

ChinaFAQs

The Network for Climate and Energy Information



Will Climate Legislation in the United States Result in the Transfer of Carbon-Intensive Jobs to China?

Key Points

- For most U.S. industries, carbon costs would not be a significant enough portion of manufacturing costs to cause dislocation and cost-containment mechanisms in legislative proposals could reasonably protect industries that might suffer as a result of climate policy.
- For the most energy-intensive industries in the United States – steel, cement, paper, glass, and chemicals – Chinese imports are a small fraction of total imports, and a smaller fraction of overall demand.
- Unilateral trade measures are unlikely to guard effectively against loss of competitiveness and could raise costs for “downstream” U.S. industries; trade measures are also unlikely to spur climate policy strengthening in other countries such as China.

Policy-makers are asking important questions, often with China in mind, about the implications of U.S. climate change legislation for jobs and trade. Will a domestic cap-and-trade or carbon tax system result in lost American jobs and decreased competitiveness? Would emissions-intensive industries simply relocate overseas to escape regulation – and create just as much pollution as before? And, importantly, can U.S. action impact what developing nations such as China do domestically to fight global warming?

JOB LOSS, COMPETITIVENESS AND GLOBAL WARMING

American manufacturers fear that the imbalances created by aggressive climate policy in the United States could contribute significantly to the “offshore-ing” of jobs and relocation of industry to countries with lower standards and production costs.

For most U.S. sectors, these concerns are limited to manufacturers for whom fossil fuel energy is a large portion of their cost structures and where those industries participate in global markets.ⁱ In industries such as transportation equipment and electronics manufacturing, energy

accounts for less than one percent of total production costs. In fact, industries are more likely to be impacted by fluctuations in currency exchange rates or national differences in tax and transportation costs. Carbon regulation compliance costs are likely to be insignificant to their global competitiveness.

For other sectors, including pulp and paper, chemicals, non-metallic mineral products, ferrous and non-ferrous metals, energy costs can reach 20 percent of total production costs. In the absence of mechanisms to address relative differences in compliance costs, these sectors could face pressure to relocate to nations with less stringent climate change policies.ⁱⁱ

Within these high-energy sectors, however, imports from China make up only a small fraction of the U.S. market. In 4 of the 5 most energy-intensive sectors, less than 10% of imports are from China, and Chinese imports comprise an even smaller fraction of overall U.S. demand for each sector.ⁱⁱⁱ In the handful of manufacturing sub-sectors that produce a lot of CO₂ (e.g., cement, steel, paper), imports from China and other developing countries make up a relatively small share of the U.S. market.^{iv}

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MEASURES TO SAFEGUARD U.S. INDUSTRIES AGAINST JOB LOSS

To negate potential competitiveness impacts, U.S. policymakers have reviewed several options which can be grouped into three categories:

1) Cost containment mechanisms aim to reduce the pressure on carbon-intensive industries by limiting the cost of complying with climate legislation. The most direct methods proposed have sought to use allowance allocations to reimburse exposed sectors for the costs of complying with the legislation.

2) Trade measures do not limit costs on the covered companies but seek to indirectly apply similar costs to competing companies in other countries through the treatment of traded goods at the border. Although this policy mechanism found widespread support in legislation during the 110th Congress, there are significant flaws with this approach.^v

For example, border price adjustments of imports would negatively impact downstream manufacturers such as the automobile industry by increasing costs of raw materials. Furthermore, these policies would do little to protect important export markets, since adjustments would only apply to the U.S. market. Finally, a confrontational approach represented by trade measures may damage important international negotiations to create a multilateral agreement to address climate change by destroying trust and driving developing countries away from the table.^{vi}

3) Coordinated international actions seek to reduce the

pressure on carbon-intensive industries by encouraging major trading partners to impose similar costs or policies. Commonly cited international mechanisms to address competitiveness and leakage concerns include sectoral agreements and the successful negotiation of a global climate agreement under the UNFCCC that would include mandatory action by developing countries. China supports the Bali Action Plan, and its National Climate Change platform foreshadows a possible willingness on China's part to make commitments to regulate specific, heavily polluting industries. Perfect coordination of national actions is unlikely in the immediate future, so the United States is likely to again consider the first two approaches as China phases in its emissions requirements.

Careful application of cost containment mechanisms should enable the domestic policy process to advance in parallel to international negotiations. This combination of domestic mechanisms and international coordination will allow the United States to pursue aggressive mitigation targets without adversely affecting equitable international trade or domestic employment and industry.

HOW CAN CLIMATE CHANGE LEGISLATION IN THE UNITED STATES SPUR FURTHER ACTION IN CHINA?

U.S. policy can help precipitate Chinese action in a number of ways:

1) Drive important technological changes needed for China to make its own reductions. The United States is uniquely positioned to spur research, development and capital investment in low-carbon technologies, such as carbon capture and storage, wind and solar energy, and newer vehicle technologies. By setting strong domestic emission limits, the United States would unleash new creativity and drive down prices for new technologies including renewables, highly efficient long-distance transmission lines and plug-in vehicles.

2) Directly engage with China in promoting ambitious new developments to address China's greatest challenge – how to address CO₂ emissions from coal. This could be achieved by conducting joint research in areas ranging from generation and transmission efficiency to carbon, capture and storage, and helping build China's regulatory and implementation capacity. As the major developed country that faces a similar challenge, the United States is uniquely positioned to play this role.

3) Passage of comprehensive U.S. climate policy. This will motivate those in China who worry about China's global reputation and its ability to achieve technology leadership, as well as encourage the reformist voices in China that are already arguing for increased domestic action and international commitments.

Decisive U.S. leadership and the enactment of climate policy should convince China and the rest of the world that the U.S. is prepared for action and that others have the opportunity to join. Many business and government leaders in both China and the United States agree that those who move decisively on climate policy will be the technology leaders in the new low-carbon economy.

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Notes

ⁱ Houser, T., R. Bradley, B. Childs, J. Werksman, and R. Heilmayer. 2008. *Leveling the Carbon Playing Field: International Competition and US Climate Policy Design*. Washington, DC: Peterson Institute for International Economics/World Resources Institute (WRI).

ⁱⁱ Morgenstern, Richard, et al. *Competitiveness Impacts of Carbon Dioxide Pricing Policies on Manufacturing, Resources for the Future*, Washington DC, 2007. *EU ETS impacts on profitability and trade: A sector by sector analysis*. Carbon Trust, London, 2008.

ⁱⁱⁱ In fact, in 3 out of 5 sectors, less than 4% of the goods are imported from China – the rest come from developed-country trade partners such as Canada as well as American manufacturers. Houser et al. (2008), "Leveling the Carbon Playing Field."

^{iv} Ibid.

^v See, for example, the American Electric Power/International Brotherhood of Electrical Workers proposal as incorporated into S. 3036, Lieberman-Warner Climate Security Act of 2008, 110th Session of the United States Senate.

^{vi} Houser et al. (2008), "Leveling the Carbon Playing Field."

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