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Nick Piquard:
Hello, and welcome to the Generation ETFs Podcast. I'm Nick Piquard, portfolio manager at Horizons, and in addition to managing several covered call ETFs, I also oversee Horizons' commodity ETFs, ranging from traditional energy like oil and natural gas to newer commodities that are fueling the future, like uranium and lithium.

Nick Piquard:
Today, we're going to be discussing what some market spectators are also calling a new commodity, carbon credits. We just launched CARB, the first ETF in Canada focused on the carbon markets. So, what are they about?

Nick Piquard:
Carbon credits are an interesting case in the sense that they are not feeding, fueling, or physically tangible like other commodities. Instead, a carbon credit is a redeemable permit required to emit a certain level of pollution, typically 1,000 tons of carbon per credit, that is enforced by a regulatory organization such as the European Union's Emissions Trading System.

Nick Piquard:
Now, last year, the EU carbon credits, known as EUAs, were one of the best performing commodity assets, with a return exceeding 140% for 2021. This year, the story has changed considerably, with significant volatility in Q1 2022 so far.

Nick Piquard:
Now, to help us make sense of what's happening with carbon credits and what Canadians should know about investing in them now and in the future, I am joined by Ingvild Sorhus, Refinitiv's lead EU carbon credit analyst. Thank you for joining us today, Ingvild.

Ingvild Sorhus:
Thank you. Thank you so much. It's really nice to be here.

Nick Piquard:
Ingvild, while some Canadian investors likely have an understanding of what analysts do in the context of equity sectors and certain commodities, carbon credits is a relatively new thing. What are the things that analysts look at when examining the carbon credit markets?

Ingvild Sorhus:
Yeah. Carbon credits are a new thing in a lot of people's eyes but the European Emissions Trading System has actually been operating since 2005, but it's really the last few years where it's really kind of caught the eye of the wider audience, I would say.

Ingvild Sorhus:
What is kind of special with the European, or kind of an emissions trading system, is that it is a policy tool. It is a policy tool to meet an emission reduction target, and that is kind of one of the tools that policymakers have in their toolbox.

Ingvild Sorhus:
And European policymakers have chosen, like the EU ETS, as one of the cornerstones of European climate policy to drive kind of the shift towards a greener economy. That's kind of the context that is kind of a bit special. It's very much policy focused. For the EU ETS, the EU Emissions Trading System, that's covering industry emissions, power sector emissions, also intra-EU aviation. That's kind of covering 40% of the emissions, roughly, in the EU ETS as it is today.

Ingvild Sorhus:
Every year, for instance, then all these installations need to kind of monitor their emissions and have to report their emissions and also comply with the amount of carbon credits or carbon allowances that corresponds to the emissions.

Ingvild Sorhus:
One thing is that you have to understand kind of the fundamental picture, especially kind of when it comes to the power side. For instance, typically, a driver during a week or during a season would be typically gas prices, coal prices, weather outlook, renewable generation, because in the short term, it will be necessarily kind of a carbon price is kind of influencing the power price, which is again, deciding what kind of power plants are you running? That's one type of where you can kind of reduce your emissions based on the carbon price.

Ingvild Sorhus:
And then also, for industry, you need a price signal to do the proper kind of investments into new technology. For the European carbon market, we have a bit of history showing that you have kind of a carbon price that has been quite low.

Ingvild Sorhus:
You started out quite optimistic back in 2005, thinking it would be delivering a price signal, that it would be a tight signal or a tight market, that you would kind of have a carbon price that was actually needed to be as high to deliver emission reduction. And then, you started to realize, especially kind of during the financial crisis, that it was going to be an oversupplied system. But the problem was that supply was kind of static,

whilst demand was elastic, and demand was dropping very low compared to where kind of policymakers saw or imagined emissions to be in the first place.

Ingvild Sorhus:
Then every single year, we started kind of building up this oversupply in the market that was kind of just being bigger and bigger every year, which kind of resulted in very low prices.

Ingvild Sorhus:
And then you had the European carbon market being blamed to kind of, it was supposed to be the cornerstone of European climate policy. And you're kind of blaming policymakers to say that, okay, you are making a system that isn't really working. It's not doing kind of what it's set up to do.

Ingvild Sorhus:
But of course, this system is always kind of just delivering what it's set up to be, and as long as you don't have bold policymakers setting bold climate policy targets, that's still kind of giving you what the overall goal is.

Ingvild Sorhus:
But they made some fixes, for instance, tackling this oversupply problem that was just kind of spiraling and building up every single year, implementing something called the Market Stability Reserve. When you have big surplus in the market, you will hold back these emission allowances from hitting the market, so then kind of this oversupply would shrink on a yearly basis.

Ingvild Sorhus:
And that was already decided back in 2015. It started operating in 2019. And that was really kind of making the shift, I would say, for the European carbon market, and why it suddenly then became more of an interest for the wider audience.

Ingvild Sorhus:
In 2018, running up to this supply curbing mechanism to start, prices were trickling. We have to remember that they went from a very low level. But still, going from 2018 to 2019, it was kind of this shift in mentality that, okay, this is actually working. You're holding back a substantial amount of supply coming to the market. And then, you had kind of the first year where you really saw the carbon price having this, or giving kind of the dynamic that you wanted to see, like a textbook example that, okay, you had a high carbon price. It was hitting the margins of coal plants. You were shifting towards gas plants.

Ingvild Sorhus:
And then really kind of a high carbon price was kind of helping to reduce emissions in the EU ETS also in the short term, but also getting a price signal, too, that it wasn't kind of no longer really kind of, yeah, yeah, policymakers are trying to do something, but they are kind of always running a bit late.

Ingvild Sorhus:
That was kind of a big shift, I would say, and that's when we saw that it was not only those that had kind of had to be in this market for compliance reasons that was kind of that this market became interesting.

Ingvild Sorhus:
And then on top of that, you had a change of commission with Ursula von der Leyen coming into charge in European Commission coming out saying, "Well, Europe is going for green deal. Europe is going to be first climate neutral continent." And by that our emission production goal for 2030 is kind of far off from where we are going to go. So that kind of this... And then also you saw kind of policymakers, from being reluctant to raise the climate ambition from 40%, suddenly when the commission came out and proposed, "Well, we can go for at least 55% target," that policymakers kind of supported this target. And that was kind of agreed back in 2020, but kind of running up to this kind of rubber stamping, the new 2030 target. That kind of supported prices, and also helped the price from kind of collapsing during the COVID pandemic, for instance. So really this kind of belief that European climate or European policy market makers have finally got it right. That it is actually a climate emission. And it is the system that is delivering these emission productions that Europe wants to see.

Nick Piquard:
That's fascinating. And when I listen to you, it really reminds me of a lot of commodity markets where it starts off with a demand and higher prices. And when that demand disappears the oversupply really overwhelms the price until supply gets taken away. And then, all of a sudden the prices rise again. So, in a lot of ways, that's interesting. But the regulatory framework, obviously, adds to that. Now it seems that one of the biggest investment themes of the last few years has been the popularization of ESG and socially responsible investing. Now increasingly, investors, they want to think that their investments are ethical. Now we've been asked by some investors, is carbon credit investing? Would that meet that description? Do you think carbon credits constitute an environmentally responsible investment?

Ingvild Sorhus:
I mean, it's always kind of important to separate kind of what is carbon and what is carbon credits. And of course, I'm working with the EU ETS, as we're talking about today, which is kind of a very regulated market. And it's all kind of a capped supply. In that sense, it's kind of two worlds if you go to, for instance, the opposite market. And then, of course, you need kind of also these set of guidelines and kind of standards to make

sure that these are actual emission production taking place. So of course, then not everything must necessarily kind of… I would say, well with caution, of course. For the cap and trade system, I think what we have seen in the market is that actually this climate integrity is used as one of the things when people are actually investing in the EU ETS.

Ingvild Sorhus:
It's not necessarily that they have kind of a big view on kind of the policy framework as such, but that it's kind of this climate integrity that it's kind of bold policymakers now making it a kind of more stringent system that it's no room for these kind of luggage. We're going for a future where those that actually will survive, need to kind of be serious about how to green their investments going forward. So in that sense, I would say it's pretty kind of credible system. I mean, it's quite kind of tight in that sense, but, of course, I mean, the framework is set based on these kind of overarching targets, like the 2030 target and the climate neutrality target. Kind of in the big picture, we know that we are going there, but of course it's a lot of nuts and bolts that can be changed in order to meet this target. In that sense, it's always kind of a... It is policy made, so of course, it can also be policy changed in that sense.

Nick Piquard:
Understood. Now, I mean, right now there's around 50 carbon marketplaces in the world, including Europe, China, California, even here in Canada, in Quebec. Do you see a future in which these carbon marketplaces are unified into a single market and transferable across regions? Or, are we going to see a segregated market? Like certain commodities, like natural gas, where it's impossible to transfer it easily from one market to another. What do you think of the future? What the future looks like for carbon markets.

Ingvild Sorhus:
I think in an ideal world, we would have a global carbon price and that would be, yes, we would have kind of a unified market. I think it's a bit kind of... I mean, we have seen in the past that has been tricky. One, because for instance, if you want to link, you want to make sure that it's comparable systems. And of course, if you kind of develop systems for quite different economies, then it's not necessarily kind of how easy is it to be comparable. So for instance, if Europe is linking, let's say, to China, it's important for Europe then, that it's not kind of being the easy way out for Europe. That it's kind of easy to achieve if you kind of linked to, for instance, the China market, or vice versa. I think this climate integrity needs to be in place, and it needs to be comparable, or it's easier when you have comparable systems.

Ingvild Sorhus:
I mean, you had also kind of, for instance... History shows that, I mean, there is appetite for linking. When Australia was trying to get their carbon pricing mechanism up and running, I mean, it was up and running for two, three years. And then it was an initiative with the EU to link the two markets, to better increase liquidity and that kind of... It kind of was a process, and it was kind of willingness from both sides. But then for instance, for the Australia case, that was a system that was repeated when they had change in government. And then, I mean, UK has left the EU ETS. I mean, we have heard from market participants that they want to see linkage again. Also kind of, because of this better liquidity, especially for the UK participants that has left kind of quite liquid system.

Ingvild Sorhus:
I think we will see linkage happening, but that all markets will necessarily be kind of one. I think that's a bit hard, at least in the short term to see that will materialize. But I think one interesting thing that's not necessarily exact linking, but your European or EU has now proposed kind of this carbon border adjustment mechanism, which is a bit kind of indirect linking. That means that you want to kind of impose carbon price from those countries, or exporting to Europe to make European industry more competitive. Because I mean, if you import from some countries without any or carbon price or kind of a similar measure, that will be kind of unfair to European industry. So that's really kind of... One is to give a more leveled playing field for European industry, but also to try to push kind of these countries into actually adopting similar measures. So in that sense, I mean, it's kind of like carrot as well.

Ingvild Sorhus:
So if you kind of put in place a carbon price, if you put in place something similar to whatever we have in Europe, that will kind of give you an advantage compared to... Or not compared, but that's kind of... Then you not necessarily will be exposed to this carbon border, just …So in that sense, I mean, it will be a linking at least, a linking attempt, I would say, from Europe's side.

Nick Piquard:
That's very interesting. And of course, inherently it's an economic but also political process. But we live a global economy, and your point about imports is certainly very interesting. Now, recently, we've seen lately in the European carbon markets... From the 2021 highs, we've seen quite a bit of volatility and downside on the back of the Russian invasion of Ukraine, where some politicians have mentioned that perhaps the rules could be loosened for carbon credits because maybe at this point, they're a little bit too tight in the face of the energy crisis. Now, you've been through a couple cycles in this credit market. How should investors think of this regulatory risk in this asset class?

Ingvild Sorhus:
Yeah. Yeah. That's always kind of a bit hard question to answer. Yeah. The thing is that now all this legislation are open. I mean, we're in the middle of a political process on kind of how to adjust all this legislation to meet the new 2030 target. That goes for like renewable energy [inaudible], whatever. So in that sense, I mean, even before the invasion of Ukraine, I mean, it was worse in Europe because of high electricity cost, high energy prices, because we were kind of in an extremely tight gas market, which was kind of pushing up prices. And you have seen policymakers kind of giving this kind of, "Yes, carbon price is another driver that kind of adds to the cost of European consumers and European industry."

Ingvild Sorhus:
I think kind of for most that has been ruled out by at least kind of the European Commission, for instance, and a lot of other European policymakers, that this upturn in electricity prices or energy cost has not come as a result of high carbon prices but more because we have had a really tight gas market. But that said, I mean, of course, it will be a worry if prices are spiraling and it's kind of you have all these companies that need to comply. And if you kind of are buying in the wrong week, that might be kind of adding 50% to your cost. And of course, that's kind of a bit hard to predict when prices are just kind of spiking as such.

Ingvild Sorhus:
I think what also European member states or European policymakers has always also seen that it is a source of revenue that can actually alleviate some of these kind of burdens on households and energy. And then we have seen that that was part of the toolbox that the Commission came out with in October, I think it was, while kind of trying to address this immediate high energy cost that's kind of their revenue from the auctioning, because these mission allowances are coming to the market either via auctions, which kind of are then generating revenues for countries and also going into revenues to, for instance, innovation fund, modernization fund for modernization of the power sector in the east, Eastern Europe, developing new technology in the industry.

Ingvild Sorhus:
So in that sense, it's kind of this revenue is... It's not kind of only evil, I would say, with a high carbon price. But of course, if that becomes kind of a case that industry is closing down because of a high carbon price, that will be a problem for European policymakers. And of course, we have seen some signals. Some are saying, "Well, we should kind of limit or we should look at the role of speculators or those that don't have compliance obligations in the market. Should they be allowed?" Some are saying, "Well, maybe not." But still I think kind of there are several that highlights kind of this bringing liquidity to the market is kind of a good thing as well.

Nick Piquard:
Well, yeah. And you could argue that these high carbon credit prices that we've seen over the past year are doing exactly what they're supposed to be doing, which is incentivize lower carbon emissions. And if you can use that revenue to lower the electricity costs elsewhere, perhaps that's one way to look at it. Now, to me, one of the appealing investment attributes of carbon credits is of course their limited supply. And in fact, like you mentioned earlier, these net zero targets that we have in 2030 and beyond, these are mandated to shrink over time these allotments. So yeah. Just comparing it maybe a little bit to what investors have been very cognizant of recently in cryptocurrencies, it's almost better than Bitcoin, because you could have a shrinking supply as opposed to even a stable supply. Now, I mean, what's your short-term and long-term outlook for the EUA market?

Ingvild Sorhus:
Yeah. Yeah. And that's kind of the tricky thing being an analyst in kind of this crazy market which has been seeing so big changes recently. I mean, first this year, for instance, this year and next year, we see that... I mean the reference price for carbon has also been the fuel switching price, so what does the carbon price needs to be in order to switch from coal to gas in the short-term. Of course, I mean, we have been in a quite or we are in a bit extreme situation where gas market is super tight. So you don't have this sufficient supply to change, I mean, for the market to switch, to do this switch from coal to gas. I mean, now you probably need a price of 200 Euros in order to do kind of a fuel switch. But I mean, that wouldn't happen anyway, because if carbon price were at this level, you would just chase gas up, because you didn't have the gas to kind of do this switch.

Ingvild Sorhus:
So in that sense, kind of we are looking at some years or this year, I mean last year also, and we saw that emissions were rising in power sector more than we expected or would've expected in a normal fuel price environment. That's kind of also taking place this year. Of course, we will see some demand, or I mean, we've already seen signs that there are kind of going to be some demand disruptions due to the high electricity prices in industry, some flagging that they're reducing production. And of course, reducing production and reducing demand, that will also mean lower emissions because of kind of this demand disruption.

Ingvild Sorhus:
It's also a year where we will see kind of the policy debate around these legislation taking place. How much it will be colored by this extreme situation that we are now will also be interesting to see. I mean, this first signal from... At least the signals from the European Parliament, because it's... On one side, it's European Parliament that will kind of have their say and then it's the member states on the other side that needs to come out with their positions. And then the two meet with the European Commission, and then come out with an agreement in the end. So I think there is some policy risk that might be worth watching this year. I mean, the signals seem that at least the big elements that are important for supply and demand balances still is in favor of, I would say, the European Commission proposal. That was quite kind of strong, I would say. But that's one of the things that might kind of be of interest, and of course also will we see an economic downturn in Europe with the Ukraine crisis, also high inflation? So of course that's kind of a downside risk, I would say, to carbon price this year. But it might not. I mean, a month ago we were looking at when will the carbon hit $100, then the Russian invasion happened and then saw suddenly prices going down to €55. I mean, we're up to €80 now, so we're still at a quite high level, historically high levels, I would say.

Ingvild Sorhus:
But I think that, as you say, it's a tight market. Or I mean, it's a shrinking market. So in that sense, I mean, it's a signal that there's less room for emissions. So it also depends on how fast these emission reductions will take place. I mean, more this industrial emission directions, for instance, like more expensive technology. So, I mean, historically we've seen that it's lot of the emission reduction has happened in the power sector. It's

been inclusion of renewable. And we see coal phase out happening, even though that might be slightly delayed because of the situation in Europe at the moment. But also the signals that we are switching, the urge to switch, for a faster inclusion of renewables, because you want to lose the dependency. So in that sense, also the power sector emissions seems to ... If that's going to materialize, then you will also see power sector emissions shrinking at a faster pace than we have previously modeled.

Ingvild Sorhus:
But I think going forward, it will be the abatement cost that needs to take place in industry. That you need to be at those levels. And then we're talking about hydrogen CCS to be the price setting element. So, I mean, we are looking at the prices probably around more than $100 at 2030. That's a long perspective. But I think we will see quite a lot of volatility in at least this year, and maybe also next with the different dynamics than we have seen previously in the current markets.

Nick Piquard:
Now, I mean, my last question is going to be about the outlook for 2022. What are the risks and key development investors should be looking at? I think you've answered that question partly. Specifically, I'm more curious about this recent run up in carbon credit prices. You just talked about it briefly. But do you think that incentivizes more renewable? I know there's been a lot of talk about increasing the renewable share of carbon, of low carbon emission electricity generation. Will these higher prices help develop that even more?

Ingvild Sorhus:
I think there are countries now that see it as a big risk to be reliant on fossil fuel imports than from, for instance from Russia, which is the case. So in that sense, I think that you will see a more push both ... I mean, probably also because you had these high carbon prices. No, sorry, not carbon prices, but high electricity prices prior to the war. And then it was even further amplified when you had the Russian invasion, that you really don't want to be too reliant on Russian gas or coal in your power mix, because that's a threat to your energy security. So this conflict, and also with the high prices that we have experienced in the second half, especially of last year, I think that will give a push for renewable. And probably yes, so I think that could speed up the greening of the power sector.

Ingvild Sorhus:
But the thing is that, I mean, if this materializes, and we will see a drop in power sector emissions in the EU, we still have this Market Stability Reserve, which was the superhero that brought confidence back in 2019. So in a case where this oversupply is starting to build up again because of drop in emissions, whether that is from demand disruption, like shocks that we might see this year. And we also saw from the COVID pandemic. But also this if you have a more rapid inclusion of renewables, that will also tackle this oversupply. So it will be an active instrument that will address the surplus, regardless where the surplus is coming from. So that's kind of, I think I will say is a safety net, and makes sure that it's not crashing again, that you will have a market that is not built on anything substantial. Yeah.

Nick Piquard:
Understood. Well, it's a fascinating market. And certainly I think it's now on the radar screen of a lot more investors than it ever has been. And I think that's positive going forward as more and more people want to participate in this market, and make it a more liquid market. It would generally make it better pricing, and more effective as a tool for regulators.

Nick Piquard:
I appreciate all your time and your analysis. It was very informative. Thank you very much for being on the podcast, and we hope to talk to you again.

Ingvild Sorhus:
Yeah. Thanks. Thanks Nick. It's great being here.

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