Pruning Subsidies on LPG and Kerosene: India might miss the target

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Primary Concern of the Cabinet: Volatility in Global Crude Prices

• The time is really ripe for organizing this seminar

• The Global Crude price has once again crossed the psychological threshold of $ 100 a barrel (after it reached $147 a barrel in mid-2008)

• On March 6, the Global Crude Price has been hovering around $ 110 a barrel (Brent-$115 and WTI-$105)

• Nomura’s Recent Forecast- Price will shot up to $220 a barrel if Libya and Algeria halt production together
What does it mean for domestic RSP of oil products?

- India imports nearly 80 per cent of its crude oil requirement (the lion’s share comes from the geopolitically disturbed middle-east plus there are spare capacity concerns)
- Indicative Impact on Prices (if crude shots up to $170 and $220 a barrel)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>Current Retail Price*</th>
<th>Indicative Retail Price at 170$ a barrel**</th>
<th>Indicative Retail Price at 220 $ a barrel**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrol</td>
<td>Rs/litre</td>
<td>58.37</td>
<td>93.29</td>
<td>115.41</td>
</tr>
<tr>
<td>Diesel</td>
<td>Rs/litre</td>
<td>37.75</td>
<td>69.91</td>
<td>86.62</td>
</tr>
<tr>
<td>Kerosene</td>
<td>Rs/litre</td>
<td>12.73</td>
<td>58.79</td>
<td>74.46</td>
</tr>
<tr>
<td>LPG</td>
<td>Rs/cylinder</td>
<td>345.35</td>
<td>895.37</td>
<td>1040.82</td>
</tr>
</tbody>
</table>

* Government controlled/subsidised rates

** Prices at trade/import parity

Source: Author’s own calculations
What Does It Mean for Under-Recovery of Public Sector Oil Companies especially due to Kerosene and LPG?

Projected Indicative Percentage Increase in Under Recovery per unit of consumption at the current level of consumption and with price pegged at current government determined/subsidised price

<table>
<thead>
<tr>
<th></th>
<th>Petrol</th>
<th>diesel</th>
<th>Kerosene</th>
<th>LPG</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>$170 a barrel</td>
<td>57</td>
<td>48</td>
<td>138</td>
<td>238</td>
<td>120</td>
</tr>
<tr>
<td>$220 a barrel</td>
<td>95</td>
<td>91</td>
<td>261</td>
<td>384</td>
<td>208</td>
</tr>
</tbody>
</table>

Source: Author’s own calculations
Implications on Meeting the Target on Kerosene and LPG Subsidy Pruning

• Part of the increase in URC should ideally be recovered by a combination of increased prices, contribution by upstream sector and subsidies (as recommended by Chaturvedi and Kirit Parikh Committee)

• The subsidy on PDS Kerosene and domestic LPG was supposed to be originally pruned in a progressive manner but on account of crude price volatility coupled with fear of political backlash it has now been kept on hold till 2014. So, the subsidy will continue.

• However if the Government fails to pass even a smallest portion of the increase in URC through price increase then the target set by FM in this budget in terms of controlling FD and reducing Govt. Exp. will be unsustainable due to a near doubling of subsidy especially on account of LPG and Kerosene and India will miss the bus yet again on meeting its target of pruning subsidy which in its current form has only encouraged inefficiency, adulteration and wastage.
Primary Arguments Leveled against Dom. LPG

- **It is a universal or non-merit subsidy** and is available to all in unlimited quantity.
- **Benefited the Urban Affluent Few**: The subsidy largely facilitated in saving the fuel cost for the relatively affluent and a burgeoning urban middle class.
- **Lack of Quantity Rationing**: The absence of quantity rationing in consumption further led to unabated increase in consumption of LPG in urban areas.
- **Diversion**: LPG cylinders designated for household use often gets diverted for automobile use resulting in safety hazard.
### Percentage of Households Using Kerosene and LPG as a Primary Source of Energy

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Firewood</td>
<td>LPG</td>
</tr>
<tr>
<td>Cooking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990/00</td>
<td>75.5</td>
<td>5.4</td>
</tr>
<tr>
<td>2000/01</td>
<td>75.4</td>
<td>7.2</td>
</tr>
<tr>
<td>2001/02</td>
<td>73.4</td>
<td>8.1</td>
</tr>
<tr>
<td>2002/03</td>
<td>74.3</td>
<td>8.5</td>
</tr>
<tr>
<td>2003/04</td>
<td>74.9</td>
<td>9.1</td>
</tr>
<tr>
<td>2004/05</td>
<td>75.7</td>
<td>9.0</td>
</tr>
<tr>
<td>2005/06</td>
<td>74.0</td>
<td>9.3</td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999/00</td>
<td></td>
<td>50.6</td>
</tr>
<tr>
<td>2000/01</td>
<td></td>
<td>47.8</td>
</tr>
<tr>
<td>2001/02</td>
<td></td>
<td>47.2</td>
</tr>
<tr>
<td>2002/03</td>
<td></td>
<td>47.4</td>
</tr>
<tr>
<td>2003/04</td>
<td></td>
<td>46.6</td>
</tr>
<tr>
<td>2004/05</td>
<td></td>
<td>45.6</td>
</tr>
<tr>
<td>2005/06</td>
<td></td>
<td>42.0</td>
</tr>
</tbody>
</table>

**Source:** Chaturvedi Committee Report (2008) and based on NSSO data
Impact on Women and Children

• The lion’s share (more than 70 per cent) of the rural poor and more than 20 per cent of the urban poor are dependent on direct burning of fuel wood or biomass for cooking and remains largely untouched by the supply of subsidised domestic LPG.

• The burning of biomass in inadequately ventilated houses of the poor leads to high indoor pollution; formation of harmful black carbon (or soot); high emission of CO2 and has serious repercussions especially on the health of women and children who largely remain inside the house for cooking and other household chores.

• The dependence on firewood or biomass also fails to provide relief to the poor especially rural women folks from their arduous task of travelling large distance to collect firewood from the forest.
Primary Arguments Leveled against PDS Kerosene

- **Adulteration**: The biggest use of PDS kerosene has been for the adulteration of diesel resulting in more pollution and GHG emission. It has been estimated that nearly 35% or more of PDS kerosene is diverted for unauthorized purposes including adulteration. This would simply frustrate the benefit that could be gained from substantial investment in producing Euro III and Euro IV diesel would be largely negated.

- **No Reduction in Allocation Despite Reduced Use**: The NSSO surveys of household expenditure during 1999-2000 to 2005-06 indicates that around 53% of households in high income States have stopped using PDS kerosene since 1999-2000, as compared to 24% in low income States. Against the above decline in households using kerosene, the actual reduction in kerosene allocation has been substantially less – 12.8% against the estimated decline of 32.6%. (Chaturvedi and Parikh Committee).
Some Remedial Measures and Alternate Schemes Tried in the Past for Kerosene

- **Automation** of retail outlets
- **Third party inspection and certification** of retail outlets
- Direction to oil and marketing companies (OMCs) for monitoring of movement of tank trucks through global positioning system
- **Introducing marker** in kerosene to prevent adulteration
- **Revision of market discipline guidelines** with penal action against erring dealers.
- **Jan Kerosene Pariyojana (JKP)** in select blocks of some states. Delivery under JKP is made at wholesaler points by OMCs through dedicated tankers fixed with Global Positioning System (GPS). OMCs have also created infrastructure at wholesaler locations by providing underground tanks, dispensing units, specially painted blue barrels and barred sheds.
Evaluation Studies, however, indicates that alternate measures yielded little fruits and also faced stiff resistance

• While there has been improvement in awareness of the kerosene consumers about their entitlement and about the monitoring and complaint redressal mechanism entailed under JKP, the benefit from JKP was still lower than the cost of the scheme (NCAER, 2007)

• The study further revealed that while some states fared better, others failed primarily owing to a disparity in the level of involvement of Panchayati Raj Institutions (PRIs) in the monitoring mechanism.

• Initiative to introduce Smart Cards for distributing subsidised kerosene to BPL households on an experimental basis in three districts - Latur in Maharashtra, Nalanda in Bihar and Nainital in Uttarakhand in 2007 also faced stiff resistance.
Some Remedial Measures and Alternate Schemes Tried in the Past for LPG: A Review

- ‘Deepam Scheme’ had been launched by the state government of Andhra Pradesh (AP) in 1998. Under the scheme the state government provides a subsidy of Rs. 1000 towards the connection but does not subsidise the cost of a refill, which is more than Rs 250 for a 14kg cylinder. The primary objectives of Deepam Scheme are:
  1) to provide relief to women from the drudgery of cooking
  2) to improve their health
  3) to prevent health hazard
  4) to reduce dependence on forests for firewood
  5) to improve the environment by felling of trees.

An assessment of the scheme undertaken in 2001, however, indicates that
1) The urban beneficiaries used much more LPG than rural beneficiaries;
2) Most of the rural households failed to afford cylinder refill and firewood continued to remain as primary fuel for cooking.
3) The oil companies failed to reach the targeted refill of LPG resulting in substantial losses to them.
Some Remedial Measures and Alternate Schemes Tried in the Past for LPG: A Review

• **Modified Deepam Scheme:** As a remedial measure the AP government introduced smaller 5kg LPG cylinders requiring an initial deposit of Rs. 500 and a refill cost of Rs. 100 to Rs.150. The revised scheme is however yet to be adequately evaluated.

• **Random Checks and Raids:** Government instituted random checks and raids in 2005-06 on the basis of widespread reports on illegal diversions. (However the action only had limited impact and the problem re-surfaced again afterwards in the cities where the government started distributing LPG through pipelines resulting in surplus LPG cylinders and leading to diversion).

• **Refill Audit:** Oil industry initiated measures like refill audit to control the diversion of domestic LPG.

• **Auto LPG dispensing facilities** have been set up in select areas to control pollution and to reduce or eliminate diversion of domestic LPG to automotive sector (This measure yielded results and Auto LPG sales have gone up substantially over 2006 and 2007).

• **Different Colour Coding:** Government had also approved a scheme for different colour coding of domestic and non-domestic cylinders to prevent diversion of domestic LPG cylinders.
Some Remedial Measures and Alternate Schemes Tried in the Past for LPG: A Review

- **Selling on PAN basis:** In 2006-07, the Ministry of Petroleum and Natural Gas came out with an initiative to sell LPG at market rates to people with permanent account number (PAN) cards issued by the income tax department. However the initiative also had to be scrapped due to stiff resistance.

Two more measures are also under consideration by the Ministry:

- **Rolling back** the scheme for distribution of subsidized LPG in every area where piped gas connections are provided

- **Drawing up a scheme for focused and direct subsidization for LPG** to consumers living in rural and backward areas which are not covered by piped gas networks and thereby replacing their use of subsidized kerosene.

- The Planning Commission (IEP, 2006) also suggested that any **surpluses** in LPG cylinders that may arise on account of introduction of piped natural gas could be supplied to rural areas for cooking or lighting purposes to replace subsidised kerosene.
Recent Proposed Measures: UID, Smart Card and Direct Cash Transfer

• For improved governance and better targeting of kerosene and LPG the government is planning to issue a unique identification (ID) to every citizen. The subsidy amount would be directly credited to the individual smart card owners which could be redeemed at authorized suppliers like fair price shops, kerosene or domestic LPG dealers etc. The smart card would have a memory partitioned into distinct modules representing different entitlement groups for which implicit/explicit subsidies are given.

• The Government in this budget has also proposed direct cash transfer. However caution needs to be exercised and proper readiness assessment might be necessary before going for such measures as such measures are usually criticised on the ground that they encourage more corruption and might simply backfire by adding up to the rampant corruption already prevalent in these two items.
Problems with devising an effective targeted subsidy for the poor

• In India there is a strong case for doing away with universal price subsidies on Domestic LPG and kerosene and targeting it especially for the rural poor.

• The biggest problem however is to devise an effective subsidy mechanism for distribution of these fuels. As, subsidies usually tend to be more effective in case of energy services that are provided through fixed networks like electricity, natural gas etc. and are really challenging to devise in case oil products that are freely traded and are difficult to target.

• UID is expected to largely help the poor including the rural poor in enjoying the benefits of subsidised fuel through smart cards that are or would be allocated to them.

• But, given the fact that it may not be very easy for the lowest rung to shake off their dependence on biomass immediately, smart cards also needs to be complemented with mass supply of efficient and cheap biomass based cook stoves and increased use of biogas at least in the short run not only to reduce the problem of emissions and black carbon but mainly to combat the serious repercussions that continued use of biomass by the lower rung of rural poor (especially women and children) would have on their health.
Ways Out in case of Price Spiral

Option 1: Keep prices unaltered, keep budgetary subsidies intact, issue oil bonds, follow the usual schemes and monitoring procedure - extremely costly option which India can’t afford both from efficiency and fiscal perspective

Option 2: Increase prices progressively, reduce subsidies progressively, issuing oil bonds, mop up incremental income of upstream sector-normal sharing formula that government has been following or proposing to follow

Option 3: Increase prices progressively, reduce subsidies progressively, reduce allocation progressively by targeting and introducing smart cards (under UID) and taking out the excess allocation, plus mop up incremental income of upstream sector

- first best option for India to stick to its target of pruning subsidy.