

Commentary on Frankel: Identifying and Addressing Competitiveness Impacts of Climate Policy

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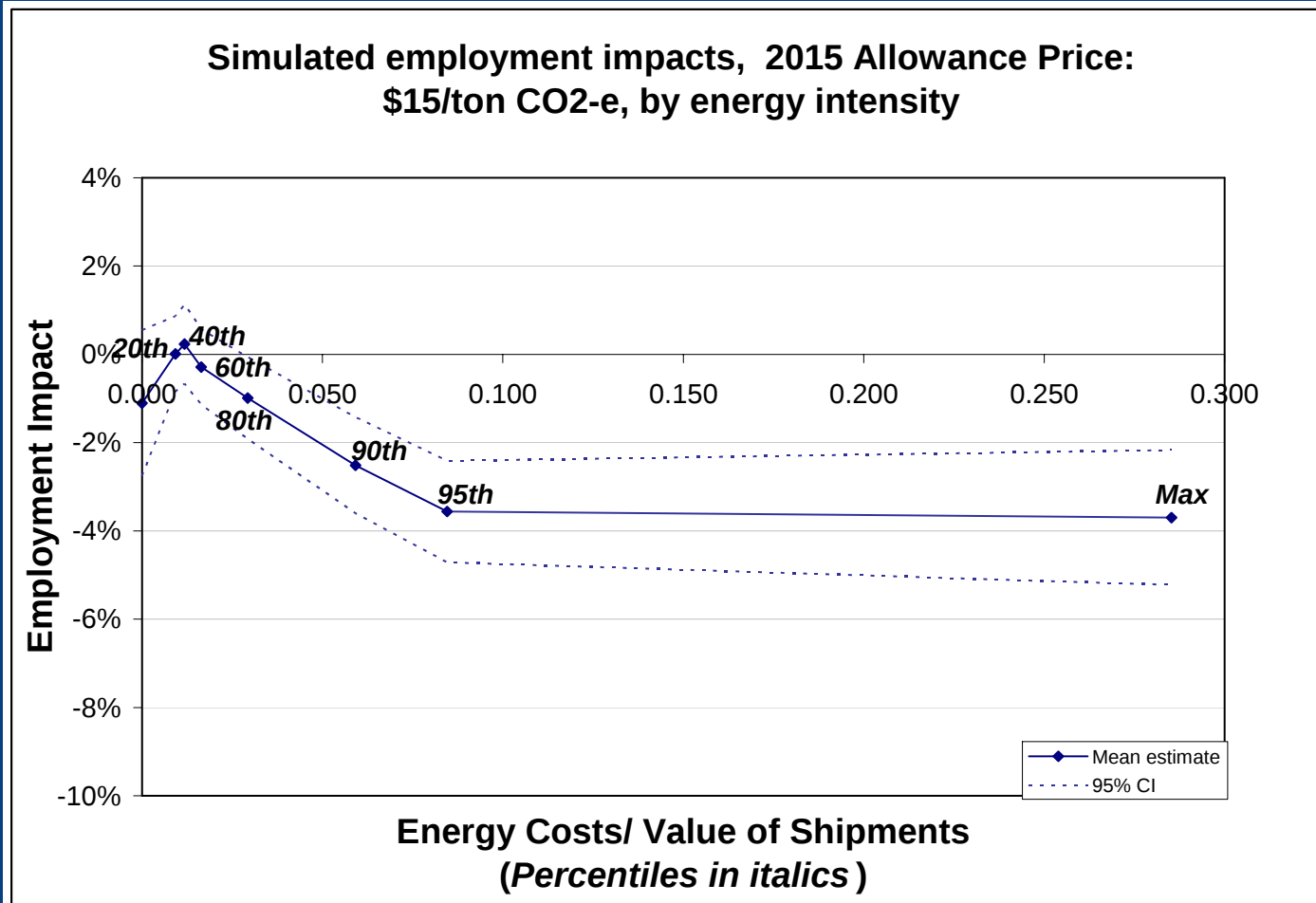
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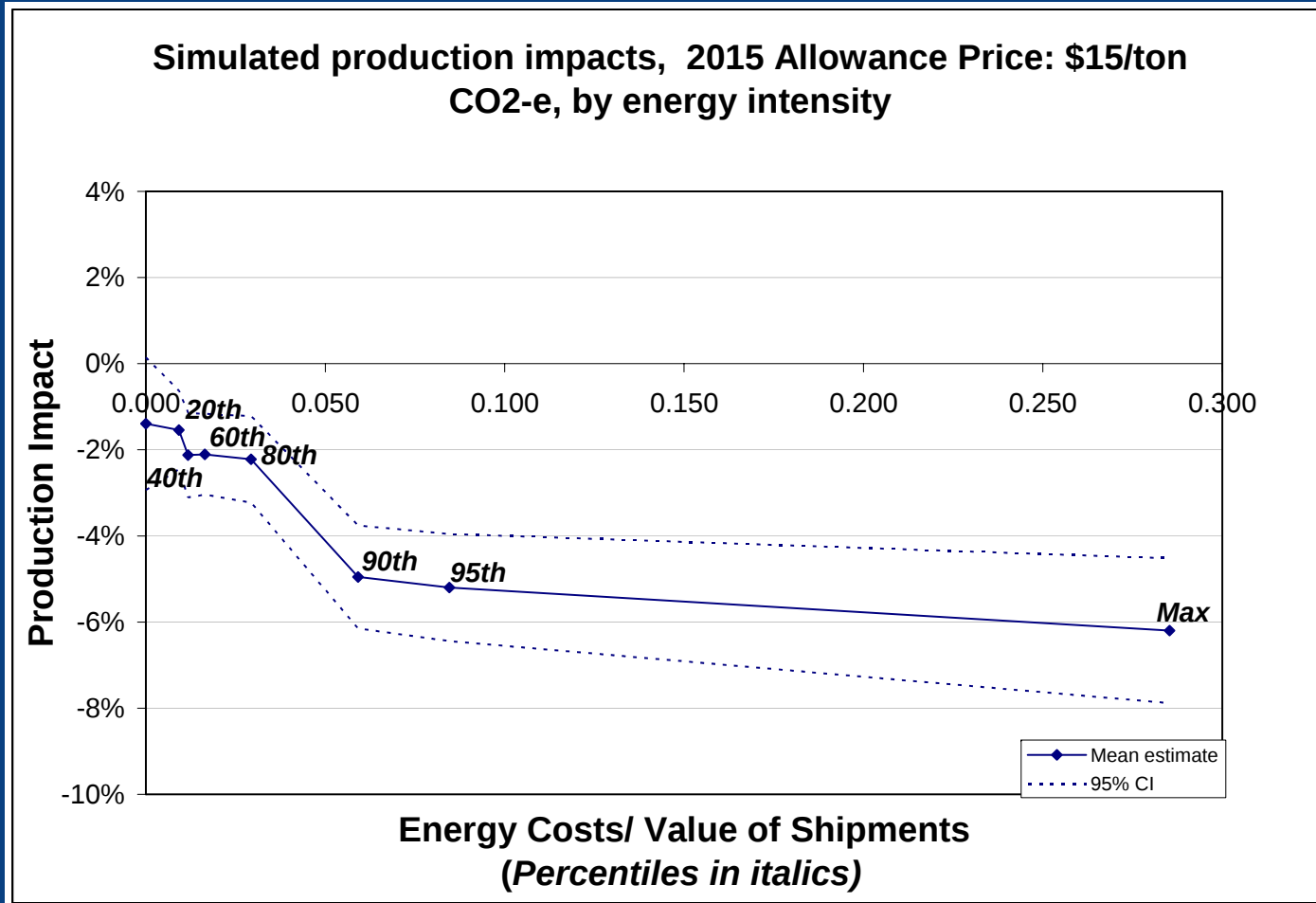
How Serious Are Competitiveness Impacts?

- Frankel cites IPCC estimates of 5-20% leakage
- Leakage could be a small share of economic activity
 - 70% of U.S. CO₂ emissions are in non-traded sectors (transportation and residential/commercial buildings)
 - ~85% of abatement in non-traded sectors (EIA 2006)
- Firms with high transport costs, large plant fixed costs less likely to relocate (Ederington et al. 2005)
- Aldy-Pizer recent econometric analysis shows modest competitiveness impacts on most firms

Employment Effects



Output Effects



Competitiveness Effects

Predicted impacts of a \$15/ton CO₂-e price on various manufacturing sectors

Industry	Employment	Production	Consumption	Competitiveness
Industrial Chemicals	-2.4%	-4.3%	-2.8%	-1.5%
Paper	-3.3%	-5.2%	-3.8%	-1.4%
Iron & Steel	-2.5%	-4.3%	-3.0%	-1.3%
Aluminum	-1.6%	-3.2%	-2.2%	-1.1%
Cement	-0.6%	-2.6%	-1.5%	-1.1%
Bulk Glass	-3.6%	-5.3%	-4.3%	-1.0%
Manufacturing average	-0.4%	-2.1%	-1.0%	-1.2%

Impacts are based on 2001 industry energy intensity, weighted by 2001 employment among constituent 4-digit SIC industries.

Are Policy Responses to Competitiveness Impacts Adequate?

- Do proposals eliminate the CO₂ price wedge?
- L-W permit holding requirement does not equate import and domestic carbon prices
- Generous free allocations to energy-intensive firms do not affect price wedge, just exit/entry
- Performance standards for imports do not eliminate price wedge, but returns to an era of cost-ineffective environmental policy

What Are the Implications for International Negotiations?

- Will countries respond positively by taking on climate change policies?
 - Will they consider unilateral U.S. competitiveness policies as confrontational?
 - Walk away from climate negotiations?
 - Start trade war?
 - Find clever ways to circumvent the trade distortion?
 - Will developing countries impose costs on entire industrial economy to protect exports?
 - China's 2005 steel exports less than 10% of production

What Are the Implications for International Negotiations?

- Could competitiveness policy undermine respect for sovereign decision-making under UNFCCC?
- What if countries pursue disparate policies?
 - How do we assess comparability of effort?
- Would a multilateral approach (e.g., Montreal Protocol) offer better incentives to participation?
 - Is this the avenue to a more effective enforcement mechanism?

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