

Louis-Vincent Gave: Party Like It's 1999

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Erik: Joining me now is <u>Gavekal</u> co-founder Louis-Vincent Gave. Louis, it's great to get you back on, I really enjoy our conversations, particularly just because you live outside the US, you have the non-US perspective, which I think balances a lot of the other guests that we have. So, I really want to talk to you about where we are in the overall big macro picture cycle. I lifted my S&P hedges this morning, with a lot of trepidation as to whether I was making the right decision. It seems to me, like it's just really hard to argue with, we have clearly a breakout to new all-time highs on the major stock indices. In a year when the Fed, which we all know is more political than it admits to being, has an incentive to kind of goose the markets into the election. There's headwinds on all fronts, it seems like there's a perfect setup for the markets to just melt higher. And to be hedged with the put spreads that I was holding didn't make sense. When I got your preview of a post you have coming up called, "Party like it's 1999," when I read that title, I knew what was on your mind without even having to read the first paragraph, I knew exactly what you were thinking. So for anybody, it might not be completely intuitive to what's up with 1999. Why does this feel like that to both of us? And what should we make about it in terms of risk management?

Louis: Well, good luck on lifting your hedges. I hope it works out. Thanks so much for having me. Look, I always get so much out of these conversations. And it's a great pleasure to catch up once again. Look, I think in 1999, for those who lived through it, we had a deeply concentrated market. You had markets where in essence, 30 names, were making up most of the gains in the S&P500. It was all about tech, it was all about communication services. And if you owned value stocks, if you owned energy, if you owned anything but tech, and that wasn't just in the US, by the way, it was also true. You know, you needed to own France Télécom, you needed to own Nokia Ericsson, and people who didn't own those stocks, by the end of 1999 were fired more often than not. And the money went to the guys who did own these names. And that promoted for the concentration. Now, the good news for you, and that given the fact that you lifted your hedges, the market continued to absolutely melt up in the first three months in the first quarter of 2008. And then that market melt up continued to be concentrated. So yeah, the piece I sent you on "Party like it's 1999," I think, if you look at the past year, we have had a fairly concentrated, a very concentrated not fairly, very concentrated markets, up until November 12 of last year, which is really what, I guess 10 weeks ago, so the S&P equal weighted was actually down for the year. And, of course, treasuries were down for the year. So last year, up until basically early November, if you weren't into Mag Seven, if you own, let's say some bonds, and if you own some equities that weren't Mag Seven, you were actually having a pretty dismal year. Now, what happened, right at the end of October? If you remember, at the end of October, bond

yields were reaching 5%. And there were some failed auctions and people were talking about term premium for bonds. And the whole environment looked pretty dicey and regional banks looked like they were going to take out the lows, their lows of Silicon Valley Bank, the Fed basically goosed the BTFP program. Basically, it didn't say, look, I'm going to turn around and buy a bunch of treasuries, but what it did do is tell all the commercial banks, hey, guys, here's a bunch of free money, we're giving you a free arbitrage of 75 basis points between the money you can borrow from us and then turn around and buy US treasuries in doing so. And so it turns out, lo and behold, that banks really, really like making free money. So you know, bank shares, regional bank shares retire and bonds rallied in the equity market, broadened out from the seven names that we all know, into something much broader. And then you get to the start of this year, and I take your point that the Fed does want to goose things up to make sure Trump doesn't get reelected. And by the way, it's not just the Fed. If you look in Europe, I think today in Europe, we have in early June, we have the European Parliamentary elections. I think most governments in Europe are petrified at the rise of the populist right in Germany, and Holland and France and Sweden, you name it, and very afraid that the populist right is going to absolutely crush it at the coming European Parliamentary elections. You also have important elections in India and in India, you have Modi today, that is basically really cranking up all the infrastructure spending, making sure that all the boys have jobs. And so, you have a lot of very, very strong growth in India.

And then finally, you look at China. And China's got a very different dynamic going on. But the one thing you do know about China, is that right now, you're seeing easing of fiscal and easing of monetary policy. So ,you look all around the world, US, Europe, India, China, basically everyone is easing fiscal and easing monetary policy. Except, so to your point, it's like, in an environment where everybody's trying to goose up their economy and goose up their markets, why have hedges, right? And here, this brings us to what's happened in the past few weeks. In the past few weeks, the Fed has actually pulled the plug on the BTFP. Now, the BTFP program was always going to end that sort of free money to the regional banks I just described, that was always going to end in March. But basically, the Fed said, you know what, I'm actually raising the interest rates at which, a couple of weeks ago, at which I lend to the banks, so I'm taking the arbitrage opportunity away. And lo and behold, since then, what have you seen? You've started to see bond yields creep back up, and you've gone right back to a market that is getting narrower and narrower, except that this time, it's no longer Mag Seven, it's now Mag Three. If you look at the names that are actually making new all-time highs amongst the mega cap tech stocks, Meta is making all-time highs and Microsoft is making new all-time highs and obviously Nvidia is making new all-time highs. But Apple isn't, Alphabet isn't, Amazon isn't yet, Amazon may still, and Tesla definitely is not. And maybe we can come back to that in a little bit. So, you have a market, to me, that looks like it's getting narrower and narrower, which is usually not a great sign of health for a market.

Erik: Well Louis, one of the Mag Seven stocks that's perhaps not shining at the moment is Tesla. You wrote another piece, which I really enjoyed called "The EV Implosion" listeners, you'll find that linked in your Research Roundup email. Give us some perspective, what's going on with electric vehicles? What is it going to mean? And let's kind of broaden this, not just to

electric vehicles, but you know, energy transition and everything. Generally, we've seen this big push for ESG. And then there was kind of a backlash against ESG for a while that was crazy, irrational speculation in battery metals because everybody thought that all the EV's to completely electrify the entire planet were going to get built in the next six months or something. That's come out the other way to where copper is actually plumbing new lows now, where are we in this cycle? And where is it headed with respect to not just the vehicles but the whole broader ESG and climate driven movement that we see in the economy?

Louis: Look, I think it's a super important question, obviously. And here I might have a very biased answer. You know, if to a hammer, everything looks like a nail, to a guy who spends most of his time looking at what's happening in China, he'll tend to identify the causes of a lot of things linked to China. So again, my answer may be biased, but here it is anyway. Make a bit with what you wish. I think if you go back five years ago, the Chinese leadership decided, you know what, we got to put the kibosh on this real estate bubble that's forming. And so, they told the banks no more loans to real estate, period. Instead, if you want to lend money, why don't you lend money to electric vehicles? Why don't you lend money to solar panel manufacturers? Why don't you lend money to basically whatever, to your point, ESG, green technology, whatever you want to call it. And at the same time, they push that message down to the provincial governments and municipal governments. So much so that basically, every Tom, Dick and Harry in China decides okay, I've got to be doing EVs. This is the thing now. And so you see a surge in loans to EVs and lo and behold, fast forward a few years, and China is basically now completely dominating the entire EV supply chain from the production of batteries to the extraction of nickel in Indonesia. You know, 90% of the nickel mines are now owned by Chinese and Indonesia. And so they own basically the entire supply chain. And they're now able to undercut, price wise, any Western producer, or any Japanese or Korean producer. And you and I have talked about this before, from out of nowhere, all of a sudden, China's now the biggest car exporter in the world. You know, three years ago, four years ago, the idea that China would be a car export, would have been seen laughable, and now nobody's laughing. In fact, you might have seen that 10 years ago, Elon Musk was asked about Chinese EVs and laughed on an ABC interview. And now fast forward today, and he's asking for tariffs to be implemented against Chinese cars. So, I highlight this because, this now creates a real quandary for Western policymakers. Western policymakers have spent the past 10 years telling everyone, stop buying internal combustion engine cars, buy electric cars, electric cars are the future, electric cars are good, electric cars are healthy. Electric cars are the salvation. Now, if you're a Western policymaker, and you say this, in essence, what you're saying is buy a Chinese car, because that's what, it will increasingly come down to. So now, if you're France, if you're Germany, if you Britain, if you're the US, do you want to live in a future where the entire auto industry is controlled by China? I think, for most policymakers, that's a nightmare. That can't happen. So defecto, I think you have no choice, but to pull back on the whole idea of oh, we need to make every car electric. Because if you say we need to make every car electric, you're in essence, saying, we need to make every car Chinese, which again, is just not possible. Now, add on to this, to this sort of very political reality, the simple truth that if you're buying an electric car, and you've got a problem with it, you get in an accident, the repair costs are massive, that if you live in a cold country, they don't work very well, that if you want to sell it, the second hand market is

really pretty poor. And the write-offs on it are terrible, because nobody wants to buy a three or four year electric car, because they know that then the battery starts deteriorating pretty fast and changing the battery cost as much as the car, you add all of these things up. And I think that the demand for electric cars is basically going to undercut for years to come where the projections were. At the same time, as you've got all this capacity coming. So what does this mean? This means price wars, this means margins getting destroyed. And this is already starting, partly because all the Chinese producers are massively cashed up, cashed up not because they've been generating terrific cash flows, they're cashed up because they've been able to tap massive amounts of bank credit. And by the way, the same is true for solar panels for a lot of things. And so the whole, you know, let's push ESG, let's push environmental solutions, to the extent that now China's captured these industries, puts a whole question mark on policymakers as to whether they want to pursue down this track, or actually back off. And you've already seen the UK back off. And I think most of the European Union is trying to think okay, hold on, this makes absolutely no economic sense whatsoever, we need to be less crazy about this.

Erik: Louis, let's reframe this around commodity markets and what we should expect. You know, for a while there was a big investing trend around battery metals for EVs, copper, also for the energy transition, and EV revolution and so forth. Based on your analysis of what's going on with the EV market and how it's changing, what does that say, in a mid to long term forecast for these various different commodities?

Louis: I'm actually still very bullish commodities. And I'm still very bullish copper, and nickel and tin. And pretty much any metal you care to think of, not so much because of the EV transition or ESG constraints, etc. Because I do think these are becoming politically untenable. But I'm bullish for a very different reason. And you and I have discussed this in the past. But my core belief is that the big growth story of the next 5 to 10 years, is basically the growth in infrastructure spending and consumption in the broader EM x China space. I think you and I have discussed before, how if you draw a line from Istanbul to Jakarta, you've got 3.6 billion people excluding China, with population growing by 1% a year and income is growing by 5% a year. And these are all people that are starting to buy refrigerators, motorbikes, automobiles, microwaves, you name it, all things that require commodities to be built, all things that are increasingly built in China, or in Japan, or in Korea, to countries that benefit from very, very low exchange rates today and thus, are able to remain competitive with China's big excess capacity of industrial goods production. But, the simple story is that China now exports cars to Indonesia, to Chile to Colombia, and these cars are sub \$10,000 cars. And I know you travel a lot, Erik, I'm sure you've noticed when you go to Chile, or you go to Indonesia, or India, the number of Chinese cars that are now on the road. And the reason they're there is, because they're cheap, and people couldn't have bought them before. But these cars still need some copper in them and they still need gasoline to run on. And as you create consumers out of all these markets, these 3.6 billion people from Indonesia to Turkey. I think the demand for commodity will surprise people as to how strong it is. The demand for commodity, it will no longer be just you know, it used to be just Western world. Then when it became Western world with plus China, commodities massively rerated. Well, now it's demand from Western world from China, and then an additional 4 or 5 billion people, which is absolutely gargantuan. So, meanwhile, we've

completely under invested in our entire commodity supply. So no, I remain very optimistic on commodities.

Erik: Louis, let's come back to China. You know, it seems just so important to me that so many people basically got this wrong, there was so much speculation that boy, as soon as they get the COVID under control, China reopening is going to be the economic powerhouse that's going to drive the entire global economy for the next 10 years. Well, guess what? That didn't happen, kind of the opposite. So why did everybody get it wrong? What's really happening? And I guess, you know, what's the secret? I don't know if I want to call it secret sauce. What's the key thing that once you understand X, it all comes together and you realize why the narrative never made sense and why we're going in a different direction?

Louis: You know, when I started in this business, my very first client, a gentleman who unfortunately, has since passed away, but he told me look, Louis, it's an easy business. You have to remember that when things go badly, when you don't understand the world, when things look upside down, the Fed will always manage the economy for the benefit of the shareholders. And the Bundesbank, I guess I'm showing my age because the Bundesbank still existed back then, it was pre ECB days, the Bundesbank will always manage the economy for the benefit of the bondholders. And the reason is, because everybody in the US own stocks, and everybody in Germany owns bonds. And so he told me, look, when you don't know what to do, you buy bonds in Germany, you buy stocks in the US, and things work out over time. To be honest, probably if I'd followed that advice, I'd be a lot wealthier today. Now, here's where I think people, and I've written books about this, and you know, this has been my big argument for the past 10 years, is that when most people look at China, they've always looked at it through the prism of the equity markets. They look at it through the prism of the equity market, because, you know, like, oh, here's China, it's an exciting growth story. And if I want to participate in the growth, I'm going to buy the equities. The reality is that the PBOC is the new Bundesbank in the system. The Bundesbank is long gone and buried, swallowed up by the ECB and spat out again, the new Bundesbank in the system is the PBOC, the People's Bank of China, which manages its economy, not for the benefit of the equity holder, but which has historically managed its economy for the benefit of the bondholders. So, to put things in another perspective, I think if you're the Fed, you care first about where the US stock market trades, then where the bond market trades, and the US dollar can be the variable of adjustment. As Treasury Secretary Connally famously told the Europeans, the US dollar is our currency and your problem, i.e., it's a variable adjustment, we don't care. In China, the order is reversed. First, they care about the currency, then they care about the bond markets, and the equities will settle where they settle. And it really doesn't matter because only 15% of Chinese people own equities. Because most Chinese companies don't fund their growth through the equity market. They fund it through the banking system. And so what you find is that you look at the past 10 years, five years, three years, one year, pick whatever timeframe you want, Chinese government bonds have outperformed US Treasuries. It's been a surefire bet. At the same time, US equities have outperformed Chinese equities, over 10 years, 5 years, 3 years, 1 year, because that's what corresponds to what policymakers were looking for. So that's the first point I'd make. And I think it's very important to conceptualize this, as you do you look at Chinese capital markets. You

know, where do you want to sit on the capital market? Are you getting the support from the policymakers? And that's why the Renminbi is very stable. And that's why the Chinese government bond market is very stable.

Now, to your question, why didn't China do better after its reopening and on this? You know, I think we discussed this in the past as well. And I'll put my hand up for having completely missed that one. I think like me, like a lot of people, I, like a lot of people was a bit lazy when China reopened. I think all of us felt, oh, I've seen this movie before. saw it in the US, saw it in Europe, saw it in Brazil, saw it in Australia, you're going to have all this pent up demand and consumption is going to be strong and everything's going to be awesome. And we're going to have a big rebound growth, because that's what you had everywhere else. And again, you didn't have it in China, nothing. The reason is pretty simple. In China, when they basically shut down, they sent 10s of millions of people back away from the cities back into the countryside. And so when they reopened and said, okay, it's safe, you can come back to work now, you literally had 10s of millions of people that came back out of the countryside, into the cities. And in so doing massively depressed wages, this was pretty much the opposite of what we had everywhere else in the world. Everywhere else in the world, we told people stay at home. And when we told people, okay, you can come back now, you had, I don't know, 5-10% of people that said, you know what, I don't really feel like coming back, I like sitting in my mother's basement, smoking weed and playing Nintendo. And so, all of a sudden, we missed a sort of that bottom rung of workers, the guvs who work in McDonald's and at Walmart, who clean hotel rooms, and whatever else. And as we missed those workers, the price of workers went up. In China, the price of workers went down. And now the reality is, people who don't earn a lot of money, tend to spend every dime they make. So all of a sudden, they earn more, they also spend more. And that created the boom that I think it's still going on. In China, it was precisely the opposite. Wages were depressed by all these 10s of millions of people that came back out of the countryside to get jobs. And as wages were depressed, people tightened their belt. And that is the cycle that we're still in, in China. Throw on top of that, of course, a real estate consolidation that's been going on for 5 years. And you've got both the low end that's been tightening its belt because of depressed wages, and the middle and high end that have been tightening their belts, because of they've got a lot of their wealth tied up in real estate, and they see the real estate go down. And so that's made for a much more challenging backdrop of weaker growth, and, of course, terrible stock market returns.

Now, having said all this, I don't think we should overdramatize either, because the stock market paints a very dire picture. But, you know, you look at things like car sales, are at record highs in China today, box office sales are at record highs in China today, China is one of the few places where people still pay to go to the movies. Internal tourism, is basically back at record highs, you know, Macau visits are back to the levels of 2019, and so on. So we, in the Western world, tend to have a view of stock market equals economy, which is definitely not true in most emerging markets. And absolutely not true in China. Of course, you know, China's had 20-year very strong economic growth and 20-year terrible stock market returns. So today, if you look at the stock market, you think, oh my god, this economy is imploding, etc. But you'd go to Beijing, you go to Shanghai, restaurants are full, people are buying cars, people are going to the

movies, it's not that dire. If in the US, you had a stock market, that bad things would be bad. Again, because 70% of Americans own stock. Remember that in China, only 15% of people own stocks.

Erik: Louis, I've been spending most of my time recently, thinking about the coming nuclear renaissance, where it's headed. And I'll tell you, I've had quite an experience, because I do kind of fancy myself as a pretty darn good strategic long term vision developer. That's what I was always good at in the software business, was seeing the major trends years ahead of other people. And as I go through this, most of the people I talked to in the West, even people that are in the nuclear power industry who ought to know much more than I do about any of this stuff, usually don't even know what I'm talking about when I explain the reasons that I think we can dramatically and completely change the shape of nuclear energy, by embracing Advanced Generation for technologies using molten salt coolants, using liquid fueled rather than solid fueled reactors, burning waste, and with burner reactor designs, all of these technology, things that I know are possible. And I know that due to US government malfeasance, the industry is not developing. And I'm kind of the guy who's saying, look, I can see this vision for how technologies we already know about, if we would just put them to work can come together and create this just amazing, super economic independence picture where we could make the United States 100% energy independent, completely supported by nuclear have, you know, unlimited, and I'm not just talking about electricity, but also producing synthetic, clean burning green fuels, liquid fuels that are produced from nuclear energy. I've got this whole master plan in my mind. Most of the nuclear experts that I talked to, in the West, don't even understand everything that I'm talking about, because a lot of it's kind of leading edge stuff. And I think, oh, I must be like a real smart guy. And then I go, and I look at every single idea that I've had. It's not that China has the same idea. It's that China had, past tense, the same idea five years ago, and they are hauling ass.

You know, I've been saying we really really need to resurrect the molten salt cooled reactor experiment from the 1960s at the Oak Ridge National Laboratory, the advances that were made in safety, but were never commercialized, were so significant, that there was something really big that was wasted there. Well, as I'm babbling about this on podcasts, quietly, the Chinese in 2018, built a thorium fueled Molten Salt Reactor in the middle of the Gobi Desert, just to prove that it's possible to build nuclear reactors when there's no natural cooling water source. That's exactly one of the first things I would have done if I was in charge is proving out that technology and I thought, you know, someday, mark my words, China is going to get my idea that I've already had, my best idea which is building small modular reactors, which are molten salt cooled, and thorium fueled, and using them to fuel ships at sea so that we can solve this whole ocean pollution problem, which is a major, major problem in terms of climate. Three frickin' days later, Louis, I'm not kidding, three days later, I see the tweet. And it's like, China announces molten salt cooled thorium fueled nuclear powered container ships to be built. And I'm like, okay, my office is bugged, you know, they're listening. But the thing is, they've been working on this, they get it, they know about it for longer than I do. And I thought, oh my god, they're going to see everything that I can see, not they can see it as early as I can, but they're already way ahead of me. And I thought, you know, what the next shoe to drop is going to be in the next few

years, is I bet, they're going to go to a full either sodium or gas cooled, super high temperature, pebble bed reactor. And the reason that's important is, in energy transition, there are new processes that are just orders of magnitude more efficient for seawater desalination, and particularly for hydrogen production, where you need much higher temperature reactors. And I've been thinking a lot about the hydrogen economy, solving liquid fuels problem with hydrogen, how nuclear energy with high temperature reactors that are dedicated to that could solve the whole thing. I've got this idea in my head that I think I'm the only guy who has ever been smart enough to think up these ideas, because, you know, I'm so smart. And then the next tweet the next day from the Chinese government, shows an aerial photo of a facility where they just built an ultra high temperature gas cooled reactor with a hydrogen manufacturing plant next door, and I'm like, okay, every vison...

Louis: Have you thought that maybe they're just trolling you at this point?

Erik: And I appreciate the humor. But on this, this part, I'm not kidding. Because I think this is really important. I really fancy myself, is thinking that I knew how to make the West totally energy independent, fossil fuel independent, etc. Nobody's listening to me. So you know, I'm not going to change the world in the West. But where I used to think I really had some cutting edge, maybe I was the smartest guy at least in a couple of specific ideas. Now, China's like, a bunch of steps ahead of me. And what I've realized is, they're working hard on this. And my prediction is, I mean, obviously, you never know what's going to happen. Maybe China and Russia and the US all blow themselves up in a nuclear war. But if it doesn't go that way, I think where we're headed is in 10 to 15 years, it will become the first major industrialized nation to be 100% energy independent, not dependent on any other nation, which has just profound geopolitical implications. But also, I predict that they will have the lowest cost of energy of any industrialized nation on earth, because they're going to do nuclear. They're going to do it in scale. And they're going to do it right there. Every idea that I've had about how to embrace economies of scale, they're not just on the same page with me, they're steps ahead of me, and they're doing it.

So let's imagine that we get to a world where China doesn't have to import oil from anybody because they don't need that anymore. China is an exporter of more expensive than oil, but still, liquid fuels that can be used to run diesel engines and so forth, that are completely green, and don't pollute the environment and are produced from nuclear energy. So you know, OPEC now has a competitor of synthetic hydrocarbon export countries and China is the first one of them. They don't depend on anyone else for anything. They continue to build out their Blue-water Navy, which is already very much, you know, destroy the world nuclear capable. And they get to the point where they are not just the economic powerhouse that they've been until now. But they almost get an immunity status where, because their cost of energy is so much lower than everybody else's, their competitive advantage is so extreme, that just nobody can touch him. In a situation like that, the only time I can think of that's similar to that is, there have been times when the United States enjoyed so much. Right after World War II, the US never had any fight on its own soil. Europe is lying in ruin, you know, US just had massive, massive advantage over everybody else. Now, American listeners, I'm sure we've never heard this before. But I know that you're from Europe, Louis. So there are actually a few people in the world who didn't

appreciate the way that the US took advantage of having enough power to be able to push everybody else around and tell them what they had to do. When China has that same power and has more of it than the US ever had, should we assume that the Chinese will just be humbled, because that's the Asian way and not make a fuss for anybody else? Or what could happen?

Louis: Look, everything you've just described is absolutely fascinating. And both fascinating and frustrating. As you mentioned, I come from France. In the 1970s, in France, we used to say, we don't have oil, but we have ideas, the idea. And the idea was, you know what, we've gone past oil, we're going to invest in our nuclear infrastructure, and move to a post-oil age. And France, in fairness, we almost got that, we made big investments. It was big capital spending, we almost got there, we got to the point where almost 90% of our electricity was produced through nuclear, which, as oil prices started to go up, we did it for geopolitical reasons, incidentally. But as oil prices start to go up in the 2000s, all of a sudden, this was a big competitive advantage for France. And then we've spent the past, really sort of 15 years, walking away from it, we spent the past 15 years turning our back saying that nuclear was no longer the future. And telling young people, don't go into nuclear, the future is going to be wind, the future is going to be solar, even though it's a lot less efficient. And you get a lot less energy per dollar spent, this is going to be the path forward. And I think this matters.

And to your point, how is China progressing, so far in this? Well, the simple truth, you know, I firmly believe there was a humanist French philosopher in the 16th century called Jean Bodin saying, the only wealth is man. And, you know, if you start off with the premise that the only wealth is man, the reality today is that China produces more science graduates every year than there are existing science graduates in the US. Now, you could say, yeah, but Chinese universities aren't as good as US universities, etc. But, you know, just the sheer law of large numbers implies a situation where you just have the odds of having some, some smart guys in there that can crack codes, can crack ideas. You throw enough people at this, you're probably going to get something. Now, when you compare the situation to the west, not only in the West, are we no longer producing science graduates. But the few science graduates that we do produce, go into one of two paths: either they go down the path of optimizing puppy videos on the internet, because that's where the money is, and go work for Facebook, YouTube, or whatever else, option one. Or, option two, let's go work for SEC, for SEC does 4.72 or for Goldman Sachs or for whoever and join a coin desk, because you know that those are the obvious path to riches. You have to be mad in the US to go work in the nuclear field. Like, who does that when you have a government at the top that tells you this is not the future, this isn't the way we want to go? It makes very little sense.

Look, like you, I firmly believe that the future of power, the future of electricity is a nuclear one. I mean, this much has been obvious for the past 50 years, you know, the whole history of humanity. The whole history of progress, you know, for 50,000 years, we really, basically have no increase in life expectancy. We have no increase in GDP, we're basically living very much Malthusian lifestyles, barely scratching the surface. And all of a sudden, we discover, instead of burning wood, we discover coal, and then we discover oil and then we discover gas and each

time we get better and better and more and more efficient. And nuclear was the final frontier, and most Western countries decided to walk away and Western countries did this, emerging markets did not. Today, most of the world's nuclear engineers either work in India or in China. So yes, the solutions will come out of this. You mentioned thorium based plants. And it has done some very interesting things there. And yes, you've also mentioned that, at the end of the day, economic activity is energy transformed. And whoever has the cheapest cost of energy, doesn't mean they win the economic game, but they should start ahead on the race. Now, for the past 10 years, everybody wonders, oh, the US is so great, you know, the US dominates everybody, big thanks to the tech boom, etc. What nobody ever talks about, is the biggest macro development for me, of the past 15 years or so, was the Permian revolution, the fact that all of a sudden, the US added 8.5, 9 million barrels a day or 8 million barrels a day to its production, massive increase in natural gas, collapsing the price of gas, natural gas, all this gave the US a tremendous, tremendous comparative advantage. Well, what you're describing is a world where the US will suddenly lose this comparative advantage. And this comparative advantage will go to the very country with whom the US has been, frankly, rather unfriendly now, for the past six, seven years, and making no bones about its desire to see regime change, and making no bones about its desire to see it stumbled economically. So to your question, you know, if all of a sudden China has this power, how will the West respond? Well, I'd hope that, before that, the West would respond and say, hold on, you know, we have to catch up with China on nuclear, we have to make serious investments here, we have to stop treating the sector as if it's a pariah and as if it's dirty, etc., when really, it is the solution for much greater happiness all around the world. Now, to answer your question, I'm sorry, this is a long winded answer. But to answer your question more directly, how will China respond? Today, China wants to, you can say pretend or act like or whatever, that you know that it wants to be a friend to other emerging markets. And so what I would imagine is, China would go around to places like Indonesia, like Saudi Arabia, like India, and say, hey, we can be an energy solution for you. But whether they'll offer the same solutions to the United States? Well, I think you'll get into discussions where, okay, we will sell you our nuclear processes and our ability to produce power plants at a 10th of the price of what you have in the US today. But then you have to sell us your semiconductors. Otherwise, if you won't let us have you semiconductors, then maybe we don't let you have our nuclear plants.

Erik: Well, and I can take that a step farther for you. Because if I was in China's shoes, believe me, I've thought a lot about this business model. The way that they could structure it is, they could say, look, for our strategic partners, we've already built out our own national infrastructure, we've got a fully energy independence, nuclear economy in China, and all of our manufacturing, industrial services are all supported by that. And for our trading partners, you know, the way we manage our foreign policy is we kind of tell our trading partners, look, if you want to play ball with us, what we'll do is not sell you anything, we'll come and build and install for you nuclear plants that we will own. And we will sell you electricity at very attractive prices, wholesale, into your grid, you can distribute it to the people of your country. By the way, we're not worried about nationalization risk, because we use very high tech encrypted data communication, command and control, so on and so forth. And if you piss us off for any reason, we turn the power off for your whole country, we'll walk out and we walk out and if you want to be an asshole about it,

you can seize physical control of our reactors that we left in your country, there's no way you'll ever get them to operate again, because we designed them that once we poison them from, you know, the mothership, they'll never run again. So you won't be able to get any advantage of it. So you will be beholden to us, we'll give you cheap energy, which allows your economy to compete in a way that it couldn't possibly compete. But we basically, the policy is very simple, one page term sheet, we provide you energy on the cheap, and you're our bitch. Those are the terms and you do what we tell you to do geopolitically, we're in charge. You know, China's Guangzhou, the central nation who's in charge of everybody else, take the British Empire or the American empire of, you know, the entitled attitude of telling the rest of the world what to do. I can see China very easily, through energy, providing other countries with energy that China can hold it a string over their neck and say, look, you know, you do exactly what we tell you, we turn the lights off.

Louis: And to be honest, I don't disagree, it's insanely frustrating because we had the options to do this. Like, you know, if we didn't go off course 30 years ago, or 20 years ago, that would be us today,

Erik: We have the option to do it right now. I'm working on trying to get to them, I mean, in the US, it's just a waste of my breath. But my argument here is the Arab nations that are going, you know, the UAE particularly, which already has a very well respected nuclear regulator, and has gained the respect of the global nuclear industry, they need to stay in the energy business beyond the age of oil, they can afford the billions of dollars that it would cost to really build out power plants all around the world for other people. I've got a pitch deck for that business model that nobody at the UAE is of, of import has been willing to give me the time to listen to yet. But it's very possible right now for the West to still get our shit together and catch up with this. But time's running out. The way I think this goes down, Louis, I think we have a late 2020s global oil and gas energy crisis doesn't happen now, probably '26,'27,'28. in that timeframe, we're going to get to the point where underinvestment finally comes back to really bite us. And we've got \$250 oil prices and major geopolitical upsets over it. China will be adversely affected by that a little bit, but by then they'll have built out enough of their nuclear and over a period of years, we'll get to the point where everybody who's still oil dependent has a massive, massive disadvantage. China is ahead of everybody else on nuclear. And you know, they're not going to, I don't predict that they would ever go into the business of selling nuclear energy for a price to other people in dollars and cents. They'll sell energy for consideration. And those will be political considerations, geopolitical commitments, treaties. China will get its way with everybody by having cheap energy that they can afford to give out to who they want to share it with.

Louis: Or it will be barter, it's...okay, Argentina, we'll build you your nuclear, you guarantee us so many tons of wheat, so many tons of beef and they'll move to be X dollars, we provide you electricity, you provide us wheat, copper, whatever else and just move everything off the dollar system.

Erik: Well, I think that they could very easily be in a position where they say to those countries around them, like look, you know, this is a an offer you can't refuse. You know, you're going to

do what we tell you. The choice here is you either commit all of your agricultural exports, your meat, your soybeans, whatever, you know, send it to us because we need those imports, and make a strategic deal with us that we're going to do that in a long term contractual basis for decades at a time. Or don't, in which case, we'll be pissed off, and you don't want to see what that looks like in terms of what your energy picture is going to look like in your country, when we're done with you. They can very easily intimidate the rest of the world to do whatever they want.

Louis: I think you and I firmly believe that economic activity is energy transformed, and that whoever has the cheapest cost of energy starts off with a huge competitive advantage. Now, today, the major economy in the world that does have the cheapest cost of energy is the United States. And that is, you know, they've got cheap, natural gas plentiful natural gas, the US has gone from producing 5 million barrels of oil a day to 13 million barrels a day in 15 years. massive energy renaissance, great story with that, you know, strong dollar improving trade balances to high stock market, etc. Now, today, you look at the US stock market, so right now, the US is roughly 4.5% of global population. It's roughly 18% of global GDP. And it's 70% of global market cap for equity markets, 70, for 18% of global GDP. So we have to think that a US economy, that's roughly a fifth of global GDP, will continue to provide 70% of its profits, Now. the maths are really hard to make work. But it definitely only works if the US has an enormous comparative advantage on the energy front. Now, what I'm hearing from you, Erik, is that that comparative advantage that the US holds today is perhaps much more threatened than the market currently anticipates. It's much more at risk. Now, here's the thing, if the world you describe occurs, let's say, in the next five years, where the US loses its comparative advantage in energy and then the US cannot stay at 70% of global market cap, then what's the right number? You know, 18 years ago, back in 2002, 2003, following the big tech bust, that number was roughly 43, 44% of global market cap. So we've gone from 43, 44% of global market cap in a couple of decades, to 70% on the back of the tech boom, and on the back of the Permian/energy boom in the US. Now, if you're right, if China's going to be the next economy that basically benefits from the cheapest energy around, then, China today is roughly 15% of global GDP. And I think it's about 6% of global market cap. So that number will also need to shift, if China's got the cheapest energy around, then, 6% of global market cap doesn't work.

Erik: Well, Louis, I can't thank you enough for a terrific interview. As always, before I let you go though, tell our listeners a little bit more about, we've got a couple of your writings, "The EV Implosion" and a personal note on the Hong Kong and China equity meltdown. Those two notes will definitely be in the Research Roundup this week. So listeners, look for those download links. We'll try to get the other piece, the "Party like it's 1999" piece, we'll have to see if we can get that out of Gavekal's editing team in time to get it into this week's Research Roundup. If not, just look for it at the Gavekal website, folks. Besides that, tell people how they can follow your work. Gavekal.com I know you're not really Twitter, X guy. Anything else people should know about how to follow you.

Louis: I am actually on Twitter. I don't spend that much, I don't post that much. But I you know if people want to follow me, I am at @gave_vincent. So yeah, the best way to keep tabs with us

really is to go to the Gavekal website <u>Gavekal.com</u>. And you can sign up for research we produce is mostly for institutional investors. But come and check out our website anyway. And leave us any feedback. They're always happy to engage in conversation with anybody who wants to take the time to talk to us.

Erik: Patrick Ceresna, Nick Galarnyk and I will be back as <u>MacroVoices</u> continues right here at macrovoices.com