Poverty and Distributional Impacts of Energy Subsidy Reform in Indonesia

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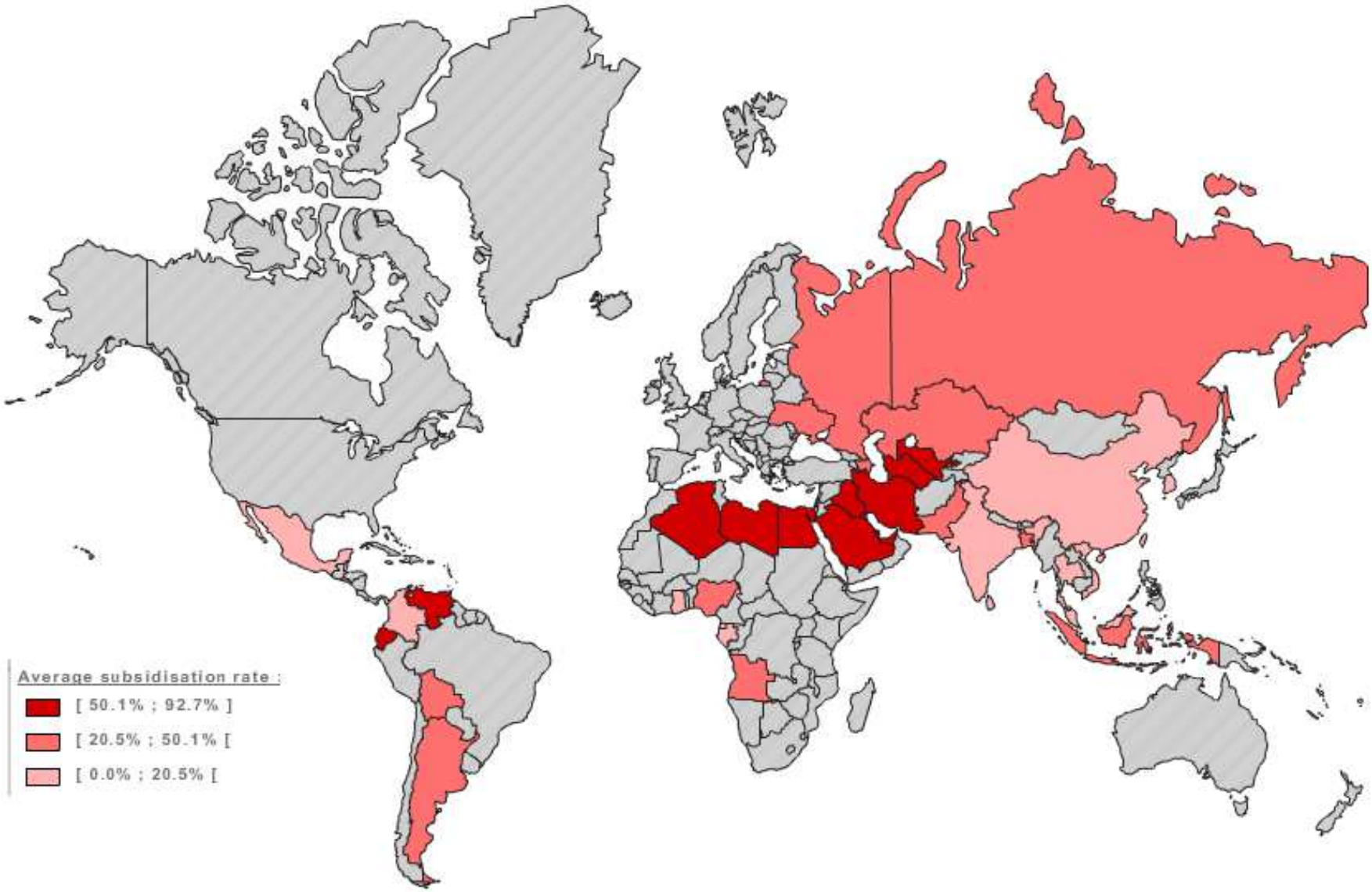
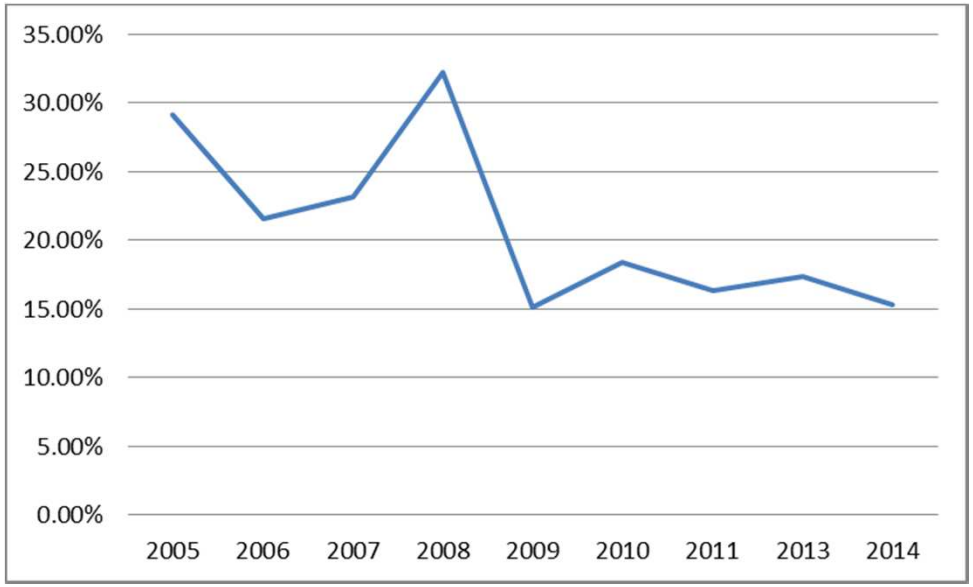
Fossil-fuel consumption subsidy rates (IEA, 2013)



Energy subsidies Indonesia

- Indonesia heavily subsidizes electricity, kerosene, gasoline, diesel and liquefied petroleum gas (LPG)
- Initially introduced as social measure to share natural resource wealth with its citizens

Energy expenditures, share of total government spending



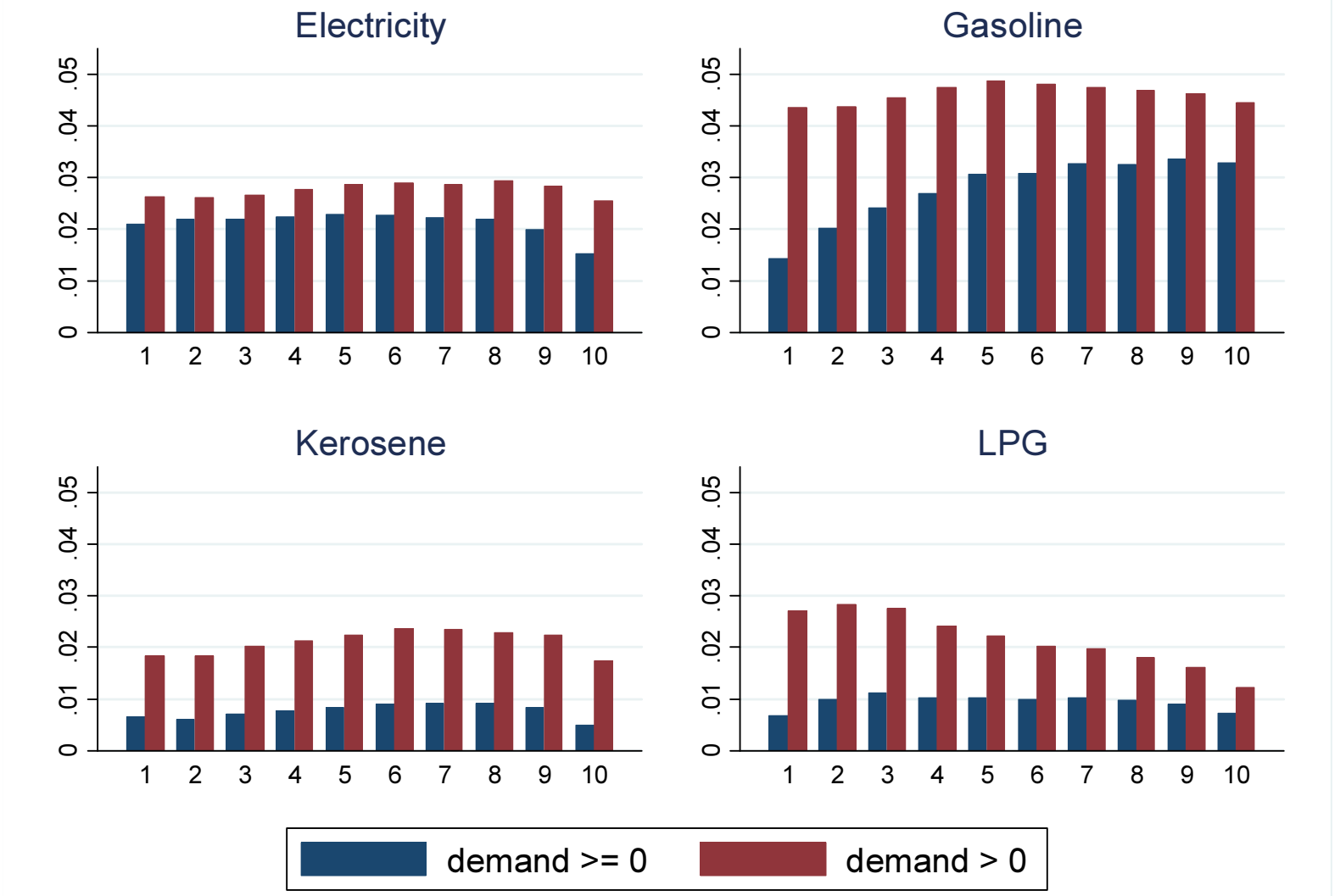
Research questions

1) Is the current subsidy scheme really regressive?

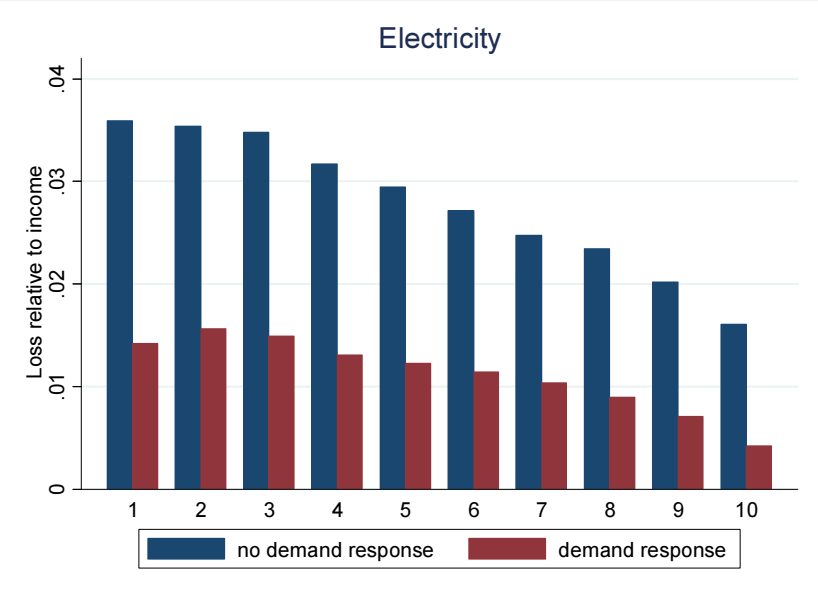
2) When subsidies are removed, what are the direct welfare effects?

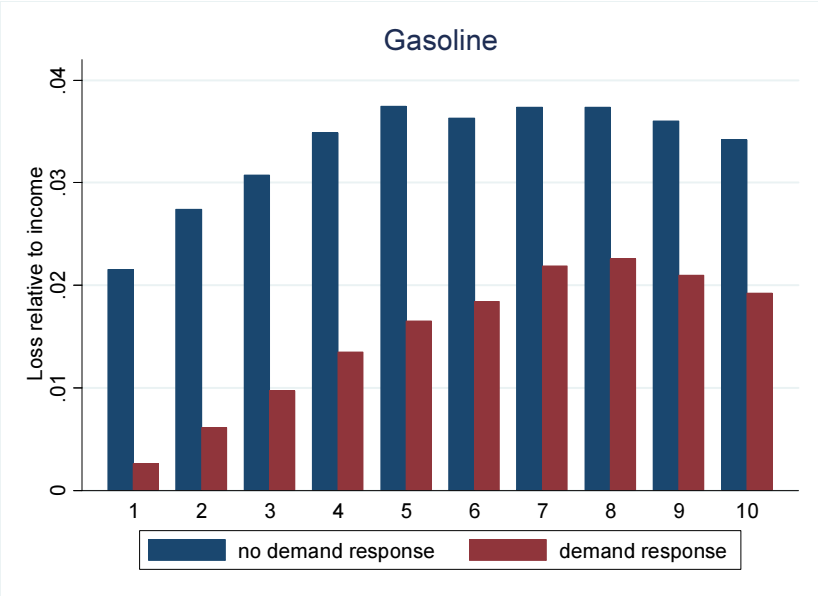
3) How do welfare measures change when substitution behavior is taken into account?

Energy expenditure patterns



Welfare effects, 100% subsidy cut

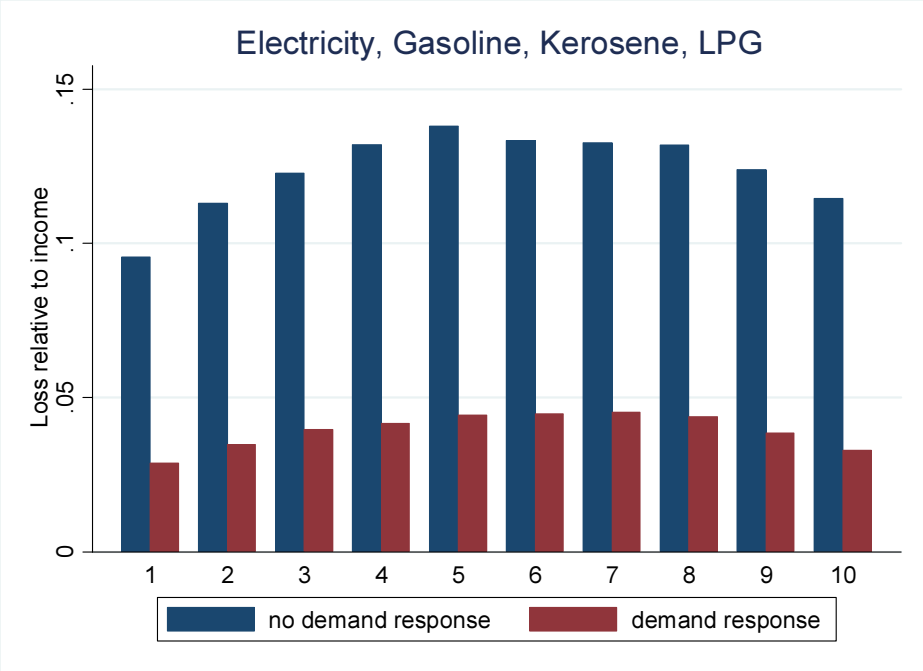




- Electricity subsidy cuts regressive → Hurts the poor
- High price elasticity of low income groups counteracts

- Gasoline subsidy cuts progressive → The rich more affected than the poor
- High price elasticity for low income groups
- Top 2 income groups with declining gasoline expenditure share

Welfare effects, 100% subsidy cut (II)



- Total effect slightly progressive
- Total income effect quite large
- Difference between first and second order effect substantial → leaves more room for redistribution

Lessons learned:

- Welfare impact depends on energy carrier used
- Estimation of household energy demand important for compensation payment size
- Compensation programs and targeting becomes crucial for success

THANK YOU