Energy Price and Subsidy Swap
Lesson From Indonesia

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Type of Energy Subsidies in Indonesia

- Gasoline RON 88: market price, “hidden” distribution incentive outside Java-Madura-Bali through SOE
- Automotive Diesel: Fixed Subsidy

- LPG: Fixed price, closed distribution only for the poor. Heavy leak.

- Electricity: Fixed tariff / price for residential costumers <450VA
## Subsidy Reform Timeline

<table>
<thead>
<tr>
<th>Transport Fuel</th>
<th>LPG</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2016-now</td>
<td>2013-now</td>
</tr>
<tr>
<td>Price adjustment, aimed to reduce subsidy.</td>
<td>System change (fixed price → fixed subsidy).</td>
<td>Fixed tariff with ad-hoc tariff adjustment.</td>
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<tr>
<td><strong>LPG</strong></td>
<td>Preparation to merge energy subsidy with social security system (inconclusive).</td>
<td>2017 – Improving targeting accuracy with poverty database and setting up complaint mechanism.</td>
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<tr>
<td><em>ad-hoc</em>: without timeline, done if needed.</td>
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*Opposite graph showing time series data related to subsidy reforms.*
Fiscal Rigidity

Vulnerable to shock, esp. from external factors. Fiscal risk.

Limiting budget capacity to reinvest

Source: State Budget Proposal 2013

Call: Evaluate budget, rationalize spending: including energy subsidy (biggest spending post, app. 75% of total subsidy, and regressive)

Fiscal Imbalance
Indonesia starts curbing its budget deficit

Note: 2019 forecast is less than 2% of GDP
Source: Data compiled by Bloomberg
Energy Subsidy

Next mission
Reducing subsidy is important, but it doesn’t necessarily get the price right without a fundamental pricing system reform

Indonesia Energy Subsidy

Subsidy saving:
In the first year: more than IDR 211-222 trillion (pre-audit/audited)
Accumulative saving from 2015-2017: IDR 323 trillion (app. USD 24.85 billion)
Subsidy Swap

International recognition

<table>
<thead>
<tr>
<th>Agency</th>
<th>Rating</th>
<th>Date 1</th>
<th>Rating</th>
<th>Date 2</th>
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<tbody>
<tr>
<td>Moody’s</td>
<td>January 2012</td>
<td>Stable Baa3</td>
<td>Feb 2017</td>
<td>Positive Baa3</td>
</tr>
<tr>
<td>Fitch</td>
<td>Dec 2011</td>
<td>Stable BBB-</td>
<td>Dec 2016</td>
<td>Positive BBB-</td>
</tr>
</tbody>
</table>

Reallocating subsidy saving
More efficient spending

More efficient economy
- Better infrastructure can contribute to lower logistic time and cost
- Ease traffic jams with public transport - quality of life
- New grid delivering more power and less interruption

INCREASING ECONOMIC VALUE FROM ENERGY USE
Note on Subsidy Swap

- Subsidy reallocation (swap) can be useful to double-down and demonstrate the benefit of reform.
- Reallocating subsidy saving ideally should be harmonized with development agenda.
- Options for reallocation posts:
  - Tackling immediate issues: loan/debt payment, easing deficit, negative account, reform impact
  - Energy post: building energy infrastructure, renewable energy development, energy efficiency projects
  - Non-energy post: health, public infrastructure, social security, boosting specific industry
- Swap can be measured and forecast. Impact, cost, and time, are predictable.
- Understanding the possibilities of swap is useful for energy / development planning and the formulation of other strategic decisions / policies, such as sectoral plan, or Nationally Determined Contribution (NDC) and green house gas emission target.
- Outcome of swap may not be immediately materialized, especially if the allocation goes to mid or long-term projects. Public communication is needed to inform the bigger picture to the public.
ADB study: Approach

- SAM (Social Accounting Matrix)
  - Economic flows across the key actors of the economy.
  - Disposable income
  - Gross Domestic Product
  - Energy demand
  - Energy costs
  - Energy (market) prices

- MARKAL
  - Energy sector analysis
  - Optimization of energy supply, at least cost.
  - Energy production costs

- MACRO (CGE or macroeconometric model)
  - Macroeconomic assessment
  - Economic impact of energy prices
  - Inflation

- Sectoral and geographically disaggregated impact analysis for households (e.g., savings).
- Reallocation of funding.
- Distributional effects and opportunities.
- Household income, consumption, savings and investment.
Subsidy Reform Stimulates Energy Efficiency

Fuel price adjustment has shrunk the price gap between subsidized fuel and the non-subsidized fuel.

Narrower price gap between subsidized and non-subsidized fuel drives consumers to buy higher quality fuel, rather than the middle product (duplicating experience in 2003). The gap with high performance gasoline now is around USD 0.25 - USD0.30 / liter, and around USD 0.18 with middle product. **PRICE CAN INFLUENCE ATTITUDE.**

Higher appreciation towards quality drives competition and innovation in semi-open market. PT Pertamina launched gasoline RON 98, GoI aimed to meet the Euro 4 standard. More efficient fuel consumption and technology, less pollution, because there is a increasing demand for higher quality fuel.

**RACE SHOULD BE TO THE TOP - BETTER QUALITY NOT TO THE BOTTOM - CHEAPER BUT LOW QUALITY**
Latest State of LPG Subsidy Reform in Indonesia

- Primary missions: 1) to reduce LPG subsidy; 2) improving subsidy accuracy using poverty database; 3) incorporating digital and banking system

- Mission Target (rough numbers):
  - Existing Recipient (Conversion Program): + 60m HH
  - UDB Number: 26.6m HH
  - Food Assistance: 15.5m HH
  - PKH coverage: 10m HH
  - Card holders: 1.5m - 3m HH

- Scenario 1: Closed Distribution (Distup) with Reduced Recipients (UDB) - MEMR Baseline

- Scenario 2: (DUAL PRICE) Regulated Price with Bank Card System through Bank’s Online/Offline Vendors- Ministry of Social Affairs and Himbara (need rapid ramp-up on the number of card holders and vendors acquisition)

- Scenario 3: (SINGLE PRICE) Market Price and Transformation of LPG Subsidy into a Social Security item (energy subsidy wallet) with gradual implementation (broadest coverage, least developed plan)

All scenarios require a reallocation plan of LPG distributors
Latest State of Electricity Subsidy Reform in Indonesia

- Gradual tariff adjustment
- Introduction of “complaint mechanism”, creating dynamic subsidy recipient registration based on poverty database. Improved accuracy and self-update ability
- The example of reform beyond subsidy reduction, because it replaces the system / installs new system
“Coal vs Renewable” Power

Renewable power has to compete with a fossil fuel-dominated (esp. coal) power system with subsidy.
Lesson Learned

- Need to **evaluate subsidy on fossil fuel** since its poses fiscal risk due to unstable market.
- Protracted subsidy may harm the economy and development quality. **Tackling it earlier is highly recommended.**
- Reform needs to consider: planning, consistent implementation, impact management, public communication, and institutionalized continuation.
- It is possible to have a reform while **protecting the most-impacted and most-vulnerable groups.**
- **Heavy subsidy on fossil fuel** related activities impedes the development of alternative and clean energy
- **Externalities** (social, environmental, and health factors) should be considered in energy price structure to provide more accurate information for the consumers
- There are proofs that if you “**get the price right**”, consumers may go with a more energy-efficient options. A more comprehensive support and public education is needed.
- **Subsidy swap** is a way to **exploit the benefit of reform.** Ability to demonstrate it will increase public confident to the reform.
- Subsidy swap does not merely move fiscal slots. **It ideally serves development goal, it can be measured** not only to create psychological effect about the reform, but a substantial economic improvement.
Our future starts now

Thank you

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