

Comments on
“Distributional Impacts of
A U.S. Greenhouse Policy”

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The paper:

- Clearly written, carefully done
- Nicely structured model, impressive data set
- Provides information highly relevant to climate policy

Aspects of Distributional Analysis

Channels of impact:

costs of consumption basket



incomes (factor returns)



tax base



Policy dimensions:

impacts from the enviro tax



impacts from revenue use



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Distributions considered:

across household income groups



across regions



across industries

Time frame:

short run



long run

(not yet)

Other nice features:

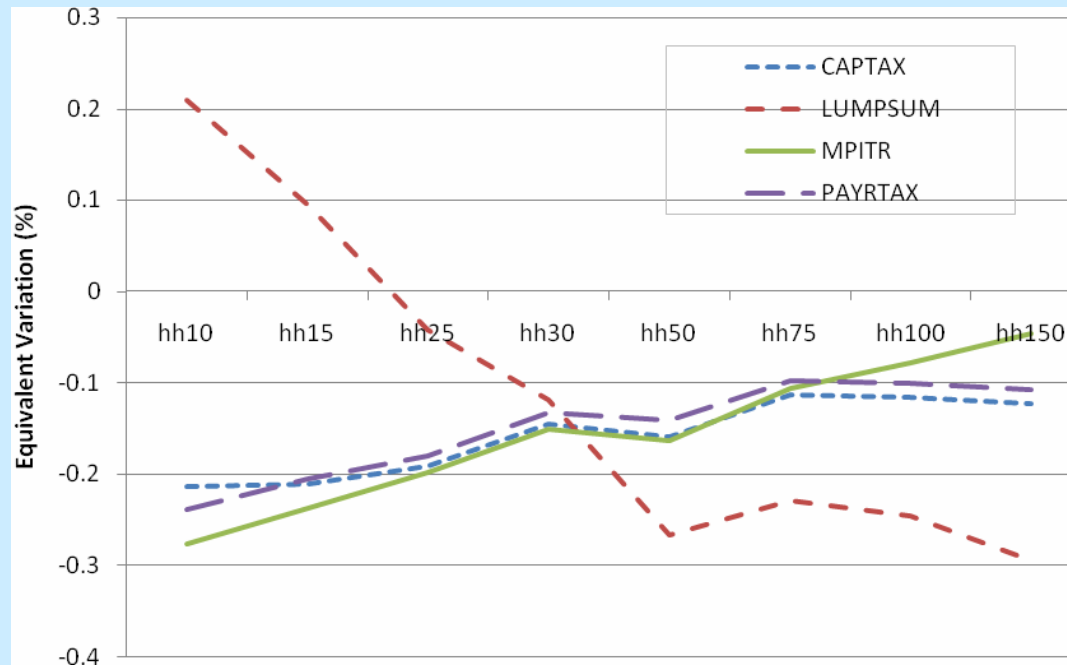
- Attention to (important) tax details
- Attention to natural resource scarcity

Key Results from \$15/tonCO₂e tax

- 80% or more forward shifting
(why so much in short run?)
- tax base effects are important – absorb about half of the revenue

Key Results from \$15/tonCO₂e tax

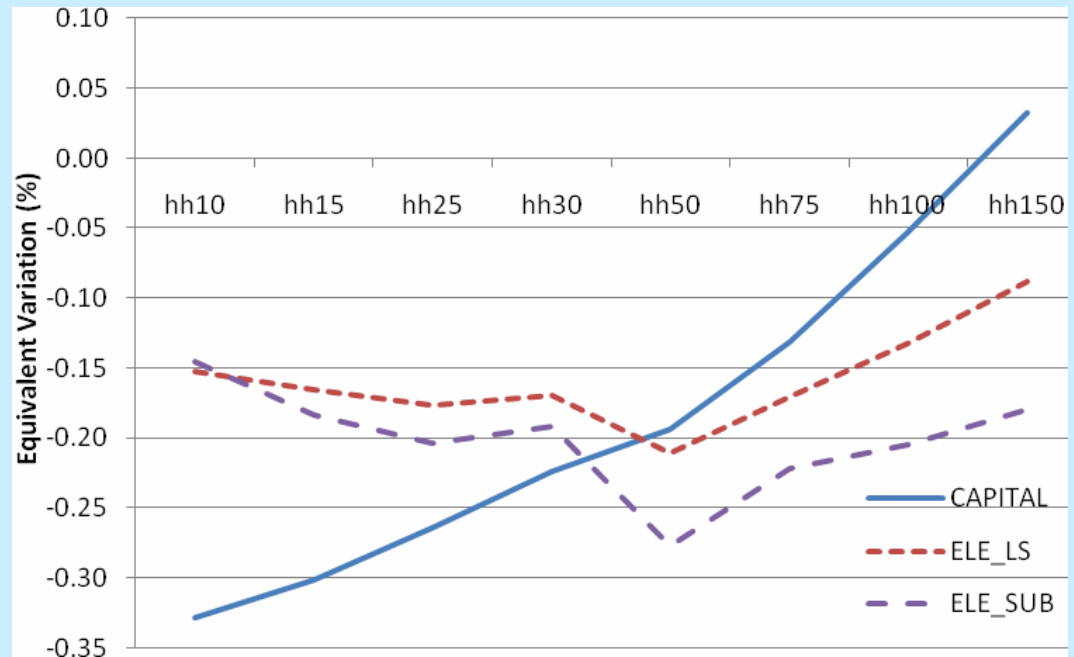
-- nature of revenue-recycling important



- *lump-sum recycling – slightly progressive*
- *payroll tax recycling – almost neutral*
- *uniform cuts in marginal rates of individual income tax – slightly regressive*

Key Results from \$15/tonCO₂e tax

-- nature of recycling to electricity sector important



- *recycle to electricity via lump-sum* (~ reduce fixed charge)
 - less regressive than simple recycling to capital
- *recycle to electricity via subsidy* (~ reduce variable charge)
 - even less regressive (need more evidence to support explanation)

1. Decomposition Would Help

For each policy considered, would be illuminating to decompose the overall impacts on household income into that which is due to ...

- Expenditure side effects (higher price of consumption)
- Factor side effects (reduction in factor prices and incomes)
- The government's transfer (recycling of tax revenue)

This would give a clearer picture as to what accounts for differences in regressivity/progressivity

2. Carbon Tax Rankings \neq Cap-and Trade Rankings

One needs to approach results with caution before drawing conclusions regarding cap and trade. Emissions reductions are not the same across policy scenarios.

How might results differ if one considered the same sets of policies, but required the same emissions reductions (as under cap and trade)?

Income Groups	<i>LUMPSUM</i>	<i>PAYRTAX</i>	<i>MPITR</i>
hh10	140	-114	-152
hh15	73	-115	-149
hh25	-18	-128	-159
hh30	-99	-119	-163
hh50	-305	-163	-191
hh75	-304	-133	-145
hh100	-357	-159	-97
hh150	-506	-207	-42

Totals -1,376 -1,138 -1,098

3. Distribution and Politics

Political prospects are affected by distribution of impacts across households. But relative impacts on profits of individual industries may be even more important to the politics. (Consider today's debates on federal cap-and-trade proposals.)

- Although industry impacts translate to household income impacts, managers mobilize politically

Useful to complement the information in this study with information on profits of individual industries.

In Sum

Excellent paper, with highly useful results.

Nice to see consolidated treatment of expenditure- and income-side impacts; tax base effects; regional and household distributional effects

Suggest:

- provide more decomposition and evidence to explain some of the distributional outcomes
- consider cap and trade (compare policies with identical emissions cuts)
- proceed with dynamic model to consider long-run impacts

Careful re interpretations:

- long-run distributional impacts could significantly differ from short-run impacts
- policy rankings for cap and trade could significantly differ from those for carbon tax