The <u>recent news reports</u> about Apple's supply chains raises similar issues about "green supply chains". Modern products, such as a hybrid vehicle or a cell phone or a computer or <u>solar panels and batteries</u>, are complex creatures. In producing such products through a global supply chain, what environmental harm has been created? Do major "good" companies such as Toyota or Apple have the right incentives to seek out input suppliers who take care to try to minimize the environmental harm they cause? Or, do such "ruthless" capitalists seek out the lowest cost input and don't care about the environmental damage caused to produce it? In the case of organic food or <u>free range chickens</u>, the final consumer has a pretty good sense of the production process and thus how guilty to feel about consuming it. In the case of an electric vehicle, I doubt that the final driver wants to see a long product label listing all of the supply chain's pieces and a life cycle analysis of the Pigouvian damage caused in a vicinity of where the production took place but as a research nerd I would like to see this.

An interesting version of the pollution haven hypothesis emerges. If nations couldn't trade with each other, then domestic solar panel buyers would purchase them from domestic producers and these producers would assemble intermediate inputs (produced domestically) into final panels. If the U.S has intense environmental regulation then this would raise input supplier costs and producers would try to pass these costs onto final product buyers. If dirty pieces of the supply chain can be outsourced to nations with lax standards, then international trade will create pollution havens. Since there is no transparency here concerning the supply chain, greens in the United States will have trouble figuring out where this damage is taking place and which U.S companies are causing the problem due to their choices over supply chains. Disentangling these supply chains is a useful detective exercise and will increase corporate accountability!

UPDATE: I am a big fan of California's <u>DTSC Green Chemistry Initiative</u>. As I understand the details, this legislation is focused on informing and protecting California consumers about the products they use and the embodied risks they face. This issue is distinct from protecting workers in other countries who face pollution exposure from producing "green products" that are exported to U.S consumers. For example, the NY Times has focused on the environmental impacts of <u>digging up rare earths</u> that are needed for hybrid vehicles.