

MAKING MONEY OUT OF THIN AIR



CARBONOMICS:

How **Carbon Credits** will mint the
Next Generation of **MILLIONAIRES**

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The Perfect Storm: How Saving the Earth Can Make You Rich

Pop quiz: What do Norway, Nestlé, and NASCAR have in common?

Or what about Elton John, President Biden... and JetBlue?

They're all among the companies, celebrities, cities, and countries that have made commitments to curb their contributions to climate change—or eliminate them entirely.

And they're all using *the exact same tactic* to do so.

It's one you've probably never heard of...

In fact, it's a commodity so new that it doesn't even have an official market yet. There are no quotes or tickers on Yahoo! Finance, Financial Post or Google Finance ...Pricing is almost impossible to find.

But it's on the verge of erupting onto the world stage.

In a few years, even your Uber driver—will know everything about it.

In half an hour, though, you'll be one of the few people in the world to know all the details.

Let me explain...

It's no secret that the past thirty years have been *hot*.

It's an even worse-kept secret that as a planet, we have less than thirty years to act to keep it from getting much, much hotter.

COVID gave us a brief intermission between those twin thirty-year periods.

And in so doing, it set the stage for a revolution that will upend mammoth industries... turn entire countries upside down... and affect our way of life in ways that can't even be imagined today.

Here's how: The global crisis of COVID forced governments to spend far more money than ever before.

And government leaders suddenly realized that there is a looming catastrophe far larger than a mere global pandemic.

This one will require spending more than \$100 of trillion to stomp out.

It's one that threatens the existence of the human race:

Climate Change.

Just as things are really starting to heat up, the world's politicians, leading investors, thought leaders, and most influential figures have poured a concrete foundation for what lies ahead.

Now, whether you think climate change (or global warming) is manmade or not is irrelevant.

- **This is what world leadership believes, and it's going to operate as if it's true.**

The tidal wave of government and corporate money that will create this change will put NASA and every other government body to *shame*.

It's going to create enormous, long-lasting change in how investing works.

This is the type of opportunity that—like clockwork—comes along once in a generation.

In this special report, you will get a front-row seat to one of the most incredible emerging opportunities you will ever see.

Once you're up to speed on how the largest entities in the world plan on fighting global warming...

You'll be set to profit from them in a big way.

Good for Vegetables, Terrible for Humans

Global warming is purportedly caused by something called “greenhouse gases” (GHGs).

The term itself sounds so *innocent*.

And in fact, GHGs are quite helpful. GHGs get their name from their ability to trap some heat in the earth's atmosphere, keeping it relatively warm.

When you think “greenhouse”, think of the big panes of glass that let sunlight in while preventing its heat from slipping out into the cold air.

It's fantastic for growing crops on a greenhouse scale.

And most of the time, it's good for growing humans on a planetary scale.

The problem is that human activities emit *enormous* quantities of GHGs.

And too much of a good thing, as you know, is a bad thing.

Now you're probably thinking... *with such a huge atmosphere—it goes up 60 miles—surely it would be hard for human activity to have a real impact!*

Here's the thing...

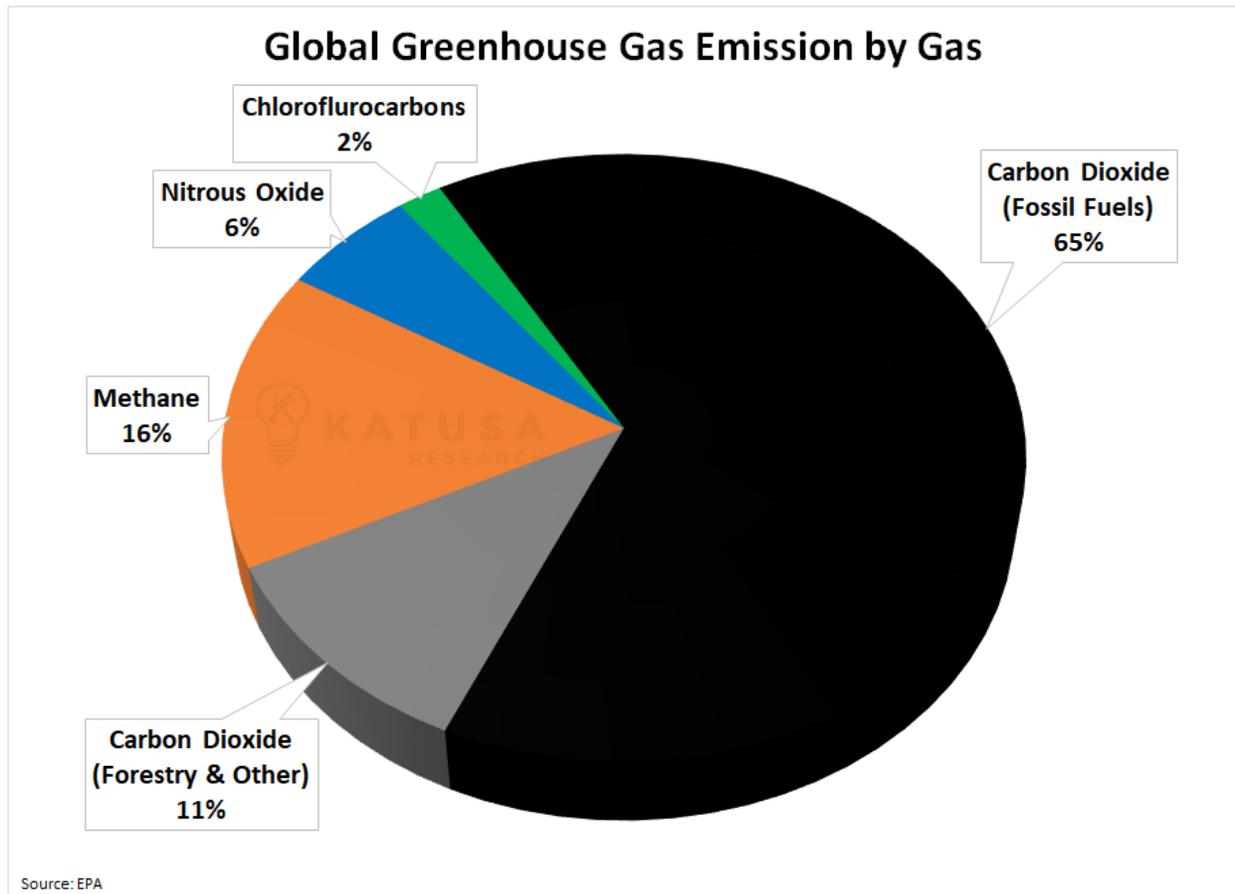
With GHGs, it's not volume that matters. It's concentration.

- **And CO2 comprises only about 0.04% of the atmosphere.**

Greenhouse gases can take several forms.

- **The most well known form of Greenhouse Gas is Carbon Dioxide or CO2. It accounts for 76% of global greenhouse gas emissions.**

Other greenhouse gases which are less well known are actually more harmful: Methane, Nitrous Oxide, Chlorofluorocarbons.



A little is OK... a lot is a problem

Large quantities of greenhouse gases cause temperatures to warm around the globe.

How Much Greenhouse Gas is Emitted Annually?

Globally, over 52 billion tonnes of greenhouse gas equivalent were emitted in 2019.

- **It's estimated that due to corona virus, emission levels were 6% lower, approximately 48 billion tonnes equivalent.**

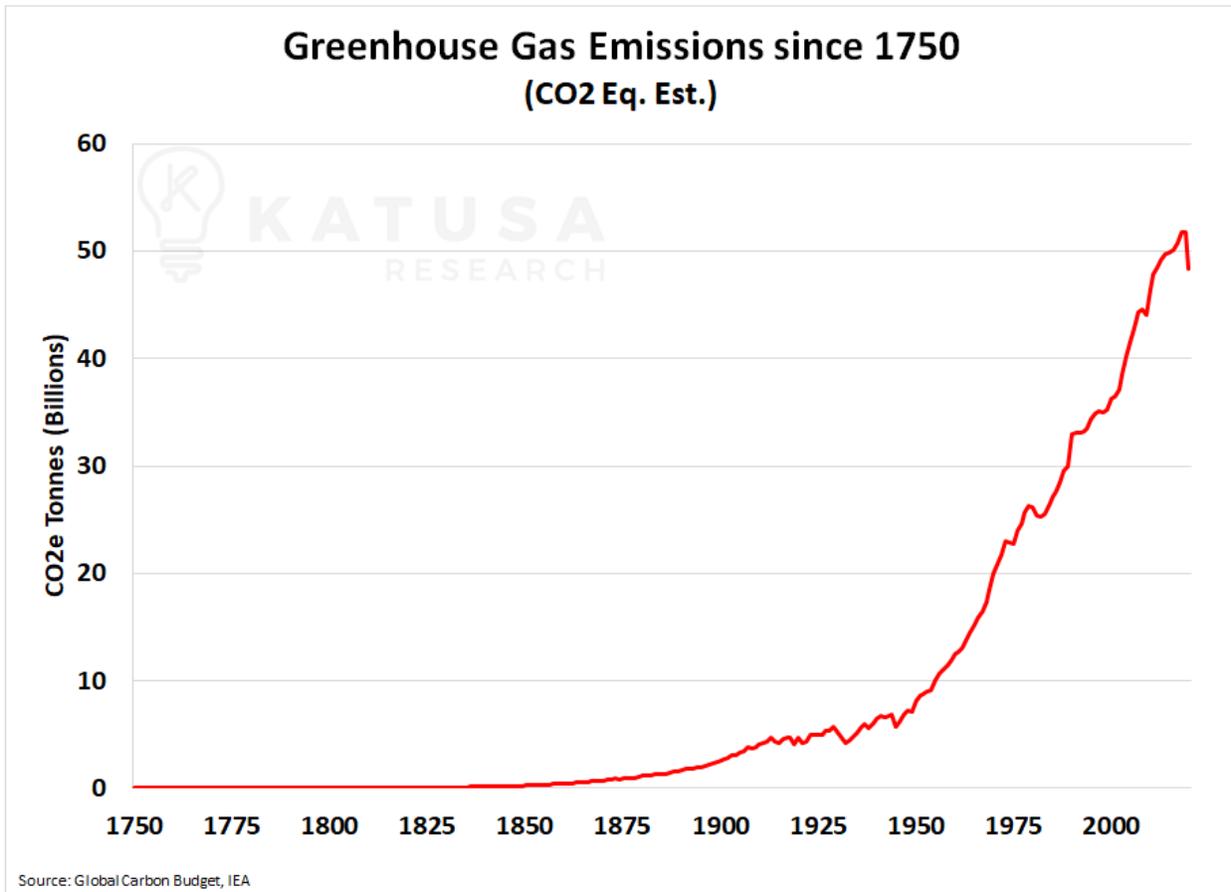
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Historically greenhouse gas emissions have grown in close lockstep to worldwide Gross Domestic Product.

This means that annual emissions have grown by 1.5%-2.5% every year for decades. As China industrialized the pace of emissions increased.

The chart below demonstrates the dramatic rise in emission levels since World War II.



Nations around the world know this emission trajectory is unsustainable.

Temperatures Rising

As the concentration rises—and the insulation around the globe gets thicker—it causes higher temperatures year-round.

The difference is small enough that you won't notice it on any given day.

One year to the next, especially at the beginning, won't seem like much.

But over time, continuously-climbing GHG emissions are causing global temperatures to rise faster than in all of human history.

To understand why this happens, imagine a pot of boiling water. If you prop the lid halfway off, it won't boil over.

But at some point, as the lid slowly slides onto the pot, the water will suddenly erupt all over the stove.

GHG emissions form a "lid" for the earth. Right now, there's *just enough* of a gap to release heat and keep the planet from melting.

But as emissions keep increasing... that gap keeps closing.

(And just to make it fun: the air conditioning people use to combat the heat *increases GHG emissions even more.*)

The ocean's temperature is rising, making it less able to absorb CO₂. Forests are being harvested, short-circuiting the natural CO₂ absorption cycle.

Scientists argue that at some point in the near future, we're in serious danger of passing the point of no return, as happened with Venus.

- **That uninhabitable planet's atmosphere is now a whopping 96% carbon dioxide, making it unsuitable for any living thing.**

The natural CO₂ cycle is like a slow-moving aircraft carrier...

Once it is pointed in one direction, altering course is difficult.

And *that* is why governments, politicians, world leaders, benefactors, and NGOs are all coming together like never before in human history.

- **In short order, every country, corporation, and consumer will have a single goal in mind: save planet Earth.**

Small Changes Make a Life-Threatening Difference

You're probably wondering...

Is the 1.5°C target that's being targeted really that big of a deal?

After all, the difference between 74°F and 76°F is imperceptible.

On a global scale, it's enough to create more drastic weather patterns.

We're already seeing incredible implications for crop production, livestock, weather patterns, and sea level rise. The news and governments are attributing it all to Climate Change and the Climate Emergency.

Islands are disappearing.

Texas is drowning in water.

California is going up in flames.

Already, four million deaths per year globally are attributed to climate change and pollution.

- **Global warming deaths are equivalent to a new COVID... every single year.**

The International Monetary Fund (IMF) estimates that global GDP could fall by 13% if we fail to act on climate change, which could send us into a global depression.

And there's something that makes the situation even more challenging: population growth.

According to the International Energy Agency (IEA), there will be 2 billion more people on the planet by 2050.

And the global economy is expected to double in size.

Yet somehow, we must emit less CO₂.

Again, you don't have to believe any of this. But it is the information that the world's superpowers and largest corporations are using.

And it will dictate how they operate for the next thirty years.

The mobilization of money, manpower, and technology they're about to take will look like the whole world is going to war.

Because it is.

We're Already Losing the War

The opening salvo was fired in 2015.

That's when countries from around the world created an agreement focused on fighting climate change.

- **Today, 191 countries (out of 195 in the world) have signed the legally-binding Paris Agreement.**

Those countries represent 97% of global carbon emissions.

Together, they have a shot at mounting a *very* serious campaign to reduce emissions.

As part of the agreement, each nation established its own commitments, called "nationally determined contributions" (NDC).

Nearly all NDCs include a specific target for CO₂ emissions reductions over a given period of time.

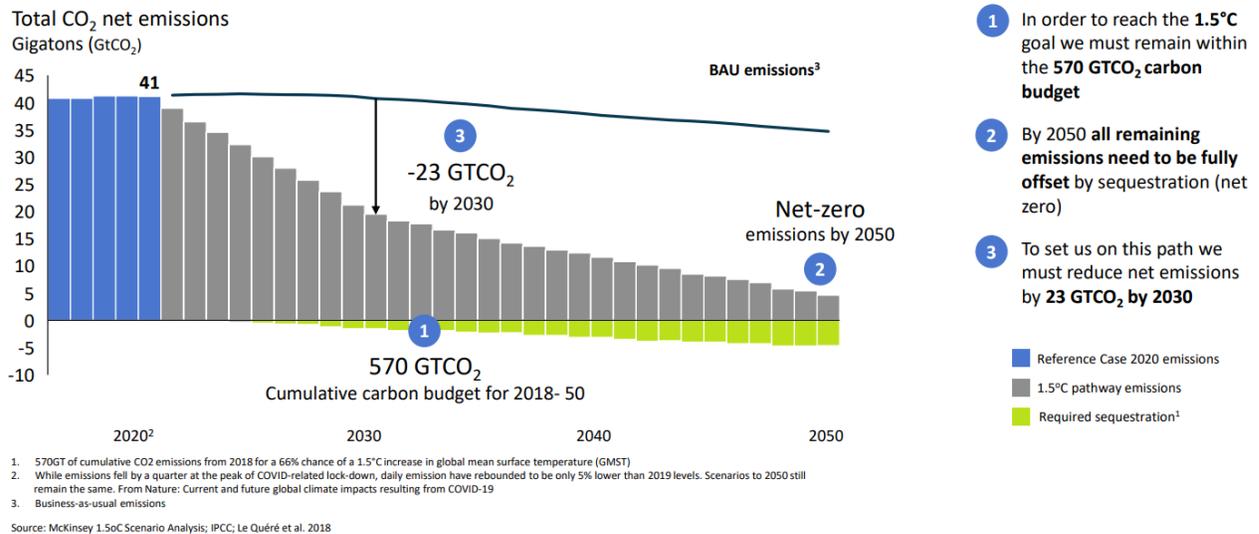
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The Paris Agreement’s stated goal for these NDCs is to limit global warming “well below 1.5 degrees Celsius.”

- **Reality check: The global temperature has already risen 1 degree Celsius.**

And as you already know... emissions have only risen since the Paris Agreement was passed.

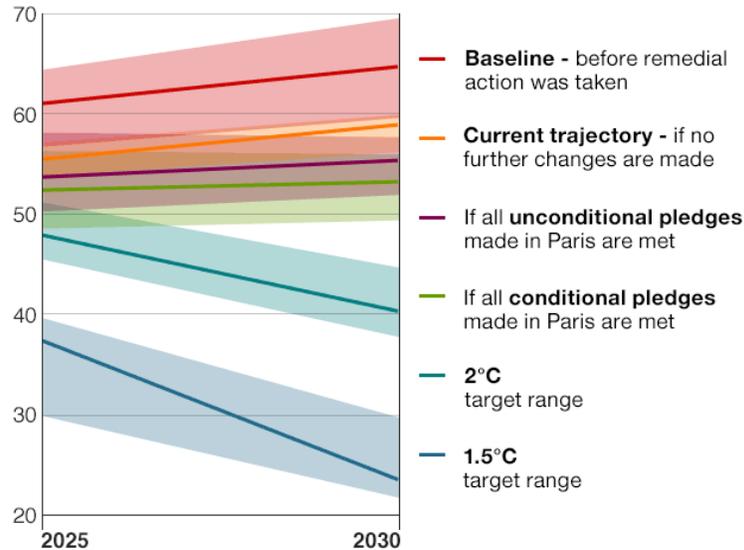


The blue portion of the graph above shows the total CO₂ emissions in the time since the Paris Agreement.

Nothing has changed. And the longer nothing changes... the steeper the slope will have to be to hit emissions targets in 2030.

And far more drastic methods will have to be used to reach the same result.

Global greenhouse gas emissions and the emissions gap in 2030



Source: UN Emissions gap report 2018

BBC

As you can see from the graph above, even if *everything* in the Paris Agreement goes *perfectly according to plan*, it still won't even get close to the 1.5 degrees Celsius target.

*"If the Paris Agreement received a grade "based on whether we have any prospect of meeting a 2°C target... **it's probably a D or an F.**"*

– Michael Oppenheimer, climate scientist and policy expert at Princeton University

So, they invented something called a “ratchet mechanism.”

Every five years, the countries will meet and “ratchet up” their NDCs to even higher levels of carbon emissions cuts.

If they're already having trouble meeting their NDCs... it's only going to get more impossible from here.

Which means governments around the world are going to take much, much more stringent measures to reduce carbon emissions.

Let's get into the different "nets" you need to know...

Net Zero: Is when individuals, companies, municipalities, or nations reduce carbon emissions by the same amount they emit.

Net Neutral:

This refers to the situation where emissions are not shrinking nor are they growing on an annual basis.

This neutral number is determined against a baseline year. Meaning, if a company states their baseline year is 2020, it means that emissions relative to 2020s emission must remain neutral. Example: An oil refiner's 2020 emissions were 1 million tonnes. To be net neutral in 2021, the oil refiner must not emit more than 1 million tonnes.

Net Negative:

This is the goal of Microsoft and several other world leaders. The goal is to actually reduce emissions by more than the amount you emit. Revisiting our oil refiner example. The oil refiner establishes a baseline of 2020 which is 1 million tonnes of CO2 emittance. In 2021, if the oil refiner acquires the rights to a reforestation project which removes 2 million tonnes of carbon, the refiner would then be "net negative" by 1 million tonnes.

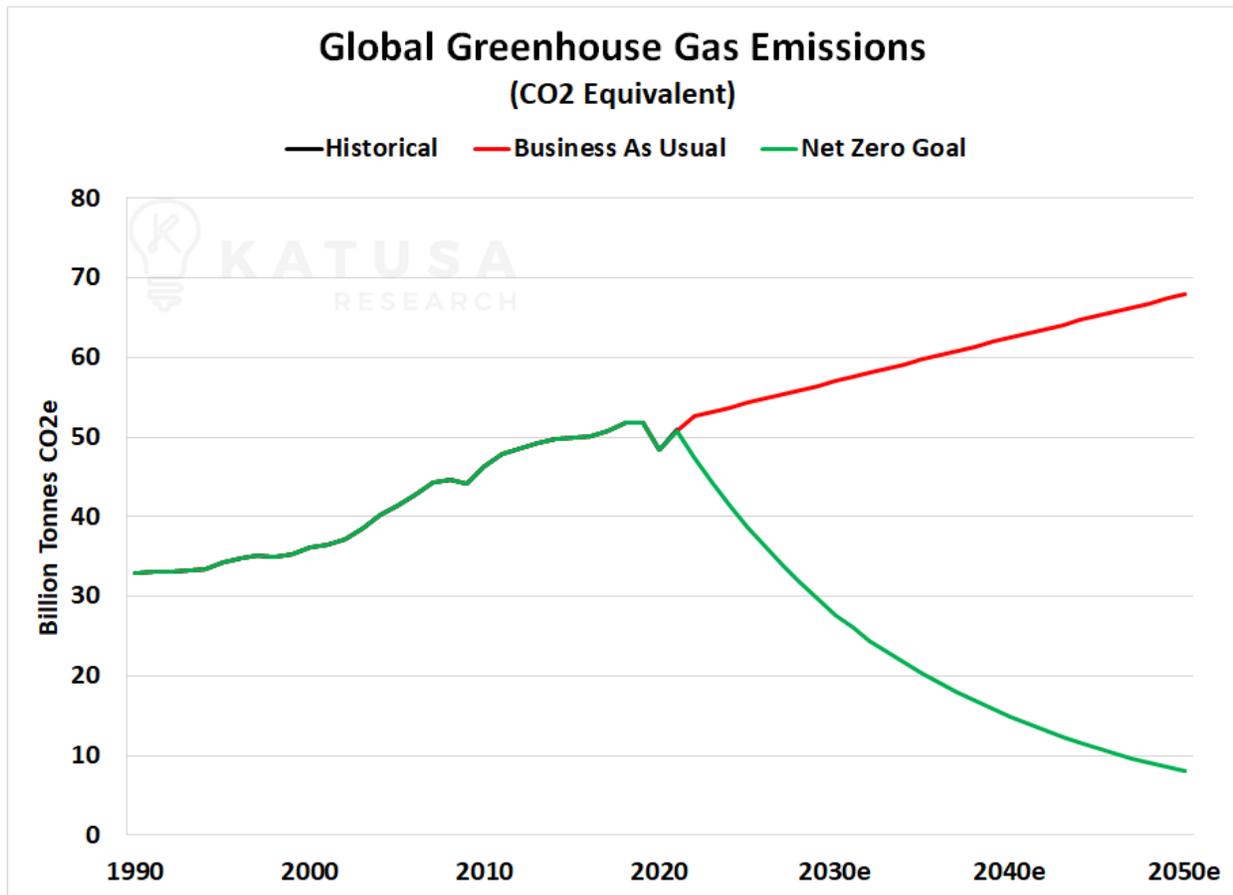
Net Zero and Chill

To hit their National Determined Contributions (NDCs), countries are going to engage in unprecedented capital expenditure.

Worldwide capital investment required to hit the 2°C Paris temperature goals will require more than \$100 trillion.

- **The overarching campaign of this hundred-trillion-dollar war will be achieving "net zero."**

Net zero is just a term that means *the amount of CO2 emitted is equal to the amount pulled out of the atmosphere.*



As you can see from the chart above, only by radically fighting to hit net zero can we avoid going “over-budget” with the CO2 in the atmosphere.

It’s the *only* way we get the planet to stop heating up.

- **To achieve global net zero, we’re about to see the largest government work projects in history.**

The dollar figures and sheer speed required will be astronomical—almost unfathomable.

The Global Race to Net Zero

The New World Economy Is Taking Shape...

And it’s going to change everything you know about investing.

This is going to be a war unlike any other.

Every country on the planet will fight in it, whether they like it or not. The battle lines have already been drawn, and the war is about to begin...

Though very, very few people are even aware.

This war will present investment opportunities most investors will recognize when it's way too late. And the major profits are made.

It's that kind of once-in-a-century event that mints billionaires and millionaires...

And it's crucial that you understand exactly how this war will play out—if you want to profit from it.

The Global Race to Net Zero is Just Getting Started:

The war-era spending that will be used to achieve net zero will irreversibly alter the investment landscape.

- **This is going to be a major investment theme and movement for the next three decades.**

It's going to make global governments' unprecedented financial response to COVID... look like pennies in comparison.

Carbon Taxes: Long term Impacts on Inflation & Unemployment

With trillions of dollars being injected into the system, it makes sense to be concerned about inflationary pressures.

As carbon taxes increase, this naturally forces prices of carbon intensive goods higher which one can argue is inflationary.

However, the other side of the coin must be taken into consideration...

Long term energy efficiency increases while capital costs decrease. This is deflationary.

On a net basis, inflationary pressures are nearly nullified over the long term.

A similar situation unfolds for unemployment.

Carbon intensive industries will face considerable headwinds...

It's projected that globally, 5 million oil and gas jobs will be lost due to this rotation towards net zero.

Contrary to the job losses...

- **Globally there will be 15 million new jobs created in the carbon zero world.**

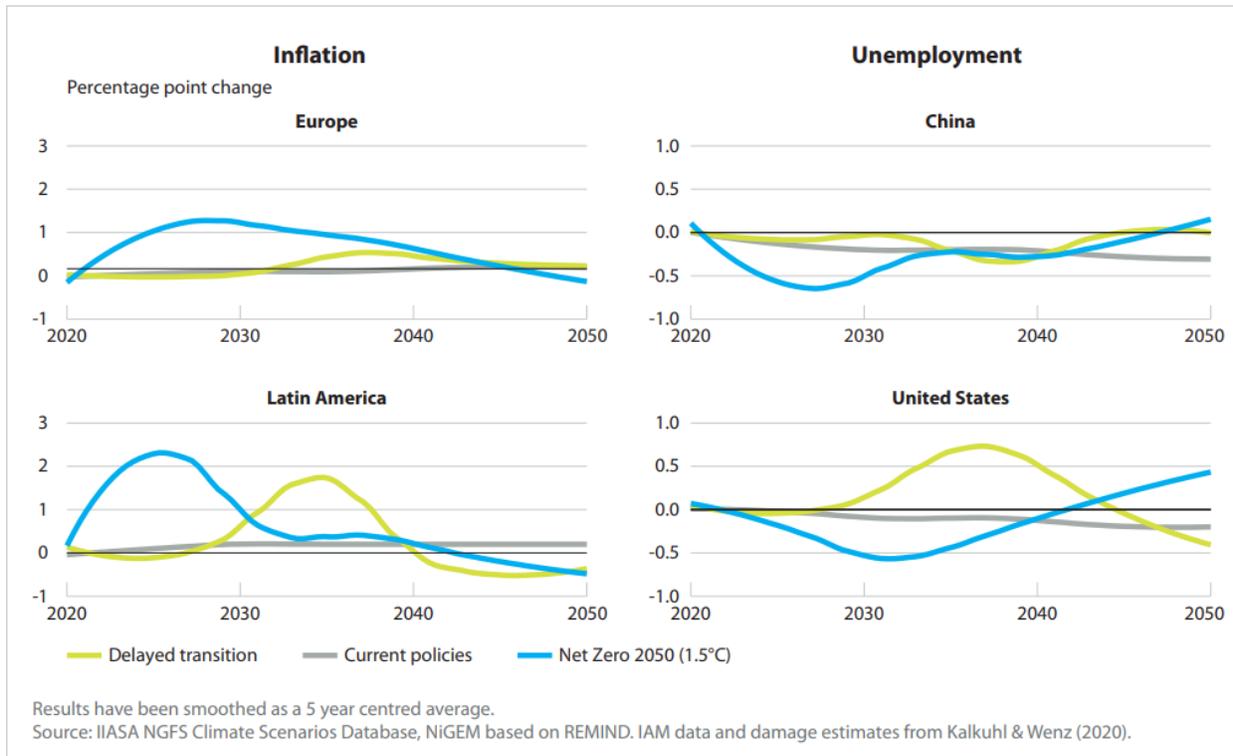
In the charts below, you'll see the results of simulations run by the Central Bank Supervisors NGFS.

This Central Bankers organization is composed of 92 members including the US Federal Reserve, People's Bank of China, European Central Bank.

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As shown below, the inflationary conditions and unemployment levels are minimally affected over the long term...



I'll be the first to suggest that just because it works in a simulation, does not mean it will work in the real world.

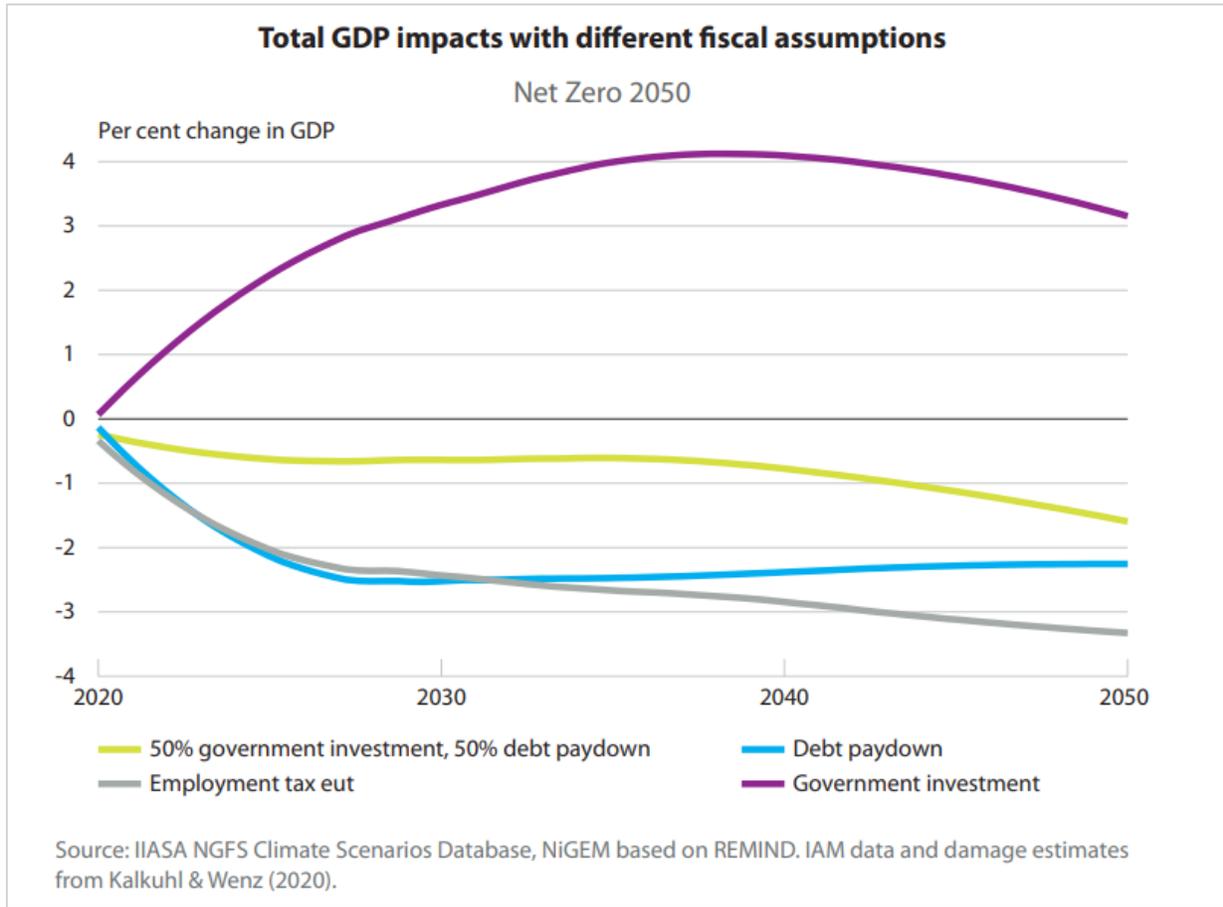
- **However, these simulations do give politicians the confidence to spend TRILLIONS of DOLLARS going down the net-zero path.**

Next you'll see a chart which models the effects of reinvestment of carbon taxation dollars.

After all, all that tax money should be reinvested into technology, rather than just lining the pockets of politicians.

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As you can see that with significant reinvestment into R&D, there is potential we can actually *improve* global GDP over a multi decade horizon.

Saving the World Needs A LOT of Money

Emphasis on the *A LOT*...

- **Worldwide capital investment required to hit the 2°C Paris temperature goals require trillions of dollars.**

People through around billions and trillions like it doesn't mean anything anymore. It doesn't help that U.S. Federal Reserve Chair, Jerome Powell refers to dollars as "digits".

But we've spent half a decade modelling and updating our forecasts. The type of money spending on this will be unprecedented.

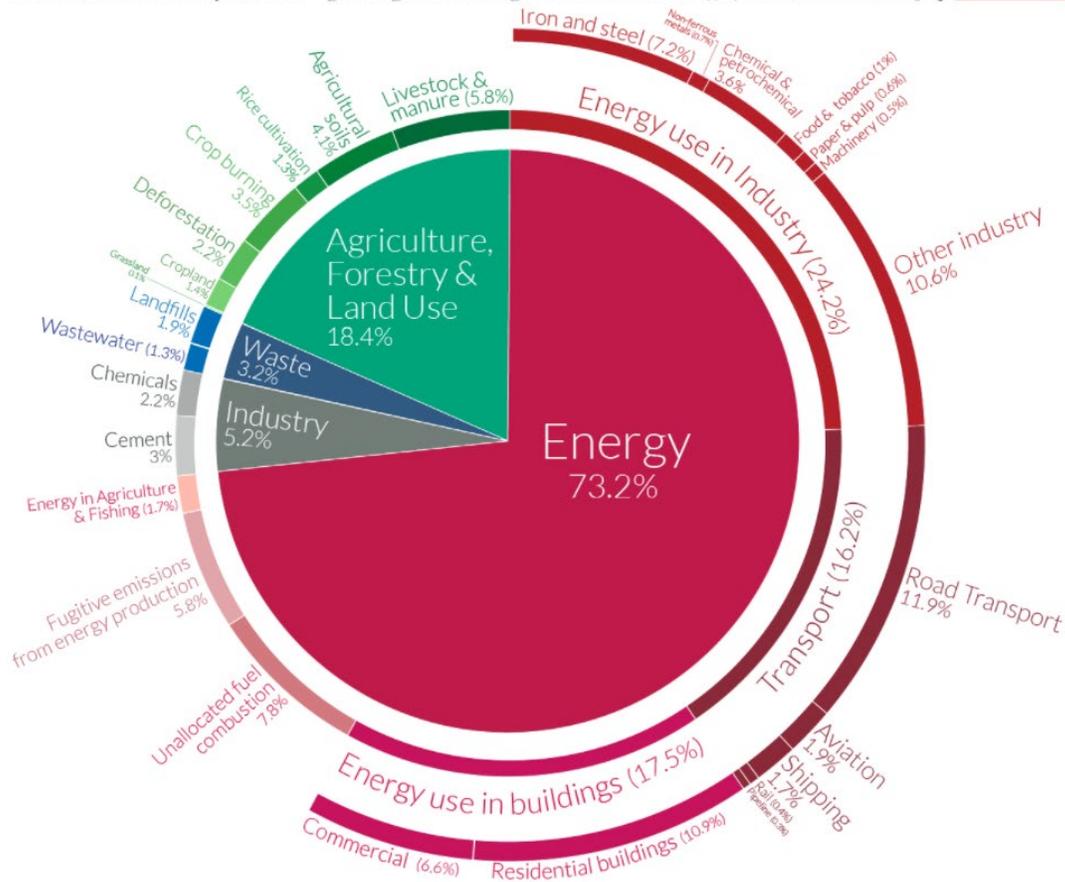
Here's why...

- Energy consumption and production is responsible for 70%+ of global greenhouse gas emissions.

Global greenhouse gas emissions by sector



This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.



OurWorldInData.org – Research and data to make progress against the world’s largest problems. Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020).

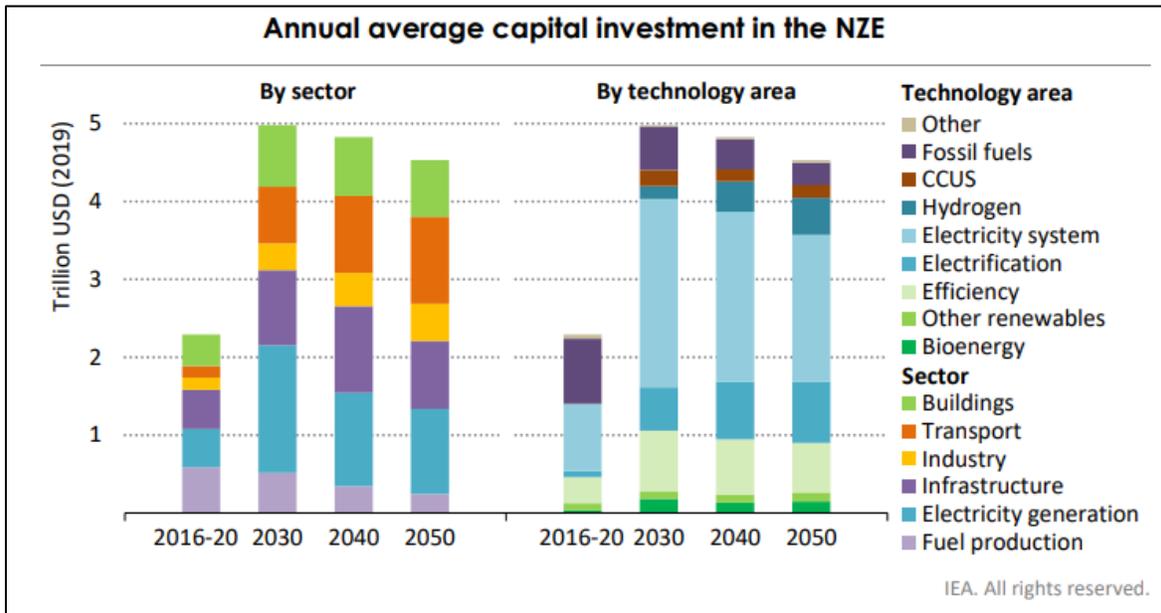
This makes it the most important sector to target for major overhauls.

Globally, \$2 trillion a year is spent on energy related expenditures.

It’s forecast that to hit the goal of 1.5 degrees or “Net Zero”, expenditures must immediately double to \$5 trillion and remain at that level until after 2030.

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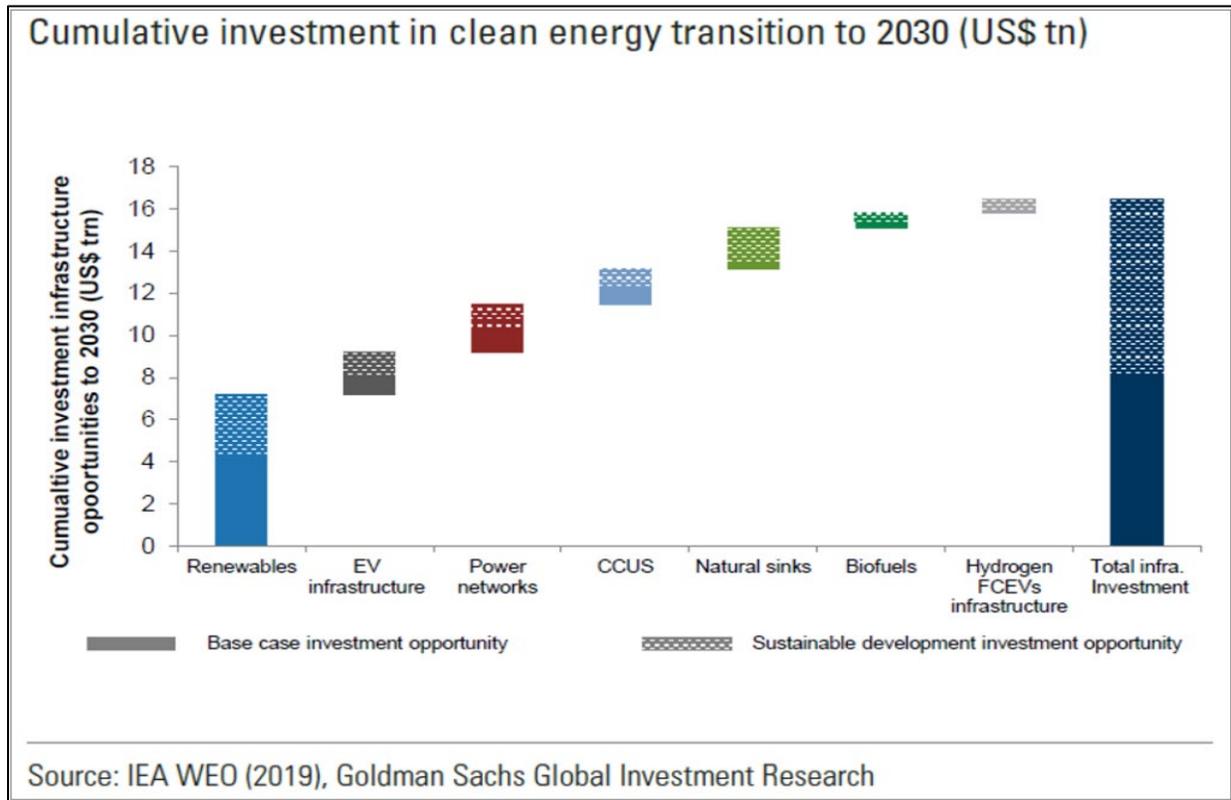
To put it in perspective, it took well over 100 years to build America's current power grid!

- **According to the University of Princeton's Net Zero Study, it will require America to rebuild its entire electric grid in the span of 30 years.**

According to Goldman Sachs, there is an estimated \$16 trillion worth of investment required in clean energy between now and 2030.

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The European Commission outlined its roadmap for the European Green Deal earlier this year.

Their total fiscal response by 2050 is estimated to be more than €7 trillion.

The University of Princeton estimated that the United States will require \$9 trillion in capital expenditures over the next thirty years.

Very, very few people are aware of the sea change that's about to happen.

- **Net zero is going to be a major investment theme and movement for the next three decades.**

A whole new world economy will take shape...

And it will change everything you know about investing.

This war will present investment opportunities most investors will recognize when it's way too late. And the major profits have already been made.

So it's crucial that you understand exactly how this is going to play out—if you want to profit from it.

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Cap, Cut, and Credit

To understand how emissions will be reduced, you need to know about a tiny, lesser-known greenhouse gas called chlorofluorocarbon (CFC).

In 1992, it was discovered that CFCs were extremely harmful to the atmosphere.

So, it was banned worldwide.

Fast Food joints like McDonalds stopped using their polystyrene packaging (CFC) seen below because billions upon billions of containers were dumped every year into landfills.



Within four years, all CFC production had halted.

Unfortunately, the world is far too dependent on carbon emissions for the same tactic to work on its own.

So a simple, three-pronged strategy to reducing emissions will be used.

Remember when you were in middle school and the fireman visiting your school taught you to “Stop, Drop, and Roll?”

A similar strategy is taking shape for putting out the carbon emissions fire: “**Cap, Cut, and Credit.**”

- **Cap:** Set a ceiling on the amount of CO2 any particular company (or country) can emit.
- **Cut:** Reduce current emissions as much as possible by increasing energy efficiency or transforming operations.
- **Credit:** Buy carbon credits for any remaining emissions to achieve compliance with the cap.

This is where things get really interesting—and potentially lucrative.

- **Two entirely new commodities have been created to help incentivize the Cap, Cut, and Credit method of beating global warming.**

And both of them are rising faster than almost anything else in the world right now (including the temperature).

Since CO2 is the same gas anywhere in the world, it doesn’t matter where emissions are reduced.

It makes financial sense for many companies to reduce emissions where it is cheapest and easiest to do so, even if that does not involve their own operations.

Other companies (think oil & gas) can’t get their emissions below the cap.

Enter the Carbon Credits Compliance Market

Some think of carbon credits as “emissions permission.”

A carbon credit represents ownership of one metric tonne of CO2 equivalent that can be traded, sold or retired against one’s carbon emissions.

Companies that cut emissions to *below* what is required can sell the “excess” emissions to those who have not cut their own emissions. The buyer can use the carbon credits to offset their own emissions of GHGs.

For example, a company might switch from coal-fired electricity to electricity from renewables. With the associated reduction in emissions, they now come in below the regulatory cap.

They sell the remaining permitted emissions as credits to a company that is not below their own cap.

These carbon credits are issued, verified and certified by an independent third-party auditor or a government agency.

Which brings us to the other new commodity...

Carbon Offsets

Remember the question about what JetBlue and Elton John have in common?

- **They're both using a concept called carbon offsets to work toward going net zero.**

Carbon offsets generally represent emissions that have been or will be removed from the atmosphere. This physical reduction of CO2 generates a carbon credit.

The process of carbon removal is known as "carbon sequestration."

It involves, for example, planting forests, keeping forests from being cut down, or injecting CO2 deep into the earth to remove it from the atmosphere.

Offsets can also take the form of *emissions avoidance*.

Governments will put caps on emissions, meaning...

Companies and consumers will have to reconfigure operations and lifestyles to reduce emissions as much as possible...

Purchase carbon credits to mitigate the emissions that cannot be eliminated (and reach compliance for corporations)...

And purchase carbon offsets to eliminate emissions that have already been made (and reach net zero).

If you're still a little confused, that's okay.

These are complex, rapidly developing markets.

But for the people who are willing to put in a little time to understand them, it promises to be very, very lucrative.

For now, just remember that there are two markets:

1. **Compliance** (government mandated) and
2. **Voluntary** (primarily for corporations).

How Much Is a Ton of CO2 Worth?

Right now, a “cost curve” is forming, whereby high-cost industries will choose to buy carbon credits to aid in their emissions reduction rather than decrease their operations.

- **In effect, the private sector will drive the price of carbon credits toward the cost of reducing emissions.**

Low-cost emission industries will choose to improve their facilities through capital expenditures... and then sell carbon credits.

Which means the largest buyers of carbon credits in the compliance market will be in industries in which reducing operational emissions is challenging or cost-prohibitive.

These industries include:

- Cement
- Steel
- Oil
- Aviation

Take steel, for example. Its production represents a whopping 7% of global GHG emissions.

The majority of that steel production—80%—is produced using a blast oxygen furnace. These furnaces require extraordinary amounts of “dirty” energy to melt iron ore and coking coal.

The problem is that switching to cleaner electric arc facilities would cost billions of dollars. All told, a “green” overhaul of the global steel sector could require over \$100 billion.

Companies that don't fail under that heavy capital burden will have to pass the cost on to consumers. A study from the United Nations estimates green steel products could cost between 20-50% more.

So, to comply with emissions regulations, steel producers will have two options:

- Risk bankruptcy by making enormous capital outlays to build energy-efficient facilities and jack up prices to pass off the cost.
- Buy relatively cheap carbon credits to achieve compliance, then continue with business as usual.

The choice is obvious.

It's a little bit different for aviation. Goldman Sachs says this sector, which is responsible for 2% of global emissions, will be the hardest sector to reduce emissions.

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It makes sense: there is simply no commercial alternative to jet fuel right now.

Other than small fuel-efficiency increases that come with new airplanes, the only way to cut emissions... is to reduce the number of flights.

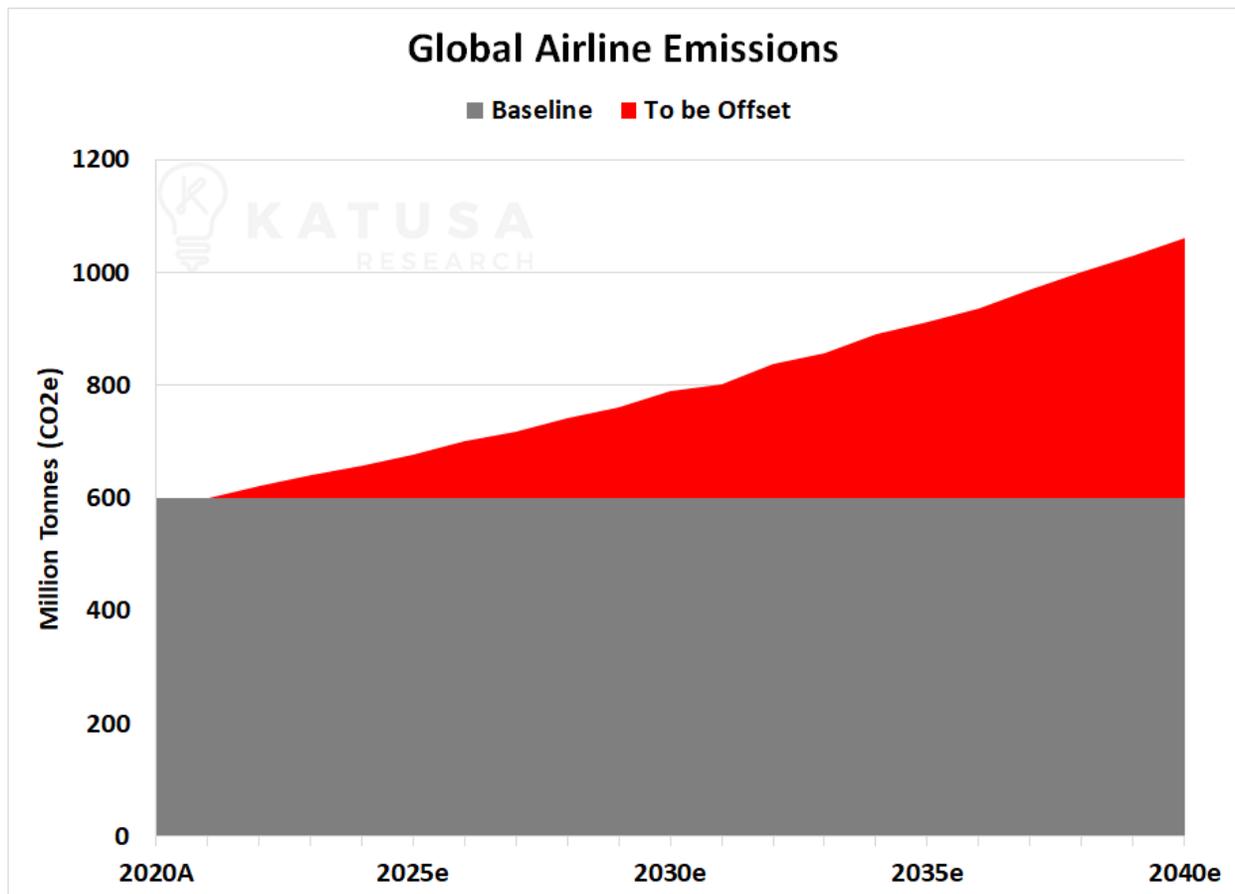
With no realistic alternative to a new fuel and only limited adoption of high-efficiency planes, airline companies will be forced to buy carbon credits to achieve net zero.

The airline industry's most important body is called IATA, the International Air Transport Association. It comprises of 290 airlines and its members account for 82% of all global air traffic.

The body has enacted CORISA, which is a carbon offset and reduction plan for its members.

The rule for its members is to stabilize, or be "net neutral" on its CO₂ emissions from 2021 onwards.

Below is a chart which projects the carbon offset requirements for the airline industry.



Putting a Price on the Future of Our Planet

You're probably wondering: *So what are carbon credits actually worth in the compliance market?*

Short answer: A lot more than they were three years ago.

Now for the long answer...

- **Finding an accurate, uniform, universal price for carbon credits is not easy.**

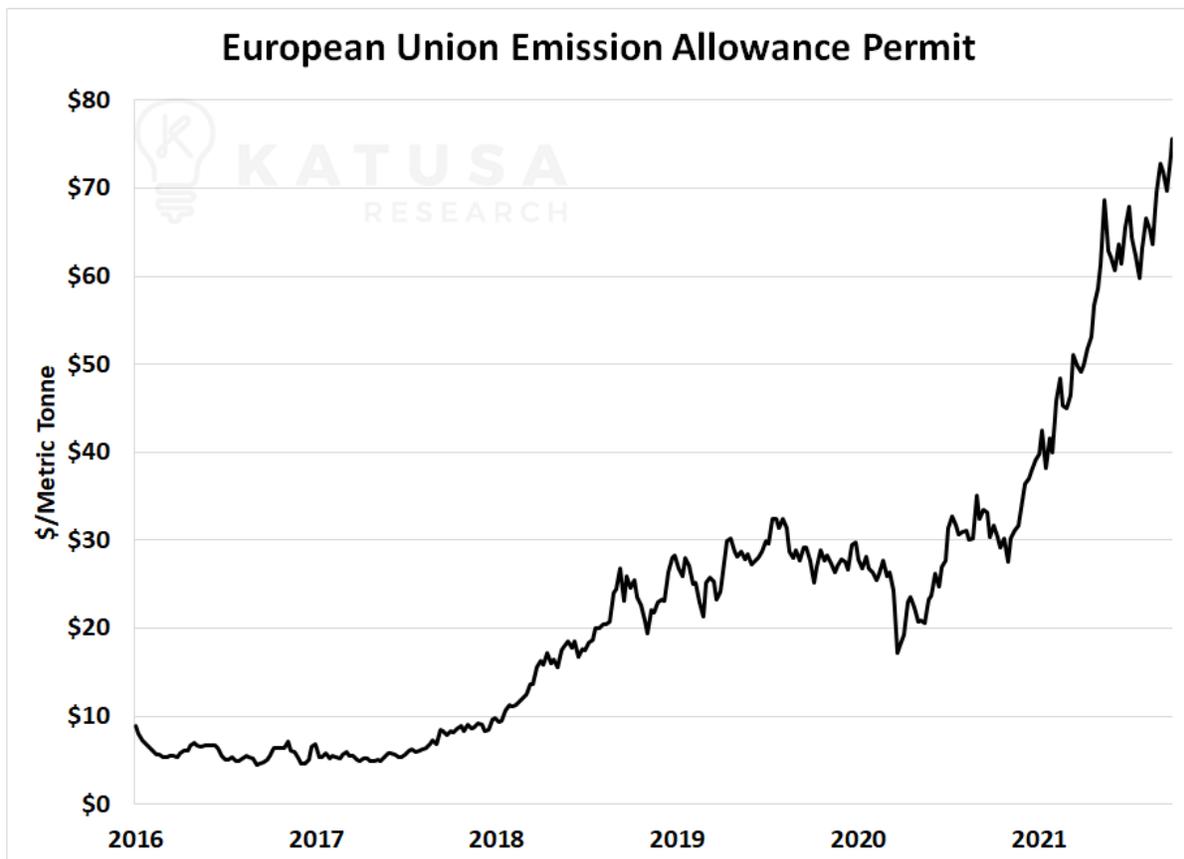
You can't just type "carbon credit price" into Google like you can for "Apple stock" or "Bitcoin price".

Because the market is still young and fragmented, many sources provide quotes for credits in different markets.

The most common carbon credit price today is the **European Union Allowance (EUA)** permit.

The EUA permit is just a fancy name for a specific carbon credit.

The chart below shows the price performance of the permit over the past five years...



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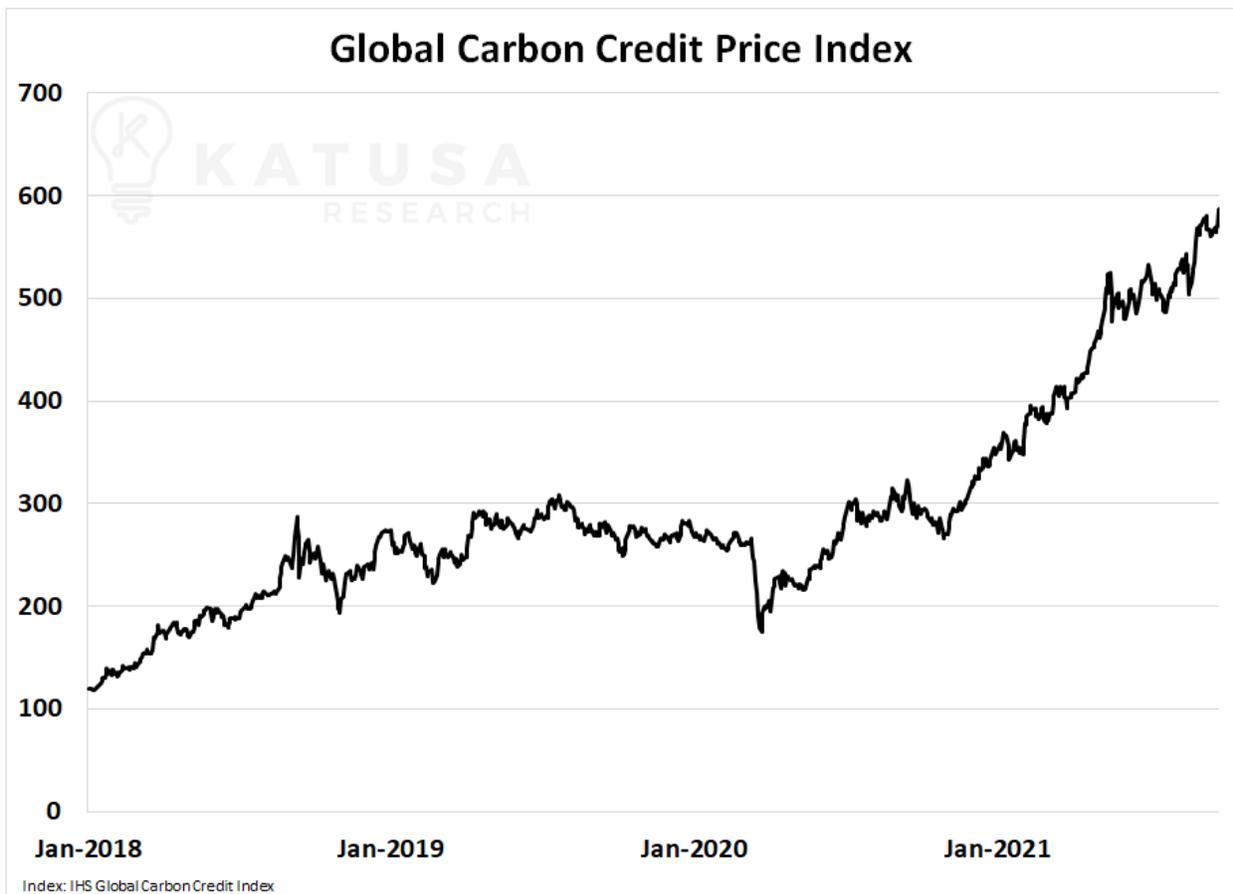
In five years, it's seen an easy 1,000% gain.

And the market itself is growing fast.

- In 2017, the yearly volume for EUA permits was **\$26 billion**.
- In 2020, dollar volume soared to **\$207 billion**.

A more well-rounded index is the IHS Global Carbon Index.

It combines multiple compliance market carbon credit prices into a single index. It also shows incredible growth over the past five years.



No matter how you measure it, carbon credits are quickly becoming more valuable.

The charts indicate this is a market desperately in search of equilibrium, where the price of a credit nears the price to invest in changing operations.

- **In other words, there's a lot of money to be made between here and wherever carbon credits end up.**

But before we can begin to invest, we need the answers to two questions...

Why are carbon credits going up?

and

How high will they go?

The Bretton Woods of Carbon Credits

The Bretton Woods conference at the end of WW2 set up all the rules and guidelines for every nation's currency. It was the single most important conference when it comes to global foreign exchange, U.S. Dollar, and gold's value in the economic system.

On October 31, 2021, in Glasgow Scotland, the 13-day conference called COP 26 will finalize all the rules and guidelines to all nations regarding Green House Gas emissions and carbon credits. This will be the Bretton Woods of Carbon Credits.

Carbon credits alone are proving insufficient at lowering GHG emissions—even though governments keep lowering the number of available credits.

In many places around the world, carbon prices are simply too low to incentivize polluters to change.

For example, the average across all 64 pricing initiatives covered by the World Bank is only \$16 per tonne.

It's cheaper for companies to buy credits than it is for them to physically reduce emission levels. This will change drastically, meaning the price of carbon credits must go up for companies to proactively reduce their carbon emissions.

- But remember: **Most countries are not hitting the legally binding NDCs outlined in the Paris agreement.**

So, they'll take more severe measures to get companies to fall in line.

The solution? Carbon taxation.

Establishing a price for every ton of carbon emitted provides an immediate incentive for all polluters to improve efficiency.

In fact, many corporations are already doing this internally in order to achieve compliance.

According to CDP Group, which has surveyed 800 companies around the world, the reported internal corporate carbon price is suggested at \$25 per tonne.

- **An additional 1,150 companies indicated to CDP that they will begin using an internal carbon price within the next two years.**

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These internal carbon prices are used to dissuade employees from redundant or excessive travel and energy consumption.

This clearly indicates that the current global average carbon price amongst nations is too low.

Now zoom out to the global picture...

Across 64 carbon pricing initiatives, 21.5% of global emissions are currently subject to a carbon tax.

Over the next ten years, it's logical to expect all the Paris Agreement signatories to enact some form of carbon taxation policy.

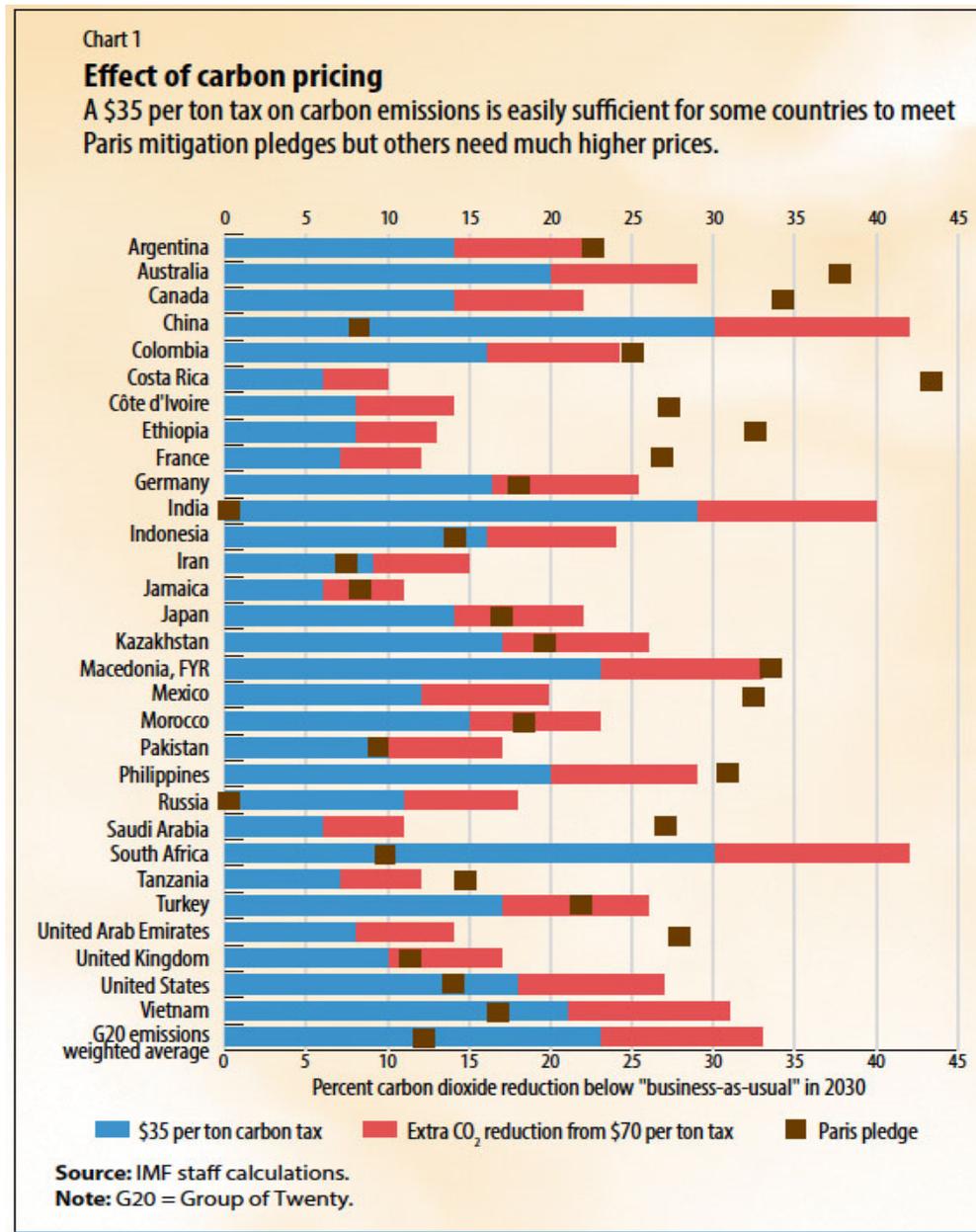
To really get things inline quickly, establishing a substantial minimum carbon tax is a potential solution.

The trick is, it requires "buy in" from every nation. Emissions don't stop at national borders, so everyone needs to buy in or else it fails.

According to the International Monetary Fund (IMF), a \$35 per tonne charge on every tonne emitted would begin to align nations with their NDCs.

MAKING MONEY OUT OF THIN AIR

How Carbon Credits will mint the Next Generation of MILLIONAIRES



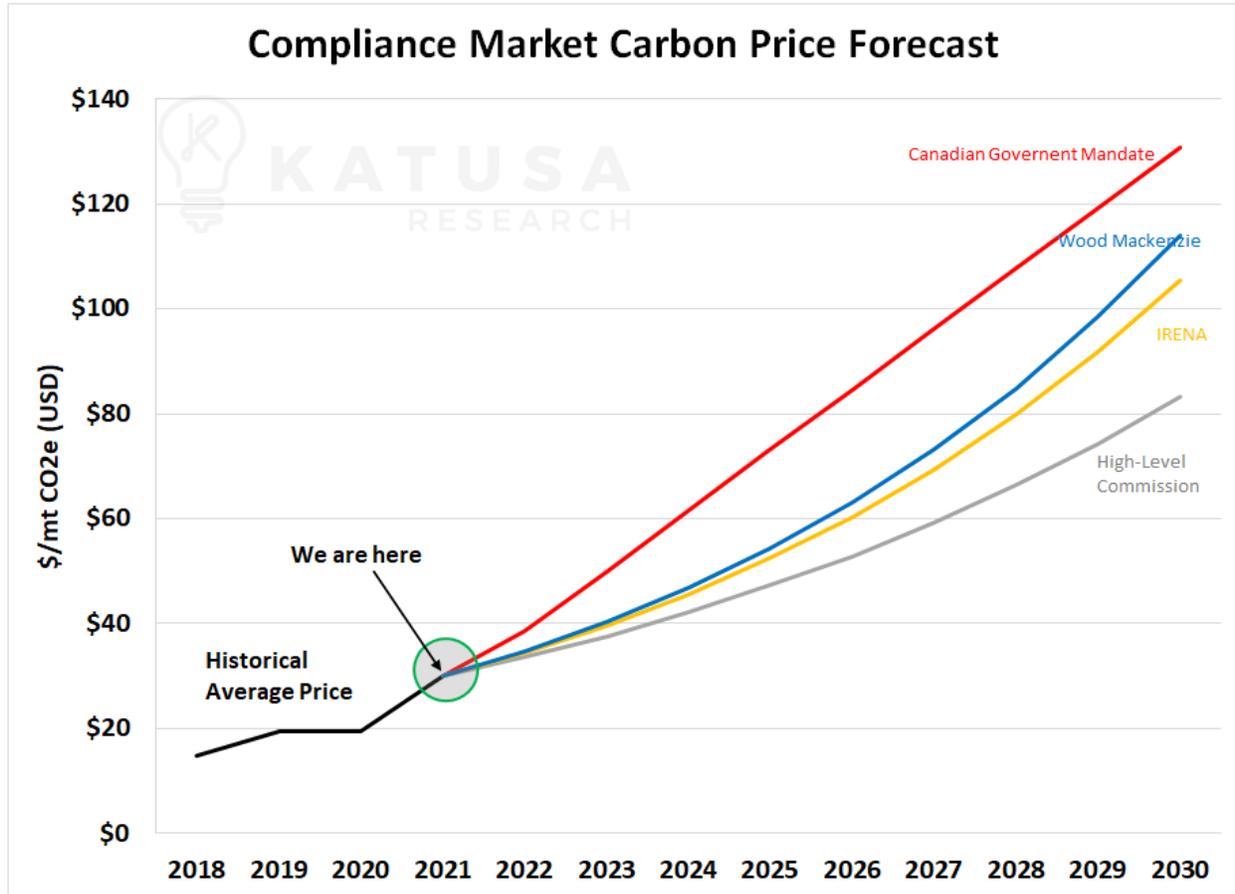
That's a **100% increase** over the current average carbon credit price.

As you can also see from the chart above, however, many nations require **much** higher taxes in order to fully hit their NDCs.

Most recently, the IMF has stated a **\$75 per tonne minimum price** would force most nations toward achieving their Paris Agreement commitments.

That's the floor. How high can carbon credits go?

The chart below shows multiple forecasts from governments and industry leaders.



Can you see how big this opportunity is?

And have you ever heard of governments lowering taxes? Fat chance.

As you can see, that carbon prices are set to rise steadily over the coming thirty years.

The reason is deceptively simple: As the tax gets higher, it incentivizes more and more companies to physically reduce their emissions. It becomes cheaper for these companies to fix the problem, rather than buying credits in the market place.

The compliance market is already a \$100 billion market.

But, what if there was a \$1 billion market with the same aim... that was headed toward \$100 billion almost faster than you can invest?

Cut Emissions or Go Extinct: The Case for Voluntary Reduction

For reasons we'll lay out in a moment, many companies want to go far beyond simple compliance.

They want to hit net zero—or even “net negative.”

Others, like Microsoft, have pledged to go even *further*, using carbon offsets to erase their entire historical footprint.

That has naturally led to the creation of the Voluntary Carbon Market (VCM), which is primarily made up of carbon offsets.

Carbon offsets are assets developed by independent companies that reduce or remove CO2 emissions from the atmosphere.

The credits generated from these offsets are then sold to companies that emit (or have emitted) CO2.

Huge corporations are leaping at the opportunity.

For example, in 2020, online payments company Stripe announced that they were not just going carbon neutral: they are spending at least \$1 million every year on carbon offsets. Owning the rights to these carbon offsets reduce Stripe's annual CO2 emissions.

They're even creating a team within the company not just to sequester carbon, but to help create the market for carbon offsets.

So why would companies like Stripe, Shell, Amazon, and Delta Airlines *voluntarily* spend *millions* on carbon offsets?

- **One reason: It's great for business.**

Companies like Coca-Cola have seen climate change take a heavy toll on the water supply for their product.

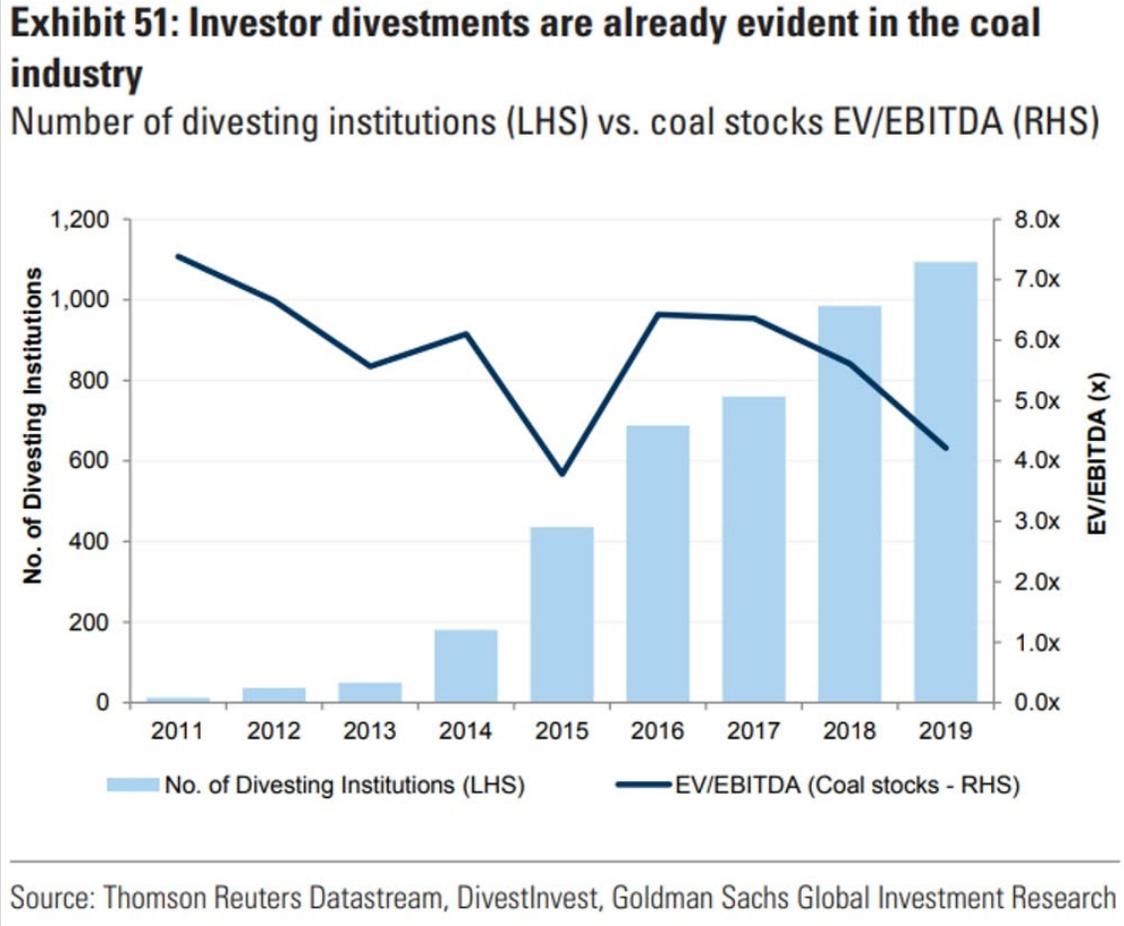
They're heavily incentivized to make big changes if they want to remain profitable.

Even if they weren't, consumers want environmentally conscious companies.

Go Green, Save Green, *Make* Green

And shareholders are avoiding emission-heavy companies like the plague.

For example, the chart below shows the number of investment institutions that have divested all of their coal holdings.



In 2011, it was almost zero.

By 2019, **close to 1,100 institutions had sold all their coal holdings.**

Another recent example comes from mid-2021.

Engine No. 1 a tiny hedge fund with a *0.02% stake* in ExxonMobil, won three board seats.

Under the banner of “Reenergize Exxon,” tiny Engine No. 1 is attempting to steer ExxonMobil—*an oil & gas company*—away from fossil fuels entirely.

Their mission is not to save the earth. No, it’s to make a profit and get shareholders to begin believing and investing in ExxonMobil again.

In other words, going carbon neutral... net zero... no emissions... whatever you want to call it is becoming *necessary to continue receiving investment.*

It’s already a competitive advantage to be publicly environmentally friendly.

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How **Carbon Credits** will mint the Next Generation of **MILLIONAIRES**

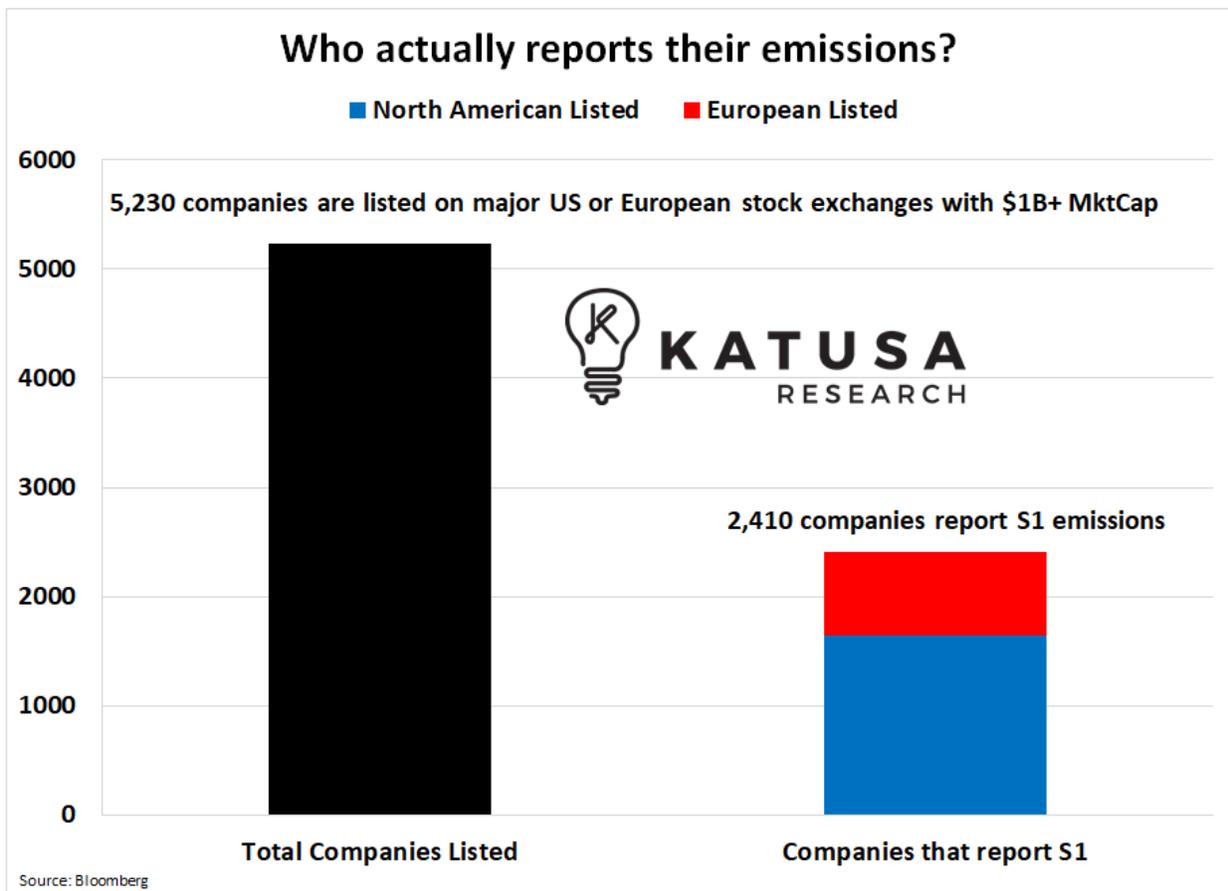
So the forward-thinking companies are beginning to make all their emissions information public.

It's going to create a rush to see who can be the most transparent and reduce emissions the fastest.

This gets a little technical, but bear with it for a moment. There are three types of emissions:

- **Scope 1:** The direct GHG emissions from company operations.
- **Scope 2:** The indirect GHG emission from energy purchased by a company.
- **Scope 3:** The indirect emissions not included in Scope 2 that occur in the entire value chain of the company.

Currently, less than half of \$1B+ publicly-traded companies in Europe or North America even report their Scope 1 emissions.



But a sea change is rising.

Most—if not all—companies will be peer-pressured into reporting their Scope 1 emissions in the next few years.

MAKING MONEY OUT OF THIN AIR

How Carbon Credits will mint the Next Generation of MILLIONAIRES

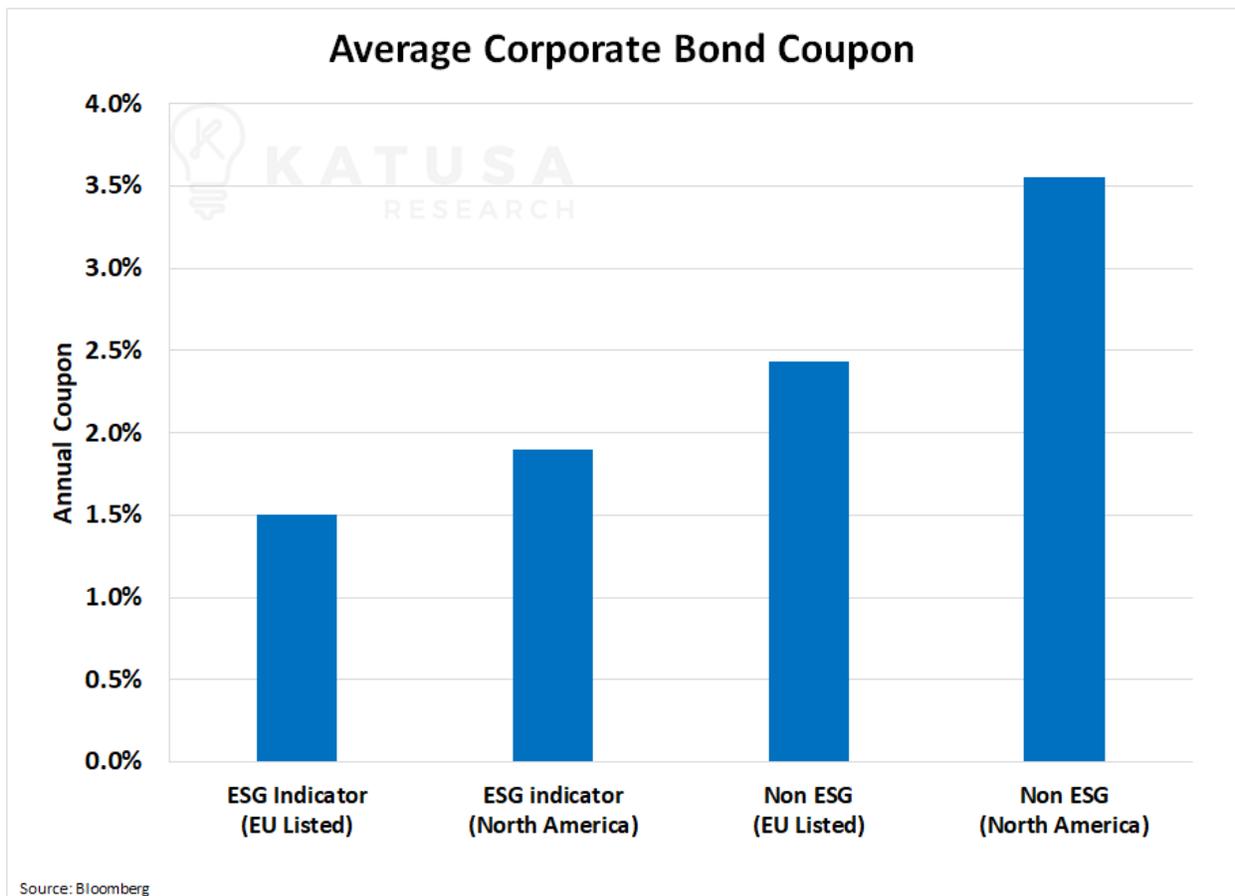
And Scopes 2 and 3 will follow a few years after that.

Eventually, reporting emissions will become regulated line items in financial statements.

But wait... it goes way further.

Companies that commit to climate change goals receive better funding terms and a lower cost of capital.

For example, the chart below compares the average rate paid on corporate debt in North America and Europe for ESG and non-ESG bonds.



Interest payments for bonds related to ESG pay nearly a full percent lower on average than non-ESG debt.

Even oil companies are taking advantage of the “greenium”. Enbridge, one of the world’s largest oil and gas pipeline companies, recently issued its first sustainability linked bond. The VP of Treasury stated because it was a sustainability-linked bond, the rate came in five basis points lower.

Can a Low-Carbon Diet Make the Voluntary Carbon Market (VCM) Huge?

You can see where this is going...

With the publishing of Scopes 1–3, the tide is going out on carbon emissions. We're about to see who's been swimming naked.

And everyone not wearing trunks won't receive the same investment terms anymore.

There's going to be a mad rush to buy carbon offsets to "cover up" emissions.

You heard it here first...

- **The voluntary carbon market has the potential to be the fastest growing frontier market for the next thirty years.**

How big?

That really is a multitrillion-dollar question.

And we won't know the true size for many years to come.

What we can expect, though, is massive growth.

Compared to typical asset classes like stocks, bonds, or commodities, the VCM is smaller and less developed.

- The voluntary carbon market is worth \$750 million–\$1.5 billion today.

Here is an example of why the VCM has to grow...

Today, voluntary carbon offsets generate 223 million voluntary carbon market credits.

Shell Oil produces in excess of 100 million tonnes of Scope 1 CO₂ emissions every year.

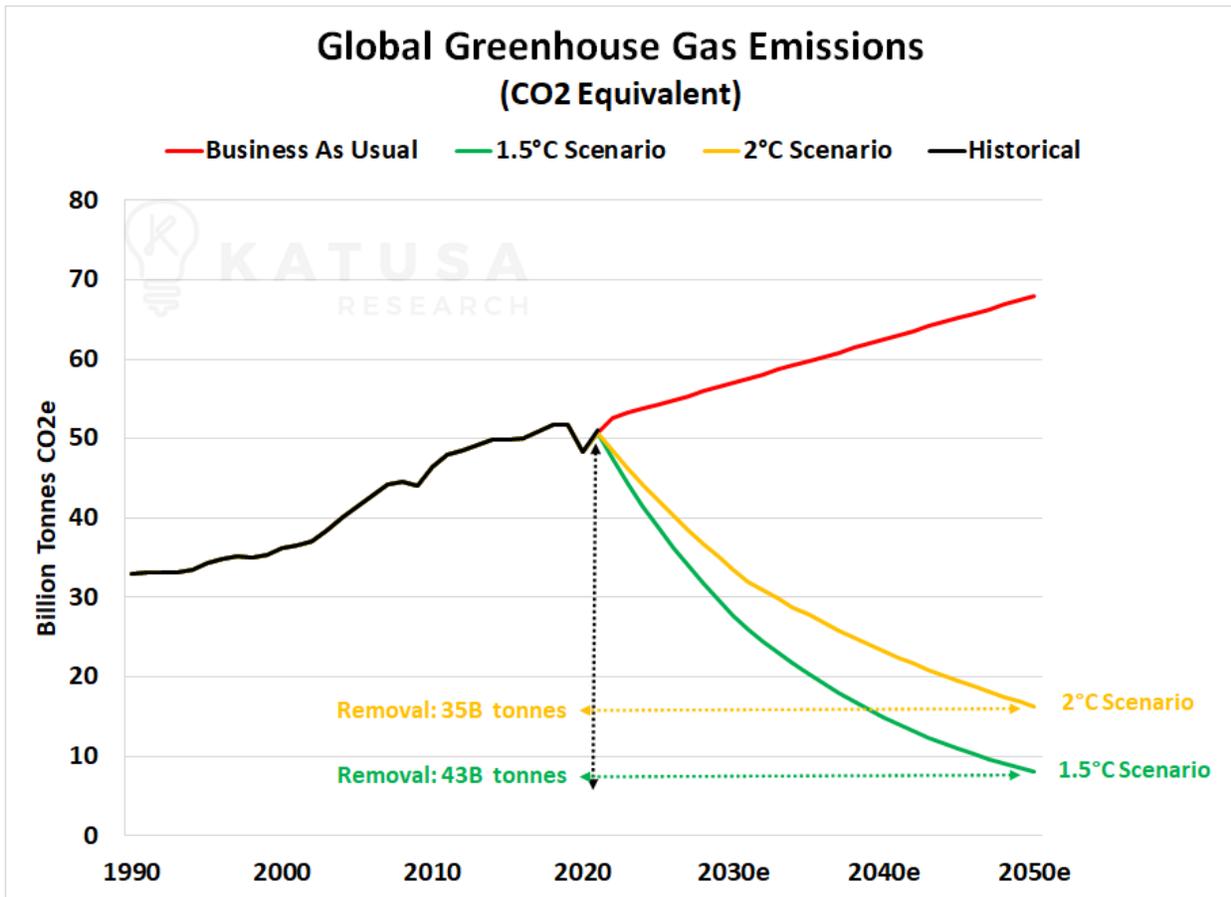
ArcelorMittal a global steel player produces in excess of 100 million tonnes of Scope 1 CO₂ every year.

- **KEY POINT: The emissions from just these 2 companies could swallow up nearly the entire current VCM annual supply.**

Now let's try to put a number on how big the market could be.

We can use the Paris Agreement as a base case for emission reduction trajectory.

The chart below paints three scenarios for 2050: one if we do nothing, one if we want to limit warming to 1.5°C, and one to limit to 2°C.



As you can see...

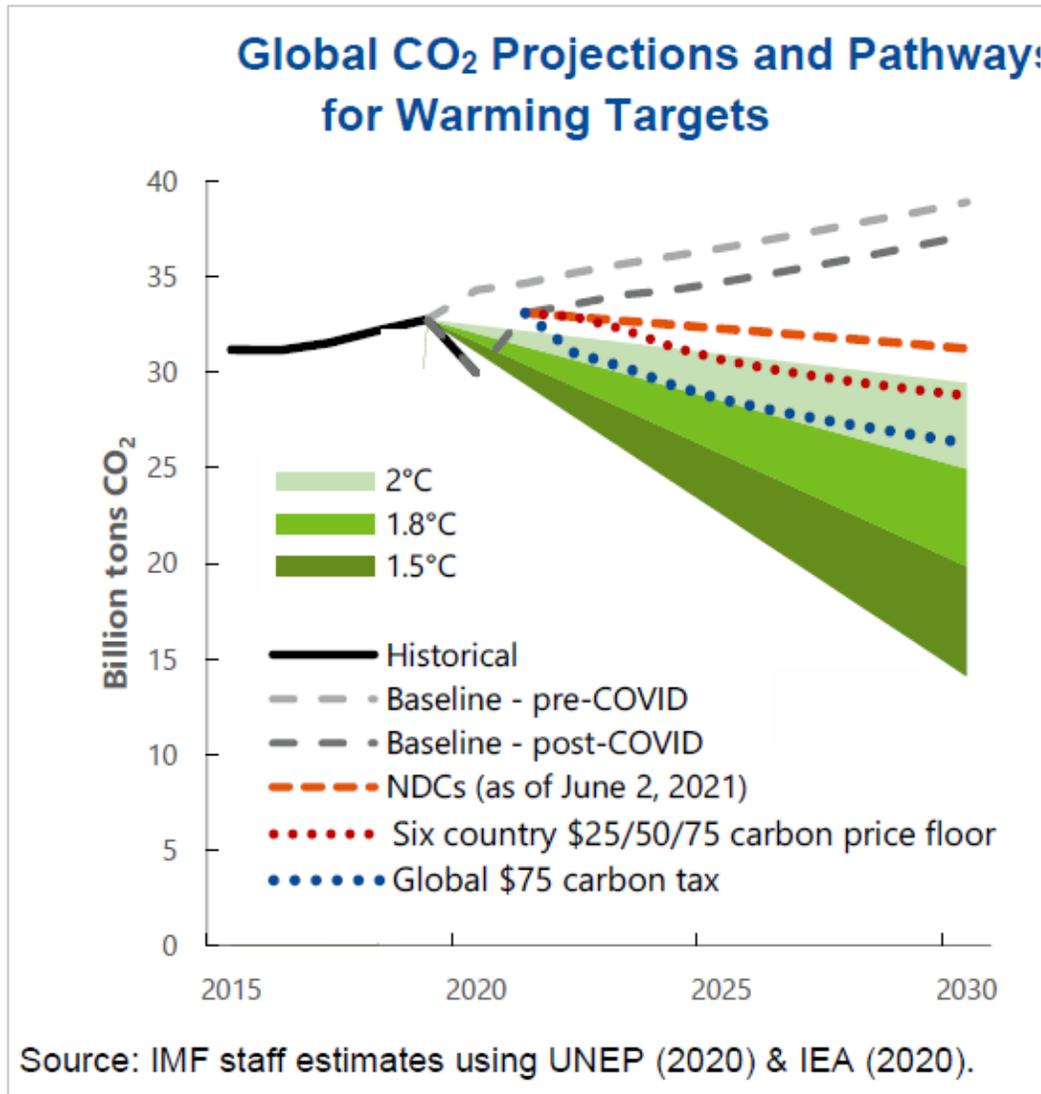
- **In order to keep the planet to warming only 1.5°C-2°C, we must reduce emissions by between 35 billion and 43 billion tonnes annually.**

Are we there yet?

Not even close...

The VCM's Long-Term Long Squeeze

Existing NDCs in the Paris Agreement fall short of what is necessary to hit the 1.5°C-2°C warming scenario. The chart from the IMF below, shows our current trajectory.



As you can see, the NDCs will take us from ~32 billion tonnes to ~30 billion tonnes of CO₂ emitted annually by 2030.

In other words, NDCs will stabilize CO₂ emissions... but make zero progress toward net zero.

Meanwhile, we're burning through our global CO₂ budget like there's no tomorrow.

If a global \$75 carbon tax were enacted, that would take us down to about 27 billion tonnes annually.

Math Made Easy: Modeling the Voluntary Carbon Market

I am convinced based on all of my due diligence...

And am backing that with a significant chunk of my net worth...

- **That the voluntary carbon market has the potential to be the fastest growing frontier market for the next 30 years.**

For the math nerds among us, the example that follows shows mathematically how this is possible.

Globally, as of June 1, 2021, there are 368 firms which have committed to “Net Zero”.

This means that each of those firms will reduce its direct greenhouse gas emissions to zero.

Currently these 368 companies emit approximately 4 billion tonnes of CO₂e per annum.

Matching the locale of each of the companies to each nation’s Paris climate agreement eliminates 2.4 billion tonnes of greenhouse gas emissions.

Remember credits can’t be applied in both markets, so to avoid double counting we remove the 2.4 billion tonnes.

- **Bottom Line: This leaves 1.6 billion tonnes worth of carbon credits in the voluntary carbon market to achieve “net zero”.**

Can the Voluntary Market Handle that kind of volume?

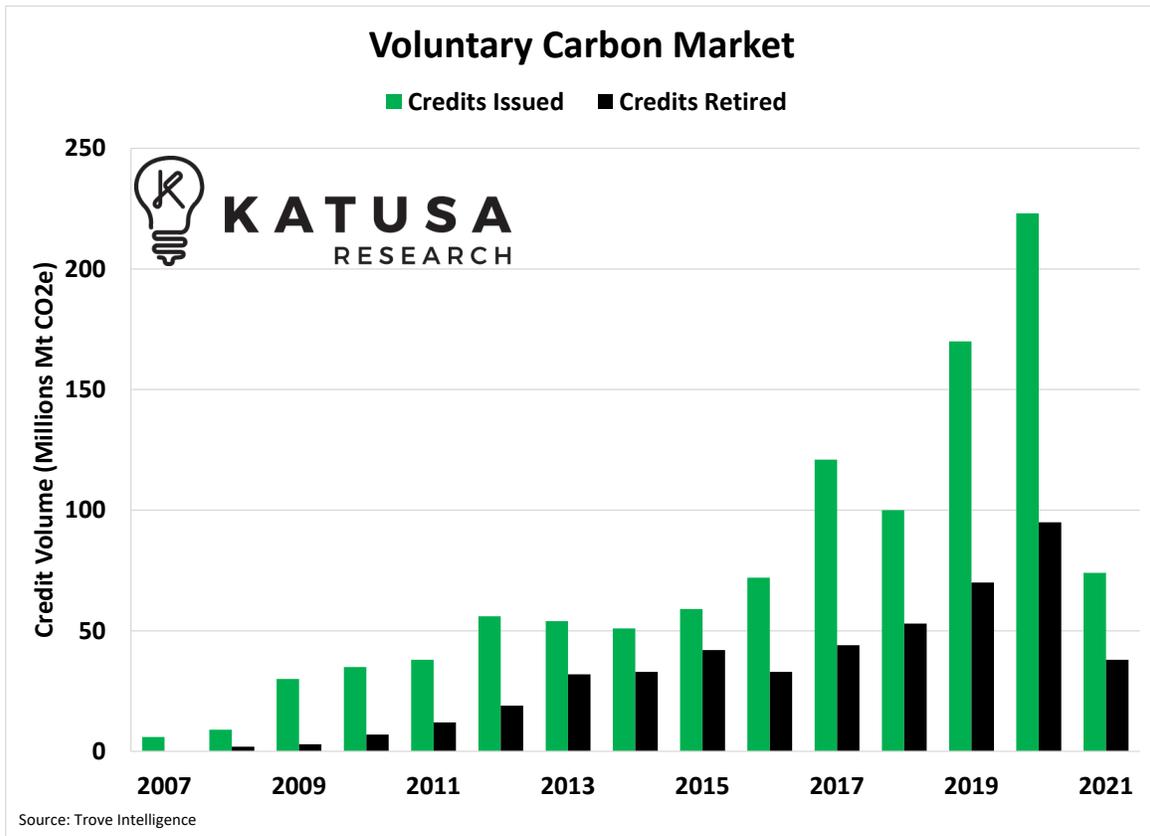
Not yet.

And this is exactly what makes the voluntary market such an exciting place to invest.

- **Corporate demand in the voluntary carbon market has the potential to grow by an order of 7-38x over the coming decades.**

Next you’ll see a chart which shows the annual credit generation from carbon offset projects in the voluntary carbon market.

In 2020, annual credit production in the voluntary carbon market was a record 223 million.



Comparing these 223 million credits generated...

To the potential 1.6 billion in demand demonstrates the optionality and growth potential of this market.

This is using only those 368 companies which have currently pledged net zero.

- **At a bare MINIMUM, the voluntary carbon credit market needs to grow by a factor of 7 just to provide carbon credits to these 368 companies.**

How BIG Can the Voluntary Carbon Market Be?

Let's use the 1.5°C goal to build a scenario.

Worldwide CO2e emissions estimated to be approximately 51 billion tonnes in 2021.

Under the 1.5°C scenario, it represents 43 billion tonnes of CO2e that must be removed or offset.

- It has been documented that government and public sectors account for 16% of global emissions.
- And the private sector accounts for the remaining 84%. This means the private sector emits 42.8 billion tonnes of CO2e (51 x 84% = 42.8)

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To be conservative...

Let's assume government and public organizations will not use any form of offsetting or cap and trade system for their operations.

This means they will reduce emissions through technology only and will not impact the carbon credit market.

This creates a 42.8 billion+ tonne market for carbon from private sector emissions.

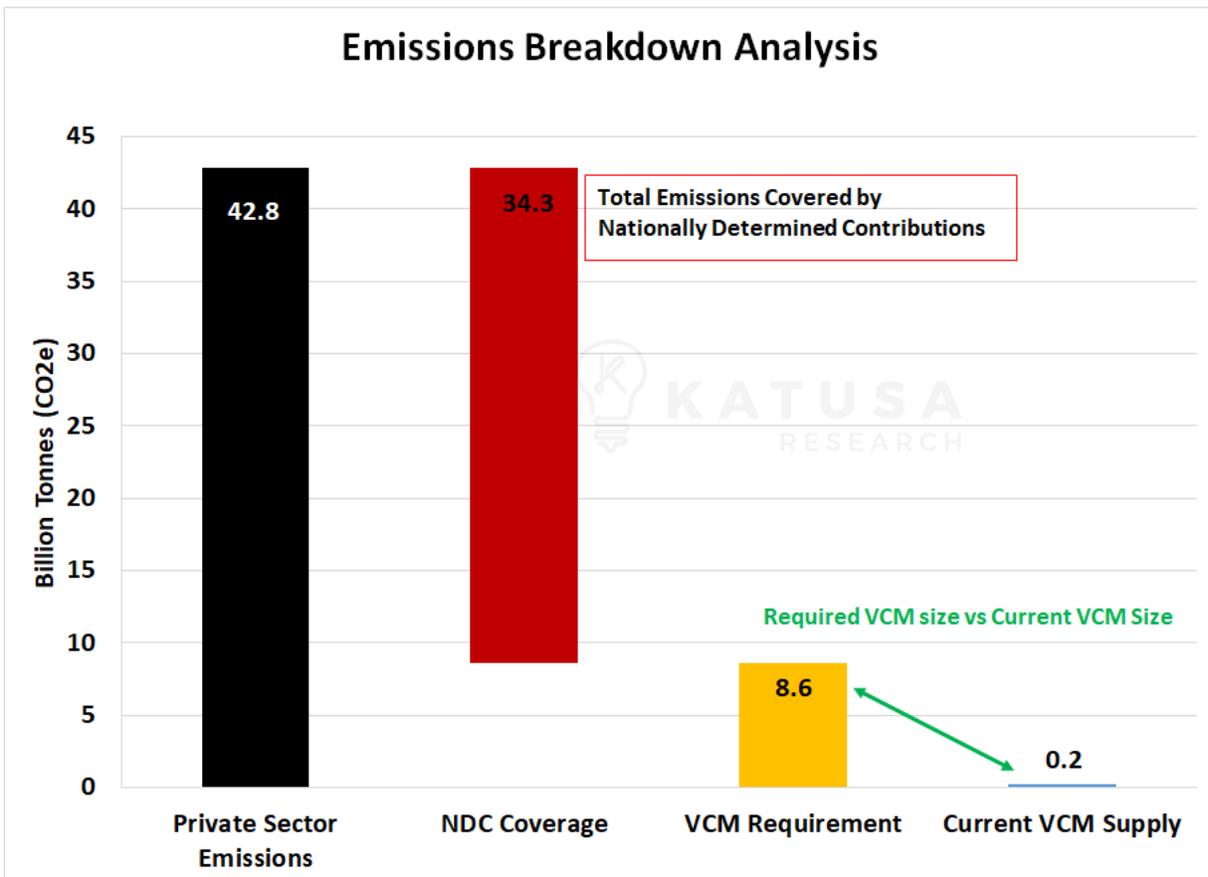
Now, let's be uber conservative and assume that 80% of those emissions are covered by nationally determined contributions.

And thus cannot be counted towards voluntary market demand. This means 34.2 billion tonnes are covered through NDCs ($42.8 \times 80\% = 34.2$)

This leaves the remaining 20% for the voluntary market to absorb if all those companies went to net zero. ($42.8 - 34.2 = 8.6$)

- **This represents over 8.5 billion in annual credit demand, representing 38x current supply.**

The chart below illustrates the math behind how big the VCM market can be.



As you can see, private sector emissions are 42.8 billion tonnes.

We subtract 34.3 billion tonnes because those are included in Nationally Determined Contributions.

The remainder is 8.6 billion tonnes, which is the amount that would need to be offset in the voluntary carbon market for the private sector as a whole to achieve “net zero”.

This scenario assumes there is no new economic growth between now and 2050 which could contribute to incremental annual emissions.

And that would again *increase* the requirements in both compliance and voluntary markets for carbon credits.

Put another way it essentially says any new economic growth is already net zero. This is highly unlikely but provides conservatism even in an upside scenario.

Let's sum this up...

At the Low End -

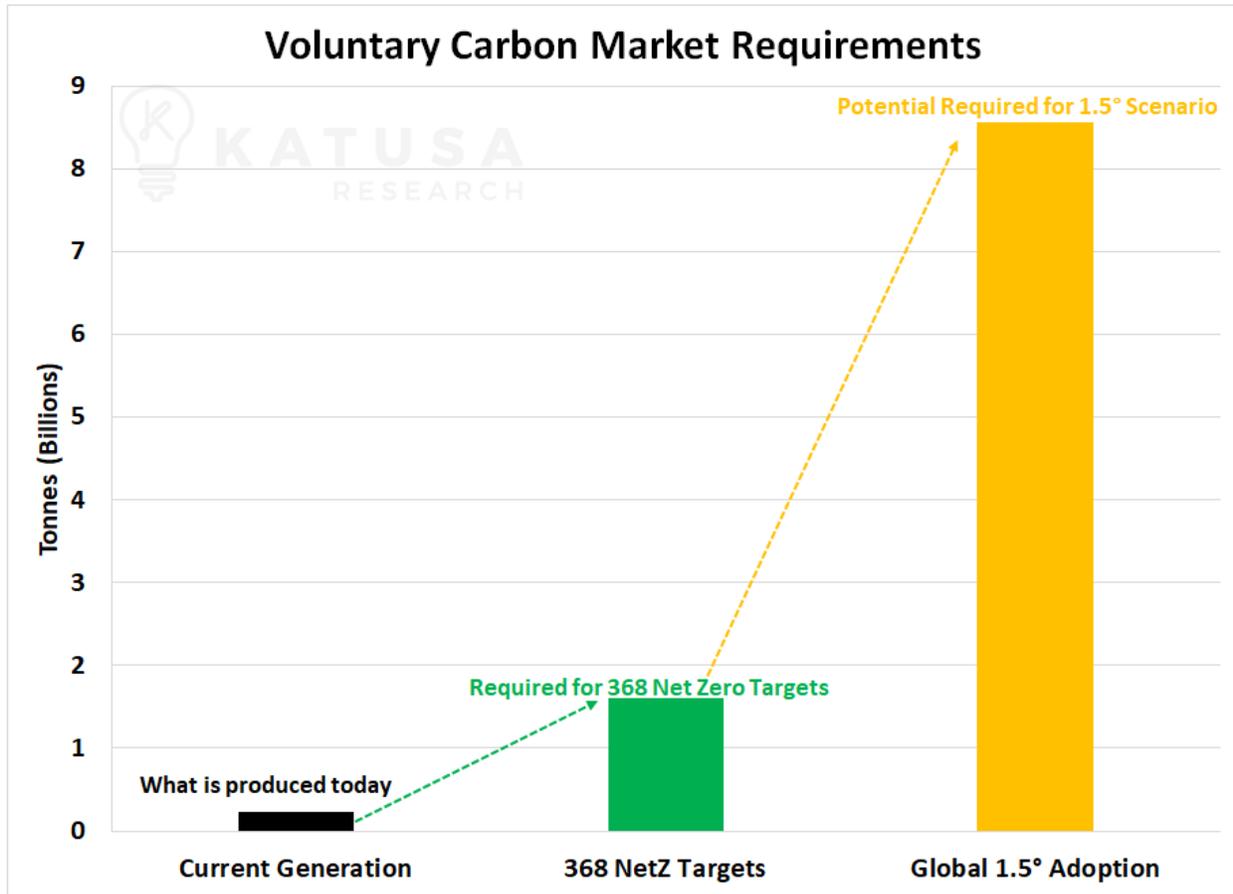
Using only the 368 companies which have pledged net zero today...

The voluntary carbon market must increase in size by a factor of 7.

At the High End -

Being conservative and assuming only 20% of all private emissions tap the voluntary market to offset part of their emissions, supply must increase by a factor of 38.

(All while assuming any new economic growth has net zero emissions!)



What About Current Surplus Credits?

The cool thing about unused carbon credits is this...

Credits can be “banked” or stored for later use.

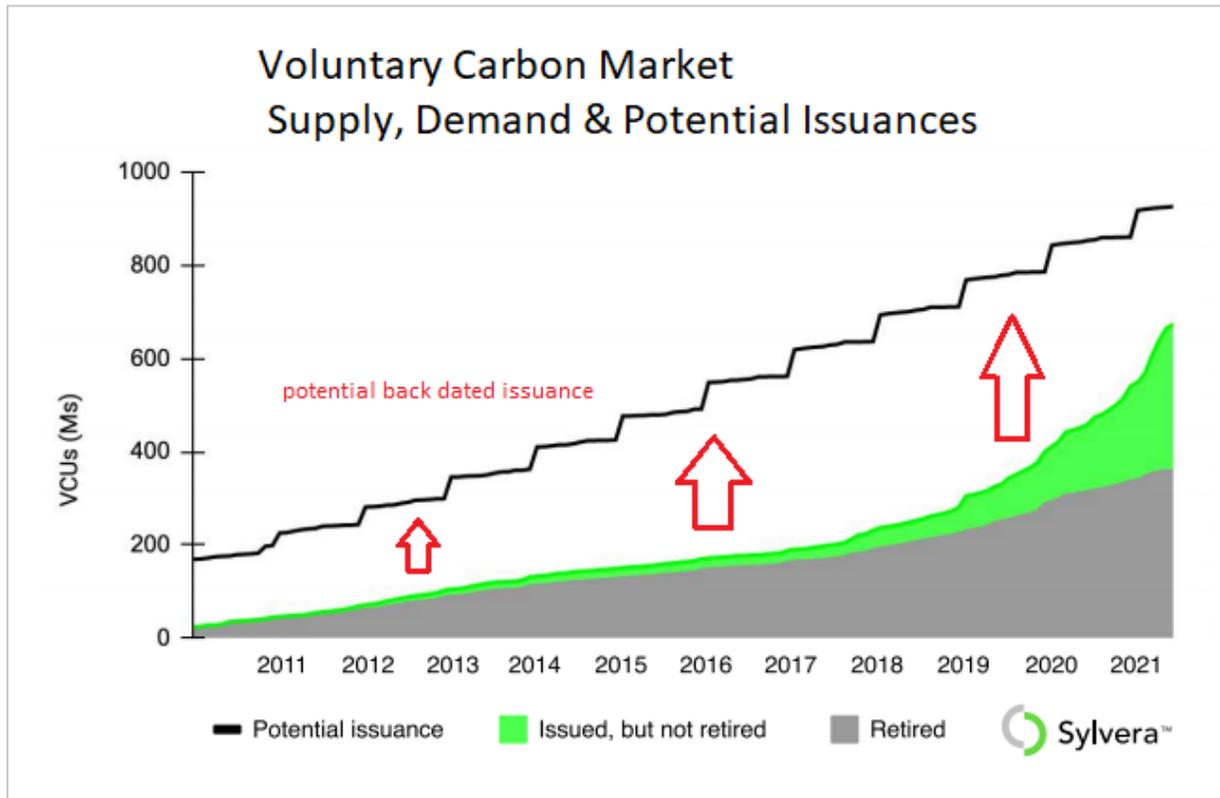
- **At the end of 2020, there were 399 million voluntary market credits in surplus inventory.**

It is estimated that there are an additional 200-400 million credits which could be back issued from previous years.

These come from projects which have not had credits issued for previous years.

A core issue surrounding the use of old credits is credit quality and legitimacy.

Nonetheless, some of those credits will likely hit the market, sold cheaply to companies who are looking for “quick fixes”.



As of 2020 in the European compliance market, there are up to 700 million credits available in surplus.

Can a Credit be Reused?

Under both the *voluntary* and the *compliance* markets once a credit is used once, it is retired and can no longer be applied to offset emissions.

This means these credits will work once for companies looking for a quick fix.

But they do not provide a long-term solution to emissions abatement.

How are Carbon Credits Created?

Carbon credits are generated through emission reduction or direct emission removal.

For example: carbon credits can be earned for a renewable power plant that is used to displace coal fired electricity generation.

- **For each tonne of CO2 which is displaced, a credit is earned.**

Carbon credits can also be generated through removal of greenhouse gases.

This is known as *carbon sequestration*.

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Carbon removal comes from projects such as forest restoration and avoided deforestation. These are grouped as “nature-based solutions”.

Or credits are created through physical removal of carbon from the atmosphere through technology known as:

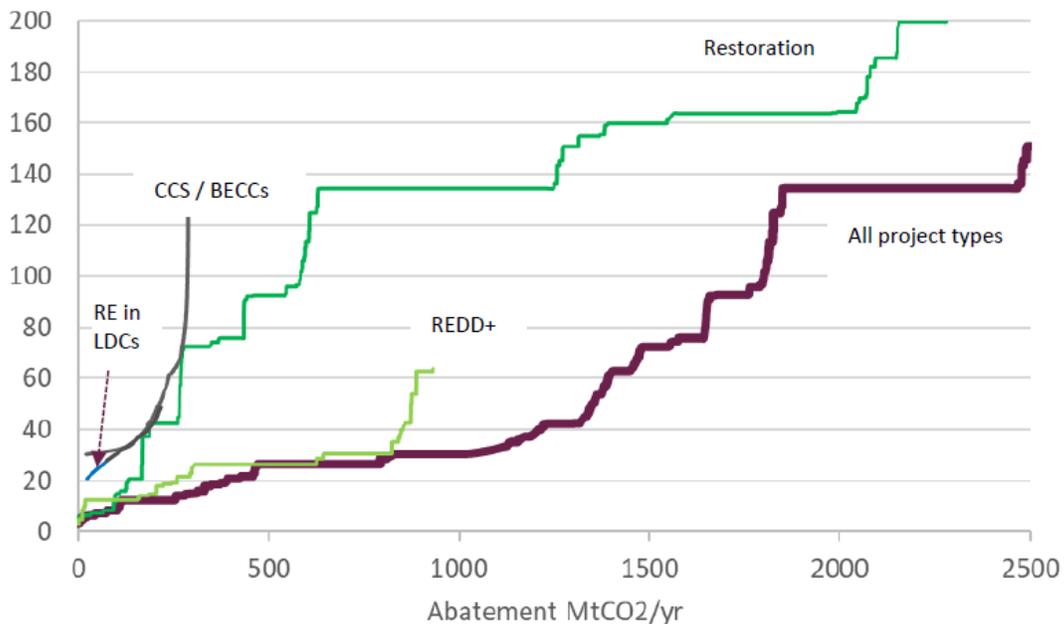
- Carbon Capture & Store or
- Bioenergy combined with Carbon Capture Store (known as “*negative emission technologies*”)

Carbon offset projects which sequester carbon such as reforestation or avoided deforestation are a function of opportunity cost. This means the alternative use for the land is what partially drives the value of the offset.

Land which could be used for agriculture or livestock is therefore a function of crop and livestock prices.

The *Trove Intelligence Global Carbon Credit Supply Model* indicates that prices in the voluntary market will need to rise by an order of several magnitudes to continue to incentivize carbon project developers.

Global carbon credit supply curve (excluding NDC adjustments) – Average over period 2020-2050 (\$/tCO₂e, 2020 prices)



Source: Trove Intelligence, Global Carbon Credit Supply model

Going Global: Carbon Credits are an International Marketplace

The beauty about the carbon market is that it is global.

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Greenhouse gases migrate and emissions from one nation end up in the skies of another.

It requires global acceptance and adoption to solving the problem.

In the voluntary carbon credit market, a credit produced in 1 country can be applied against emissions of a company located in another part of the world.

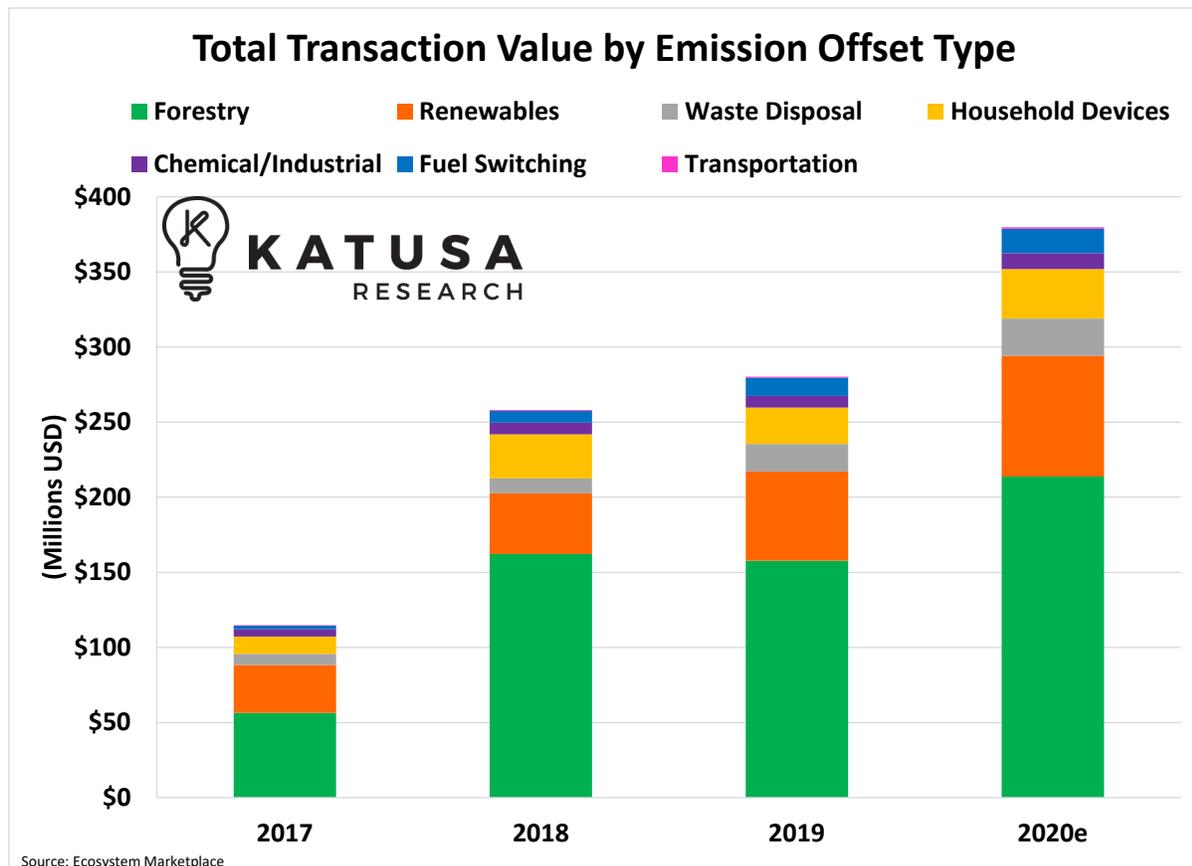
For example, the Bonobo Peace Forest in the Democratic Republic of Congo is one of the largest reforestation projects in the world.

Credits earned from this project can be applied against emissions of a company domiciled in Europe or North America.

- **This creates an incredible opportunity for an international marketplace for credits.**

Below is a table which shows the total value of transactions by offset type in the Voluntary market for the past 4 years.

Total transaction volume in 2020 is estimated to be over 3 times the volume it was in 2017...



And this is exactly what makes it such an exciting place to invest.

All of this is building up a pressure chamber of demand in the VCM that has not yet reached a tipping point.

When it does, there's a *lot* of upside to be had.

Because It's the perfect setup for a *long squeeze* in the VCM:

- *Rising emissions from a growing population.*
- *Tightening government mandates on carbon emissions.*
- *Increasing consumer demand for environmental responsible.*
- *More transparency in emissions reporting.*
- *Corporate buy-in at every level, even from non-emitting companies.*

All together, this is going to result in a desperate scramble for high-quality carbon offsets, of which there are few.

If you thought the rise in the price of lumber was crazy... just wait until you see the VCM market in five years.

Voluntary Carbon Market Pricing

The bad news is that since VCM is such an undeveloped market, pricing information is hard to obtain.

In fact, the term "voluntary carbon market" is somewhat inaccurate. The market itself purely ad hoc.

This is such a new commodity that there is no real, actively traded market.

And that's great news. Because it means very few people are actually investing in the market right now.

As an investor, you know that when there's opacity in value, there's opportunity for profit.

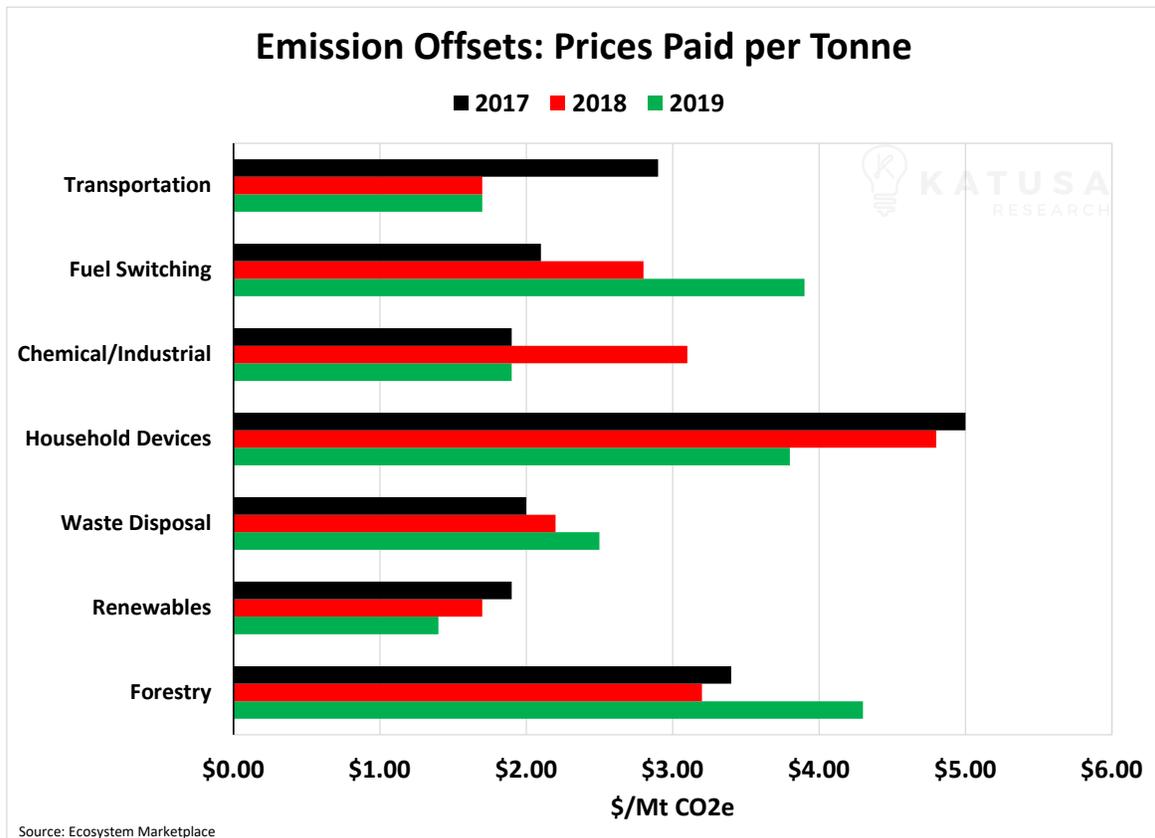
To start shedding light on what carbon offsets could be worth, let's start by looking at the price floor.

Carbon offsets produced through means such as reforestation have an opportunity cost. In other words, the possible alternative use for the land (agriculture or livestock) must be accounted for in the value of the offset.

Based on this, the *Trove Intelligence Global Carbon Credit Supply Model* indicates that prices in the VCM will need to rise to continue to incentivize carbon project developers.

Furthermore, how credits are produced gives them different base values.

The table below shows the variation in global carbon credit pricing across different types of carbon offsets in the voluntary market for 2017–2019.



In 2021, prices in the voluntary market have been *hot*.

Prices have regularly been quoted above \$7.50 per tonne and as high as \$15 per tonne for high-quality credits.

Catalysts & Opportunities in the Carbon Markets

The key catalysts for the carbon market are...

1. Government-led initiatives to promote the carbon marketplace.

These include establishing a global carbon price floor, heavily enforcing the achievement of NDCs, and regulating investment in carbon removal technology.

All of these are heavily bullish for carbon offset prices.

2. Corporate-led net neutral and net zero pledges.

Expect to see corporations race to become net zero so that they can remain competitive in the marketplace.

And then watch for additional demand from erasing historical emissions.

3. Demand-driven development of reporting and exchanges.

As outlined, this will include Scopes 1, 2, and 3 emissions. In the near future, it will also require highly liquid, transparent exchanges for both the compliance and VCM.

This has always been the trajectory of any new commodity.

Only this time, you know about it before it has achieved anything close to equilibrium.

The carbon market today represents an incredible asymmetric bet.

There's so little downside—climate change isn't going anywhere—and incredible upside.

Early adopters, project generators, and holders of carbon credits and offsets have the opportunity to earn substantial returns over the coming years.

Very few people know about this brand new commodity sector yet.

But everyone who hears understands it immediately.

And everyone who understands... invests.

Of course, you can stay on the sidelines if you want. But before you make that decision, recall one of Warren Buffett's most famous quotes.

It goes like this:

"Someone's sitting in the shade today because someone planted a tree a long time ago."

Those trees are (literally) being planted *today*—all across the world.

And I'm here to help you make a profit from it.

To find the companies best positioned to make money from the hundred-trillion-dollar war, follow me, Marin Katusa.

In my monthly newsletter, I'll be publishing the best carbon investments that come across my desk.

If you want to be among the first—and only—to know, sign up today.

**Regards,
Katusa Research**

P.S. Your investment career comes down to a few choice decisions. This is one of them. Don't miss out.

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