

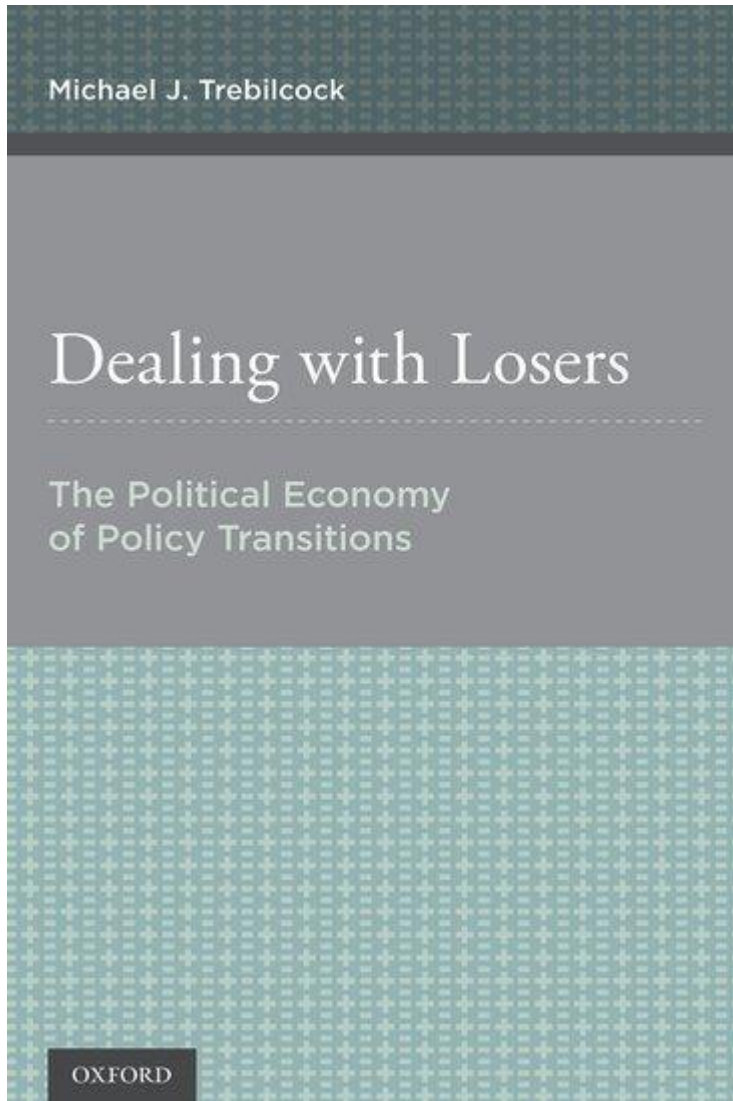
# Managing distributional impacts of fossil fuel subsidy reform

A political economy issue

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# Ambitious policy reform requires taking care of the **political economy**



*The UK Slavery Abolition Act of 1833 paid 20 million pounds in compensation to plantation owners in British Colonies*

*about \$21 billion in present day value and almost 40 percent of the British budget at the time*

# The impact of fossil fuel subsidy reform on consumers can be problematic

Problem:



Energy price hikes and energy price hikes.

Problem because:

- It is a policy objective to protect **poor and vulnerable households**
- Consumers, especially the middle class, are **voters**

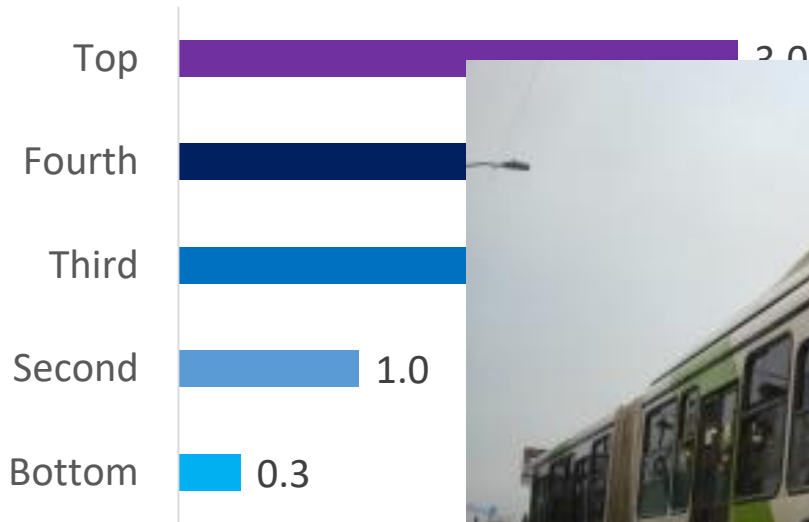


Are energy price hikes  
progressive or regressive?

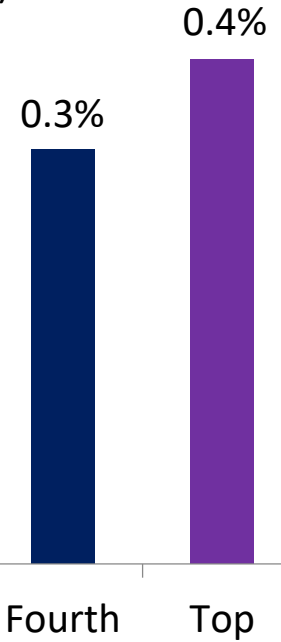


# Chilean example: it may *seem* at first that gasoline price hikes are *progressive*...

Current spending on gasoline and diesel  
(% of income)



Cost of a 25c/L increase in gasoline prices  
(% of income)

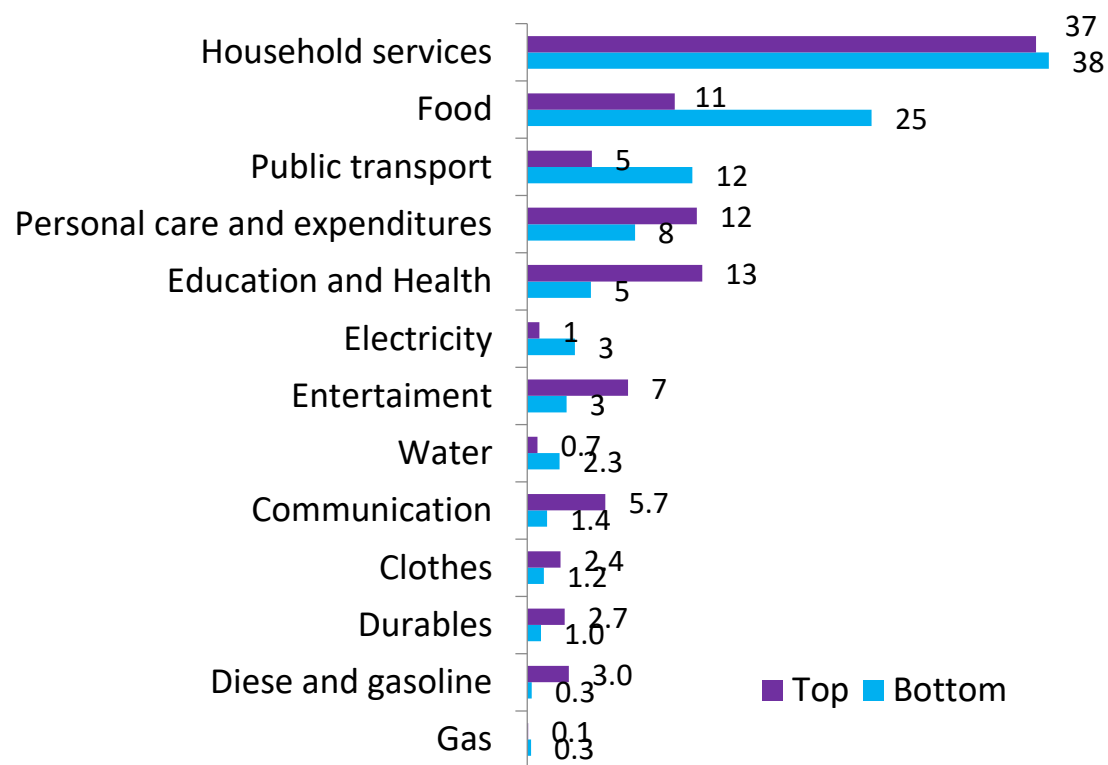


# ...but gasoline price hikes have an indirect impact on all consumption items...

Price hikes in all goods due to gasoline price increase (% of current price)

	%
Public transport	6.3

Household budget

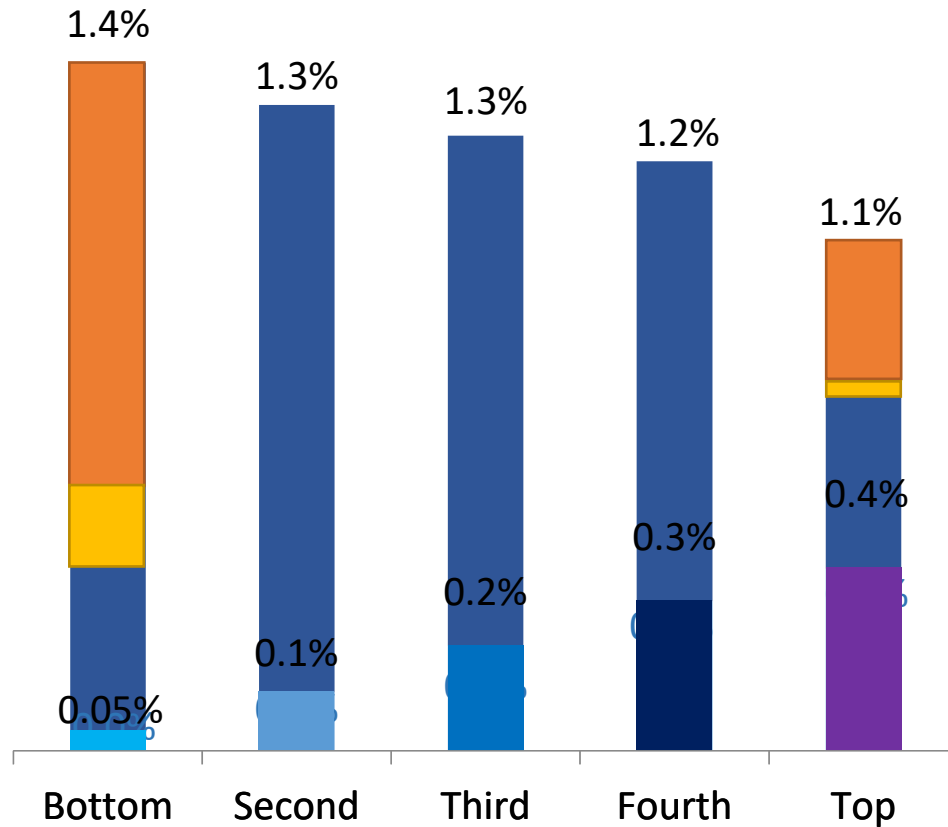


...such that the total, **direct + indirect**, impact of gasoline prices hikes tends to be **regressive**



Public transport


Food



Indirect impact

Direct impact





Regressive vs progressive  
may matter less than  
**how to *manage* the impacts**  
of price hikes on consumers



# In cash and in kind transfers have both been used to compensate vulnerable households

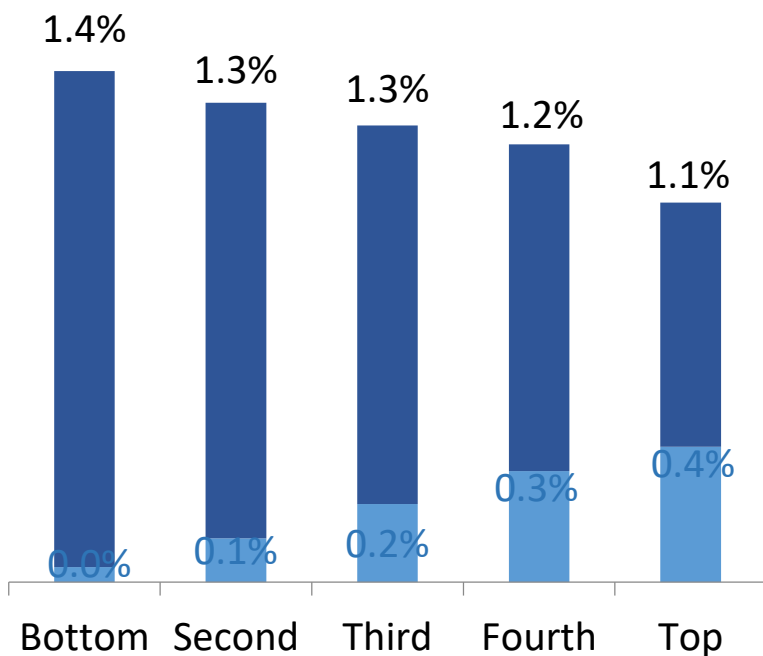


Communication is key to the acceptability of these reforms 9

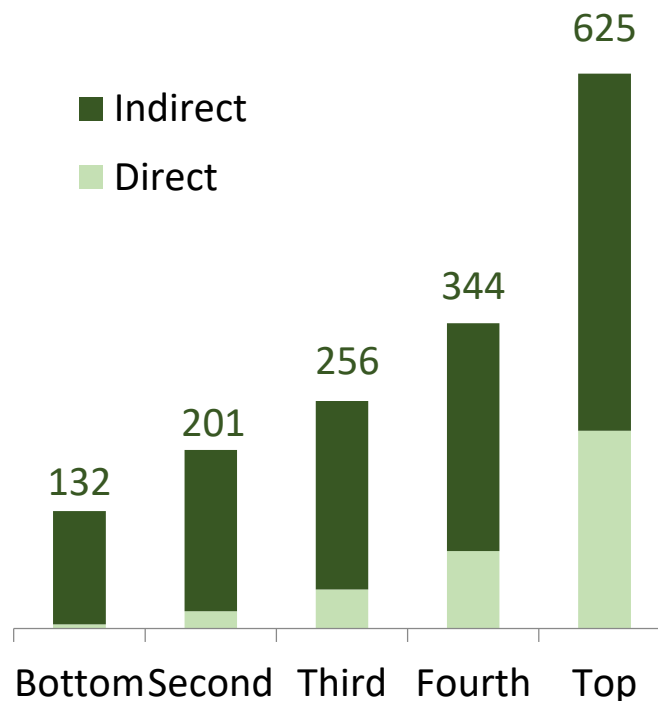
# While poor consumers are affected most relative to their income, **rich consumers pay the bulk of energy price hikes...**

Cost of a 25c/L increase in gasoline prices...

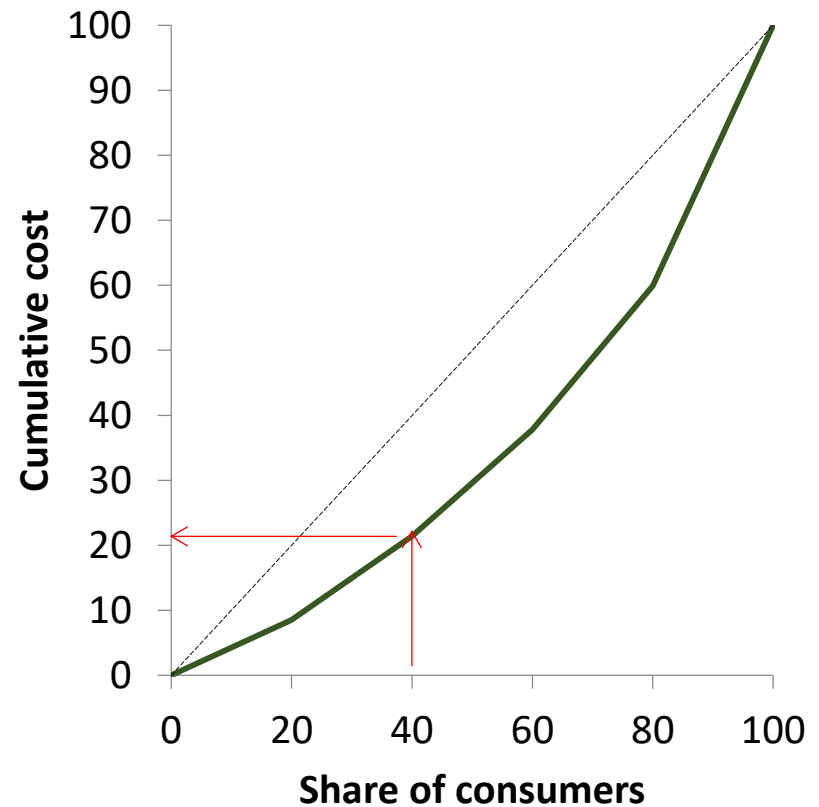
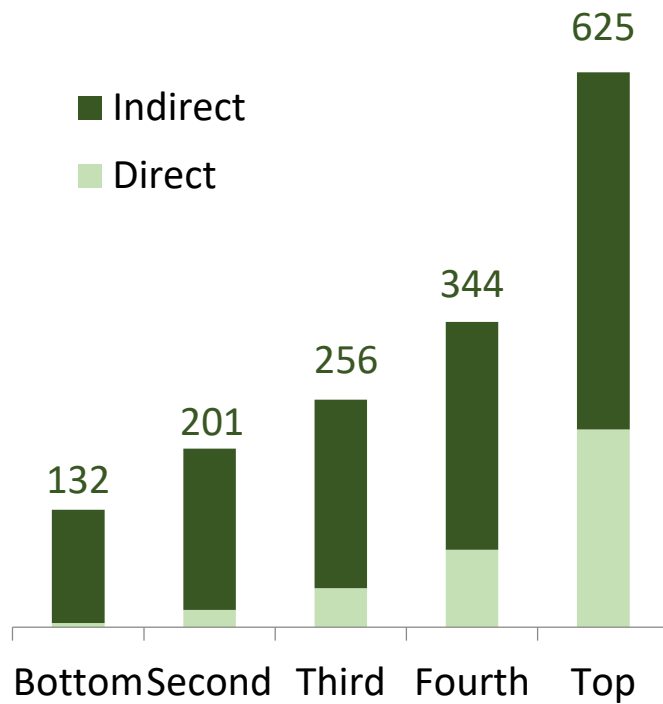
...relative to household's income



... in absolute terms (millions of dollars)



...a small fraction of fiscal revenues  
from subsidy removal is thus sufficient to  
compensate poor and vulnerable consumers



All countries and fuels are different, but in all cases a **modest fraction of fiscal revenues** is enough to **compensate vulnerable consumers**

		Bottom	Second	Third
Argentina	Diesel and gasoline	8.7	21.9	39.7
	Electricity	12.2	27.4	45.3
	Natural Gas and LPG	12.1	27.2	45.8
Bahamas	Diesel and gasoline	10.9	27.0	47.1
	Electricity	12.7	29.6	49.6
Barbados	Diesel and gasoline	5.3	14.1	25.9
	Electricity	8.5	20.5	35.6
Chile	Diesel and gasoline	8.5	21.4	37.8
	Electricity	12.5	27.3	44.3
	Natural Gas and LPG	10.9	27.6	47.4
Costa Rica	Diesel and gasoline	5.6	15.7	30.1
	Electricity	11.9	26.7	44.2
	Natural Gas and LPG	15.4	33.9	53.7
Ecuador	Diesel and gasoline	8.0	20.0	35.0
	Electricity	10.0	24.2	41.2
	Natural Gas and LPG	15.7	33.6	52.2
Guatemala	Diesel and gasoline	5.4	14.7	28.2





# The rest of revenues can fund long-term (pro-poor) development goals

Fraction of



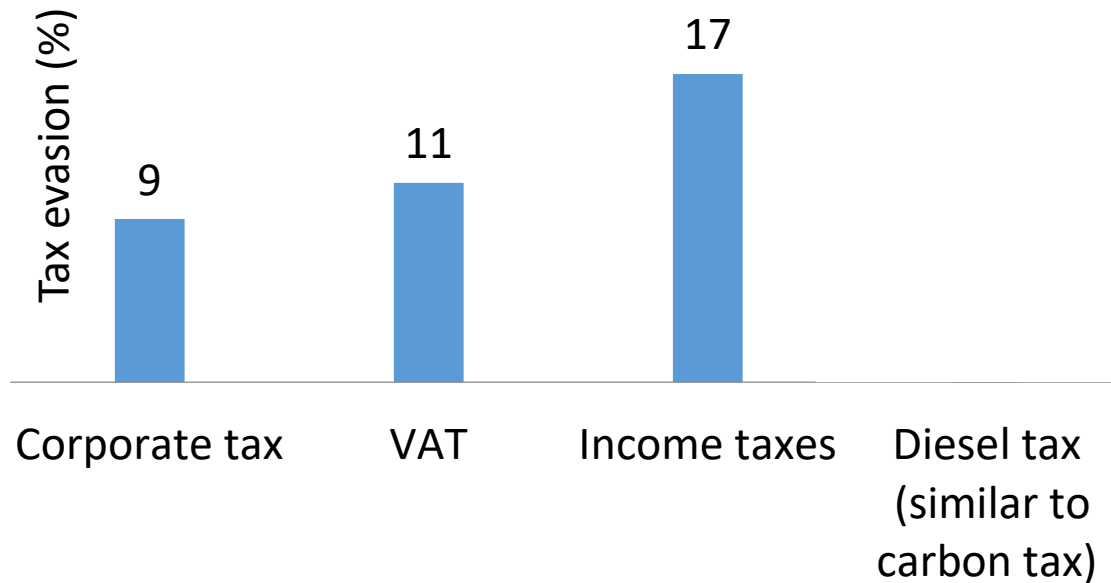
Source: Jakob et al. 2016.



(b) Sanitation



# Energy taxes are good fiscal policy



Liu, A. A. 2013. "Tax Evasion and Optimal Environmental Taxes." *Journal of Environmental Economics and Management* 66: 656–70



Is it only about consumers?



# Subsidy reform and energy taxes affect more than just consumers



Impacts on consumers



Impacts on workers



Stranded assets





One particular issue is  
stranded assets



# Managing stranded assets

- Transform losers into winners
  - Worker retraining
  - Green pilot projects in negatively affected areas
  - Automakers and electric cars
- Avoid stranded assets in the first place
  - Gradual phase down of subsidies and phase in of carbon prices
  - Energy efficiency standards on **new** cars, buildings and appliances
  - Moratorium on **new** coal and gas power plants?



# Managing distributional impacts of fossil fuel subsidy reform

- Even if the reform is good for the country, some households will be negatively affected by energy price hikes
- Affected households can be compensated using a fraction of fiscal revenues
- Preparation and communication are key

**Thank you for your attention**

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