

Carbon taxes and equity issues: old debates, new insights

Lucas Chancel

Researcher, IDDRI

Lecturer, Sciences Po Paris

In the news: French Energy Transition Law

- 1-year debate, law to be voted in a week
- Measure of interest: cash transfers for energy poor households.
- At the same time, carbon tax, implemented earlier this year, level slowly increasing.

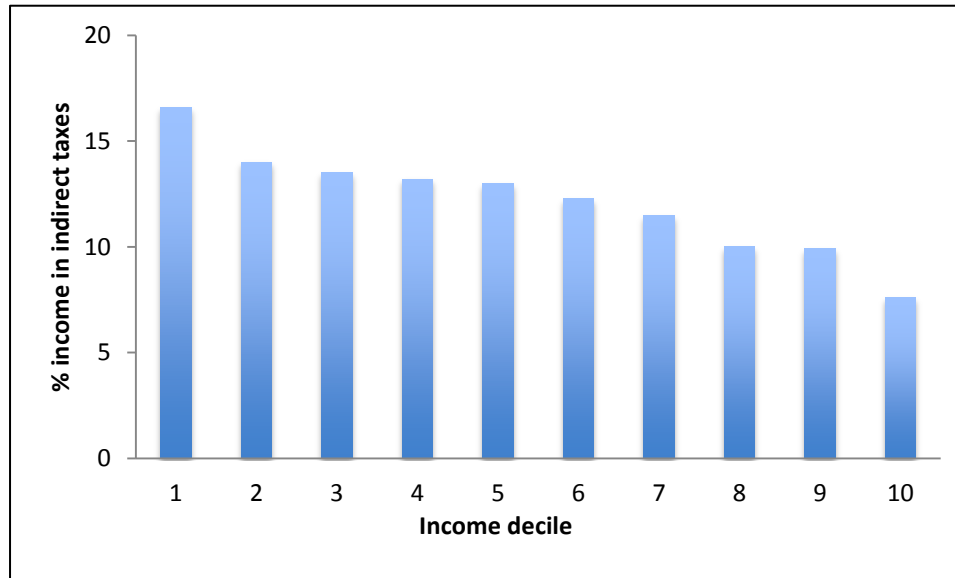
What does this measure tell us of the equity/efficiency debate and its evolution in France? How does it relate to other energy poverty support mechanisms in Europe?



French National Assembly; source: wikimedia

Part I : Old debates

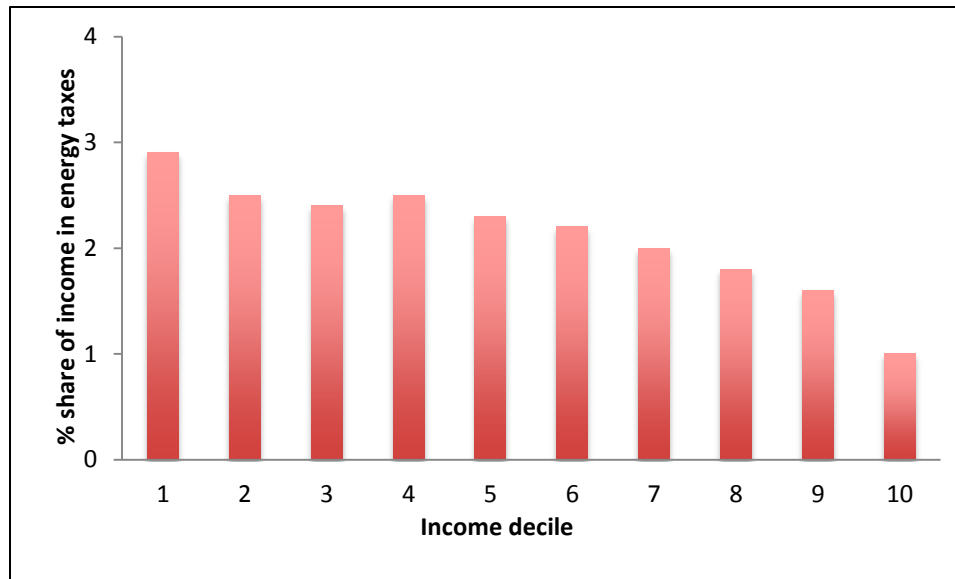
Consumption taxes are regressive...



Share of income spent on consumption taxes, France

Key: the first decile spends 16% of its income in consumption taxes, against 8 % for the 10th decile. Source: BdF 2001.

... energy taxes are no exception...

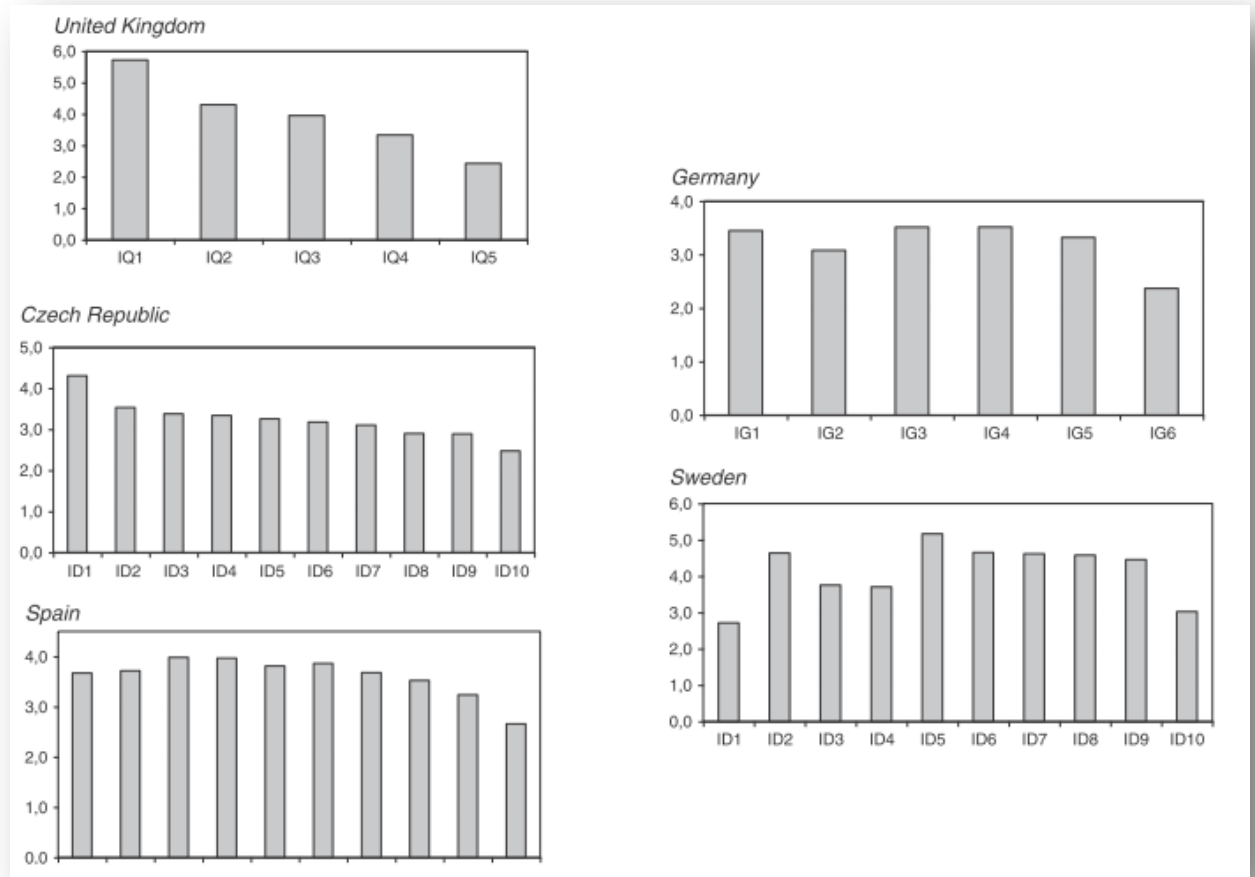


Share of income spent on petroleum products taxes, France

Key: the first decile spends 3% of its income in consumption taxes, against 1.3 % for the 10th decile. Source: BdF 2001.

...there are national, regional disparities...

- Regressive nature over most MS, but disparities
- Household energy taxation clearly regressive
- Transport energy taxation less clear

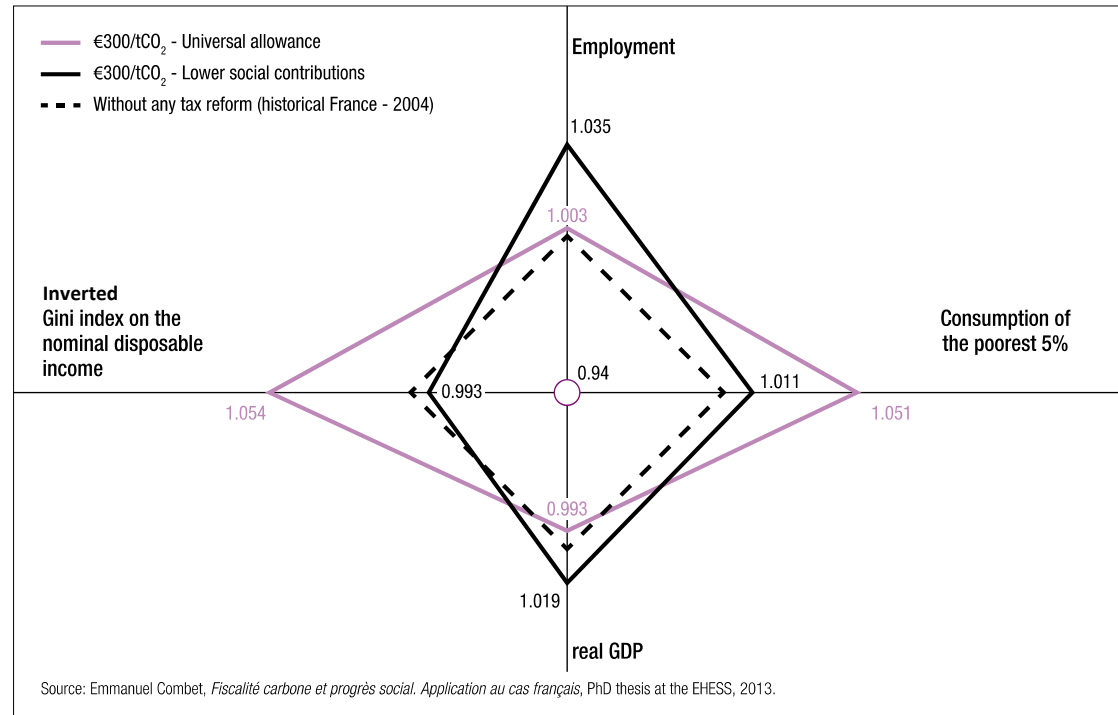


Share of environmental taxes in household budget, 6 european countries

Leipprand et al. 2007

... but good policy design can solve the equity problem.

FIGURE 1 Can we combine efficiency and equity?



Carbon Tax and Equity
The importance of Policy Design

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Emmanuel Combet
Frédéric Gherzi
Jean-Charles Hourcade
Daniel Théry

Goulder (1995), weak vs. strong double dividend.

Combet et al. (2010), opposition between efficiency and equity is not automatic, smart tax architecture and recycling option can address both concerns.

...in practice, things are more complex...

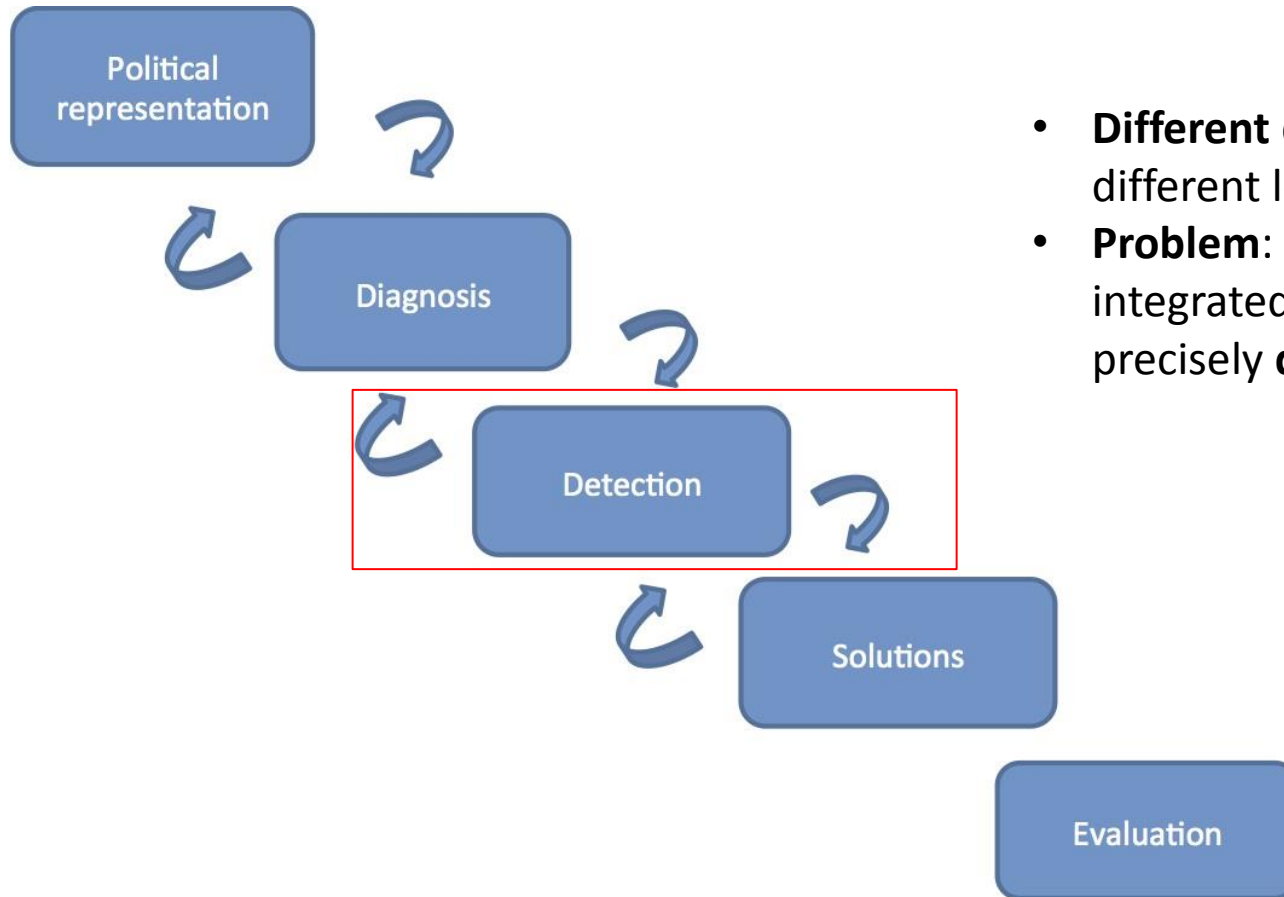


Revenue alone not sufficient to identify households in need (Ekins et al., 2011).

Importance of household type, urbanization, professional status, work location (Chancel, 2014).

Need to look at intradecile dynamics.

...“In the real world, look at the data” (M. Grubb)



- **Different** data requirements at different levels of the “policy cycle”
- **Problem:** lack of fiscal and energy integrated data at HH level to precisely **detect** HH in need.

Part II: New insights

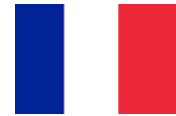
Energy poor HH Support mechanisms: four different logics

- Modulation of energy prices / bill
- Income support
- Energy retrofit subsidies
- Benefits in kind

Energy poor HH Support mechanisms: Four criteria

- Reach the proper targets
- Simple & timely mechanism
- Financially sound
- Environmentally sustainable

Energy poor HH support mechanisms in France



→ **Key mechanism:**
modulation of energy prices

→ **Mechanism extended last year**

Type d'aide	Examples
Modulation of energy prices	Reduced energy prices (450m€/yr)
Income support	Energy support via housing aid
Energy efficiency subsidies	Energy poor households subsidies (1.35 bn€)
Benefits in kind	Importance of local associations

Energy poor HH support mechanisms in Germany



→ **Two type of mechanisms:**
via social security mechanisms (electricity) et *via* bill reimbursement (gas)

→ Importance of electricity

Type d'aide	Examples
Modulation of energy prices	Reduction on gas bill
Income support	Electricity support (3 bn€/yr) via social security.
Energy efficiency subsidies	Local support as well as regional subsidies for retrofit
Benefits in kind	Importance of local associations

Energy poor HH support mechanisms in Sweden



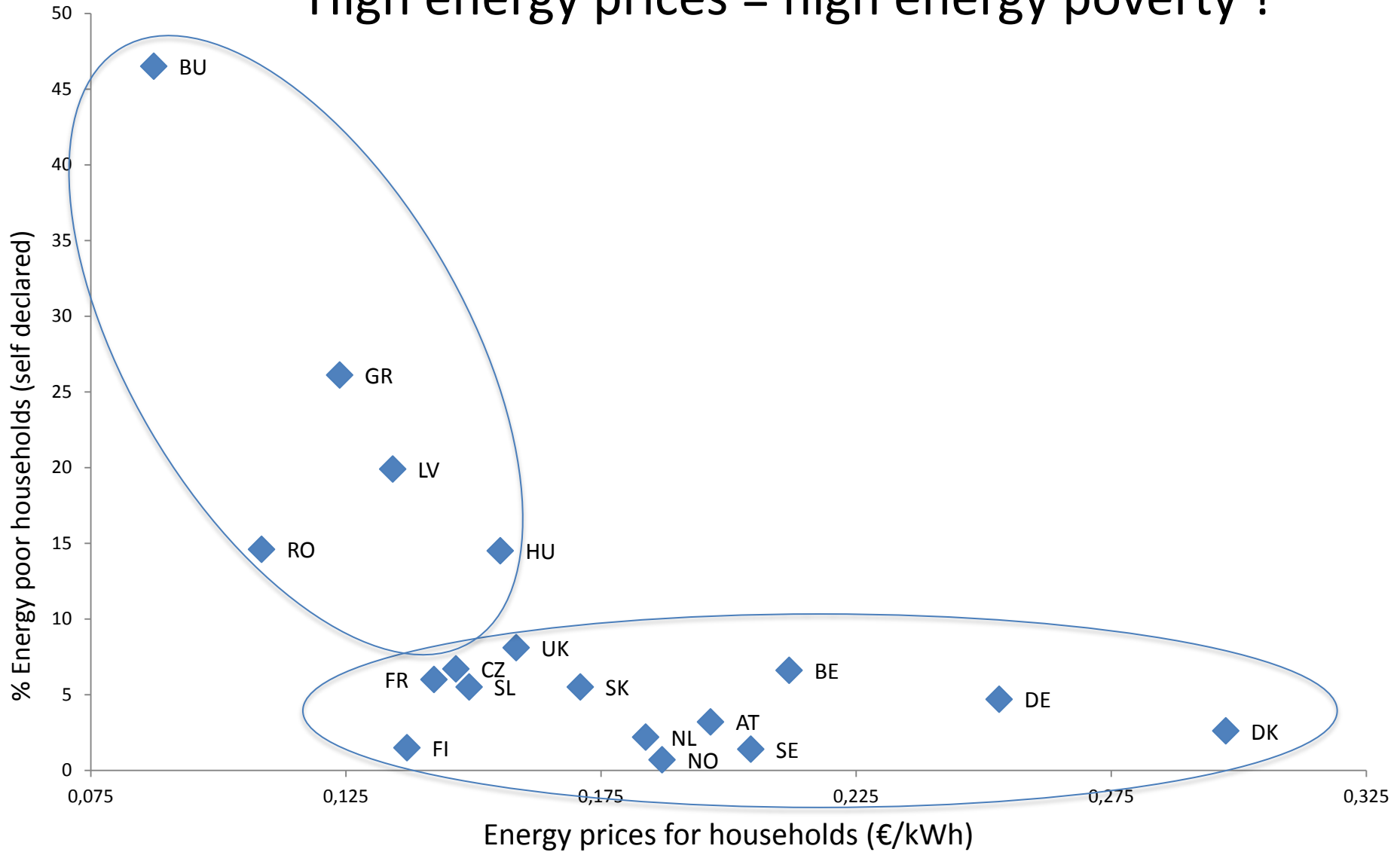
→ Stability of energy price

→ Energy poverty dealt via social security mechanisms

Type d'aide	Examples
Modulation of energy prices	-
Income support	Via social mechanisms, 1,2Mds€ 5% HH. Transport support via tax system
Energy efficiency subsidies	Heating devices subsidies.
Benefits in kind	Local and regional level

What should we think of price modulation?

High energy prices = high energy poverty ?

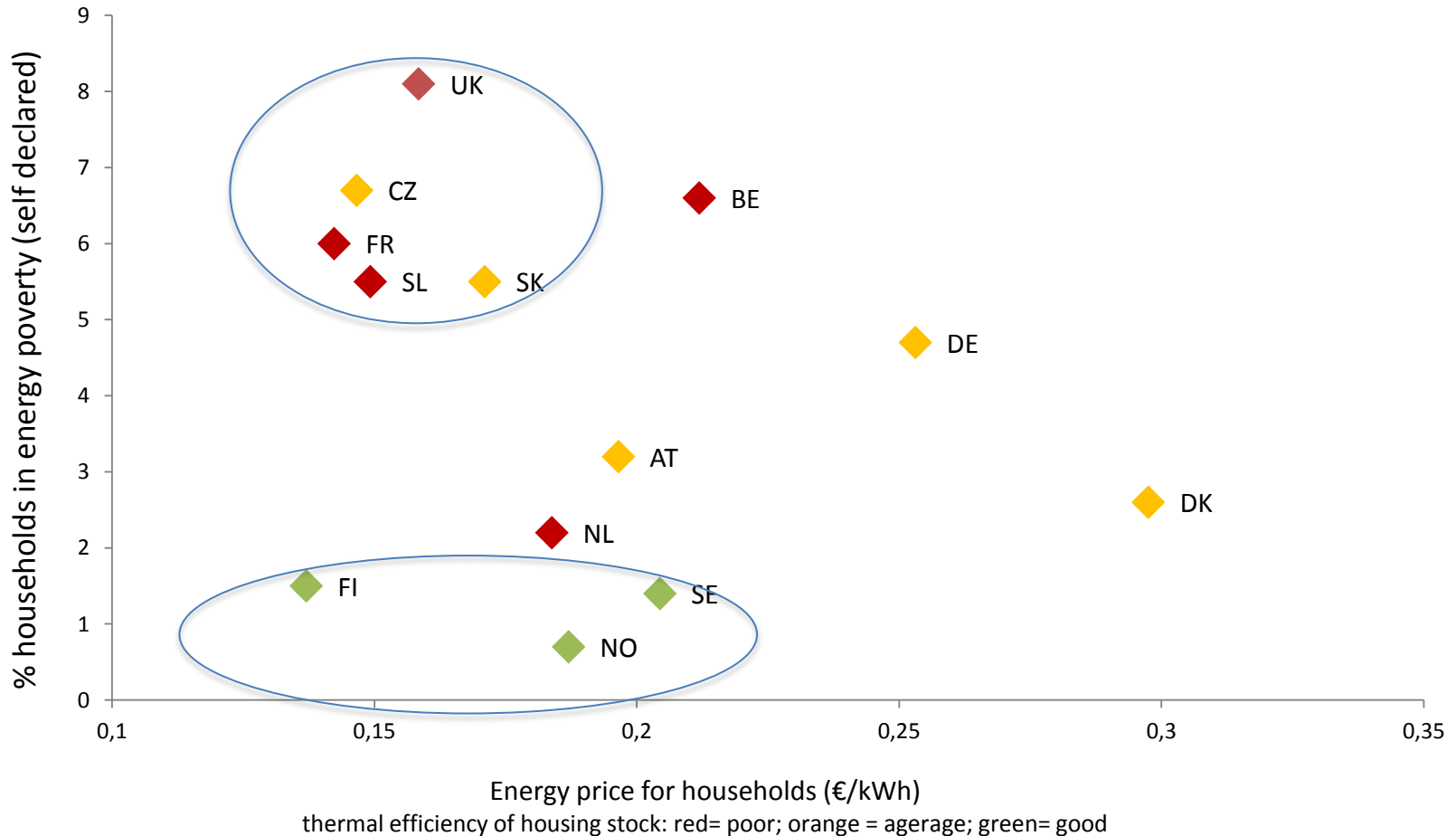


Caution 1: subjective measure (cultural and individual noise)

Caution 2: compare countries at v. different socio-economic levels

→ Nevertheless, cross country analysis shows absence of link between two variables

Importance of energy efficiency: EU example



Energy efficiency values are reconstructed on the basis of Building Efficiency Europe for housing stock .

- Different country groups and national trajectories
- Energy efficiency seems to be better predictor of EP level

What about income support then?

French case: a shift in support strategy

- Recent shift from price support to income support
- Cash transfer can be saved and spent on energy efficiency
- But transfers on the basis of income only

	% Total pop.	Total count
Beneficiaries according to income threshold	3.9%	1098257
Under income threshold, Energy expenses > 10% income	1.9%	547298
Income < 1000€ & energy >10% income	3.9%	1113071
Vulnerable HH (under income threshold when energy deduced from income)	0.7%	212143

Dataset: French consumer expenditure survey 2010; Sample: 15,795 HH

50% beneficiaries not energy poor

How to integrate fiscal/social and energy public data systems?

- Focus on income: anything else “too complicated” for French administration.
- Solutions?
 - Energy information in fiscal declaration?
 - Suppliers obliged to send info to fiscal administration?
 - Compulsory energy audits (Dresner and Ekins, 2006)?
 - Decentralize whole mechanism?

Conclusion

- There are several mechanisms to counter regressive effects of tax system.
- Importance of good policy design and wider fiscal reform for more progressivity.
- But the devil is in the details...
- Different logics exist for energy support mechanisms: prices vs. income support; local vs. centralized.
- France as interesting case - shift from price modulation to cash transfers; but **mismatch** between centralized nature of scheme and current availability of energy information.