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Distributional Incidence of Energy Taxes across Households: A Swiss Perspective

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1. The Swiss context

Challenge

- Phasing out nuclear energy
- While reducing CO2 emissions

Proposals to increase the role of energy taxes

- *Popular initiative of the green liberals to replace the value-added tax by a tax on non-renewable energy*
  Distributional issues played a role in its massive rejection by the people in March 2015

- *Proposal of the government*
  The government will send its proposal to the Parliament in November 2015

2. The government's proposal

- **A constitutional amendment**
  A constitutional amendment giving the possibility to introduce an incentive tax

- **Goals**
  Incentive taxes should be set such as to make an essential contribution to the objectives of energy and climate policy

- **Tax base**
  Heating fuel, motor fuel, electricity

- **Exemptions**
  Firms for which the incentive taxes would lead to unreasonable charges should be taken into account

- **Revenue use**
  The money will be given back to the population and the economy

- **Phasing out of current subsidies**
  Current subsidies for energy conservation in buildings and green electricity will be phased out

3. Possible implementation

Examples Purely for illustration		**Combination 1**		**Combination 2**		**Combination 3**		**Combination 4**	
		2021	2030	2021	2030	2021	2030	2021	2030
Electricity	+ ct/kWh	2.3	4.5	2.3	4.5	2.3	4.5	2.3	4.5
	Tax revenue year 2030 Billion CHF		2.19		2.13		2.12		2.05
	Objective achieved	100%		100%		100%		100%	
Climate CO2	Heating fuel + ct/l	25	44	32	63	32	63	32	89
	Gasoline + ct/l	0	0	0	0	1.3	13	2.6	26
	Tax revenue year 2030 Billion CHF		1.67		2.19		2.86		4.03
	Objective achieved	18%		28%		46%		71%	
Impact of the tax		**Very weak incentive**		**Weak incentive**		**Moderate incentive**		**Strong incentive**	
Still to be done		**A great deal**		**A lot**		**Moderate**		**Little**	

Source: adapted from Ecoplan 2015

4. The government's proposal will not be regressive

A pure incentive tax

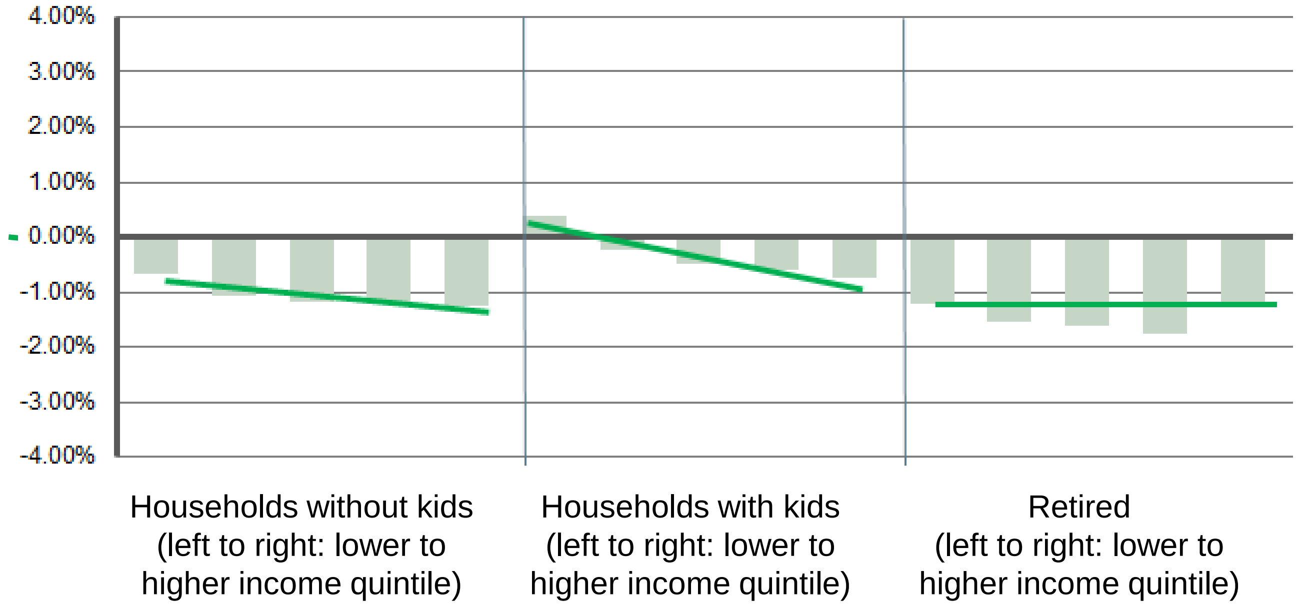
- The money will be given back to the population and the economy

Regressive or progressive?

- The energy tax itself is regressive
- Overall, the reform will be regressive or progressive depending on how the money is given back
- Giving back lump sum will make the reform progressive

Progressive if redistributed lump sum

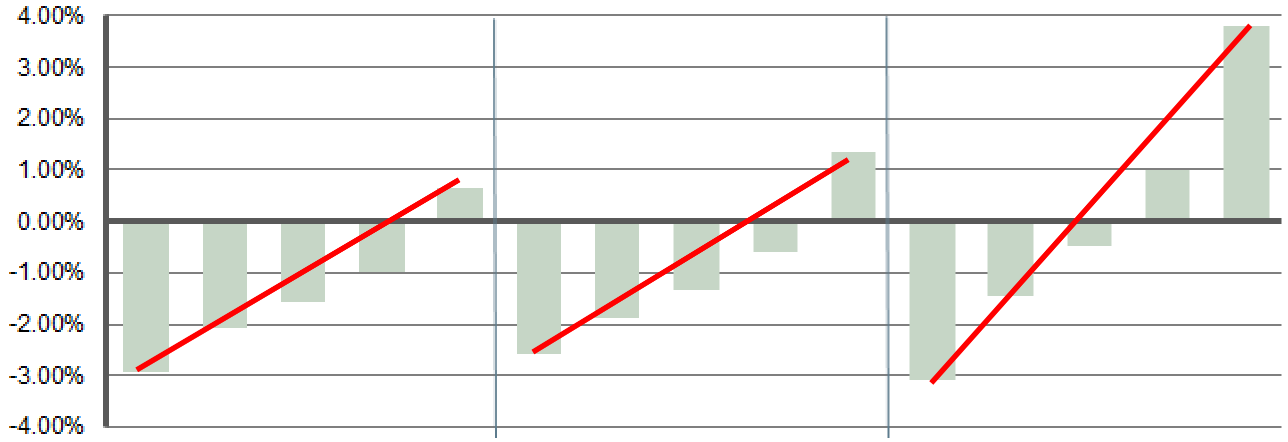
Change in welfare (environmental impact not included)



Source: Ecoplan: «Auswirkungen einer ökologischen Steuerreform», Berne, 2012, pages 90ff, Figure adapted by FFA
http://www.efv.admin.ch/d/downloads/finanzpolitik_grundlagen/els/Gutachten_ECOPLAN_d.pdf

Regressive if redistributed by reducing income tax

Change in welfare (environmental impact not included)



Households without kids (left to right: lower to higher income quintile)

Households with kids (left to right: lower to higher income quintile)

Retired (left to right: lower to higher income quintile)

Source: Ecoplan: «Auswirkungen einer ökologischen Steuerreform», Berne, 2012, pages 90ff, Figure adapted by FFA
http://www.efv.admin.ch/d/downloads/finanzpolitik_grundlagen/els/Gutachten_ECOPLAN_d.pdf

5. The Trade-off distribution / growth

- Trade-off between
  - avoiding negative distributional impact (by redistributing lump sum)
  - compensating for negative impact on growth (redistribution through other tax reductions)

- Consultations show little support for redistributing through tax reductions

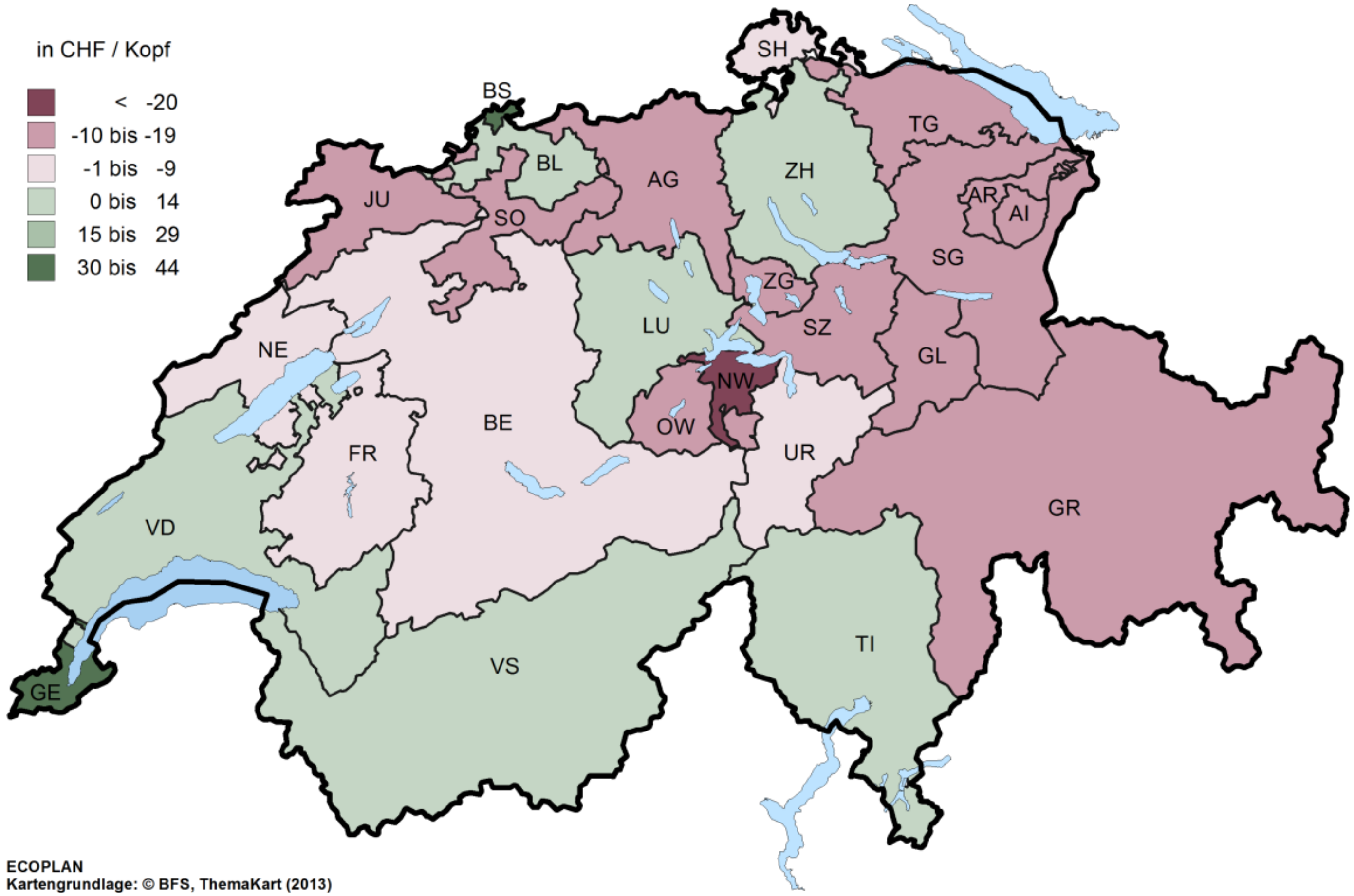
$\Rightarrow$ Lump sum distribution to households
(for administrative reasons redistribution through reduction of compulsory private health care premium)

- But distributional issue between urban and rural areas

6. Distribution urban / rural areas

Tax - redistribution

relative to Swiss mean (for combination 4, heating fuel and motor fuel only)



Source: Ecoplan: «Auswirkungen eines Klima- und Energielenkungssystem für 2030», Berne, 2015, pages 68
http://www.efv.admin.ch/d/downloads/finanzpolitik_grundlagen/els/OESR6_sb_2015_01_13d.pdf?lang=de&msg-id=50122

7. Conclusion

- **Crucial for acceptance**
  Solving distributional issues is crucial for acceptance of a reform.

- **Solution for Switzerland: Lump sum redistribution**
  - In the case of the Swiss government‘s project, distributional issues „low income versus high income households“ will likely be solved with lump sum redistribution.
  - Other instruments for reaching environmental goals also have a distributional impact, but it cannot be reversed by redistributing the money.

- **But ...**
  Another distributional issue may come to the forefront: urban versus rural areas.

- **Work in progress**
  The future will tell how the issue will finally be managed: government‘s proposal, Parliament, decision of the people (referendum).