

Episode 184. The US-EU fights over electric vehicles and the Inflation Reduction Act

Episode webpage

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Transcript

(lightly edited)









Chad Bown: The Inflation Reduction Act of 2022 caused the Biden administration's biggest trade fight to date. The headline of that fight was America's industrial policy for electric vehicles. The public fight over subsidies for the electric vehicle supply chain has mostly been with the European Union.

But the EU and US have also managed this trade fight differently from those of the past. This time there was no dispute at the World Trade Organization. Neither side has yet to threaten tariffs.

The US and EU tried to work it out on their own. They turned to some incredibly creative policies. It's still early, but for the fight over electric vehicles, the US and EU may have resolved most of their differences. If so, that diplomatic success would be quite remarkable.

Even if the electric vehicles fight is now over, the EU and US have not been able to work out their bigger differences with the Inflation Reduction Act. And some of the things the US did to fix the electric vehicles mess may have created other problems. The US may need to clean up those new problems some other way.



This episode explains what happened to electric vehicles under the Inflation Reduction Act. We report on the latest trade data, how Americans are now leasing a lot more electric vehicles, and we explain why something like leasing suddenly became such an important issue for transatlantic relations and the future of electric vehicle supply chains.

Jessica Caldwell: In March, it was 34 percent, so over one third of all EVs that were purchased were actually leased, and that has been growing through the entire first quarter and even from last year as well.

Chad Bown: Unfortunately, though, the other big challenge that the Inflation Reduction Act created for Europe and for the world has not yet been resolved. That challenge has nothing to do with electric vehicles, and everything to do with America's ongoing policy approach to tackling climate change.

You are listening to an episode of *Trade Talks*, a podcast about the economics of trade and policy. I'm your host, Chad Bown, the Reginald Jones Senior Fellow at the Peterson Institute for International Economics in Washington.

PART 1. THE CLIMATE PROBLEM (2:30)

Chad Bown: The United States is one of the world's largest emitters of carbon dioxide. Carbon dioxide is an incredibly important greenhouse gas that adds to global warming.

Nearly 40 percent of US carbon emissions comes from transportation. The vast majority of transportation is people driving around America in gasoline powered cars and trucks.

American consumers have been slow to convert to electric vehicles, or EVs. As of 2021, only 4.5 percent of new vehicles entering the American market were electric. In China, 16 percent of new vehicles were EVs. In Europe, it was 18 percent.

Here is Kristin Dzizcek, a policy advisor at the Chicago Fed:

Kristin Dziczek: Americans like internal combustion engine vehicles, or ICE vehicles. Partly because we're a really big country, and we like to drive long distances with all of our stuff, and our families, and our hockey gear, and all of that. And gas is relatively cheap in the United



States. To switch to an EV, you need an EV that gives you parity and that gives you the same amount of range to drive. This battery power that can go really long distances is pretty expensive, and we don't yet have a fully robust charging infrastructure in place – it's coming, but it's not there yet.

Americans really have range anxiety about these 300-mile trips they want to take, even though every day they probably only drive about 40-50 miles.

They need some big incentives to switch into EVs, and they need that infrastructure to be there.

Chad Bown: The second big electric vehicle concern for American policymakers had nothing to do with climate change. It was also about jobs.

Kristin Dziczek: The auto industry in the United States is a big and important industry, and it's big and important in a particular geography. There's hundreds of thousands of unionized auto workers who make engines and transmissions and internal combustion engine vehicles and primarily for the Detroit-Three automakers: GM, Ford, and Chrysler (now Stellantis).

And even though there's also a lot of Toyota and Honda and BMW and Daimler and other vehicle makers here, there's still thousands and thousands of people in the supply chain that are tied to ICE vehicles and ICE engines and powertrains. And they're concentrated in a couple of states: Michigan and Ohio in particular, but even Georgia. Those are states that matter both economically and politically.

In this big transition from ICE vehicles to EVs, we might lose some plants and we might lose some jobs, and those jobs may move to companies making EV parts and components and they're probably going to be in some other community.

Chad Bown: Politically, any US legislation on electric vehicles would be worried about jobs as well as climate.

The third big concern for American policymakers involved China. For anyone following trade, this would be no surprise. There was always a China angle.

For the case of EVs, we will come back to the China angle later in the story.



PART 2. THE INFLATION REDUCTION ACT (5:57)

Chad Bown: On July 27, 2022, Washington surprised the world with a major announcement on climate:

Bloomberg (July 27 2022): There is a deal that breaks the long deadlock on major parts of President Biden's economic agenda. Democratic Senator Joe Manchin of West Virginia and Senate Majority Leader Chuck Schumer have agreed on a tax, energy and climate bill.

Chad Bown: The deal between Senator Joe Manchin and Senate Majority Leader Chuck Schumer was the Inflation Reduction Act, or IRA.

With IRA, the Biden administration had reasserted America's commitment to reduce greenhouse gas emissions under the Paris climate agreement. IRA committed hundreds of billions of American taxpayer dollars to produce and consume clean energy – solar, wind, hydrogen, and carbon capture, in addition to electric vehicles. Globally, the initial reaction to IRA was mostly positive.

To better understand Europe's position on IRA, I spoke with Cecilia Malmström. Cecilia is now my colleague here at the Peterson Institute. But from 2014-2019, she had a very different job as the European Union's Trade Commissioner. Cecilia has spent long parts of her career, in Brussels, trying to figure out what Washington's policies mean for Europe and for the world.

Cecilia Malmström: Of course, everybody thought that this is a fantastic thing for the US to do. Europe, as many others, were mourning the day when President Trump withdrew from the Paris Agreement. So doing this – a massive investment in the green transition, green technology, green energy – was something that everybody should welcome, obviously.

Chad Bown: America's re-commitment to fighting climate change was welcomed unequivocally.

Understanding Europe's problems with IRA requires coming to grips with the policy details of how America was choosing to fight the climate change fight, including for electric vehicles.

For electric vehicles, IRA had new forms of consumer tax credits under something called Section 30D. This Section 30D thing will turn out important.



First, Section 30D had a new electric vehicle price cap and a consumer income cap. Congress was trying to limit the tax credit to people for whom a subsidy would really change their buying behavior in a positive direction for carbon emissions.

In the past, a lot of American EV tax credits had been taken up by richer consumers buying luxury models, purchases they would have likely made anyway. The result was not enough climate impact.

The IRA approach was to try to create incentives for car companies to come up with lower-end EV models for the mass market. Get as many people into as many EVs as quickly as possible to reduce those tailpipe emissions.

Second, those Section 30D tax credits would also eventually require that EV battery inputs come from brand new supply chains. The supply chains for the battery inputs did not all need to be in the United States or even North America – some could also come from free trade agreement partners.

Importantly though, the critical minerals and components needed for EV batteries could not come from China. Here is the Biden administration's national security advisor, Jake Sullivan, at a speech in April 2023 explaining why

<u>Biden administration National Security Advisor, Jake Sullivan</u> (April 27, 2023): More than 80 percent of critical minerals are processed by one country, China. Clean-energy supply chains are at risk of being weaponized in the same way as oil in the 1970s, or natural gas in Europe in 2022. So through the investments in the Inflation Reduction Act and Bipartisan Infrastructure Law, we're taking action.

Chad Bown: The third important part of Section 30D required the electric vehicle to be assembled in North America. This local content requirement to get the American subsidy was Europe's first major problem with IRA. Here's Cecilia:

Cecilia Malmström: The first reaction was on the electric vehicles where we found out that there were actually some very discriminatory elements on local content. The notion of local content is something we have discussed with our American partners before, and we were criticizing China and other countries for doing this. Then realizing that the European cars would not be eligible for these tax reductions or credits – that was a bit concerning.



Chad Bown: Once IRA became law in August, a Volkswagen or BMW or Volvo assembled in Germany or Belgium or Sweden was no longer eligible for a US electric vehicle tax credit. Subsidies could be available if the European brand's car was assembled in Tennessee or South Carolina or somewhere else in North America, but imports from Europe would no longer get the subsidy.

The European Union was not the first to complain about this feature of IRA. The South Korean trade minister, Dukgeun Ahn, deserves credit for that. By early September, Minister Ahn was already in Washington demanding face-to-face meetings with the Biden administration.

But Europe was a close second. And its complaints were loudest. Some European officials wanted a WTO dispute and potential retaliatory tariffs against US exports. Others threatened a subsidy war.

In an interview with the *Financial Times* in November, Biden's US Trade Representative, Katherine Tai, suggested that maybe the EU should introduce subsidies of its own.¹

This is an important issue – and why it is not that easy for Europe or other countries to do subsidies is a critical part of the story that we will return to shortly.

Europe's anger peaked perhaps in early December 2022, in the run up to the state visit of French President Emmanuel Macron. Macron warned that subsidies in IRA risked fragmenting the west.

PART 3. AMERICA'S POLICY RESPONSE TO EUROPE'S COMPLAINTS (12:27)

Chad Bown: With French President Macron now at his side, on December 1, President Joe Biden admitted the United States had made errors when drafting IRA in haste the previous summer. More importantly, Biden promised that his administration would do something about the concerns raised by Europe and its other allies

<u>President Joe Biden</u> (December 1, 2022): There are occasions when you write a massive piece of legislation — and that has almost \$368 billion for the largest investment in climate change in all

¹ https://www.ft.com/content/0e52d609-5cfe-453c-9baf-b33b66e941e9



of history. And so, there's obviously going to be glitches in it and need to reconcile changes in it. For example, there's a provision in it that says that there is the exception for anyone who has a free trade agreement with us. Well, that was added by a member of the United States Congress who acknowledges that he just meant allies; he didn't mean, literally, free trade agreement.

So, there's tweaks that we can make that can fundamentally make it easier for European countries to participate and/or be on their own. There is no fundamental — it was never intended, when I wrote the legislation — I never intended to exclude folks who were cooperating with us. That was not the intention.

Chad Bown: The Biden administration quickly got to work making those tweaks.

Now, it could not change the law on its own. Changing the law would require Congress, half of which was now controlled by Republicans following the November 2022 midterm elections.

But the way the US process works is, after Congress writes a law, the administration is then charged with coming up with the practical details of how to make that law work. These are called the implementing regulations. It was through those implementing regulations that the administration would make those tweaks that were now demanded by the US President.

The first tweak arrived on December 29. The Treasury Department made an announcement on electric vehicle leasing. This was huge.

Chad Bown: In IRA, there is a completely separate Section 45W for EVs to deal with Commercial vehicles. Commercial vehicles are for businesses. Think big trucks – like 18 wheelers you might see on the highway – or small delivery trucks, like for UPS or FedEx or those vans that deliver Amazon packages. But Section 45W also makes reference to vehicles weighing less than 14,000 pounds – which all of these consumer electric vehicles do.

And on December 29, Treasury said to everyone, including to people like you and me, "Hey, Americans, if you want to lease an electric vehicle, even a small one like a car, the leasing company can use this other Section 45W part of IRA to get a tax credit."

The implication was that if you lease an electric vehicle, you can ignore that other part of IRA – the Section 30D part that Europe and everyone else was so mad about. The Section 30D part is the one that says only electric vehicles assembled in North America, and not Germany or Belgium or Sweden or South Korea, can get the tax credit.



We'll come back to this later in the story, but Treasury's announcement of December 29 turns out to be a pretty big deal — a pretty big deal but the Biden administration also announced it quietly, during the week between Christmas and New Year's. Everyone was on vacation. Aside from the automakers, no one was really paying attention.

Chad Bown: Over the next few months, the Biden administration did a couple of other important things on IRA and electric vehicles.

The law had also charged Treasury with defining what it meant for a country to be part of a free trade agreement, or FTA. Again, this was important because the critical minerals of the EV battery need to come from an FTA partner country to qualify for a big part of that tax credit under Section 30D, even if that vehicle is already being assembled in North America.

Now, you might think that this FTA thing was obvious. Ask any trade nerd, and they will tell you that there are 20 countries with which the United States has a Congressionally ratified FTA. It's twenty countries – full stop.

But technically it is also true that a "free trade agreement" was not defined anywhere in IRA.

And remember, this is where President Biden said that Congress had messed up when drafting IRA and it had not literally meant FTA partner but what it really meant was America's allies. The President was almost surely making reference to Senator Joe Manchin, and Manchin himself later admitted that "I did not realize the European Union is not a free trade agreement [country]." "I gotta be honest with you. I should have paused and said 'OK, I'm going to make sure our NATO allies are involved in this'" – this, meaning part of the supply chains for EVs in IRA.

On March 31, Treasury came up with a definition for a free trade agreement country. In addition to the 20 partners with which the United States had a Congressionally ratified agreement, others could become free trade agreement countries if they would meet four characteristics. Countries would need to

- (1) reduce or eliminate trade barriers on a preferential basis,
- (2) commit to not imposing new trade barriers,
- (3) establish high standards for labor and environment, and



(4) not use export restrictions.

The key point is that – becoming a free trade agreement partner for the sake of Section 30D had become a policy tool to offer something to key allied trading partners, like the European Union.

European Commission President Ursula van der Leyen visited the White House in March. Here she is with President Biden in the Oval Office

<u>European Commission President Ursula van der Leyen</u> (March 10, 2023): Today, I think we will also discuss the Inflation Reduction Act, and I think it's great that there is such a massive investment in wind and clean technologies now. Indeed, we want to match it with the Green Deal Industrial Plan. So, plenty of topics — topics to discuss together.

Chad Bown: By the end of that day, one of the topics the EU and US had discussed together was to launch negotiations for a critical minerals trade agreement. The EU was trying to become a free trade agreement country for the sake of IRA's Section 30D.

Japan soon thereafter signed a critical minerals agreement with the United States. The UK, Indonesia, and Philippines all immediately said they want one too. More requests may also be on the way.

But then things slowed down. We're now not sure when the EU or any of these other countries may sign deals on critical minerals to get access to Section 30D. In part, that is because Congress started to push back against the Biden administration – with claims of Executive branch overreach – for not consulting before they when out to negotiate these deals on critical minerals. As of today, only the deal with Japan has been agreed.

It's possible that there may also now be less pressure to do these agreements. Maybe to trading partners these critical mineral deals won't matter that much after all. In part, that goes back to the December announcement on leasing.



PART 4: THE IMPACT OF IRA AND ITS IMPLEMENTING REGULATIONS ON ELECTRIC VEHICLES IMPORTS AND LEASING (20:27)

Chad Bown: It is still very early days. IRA's impact on electric vehicle production, trade and supply chains will take years to play out. Firms are still in the process of now making their long term investments. And they still face some uncertainty because not all of IRA's rules have been written. And, of course, trading partners have also not yet responded – they may offer new subsidies of their own. But in the six months following IRA's implementation, this is what we know from the data so far.

First, IRA has not cut off European exports of EVs to the United States. If that North American assembly criterion was affecting consumers, we would expect to see a decline in trade flows after the August 2022 implementation of IRA. But we don't.

US imports of electric vehicles from the EU grew considerably in the fourth quarter 2022, even after IRA went into force. And it's not just Europe – imports from South Korea were strong too.

Here's Kristin Dzizcek

Kristin Dzizcek: It looks like it could be a puzzle, but it's really not. First, you have Americans really taking to EVs, and EV market share was increasing. There's a lot more EVs coming to market – both new models and existing models that automakers could finally get all the parts to produce as the supply chain disruptions began to ease.

There's this improved infrastructure. There's the commitment to building more charging stations, and consumers are getting over some of that range anxiety that might make them more willing to switch to an EV.

And then there's the fact that there were really very few EVs in the market that qualified for the \$7,500 credit. According to data from Wards, at the end of December, only ten EVs qualified for the EV tax credit. There's just not a lot of choice. Imports were not really at a disadvantage when there's very few vehicles that could get the full \$7,500 credit.

Americans continued to buy imports that didn't get the credit because there just weren't a lot of options.



Chad Bown: That may explain the surprising results of big US imports from Europe and Korea in September, October, November, and December 2022.

But by January of 2023, there was another reason why US imports from Europe and Korea could keep growing: Leasing.

Remember that surprise Treasury announcement of December 29?

Suddenly, as of January, a leased EV could also qualify for a tax credit, even if it were not assembled in North America. Leased vehicles fell into that different track of IRA – the one called Section 45W.

To figure out what has happened since December 2022, we called Jessica Caldwell. Jessica is the Executive Director of Insights at Edmunds. Edmunds is a company of car industry analysts and experts. For Edmunds, Jessica tracks leasing data.

Jessica Caldwell: We've looked at the leasing rates for EVs in March and they were at 34 percent. So that means over one third of all EVs were leased in the month. And that's up significantly from just a few months ago. And even last fall when the EV leasing rates were about 7-8 percent. So if we jumped from 7-8 percent to 34 percent, that's a lot more EV owners that are leasing their vehicles.

Chad Bown: I could not believe my ears, so I asked Jessica to send me the data. For the entire month of December 2022, before the announcement, American electric vehicle lease rates were only 9.7 percent. After the announcement, lease rates jumped to 16 percent in January, 25 percent in February, and 34 percent in March, like Jessica said. With that new tax credit, American consumers were suddenly leasing EVs in larger and larger numbers.

Is this increase in electric vehicle lease rates likely to continue, especially for foreign-manufactured EVs, from, say, Europe?

Jessica Caldwell: Moving forward you are going to see higher lease rates from some of the foreign automakers, the ones that are not assembled here because they're going to push those products. They're going to push the leasing onto their consumers. They know that those consumers can get the tax credit and that, of course, is attractive to anybody who is leasing a vehicle.



Chad Bown: What Jessica is saying here is really important.

This leasing arrangement may have solved the European Union's main EV problem with IRA. Companies like Volkswagen, Fiat, and Volvo can all export EVs made in Europe after all – the vehicles don't need to be assembled in North America to get a subsidy. The company just needs to make sure the vehicle is leased.

But the Treasury leasing decision has deeper implications. Remember the vehicle price cap and consumer income cap in IRA?

That leasing decision also opened up the tax credit to high-income people getting expensive cars. This was incredibly valuable for Europe, as it would include EVs from BMW, Mercedes, and Porsche. Those luxury transactions were not eligible for tax credits under Section 30D of the Inflation Reduction Act.

Jessica Caldwell: As we move forward we should see a higher lease rate for these more expensive EVs, especially since those owners are people that aren't going to really qualify for the Inflation Reduction Act [Section 30D] just because of their income. If you're a married couple, you have to make under \$300,000, and if you are buying a \$100,000 EV that's probably not the best financial decision.

Chad Bown: For European makers of luxury EVs, the December 29 leasing decision was even better than if Congress had reformed IRA by stripping out the North American assembly requirement under Section 30D. That would not have helped them.

As my last question for Jessica, I wanted to check one other thing. Maybe this massive increase in leasing take-up for EVs – from 7-8 percent in the fall of 2022 to now 34 percent in March – had nothing to do with the Treasury announcement of December. Maybe the leasing increase was just an industry wide trend that was affecting internal combustion engine vehicles as well.

Are we seeing the same increase in lease rates for those ICE vehicles?

Jessica Caldwell: The lease rate for internal combustion engines has gone up a little bit, not to the same degree as EVs. If we look at March 2023, the lease penetration rate for ICE vehicles is about 20 percent, and if we look at last fall, it's about 17-18 percent. So not necessarily a ton of growth there.



Chad Bown: Putting all this together, the "tweak" that Treasury made to accommodate electric vehicle supply chain concerns of the European Union, and others like South Korea, may have fixed their biggest worries. It may have resolved those potential disputes.

That being said, if American consumers all decide to lease EVs, this creates other problems.

If there is no incentive for consumers to buy an EV, consumers do not need to use that other, Section 30D, tax credit. Jessica told us about one effect already – tax credits were no longer limited to lower-income households buying mass-market EVs. Remember, Congress wanted to create incentives for car companies to scale up production of cheaper, smaller models for that market segment to get the overall EV volume numbers up to fight climate change. The leasing tweak weakens that goal.

But second, the other important requirement was the one that was supposed to incentivize the battery supply chain to move out of China. The sourcing requirement that was making all of these countries scramble to become this new form of "free trade agreement" partner to then sign up for a critical mineral agreement – the ability to lease dulls the incentive for countries to do that as well.

There is no longer an extra benefit of the US tax credit to do so. Because if a company leases a vehicle to its customers, where the inputs for the batteries come from doesn't matter. The company still get the tax credit.

Now, maybe companies will make these supply chain investments out of China anyway. Maybe the companies too now fear that China will impose export restrictions on battery inputs, like China has done in the past on things like rare earths. Such export restrictions would hurt the competitiveness of companies making EVs outside of China. Again, this was Jake Sullivan's fear that clean-energy supply chains would become weaponized.

But at the moment, if it is so much cheaper for a company to just keep getting these critical minerals from China, these companies may need to be offered a policy incentive that is something like the battery input sourcing requirements in Section 30D.

The implication is that this issue of China's supply chain dominance for battery inputs is far from over. The impact of that leasing decision on supply chains is yet one more reason to watch this space.



PART 5: WHAT HAS NOT BEEN FIXED WITH IRA AND WHY THE EU MAY REMAIN UPSET (30:01)

Chad Bown: The US-EU fight over IRA has been incredibly complicated. Through these Treasury regulations over electric vehicles, IRA's details were often shifting. But there was also something more than that. Too often, Washington and Brussels seemed to be talking past each other. They were not really hearing the other side's biggest concerns.

The remainder of this episode is an attempt to clarify some of those big concerns. Let's start with the EU's worries, in part because Washington really struggled to understand the European response to IRA. Was this really just about European electric vehicle companies? Put differently, if Treasury's implementing regulations on leasing and free trade agreements fix the EV problem, why aren't the EU's concerns about IRA now over?

To help me explain the European perspective, I wanted to once again bring in my colleague, former EU Trade Commissioner, Cecilia Malmström.

Cecilia, if we go back to last fall, why was the EU so surprised by IRA?

Cecilia Malmström: We'd heard rumors about something being discussed, but it came so quickly and there was a surprise that, "Why didn't you check with us? Why didn't you give us a prior notice or something?"

And a bit of a surprise because the US position has always been that subsidies are not a good thing. And I remember sitting with the USTR, Ambassador Robert Lighthizer, and the Japanese trade minister trying to see if we could write text on how to limit subsidies in a WTO context, and we were looking at China there. So this was a bit of a shift, I think.

Chad Bown: With these massive subsidies, this was a major policy shift by the United States. For decades, and most recently as part of a group with the EU and Japan, the American policy position had been to try to come up with rules that would limit global subsidies. IRA's subsidies was a big change that caught European policymakers off guard.

Second, Europe found out about IRA just like everyone else. Even though it was going to be affected economically, the EU hadn't been part of the policymaking process.

Europe had been hoping that it was special. The European Commission had put in a lot of effort to set up the Trade and Technology Council with the Biden administration back in 2021. The



TTC was supposed to allow the two partners to work through these sorts of policy differences ahead of time, before the policies went public, to avoid disputes. This time, the TTC had failed.

Now, one problem with the design of the TTC is that it did not include Congress. The US Trade Representative, Secretary of Commerce, and Secretary of State are Washington's delegates to the TTC. Omitting Congress turned out important when the United States needed to do industrial policy through legislation written by people like Senator Joe Manchin. So one improvement would be to somehow bring Congress into the TTC.

Chad Bown: But those institutional concerns also probably weren't Europe's biggest worry, at least politically.

Cecilia, by late last fall, the political reaction in Europe to IRA had turned really negative. This was even during a period of incredible transatlantic solidarity against Russia's war on Ukraine. Yet, French President Macron said IRA risked fragmenting the west. Why?

Cecilia Malmström: I don't think anybody really thinks that the IRA was done on purpose to hurt Europe. This was like collateral damage. This was to promote US jobs, the US transition, US new energy and to comply with most of the climate obligations that the US have signed up to, again, which is very welcome I want to repeat that. But then we found ourselves, we, but also Japan, Korea, Australia, many other countries found out, oh, actually this is at our expense.

That's why we have been engaging, and that came a bit late with the US to see how can we fix this because we don't want to stop the US doing this, but we just want to make sure that is not done in a way that we are put against each other because we need the green transition and we need cheaper green technology.

Chad Bown: What do you mean that the IRA subsidies are putting us against each other and are potentially coming at Europe's expense?

Cecilia Malmström: There has been a lot of attention and worries that European companies would be dragged over to the US to make investments there instead of planned investments in Europe. Some companies have openly said that they will, and they have taken those grants or tax credits or, or what have you and they said "well, we will not do that investment in Poland or in Spain we would rather do it in this or this state of the US."



Chad Bown: Once you begin offering subsidies, companies start playing governments off one another to try to get more.

Now, those Treasury regulations seem to have been written in a way that may stop that from happening when it comes to electric vehicles. But even those regulations have done nothing when it comes to all of the other parts of IRA that we have not yet discussed.

IRA is also giving massive subsidies, in the form of production tax credits, not only for batteries, but also for other forms of clean energy – like solar, wind, green hydrogen, as well as carbon capture.

US officials like Katherine Tai have suggested that maybe you – the European Union, the folks in Brussels that USTR negotiates trade policy with – maybe you should do the same thing and subsidize. Why doesn't Brussels just subsidize too?

Cecilia Malmström: Yes! But also, no!

We have in the European Union an internal market with 27 countries. And we have traditionally, in the European Union, quite rigid rules on subsidies and state aid to prevent big countries and economies like Germany and France to go all the way at the expense of others. And if some of the countries, the big economies, start subsidizing massively their industries at the expense of smaller countries – e.g., Denmark, Slovenia, Portugal – who do not have as deep pockets, this will create imbalances on the internal market, where we compete against each other in a way that could ultimately threaten the whole construction [of the EU].

If we were to do what the US administration said, "Why don't you go on and subsidize on your own?," if we were totally go on that track, then it could have those consequences.

Chad Bown: When European officials tell their counterparts in Washington that subsidizing is not that easy, they are right.

One big difference between the two is that Brussels does not have a big pot of money to spend on subsidies. Historically, the European Union has not really collected a lot of tax revenue. It cannot then simply start doling out subsidies across member states in a way that is fair.

If Europe does subsidize it may end up being the EU member states, and not Brussels, that do the subsidizing. And the entire construct of the European Union is built on rules to stop



member states from subsidizing, because when they do they tend favor their own industries. And this then pits big rich countries – like Germany or France – against smaller countries like Portugal or Slovenia.

Asking Brussels to start subsidizing threatened Europe's internal balance, its single market, and could open a pandora's box politically within the European Union.

But the subsidy issue was also about more than just European politics and institutions. The US approach of subsidizing clean energy through IRA was now in direct conflict with Europe's own approach to the climate crisis, which was to tax dirty energy by putting a price on carbon emissions.

Cecilia Malmström: We have chosen different approaches. The European Union has its own strategy to tax carbon, that will enter into force in a couple of years. And then we have a system of emission trading.

Chad Bown: The US approach of subsidizing clean energy creates problems for Europe's own climate policy to meet its Paris agreement commitments.

This argument is separate from the concern that Cecilia mentioned that Europe's clean energy companies were ditching proposed programs in Poland or Spain and doing their clean energy projects in the United States with American subsidies.

This problem involves the downstream industries that use energy intensively – examples would be chemicals, fertilizer, steel, aluminum or cement. IRA's subsidies create competitiveness concerns for those European industries.

Europe's climate approach was to tax carbon, allow for emissions trading, phase out free allowances for polluting industries, and maybe implement a carbon border adjustment mechanism to deal with the leakage problem.

Putting a price on carbon emissions tackles the climate externality problem directly at its source. Attacking the pollution problem so efficiently is why economists like that policy so much. But the result of taxing carbon is to raise energy prices. The US subsidy approach is less efficient. It is going to require the United States to raise tax revenue elsewhere to pay for it.

And a byproduct of those US subsidies is that it will lower the price of energy in America.



Now, for Europeans worried about industrial competitiveness, that seems a bit unfair. Energy-intensive industries wondering where to make their next investment may now look to the United States. And this is coming at a time when European energy prices were already high for a separate reason – Russia's weaponization of energy supplies alongside the war in Ukraine.

So why doesn't the United States just tax carbon too? The main argument seems to be that a carbon tax is just too hard politically for Americans to handle, "Sorry Europe, and maybe we'll get to a carbon tax someday, but not right now."

The point is that this competitiveness issue resulting from the different US and EU approaches to climate policy is a huge, huge challenge that has not been resolved with the tweaks to IRA. It is not going to go away anytime soon.

PART 6. WHAT THE EU SEEMS TO HAVE OMITTED (41:01)

Chad Bown: To conclude this episode, I wanted to point out three additional economic facts about electric vehicles and the European Union.

The first fact involves the European Union's import market for EVs. The EU is importing a lot of electric vehicles. It is even probably importing a lot of Teslas, an American headquartered company. But Europe is not really importing electric vehicles from the United States anymore. Over the last year, Europe imported only \$500 million of EVs from the United States. This was about one tenth of the amount of EVs the US was exporting to Europe less than two years ago.

Why did those American EV exports disappear? Over the last year, Europe imported about \$8 billion of EVs from China. American brands like Tesla, and European brands like Volkswagen and MG, have all offshored some production to China in order to ship to Europe.

Second, the EU and US have very different import tariffs on EVs toward each other and toward third countries. The EU has a 10 percent tariff on EV imports from the United States. The EU also has free trade agreements with major EV manufacturers like South Korea and Japan – countries that get a big European tariff preferences relative to what US manufacturers get.

In the United States, the US has only a 2.5 percent tariff on EV imports from Europe. Its tariff preference for its FTA partners, like South Korea, is tiny. And Europe's other major competitor



in the US market – China – faces an additional 25 percent US tariff that remains in place because of the trade war.

For Europe's EV automakers, it is almost like they are getting a tariff preference in the US market. For US automakers trying to sell to Europe, it is almost the opposite. Again, over the last year, the United States imported nearly \$6 billion of EVs from Europe. Despite IRA, US imports from Europe have grown a lot.

Third, my last, economist point is in response to the proposals by some European officials to impose their own IRA-like local content production subsidies.

De facto, the EU has a local content subsidy for electric vehicles already in place. This is nerdy economics, so hear me out.

Again, the EU's MFN import tariff on EVs is 10 percent. Economically, an import tariff is equivalent to the combination of two domestic policies – a consumption tax and a local production subsidy.

What this means is that, overnight, if the EU replaced its 10 percent import tariff on EVs with a 10 percent consumption tax and a 10 percent production subsidy, no one would notice. The effects of these policies on economic incentives are equivalent.

The implication is that the EU actually has the equivalent of a discriminatory production subsidy for EVs already in place at a rate of 10 percent. For an electric vehicle priced at €75,000, 10 percent of that is €7,500. This €7,500 is roughly the maximum amount of IRA's discriminatory local content provisions in Section 30D that went into effect on August 16 that Europe got so mad about.

The point here is not to absolve the problems with IRA. It is mainly to highlight some facts about the economic policies that create the incentives that drive company decisions and the formation of their supply chains.

Europe already has an economically equivalent local content subsidy in place for electric vehicles through its tariff policy, and it currently has an incredibly discriminatory trade policy through its free trade agreements.



If this were all about climate policy, or even transatlantic EV supply chains, there are things that Europe could do about that.

Anyway.

GOODBYE FOR NOW

Chad Bown: And that is all for Trade Talks.

A huge thanks to my Peterson Institute colleague Cecilia Malmström, to Kristin Dziczek at the Chicago Fed, and to Jessica Caldwell at Edmunds.

If you want to see the all of the most recent trade and leasing data on electric vehicles that mentioned in this episode, do check out my new paper titled "Industrial policy for electric vehicle supply chains and the US-EU fight over the Inflation Reduction Act." I will post a link to the paper on the episode page of the *Trade Talks* website.

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<insert super funny double underscore joke here>.

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Chad P. Bown. Forthcoming. <u>Industrial policy for electric vehicle supply chains and the US-EU fight over the Inflation Reduction Act</u>. In Simone Tagliapietra and Reinhilde Veugelers (eds.) *Driving Europe's green industrial revolution: An innovative industrial policy for net-zero, growth and resilience*. Brussels, Belgium: Bruegel.