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The Impact of High Crude Oil Prices and Challenges in Pricing of Petroleum Products

Summary of a Roundtable organised by Observer Research Foundation

INTRODUCTION

A ROUNDTABLE DISCUSSION on the topic "The Impact of High Crude Oil Prices & Challenges in Pricing of Petroleum Products" was organised by Observer Research Foundation at New Delhi on August 14, 2006. The discussion was chaired by Dr. S. Narayan, former Secretary (Ministry of Petroleum and Natural Gas and Ministry of Finance) and attended by, amongst others, Prof. Arjun K. Sengupta, Member, Committee on External Affairs, Rajya Sabha, Parliament of India; Shri P. Raghavendran, President (refinery business, RIL); Shri A. N. Sinha, MD & CEO, Essar Oil; leading energy economists, representatives form academic bodies, consulting organisations, representative from leading NGOs and representatives from trade and industry associations.

The meeting started with a background presentation on the theme of the roundtable by Shri Ashok Dhar, Visiting Senior Fellow, Energy, ORF. He covered issues arising out of the rise in international oil prices, pricing challenges for petroleum products in India and shared a chronological review of government policy in this regard. The experience of international responses to high oil prices by other developing countries was also presented to the gathering. He recalled deliberations of Energy Conclave organised by ORF on February 14-15, 2006 in New Delhi wherein it was emphasized by ORF that India was facing an inevitable era of high crude oil prices and decisions regarding pricing and taxation should not be postponed.

In the three-hour long constructive discussions that followed, various perceptions and suggestions were expressed with a common belief that vulnerable sections of society need to be supported while pricing for other sectors should be determined by market forces. The group emphasized that priority should be given to leveraging technology to target financial support to weaker sections, rather than adopting product based subsidy support.

Reflecting these views, this brief is presented by ORF for providing a platform for informed discussions on the important issue of 'Energy Security' which is necessary for achieving our economic growth aspirations.

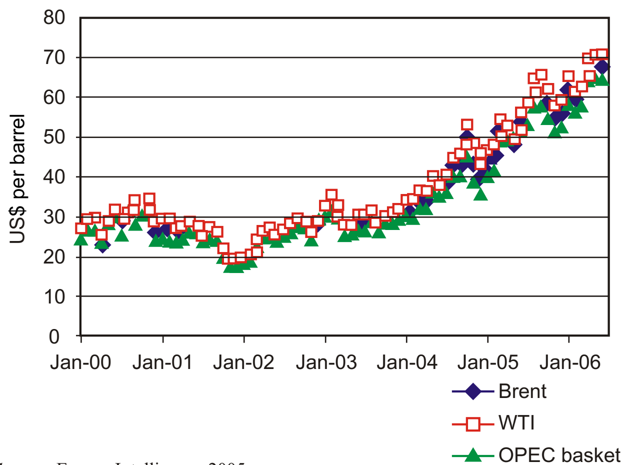
Observer Research Foundation is a public policy think-tank that aims to influence formulation of policies for building a strong and prosperous India. ORF pursues these goals by providing informed and productive inputs, in-depth research and stimulating discussions. The Foundation is supported in its mission by a cross-section of India's leading public figures, academics and business leaders.

BACKGROUND

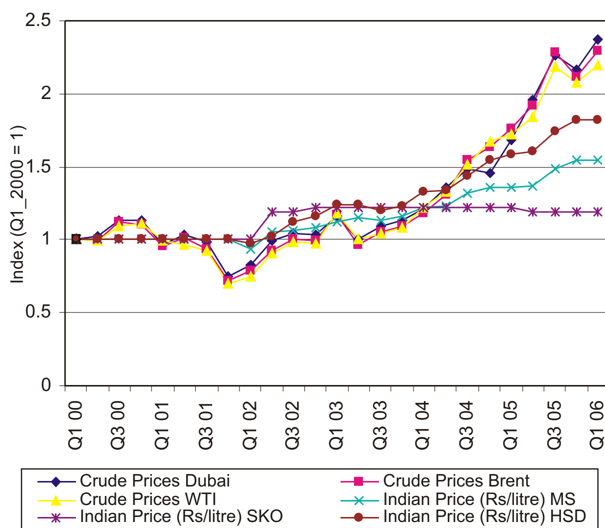
Global crude oil prices have risen sharply over the last two years and today we are at a relatively 'stable' $70-$72 /bbl regime. Analysts from leading agencies have concluded that we are probably in the second year of a 'high oil price' plateau, which is likely to last for about 4-5 years.

India, with its limited domestic crude production, imports more than 70 percent of its crude oil requirement to fuel its burgeoning oil demand in wake of the booming economy. The rise in international crude oil prices directly impacts the cost of refined products. In a perfectly competitive market with no price or other distortions, prices of refined products would move in tandem with the crude price.

Figure 1 Prices of Brent, WTI, and OPEC Basket



Source: Energy Intelligence 2005
Note: Monthly average price for UK Brent-38, WTI-40 (Cushing), and OPEC basket



Unfortunately, in India, the domestic retail prices of petroleum products move neither in line with rising crude oil prices nor with respect to each other. This has resulted in complex problems. The large price distortion of petroleum products results in misuse and waste as well as under-recoveries for oil companies.

In this background, the following key issues that could potentially have adverse consequences on the Indian economy were discussed by the focus group:

How can we mitigate the impact of high oil prices so that country's growth aspirations are supported while vulnerable sections of the society are protected?

Should the government continue to collect high taxes on oil and hold retail prices below cost, forcing oil companies to furnish the rest out of their net worth?

Can political compulsions remain an excuse? A study has pointed out that the Rs 100,000 crore (appx. $ 22.22 billion) of actual fiscal cost on the oil sector benefits no one, but results in misuse and waste. Further, the cost of giving a benefit of Rs 6,000-7,000 crore (appx. $ 1.33 - 1.56 billion) to the poor through kerosene subsidies is Rs 24,000 crore (appx. $ 5.33 billion), if the fiscal cost (including those of diversions) is included. A significant quantity of domestic LPG cylinders is alleged to be diverted for use as auto LPG in the transportation sector and in commercial sector, vitiating the purpose of subsidies on domestic LPG.

How can taxes be reduced and subsidies provided through transfers and not by the creation of a parallel market?

Can we justify the national loss of keeping shut social assets such as the retail outlets set up by private oil companies and deny consumers a choice?

The collective thoughts from the focus group discussion are synthesized broadly in the following three categories:

Market determined price for petroleum products

Non-implementation of the policy to dismantle Administered Pricing Mechanism (APM).

Taxation and tariff structure

Existing price distortion of petroleum products due to taxation and subsidy policies of the Govt.

Inefficient use of petroleum products due to price distortions.

Level playing field for all players of the industry

Discrimination between the public and private sectors which sustains monopolies, limits choice for consumers and inhibits foreign investment

MARKET DETERMINED PRICE FOR PETROLEUM PRODUCTS

In principle, the government abolished the APM in April 2002 and moved over to market-determined prices for Diesel and Gasoline. Kerosene (public distribution) and LPG (for households) continued to be subsidized. The price of indigenous crude was also made market-related and refining companies bought crude oil from indigenous producers at international-linked prices. These changes necessitated the pricing of petrol and diesel based on the Import Parity Principle (IPP), linking product pricing to notional landed prices (as if imported).

Though initially the pricing of petrol and diesel was done as per IPP, its implementation suffered a setback when global crude oil prices started rising. Indian prices could not be raised to global levels as the government wanted to insulate the Indian consumer from price volatility. A new pricing mechanism - price

band - was announced whereby retail prices were based on the previous fortnight's average international price (provided that the exchange rate adjusted C&F product price was within the band of +/- 10 percent around the mean of the previous three month's rolling average price and previous one year's average price). However, its implementation did not go beyond the first fortnight of August 2004 as global prices of crude & finished products breached the 'price-band'.

Today, the government continues to subsidize petrol and diesel in addition to LPG and kerosene and effectively controls the pricing of all these products. This has resulted in a huge loss to oil marketing companies on account of under recoveries. As per the Government of India (GoI) estimate, the total under-recovery for PSUs before the last price revision has been Rs 73,512 crores (appx. $ 16.34 billion) based on IPP. Post price revision and based on Trade Parity Price (TPP), the under-recovery is Rs 57,679 crores (appx. $ 12.82 billion). This amounts to an under recovery of Rs 3.39 /litre on MS and Rs 5.77/ litre on HSD.

Government assistance provided to downstream PSUs by way of oil bonds and assistance from upstream companies have covered the under recovery for downstream PSUs. However, this has compounded the existing problem as it completely ignores private players in the Industry. The government may not be aware of the 15 percent market share gained by private players within a short span of less than a year, endorsing customer approval for better product and service quality offering. Customers who shifted to private players owing to these value propositions had no choice but to revert to the old outlets. The discriminatory issuance of bonds to PSUs has destroyed private investment and has raised larger issues of investors' confidence in the country since it is critically linked to implementation of Government policy in letter and spirit.

The government effectively controls the pricing of the petroleum products as it has now begun to subsidise petrol and diesel in addition to LPG and kerosene. This has resulted in a huge loss to oil marketing companies on account of under recoveries.

International Experience

World over, developing countries have responded to the price hike in a way that makes the industry more efficient and competitive. Countries have devised effective and transparent mechanisms to extend benefits to deserving segments of society. Among key policy responses adopted by various countries quoted in the World Bank report are: tax adjustments to smoothen prices, fuel price subsidies financed from budget, stabilization fund, government influence used to lower prices, certain consumers benefit from lower prices, suspension of market-based pricing policy, mandatory conservation measures, financial incentives for conservation, cash transfer to compensate for higher fuel prices, oil product rationing and fuel switching. In a sample of 38 developing countries, 20 countries financed the subsidy from the budget and 23 countries lowered taxes to reduce retail prices.

Developing countries such as Indonesia and Ghana have moved to market-determined prices and today retailers in Ghana post independent prices. Price adjustment in Indonesia in the year 2005 resulted in an overall price hike of 149 percent, 161 percent and 186 percent for Gasoline, Diesel and Kerosene respectively without any protest from the public. A country that is known for violent protests over controversial measures has managed the retail price hike through a well-planned strategy by the government that has benefited all stakeholders of the system, most importantly, the poor.

Pass-through of oil price hike by developing countries

If we look at the pass-through coefficients (measured as ratio of increase in retail price to increase in international price) for developing countries, it can be seen that most of the net oil importers have passed the oil price hike to consumers. Table 1 summarizes the pass-through coefficients for select industrial and developing countries (January 2004 April 2006). A Pass-through coefficient greater than unity indicates that the country has passed through price hike more than the increased international price. This may be mainly due to the tax structure or other forms of price build-up.

As seen in Table 1, the mean of pass-through coefficients for net oil importers is 1.19 for gasoline and 1.01 for diesel. These coefficients for India during the same period are 1.25 for gasoline and 0.66 for diesel. This indicates that India has passed through more than the international price rise for gasoline to consumers and yet the retail price of gasoline is less than the market price. This startling fact is consistent with the observation in the report by the Dr. Rangarajan committee that the ad-valorem duty structure amounts to the government profiting at the expense of the consumer.

Table 1
Pass-Through Coefficients for Selected Industrial and Developing Countries (January 2004April 2006)[a]

Country	Gasoline	Diesel
Germany	1.2	0.98
Japan	0.85	0.65
United Kingdom	1.25	1.08
United States	1.02	1.05
Mean of case studies (31countries)	1.03	0.88
Mean for net oil importers (25 countries)	1.19	1.01
Mean for net oil exporters (6 countries)	0.35	0.32

[a]For some developing countries, price information was not available during the specified period.
Source: *World Bank/ ESMAP Report.*

Impact of retail price hike on Economy

At a broader level, the petroleum sector may be capable of absorbing high prices but specific segments could suffer adverse consequences from the increase in petroleum prices. For example, the textile sector uses approximately 23 percent of diesel generating sets in the country. If the textile sector has to pay the true cost of diesel, then most of these units would close down primarily because there is no alternative power source available. Increase in LPG price can also impact household savings, which in turn could affect overall demand, particularly

in the FMCG sector.

The policy to move towards market prices should however not be held hostage to the impact on certain segments. Subsides targeted to certain consumer groups and the provision of alternative sources of power to the textile industry could mitigate the adverse impact on these segments. In the age of Information Technology, targeting subsidy to consumers is not a difficult task. With the spectacular contribution of the Indian IT industry in world economy, the task must be relatively easy for India. Malaysia has set a precedent in this regard by implementing e-diesel and smart card schemes for fishermen and fleet operators respectively.

On the question of high oil prices leading to inflation, studies have shown that transport companies usually raise prices to an extent that is unwarranted by oil price increase. Even a 100 percent increase in the price of oil hardly translates into 1-1.5 percent increase in the input cost. A tax on transport companies' excess profit during periods of high oil prices could limit unwarranted price increase by transport companies.

Market segmentation for usage of petroleum products could also be a win-win situation for all stakeholders. In simple terms, it should be possible for Indian refineries to develop a multiple niche grade of diesel to meet the market requirement for fuels keeping in view the application requirement, performance and environmental criterion. This approach would improve the competitiveness of the Agriculture sector, Textile Industry, Railways and other industries through lower fuel prices.

TAXATION AND TARIFF STRUCTURE

Historically, India has pursued a policy of cross subsidising petroleum products with the intention of redistributing benefits to economically challenged sections of society. This has resulted in unintended consequences: product diversion, misuse, environmental degradation and excessive consumption of scarce oil resources. The policy of using cross-subsidies to redistribute access and benefits of petroleum products has become self-defeating as subsidised products are appropriated by affluent sections of society, leaving most targeted sections to fend for themselves.

A recent study by the World Bank highlights the extent of price distortion of petroleum products in developing countries. Table 2 shows the recent retail price ratios of petroleum products in select developing countries. Since product prices are broadly comparable to net taxes, large deviations of calculated ratios from unity reflect the taxation and subsidy policy of respective governments. Price ratios in India are 1.4 for Gasoline/ Diesel, 4.9 for Gasoline/Kerosene, 3.5 for Diesel/ Kerosene against the average ratios of 1.2, 1.4 and 1.1 for Gasoline/Diesel, Gasoline/Kerosene and Diesel/Kerosene respectively for comparable developing countries. It is pertinent to note that in no other developing country are retail prices as distorted as in India. Given such a high level of distortion, the fact that 38 percent of PDS Kerosene is diverted to non-PDS use in India should not surprise anyone.

Table 2

Country	Gasoline/ Diesel	Gasoline/ Kerosene	Diesel/ Kerosene
Argentina	1.3	1.3	1.0
Bangladesh	1.4	1.4	1.0
Chile	1.4	1.4	1.0
China	1.0		
Ghana	1.1	1.3	1.2
Guatemala	1.3	1.2	0.9
India	**1.4**	**4.9**	**3.5**
Indonesia	1.0		
Kenya	1.2	1.5	1.3
Malawi	1.0	1.3	1.2
Morocco	1.4	1.4	1.0
Nigeria	0.9	1.3	1.5
Pakistan*	1.5	1.6	1.1
Philippines	1.1	1.0	0.9
Sri Lanka	1.5	2.3	1.5
Thailand	1.0	1.0	1.0
Tunisia	1.5	2.1	1.4
Uganda	1.1	1.2	1.1
Vietnam	1.4	1.4	1.0
Zambia	1.0	1.3	1.3

*Notified ex-depot prices.
Source: *World Bank/ ESMAP Report*

While developing countries are adopting other means to provide relief to lower income households, India continues to ignore alternative strategies for re-distribution. This issue becomes more relevant in the era of high oil prices. A mix of taxes and subsidies has a conflicting impact on the federal budget. In addition, it distorts market incentives for competition, efficiency and investment.

Government assistance provided to downstream PSUs by way of oil bonds and assistance from upstream companies have covered the under recovery for downstream PSUs. However, this has compounded the existing problem as it completely ignores private players in the Industry.

Subsidies for LPG and Kerosene

The fuel price subsidy, which includes a freight subsidy for remote areas, was made explicit for the first time in the fiscal 2003 budget, amounting to Rs 64.95 billion (appx. $ 1.3 billion). The subsidy was increased to Rs 81.16 billion (appx. $ 1.8 billion) in the fiscal 2004 budget, but more than halved to Rs 36.44 billion (appx. $ 0.8 billion) in fiscal 2005. The subsidies for the fiscal 2006 and 2007 are at Rs 35.59 billion (appx. $ 0.8 billion) and Rs 30.80 billion (appx. $ 0.7 billion) respectively.

Central and State taxes

In parallel, the Centre and States collect substantial revenues from the petroleum sector. During 2004-05, a gross revenue earning of Rs. 1,20,946 crore (appx. $ 26.88 bn) has been made by the government from Petroleum, Oil and Lubricants (POL) of which Rs. 77,692 crore (appx. $ 17.26 bn) has been the

contribution to the Central exchequer and Rs. 43,254 crore (appx. $ 9.61 bn) to the State coffers. The percentage share of the petroleum sector, through taxes and duties, to the gross revenue of the Government is 64 percent. While banking heavily on the oil segment to mobilise revenues, the government also offers extensive upstream assistance and oil bond provisions to PSUs.

It is paradoxical that taxes and subsidies in the form of oil bonds/ upstream assistance exist together; thereby giving confused signals to the market and consumers for efficient use of the products.

The relatively low price elasticity of oil consumption makes it an attractive source of revenue for the government. Unlike other industries, the oil sector has demonstrated the capacity to absorb high taxes with little or no impact on demand. However, high taxes that increase the overall cost of energy inputs will inevitably reduce competitiveness and GDP growth rates in the long run.

Basic Price and Tax component of retail price

As of now, taxes, which comprise customs, excise and State level duties, are about 132 percent of the basic price of the products in the country. Among developing countries, India has a higher share of taxes in the retail selling prices of petroleum products. The share of taxes in the selling price of petrol in Sri Lanka, Thailand and Pakistan is 37 percent, 24 percent and 30 percent respectively. In the case of diesel, taxes are less than 20 percent in these countries. The tax component is 57 percent of the retail price of petrol in Delhi. In the case of diesel this component is 35 percent.

A level playing field is an absolutely essential requirement for players to survive in any competitive market. A competitive market makes the industry efficient and effective. The expert committee report on the integrated energy policy makes the following recommendation for a competitive environment across the energy sectors:

"Apart from pricing policies, an environment that allows multiple players in each element of the energy value chain to compete under transparent and level terms is essential in realizing efficiency gain within the energy sector."

Ad-valorem tax structure

The ad-valorem nature of the tax and duty structure increases government revenue with an increase in oil prices, as a result of which the State and Central governments benefit from the rise in oil prices. This anomaly may be corrected as recommended by the Dr. Rangarajan committee, by making the duties specific and uniform across the country.

Current Policy Response

The government has responded to the international oil price hike by issuing oil bonds and making provision for assistance from upstream companies only to PSU downstream companies. The irrationality in this current scheme of transfer through bonds issued to PSUs lies in the fact that the current level of under-recoveries, which is nearly Rs 57,000 crores (appx. $ 12.67 billion), is expected to increase to nearly Rs 100,000 crores (appx. $ 22.22 billion) by the end of the year. These oil bonds do not solve the problem; they only postpone the resolution while compounding the economic and financial costs. Further, as the oil bonds issued by the Government do not qualify for statutory liquidity ratio (SLR), they trade at a discount to a Government security of comparable tenor.

The government's announced budget of Rs 28,000 crores (appx. $ 6.22 billion) for the current year towards these bonds would also have to increase in the same proportion. This is completely irrational and unsustainable. The balance of Rs 24,000 crores (appx. $ 5.33 billion) would go from the upstream producers ONGC, GAIL and OIL as transfers to the PSU downstream marketing companies. The way this is calculated defies commercial rationality. At the end of the quarter, the amount to be shared is calculated in proportion to the after-tax profits of the company. If a company makes losses, it gets more. If a company makes profits, it is asked to give away more. This policy, which goes against common sense, has been effective for the last two years.

An alternative to upstream producers bearing a large proportion of the total loss in the system is to tax the windfall profits of upstream producers as crude prices go up, so that onsumers are directly subsidised. The USA introduced windfall taxes during the price shocks of the 70s, which has proved to be an effective instrument for redistribution.

There is a growing realization among all stakeholders that the solution lies only in reforming subsidy administration to target beneficiaries. Subsidies would reach target beneficiaries with minimum 'leakages' if they were administered at the consumer end rather than the producer end. The government's effort to investigate the administration of subsides using Information Technology in two or three districts is a welcome development. Policy makers and economists whose interest lies in the welfare of the economically challenged sections are unanimous in the opinion that subsidies should be targeted and administered directly to the final beneficiary, and that taxes and subsidies should not co-exist. No section of the government, be it the Ministry of Petroleum, the Ministry of Finance or the Planning Commission, is happy about the current situation. However, narrow interest groups are curtailing implementation of reforming subsidy administration to target beneficiaries.

LEVEL PLAYING FIELD FOR ALL PLAYERS OF THE INDUSTRY

A level playing field is an absolutely essential requirement for players to survive in any competitive market. A competitive market makes the industry efficient and effective. The expert committee report on the integrated energy policy makes the following recommendation for a competitive environment across the energy sectors:

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within the energy sector."

The Indian petroleum industry pursued the policy of liberalization in the year 2002 and subsequently private players made huge investments along all segments of the petroleum value chain. Private sector investment in retail marketing amounted to over Rs 7000 crores (appx. $ 1.56 billion), including investment by dealers and transporters. Private sector presence in retail marketing has led to multifarious benefits to stakeholders. It has created direct and indirect employment opportunities for more than 70,000 people. Private players have introduced better technology, aimed at enhancing customer satisfaction by delivering unadulterated fuel and better service quality.

These efforts were severely affected after the announcement of oil bonds to PSUs. The Govt. is extending a subsidy of Rs. 3.39/ litre on MS and Rs 5.77/ litre on HSD to PSUs. As a result, private players have shut down assets which delivered substantial value to customers.

The experiment on direct delivery of subsidies to target beneficiaries may take a minimum of 2-3 years for experimentation to be completed and a network to be established in all the districts of the country. Until such a time, private players need a strategy. The present situation can well be addressed by an excise duty cut and tax rationalization rather than issuance of oil bonds to PSUs. This way, everyone is subject to the same pricing regime. In fact if a subsidy has to be given, the best way would be to take it into the budget so that it is neutral to all players in the system. If at all oil bonds are to be given, they must be given to all players of the industry.

> The current state of market inequalities created by Government policy has consequences beyond the present problems of petroleum retailing. This can undermine investors' confidence in the country for investment, especially in the energy and infrastructure sectors. The investors' confidence is critically linked to Government policy in paper and its implementation in letter and spirit.

RECOMMENDATIONS

1. Taxes and subsidies should not co-exist under the fair fiscal regime.

2. Subsidies should be targeted to deserving beneficiary segments. A particular consumer should be subsidised, not a product.

3. Introduction of 'coupons' or 'BPL cards' to subsidise the lower income households must be expedited. Though leakages cannot be eliminated, this is the optimum solution from an economic standpoint.

4. State -of -the -art Information Technology must be leveraged for the targeted administration of subsidies to consumers. Public-private partnership models may be used to utilise the Information Technology expertise from the private sector.

5. Excise duties and taxes on petroleum products must be rationalized as recommended by the Dr. Rangarajan committee report. Ad-valorem duties and levies must be made specific duties.

6. A move towards uniform tax rate throughout the country must be facilitated.

7. There must a systematic effort to create awareness of the long-term benefits to the economy and society of full pass-through of petroleum prices.

8. While price is the best instrument for facilitating the efficient use of petroleum products, efforts must be made to educate the consumer on the benefits of efficient use. Information is a public good which the market does not efficiently. Incentives must be provided for efficient demand management.

9. A petroleum sector regulator must be appointed at the earliest to ensure fair play, competition and optimal utilization of the infrastructure setup in the industry

10. Private players must be on par with PSUs on the question of subsidies, to create a competitive and efficient market that offers choice to the consumer.

11. Experiences of other developing countries in implementing policy responses to high oil prices must be examined. Policy interventions of countries such as Ghana, China, Thailand, Malaysia, Indonesia and Philippines that have been successfully implemented must be studied in detail.

12. Market segmentation that facilitates the supply of optimum quality fuel as per application should be adopted in order to improve the competitiveness of Agriculture, Textile, Railways and other industry segments.

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