

The Climate Show Episode 21

[episode 21 harilaos.mp3](#)

Transcript

00:00:04 Linnéa Nordlander

Hi and welcome to the Climate Show, a podcast that explores the law and politics of climate change. This podcast is brought to you by the University of Copenhagen.

00:00:16 Beatriz Martinez

Hi, we are Beatriz Martinez, Linnea Nordlander and Alessandro Monti. And we are your host at the climate show.

00:00:25 Beatriz Martinez

In today's episode, we are exploring the challenges of developing a market based measure to address greenhouse gas emissions from shipping, a process that is currently under discussing at the International Maritime Organization.

00:00:37 Linnéa Nordlander

One of the key elements for this is putting a price on greenhouse gas emissions. The main options on the table for this are a fuel levy or some kind of an allowance quota.

00:00:49 Alessandro Monti

So far, only the European Union has managed to set up a measure like this by including shipping into its own emissions trading scheme. The measure has been enforced only since the beginning of 2024. So it remains to be seen how this will work in practice.

00:01:04 Beatriz Martinez

At our Research Center CLIMA, we have a team of legal scholars working on the climate impacts of land and transport emissions. This is done through the project Interact international lawmaking actors in shipping and climate change, which is supported by the Cultural Foundation for today's episode. We have invited Harilaos Psafaris Professor of naval Architecture and marine engineering, to share his insights on designing market based measures to curb greenhouse gas emissions from shipping.

00:01:34 Viktor Weber

Welcome to the climate show. Today we have with us Harilaos Psaraftis. Harilaos is a professor in the management department at the Danish Technical University. Over his career, Harilaos has been principal investigator and Co investigator in about 50 scientific projects. Apart from the technical aspects of shipping.

00:01:54 Viktor Weber

He is also interested in the environmental and business aspects of sea transport. He has been a member and chairman of various groups at the International Maritime Organization and he has also served as a CEO of the Piraeus Port Authority for six years.

00:02:11 Viktor Weber

Thank you very much for accepting our invitation for the Climate Breakfast seminar this morning here at the Faculty of Law, and for this interview in your research, you have extensively examined the role of market based measures in the decarbonization of the shipping industry. The question is important because shipping contributes.

00:02:30 Viktor Weber

About 3% to the global greenhouse gas emissions. However, it is also a hard to abide sector and specific policy measures are necessary to incentivize investment in low and 0 emission technologies.

00:02:45 Viktor Weber

Last summer, the International Maritime Organization revised its strategy to tackle greenhouse gas emissions from shipping. The new strategy is expected to lead to the adoption of technical and market based measures. So my first question is the discussion at the International Maritime Organization.

00:03:05 Viktor Weber

About the introduction of market based measures as highly political and complex, what are the different options on the table and which one would be the most effective for reducing shipping emissions? Could you explain how a fuel levy and emission allowances differ?

00:03:22 Harilaos Psaraftis

Yes. Well, first of all, I'd like to thank you for inviting me this podcast. So as you said, the there is a discussion right now at the International Maritime Organization on actually on the basket of measures and the part of the basket is the so-called market.

These measures are also known as economic measures.

00:03:46 Harilaos Psaraftis

So what are these measures? They try to apply, what we call the polluters, polluter pays principle. So if you pollute, you emit you, do you have to pay? So they're trying to, as we say, internalize the external course of greenhouse gas emissions, and there are several forms of market based measures. Perhaps the most the two most important measures are the levy. As you said, the fuel levy or carbon.

00:04:18 Harilaos Psaraftis

The and the emissions allowances or the so-called emissions trading system.

00:04:26 Harilaos Psaraftis

How does how do they work for the levy you put, you impose an additional cost on the fuel price. You put a tax, for example, they call them. They may call it the tax, or they may call it the levy or like may call it the contribution. But in every case, it is an additional price. That whoever pays for the fuel will have to pay or alternatively you can put the price on carbon emissions so you emit CO₂, and you can you are asked to pay a certain fixed amount on a per ton of CO₂ basis.

00:05:10 Harilaos Psaraftis

What the what would be the effect? The rationale for levy is that it can affect the behavior of the user and in this case the ship owner. So, for example, if you put the tax on fuel the ship or will have an incentive to go slower so that he cannot. He does not pay that much in terms of fuel costs. Uh, by going slower, the emissions are reduced. So that's one way of doing it on a longer-term basis, the ship owner will have an incentive to purchase a ship that is more energy efficient, so that he doesn't have to pay so much in on carbon price or the level.

00:06:07 Harilaos Psaraftis

Also, alternatively, he may have an incentive to invest in alternative 0 carbon fuels that would do not emit CO₂ or do not emit carbon, so that's the basic principle for a levy. The other major kind of market-based measures the emissions trading system or the emission alliances. It also has a price, but the price in this emissions allowances is determined by the market.

00:06:42 Harilaos Psaraftis

What is the characteristic of this of these emission allowances are that you put an overall cap.

00:06:50 Harilaos Psaraftis

On global CO2 emissions, say, for example, 8 million tons of CO2 per year and you sell allowances only within that cap. So, you cannot sell more than 800 million tons of CO2 of allowances, you sell the allowances and the prevailing carbon price. So, by doing this, you reduce emissions.

00:07:11 Harilaos Psaraftis

You can gradually reduce this global gap with 800 million this year to 600 million, 500 million.

00:07:21 Harilaos Psaraftis

Until you reach an acceptable level of CO2 emission, so they are kind of.

00:07:27 Harilaos Psaraftis

Mirror image of each other these two measures, but they are they are distinct. They are distinct measures.

00:07:34 Viktor Weber

Thank you very much for this. This is very clear. So how is the support for these measures divided at the IMO? Are there opposing arguments reflecting different political interests?

00:07:48 Harilaos Psaraftis

Yes. So, there are many delegations which support the levy.

00:07:54 Harilaos Psaraftis

Or a form of a levy, because there might be variants. For example, these countries are known as small island developing states.

00:08:04 Harilaos Psaraftis

Seeds, for example, martial laws on Solomon Islands, some islands of the Pacific like Tonga, Tuvalu They are. It's interesting. They are one of the biggest.

00:08:18 Harilaos Psaraftis

Proponents of the of the levy of a carbon levy.

00:08:21 Harilaos Psaraftis

We have suggested something like \$150.00 per tonne of CO2.

00:08:27 Harilaos Psaraftis

For starters, you have to multiply this by three or convert it on a per ton of fuel basis.

00:08:33 Harilaos Psaraftis

Then you have some shipping associations, like the International Chamber of Shipping also came.

00:08:41 Harilaos Psaraftis

Which is an observable organization of the IMO, has also come out favoring the levy. The EU 27 plus the European Commission, have proposed the levy in combination with the fuel standard

00:08:57 Harilaos Psaraftis

That Japan has proposed a form of a levy, which they call Feebate, says that you have a levy and some of the money that you collect from the levy, you channel back through ships

00:09:10 Harilaos Psaraftis

That are using low carbon fuels, so you have you have several delegations supporting the levy in, in, in, in principle

00:09:25 Harilaos Psaraftis

And then now the other side, the ETS, the emissions trading system at this point the IT I think it's only in Norway which is in favor of eight years in the past discussion at the other mode there was also some other countries like France and Germany and the UK.

00:09:44 Harilaos Psaraftis

And right now, there's only Norway, that is in favor of the emissions trading system. And then there are other countries that are opposed to economic measures. There are several countries like.

00:10:00 Harilaos Psaraftis

For example, China, India, Brazil, Argentina, some other countries that have the concern that.

00:10:09 Harilaos Psaraftis

Economic measures either levy or ETS may have negative impacts on their economy.

00:10:18 Harilaos Psaraftis

And also, the United States at this point is kind of neutral in the sense that they do not.

00:10:25 Harilaos Psaraftis

Favor and economic measure, at least for the time being. I mean, they are very proactive for decarbonization, but they are not supporting an economic measure. So there's a kind of fragmented field at this point that.

00:10:41 Viktor Weber

I see. Thank you very much.

00:10:44 Viktor Weber

Important issue in all international climate regulation is differentiation in favor of developing countries. Is a differentiated regime for shipping possible and if so, how should it be implemented? For example, could selling trades from certain countries enjoying some easements be the answer?

00:11:04 Harilaos Psaraftis

Yeah, it's a, it's a. It's an interesting question. So you could conceivably examine a scenario where trade given from some countries is not subject to a levy or it is subject to a lower levy or there is some kind of exemption.

00:11:24 Harilaos Psaraftis

Uh.

00:11:26 Harilaos Psaraftis

They in my opinion.

00:11:32 Harilaos Psaraftis

Exemptions should be avoided in the sense that they may create.

00:11:37 Harilaos Psaraftis

Side effects. For example, if they didn't exemption on trade to a certain Pacific island, for example.

00:11:48 Harilaos Psaraftis

You may see a reconfiguration of trade flows towards that country so that they avoid paying into the into the into the scheme. So in my opinion, of course.

00:12:05 Harilaos Psaraftis

You have to address the concerns of countries that they may be impacted negatively by market based measure in terms of you know what happens to the money that is collected. But I think that would be preferable than having exemptions.

00:12:24 Harilaos Psaraftis

Because the exemptions may create may create distortions.

00:12:30 Harilaos Psaraftis

I haven't heard the IMO discussion right now.

00:12:36 Harilaos Psaraftis

You know, argument that there should be exemption but.

00:12:40 Harilaos Psaraftis

But you don't know. I mean there, there, there will be. There will be an impact assessment.

00:12:47 Harilaos Psaraftis

Soon and the.

00:12:50 Harilaos Psaraftis

That might be examined, but I'm not sure in, in my opinion, is not a particularly good idea to have a general.

00:13:00 Viktor Weber

I see. And this brings me to the following question. Of course, being shipping is a global business with different actors involved, and it is interesting to understand the effectiveness of a given measure. In particular, my question is, is there a risk that ship owners or charters complying with market based

00:13:20 Viktor Weber

measures just pass the cost down the value chain, and the emissions do not decrease significantly.

00:13:28 Harilaos Psaraftis

Yes, it's a, it's.

00:13:29 Harilaos Psaraftis

A valid it's a valid point. I'm sure the ship owners or other stakeholders will take action so that they are not.

00:13:39 Harilaos Psaraftis

Penalized themselves so ultimately this the final user who will be asked to pay the big question is what would be the impact of any such measure on the?

00:13:52 Harilaos Psaraftis

The prices of the products that are traded and I'm talking both the export prices and the import prices and of course.

00:14:04 Harilaos Psaraftis

The impact will depend on the elasticities of imports and exports and all that. That will be determined by the comprehensive impact assessment that will be undertaking.

00:14:16 Harilaos Psaraftis

Any context of the IMO process.

00:14:20 Harilaos Psaraftis

But I'm and also the chance that the ship owners may add the surcharge.

00:14:31 Harilaos Psaraftis

On the freight rates to account for.

00:14:37 Harilaos Psaraftis

Market based measures and economic measures. So at the end I think the, it is the consumer that who has to pay the question is what would be the impact I mean what would be the percentage increase for example you get.

00:14:56 Harilaos Psaraftis

You know I.

00:14:58 Harilaos Psaraftis

iPad from, you know, China or whatever, how much more expensive is this going to be because of because of this?

00:15:07 Harilaos Psaraftis

Is it going to be.

00:15:09 Harilaos Psaraftis

Significantly more expensive? Or is it going to be just a few cents so that that will depend on the on the measure itself, but also depending on you know

00:15:19 Harilaos Psaraftis

The particularities of the of the economies that are affected.

00:15:23 Viktor Weber

I see as our time is running short. Finally, I would like to ask the European Union has gone ahead and included shipping into its emission trading scheme from the 1st of January, given that this is not coming from an international and multilateral agreement, is there, in your opinion, a risk of a backlash that we have seen

00:15:43 Viktor Weber

in the aviation sector and the half functioning system as a result.

00:15:50 Harilaos Psaraftis

Yeah. So as you said the, the emissions has gone and has decided I'm talking about the European Union has decided to include the shipping in their emissions trading system as of the.

00:16:06 Harilaos Psaraftis

Next year and they have a scheme that involves 100% of the submissions of all intra EU trips.

00:16:15 Harilaos Psaraftis

100% of the emissions in port in the EU ports.

00:16:20 Harilaos Psaraftis

Plus, 50% of the emissions between EU ports and non EU ports, and there is a phasing period and this is going to this is going to start. Uh, it's a big it's a big development for the shipping industry remains to be seen how it's going to work. Of course there are other things that they.

00:16:40 Harilaos Psaraftis

Eager is doing, for example, the fuel legal maritime to incentivize the development the whole time, the fuels and some other some other.

00:16:51 Harilaos Psaraftis

Regulations. UM, I've heard recently some concerns from European ports that they may lose business. Because container lines may relocate their transshipment hubs to ports outside the EU to pay less into the emissions trading system, we have written a paper that kind of highlights this risk of vision, but I have when that paper was published into 2022, before the final form of the directive was released. But I recently heard concerns by ports and some European countries that are concerned. Parts of the European port sector may suffer because of this, but it really depends. It remains to be seen.

00:17:50 Harilaos Psaraftis

How it is going to evolve? I don't think they will take it back. There was a call from some European countries, mainly in the Mediterranean. To kind of pause the application of the ETS until they figure out the best way to do it. But my understanding is that it's going to go ahead so we can just wait and see how it's going to be well.

00:18:20 Viktor Weber

Thank you very much. Our time has come to an end, so before we wrap up, I ask if there is any other issue that you would like to raise in connection to these questions.

00:18:30 Harilaos Psaraftis

Well, I think that we are in a very interesting time and the things are things are moving both at the IMO and at the EU. To decarbonize shipping. Also, the industry is taking some very bold and interesting initiatives. You know investing in green fuels. So it's going to be very, very interesting in the next, I would say, year in the short run would be very interesting on how things will evolve at the time of the timeline is that they have to come up with.

00:19:05 Harilaos Psaraftis

What this basket of measures is going to be by 2025 and then implement whatever they decide by 2027.

00:19:16 Harilaos Psaraftis

The EU it is faster than some of the things you will start next year. The interface between the EU and IMO is, at this point not very clear. I mean, I think that the if the EU moves on the front of market based measures.

00:19:36 Harilaos Psaraftis

You will align itself, but at this point nothing. I mean, we're waiting to see what will happen in 2025. But you know what exactly this budget of measure will entail.

00:19:54 Harilaos Psaraftis

But it's going. To be very interesting how this whole discussion will evolve.

00:20:00 Viktor Weber

Thank you for this answer and the interview. It was very interesting to see the insights of somebody who has been researching this topic for so many years and we look forward to staying in touch with you in the future.

00:20:13 Harilaos Psaraftis

Well, thank you very much for having me and I hope it was interesting for you and your audience.

00:20:22 Alessandro Monti

Thank you for listening to this episode of the Climate Show. If you're interested in learning more about Harrah's work and our interact project, check out the link in the show notes. Stay tuned for our next episode.