



**Transcript of the “Wenden bitte!” [All change please!] podcast:  
Episode 14: “Protecting the climate with emissions trading?”**

Introducing the subject and today’s contributors	2
Sound clip (brief subject overview):	4
Emissions trading: how it works	4
Development of the emissions trading system	5
Effects of emissions trading on climate change mitigation	6
Emissions trading in the energy crisis	8
Emissions trading as a market-based system	9
Obstacles to further development	10
Why is there a single system covering several sectors?	11
The current discussions in trilogue	12
Carbon Border Adjustment Mechanism (CBAM)	14
Market Stability Reserve (MSR)	15
ETS 2: Emissions trading for buildings and road transport	16
Outlook and conclusion	17

## Introducing the subject and today's contributors

### **Nadine Kreutzer:**

A very warm welcome to you all! Today we're back with a new episode for you. As always, we've teamed up with experts from the Oeko-Institut to discuss some of the hot topics around climate action and sustainability. I'm Nadine Kreutzer, presenter and journalist, and it's hard to believe that we are now recording our 14<sup>th</sup> episode, the last in our second series. And for the first time, we are all here in the studio instead of seeing each other on screen. I don't know why, Mandy, but it never quite worked out before, either because many of the experts were based in other towns or coronavirus upset our plans. But today we are all together at last, live and in colour. Not that this makes much difference to our listeners, of course, but for us it's a special moment and even after 14 episodes, we haven't had enough yet, have we?

### **Mandy Schossig:**

Certainly not! Hello, I'm Mandy Schossig and as our regular listeners know, I'm the Head of Communications at the Institute. I am so happy that it has finally worked out and we are able to get together in the studio to record this episode. It's very nice to see you in person, Nadine. You are quite right: even after 14 episodes, there are more topics that we want to discuss. So I am very happy to reveal at this point that there will be another series next year.

### **Nadine Kreutzer:**

Yes, we're delighted, particularly because you all suggest such good topics and you're clearly interested in the many issues around transitions to sustainability that we discuss on the show. So let's get on with our latest episode.

Today, we will be taking a closer look at European emissions trading. To keep global warming below 2°C and avoid the harmful impacts of climate change, the developed countries must cut their greenhouse gas emissions to zero by 2050. Emissions trading is seen as a key mechanism here, but there are some doubts as to whether it is genuinely effective.

### **Mandy Schossig:**

Yes, that's why renewed discussions are currently under way at EU level on whether the system needs to be improved. So the question we will be discussing in today's podcast is [Protecting the climate through emissions trading?](#) Verena Graichen has some answers. She is based in the Energy and Climate Division at our Berlin office, where she researches aspects of international climate policy, particularly emissions trading. So I can't think of anyone more suitable to answer our questions. A very warm welcome, Verena!

### **Verena Graichen:**

Thank you, I'm happy to be here.

**Nadine Kreutzer:**

We are very happy to welcome you as our expert today. There's one question which I must ask right away: when we talk to people from the Oeko-Institut, many of them seem to be long-timers who have been there forever. What about you?

**Verena Graichen:**

I've been with the Institute since 2005. That's 17 years now, I think. And oddly enough, I've worked on emissions trading since day one.

**Nadine Kreutzer:**

Wow. And how did that come about? Was it your own decision? Has it always been your main interest?

**Verena Graichen:**

Of course, it was a new and exciting topic. It was also an area where the Oeko-Institut needed to ease the burden so they were looking to appoint an additional staff member. I would never have thought that a single policy instrument would need to be developed and improved so many times over so many years. But it obviously offers plenty of scope for research and it is still exciting, despite everything.

**Mandy Schossig:**

Then we have the right emissions trading expert with us today. Do you have any lightbulb moments that you can share with us? Any special memories?

**Verena Graichen:**

It is very interesting to watch an entirely new mechanism evolving. An SO<sub>x</sub> emissions trading programme previously existed in the US, but there has never been anything on the scale of the EU emissions trading system, which covers so many different emissions.

To be frank, a lot of mistakes were made or aspects were not considered. And at first, the data situation was far from satisfactory. I still recall the release of the first emissions reports; these were the documents in which businesses provided information on their previous year's emissions. And their data didn't match the figures in the greenhouse gas inventory at all. We asked ourselves: how is this possible? Why don't the figures tally? We are gaining a better understanding of this kind of issue as time goes on.

**Nadine Kreutzer:**

Given that even the experts need some time to understand aspects of emissions trading, let's provide a short introduction. So here is a brief insight into the topic for our listeners:

## Sound clip (brief subject overview):

Emissions trading has been the EU's key climate policy tool for reducing greenhouse gas emissions since 2005. Operators of installations covered by the EU's emissions trading system must surrender emissions allowances for each tonne of CO<sub>2</sub> they emit. The total number of allowances issued is capped. This is intended to make climate action more appealing and ensure that emissions are progressively reduced. Today, the system covers almost 50% of the EU's total emissions from power generation, industry and aviation.

But how effective is this kind of market-based system in protecting the climate at EU level?

The emissions trading system has evolved continuously since the early days. Additional countries have joined and other gases and new sectors have been integrated into the system. In 2019, the European emissions trading system covered around 11,000 emission-intensive power stations and carbon-intensive industrial plants in 31 countries. Discussions are now under way about possible reforms to tighten up the system during the current trading period, which runs until 2030.

Which gaps still need to be closed? And how can emissions trading genuinely contribute to European climate action?

## Emissions trading: how it works

### Mandy Schossig:

As we see, it is a topic which needs some clarification. So to give us an initial insight, perhaps you could explain exactly how emissions trading works. What is it intended to regulate and who is it for?

### Verena Graichen:

Emissions trading mainly covers large installations such as coal-fired power plants, gas-fired power plants, cement works, steel works, chemical plants and refineries. Each of these installations monitors its emissions. There is an upper limit on emissions, which applies across the board; this is the cap. The cap is the total quantity of emissions that may be produced across all the EU countries and it must not be exceeded. If businesses perform better and use fewer allowances than they need, they can create some leeway for others and generate revenue by selling them the surplus.

So the principle behind emissions trading is that emissions are reduced first wherever this is most cost-effective and the market players are free to decide whether and how they do so. In that respect, it differs from threshold or limit values, for example. With threshold or limit values, it is clear that each industrial plant has to cut its pollutant emissions somehow. But with emissions trading, it is the total that counts. And that works quite well for carbon dioxide and greenhouse gas emissions, for what matters here is not the place where the emissions are produced but the total amount.

**Nadine Kreutzer:**

So is the cap an upper limit on emissions for each country?

**Verena Graichen:**

No, it applies to the EU as a whole or, rather, to all the countries that have joined the EU's emissions trading system; Norway, Iceland and Liechtenstein are also involved. The targets are no longer broken down between member states; instead, there is a single target for EU emissions trading.

**Nadine Kreutzer:**

OK.

**Mandy Schossig:**

So who sets the cap so that it is aligned with the targets? Is each country then allocated an equal share? Can you explain in a little more detail how it is allocated?

**Verena Graichen:**

As I said, there is no longer any country-specific allocation, although that was how it worked in the early days. We said, didn't we, that this is a learning curve. During the first trading period, different caps were still being allocated to individual countries. Ultimately, however, this is not in keeping with the concept.

The EU has collectively committed to a single climate target, namely to cut its emissions by 55% by 2030 compared with 1990 levels. Emissions trading, which covers around 40% of emissions, has a major part to play. We want to reduce emissions in the sectors covered by the EU Emissions Trading System by 60% – 61%, to be precise – and by just 40% in the other sectors. So let's put it this way: the EU climate target is divided between the emissions trading system and other sectors; for the other sectors, it is broken down by country, but that's not the case for emissions trading.

## Development of the emissions trading system

**Nadine Kreutzer:**

Oh wow, it sounds really quite complicated, especially if you are new to the topic. We have just heard in the sound clip that the emissions trading system, or ETS for short, has existed since 2005. Since then, it has been continuously adapted and improved. What were the main changes in the previous periods? Trading periods, I think they're called?

**Verena Graichen:**

That's right. There have been several trading periods. From 2005 to 2007, there was a kind of start-up and trial period, when the difficulties that I have just mentioned were still very much in the

foreground. For one, it was country-specific and the rules were not the same for all countries, which naturally led to inconsistencies. Whether I operate a cement factory in Spain or in Germany: if it is subject to pricing, its emissions should be governed by the same rules. This sparked some discussion between member states which interpreted the rules more strictly and those which were more lax in their approach.

And so in the next trading period, which was the Kyoto commitment period from 2008 to 2012 with the Kyoto climate targets, a range of aspects were harmonised. After that, in the third trading period from 2013 to 2020, it was fully harmonised; this means that the same rules apply everywhere and there is no longer any allocation among member states.

So coming back to the question from a moment ago: who sets the targets? The targets are ultimately set at EU level. As with most policy-making at EU level – at least in environmental policy – the Commission has the right of initiative, so it proposes a package of legislation. Ursula von der Leyen, as Commission President, has said that for her, the Fit for 55 package is the big one and that she wants the EU to be in a fit state to reach a minus 55% target. This package included the measures relating to the emissions trading directives.

**Mandy Schossig:**

Including the proposal for a 61% reduction in the sectors covered by emissions trading?

**Verena Graichen:**

That's right.

**Nadine Kreutzer:**

But some people think that a tax, for example, would be a much more effective mechanism. What does our expert say to that?

**Verena Graichen:**

I think taxes are great. However, it must be said that they are often far from straightforward. Look at the German energy tax: we all know how many special provisions and special regulations are built into that. But at the EU level, another aspect is ultimately far more important, namely that unanimity is required. Every member state has a vote and there have never been any unanimous decisions on taxation.

## Effects of emissions trading on climate change mitigation

**Nadine Kreutzer:**

One of our listeners would like to know about the successes achieved by the ETS. Would it be fair to say that the system has been highly beneficial to climate change mitigation so far?

**Verena Graichen:**

We can see a significant emissions reduction – a good 40% – since 2005 in the emissions trading sectors. But is this solely due to the EU ETS? That’s the question. And of course the answer is no. We have seen a reduction, particularly in electricity emissions, during this period. This mainly has to do with the exit from coal and the expansion of renewables, which then displace the other power plants. Of course it has not been triggered solely by emissions trading.

There have been periods when prices were high; emissions trading was then able to determine the merit order of the power plants and we saw more clean power plants entering the electricity market and the plants that produced more pollution remaining offline. But there were also long periods when prices were far too low. And it must be said that emissions trading lacked the power to influence this. The renewables expansion policy, for example, was an extremely important factor here.

**Mandy Schossig:**

So basically, the question is this: is emissions trading the main element or mechanism in European climate policy? Or is something else needed as well? You just mentioned the expansion of renewables.

**Verena Graichen:**

A mix of elements is undoubtedly required. It is not only about switching off the polluter plants; it is also about supporting the clean alternatives. We are seeing this with renewables. I think we should do more of this in industry in future as well. Granted, industrial emissions have also decreased, but there was a particularly sharp reduction during the economic crisis. This cannot have been due to climate policy; it was likely caused by other problems. In other words, the restructuring of industry has not progressed anything like as quickly as we need it to.

**Mandy Schossig:**

Which additional mechanisms would then be required, apart from the two that you have already mentioned?

**Verena Graichen:**

We need an entire toolkit! We need efficiency, energy efficiency, and we also need material efficiency. Simply put, steel and cement are extremely emission-intensive. If we managed to build our homes differently, that in itself would be a win for the climate.

And of course, support for new and breakthrough technologies is also required. In the steel industry, it is now possible to manufacture steel using hydrogen instead of coal. Test operations are already under way. This is the type of initiative that should be supported and promoted to facilitate the transition. However, it must be said that unfortunately, progress is extremely slow. When it comes to the climate, we are feeling the pressure and can sense the desperation. Look at Fridays for Future: they are saying, quite rightly, that progress is far too slow. At the same time, of course, a large industrial plant is not an investment that is made every year; it is more like every 10

years. So it is about seizing the opportunities now: whenever investment decisions are taken, they must point in the right direction.

**Nadine Kreutzer:**

We are talking about industry and the energy sector here. Is it possible to estimate whether emissions have genuinely decreased? In other words, can we put a figure on the savings? And to your knowledge, have businesses made genuine efforts to operate more sustainably with lower emissions?

**Verena Graichen:**

Businesses? That's difficult to say. I think there are certainly some examples of real progress being made. But if we look at the major trends, we see that economic growth has been a key driver of the production level and the production level, in turn, has been a key driver of emissions.

This shows that average efficiency has not improved to an adequate extent. But there is an allocation to industrial plants which involves a comparison of individual performance. And we can see the frontrunners taking action. What is lacking is a critical mass.

## Emissions trading in the energy crisis

**Mandy Schossig:**

I have a question about this allocation. You have already mentioned the current energy crisis. There is war in Ukraine and we are not receiving enough gas from Russia; in fact, we want to dispense with it altogether in the long term. At the same time, market prices are rising and there are plans to use the coal-fired power plants as a backup supply.

But how is this compatible with our climate targets? And the answer is always: well, that is already regulated in emissions trading so there won't be any increase in emissions from this sector. How does this all link up? Will it all work out in the end?

**Verena Graichen:**

That's a complex issue, perhaps more complex than one might think. The idea of emissions trading is that there is an upper limit, a cap. But in the past, the cap was set so high that the emissions never actually reached this upper limit. And of course, that was a problem. If the cap is supposed to have an effect but it is set too high for that, there is of course little or no incentive to cut emissions. At that point, it was recognised that the situation was untenable.

We need a mechanism to ensure that the market remains stable. This is where the Market Stability Reserve comes in. Ultimately, the idea of the Market Stability Reserve is as follows: if there are too many allowances on the market, the number of new allowances being issued is reduced. The point is that every year, there are new emissions and new allowances and through the Market Stability Reserves, the number of new ones is reduced. As long as it is necessary to keep decreasing the



number of allowances because there are already too many on the market, there will not be 100% alignment with the cap. The cap is simply too high.

Of course, various scenarios have now been produced, particularly on coal-fired power plants in the Rhineland. The German Institute for Economic Research has conducted an assessment on this topic and concludes that this is something of a zero-sum game. The plants that were supposed to be shut down and will now remain in operation are balanced against the plants that will be shut down in 2030, and the net result is zero. But when it comes to the year-on-year interactions with the highly complex emissions trading system, we will have to wait and see.

**Mandy Schossig:**

Yes, and another listener has asked for your thoughts on emissions trading at a time of high energy prices. Does the trading system create opportunities or, for that matter, risks?

**Verena Graichen:**

Yes, the prices are high at present. Although that's no longer entirely correct: it's October now and of course the gas prices have not fallen back to pre-crisis levels but they have come down and have certainly turned a corner. This shows that part of the price increase was simply caused by the major uncertainty in the market. And I think there is now more certainty that gas will be available in future. If we rely to a greater extent on LNG, in other words, liquefied gas that is transported by ship, it will always be more expensive than gas from a pipeline. That means that gas will never be so cheap again.

But it must also be said that the other fuels are not cheap either. Anyone topping up their oil-fired boiler will have noticed what has happened to the prices. The same applies to coal-fired heating, and to the power plants too. So the key question, really, is this: which power plant will be used? What is the price difference? It is less about the price level across the various fuels. And that's why it is always important for emissions trading to close this gap, so that the difference in the price level between producers with higher emissions and those with lower emissions is covered by the carbon levy.

## Emissions trading as a market-based system

**Nadine Kreuzer:**

What happens to the revenue from emissions trading?

**Verena Graichen:**

That's an interesting question and it relates to the system's development. In the early days, the revenue was relatively unimportant: almost all the allowances were allocated for free. Over time, however, the revenue has become increasingly important. It is now used in a variety of ways. There are various funds which are replenished from the proceeds of the auctions.

A proportion of the allowances is sold on behalf of the EU on the common auction platform, the European Energy Exchange, in Leipzig and the revenue is distributed to the member states. There are also specific funds which support investment in climate change mitigation or innovation, for example. I think this is a very important function. Ultimately, investment is only fit for the future if it genuinely reduces greenhouse gas emissions and uses less energy and therefore offers resilience against high energy prices.

**Mandy Schossig:**

So just to recap so that I can clarify this in my own mind: the ETS – the emissions trading system – is a market-based mechanism and should really be self-regulating. But at the same time, there are all these stipulations from policy-makers, such as the cap and the framework determining how trading is conducted and so on. There are a lot of rules and regulations. So let's take another question from a listener: how much of a role is played by the market and how much of the system is rules-based?

**Verena Graichen:**

The state plays a significant role, regulatory law less so, as I see it. But yes, the revenue is utilised and the caps are set at political level. Ultimately, however, every market in our social market economy has its limits and it is fairly clear that without these guardrails, the markets would not function – at least, not to everyone's benefit.

## Obstacles to further development

**Mandy Schossig:**

And now reforms are pending. You have already touched on some of the adjustments that have been made since the early days. Why haven't we seen more radical changes to improve the system?

**Verena Graichen:**

It was clear from the outset that Europe was keen to pursue a course that would lead to the restructuring of industry and the power sector while keeping them here. In other words, there should be no outflow of investment or production to other countries. There was always a very serious concern that this would happen due to the relatively stringent climate policies here, as compared with less stringent policies in other countries.

In practice, we haven't really seen this happen. This may also have to do with prices, which were very low for a long time. But given that the system was policy-led, it was an ever-present concern.

Policy isn't determined solely by the Commission; it happens in the interaction between the Commission, the Council, consisting of the member states, and the European Parliament. And as we have seen, the member states in particular are often reluctant to take action. Each one has its own pet industry, as it were; the classic example is the Germans with their cars. There is always a

fear that this particular industry could be impacted, which is why there is this great reluctance to regulate.

## Why is there a single system covering several sectors?

### Nadine Kreutzer:

These two sectors – industry and power – are very different. Why are they covered by the same system?

### Verena Graichen:

I think there are pros and cons. One argument in favour of having separate systems is that the abatement costs vary considerably; by that, I mean how much it costs to achieve one tonne of CO<sub>2</sub> emissions reductions. And now aviation is included and maritime transport will be joining in future. And these sectors, in turn, have very different abatement costs. For example, we are seeing that it is much easier for the aviation sector to pay for allowances than to take action to reduce emissions.

However, the benefit of such a large market is that there are always enough participants. There are enough players. There are some who take action and there is enough liquidity. This means that allowances can be bought and sold at any time. So the market is less exposed. A market with a small number of players is much more exposed to market power or manipulation than a large one.

### Nadine Kreutzer:

So do you think that having a combined mechanism is a good idea?

### Verena Graichen:

Yes, I think a combined mechanism is generally a good thing. But I also think that we need very different forms of support for the various segments so that decarbonisation can actually work. That's why it is important that these funds exist. At present, industry is provided with most of its allowances at zero cost. This is known as free allocation. The resources could be deployed more effectively: more funding could be provided for the transition and supporting investment instead.

### Mandy Schossig:

You have just mentioned aviation, which is now included. In one of our [episodes early last year, we talked about aviation and the CORSIA system](#), which is also intended to limit emissions in this sector. How will the two work in tandem?

### Verena Graichen:

In aviation, EU emissions trading currently only covers domestic flights – between Berlin and Munich, for example – and flights within Europe, such as flights from Frankfurt to Paris. It does not

cover international flights – to New York, let's say. Originally, the idea was to include all arrivals and departures, but that did not make us many friends internationally.

This was the reason why there was then some movement at the international level. It was felt that this was not something that the EU could regulate on its own, given that half of the flights were international; instead, this should be done within the framework of the International Civil Aviation Organization ([ICAO](#)), which is a UN agency. So the ICAO launched its own market-based mechanism, known as CORSIA. The idea behind CORSIA is that a surcharge is levied on all international flights. This does not include flights covered by the EU ETS. However, the surcharge is much lower because the targets are much less ambitious, at least at present.

Just last month, there was an ICAO meeting in Canada where CORSIA was again one of the topics discussed, along with a net zero aviation goal by 2050. That is phenomenal. Of course, that's still far too long a timeframe, for sure. But we have never seen a target like this in aviation before. It's clear that there is a gap that needs to be bridged between the CORSIA target, which is relatively lacking in ambition, and the new target for 2050.

## The current discussions in trilogue

### **Nadine Kreutzer:**

It's an incredibly complex topic. It is a good thing you're here to break it down for us. It seems that even after several trading periods, it is still far from perfect. And now we are hearing that a trilogue procedure is currently under way in which options for sharpening up the system are being discussed once again. What exactly is this trilogue? What is being discussed and where are improvements to be made?

### **Verena Graichen:**

The trilogue is the interaction between the European Commission, the Council, consisting of the member states, and the European Parliament. Environmental law-making in the EU is, after all, a collaborative endeavour. Trilogue actually means a three-way conversation. And that's where we are now. The Commission put forward its proposal, the Council and Parliament adopted their positions and now there are negotiating groups to reach agreement on the details.

### **Mandy Schossig:**

And what are they?

### **Verena Graichen:**

The Commission's proposal made a number of suggestions on the following questions: what should the upper limit – the cap – look like in future? How quickly will it be reduced? How should we proceed with the various sectors of industry? Can we find another approach to replace free allocation in order to protect industry from pressure to relocate – in other words, from carbon leakage? That's where the Carbon Border Adjustment Mechanism, or CBAM, comes in. Maritime

transport is to be included and the Market Stability Reserve must be adjusted again so that it can continue to function.

Some of these points are controversial and some are not. The issue of ambition in particular is always highly political. How fast should it go? Traditionally, the European Parliament has always been ahead of the member states here, with the Commission somewhere in-between. And where industry is concerned, a particularly controversial issue is how to prevent carbon leakage in future.

**Mandy Schossig:**

So let's jump right in and start with ambition. Perhaps the question that we should be asking here is: how are the targets to be tightened up? Should limits be placed on quantities and should the cap be reduced? What is the thinking here? What about lines of conflict?

**Verena Graichen:**

The cap has been reduced over the years since 2013; before that, there were parallel processes. The cap is now lowered each year. So the first question is: what is the annual reduction rate of the cap? This is known as the linear reduction factor, to use the jargon. Ultimately, what this means is: what is the percentage reduction of the cap year on year? And the second point: we currently have a cap which exceeds the emissions. At present, this surplus is absorbed by the Market Stability Reserve. But a better option, of course, would be to make an adjustment here. With that aim in mind, the Commission has proposed a kind of hybrid solution and said, OK, if the annual rate of reduction had been greater earlier on in the process, where would we be today? That's our new starting point and that's what's being discussed.

**Nadine Kreutzer:**

You just talked about maritime transport, which will now be included. What's the plan here? How will this sector be integrated?

**Verena Graichen:**

Maritime transport is not yet covered by emissions trading but there are now plans to include it. The European Parliament has always been the main driving force here. In the past, Parliament decided that a monitoring system should be established to precisely quantify these emissions. With international maritime transport, that's quite tricky, you see. The ships refuel here but they also refuel elsewhere and come into port here. As a result, we don't have any reliable data available.

**Nadine Kreutzer:**

And they also spend long periods in port, don't they? Ships reportedly spew out vast amounts of CO<sub>2</sub>. While they're in port in Hamburg, their engines are chugging away the entire time.

**Verena Graichen:**

Yes, that's right. In future, incidentally, ships will also be covered by the emissions trading system when they are in port. But a different problem arises when they are in port – and that's local

pollution. Ships are noisy and many of them burn some of the filthiest fuel imaginable. Local pollution with noxious substances is a major problem. But if you ask yourself where a tanker produces most of its emissions on its long voyage, you wouldn't say: in port.

**Mandy Schossig:**

So who is accountable for these emissions, and how? What do the emissions trading rules say?

**Verena Graichen:**

Well, the maritime transport sector will account for around 3% of emissions under the emissions trading system. It will cover the routes that fall within the EU countries – from Holland to Germany, for example. And it will cover 50% of emissions on international routes to/from EU ports. Unlike the previous situation with the surcharge for air travel, no one is saying that the entire route belongs to us, only half of it. The point is that each operator will be required to report the emissions for their fleet and a surrender obligation will then apply. The proposal is that this would be introduced progressively from 2023 onwards. Initially, it will only apply to 20% of emissions, with gradual increases until allowances will have to be surrendered for 100% of emissions from 2026.

## **Carbon Border Adjustment Mechanism (CBAM)**

**Mandy Schossig:**

You also mentioned industry and protection for industry as a major point of contention. So let's talk about the Carbon Border Adjustment Mechanism, or CBAM, as you called it. What's it all about and which problem is it intended to solve?

**Verena Graichen:**

If you ask the economists, of course, they will always say that the best option would be for all countries to take part in emissions trading because we would then have no distortions of competition. But that's not how the world works. So the question is: what does this mean for industry in Europe? Thus far, in its regulatory process, the EU has said, okay, we see that there is a difficulty here; other countries have less stringent climate policies. We want to avoid any unfair disadvantages for industry, which is why we have free allocation. This means that at the beginning of each year, they receive a specific number of allowances for their industrial facilities, based on capacity.

The problem, of course, is that if the cap is progressively reduced, the budget available for free allocation steadily decreases as well. It amounts to around half at present. So what do we do about that? With the CBAM, there is now an alternative proposal on how this protection can be provided. What we are saying is that imports will be covered as well. Let's say a tonne of steel is produced in China and exported to Europe: as soon as it passes through customs and crosses the border, the question that we will ask is: what is the CO<sub>2</sub> equivalent emitted during production? Because you'll need to surrender allowances for that.

**Mandy Schossig:**

Do you mean the producers in China?

**Verena Graichen:**

I mean the importers. But ultimately, the real question is where the price should be applied. In the end, it is the importers who will be required to report and surrender the allowances. And the idea is that free allocation can then be reduced. There are still some concerns about whether or not this would work. Again, it is a completely new concept – hence the proposal for its stepwise introduction from 2025. Initially, we will still have 90% free allocation, with CBAM covering 10%, followed by a 10 percentage point adjustment year on year until we have full implementation after 10 years.

And the second point: they are saying, let's start with the straightforward sectors where we have few problems with data. These sectors are steel, cement, aluminium and some chemicals but not all.

**Nadine Kreutzer:**

So would you say that CBAM is a mechanism that can protect European businesses from competition from other countries? Although they don't have carbon pricing for their products, of course: companies often complain about that.

**Verena Graichen:**

That's the idea and I think it will work for the European market. There are some concerns: how will this affect our exports? What happens if I build a car in Germany and incur carbon costs, and then I export it to India where I don't have any carbon costs? But I think it will work for the domestic market. And, of course, it only protects against the carbon costs.

Competition will be unaffected; it will continue to function and so will world trade. It is always an interesting question: is it really a distortion of competition or is it actually the key component of international competition? Looking in from the outside, it's always difficult to say.

## **Market Stability Reserve (MSR)**

**Mandy Schossig:**

You also mentioned the Market Stability Reserve, which is intended to address the surplus allowances on the market. Which aspects will change here? As I understand it, this mechanism already exists but it is back on the agenda for discussion. What are the issues here?

**Verena Graichen:**

There are always two issues of relevance in this context: how much of the surplus, if it exists, will be siphoned off? And what is the limit determining the amount of the surplus? In the past, we said,

OK, we currently have far too many allowances in the system, so we'll siphon them off more quickly. We said that this would be done at a rate of 1% per month per year, which amounts to 12% a year. And then we said, OK, let's double that on a temporary basis. And now the intention is to extend this temporary doubling for a third time because we recognise that there are always unforeseen developments. No one saw the economic crisis looming and quite honestly, none of us saw the pandemic and the war coming either. And of course, we have seen this reflected in the economy: much less has been produced and this is apparent from the emissions.

**Nadine Kreutzer:**

You have been observing the situation for many years: when do you think an agreement will be reached in the negotiations?

**Mandy Schossig:**

And what will it look like?

**Verena Graichen:**

Well, I can see that this is being driven forward as a matter of urgency. In that sense, I am fairly confident that an agreement will be reached next year. After all, 2022 is nearly over. The Commission presented its original proposal in July last year. The European Parliament and the Council adopted their positions in June this year and the negotiations are currently under way.

**Nadine Kreutzer:**

That was our expert's brief outlook on the negotiations. We will continue to keep a close eye on developments.

**Mandy Schossig:**

But Verena didn't say what the outcome will be.

## **ETS 2: Emissions trading for buildings and road transport**

**Nadine Kreutzer:**

Perhaps she would rather not commit herself. But let's talk briefly about the second emissions trading system, for there are now plans to introduce a further scheme for buildings and road transport. Perhaps you could briefly explain why a separate ETS is needed here.

**Verena Graichen:**

This was an entirely new proposal from the Commission last year and is part of the Fit for 55 package. The plan is to set up an emissions trading system for buildings and road transport. One aspect of the analysis is clear: simply put, climate action is progressing far too slowly. In the transport sector, for example, we have seen an increase in efficiency in the car and truck fleet



across the board. But we are also driving much more and receiving many more parcels and ordering many more deliveries, with the result that there has been no reduction in emissions. And of course, putting a price on emissions is always a good way to protect the climate.

With buildings, we have a slightly different situation. Of course, the cost of fuel is important here as well. But in this sector, it is always about long-term investment. For example, how often is new insulation installed in your residential building while you are living there? Most people build a house once in their lives and then at some point they carry out a major refurbishment. But it certainly doesn't happen very often. They might replace the boiler once in a while. But it all happens very slowly. In other words, the renovation rates in the EU are far too slow. And we are also seeing temperatures rising as a result of climate change and we are seeing more and more air conditioning systems being installed. We are seeing air conditioning being installed in countries where it never existed before. And of course, insulation is very important with regard to air conditioning too, because if the building heats up you need to be able to cool it down more.

That's why there is now this proposal to introduce emissions trading. Previously, these were policy areas that were addressed through other measures; for cars, for example, there are CO<sub>2</sub> standards which stipulate how much a passenger car is permitted to emit.

**Nadine Kreutzer:**

But do you think it is sensible to have a second emissions trading system?

**Verena Graichen:**

I am not sure if it really is the best mechanism for these sectors. And we have to recognise that social equity is more important in these sectors than in industry. We have a very high level of social inequality within the EU. If I wanted to engage in polemics, I might argue that a German who drives a luxury car simply has more cash at their disposal to pay an additional carbon levy than someone living in a poorly insulated house, probably on a low income, in Romania. That's why the social dimension is so important. The European Parliament took a very firm stand on this issue in its position and made it clear that this is an area where we need to proceed slowly. The idea is all well and good, but let's just start with the companies – in other words, with the service providers, etc. – and include private consumers later. The support programmes will be launched before any burdens are imposed. But will this mechanism actually be introduced? I think this really is an open question.

## Outlook and conclusion

**Mandy Schossig:**

I imagine this will spark a great deal of debate among the three institutions as well. But we have to start somewhere. And the main takeaway from our conversation is that emissions trading cannot be the only climate protection mechanism, but it does perform an important function. So let's round off our discussion with a look to the future, casting a glance across the EU's borders first of all. Do similar mechanisms exist in other countries or regional organisations?

**Verena Graichen:**

A number of countries are experimenting with emissions trading or have already introduced it; they include some regions of China and provinces in Canada, as well as South Korea. Kazakhstan is considering it as well. We have an advisory project with Ukraine which focuses on the introduction of emissions trading and which is continuing despite recent events. Mexico is another example. So there is movement on the topic of emissions trading in a range of countries around the world. But there are also some countries which are implementing different policies. One option is an energy tax, but caps and other regulatory measures are also in place. So there are various policy approaches and I think that's OK.

**Mandy Schossig:**

Coming back to the EU, how do you see emissions trading evolving? Can you give us your initial prediction to 2050?

**Verena Graichen:**

I think that emissions trading will continue to be important, also in terms of providing a safety net. It is also important to ensure that we reach our climate targets. But I still don't think it will provide leverage for the transition. That's why it is important to mobilise all the revenue generated for the state from emissions trading in order to support this transition. The interesting question is: what happens after 2030? I think that it is absolutely right – and important – to optimise the existing system to 2030. But at some point, we have to ask ourselves: what about the transition to net zero, in other words, to climate neutrality? Because by then, all these emissions should no longer exist, so there will be nothing to trade.

**Nadine Kreutzer:**

And then you will have to find another area of work at the Oeko-Institut.

**Verena Graichen:**

That's not something I need to worry about!

**Nadine Kreutzer:**

As always, we end the show with the Chancellor question. So Verena, you now get to put yourself in the role of the German Chancellor or, in this case, let's say the Commission President, and tell us what you would do to achieve an effective ETS.

**Verena Graichen:**

I would certainly do everything possible to progress the transition in industry. And I think this would have to include an expansion of the funds, but also the CBAM, because that would free up resources that we could use to support investment in the transition. What else? I'd set a high level of ambition for the cap right now!

**Nadine Kreutzer:**

Our listeners might be saying to themselves, I've understood 70% of what has been said but not all of it. So Verena, I expect you have some tips for listeners who want to find out more and perhaps even spend some time taking a deep dive into the topic?

**Verena Graichen:**

Well, the [German Emissions Trading Authority](#) produces a very good annual publication which describes Germany's emissions trajectory and explains the topic very well. At European level, a similar publication is available from the [European Environment Agency](#). We are always involved in the preparatory work for this. There are some very good documents on the [European Parliament's website](#) which explain the political procedures and the stage that they have reached in each case; there are also regular summaries by the parliamentary services, which are very useful. And there are three NGOs that I would like to recommend as they are doing very good work. The first is [Sandbag](#), which focuses on markets; likewise [Carbon Market Watch](#). And [WWF](#) covers emissions trading as one of its focal areas.

**Mandy Schossig:**

Super, we will include this in our shownotes for you all. Thank you, Verena, for joining us to take a detailed look at this very complex topic. It has cleared up some of my own questions and I now have a better understanding of the action that still needs to be taken at European level. Thank you so much!

**Nadine Kreutzer:**

Yes, many thanks for being here live and in colour. It was good to see you.

**Verena Graichen:**

You're very welcome. Thank you.

**Mandy Schossig:**

That brings us to the end of our second series. We will now be taking a short break again until the end of the year. We will be collecting our thoughts, as well as your suggestions for further topics, and we will be sorting everything out and preparing the next series. And of course, you can find out more on our social media channels, and please do keep sending in your suggested topics. I am already looking forward to the next series and Nadine, you'll be joining us, won't you?

**Nadine Kreutzer:**

I will indeed, because the transition to sustainability is continuing and offers endless potential – it's a treasure chest filled with fascinating topics. And as we said, we are very grateful for your suggestions. Which topic particularly interests you? Do you have any ideas or questions? If so, please send them to [podcast@oeko.de](mailto:podcast@oeko.de) and leave us positive feedback on your favourite social media channel. We're looking forward to it.

**Mandy Schossig:**

See you soon!

**Nadine Kreutzer:**

It's not too early to wish you Happy Holidays and a good start to 2023!

**Mandy Schossig:**

Goodbye for now!

**Nadine Kreutzer:**

Goodbye for now!