



COMPETITIVENESS

Nicholas Institute Discussion Memo on H.R. 2454, American Clean Energy and Security Act of 2009

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Summary

Cap-and-trade has inspired fears about industrial “competitiveness” losses, usually meaning loss of jobs and production/domestic employment, and shift of emissions, to foreign shores that do not have a cap. Recent analyses of which industries would be most affected suggest both relatively small direct effects on U.S. competitiveness, and a limited ability to control all losses because of changed consumer behavior as countries enact carbon caps. The analyses do however suggest policy designs to avoid some competitive effects – particularly those specifically attributable to higher energy prices from cap-and-trade.

Bottom Line

A small percentage of our most energy-intensive industry will be vulnerable to loss of competitive output and profit from higher energy costs of the program – which can be compensated. That compensation could be combined with rewards to encourage greater efficiency – and reduced emissions – in those sectors over time. The firms cannot necessarily be compensated for changed consumer behavior/ reduced demand for their products.

Waxman-Markey’s Manager’s Amendment includes key policies intended to protect and improve competitiveness of the industrial sector. The draft takes a three-part domestic approach while seeking international progress on reducing emissions:

- a) **Compensate energy-intensive, “trade vulnerable” industry in an amount that will prevent “carbon leakage” while rewarding efficiency improvements.** In 2012 and 2013, 2% of distributed allowances will go to trade-vulnerable industry, rising to 15% in 2014, and then declining each year in proportion to emissions targets’ decline. The industrial sector is responsible for 28% of U.S. CO₂ emissions (EIA). A smaller subsector of the industrial sector is considered trade vulnerable.
- b) **Assist industrial facilities with developing greater energy efficiency.** The bill instructs the Department of Energy to further support industrial manufacturing facilities in becoming more efficient but does not describe the level of appropriation required.
- c) **Create an allowance purchase requirement for importers from uncapped countries.** Importers from uncapped countries of “primary products” such as steel and iron will be required to purchase emissions allowances at the border, allowances that will be immediately retired.

The bill requires the United States government to notify uncapped competitors of the intention to establish the international allowance reserve as a part of the international negotiations on a global climate treaty or other set of agreements to reduce global emissions.

Supporting Context

I. Competitiveness: Who May Be Affected?

Analyses to evaluate the potential for these types of competitive losses have shown that a small subset of energy-intensive industry may be vulnerable. A 2007 Nicholas Institute analysis and a recent Pew Center analysis by Joseph Aldy and William Pizer revealed the sectors likely vulnerable to impacts of higher energy prices to be industrial chemicals, paper, iron and steel, aluminum, cement, and bulk glass.

The Nicholas Institute analysis examined which specific firms and factories might have been affected under the most recent Senate cap-and-trade proposal, S. 2191, which covered facilities emitting 10 thousand tons annually of greenhouse gas emissions. Waxman-Markey would cover fewer of those entities, with the cap coverage limited to facilities producing 25K tons of annual emissions – firm-specific analysis has not yet been conducted.

The Pew Center authors note that for these industries, effects are relatively small, with potentially output losses at less than 3%, dependent on energy intensity. Energy intensity is defined as energy costs divided by the value of shipments.

The Pew Center authors note these effects are likely due to both higher energy costs and predicted reduction of consumption as a result of the cap-and-trade legislation, not just the higher energy costs, limiting what policy can do to alleviate those effects.

The authors note these effects do not necessarily portend relocation: other factors can affect firm location, including a) availability of relevant resources (skilled labor, natural resources, capital), b) transportation costs, and c) significant investment in large physical structure and that these factors can outweigh the effects of the costs of environmental regulation (Aldy, Pizer, 2009).

Policy Need and Options

That said, both analyses find some firms and sub-sectors will be more affected than others, and we know a number of those vulnerable firms are likely located in Congressional districts already suffering manufacturing losses. Avoiding these losses where possible would be preferable policy both for local employment and in pursuit of emissions reduction goals.

The range of options put forward by trade experts, economists, and proposed in draft legislation in the House and Senate include:

Domestic:

- Remove affected industry from the program, establish separate performance standards, or regulate them traditionally

- Compensate for compliance costs through free allocation of allowances
- Encourage and reward greater efficiency within affected sectors

International Context

- Tie U.S. reductions to comparable reductions overseas.
- Only enact U.S. reductions if competitors follow suit
- Require border-based allowance purchase for importers
- Enact U.S. regulation but allow an “off-ramp” – the right to reduce or limit the targets should competitors fail to follow suit

(Note: Aldy and Pizer and other analysts note these options could be “blunt instruments” that do not necessarily target vulnerable industry as effectively as more targeted domestic policy. And a level international playing field may still not fully address the issue because of likely reduction in commodities consumption due to higher efficiency of use of materials, or greater uptake of alternative materials.)