*Daniela Cambone:* Welcome back, everyone. Hope you had a great break, and we're just waiting for everyone to settle in. All right, so without further ado, we're gonna start with our next guest. I don't know if many of you caught my interview with him, but he's a fantastic speaker. I'm sure you're gonna love his presentation. Marko Papic is a partner and chief strategist at Clock Tower Group. It's an alternative asset management firm. He leads the firm's strategy team, providing bespoke research to clients and partners on geopolitics, macroeconomics, and markets.  
  
Previously, Marko founded BCA Research's geopolitical strategy practice, the financial industry's first dedicated political analysis investment strategy which generated geopolitical alpha by identifying gaps between the market's political expectations and the firm's forecast. He served as a senior vice president and a chief geopolitical strategist at the firm. Marko began his career as a single analyst at Stratford, a global intelligence agency, where he contributed to the firm's global geopolitical strategy and its analyst recruitment and training program. In his academic work, he helped create the Center for European Studies at the University of Texas at Austin.  
  
Mark was also the author of *Geopolitical Alpha: An Investment Framework for Predicting the Future*, a book that introduces the constraint-based framework to investors. You received his book this morning in your swag bag, and don't forget that he will be doing a book signing during lunch today in the Chopin Patio. So without further ado, please help me welcome Marko to the stage. Marko.

*[Applause]*

*Marko Papic:* Thank you. Awesome. All right. It's great to be here. I just realized nobody wears suits in Vegas unless they're pit bosses, so you know, I just realized that. so before coming here, I was walking around just slowly nodding at people to see what their reaction was gonna be. It was good. It was good. I felt empowered, you know, I felt in charge.  
  
So great to be back on the road speaking to investors, speaking to folks. I'm gonna give you a little background on what I do for a living. I incorporate politics and geopolitics into investing. I've been doing that for the last ten years, and when I started in 2011 at the largest independent research firm on the macro side, BCA Research, people looked at me like I had three heads. You know, most institutional investors, most hedge funds, they didn't really care. They were like, ah, this is voodoo. You don't really need to think about politics or geopolitics to be investing. And of course, that all changed, and here we are today where a lot of us are thinking how the world's going to evolve and where it's going to evolve.  
  
So I could have brought a lot of topics to talk to you about. We could have talked about US versus China. We could have talked about Trump versus Biden, the second battle. We could have talked about how I think the Washington Consensus, which is a set of best practices the United States of America has been following for 40 years, is evolving into something else, what I call the Buenos Aires Consensus. Not a good thing. We could talk about all of that, but I figured you had a lot of entertainment today and last night. You've had a lot of entertainment here in Vegas. You've had a lot of people tell you probably what you wanna hear. So I decided to pick one topic to talk to you about that you're not gonna like. You know, I'm gonna be the guy on stage who's gonna talk about something that you disagree with so that we all wake up after a good night of partying, which I hope you all hd. This is Vegas, right. This is the city of groans, you know, so I wanna hear some groans today.  
  
So what I'm gonna talk about is I wanna talk about – oops, sorry. I went ahead. Oh, there it is. I wanna talk about climate change. There we go. Good. It's gonna be a long 40 minutes, let me tell you that right now. All right, it's gonna be a long 40 minutes. You missed the cue. All right, we're gonna talk about climate change. Now again, I could have picked a lot of different things to talk about, but I wanna talk about this one 'cause I know nobody here really is gonna talk about it, and I wanna convince you that you wanna put probably half of all the money you have into green tech. That's gonna be my purpose here today. Now, just to be clear, my framework – you got my book; if you're bored, you can read it. It's hilarious even though it's a framework book. Try to make it funny.  
  
My book is about how I do my job, and it's all about material constraints that investors face. It's not about ideology, it's not about philosophy. It's about the material constraints politicians face, and then you have to do A, B, and C because of those constraints. So you'll see that method at work in this presentation. In other words, to me, climate change is an investment idea. You don't have to believe in it. And in fact, I hope you don't believe in it because then this is gonna be more fun.  
  
So the first thing I wanna start off with in the PowerPoint is actually a story that has very little to do with climate change or with green tech or whatever. I wanna talk about a historical example that has always kinda bothered me as a geopolitical strategist. You have this country, Portugal. It's hugging the Iberian Peninsula in Europe, and it's starving in 1300s. Basically what happened was there was the Great Plague that hit Europe, depopulated most of Portuguese interior and pushed people to the coast. And in 1300s, the king of Portugal said, "Look, we can't feed our population. They're all gonna starve 'cause we don't have enough farmers.  
  
So he created the first ever state-led fishing fleet that would once a year go in search of cod. And they had these fishing grounds up in northern Europe around Greenland and Iceland. And so little, tiny Portugal, for 100 years, sent its fishing fleet out very far from Europe, got the cod, salted them, brought them back. that's why when you go to Portugal and you ordered a cod, it tastes weird. It's not flaky and white like our cod in North America. It's very tough, and you would think it's overcooked. No, it's salted. Where am I going with this? What does this have to do with today?  
  
Well, in 1400s, something funny happens. The Ottomans conquer Byzantium, conquer the Middle East, and cut off trade between Europe and China. So they cut off access for Europe to trade with east Asia. Okay. At the same time, a number of technologies starts to percolate up on deep water navigation, and suddenly this starving country that, out of necessity, had moved out into deep water navigation is suddenly geographically and technologically, and through experience, positioned to do this, to go from a country basically starving to conquering half of the world. So this is the map of the Treaty of Tordesillas where the Vatican split the world between Portugal and Spain.  
  
What am I talking about? I'm talking about moments in history where there's an inflection in technology and there is a set of tailwinds – geopolitical, technological, and economic – that creates global powers out of completely irrelevant countries in the world. Now, Portugal, by the way, as most of you know, reverted back to just being Portugal about 200 years later. There was a slew of things that happened to the country, including a giant earthquake in Lisbon. It couldn't sustain its greatness, in other words. But for 200 years, Portugal was a global power purely because it got on the deep water navigation train early, and not because it figured out, hey, we're gonna conquer half of the planet, but because out of necessity, out of the context.  
  
Today, my argument to you is going to be that we're facing one of those epochal changes in technology, and that epochal shift is a shift from the industrial revolution to what's coming after it. Now, what was the industrial revolution? For much of the 19th and 20th century, humanity has been engaged in what I call the race to scale for two reasons: technological progress and geopolitical pressures of competition. So you had a bunch of charts that look like this. What do these charts show? Who cares? It doesn't matter. Okay, that's what the industrial revolution was all about., stuff going up. I mean, if you're really interested, on the left-hand side is total railway length. On the right-hand side is coal production by country in the 18th and 19th century.  
  
So the race to scale enabled nation states to increase scale production of everything from railways to coal to industrial production to soldiers, men with guns were scaled to literate human beings to medicine to healthcare, and so on. It was all about serving the median consumer with goods and services in a big way. We scaled our societies up. There's a famous book, you know, *From Peasants to Frenchmen*, how France, the State of France basically scaled itself up and created a nation state, and then we all downloaded basically France's software around the world. This is like Napoleon stuff.  
  
Now, the problem with the race to scale is obviously devastated kind of guild-like small business and artisans throughout Europe and throughout the world in the name of progress. But the other issue too was that there was also some negative externalities. So one of the things that we're being told is, of course, industrialization brought this inflection in CO2 emissions, so that's where climate change basically comes from. But I would argue that even bigger externalities of the race to scale, when you're trying to scale up your production is you need your markets, you need your resources. We basically had two world wars as a consequence of this race to scale.  
  
What we're undergoing now is a shift to what I call the race to zero, and at the heart of that, just like industrial revolution allowed us to scale up in the race to scale and produce mass production. We now have the technologies that can lead to customized production, not scaling for the median, but actually delivering goods and services for the tails of the distribution. What am I talking about? I'm talking about, for example, 3-D printing. The ability to localize production so that you can be delivered a tool or a car or a fridge that you want through customized production. But more than that, race to scale healthcare is what? Aspirin. How many of you have a headache from last night? Okay, here's some aspirin. Go drink it. That's race to scale. Race to zero is how many of you have a headache from last night? Cool. Type in your specially genetically focused aspirin, go get it at a local pharmacy where they produce it, and it's just for you. The aspirin has been tested on the medium human being. The race to zero is the world where you will have customized production.  
  
Now, we have the technologies for this, whether it's highly fast computers, whether it's AI, whether it's alternative energy, whatever it is, 3-D printing, things like Crispr, CAS-9, alternative energy, block chain distributed networks, there is a whole slew of technological innovation over the last 20 years that enables this race to zero.  
  
Now, let's talk about some of these technologies really quickly. First and foremost, you can see that energy intensity by region has been dropping for the past 30 years, so that's the chart on the left. The chart on the right shows you the cost of sequencing a human genome that has dropped, predicted by Moore's Law. The most important thing is that alternative energy, whether it's solar power or wind power, offshore wind, things like that, are following Moore's Law. So the costs of alternative energy are dropping as fast as predicted by the cost of semiconductor, for example, prices over the last several years. In my view, we are entering a world where a lot of the things that we take for granted, like input costs, energy, are eventually going to drop to zero, eventually.  
  
This is a chart – the famous chart that's been shown before. It's the price of light in lumens per hour. Basically, you don't – when you turn on the light at home, you don't really think about it anymore. But in the 19th century, you did because for you to basically light your room at dark, somebody had to spear a whale. Somebody had to spear a whale, strip the carcass, and produce the oil to light a lamp. We're in a world where that's going to basically change for electricity as well. Not a very quickly, and we'll get to the downsides of that, but here's what's happening in terms of adoption of some of these energies.  
  
The chart on the left, that's European EV car sales. If that looks like a nonlinear increase in adoption of EVs, it's because it is. It's nonlinear. It looks like an adoption curve of a new technology. What happens with new technology is usually it's an S curve. At the bottom, it's very flat. Everyone's like, eh, I'm not paying extra $10,000 for this piece of junk that goes 20 miles. As technology improves, you hit an inflection point, people start adopting it, and before you know it, everyone's driving an EV. Everyone's listening to a CD instead of a tape. In other words, this is happening much faster than most of us predicted just five, ten years ago. And you can see on the right-hand side that the price of batteries has in ten years dropped 88 percent, which leads to this chart, which shows global monthly plug-in electric car sales. They are also seeing the evidence of that parabolic increase.  
  
So the first reason that I would argue we're having a race to scale is because we have had essentially a technological shift. Technologies are coming down the pipeline. But there's two other reasons that are very important. Technology by itself is not a sufficient reason to get excited. If I told you in 1300s, hey, Portugal's gonna run the world, look at them, they're fishing for cod, you would have said, okay, you're insane. Like who cares about Portugal. I don't even know where Portugal is. Don't the Moors control Iberia? Like those are the kind of things you would have said in 1300s.  
  
Technology by itself is an insufficient condition to get excited. Shale. Shale technology. When was shale invented, the technology to produce energy out of shale? Late-'40s and '50s. If you had invested in shale technology in the '60s, you would have lost all your money. There is a confluence of factors that you need to get excited, and it's not just technological change. So yeah, I showed you some charts that shows, hey look, this green tech stuff is actually working out. You shouldn't invest in any of it unless the macro geopolitical context is conducive for this. So there's two big trends I wanna talk about that I've spent a lot of years researching that I think support this race to zero.  
  
The first fallacy is the one we all now very well here in the United States, and this is the first time in 15 minutes you guys are finally gonna agree with me. We have a populous push in the developed world to generate growth no matter what the consequences of that populous push. You can see on the left-hand side Central Bank policy rates are at zero. Does anybody really think that we're gonna have a lot of interest rate increases? We'll see. I have a view on that. Very difficult for me to see the Fed raise interest rates when inflationary pressures are not transitory. They're sticky, and they're sticky because of this green transition stuff that I'm talking to you about. So on one hand, you have central banks. They have become far more open to low interest rate policies forever.  
  
And the second is that populist leaders in developed world want to generate growth. They need to generate growth. How do you generate growth? You build stuff, you break stuff, you rebuild it. So climate change is a very significant part of this narrative. If you need to employ a bunch of people, then the easiest way to do it is to break some windows and rebuild them. So climate change is a Keynesian basically excuse to spend a whole lotta money employing contractors, scaffolders, you know, plumbers, the kind of people that have to set up the installations necessary to re-electrify the whole grid. So we have a perfectly well-running efficient grid fueled by fossil fuels, and now we're gonna say, eh, to hell with that. we're gonna reconstruct it to incorporate alternative energy.  
  
Now, to you here, it's like a waste of money. Sure. That's an appropriate reaction to that. But to a policymaker, to a politician, it's a way to \_\_\_\_\_ up growth, to increase the nominal GDP growth rate. Now, you might say, well this is not gonna stand in America. Might stand in Europe or Japan. Eh, I'm not so sure. I'm not so sure this is the America that you are thinking of. This is a very important chart. It's a 60-year-old chart. I mean, yeah, \_\_\_\_\_ 50. It shows the net preference for small government. So basically, this is a poll from Pew Research that Pew Research has been asking for the past 50 years, and they as, Americans do you prefer large government providing a lot of services, or small government providing fewer services?  
  
As you would imagine, for much of this history, the preference of Americans has been for small government, so this chart shows you small government minus big government. It's net preference for small government. And then over the last three presidencies, including Trump, the preference for small government has now become negative. In other words, now majority of Americans prefer big government over small government. Now, why is that? Well, I don't know. I don't really care. I'm just telling you the facts. You're not gonna like them, but I'm showing you the facts. My point is that the number one macro tailwind behind the shift to green technology, which is gonna be extremely expensive, extremely wasteful, and will produce inflation in the short term is that politicians are scared for their lives, and they are looking for ways to increase growth.  
  
Now, the second reason is less political. It's more geopolitical. The second reason is geopolitical, and it has to do with the competition between the US and China. Now, I'm sure that a lot of you have read that China is really, really serious about the green technology shift. It's been all over the news. They are making all these commitments; they are surging investment in EVs and batteries. And I'm sure you've read articles that say, ah, that's not happening. They're just lying. They're still fueling their EVs with coal. That's true. They're still using coal to run their EVs, which is kind of like ironic.  
  
But there's a national security component to what China is doing. The chart on the left is very important. It shows you crude oil imports from the Middle East and other regions by China, and the X axis is actually just 20 years. In just the last ten years, China has become addicted to Middle East oil. So as America has geopolitically deleveraged from the Middle East, as America has withdrawn from the Middle East, both militarily and economically because of the shale revolution at home, because of that, China has stepped up. Now, the irony here is that your tax dollars, assuming that most of you are American, your tax dollars are literally today helping China secure its oil supply. Who defends the Straits of Hormuz, which is important shipment point from the Persian Gulf? It's the US Navy. It's the 5th Fleet headquartered in Bahrain, and the US Air Force, which has a humongous base in Qatar. So the point is that China has become massively leveraged to Middle East oil, and there's no way China's gonna invade Taiwan in the next two to five years, ten years. Not if America can just put an aircraft carrier in the Straits of Hormuz and choke off China's oil supply.  
  
By the way, no one's telling you that, right. No one's told you that? Well, there's a reason for that. Because American hawks love the myth of China 'cause then we can take more of your taxpayer dollars to build more weapons to fight China, and China doesn't wanna tell you that because they're like, no, we're super good. We're good. We don't – we're fine. We can fight America. No, they can't. they can invade Taiwan, true. They can conquer Taiwan, true. They can hold it, true. But then in 150 days when their oil reserve run out, they can wave to their soldiers that are in Taiwan, maybe row to them.  
  
Now, you might be, but Marko, wait a minute, aren't they building nuclear powerful aircraft carriers? Sure. They have one aircraft carrier fleet, two more in the dock, one more coming, so they'll have four. The problem is that you just don't need just a nuclear-powered aircraft carrier. You also need a fleet to protect it. And to get to the Straits of Hormuz, you need to go around your buddy, India. So there's a problem for China. There is no way it's going to secure access to the Straits of Hormuz and the Middle East oil in the next ten years. None. Unless they go for EV revolution. So they are really, really, really into this. Like, they are investing more than any other country. Now, that creates a conundrum for us as Americans 'cause we can say like, ah, we don't need this alternative energy. We've got West Virginia coal. Okay, cool. You know, that would be like saying in the early 20th century, ah, we don't need this internal combustion nonsense that the Germans have come up with. We'll just have a horse and buggy. We're really good at that stuff, you know. We go out West in our horses and our buggies.  
  
So you're gonna say, okay, as a politician in America, let's say Donald Trump wins the election in 2024. He shows up in the White House like all this green nonsense goes away. Mm, okay. So you're gonna cede technological advantage over new technologies to China 'cause of coal mines in West Virginia? It's not how it works. This is now a national security issue. This isn't about Greta and Al Gore. I didn't come to this stage to give you an investment advice based on morals and norms and Greta's op-eds. This is about war. This is about national security, and if China becomes a leader in batteries and in storing energy, then America's got a problem. It's gonna fall behind, and there will be other Portugals splitting the world in half.  
  
So what's my evidence that there's a shift in thinking at the White House and in DC? A very, very smart lady, her name is Nadia Shadlow, she wrote Trump's national security strategy, so she worked for H.R. McMaster in the White House. You can Google this. She wrote a very interesting op-ed in the *Wall Street Journal* a couple months ago. So again, this is Donald Trump's national security advisor who wrote the United States national security strategy under trump. And she wrote a very interesting op-ed. She said batteries are the new missiles. So this isn't just about saving the planet. This is about having leadership in new technologies that could come to dominate the next 50 years. Unless you think that the metaverse and like virtual stuff is gonna come to dominate the world. And by the way, the Chinese don't.  
  
That's why the stuff that's going on in China right now probably confuses a lotta people in this room. What China is doing is it's destroying its own internet industry. You know why? Because they figured out that delivering a cheeseburger to your door at 3:00 AM is not that fricking important. Dating apps, meh. Streaming music, not gonna really help you defeat the United States of America in a geopolitical competition. So what China has been doing the last six months, which you're reading in our press, oh, they're going Communist. Because they weren't Communist before? Okay, whatever. China's being extremely smart. Smarter than us. they're nuking their software TMT sector. They're nuking their own \_\_\_\_\_. Why? Because they know that the future is in batteries, the future is in quantum computing, infusion, in alternative energies. They are shifting towards hard technology and saying like, you know what, America can have software. And I think they're right to do that because the future will be about these technologies, not about delivering cheeseburgers at 3:00 AM.  
  
Now, China currently already dominates battery capacity, so about 70 percent of all batteries are made in China, and in terms of renewable patents, China leads there too. That's this pie chart. Now, I wouldn't worry about the patents. China does do a lot of patents. A lot of them are neither here nor there. They're just fake patents. But the point is that the US doesn’t have an overwhelming lead in these technologies as it did in software. Like, when was the last time you used a European or a Japanese software tool? Probably never. Europe and Japan fell way behind in technological software advantage 'cause they were focusing on other things when America was doing the tech innovation. My fear right now is that the US, as that pie chart shows, is already falling behind. It's not even 50 percent. It's 19 percent of all patents in this renewable green alternative energy.  
  
And basically, if Donald Trump wins the 2024 election, or Mike Pompeo or any other Republican, I'm telling you this right now. There's gonna be a bunch of generals who are gonna look at him and say, listen, we can't fall behind these technologies. So no, he's not gonna go and refire the coal plants. Forget it. And if you're from West Virginia, don't worry about it. Joe Manchin will get you a lotta money over the next six months. Let me just tell you that right now. I guarantee you. There's gonna be a deep water port in West Virginia. The man is a genius. He's standing there saying like no, no, no, no, but really what he's saying is like it's gonna cost you, Joe. All right, you want me to sign off onto this green bullshit? Let's get a lotta that pork my way.  
  
So my point is this is here to stay for national security reasons as much as politics. Now, what do we invest in? Well, this is the irony. If you gave me $100 million, which by the way, I'm totally open for that, I would do this. I would put $50 million into green technology – we'll get to how – and $50 million in fossil fuels. What? Yes, it's my green/brown barbell portfolio. All right? So I wanna own the dirtiest fossil fuel stuff and green technology. Now you're like, hmm, I'm starting to agree with this guy more and more. That's good.  
  
Now why is that? It's because – let's throw that slide on. That's because mining capex has been crappy, so this chart here shows you top 40 mining companies, capital expenditure by commodity focus. You could put a CRB index of materials, you can put oil prices over it, it's the same. Why? Because we're highly procyclical when it comes to commodity space. We invest when prices are high. We don't invest when prices are low. What's happened the last then years? Last ten years, prices of commodities, oil, metals has been in the doldrums, so nobody invested in this stuff. Now we've decided, in the middle of a pandemic, in the middle of a trade war between US and China, to re-electrify the whole planet using this green tech. Well, what do we need for that? We need lithium, we need copper, we need cobalt. We need all sorts of stuff that we haven't been investing in for the past decade.  
  
On top of that, invest – institutional investors that I talk to – that's my main job. I speak to institutional investors with hundreds of billions of dollars. They don't wanna touch this stuff. Like, ah, my board doesn't wanna let me invest in an oilfield. So you have this irony where I'm as bullish as anyone you've seen today on green tech, but the problem with that is that it means there's not gonna be any capital investment in the fossil fuels. And we're gonna need fossil fuels for the next 20 years. So what's gonna happen to cost of commodities? They're gonna go through the roof, and they've been doing through the roof this whole year, partly because of this. The anticipatory demand remains high, but there's no supply. Nobody wants to invest in this – in fossil fuels and traditional energy.  
  
And by the way, if you look at the energy needs or material needs of energy storage, I mean, it's just – it's stupid. I mean, I've got some charts here. Who cares? The bottom line is if we're making this green technology sift, we're gonna need so much more of everything that mining stocks, miners are gonna make a whole lotta money. There's gonna be a lot of production, a lot of investment that's gonna have to go into this over the next decade. Now, this is a problem. There actually hasn't been a capex response. You know why? Because if you're a CEO of a mining company over the last decade and you were investing, you got fired. You got replaced by a cost-cutting CEO. So most mining companies have not yet adjusted to this reality and have now become. So commodity prices themselves are gonna go through the roof, and they have been, whether it's lithium, whether it's cobalt, whether it's copper. Copper is staying high even though China's vomiting. That's a world that wouldn't have existed last decade, and that's because this green technology is keeping copper prices well bid.  
  
The second thing to do is green stocks. So the second investment thesis here, the yellow line is basically NASDAQ. The purple line is the MSCI Alternative Energy Index. What I'm trying to tell you is in 20 years, there's no NASDAQ. Software has gotten its comeuppance. You know, there's a big conference around the corner in fin tech here in Vegas. That's when you start making conferences in Vegas, that's when it's the top. Not research firms. Not research firms. Talking sectors and industries. So fin tech is now like YOLOing in Vegas. Yeah, software's gonna eat the world. Eh, I don't think so. Green tech is gonna teat the world.  
  
Now, the problem with green stocks is that they're overvalued. We all know that. And the reason for that is there's a lot of demand. You know, Marko Papic is not that smart. A lotta people have figured out what I'm telling you, but there's not enough supply. So when you go into the stock market and you look for green stocks, there's like four stocks. Tesla. Why do you think Tesla's being bid up so much? There's a bunch of engineers solving these problems, so people wanna own the piece of that story. Now, if you wanna put some money into green stocks, I would say fine, put it in to this alternative energy index, but close your eyes. Don't look at it for next 20 years 'cause it's gonna go up and down like crazy.  
  
A better way to invest rather than green tech is my third idea, which is to simply invest in atoms over bits. Atoms, real stuff being manufactured versus software stuff. So this chart shows you the US equity market cap, energy, and industrials as a percent of IT and communications. So real stuff versus soft tech stuff. So I want to own material sector, I wanna own the energy sector, I want to own the industrials. I don't wanna really own IT, and I don't wanna really own communications anymore. There's a technological shift away from software. We've gotten as much out of software as we could have. The next transition will be in real stuff, stuff that like makes things move.  
  
Now, my preferred way to invest in green tech is private stocks. Sorry, not private stocks, privates, just private companies. Why? The chart on the left shows you that the number of listed companies, the yellow line, the number of listed companies on S&P 500 and in Dow stocks peaked in 1997. So you had much more stocks to choose from in '97 to today. Why? Because companies have figured out they can get enough capital from people like me while they're private, and they're staying private for longer. This is, by the way, one of the sources of income inequality in this country because folks like you miss out on all the gains 'cause they're captured in the private space. When they IPO, it's when the cash-out is happening. IPOs used to be about you people participating in technological innovation. Now technological innovation is reserved for qualified investors who have access to all sorts of private funding. This is something that I think will – this was the case for the software revolution. It will be the case for the green technology as well.  
  
Now, final chart is hopeful. It shows you that over long period of time, productivity will rise. This shows you spending on R&D advanced by two years and total factor productivity. The technologies I'm talking about will be truly amazing. We will get to that chart of lumens going to zero. It will be great. things will be awesome. Don't worry about it. But next five and ten years are gonna be touch and go. Why is there an energy crisis in Europe or China? Because when you break windows, it costs money. The transition is going to be harrowing, specifically because it's gonna be run by a bunch of politicians who don't know what they're doing, so they're creating all these targets, they're shutting down nuclear power plants, you know, why are natural gas prices skyrocketing around the world? Because everybody at the same time decided that natural gas was the transition fuel of this future. No to clean coal, no to nuclear, let's all use natural gas. So what's gonna happen, natural prices go up. So this is going to cause inflation in the next five to ten years, so yeah, this is awesome for 2030s, but this decade, this is one of the reasons to buy some inflation protection.  
  
Now, look. The big picture here is this. You may not like this thesis, but the amount of money behind it that governments have committed is extraordinary. This is kind of a funny chart. The purple shows you all the global green initiatives. It's about $4 trillion. The chart on the right shows you the money spent on every human endeavor ever undertaken. Now, I'm being tongue in cheek, although my team didn't think it was so funny when they were inflation adjusting the Great Wall of China. So my team didn't think this was funny. I was like, here, can you give me the price of every human endeavor? My point is like, look, I wanna invest behind the tailwind of this populist revolution. It's not my fault that a bunch of politicians wanna build – rebuild the planet. But they are. They've already committed the money. So if you wanna make money, you follow the tailwinds of politics and \_\_\_\_\_ politics.  
  
The final thing I will say is this. A lot of you, I'm sure, are very skeptical about this whole thing and are saying this is stupid. Okay, fine Marko, you've convinced me, but it's still stupid. And I'm like, okay, that's cool. You know what else was stupid? Going to the moon. Going to the moon was one of the dumbest things we've done as human beings. It was a pissing contest between two superpowers. Who's gonna put the man on the moon first? Now, we won. The US won, and then what did we do with it? Nothing. We went back. Sorry, we never went back to the moon 'cause there's nothing there. So you could be sitting here, and you could legitimately said the billions of dollars we spent in the middle of the Cold War was idiotic. It was. Except the effort to do that super idiotic event produced all the technologies I have listed on this slide. The spinoff technologies that came out of this endeavor – cell phones, computers, the internet, all sorts of wetsuits. If you're a surfer, thank the moonshot. My point is that stupid endeavors that involve a lotta money do lead to technological externalities, and so my point is I want to be close to that stupidity because the spinoffs are going to be extraordinary and are going to give us the next generation of technologies that are gonna lead the world.  
  
So I'm gonna stop here, take some questions. Thank you so much for your patience. I didn't hear a lotta groans after the first one, so I'm happy about that. All right.

*[Applause]*  
  
Yes, sir.

*Audience:* *[Inaudible]*

*Marko Papic:* Yeah, so the question is digitization of money, what do I think about it? I do think that that is also a technological innovation that's coming, but here's what I would say. Crypto, defy, all this stuff, you gotta be careful. We're finance dorks, all of us in this room. We're all nerds who love finance, who love money. We're looking at this revolution through a keyhole, like Alice in Wonderland, and all we wanna see, all we're seeing is finance and currencies. I don't wanna invest in digital money. I wanna invest in digital Nikes. I wanna invest in digital real estate. What's happening on the digital side is much bigger than crypto. It's the metaverse. I wanna invest in the metaverse. All the nonsense NFTs and stuff like that, yes, that is telling you where the world is going. Why is it happening? It's happening because young people under 30 – you might all be like, well, they're stupid. Okay, fine, but to them, this is rock and roll. Just like your parents were like this is nonsense, shut that noise off. To young people, the virtual world is real world. They wanna participate in it. So look at the computer games like \_\_\_\_\_ Infinity. The skins – just the skins – skins is like your outfit that you buy in games like Fortnite are leaping the revenues of retail giants like Ralph Lauren. More people are buying virtual sneakers than they're buying actual clothes, and that's what I'm excited about, not necessarily crypto, but the entire movement of the world from physical to virtual. Maybe one more question before I get pulled? No, I got pulled. I'm so sorry, guys.

*Daniela Cambone:* I'm sorry. I'm sorry. Blame me.

*Marko Papic:* All right. Thank you, guys.

*[Applause]*

*[End of Audio]*