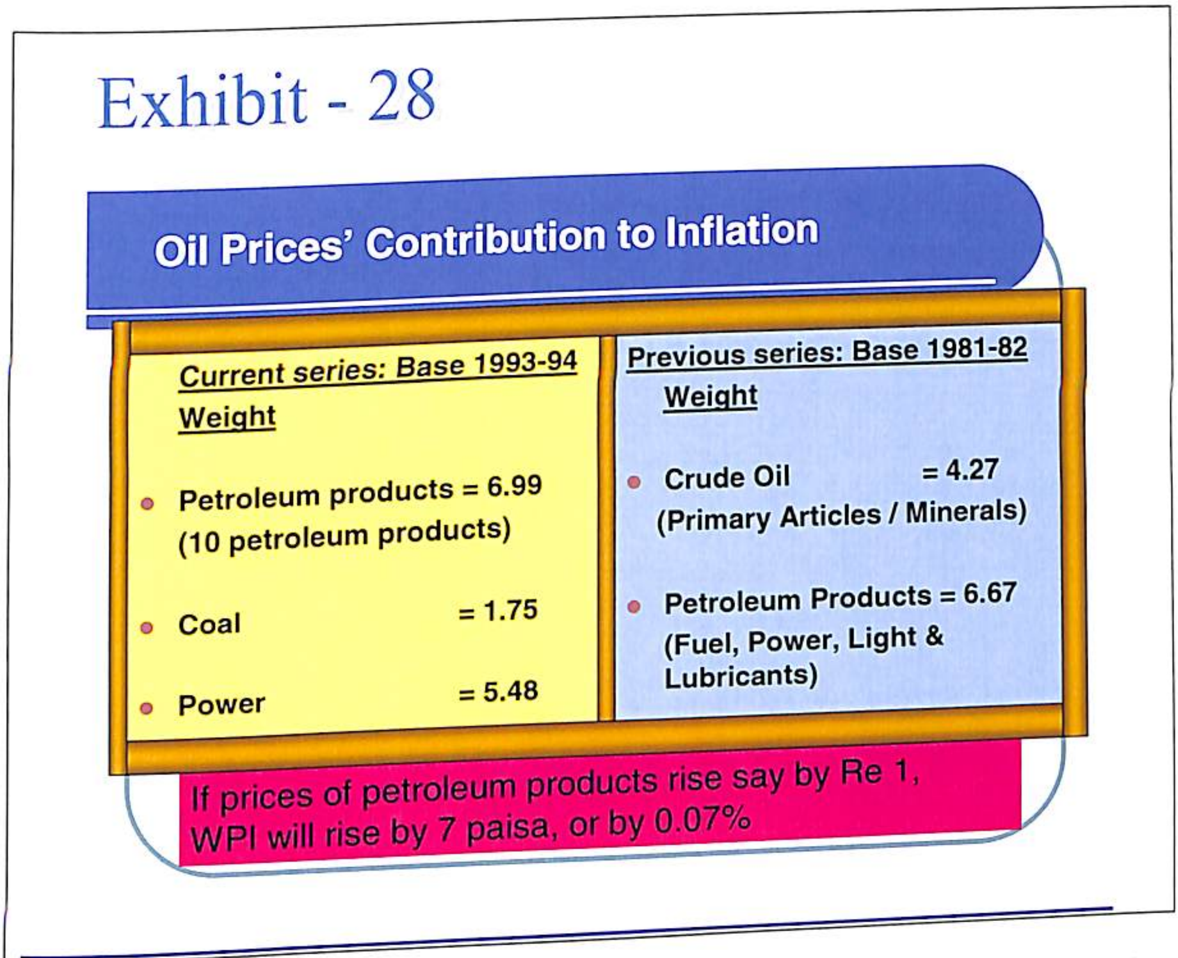


India has been an import dependent country in the oil sector. As such, oil import casts a heavy shadow on country's balance of payment position. India imports crude oil as well as refined petroleum products.

Oil Industry & Monetary Management

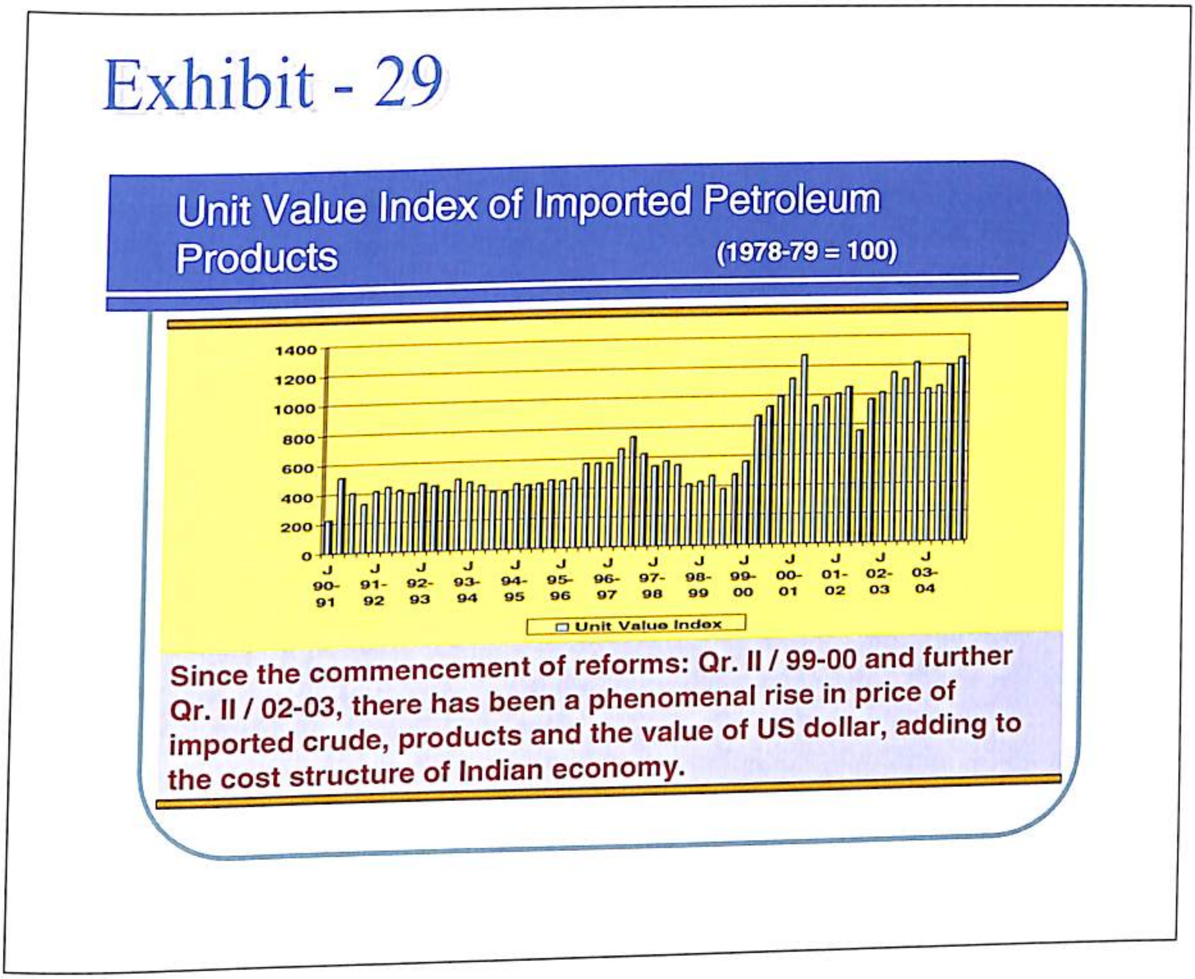
Indigenously produced crude oil is not enough to meet the refining capacity of our country. Deficit crude oil is imported and Indian refinery capacity is always attempted to run up to full capacity. Therefore, crude oil is imported as an intermediate feedstock. The refined petroleum products are also imported to the extent specific products are found to be deficit.

Crude oil production in the country depends upon explored reserves and actual production. In 1990-91, India imported 21 million tonnes (MMT) of crude against 52 MMT of crude oil processed in the refinery. Country then was import dependent to the extent of 40% and was self sufficient to the extent of 60%. Over a period of time, import dependence has increased to a level of 75%. In 2004-05, eighteen refineries in India processed 127 MMT of crude, from which 96 MMT was imported. During last 5 years, Rs 80,500 crores is spent in dollar in importing crude oil on annual average basis, highest ever amount was spent in 2004-05, that is Rs 1,16,800 crores, reflecting partly the spiraling rate of crude oil in international market.



Domestic petroleum products prices have lagged the increase in international crude oil process, with the burden being shared by the oil companies and the Central Government. The pass-through of higher international oil prices has been restricted mainly to petrol and diesel. Domestic prices of LPG and kerosene have remained unchanged during the year. As compared with an increase of about 87% (from US $ 31.9 a barrel to US $ 59.6 a barrel) in international crude oil prices (the Indian basket) between March 2004 and March 2006, domestic petroleum product prices in the WPI basket have increased by about 31% over the same period (petrol by 28.4% and diesel by 40.1%). '

In the aftermath of reform in April 1998 and April 2002, when Indian Oil Industry was attempted to be integrated with world oil market by adopting import parity pricing method, there is a clear evidence that the volatility in international oil market got transmitted to domestic oil market. The index of Petroleum products wildly oscillated between 41.9 percent in 1999-2000 to 1.3 percent in 2001-02. However, that volatility in oil products was managed by the monetary and fiscal policy measures. The headline inflation was very much in control in all the years, the maximum being 6.7 percent. Prices of other energy sources like coal and power were also well maintained, except 2000-01, in which there was a high upward movement to the extent of 18.1 percent and 11.5 percent, respectively.



<u>Pricing of Petroleum Products & its Linkages</u>

Domestic selling prices of petroleum products have not been revised time to time in line with import parity. International price has not been completely passed on to the consumer. Oil companies have not been allowed complete freedom to revise the prices of auto fuels (petrol and diesel) and kitchen fuels (kerosene and LPG).

This has resulted in huge under recovery by the marketing Oil Companies. On the face of it, the first impact of non-revision of prices of petroleum products was absorbed by Oil Companies. But there were incidence and consequences getting built up at so many other fronts; namely:

- Inflationary expectation was getting built up in the economy. Various economic agents in the economy like, producers, consumers, traders, retailers and investors were expecting a price hike. Media was keeping the likelihood of price hike alive in the mind of all sections of public. Inflationary expectation fuels inflation in other sectors of the economy, which was handled through monetary and credit mechanisms.

- It had fiscal affects, in more than one ways. First, there were attempts to reduce and adjust the taxation structure to give relief to the Oil Companies and the oil consumers. To that extent, government exchequer was deprived of its revenue. Secondly, bonds of various maturity periods were issued at different times to finance the under-recoveries of oil companies. Bonds are public debt and add to the interest burden. These bonds can have impact in the money market, if these are used as collateral to borrow money from banks. These bonds will be repaid at the time of maturity by the Government, who will earn tax revenue to repay the carry forward liability of the past.

- Having pushed to heavy borrowing for working capital, Oil Companies created a pressure in the money and financial market. Depending upon liquidity in the money market and RBI's credit control stance, money and credit market was impacted.

Capital market including institutional investors, foreign as well as domestic, watched every step of government and depending upon policy stance, reacted intensely, leading to volatility of market price of equity of PSU Oil Companies.

<u>Status and position of Oil Industry in the industrial scene</u>

India's Oil Policy within the overall framework of India's development policy had its own course, at times making Oil Sector an exception. When in 1947, India woke to freedom; the bulk of her oil requirement was being imported. Till 1960, there was no production of oil within the country except for a small quantity obtained from the Digboi area in Assam. Marketing of oil in India was done by three multinational companies, namely, Burmah Shell, Standard Vacuum and Caltex.

Though Industrial Policy Resolution 1948 specified that all the new units in the oil industry would be set up only under Government ownership, but for seven years after the declaration of that resolution, there was no public sector unit in the Oil Industry and permission was given in 1951 to private foreign companies to build refineries under their exclusive ownership. In fact, India did not have any 'Oil Plan', till II Five Year Plan, as the general understanding amongst policy makers that there was no oil in India and secondly, there was no funds and technology available for getting into that sector.

In December 1955, the Oil & Natural Gas Division was created as a part of the Ministry of Natural Resources and Scientific Research. It was then formed into a Commission and in October 1959, the Oil & Natural Gas Commission became a statutory body under an act of Parliament. A second Crude Oil producing company was formed in 1959 to exploit the oil fields of Assam, discovered in 1953-56 by the Assam Oil Company in partnership with Burmah Oil. The latter, the parent company of Assam Oil, was not allowed to exploit, refine or market the oil of Assam alone. A pipeline was constructed from oilfields to the refineries by OIL, but the Refineries of Nunmati (Assam) and Baruani (Bihar), erected to process the crude of these new oilfields, were constructed by the Government with the assistance of Rumanians and Russians and owned exclusively by the Government. These two refineries and subsequently the Koyali refinery of Gujarat were brought under the ownership of a state owned company, Indian Refineries Ltd, formed in 1958.

The Government entered the sphere of marketing in 1959, when the Indian Oil Company was formed.

Consumption of oil products in India rose from 3 million tonnes in 1951 to 4.8 million in 1956 and 5.7 million in 1958. It was forecast that it would be 7 million tonnes by 1960, at the end of the II Five Year Plan. With the growth of national income and the natural expansion of the economy, the demand for oil by 1965 would, the Planning Commission then estimated, jump to 10 million tonnes. As against this, the domestic production was about 400 TMT from the lone Digboi oilfield.

It was not easy for policy makers in the early years of planning to formulate an 'Oil Policy'. Oil policy had unique sets of compulsions and constraints, which were altogether different from those in other sectors.

First, there was an urgent need to explore indigenous oil and build a reserve of at least 12 to 15 million tonnes of production per annum.

Second, oil exploration and production was technology intensive, capital intensive and fraught with risk. Therefore, it required collaboration with multinational oil companies.

Third, allowing foreign investment in core sector like oil meant diluting the spirit of Industrial Policy Resolutions of 1948 and 1956.

Fourth, agreeing the terms and conditions with foreign oil companies, which are necessarily favorable to India's national interest was a daunting task. The critical issues of conflicting interests were regarding surrender of areas, profit sharing, royalties or outright payment.

If the national imperative of industrialization as set out in successive Industrial Policy Resolutions have been compromised for Oil Sector from the very inception, there were sound justifications for it.

There was no legislation in India regulating crude oil mining prior to independence, though there were legislations on mining since 1894. It was only after independence that the Indian Bureau of Mines (IBM) was set up in 1948 as the central agency for coordinating mineral leases and the mineral policies of different states. The Central Government enacted the Mines and Minerals (Regulation and Development) Act 1948, which came into force in October 1949. The Petroleum Concession Rules, 1949 were framed under this Act.

Against this backdrop, II Five Year Plan (1955-60) stated, 'in view of the small size of the capital and intermediate goods industry, special emphasis has to be placed on industries such as steel, coal, oil, electric power, machine building and chemicals. These must grow speedily, if the requirements of further industrialization are to be met in adequate measure from the country's own resources. In other words, development of these industries is an essential condition of self reliant and self sustained growth.'

The III Five Year Plan (1961-66) laid the basis for the foundation of India's Oil Industry in the direction of complete nationalization that ultimately took place in 1976. The relevant portion from III Plan document reads:

'The program relating to mineral oil envisages:

- exploitation by the Oil India of the reserves proved in their leasehold areas in Assam,
- further exploration by the Oil and Natural Gas Commission to locate and prove reserves of oil and establish additional production,
- the completion of the refineries under construction at Gauwhati and Barauni, respectively and establishment of a new refinery in Gujarat with a capacity of about 2 million tonnes,
- establishment of pipelines for the transport of petroleum products, and
- establishment of facilities for the distribution by Government agency of the products of the public sector refineries and the deficit products imported on favorable terms.'

During early 1960s, Government took a number of steps to destroy the monopolistic position of the Burmah Shell, Caltex and Esso group. These companies were denied the opportunity to build any new refinery partly because of their reluctance at the beginning to agree to the Government's majority shareholding in the Company. The import trade in oil products was made an exclusive privilege of the Indian Oil Corporation from 1965 and the target of making the corporation the leading marketing company of India was achieved by 1976. By then Burmah Shell was nationalized as Bharat Petroleum and Caltex and Esso were merged and nationalized as Hindustan Petroleum.

The expanding role of the Government in the affairs of the oil industry and the branching out of the public sector into different segments of the oil industry led to a series of conflicts with the established major international oil companies then operating in India.

One of the first conflicts was over the question of exploitation of Nahorkatiya oilfields, discovered in 1953 by Assam Oil, Burmah Oil's subsidiary. Government refused the latter any right to refine or market this oil and only allowed joint ownership in crude oil production. This was contrary to the marketing interests of Burmah Oil, whose loss of import trade in oil products (as a proportion to total consumption) consequent to the discovery of this oilfield more than offset its share in the profit of Oil India. As a protest against this restrictive policy, Burmah Oil suspended its exploratory activities in India for a while.

On the part of the Government, on the other hand, there was a feeling that the major oil companies were not taking enough interest in exploratory activities. There was also widespread resentment that companies were unwilling to share their technical knowledge with the Government and also that they were providing few opportunities for the training of Indian personnel.

During 1957 to 1959, the policy makers in India came to a realization that the multinational oil companies are charging high price of oil to Indian consumers through a pricing method known as 'Valued Stock Account' (VSA). Basically, it is same as import parity price, but the FOB price considered was of Mexican Gulf, as there was no Platts posted price of refined products in the Persian Gulf. The multinational Oil companies were loading excessive charges in the price build up, which was not audited by any Government agency, not even by their internal auditor. It came to light that the multinational oil companies earned higher profits in India than anywhere else in the world.

There was a dispute to extend the tariff protection granted to multinational oil companies for more than 10 years. It came to be known that the concessions and assurances given in the refinery agreement were to enable the companies to earn 7.5 percent return on capital invested. The operation of the refineries since 1955 had yielded returns on capital much in excess of the reasonable return envisaged during the negotiation on the agreement.

Another cause of conflict was the refusal of the Government to allow expansion of refining capacity under the ownership of the established major international companies unless the latter agreed to scrap the refinery agreements of 1951 and 1953 and also to import crude oil at prices comparable to the offers made by the Russians.

The conflict with oil majors came to a head when these companies refused to refine Russian crude oil, secured at very cheap price by the Government, in their refineries in 1960.

<u>India's planned development process and the economic reform process</u>

India has the history and experience of planned development effort of 50 years, passed through 10 Five Year Plans. In Chapter IV of this study, Oil Industry has been seen through the chronicle of Five Year Plans. Further, the country has also undergone a reform process, which is now 15 years old. Oil Industry, being a vital sector in the economy, was at the forefront of the reform process. Chapter V has attempted to see the Oil Industry run through the reform process.

Oil sector reform has come a long way since 1993 and it has miles to go ahead. In the process, the dominant change that has taken place is that the sector has opened up to private investment and to external world. In the process, the rules of game now center on pricing and marketing, two prime movers of competition.

The reform process has been so deep rooted and wide spread that now it has come to be irreversible. During last 13 years of the reform history, political parties with diverse ideology have come to power, yet the reform process has not been completely derailed. The reform is sustained by the logic which is endogenous to Industry and it also has push effect which is emanating from the national economic reform process. In both cases, the reforms are being propelled up. Since, Oil sector is a significant sector and the reform is broad based, its motion may be slow, but so far it has been steady and supportive of the spirit of national economic reform.

<u>Objective 2:</u> Analyze oil industry's role in country's economic growth and social welfare

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. 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.

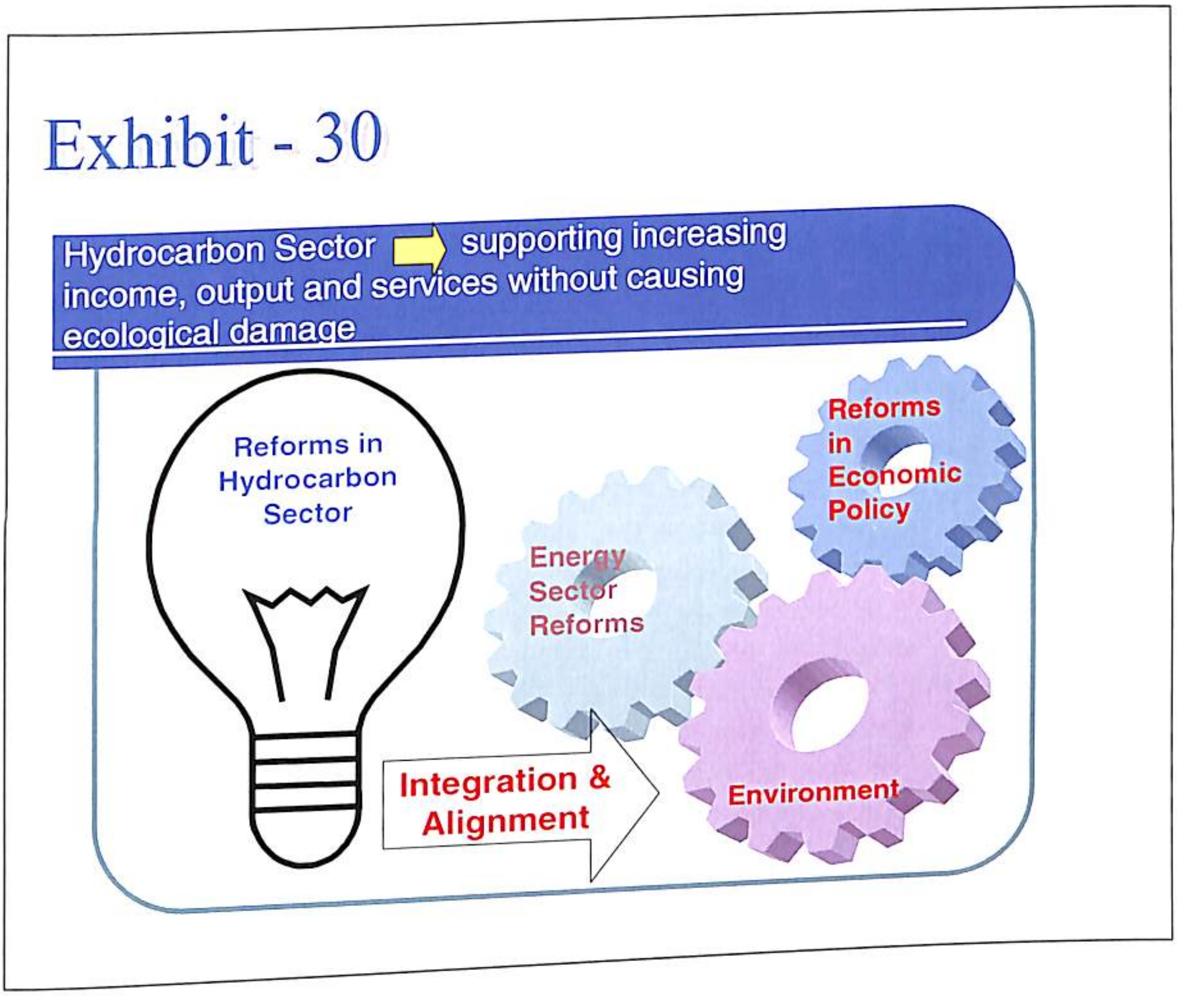
Availability of petroleum products with subsidized price for those used in farm sector has helped to remove inequality of income and opportunity. Even in the post reform era, petroleum products like Naphtha and Furnace Oil used for fertilizer were enjoying subsidy.

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.

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. 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.



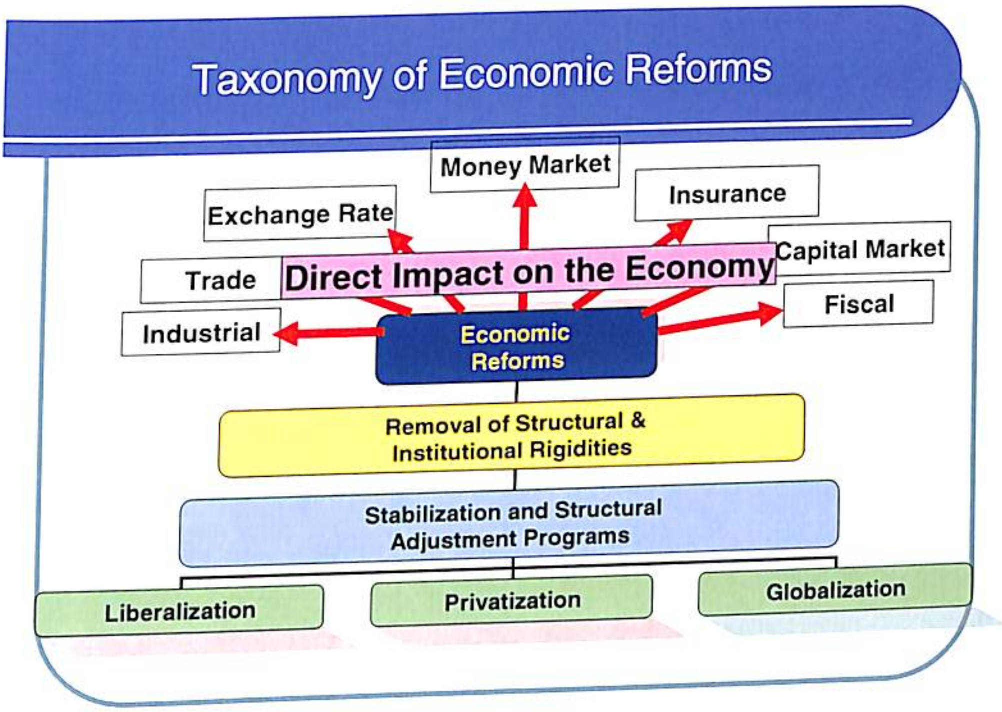
<u>Objective 3:</u> Analyze Taxonomy of economic reforms

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 *adhoc* 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 import licensing on all tradable, phased reduction of tariffs and removal of quantitative restrictions on 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 two percent devaluation of the rupee in July

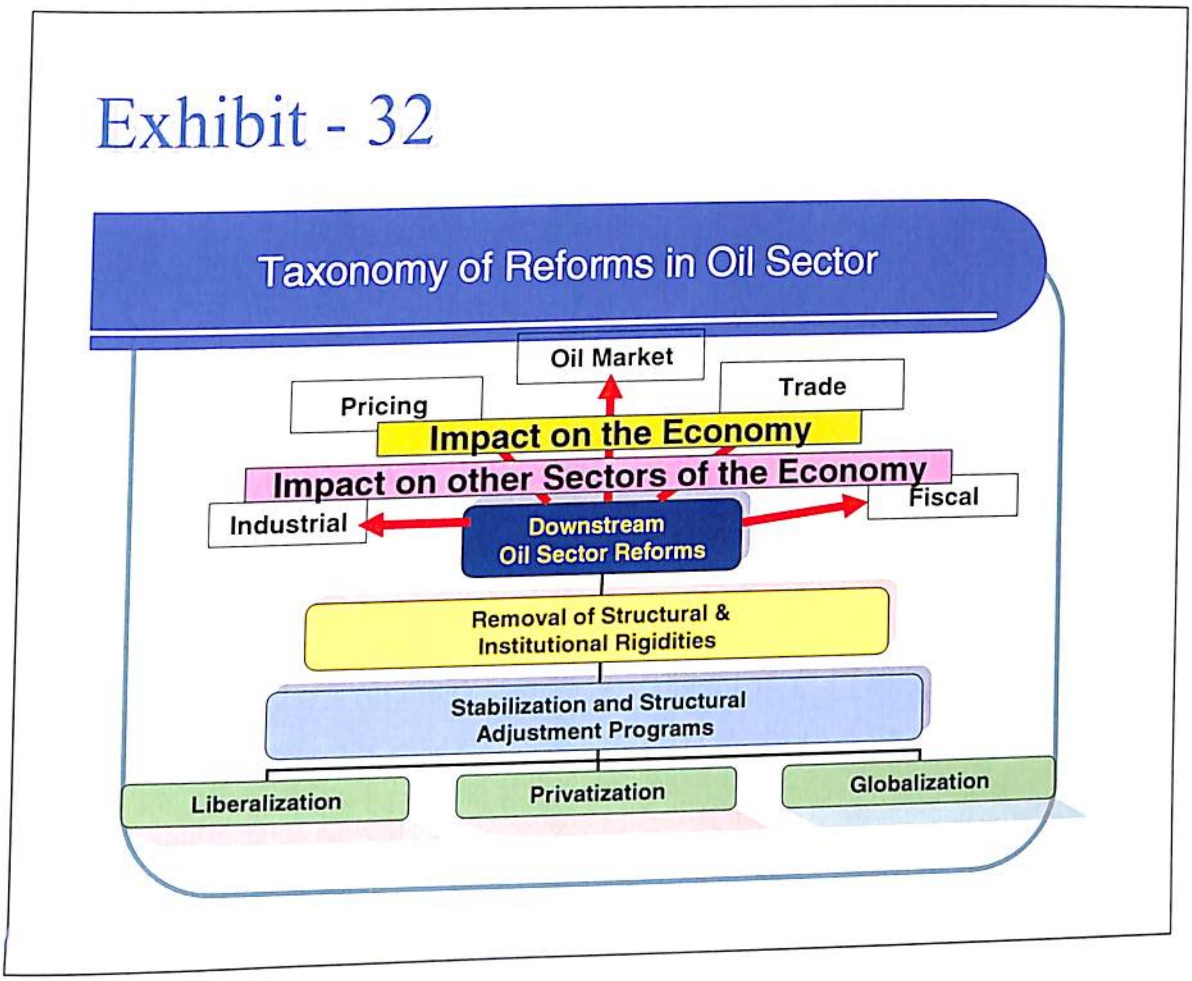
1991 was made. The current account became fully convertible from August 1994. These progressive changes opened many opportunities.

Exhibit - 31



Objective 4: Analyze Taxonomy of reforms in oil sector

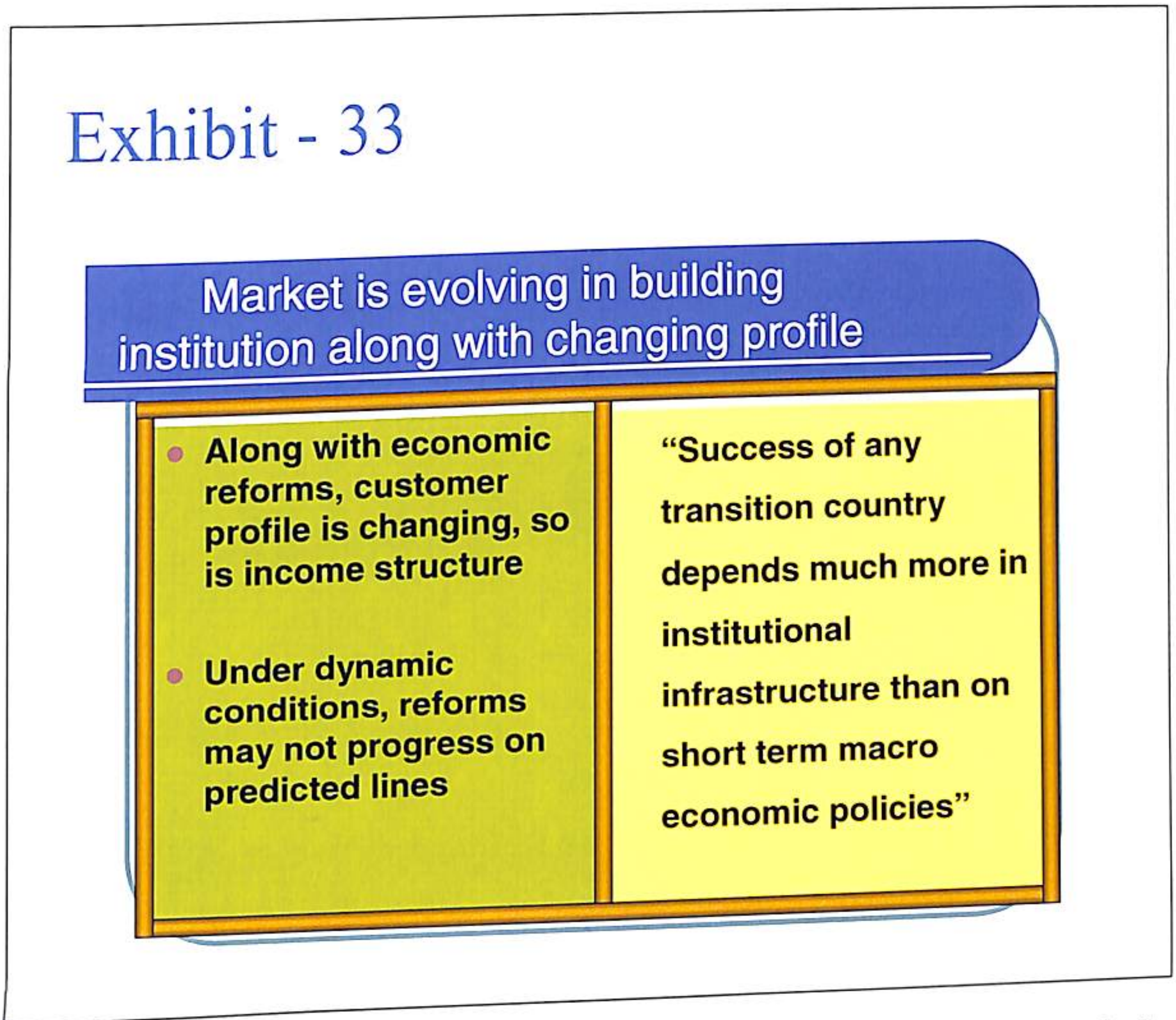
Extensive chronicling of reform process in Oil Industry has been attempted in Chapter V. Reform in Oil Industry has been both extensive and intensive. It is extensive, as Oil Industry is vast and spreads the whole cross section of the economy and the reform process, being a part of overall economic reform process has to run through the cross section. The reform is said to be intensive, as it is attempted to alter some fundamental basis of the Industry working. Exhibit 32 presents a graphic shot of the configuration of reform exercise in Oil Industry.



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 cases, steps were taken by the policy makers in Oil Industry, but there were too much of frictions leading set backs, as discussed in Chapter V & VII. (Section 5.6.vi and 7.4.1 for privatization & Section 5.3 and 7.4.2 for Pricing) When we examine impact of reforms in Oil Industry on various segments and their degree of alignment with national economy, we find that the reforms in oil sector played fulfilling role in furthering national agenda.

Oil market reforms are in line with the 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.



<u>Objective 5:</u> To bring out Comparison between economic reforms and oil sector reforms, with respect to the measures, process and impacts

Oil Industry has integral linkages with other sectors of the economy at a macro level. As such the reform process in Oil industry impact critically on those sectors, namely, fiscal, external sector, general price level and industrial sector. The impacts of Oil Industry on the macro economy primarily get manifested either in fiscal deficit, or balance of payment deficit or in inflation.

Chapter VI examines the impact of reforms in Oil Industry. The analyses in Chapter VI bring out that, the domestic prices of petroleum products have been managed in a balanced way, in the face of unprecedented rise in the crude oil prices in international market. On the face of it, as discussed in Chapter V, Section 5.3, the pricing of petroleum products have not followed any orthodox or liberal kind of principle. It has been a cautious and pragmatic step, taken with due care, keeping in mind the general price level in the economy on the one hand and fiscal effect on the other.

The linkages with fiscal and monetary aspect and the oil prices have been analyzed and their impact has been brought out in Chapter VI.

Knowing the underlying equations, the policy makers have chartered a path which appears to have a more or less neutral stance on the general price level on the one hand and fiscal affairs on the other. All the options to manage the oil price as discussed in Section 5.3 and their impact on fiscal affairs (Section 6.1) and on inflation (Section 6.3) lead to a conclusion that a fine balance has been made and the debilitating adverse impact of price rise in the international market has been smoothened and diffused in the domestic economy. It was never an easy exercise. Choices were hard, both on administrative and political points of view.

The impact of internal liberalization of Indian Oil Industry on productivity, industrial performance and better management has been in line with the spirit of economic reforms.

Exhibit - 34

Industrial Reforms – Competition

Auto Fuels

- ☒ Competitive price
- ☒ Multiple players
- ☑ Branded fuels – limited
- ☑ Improvement in customer service
- ☑ Strategic positioning
- ☑ Non fuel offerings

Industrial Fuels

- ☑ Competitive price
- ☑ Multiple players
- ☑ Import option
- ☑ User specific quality
- ☑ User oriented delivery
- ☑ Improvement in customer service

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:

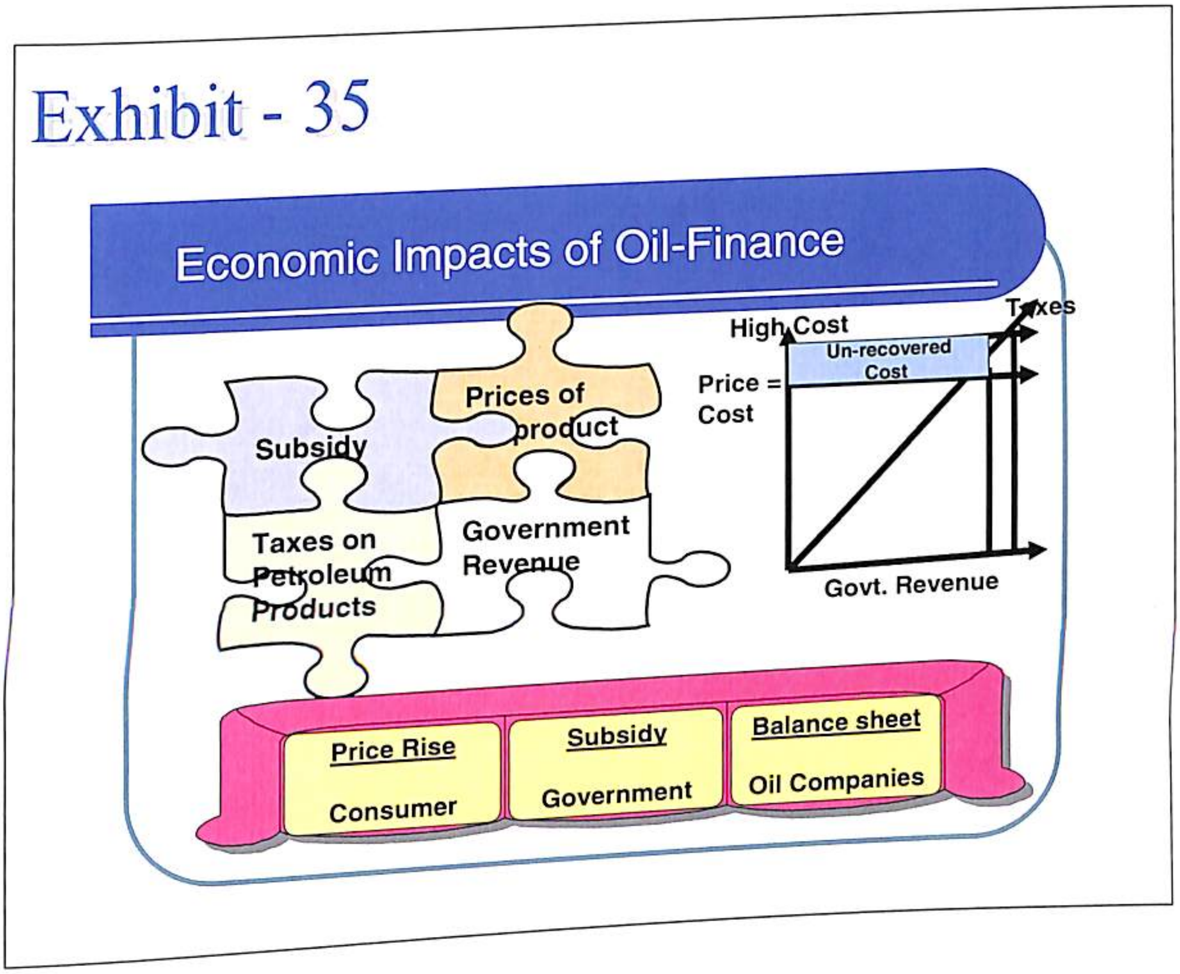
- Customer has come to occupy the centre stage of the marketing activity
- Number of players are more than ever; entry and exit is restricted by market condition, rather than by regulation
- Continuous innovation is taking place with regard to product, product features, package and delivery service; 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 just been passed in April 2006, after an incubation of about four years. The members of the downstream Regulatory Board have been announced in July 2007.

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 dependent on the external world for crude oil to the extent of almost 75%. It 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. Multinational Oil Companies including trading companies are active in Indian market, without much encumbrance.

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.



Objective 6: To draw a road map for Oil Industry, for the XI Plan period, i.e., for 2007-08 to 2011-12, both at the macro level of policy making as well as at the micro level of implementation

Section 8.3 in Chapter VIII presents a view of road ahead. Salient points of those are presented below:

Road Ahead

1. One of the cardinal principles of competition is that firms have freedom to decide their price and output at an equilibrium level. There is perfect mobility of factors of production and there is no entry barrier.

It is significant that the PSU companies are allowed to operate in a commercial and professional line, for which managerial and functional autonomy is a prerequisite. Few suggested methods of ensuring that are:

- Divest majority shares from the Government. Government may keep a golden share, which may entitle it to have a say in case of emergency, protecting national security and public interest. Let the Board of respective Companies be answerable to shareholders and other regulatory bodies in the country.

- Key decisions like Investment planning, product pricing, appointing dealers and employee remuneration etc. are to be taken away from Government clearance. Let the Board be the final decision making body.

- PSU Oil companies would have absolute commercial freedom to run their business. If at all they are to serve certain short term objectives, national or otherwise, those can be incorporated in their MOU, which all PSUs are signing every year.

All the above suggested measures would make the downstream oil companies more efficient and more profit making. Then only, these companies can be expected to contribute to the growth of the economy, keeping an eye of overall development with equity and distributive justice through their pan India and inter-sectoral presence.

2. Let all the PSU Oil Companies be converted into Energy Company. Each one of the companies, get into R&D and infrastructure building activities, so that by end XI Plan, these companies can provide an integrated energy solution to customers.

3. Pricing of petroleum products is a commercial decision to be decided by Oil Companies. Oil Companies are best suited to determine the economic value of their product and the interest of their stake holders.

4. In case prices are to be restrained under certain conditions; that can be exercised through the Board of the companies. Second, downstream Regulator is the right authority to apply any kind of restriction on the prices. Third, as far as inflation is concerned, it is to be regulated by the monetary and fiscal policy measures. Fourth, State Governments can exercise certain influences through Essential Services Commodities Act, in case such adverse conditions arises which might call for any draconian measures.

5. Tariff levels and rates are to be maintained at a level consistent with national fiscal policy, suiting national priorities to be served through Oil Sector. Tariff structure should not be a barrier for import and export of products. Quota, quantitative restriction, import license, export incentive and canalization; all to be removed. Each of these measures, if at all required to be taken, should be in consonance with the national economic policy. Restrictive and regulatory measures, if is required, has to be temporary and purposeful.

6. All subsidies are to be abolished. If any target population is to be taken care, that kind of targeted instruments of transfer payment are to be devised. Care has to be taken that subsidy should not distort the pricing of petroleum products, leading to its suboptimal use and diversion to non priority sector.

7. Remove the price difference between products which can be diverted for black marketing or for adulteration. Cases in point are: price difference between Kerosene under PDS and Diesel, LPG for domestic and LPG for commercial use.

8. Make use of oil diplomacy to secure oil reserves in overseas oil fields. Initiatives already taken in this regard may be continued to its full use. Form, strengthen and work through Asian buyers block. Multilateral world bodies have to be so utilized that oil exporting countries may be asked to share a part of their income to promote an energy transition in poor households that would enhance their human development.

9. Develop an 'energy efficiency policy' for household sector, involving government intervention and technological shift. Energy efficiency involves the replacement of inefficient technologies with efficient ones and fuel switching from non-renewable to renewable technologies. Rising incomes can lead to fuel shifts.

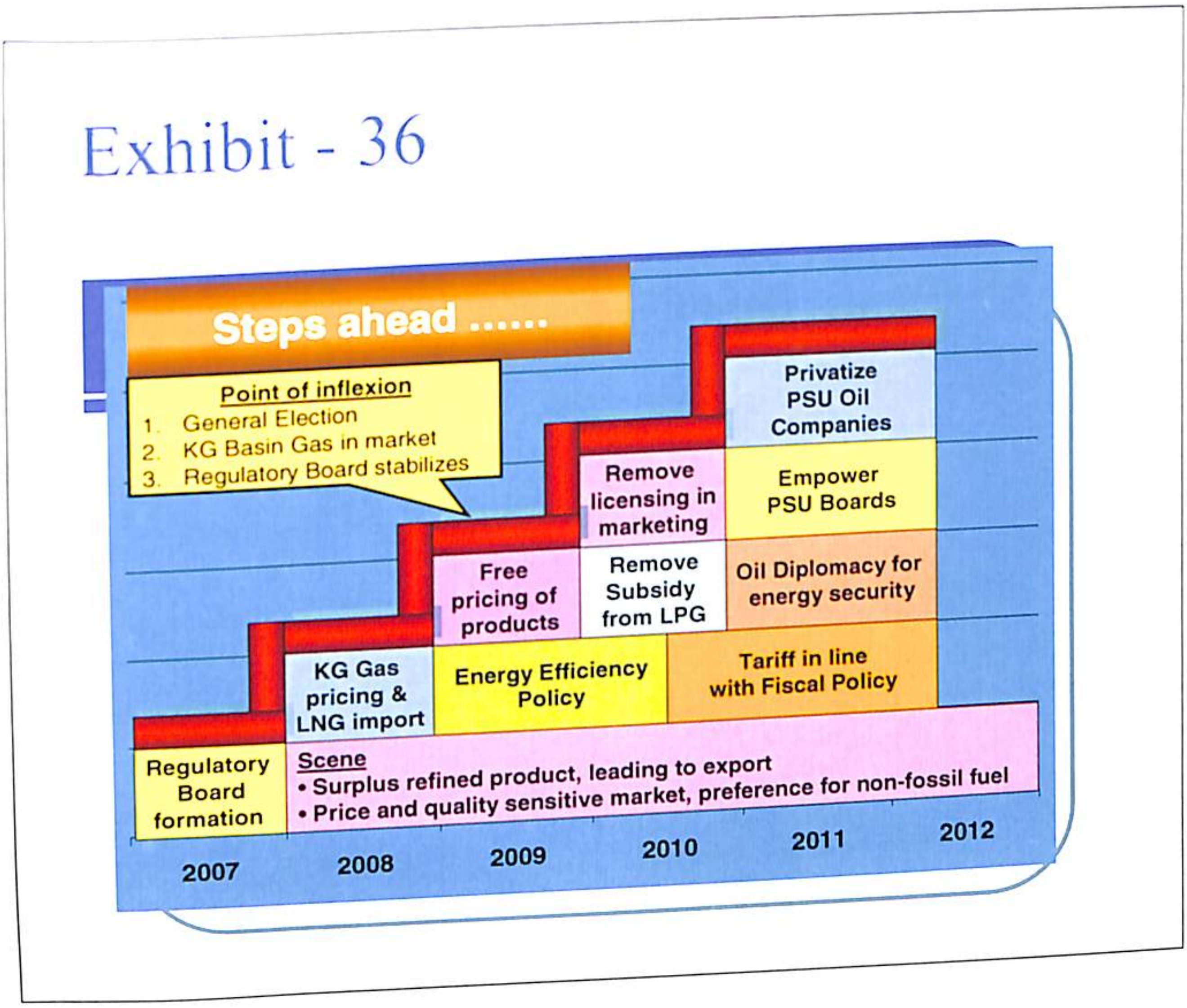
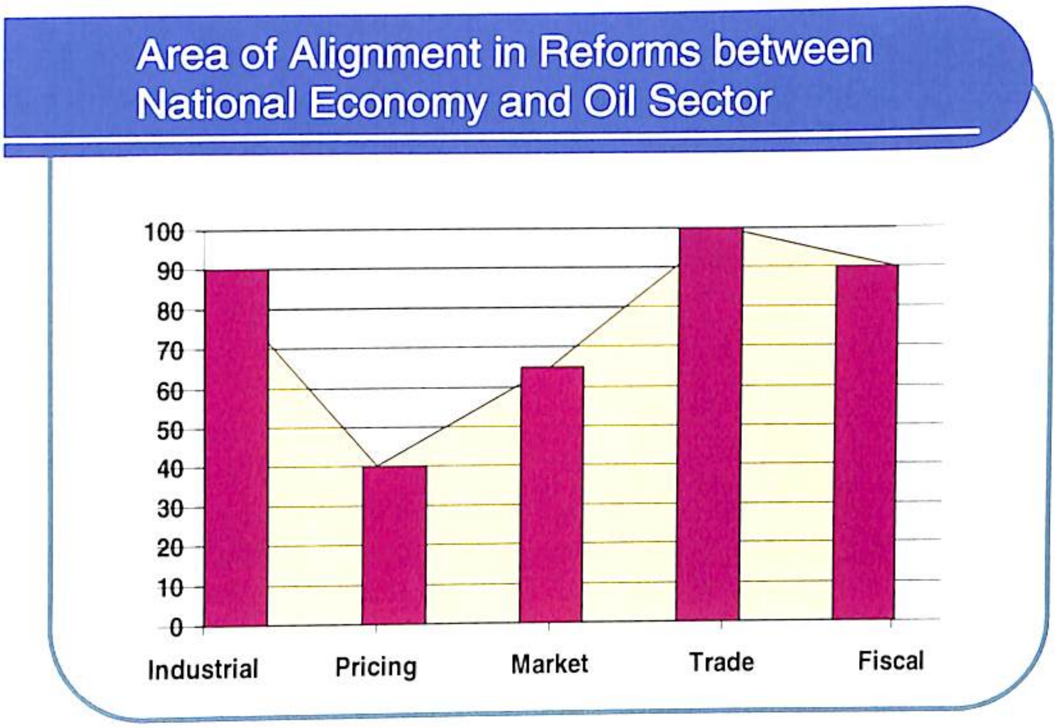


Exhibit - 36
Steps ahead ......
Point of inflexion
1. General Election
2. KG Basin Gas in market
3. Regulatory Board stabilizes
Privatize PSU Oil Companies
Remove licensing in marketing
Empower PSU Boards
Free pricing of products
Remove Subsidy from LPG
Oil Diplomacy for energy security
KG Gas pricing & LNG import
Energy Efficiency Policy
Tariff in line with Fiscal Policy
Regulatory Board formation
Scene
• Surplus refined product, leading to export
• Price and quality sensitive market, preference for non-fossil fuel
2007
2008
2009
2010
2011
2012

Section 9.2: Concluding Remarks

The study concludes in Chapter VII that reforms in downstream hydrocarbon sector are in conformity with the reforms in the national economy. Further, oil industry reforms have been supportive of the results of the economic reforms at the national level.

Exhibit - 37



77% alignment between reforms in oil sector and national economic reforms

As discussed in Section 7.6, Chapter VII, there is 77% of degree of congruence between Oil Sector Reforms and National Economic Reforms. The shaded area in Exhibit 37 represents the degree of congruence. The bars in the Exhibit represent the degree of congruence with respect to the respective segment in the national economy.

The study 'Oil Sector Reforms in India' is truly an intense and diversified work. The topic itself is vast, appropriately matched with the expanse of the industry it covers. The study required deep analysis of each issue, metaphorically matching with the depth that an oil well penetrates into the recess of the earth to produce oil.

The methodology adopted in the study is a combination of: (a) review of literature; (b) chronicling developments in oil sector reforms and development planning in India; (c) analysis of the impacts of the reform process by methods of discovery and integration; (d) seeking validation of findings from worldwide experience and (e) reflection and application of my own experience of working in the industry for last twenty years. Overall, the study falls in the realm of 'petroleum economics' with reference to the reforms process in India. The study is a work of policy planning, analysis and formulation of business strategy pertaining to oil sector.

From an academic view, this study is a contribution to literature, as it brings together diverse subjects like 'economics', 'oil marketing', 'national policy planning' and 'business strategy', all from theoretical and practical perspective. It may not get the recognition of being a fundamental research work, as it lacks the rigor and abstraction of hypothesis testing and theory formulation. This study nevertheless can be a basis for such theoretical work in future. The study draws its value as a foundation for basic understanding and integrated formulation of the subjects involved.

Oil and gas sector in India is very dynamic and fast evolving field, integrated with global oil market. Therefore the study has an inherent danger of becoming outdated in a short time gap. Secondly, the reforms in oil industry impact the various segments of the economy in an organic, interactive and intimate way. Therefore, the study needs to examine the relationships on a continuous basis. Thirdly, there are many areas which need to be examined by developing macro economic models with mathematics and econometrics. The model building to study various interrelationships can be done in future. Further, integrated energy policy and pricing needs to be studied taking other energy sources like power, coal, nuclear etc, which can be subjects for further study.