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Equity and Efficiency in a 2nd best world

The unspoken issue in the French Carbon Tax Debate

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History of an ‘unsuccessful blitzkrieg’: Jan/Sept 09

An apparent political consensus: Presidential address (Jan. 09) after a “commitment” during the elections to attract support from environmental NGOs

Rocard report (Jul. 09): Two options for the revenue recycling: local taxes on investments vs. payroll taxes; Ok for a broad social negotiation the trade-unions say

The sudden rise of the “I want my money back” (July 09); Voicy “consumers NGOs”, media gesticulations and the hasty acceptance by the ministries

“*Cheque vert*” proposal by the government: a veil on how to control the propagation of costs in the industry.... and a credibility loss

Sep. 09: two thirds of the French against the carbon tax

Jan. 10: Invalidation by the *Conseil Constitutionnel*: “return of the repressed” and “inequity” because of a complete exemption of largest emitters

A comparative static analysis

- Evaluation of long term impacts (20 years) of revenue-recycling schemes on a same set of criteria
- A standpoint: a study of 'the worst case' to cover misunderstandings
 - Unilateral CT without border adjustment, based only on the carbon content of all consumptions, and reaching 300€/tCO₂ in 2004.
- We simulate 'counterfactual France-2004' that are compared to a same reference situation: actual 2004-France without carbon tax

IMACLIM-S: Key features of a '2nd best world'

- Open economy, 4 categories of agents, 4 goods (3E + 1 'Composite')
- Simultaneous equilibria in monetary and physical units (MTOE)
- French tax and benefit system, income distribution among 20 'income' classes of hhds, firms, gov. and RoW; Capital flows and agents' debts
- Production: factor substitution, Hicks-neutral induced technical change, static decreasing returns
- Limited adaptation capacity of productive systems and households (technical asymptotes and basic needs)
- Equilibrium unemployment: real wages and unemployment negatively correlated by a wage curve (Blanchflower and Oswald, 2005)
- International trade competitiveness is function of the production costs

IMACLIM-S: key parameters & assumptions

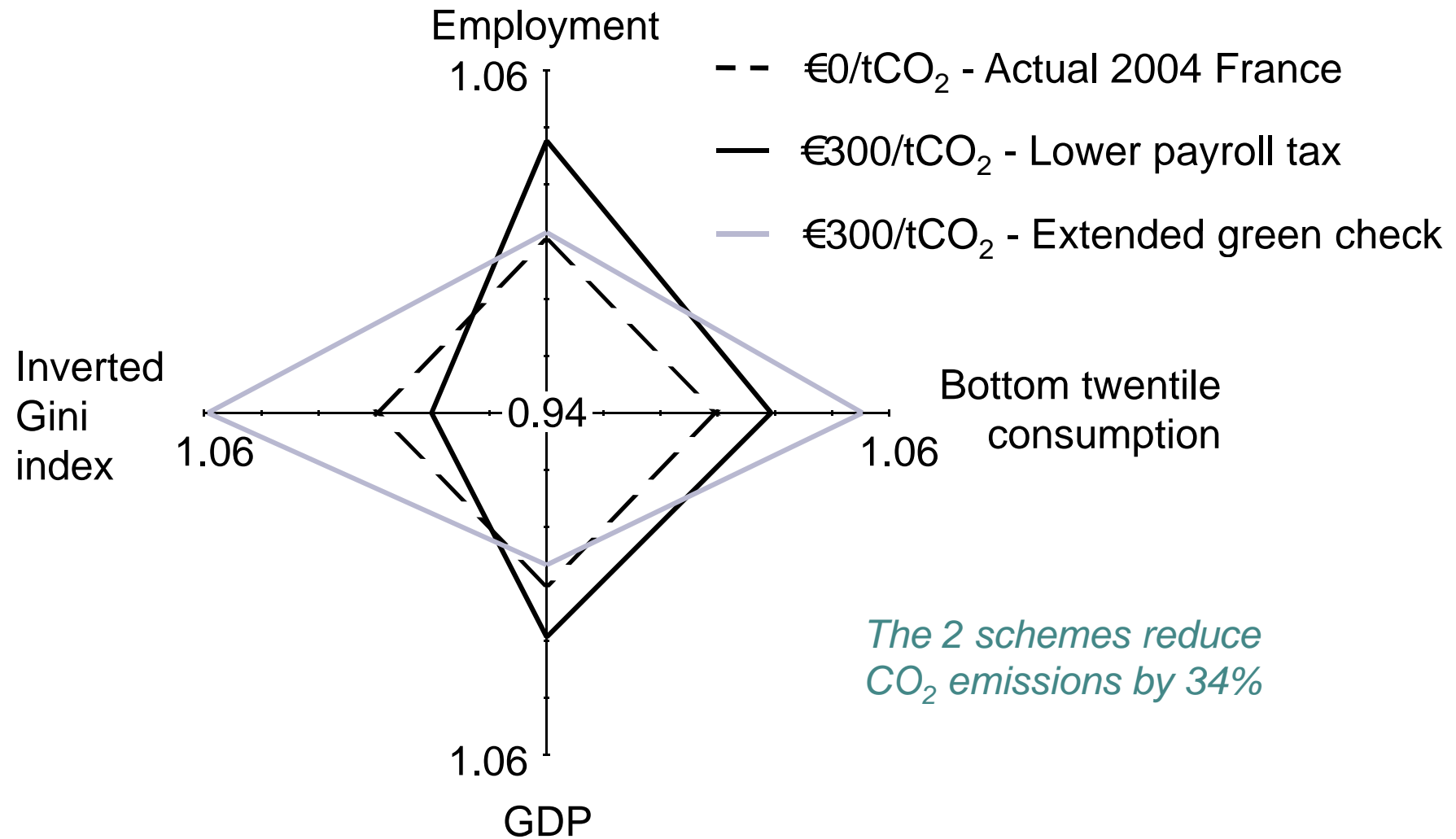
- Parameters
 - Behavioural elasticities + asymptotes (prod. and cons.)
 - Elasticity of exports and imports to domestic prices (fixed international prices)
 - Elasticity of wages to unemployment
- Assumptions
 - Wage curve: wage relative to **foreign prices** (rather than to domestic prices) correlated to unemployment
 - Pre-existing excise taxes and transfers (pensions, unemployment benefits, other) **indexed on average wage**
 - Public expenditures **constant share of GDP**
 - Recycling conditional to **constant public debt to GDP ratio**

Let us start from two polar schemes

Revenue-recycling under the same « budget neutrality » principle

1. Lower payroll tax
2. Extended “green check”

An equity-efficiency trade-off



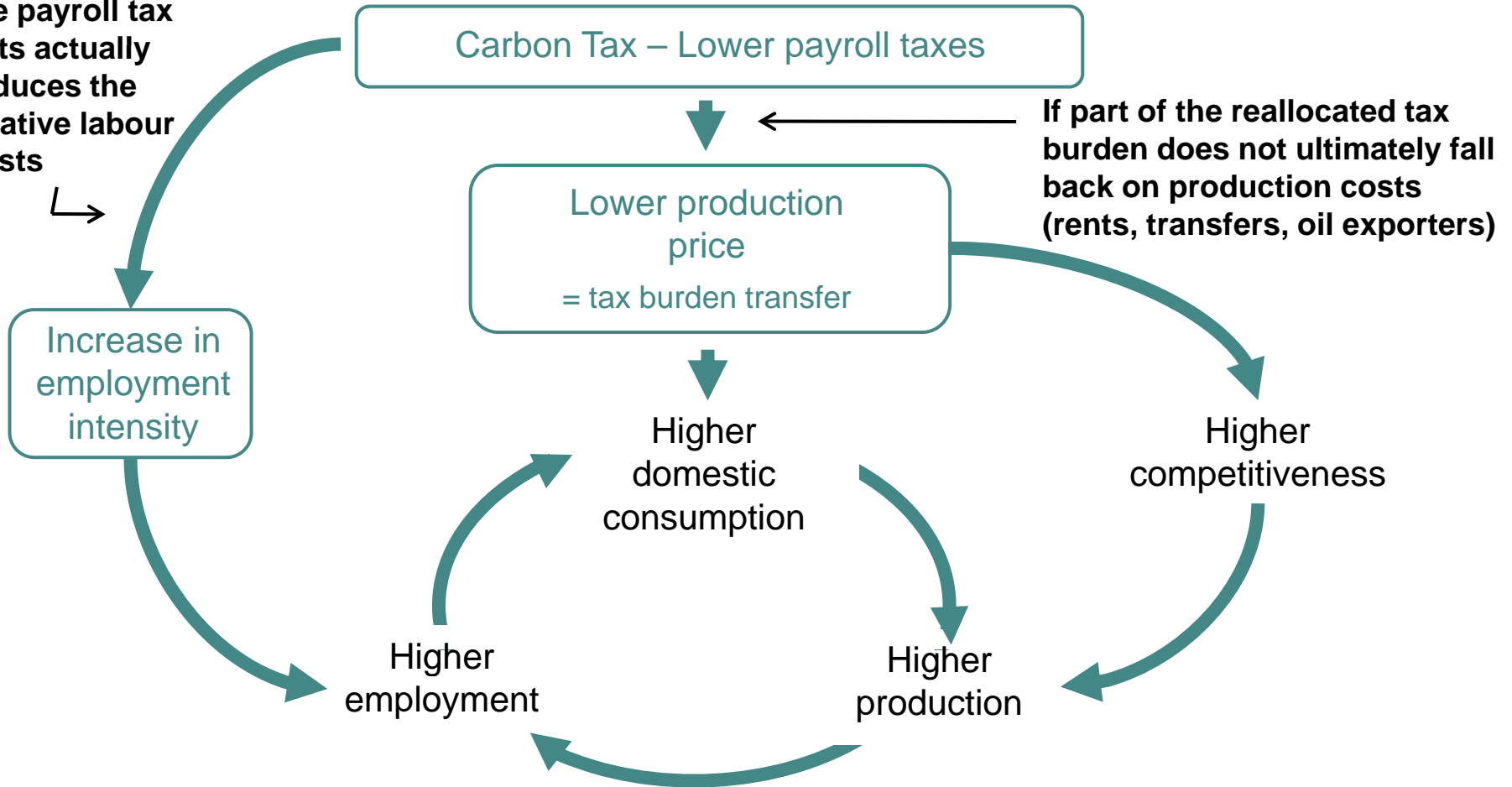
Contrasted impacts on the production costs

€300/tCO2 and	Green Check	Lower payroll tax
Total variation	+3.7%	-1.0%
energy costs variation	+1.6%	+1.6%
net wages variation	+0.1%	+1.5%
Payroll tax variation	id.	-3.6%

- Same direct impact on the energy bill
- BUT when payroll tax are lowered:
- Limited propagation of the costs increases
 - Slight alleviation of the tax burden on production
 - Higher progression of nominal net wages

The mechanisms at play in a field of constraints

If the sharing of the payroll tax cuts actually reduces the relative labour costs



Poverty alleviation... at cost of higher disparities

€300/tCO ₂ & <i>Lower payroll tax</i>	Direct impact on the energy bill	Unemployment (% points)	Disposable Income	Gini inequality index
Bottom twentile	+78.3%	-12.2	+5.4%	+2.0%
Top twentile	+72.0%	-0.9	+7.3%	

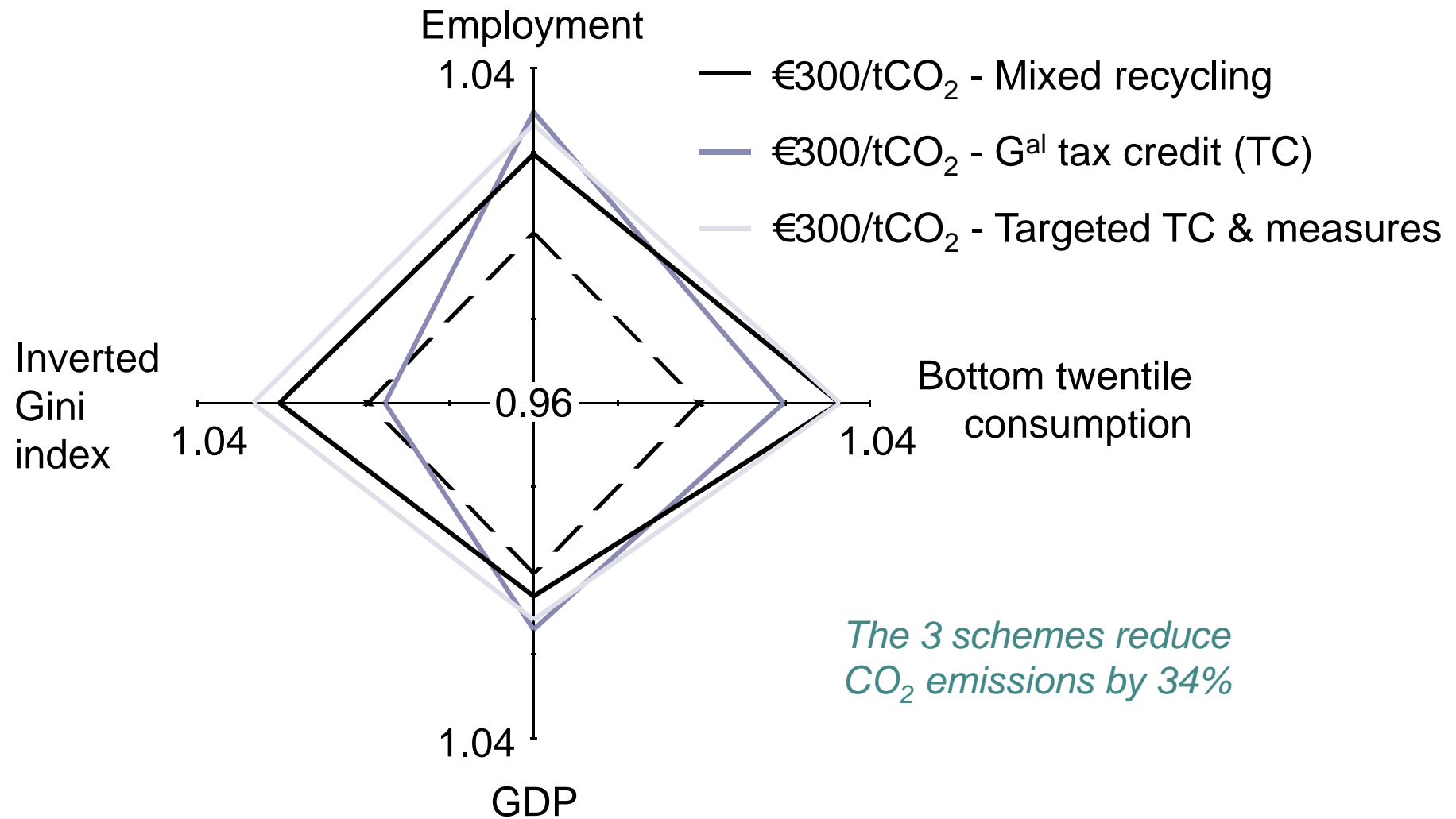
Main determinants:

- 1) Budget share devoted to energy, energy saving potential
- 2) Initial unemployment rates, jobseeker's allowance-wage gap
- 3) Relative weights of income sources (activity, property, transfers, *etc.*)

Three compromise schemes

- **Mixed recycling**
 - Firms: what they paid in lower payroll tax
 - Households: what they paid in uniform green check
- **Generalised tax credit (TC)**
 - lump-sum rebate covering some levels of 'basic needs' (commuting by car + similar share of residential consumption)
- **Targeted TC & measures**
 - same tax credit limited to T1-16
 - remaining proceeds to payroll tax reduction
 - any budget margin in accompanying measures to T1-T16

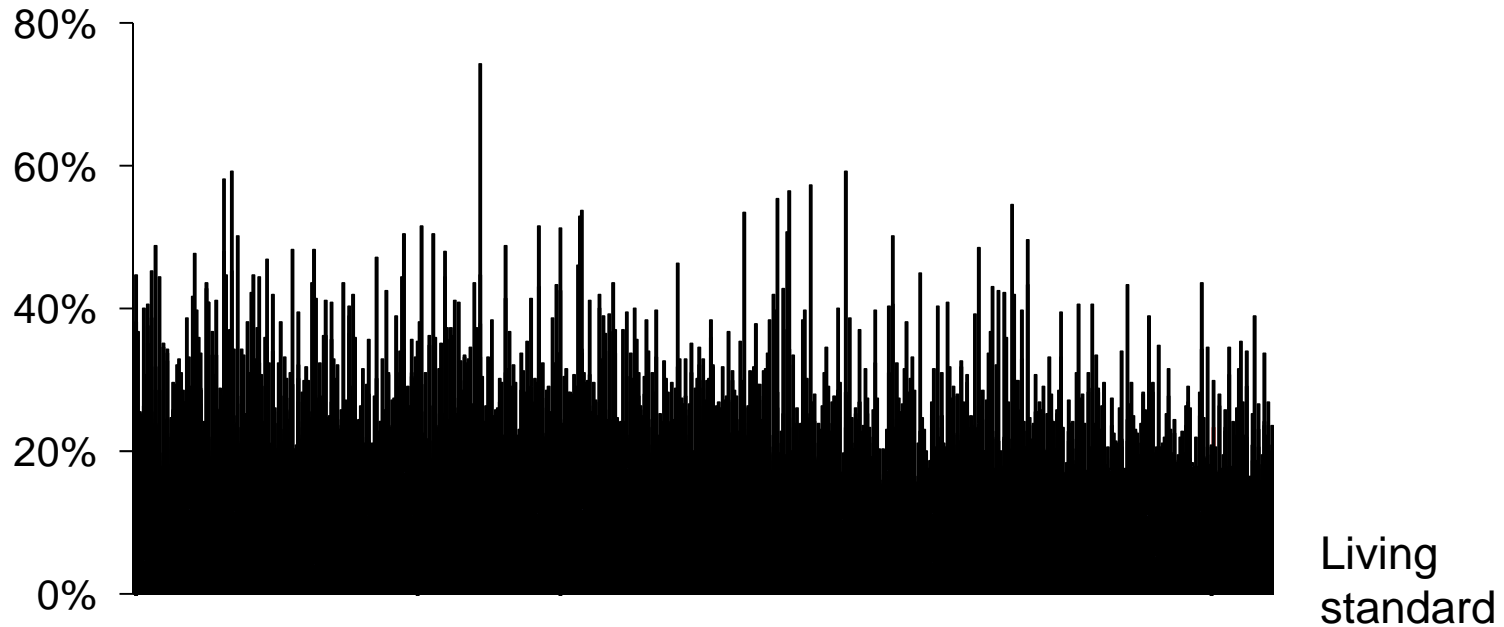
A space for reconciling efficiency and equity



Why the TC is 'more equitable' than the green check

Annual energy budget share

Energy vulnerability ill-explained by 'income'



INSEE 2001 data, authors' calculation

Conclusion: design & political economy matter

A similar 'refusal front' will be faced again if any credible and consistent answer to '*What to do with the revenues?*' is not proposed by policymakers

Credibility

- how to slow down the propagation of higher energy cost?
- how to prevent adverse distributive impacts?

Consistency

A question that cannot be addressed, since the future is at stake, without linking the climate issue to a broader social negotiation about how to tackle other social and economic challenges:

Pensions and Healthcare in an ageing society

Labor market regulation in a globalised economy

Energy security

Otherwise transitional tensions shall preclude any further rate increase

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The Economics of a Carbon Taxation in France

Summary in English available at:

<http://www.imaclim.centre-cired.fr/spip.php?article23&lang=en>