



The Carbon Economy Opportunity

We have come finally to a kind of global consensus about the danger of CO₂ emissions and their relationship to the the disturbing signs of climate change we are seeing all around us. Putting aside the question of whether you believe all of this, an incredible opportunity is emerging in the carbon economy. It's actually kind of exciting. It reminds me again of the almost magical power of capitalism and the Invisible Hand. Just as the political will is solidifying among world powers that something must be done about CO₂ emissions, new business and investment opportunities are emerging to facilitate things. This is reason to be optimistic.

The intent of the much-lauded Paris Agreement is to put in place measures to try to keep the global average temperatures from rising more than 2 degrees Celsius above pre-Industrial levels. Taking a step back for second—that's quite a goal. The mere fact that we think we can even make the slightest impact on something like "global average temperature" is a testament to the boldness and potential of humankind. In the near term, what this really amounts to are measures to dramatically reduce or offset CO₂ emissions. According to the UN, 110 countries have either signed the agreement or announced plans to try to comply.

While there's debate about how aggressive to be, the basic goal today is to try to get to Net Zero by 2050. Even China is on board and have announced that they want to get to peak emissions by 2030 and carbon neutrality by 2060. This is serious business

now and the way we're going to go about implementing the strategy is by putting a price on CO₂ emissions. The carbon credit is going to be treated as a proxy for the damage that economic activity does to the environment. What used to be an externality is now going to be part of the cost equation of every form of economic activity. We sure have come a long way since "Silent Spring." According to the World Bank there are already 64 separate carbon pricing initiatives in place covering 21.5% of global emissions. Given the momentum of the political will here, I expect we'll see more of this and quickly so.

The carbon economy is essentially going to look like this: Governments are going to legislate into existence a whole new cost structure for business that puts some kind of price on CO₂ emissions. Businesses will have two choices: either 1. Eliminate CO₂ emissions from their activities or 2. Purchase carbon offset credits. The carbon offset credits themselves will be generated by either direct investments in carbon offsetting projects (like reforestation or carbon sequestration) or by companies that somehow manage to produce less CO₂ than they are legally allowed and end up with excess credits.

The EU has been experimenting with this for quite some time and there's a robust market for carbon credit trading. In fact, the EU carbon credit has been one of the best performing investments of the year:

European Union EUA Prices 2008-2021



In America we're behind the curve on this—a result of the historical importance of oil in the power dynamics of this country, Trump's temporary withdrawal from the Paris Treaty and a general legacy of climate change skepticism. However, things are changing fast here. I read recently that over 1,500 American companies have voluntarily announced plans to be net zero by 2050. On Wall Street ESG investing is all the rage and the managers of something like \$37T of assets have a net zero 2050 target as key consideration for their holdings. The Biden administration is all over this as well. A recently leaked memo from the White House indicates that Biden was hoping to use the budget negotiations as an opportunity to get legislation passed that would mandate electric utilities to reach 80% renewable by the end of the decade and 100% by 2035.

I discovered recently that climate change anxiety is also a thing in America, so much so that the American Psychological Association even has a definition for "eco-anxiety": a chronic fear of environmental doom. A recent OpEd in the LA Times noted that almost 75% of young Americans are worried about climate change and the condition of our planet. There are already a couple pilot programs going here—one in California and one in the Northeast—and I am convinced we will see widespread carbon credit trading in America soon.

What's going on in the EU is fascinating. They've gone so far down this road there that there are people seriously considering even criminalizing CO2 emissions and other forms of environmental damage. An NGO called Stop Ecocide Foundation recently convened a group of legal experts and just released a proposed legal definition:

"Ecocide" means unlawful or wanton acts committed with the knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment.

To give you a sense of just how serious these people are, they want ecocide to be treated as the "fifth international crime."

The other 4: genocide, crimes against humanity, war crimes and crimes of aggression. Both French President Emmanuel Macron and Pope Francis have already publicly declared their support.

Similarly, a Dutch court recently ruled against Shell in a landmark case. The ruling—considered by many legal experts to be a serious case of judicial activism and overreach—mandates Shell to cut CO2 emissions by 45% compared to 2019 levels and holds Shell responsible for both its own CO2 emissions and that of its suppliers. By the way, these mandates are above and beyond what is currently required by Dutch law, which Shell argues it is in complete compliance with. While the ruling is under appeal, the message is clear. The EU legal system is going to be more demanding about meeting the goals of the Paris Agreement.

Understanding that they are the global first mover here, the EU is working currently to put in place what it's calling the Carbon Border Adjustment Mechanism, which amounts to a \$10B per year tariff system on imported products from countries who don't similarly regulate CO2 emissions. The idea is to make sure European products remain competitive in the face of these new carbon costs and to prevent EU companies from moving operations offshore to avoid the costs. And the costs are no joke. The market for carbon credits was over \$260B in 2020. Remember, this is basically only the EU and a few other jurisdictions. Even in the profit-obsessed US, the voluntary market was over \$300M last year. Kempen Capital Management put out a report recently that argued that global equities could fall by as much as 4% to 20%, depending on how serious the rest of the world gets about taxing carbon.

So the carbon economy is real, here to stay and growing. I think it represents one of the most exciting investment themes I've ever come across. It leaves me feeling so optimistic about the potential of our global culture. Here we are rethinking the nature of capitalism, asking some tough questions and moving beyond what is merely expedient. And yes it's taken some time since our first environmental awakenings a half century ago but we are here now and forming a bold global consensus.

There are tremendous investment opportunities in the carbon economy. The price of carbon itself is almost certainly going to go up. If the world is even half as serious about the Paris Agreement as it seems, the demand for carbon credits is going to accelerate almost exponentially. There's risk of course, as always, and the price of carbon credits will likely be volatile. This is very much a political opportunity in that its existence requires maintaining this global consensus but I think it's a great bet from here. Check out the KraneShares Global Carbon ETF (KRBN) for an easy way to get some exposure.

Kraneshares Global Carbon ETF Price % Change



There's also this really interesting company about to IPO called Carbon Streaming Corporation. Carbon Streaming invests directly in carbon offsetting projects—things like renewable energy, methane capture, reforestation and carbon capture—and then sells the credits to companies who are either required to or just want to comply. I invested a small amount in their pre-IPO private placement rounds and will probably be investing a lot more when they are public. I'll keep you posted on this one as I want to see how the IPO goes before making a formal recommendation.

There are a couple of interesting crypto projects as well. There is the MOSS C02 project where each MC02 token represents 1 carbon credit. From what I can tell, MOSS is generating carbon credits by investing in Amazon reforestation projects. Single Earth is another company doing essentially the same thing with their Merit tokens, which represent 100kg of captured CO2. While I really like the intent behind both of these projects, I'm content to just watch them for now. They are both very new and seem to be going after the voluntary compliance market, which though substantial is nowhere near as big as the legally mandated market. □

Update on the Metaverse and a Recommendation

After spending some time (literally) in Decentraland and examining some of the other virtual world projects, I've come to believe that best way to participate in this space is simply to slowly accumulate Ethereum. Most of the Metaverse projects are Ethereum-based so it'll serve as a sort of proxy for now. While there are great opportunities within the Metaverse itself, to really take advantage of them you have to be authentically engaged in the creative evolution of the virtual economy itself. And at this stage in my life, that's just not in the cards. I would really like to find an execution partner for this more nuanced approach to investing here. So if you might be that person or know someone who is, please reach out to me! For now my recommendation is to slowly accumulate Ethereum.