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Petroleum-Product Pricing Reforms: Now is the Time !

Background

On April 1, 2002 the Government of India notified the deregulation of pricing & distribution of petroleum products. As per the announcement, the Government was withdrawing from formal control of petroleum product pricing barring the price of Liquid Petroleum Gas (LPG) and Kerosene (SKO) and was extending distribution rights for petroleum products to parties other than Public Sector Units (PSUs) including multinational companies. This welcome change was brought to an abrupt and quick end by the relentless rise in international crude prices in 2003-04 as the outgoing Government refused to let PSUs raise prices at the retail outlets.

The new Government which took charge in 2004 quietly reintroduced the Administered Price Mechanism (APM) by formally getting all product prices approved directly by the Government to shield consumers from oil price volatility. This mechanism too proved inadequate as crude prices continued to reach unprecedented highs in the international market. The Government then adopted an ad-hoc mechanism of burden sharing involving the Government, Upstream Companies and Downstream Companies. Essentially Government tried to get the best of both worlds under this scheme: shield consumers from high crude prices without directly increasing the budgetary provision [Table 1].

Evidently, India's policy responses to high crude prices are not outcomes of considered thought but ad-hoc short term measures whose only aim is to hold down product prices while minimizing the impact of the resulting subsidies on the fiscal deficit by whatever means available. These measures have not achieved any higher level policy goal but merely transferred the problem of volatile crude prices from the present to the future and from the Government to the Oil Industry. The discounts forced out of upstream companies will now critically impact upstream investments at a time when returns from oil and gas production fall along with oil prices. Investments by the upstream sector determine long-term domestic production of crude oil. Domestic production will probably decline far more rapidly than it would if investments cannot be made for Improved or Enhanced Oil Recovery (IOR & EOR) from declining fields like Mumbai High.

Rationale for Reforms

While there is no economic rationale for introducing reforms when crude prices are low (because that implies that the

Table 1

Sr. No.	Particulars	Unit	MS	HSD	SKO	LPG	Total
			2007-08				
1	PSU Volumes	000 KL/MT	13530	55200	11908	10857	
2	Gross Under Recovery	Rs Crores	7073	34786	20128	18220	80207
3	**Gross Under Recovery [2]/[1]**	**Rs/Ltr or Rs/Kg**	**5.2**	**6.3**	**16.9**	**16.8**	
4	Budgetary Support	Rs Crores	0	0	971	1726	2697
5	Upstream Discounts	Rs Crores	2266	11148	6450	5839	25703
6	GoI Oil Bonds	Rs Crores	3112	15305	8856	8017	35290
7	Absorption by PSUs [2]-[4]-[5]-[6]	Rs Crores	1694	8333	3851	2638	16516
8	**Subsidy to PSUs ([4]+[5]+[6])/[1]**	**Rs/Ltr or Rs/Kg**	**4.0**	**4.8**	**13.7**	**14.4**	

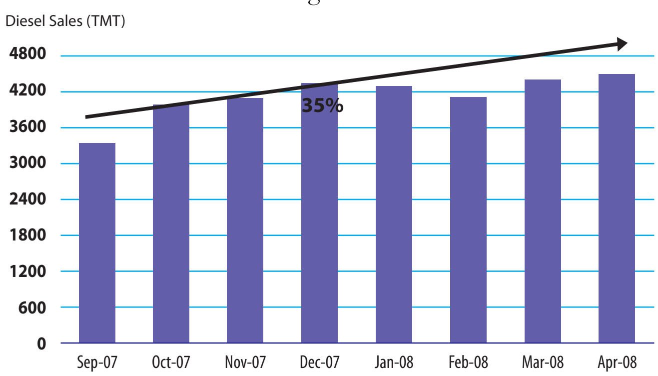
Government was justified in withholding the reform process when prices were high), the Government may have a 'window of opportunity' in terms of political and social acceptability for reverting back to reforms announced in 2002.

Volatility in crude prices, though undesirable, is an inherent factor in the global system. Most of the countries in the World allow volatility in crude prices to pass through to the consumer and limit Government intervention to the realm of taxes. However in India, the entire system of pricing petroleum products is distorted on the rationale of protecting certain segments of consumers from the vagaries of international crude prices. This system of interventions has not only failed to benefit the consumers it is intended to benefit but also produced adverse consequences that range from threatening India's energy security to misallocating scarce economic resources.

SKO is subsidized because it is seen as the poor man's fuel; High Speed Diesel (HSD) is subsidized to assist farmers who use agricultural pump sets and truckers who transport essential goods; LPG is subsidized because of its widespread use in urban middle class households; Motor Sprit (MS) or Petrol is subsidized because 75 percent of private vehicle ownership is accounted for by two wheelers, primarily used by lower middle class households.

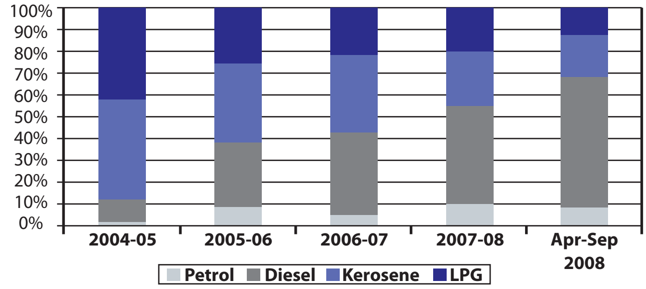
This elaborate scheme of subsidizing different groups of consumers for different reasons overlooks technical and economic fundamentals. Technically SKO, HSD and MS are extracted at the same point in the refining process which means the cost of producing these fuels and hence their price should be roughly the same. In India, the price of the three products has consistently fallen in the ratio 1:3:4 owing to the scheme of subsidies despite the lack of technical or economic justification. Given the substitutability of these products in many common end use segments, the entrepreneurial response in the market has been to divert heavily subsidized SKO away from intended end users or to adulterate one product with another. The dramatic growth in consumption of HSD between 2007 and 2008 as a substitute to fuel oil in power generation illustrates this perversion [Figure 1].

Figure 1



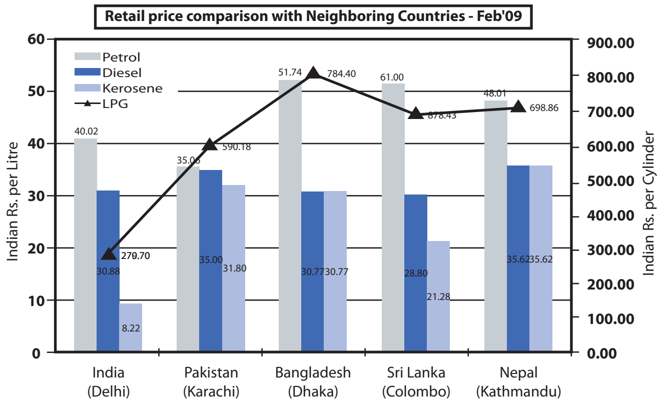
An unintended outcome of this trend was that the share of subsidies towards HSD and MS increased at the expense of subsidies towards SKO & LPG [Figure 2].

Figure 2



A comparison of product prices in India's neighborhood reveals that India has one of the lowest prices for SKO and LPG [Figure 3].

Figure 3



Source: PPAC

Even if certain subsidies are inevitable in India, one key issue that needs to be debated is how these subsidies are to be administered efficiently? Yet another issue is to ensure that policy facilitates investments in energy and energy infrastructure so as to keep pace with economic development in the long run. The third issue is how to eliminate ad-hocism and put in place an environment which is more predictable and less uncertain. If the business environment can be predicted, companies in the public and private sector can plan for their investments, be it in the upstream or in the downstream segment.

It is time for the Government to withdraw from micro managing the industry especially since an autonomous Regulatory body has been put in place. India requires a robust mechanism for pricing petroleum products that is capable of withstanding the volatility in the International crude markets especially since India imports 75 percent of its crude needs. Alternative mechanisms must be found for distributing products like LPG and SKO to targeted groups so that the entire pricing system is not held hostage to the scheme of subsides. The economic cost and energy security cost in holding prices down must be brought to light.

A Stable & Predictable Pricing Regime

If reforms are to benefit the people, 'energy' should be delivered at the lowest possible cost to the consumer. Towards this end, the sector first needs to move towards a stable and predictable regime irrespective of whether the international price of crude is high or low. Without predictability and stability the common man as well as industries will be dealing with constant uncertainty.

Petroleum prices are intrinsically volatile and therefore trying to bring in stability through ad-hoc control over prices is bound to introduce inefficiency in the system. There are ways to deliver stability without total price deregulation. What is needed is clarity in objective: if stability is the objective, it can be delivered without total price decontrol.

Markets forces will continue to have a significant influence on energy prices but prices in general also have to reflect national policy. If the market determines the price of petroleum products domestically, the extreme volatility in the price of crude oil in the international market would be transferred to the domestic market and this would affect different segments of consumers in different ways. However, full pass-through of volatility in international crude prices will allow for adjustment in demand when crude prices are high. When crude prices are low, the Government could creatively utilize the price differential to introduce a consumption tax on petroleum products and use the revenue to create a price stabilization fund.

An alternative method of introducing a stable price regime is to use a system where every stakeholder can participate and approach prices on the basis of a formula. This would become a predictable market as opposed to the current one which is ad-hoc. The formula should be transparent and accepted by all parties. A formula based approach to pricing does not mean that prices stay at the same level but rather that prices move in a predictable manner. Predictability is an important incentive for attracting investments. The formula can be decided by a committee or by a select group of experts. Interventions should not be permitted once the formula is laid out and accepted by all stakeholders. If a transparent formula is adopted, companies would have certainty regarding their liabilities and returns.

Irrespective of what methodology is adopted to price petroleum products in the short term, the long term policy debate on pricing should focus on (1) how to make direct budgetary provisions for subsidies when international crude prices are high and on (2) how to sustain tax-take from petroleum products when crude prices are low.

Arriving at the right formula would necessarily be a complex exercise. The future of many entities with substantial investments as well as the future shape of the market will depend upon it. It is possible that entities with existing assets may reap windfall profits in the initial stages of the formula based approach but that should be an acceptable cost if we want to herald in a stable and predictable regime. It is possible that there is a false start or that the exercise is repeated many times until it becomes a matter of routine but once a formula based approach is established, it would give a clear signal of predictability and stability to investors.

A similar approach could be adopted for pricing LPG and SKO. Once we have the crude price and the cost of refining, the price of the output can be determined on the basis of the formula. If the price of the same products in neighboring countries is higher, smuggling of the product from India into neighboring countries cannot be ruled out. This could be a determining variable in the pricing formula. The underlying premise of the exercise would be to arrive at the right price for LPG and SKO in a country with massive poverty.

Another option is to link the formula based system to upstream assistance currently being provided to downstream companies. This system would naturally adjust to volatility in the system because when crude prices go up, upstream companies gain revenue despite not having made an effort. This 'undue' revenue could be shared with downstream companies distributing SKO and LPG. LPG and SKO account for about 20 million tones in total annual consumption. Excluding production from NELP fields, domestic production accounts for 35 million tons which is within the volume of subsidized products. It would be a simple matter to arrive at a formula which passes on the undue gains in the upstream segment to support subsidies for SKO and LPG. Other products have no valid rationale for subsidies.

However, there is a serious downside to this approach. Loss of revenue for upstream companies will reduce their ability to invest in domestic exploration & production. This compromise on domestic exploration & production will go against the idea of improving India's energy security. Upstream companies should be on par with international companies so that they can compete for dwindling international hydrocarbon assets on even terms. Forcing the companies to part with gains will be detrimental to increasing India's energy security, given that upstream exploration & production is an increasing cost industry.

Yet another option is to price energy based on its calorific value. The market makes prices extremely volatile in the international scene. It is technically not possible for an entire industry to switch its energy feedstock based on the energy source that is relatively cheap in the international market at a given time. The use of technical rationality to price energy on the basis of its calorific value will remove this uncertainty. Refining cost of crude does not change with the price of crude in the international market. The only factors that could change refining cost are technology and labour cost. If all costs are transparent, the economic rationale behind petroleum product prices would be known to the public. Cost could be viewed in two parts; fuel cost and non-fuel cost. If fuel costs are being subsidized, non fuel costs need not be subsidized.

While it would be desirable is to have full price competition at the refinery gate as well as at the retail level, historic differences among the refineries in India must be acknowledged. Each of the units were created under a different economic or social logic. Some private sector refineries were set up as export oriented units. Older PSU refineries were set up for geographic and social distribution of economic activity in defiance of commercial or economic logic. Since the cost structure for each refinery is dependent on their histories, variables may have to be included in the formula to address these distortions.

Clear Objectives for Subsidies & Taxation

It is impossible to resolve the issue of pricing petroleum products in India without addressing the issues of subsidies and taxation. Taxation and subsidization in the petroleum sector distort the market and impose costs in terms of energy security and economic efficiency. To begin with the statement that the petroleum sector is subsidized is inaccurate because there is no net subsidy in the sector if a comprehensive view of cash flow from and to the sector is taken. Inflow in the form of tax revenue from the petroleum sector is approximately three times outflow in the form of subsidies. Even after accounting for the financial burden shared by upstream and downstream companies, tax inflow is two and half times the net subsidy in the system. The debate on taxation and subsidies on petroleum products in the mainstream media is misleading as it is couched in words like 'under-recovery' and 'windfall' gains which do not imply loss or profit in the traditional sense.

The real question over subsidies is its administration and the problem in administering subsidies lies with the critical issue of governance at the State level because the public distribution system comes under the purview of State Governments. There needs to be a realization that well functioning Markets require effective Governments. Only then can Markets operate without distortions and balance out uneven Social outcomes.

The heavy taxes imposed on the retail price of petroleum products in India make them far more expensive than that in most other countries in the world. If taxes and levies imposed on petroleum products are valued in purchasing power parity terms (since they are not traded internationally), retail petroleum product prices in India would be among the highest in the world. This is a fact that is rarely acknowledged in any forum. Perversely, Aviation Turbine Fuel (ATF) sold to International airlines is among the least taxed petroleum products in India. The rationale is that ATF prices have to be competitive vis-à-vis the price of ATF available outside India. This has meant that there is downward pressure on tax on ATF sold to domestic airlines as well, leading to the valid accusation that the Government's scheme of subsidies has been extended even to the most affluent. Sales tax on other petroleum products varies from State to State and the weighted average sales tax across the country is 18.99% for HSD and 26% for MS. As these are ad-valorem taxes, for every dollar increase in the price of crude, the retail price increases dramatically and this affects the common man. The State Governments are closer to the common man than the Centre and therefore this is an issue better addressed by the State Governments.

In subsidizing SKO and LPG users, many State Governments have been unable to find a fool-proof mechanism to target users. Our inability to identify target populations results in the sub-optimal choice of delivering subsidies through prices. This is not only true of petroleum products, but most other products. As of now, there is no certainty over whether LPG and SKO subsidies go to the actual users who are poor and vulnerable to price increases. It may not be possible to withdraw subsidies in the system citing the extent of leakages because of widespread poverty in the country. In any administered system of distribution there are bound to be some leakages but there must be a limit set on our tolerance for these leakages. Irrespective of whether we import or export crude oil, the inefficiency of the existing subsidy mechanism must be addressed.

If there are people in the agriculture sector who are dependent on HSD, they should be subsidized either through income or through support prices for the commodities that they produce. In fact the formulation of agricultural support prices has a distinct variable for the price of diesel. Income support for farmers would be acceptable as long as the farmers requiring financial assistance can be identified carefully. Theoretically this is the least distorting solution.

The unrestrained consumption of diesel for pumping water for agricultural activity and for generating stand-by power requires attention. Simple structural interventions could ensure that diesel is not consumed towards the real demand-end needs for water and power. The extensive use of diesel trucks and vehicles for commercial transport can be limited through better planning of economic activity or through efficient utilization of the railways. These are serious issues that affect manufacturing competitiveness, efficiency and energy security. Discussion of price in isolation ignores these broader perspectives.

Differentiation in product characteristics is one way to reduce unintended beneficiaries. HSD meant for agricultural consumption does not require Euro-III or Euro-IV specification. Colour additives may differentiate SKO meant for low income households. The proposal for a smart card system has also been suggested in all forums on subsidies. However product differentiation based on emission norms or through colour additives may not be viable on the basis of a cost-benefit analysis. The cost of producing various grades of a certain petroleum product is similar. However, producing and distributing various grades may not be a logistically & economically viable proposition. On the whole, it is a serious problem that we are unable to target the most economically challenged segments of our population through our public administrative system.

The case for supporting the trucking industry with subsidies for HSD is weak. The extent to which an increase in the price of diesel translates into increase in the price of the commodity transported by trucks is small enough to be ignored. But this is difficult to implement in reality because of the rent seeking approach of the unionized trucking industry. Dual prices for HSD may be an option but this necessarily means leakages in the system which may have to be accepted as a cost of the policy.

It is almost impossible to find a distributive argument to support the idea of protecting users of Motor Spirit (MS).

Most countries do not offer subsidies on MS to expand its use, but in India, political parties of all persuasions, from the extreme right to the extreme left, raise their voice against price increases for MS. The perverse logic that runs is that if luxury cars running on diesel can be subsidized, there is no rationale for not subsidizing the staple fuel of two wheelers used by the less affluent. The policy conclusion then is that MS and HSD, irrespective of end use are 'essential commodities'. Administering the price of these fuels inhibits development of long term resilience to oil price volatility and also prevents much needed investments in energy efficiency. Subsidies towards MS and HSD are essentially economic misallocations that reduce the overall efficiency of the economy. A broader discussion on subsidies including subsidies in other segments such as fertilizers that are tied to international crude prices is necessary.

One option to fund subsidies may be to ask producers of crude oil who were allotted exploration blocks on nomination basis (without competition) to subsidize SKO and LPG through a predetermined formula when international crude prices cross a certain level. The support should be directly administered through the budget.

Countries in the Middle East which produce crude oil, subsidize the consumption of petroleum products through a direct grant to the companies which distribute the products. Countries in Europe impose high levels of tax on petroleum products partly to encourage energy conservation and partly to use it to moderate final consumer price when crude prices are high. India and China follow a unique brand of intervention where the Government intervenes at the product level to control prices.

With effect from 2009, China has announced a reform scheme whereby the price of petroleum products at the retail level is linked to international crude prices through a formula allowing for a reasonable percentage as margin for refining and marketing companies. The only control with the Chinese Government is that of setting the band within which the prices will be allowed to move. This mechanism is reasonable from the perspective of price stabilization. The specified band is very liberal which implies that despite losses or gains in the system, the price movement will reflect crude price volatility over a period of two to three months.

In theory, there is no contradiction in imposing taxes and subsidies on the same petroleum product because taxes and subsidies target different income groups and the factors which determine the optimum level of taxation are different from the factors that determine specific levels of subsidy. Petroleum products have the greatest potential for revenue generation on account of the inelasticity of demand to prices at least in the short term. The question that naturally arises here is why the tax and subsidy components cannot be netted out?

This is an important question as it concerns the issue of allocating scarce resources. While the level of taxes can be justified purely on the basis of optimizing production cost, there is no theoretical justification for subsidies. Subsidies are essentially political and it is not possible to devise an economic instrument for political causes.

Taxation is a sovereign function which cannot be ceded to a Regulator. However the objectives of the Federal and State Governments in India in imposing taxes on petroleum products are often not aligned. In the past, there have been situations where certain State Governments which were about to face elections reduced taxes on petroleum products and absorbed the cost while other states maintained tax levels. Given the difference in objectives of the State and the Federal Governments, distortions cannot be eliminated completely. However this cannot be read as an argument against empowering the Regulator.

The debate on subsidies has been on for two decades and it is likely to continue for another few years. When we have got ourselves into a regrettable situation of being unable to deliver law & order in 150 districts of this country, delivering petroleum products to the poor is unlikely to come high on the priority list. Before we start reforming subsidies, legal structures which empower private and government players in this sector must be in place.

Establishment of a Level Playing Field through Regulation

Reforms in the petroleum sector have come rather late compared to other sectors. Reforms may progress in a phased manner but they must progress in the same direction. The petroleum sector has invited the participation of the private sector which includes both domestic and international players. At the very least, the necessary condition for their entry is a level playing field. The Government has taken a major progressive step in the downstream sector in implementing the Petroleum & Natural Gas Regulatory Board Act (PNGRB Act). A Regulator has been in place for one and half years now. There may be lacunae in the Act which need to be corrected but before that the Regulator needs to be empowered to carry out functions already provided for in the Act.

The Upstream segment is regulated through the Directorate General of Hydrocarbons and the regulation has been stable for the last 7-8 years since the New Exploration and Licensing Policy (NELP) was announced. Despite some contemplation over existing tax structure and the subsidies to the downstream segment, the upstream segment is relatively stable compared to the downstream side.

As of now the Downstream Regulator has no power beyond authorization of city-gas networks. Likewise pricing of petroleum products is also not within the purview of regulation because petroleum products are yet to be notified. If only a select set of petroleum products are notified while the others are excluded price distortions will continue. While the act was being drafted, there was a debate over whether the price issue should be included. The complexity in controlling every contract between producers and thousands of retail outlets did not favour the inclusion of price in the PNGRB Act. Instead provision for regulatory intervention in case of unfair trade practices or the lack of competition was made.

The result of continued distortions in the sector is that value in the downstream petroleum sector whether it is ONGC, IOC, HPCL or private sector companies has been consistently destroyed in the last six to seven years.

The experience of Regulators in the Telecommunications and Electricity sector has set a positive precedent. A legal architecture that gives the Regulator adequate authority is required for the petroleum sector. The Regulator could then decide if pricing is to be based on import parity or domestic refining cost to which other commercial costs could be added. It is within the purview of the Government to subsidize certain petroleum products but this should be done directly through a budgetary provision which does not encroach into the Regulator's jurisdiction. The Government would probably wish for policies to be revenue positive as they have been in the past or at the very least revenue neutral.

At some point in time a hard call on petroleum prices would have to be taken by some Government. This is perhaps the right time to take that call because a 'fig leaf' in the form of a Regulator is available to the Government. Only by withdrawing from the segment can the Government demonstrate its confidence in the Regulator. It will then be a fairly straightforward task for the Regulator to establish a level playing field, generate competition and work out a mechanism of subsidy which is more even and transparent.

There is also a pressing need to establish a level playing field as recommended by the Integrated Energy Policy Report. In this light, one fundamental area for policy reform is to deregulate the entry and exit of firms. Government policy must not discriminate between the private and public sector. Private firms should be in a position to enter the field when they find the field profitable and exit when they find that the field is unprofitable. In an ideal situation this should apply also to public sector companies. But in the current environment, no public sector company can make an independent decision to withdraw from the sector even if there is no commercial logic to continue in the field. At the very least, public sector companies should be in a position to plan for expanding their activities in the light of existing and future markets. Overall, every player must be in a position to predict the movement of demand and prices and invest in all profitable opportunities.

Three major stakeholders in the segment are the government, the oil consumers and the oil companies. Regulation should balance between the needs of all three stakeholders. Within the provisions of the Act, the Government has the power to lay down the framework for the development of the sector and also to lay down policy directions, but it does not have the power to indulge in micro management of the sector. The policy framework may be based on any one of the recommendation reports commissioned by the Government. Once a policy direction has been firmed up the States should be asked to fall in line.

Finally, it will not be unfair to say that groups from both the extreme right and the extreme left of the political spectrum have contributed to serious inefficiencies in the existing system of pricing petroleum products. This is true in the case of other subsidized industries such as the fertilizer industry. This entrenched system of inefficiencies cannot be corrected if the issue of subsidies to petroleum products is taken in isolation. Industrial feedstock policy and integrated energy policy need to be discussed together. Carbon and hydrocarbon need to be treated in an integrated manner and this can happen only if the objectives of policy makers on both segments are aligned.

Distinguished participants of the focus group meeting:

Dr. Arjun Sengupta, Member of Parliament (Rajya Sabha); Shri S C Tripathi, Former Secretary, Ministry of Petroleum & Natural Gas, GoI; Shri Dipankar Mukherjee, National Secretary, Centre of Indian Trade Unions; Shri Manish Tiwari, Spokesperson, Congress; Shri Surya P. Sethi, Principal Adviser (Energy), Planning Commission, GoI; Shri Mahesh B. Lal, Technical Member (P&NG), Appellate Electricity Tribunal; Shri Sunjoy Joshi, Observer Research Foundation; Shri T. S. Balasubramanian, Financial Advisor, Oil Industry Development Board; Shri K. L. Prasad, Additional Economic Advisor, Ministry of Finance, GoI; Shri P. Raghavendran, Vice Chairman, Petroleum Federation of India; Shri Ashok Dhar, Visiting Senior Fellow, Observer Research Foundation; Shri Y. R. Mehta, Ex-Director, GAIL; Other participants were from RIL, BP, CRISIL, KPMG, Deloitte, PwC etc.

For more background Data and Information from ORF CRM Data Centre please contact: Mr. Akhileshh Sati, Phone No. +91-11-43520020 Extn. 2102 E-mail: akhileshs@orfonline.com

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