Energy Subsidy Reform: Lessons and Implications for India

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May 6, 2013
Outline

1. Global Experience with Subsidy Reform
   o Consequences of Energy Subsidies
   o Magnitude – by Product and Region
   o International Lessons for Subsidy Reform
     • 22 case studies (www.imf.org/subsidies)

2. Subsidy Reform in India (draft IMF WP)
   o Emphasis on Equity Considerations
Consequences of energy subsidies

1. Depress growth
   - Deter investment in energy sector
   - Crowd out critical public spending
   - Distort allocation of resources to energy-intensive sectors

2. Put pressure on fiscal and current account deficits

3. Create negative externalities
   - Global warming (opposite of carbon *taxes*)

4. Exacerbate inequality (e.g., are regressive)
Definitions

1. **Producer subsidies**
   - Measured against international (reference) price

2. **Consumer subsidies**
   - *Pre-tax subsidies*
     - If consumer prices $< \text{cost of supply}$
   - *Tax subsidies*
     - If taxes are below efficient level (including taxes to offset externalities)
   - Pre-tax plus tax subsidy = **post-tax subsidy**
Magnitude of energy subsidies:
Petroleum and electricity dominate pre-tax subsidies

Pre – tax: $480 billion (0.7% GDP, 2.1% revenues)
Magnitude of energy subsidies:
Coal is also important for post-tax subsidies

Post – tax: $1.90 trillion (2.7% GDP, 8.1% revenues)

Globally: post-tax subsidies are 4 times larger than pre-tax subsidies
Middle East dominates pre-tax subsidies, but advanced economies account for 40 percent of post-tax subsidies.
Under-pricing for externalities accounts for a large share of post-tax subsidies across all regions.
International Lessons for Subsidy Reform

- Based on 22 case studies
  - All 5 regions of the world
  - 28 reform episodes:
    - 12 successes, 11 partial successes, 5 failures
    - Uganda is one (success)

Six key reform ingredients
Six Key Reform Ingredients

1. Comprehensive reform plan
   - Clear long-term objectives
   - Assess impact of reforms (who wins, loses)

2. Extensive communication strategy
   - Transparency about size of subsidies
   - Consult w/ stakeholders about benefits of reform

3. Appropriately phased, sequenced price hikes
   - Allow time to adjust, build safety net
   - Sequence increases differently across products
     ✓ Petrol & diesel, then LPG, then kerosene
Six Key Reform Ingredients

4. **Improve efficiency of state-owned firms**
   - Depoliticize, set performance targets, introduce competition if appropriate

5. **Target mitigating measures to protect the poor**
   - Targeted cash transfers are preferred
   - Expand other programs if cash transfers impossible

6. **Depoliticize price (tariff) setting**
   - Automatic, rules-based price mechanism
     - May involve price smoothing
   - Autonomous body to oversee price setting
Case Study: Ugandan Electricity Sector

**Background:** Power sector reformed in late 1990s

**Problem** (as of 2011-12): Politicization: “Independent” regulator left tariffs unchanged for 10 years

- Subsidy (mainly on-budget) > 1% GDP
- Little investment in sector (load shedding)

**Solution:** Broad discussion of *incidence of benefits*

- (only better-off families had power)
- One-off tariff hike & independent tariff setting mechanism
India: Background on Fuel Sector

Crude Oil and Petroleum Products: Production, Imports, and Exports

Source: Ministry of Petroleum and Natural Gas
India: Evolution of Fuel Product Prices & Subsidies

Petrol (rupees/liter)

Source: IMF staff estimates based on authorities’ data
India: Evolution of Fuel Product Prices & Subsidies

Diesel (rupees/liter)

Source: IMF staff estimates based on authorities’ data
India: Evolution of Fuel Product Prices & Subsidies

Kerosene (rupees/liter)

Source: IMF staff estimates based on authorities’ data
India: Evolution of Fuel Product Prices & Subsidies

LPG (rupees/14.2 kg gas cylinder)

Source: IMF staff estimates based on authorities’ data
## India: Under-pricing of Fuel Products
(November 2012, rupees /liter or /cylinder)

<table>
<thead>
<tr>
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<th>Import Parity Price</th>
<th>Regulated Price</th>
<th>Difference</th>
<th>Percent of Regulated Price</th>
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<td>68.1</td>
<td>4.7</td>
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</tbody>
</table>

Source: IMF staff estimates
India: Who spends what on fuel?

Composition of HH Fuel Spending by Income Group, 2009-10
(Rupees per capita/month)

Source: IMF staff estimates based on 2009-10 HH Socio-Economic Survey
India: Who benefits most from fuel subsidies?

Welfare Loss from Subsidy Reform by Income Group
(Rupees per capita/month)

Source: IMF staff estimates based on 2009-10 HH Socio-Economic Survey
Cumulative Fiscal Cost of Compensating HHs for Subsidy Reform
(in 2009-10: Percent of GDP)

Source: IMF staff estimates based on 2009-10 HH Socio-Economic Survey
India: Progress is being made

- Kelkar Commission recommendations aligned with most of 6 key reform ingredients
- Petrol already mostly unsubsidized; diesel price increased significantly – monthly path
- LPG cylinders limited per household, pilot
- Roll out of Aadhaar-based direct cash transfers is in pilot phase, to be rolled out across India
- Kerosene subsidy seen as delicate – poverty impact could be significant
India: Assessing subsidy reforms—to discuss:

- Comprehensive reform plan?
  - Senior officials have spelled out ultimate goals, but sequencing, winners/losers not well understood by public

- Extensive communications strategy?
  - PM, FM have made reform plans clear for diesel, less so for LPG and kerosene

- Gradual, sequenced reforms?
  - Clear, sensible strategy: began with petrol, now diesel (gradual), then other products
India: Assessing subsidy reforms—to discuss:

- **Improvements in SOE efficiency?**
  - SEBs are raising power tariffs, but more work is needed

- **Targeted social safety net?**
  - Impressive effort to introduce direct cash transfers based on UID

- **Depoliticize price setting?**
  - Mostly done at state level, so picture is mixed across India
“Both goals of expanding new investment and achieving energy efficiency require a more rational pricing policy, aligning India’s energy prices with global prices. This cannot be done immediately, but we need to outline a phased programme for such adjustment and then work to develop support for making the transition.”

Prime Minister's Address to the Nation

December 31, 2011
Want to know more?

www.imf.org/subsidies:  on energy subsidy reforms
www.imf.org/asia:  on our work in Asia Pacific
www.imf.org/india:  on IMF analysis of India
IMF Fiscal Affairs Dept project, with IMF African and Middle East and Central Asian Depts

Includes case studies of 22 countries

Available at: www.imf.org/subsidies


Comments welcome!