



MACRO Voices
with hedge fund manager Erik Townsend

Lyn Alden: Broken Money

October 19th, 2023

Erik: Joining me now is Lyn Alden, founder of [Lyn Alden Investment Strategy](#) and best selling author of [Broken Money](#). Lyn, it's great to have you back, you've written a terrific book. It bears a lot in similar to my book with one very subtle distinction, which is nobody read my book. And you're not only on the best selling list, but you're at the top of it. Number one best seller, and an absolutely fabulous book, I want to add my personal endorsement to it. I don't mind saying that when I wrote my book, I just wanted to get what was on my mind about my predictions about Bitcoin and central bank digital currencies off my chest. In your case, you did a much more comprehensive job. You did the job on this book that I probably should have done on mine. So congratulations for all of the well deserved praise that it's received. I want to start though with why you did this. You wrote a book called [Broken Money](#), obviously, you think the money system is broken. You did this at a time that the world is contemplating what digital currency means both private label and central bank issued digital currency. What's the backstory? Why was this the time to write a book about the money system being broken?

Lyn: Yeah, so first of all, thank you for having me on. Always happy to be here, and I appreciate your support of the book. That certainly means a lot. One of the advice I give people is don't write a book unless you feel like you have to. Because for people that work in our kind of industry, it's going to be a massive time sink, it's going to take a lot of time, it's not a good ROI. If you're thinking just have you know, the money, it's really about, you have ideas in your head that you just feel like are best in book form. And it's calling to you at the moment. And so I had written a lot of content over the past five plus years on multiple subjects based around money, energy, the structure of markets, you know, Bitcoin, stablecoins, CBDCs, inflation, that whole gamut. And I felt that there were some frameworks that were kind of important enough that a whole book would be useful for them. And essentially, you can walk the reader through from first principles, how did we get here? What's going on. And I felt like there's just not a lot of focus on how technology changes. How we use money, both in history and the present, and some of the underlying structures for how the system works. So I generally find that when I get questions from people, you know, they read one of my long form articles, but they don't necessarily read like, you know, the past five long form articles. And sometimes there's ones that feed right into another one and ones that don't. So I figured putting them in a book form is kind of like basically guiding the reader through this more chronological order of things. And I felt that money is a complex enough subject and it's also poorly understood. And it's really one of those that I think deserves a full book treatment.

Erik: Let's talk about broken money and why it's broken. Are we just talking about indebtedness, and you know, national debt, that kind of thing or are we talking about the actual monetary system which is broken? and if so, how is it broken?

Lyn: I consider them similar questions, because the type of money enables what type of debt can build on it, and how long that type of debt can last. But that's not the only problem. The way I would describe it is that over time, technology has allowed us to move money more efficiently. But the problem is that there's been a bigger disconnect between transaction speeds and settlement speeds. And so for example, but you know, we can, we can kind of separate things in a few key areas. Prior to the invention and the adoption of the telegraph, information and matter moved roughly at the same speed. And so you couldn't really transmit complex information any faster than a human could go on horse or ship. Whereas once we had the telegraph, which you know, was invented in the 1830s, but it wasn't really adopted over long distances by until like the 1860s. That's also when the cross-Atlantic one was constructed. And so you had basically the whole Western world connected, and then over time, the following decade, whole world, and that gave us the ability to send long distance information, large amounts of it at roughly the speed of light, while at the time you had a gold standard, you had, you know, physical money, and that could not settle anywhere near that speed. And so we relied on ever increasing amounts of centralization and abstraction to do that.

And it's obviously been very efficient in some ways. But it's also opened up a bunch of problems, I would kind of described as like a local maximum, where we've achieved enough good things, but we also have a number of costs associated with it. And I think the one big one I point to is that when you look around the world, there's over 160 different currencies out there. And if you're not in the top few of them, your money most likely loses value very quickly. And your money has virtually no acceptance outside of your little currency bubble. And you have trouble investing in capital assets in your little currency bubble unless you're, you know, wealthy enough to build a go offshore. And so we basically there's billions people just kind of trapped with worse money than we have in in the fully developed world. But of course, Even in the developed world, we have other types of problems basically, you know, large amounts of debt, more subtle effects from broken money. And so I wanted to kind of focus on when you kind of step out and zoom in on the whole thing, how kind of duct tape like our current monetary system is just in large part based on technological limitations, it's had.

Erik: Duct tape-like that is a fantastic description, pertaining to Bondo and Baling wire, which is the way it feels like our financial system is someday. Then you get in 2008, some guy or gal going under the pseudonym of Satoshi invents some really interesting technology. But it's wasn't invented from the standpoint of trying to fix the system. It was actually invented from the standpoint of competing with the system. How do you interpret the advent of Bitcoin and therefore the advent of double spend proof digital cash and distributed ledger into this whole equation?

Lyn: Yeah, so I think what a lot of people don't know about the space is that there was a ton of work before Bitcoin by a number of software people, cryptographers about how to make this

work. So for example, David Shaw back in like the early 80s, published a paper on how mutually suspicious groups can basically operate a shared database or ledger together. It was kind of like, kind of proto-Bitcoin in a way. And he eventually went on to, you know, do blind signatures and E-cash and its various kinds of cryptographic techniques to move value. They didn't really achieve network effects, and they had some centralization issues. Then throughout the 90s, you had developments in proof-of-work, basically, the idea of trying to create digital scarcity, like making something that is a puzzle that's hard to solve, but easy to verify, once it's solved, kind of like a Rubik's Cube for example. It's a little challenging to get all the the colours lined up. But anyone even if they don't know how to solve a Rubik's cube, can look at a solved one and say, okay, that one is solved. So there are a bunch of puzzles like that they were figured out. But the problem was that they were still centralized, for the most part. And then basically Satoshi, the team, the person, whoever was put a number of these existing pieces together. Also, by that time, better cryptographic techniques were developed. Internet bandwidth had improved enough that the amount of data made more sense. The amount of storage and processing basically, a number of things just increasingly came together to make something like this more possible. And essentially, what he created was peer-to-peer money. Or another way of thinking of it is a decentralized ledger, a decentralized database that can hold, you know, some arbitrary information, but it's primarily meant to, you know, basically move around entries on this ledger is basically a gigantic global decentralized Excel spreadsheet. It's kind of it when you get down to it.

And that is just now an open competition. And of course, that spawned all sorts of other things, that spawned, you know, trying to create more programmable ones are trying to put other assets and to kind of explore if there's anything other than money that this particular method could be useful for. And, you know, we could talk more about some of the details. But I think basically, that is, you know, when you look at the whole space, there's tons of fraud, and speculation, and scams. And that makes sense anytime a gatekeepers drawdown, right? So if it gets easier for people to publish books, and they go around publishers, that's a good thing in a way, but you're also going to get a long tail of really bad books coming to market. Same thing, if anyone can make their own TV show, anyone can make their own radio show, which is, you know, what we're doing here, there's going to be high quality ones coming to market that might not have otherwise gotten on major media. But at the same time, there's gonna be a long tail of low quality ones. And essentially, what we're seeing now is the gatekeepers down money and financial assets. And so there's interesting things out there, but that's kind of blinded by the noise of how much scams that this also allows.

Erik: So we start with a very broken financial system, I think you and I agree the financial system was quite broken. Then, you get the advent of digital money, which was not designed by the people in charge of the broken financial system. Then, you have the people who are in charge the broken financial system to start to look at it and realize, wait a minute, this is a serious threat. Maybe we need to have our own digital money system, you get to CBDCs. But the people who feel that way aren't really sure what Bitcoin is and how it works. So when they try to invent their first CBDCs, they're not really sure what they're doing, at least in the beginning. And now, I think you've got a global competition for governments to get their heads

around what this technology is, and unfortunately, I don't think they're intending to use it in the way Satoshi intended. It seems to me that we still have a coming reckoning of the CBDCs where we have all the governments of the world try to reapply that technology invented by Satoshi and the Bitcoiners, in an opposite direction, using it for the purpose of creating more oversight and control over the financial system, not less. And when that happens, I think there's going to be a fight between those who originally saw digital currency as a freedom of money, as opposed to a less freedom of money kind of development. Where is this all headed and how do you see it playing out?

Lyn: So I think you described the situation well, which is basically it is a big fork of the road and very kind of divergent opinions. Basically, there's, for lack of a better word, open source money, that is basically people can build upon it, it's scarce, it's very costly to try to censor it. And then you have central bank digital currencies. And basically, it's the fork of the road is that over the past quarter century and a half or even more, most problems in money have been solved by greater and greater centralization and abstraction, which, of course, comes to the big cost of privacy, inflation control, all that kind of stuff. And central bank, digital currencies basically continue that trend. They get even more centralized, even more so available, and even more kind of hyper-efficient in a way. And the other path says that, you know, with this new technology, there's finally a way to have some of those efficiencies without ever increasing centralization, and abstraction, and that you can actually have more decentralization but then also a large portion of that efficiency if you can build systems that are robust enough, and that have the right incentives to make it very hard for people to deal with. And I think the challenge is that governments, you know, when you're looking outside of authoritarian governments or sometimes even within them, but basically, especially in anything resembling a democracy. Government is not really a model if there's multiple different parties involved. And so for example, in the US government, there's a number you know, the acting Speaker of the House is hosting the Bitcoin white paper on Congress's website. There's been a number of pro-Bitcoin senators, representatives, presidential candidates, the main opposition in Canada is very much in favor of Bitcoin. There's a number of countries around the world that all have different opinions on it, in one country it's legal tender, granted a small country. And so there's basically this mix out there.

And there's even some countries like Dubai or Singapore kind of set themselves up as little hubs where they're more kind of friendly to this sort of financial innovation, mainly because they want to attract any sort of companies that want to go there that might be repelled from more friction-filled jurisdictions. I think, a key thing to think about this, I think there's really two levels that are operating on it besides Central Bank Digital Currencies. So, there's Central Bank Digital Currencies, then there's something like Bitcoin, which optimizes to be as decentralized as possible. And then there's also, I think, what does not get enough, like coverage in macro circles, because I think it's big enough to have eventual macro implications is things like stablecoins, which allow better jurisdictions to pierce into weaker jurisdictions and offer them assets in a way that's hard for those governments or those weaker jurisdictions to stop. And what I mean by that is, you know, something like a stablecoin is centralized. But the central hub can be in any jurisdiction, you know, put it in United States, you can put it in Switzerland, you

can put it in you know, Dubai, whatever country you're thinking. And then they can offer these basically redeemable assets, maybe it's dollars, maybe it's gold, right? These things already exist. Maybe it's T-bills, those are starting to come out now.

And so anyone in say, Nigeria or Argentina or Turkey for example, they have a ton of different ways to go to access those assets in a way that they didn't really have access to these assets before. It was much harder to get things. If we think of the 160 different currency bubbles out there. They all have financial firewalls around themselves, right. So if you want to bring capital in or out of those countries, there's historically two main ways to do it. Either, you know, bank transfers which are heavily government controlled, and there is ports of entry, right? But of course, you can only bring so much cash or gold through an airport. And they have pretty tight control over their financial borders. And that is, you know, obviously, they want to keep out money laundering, they want to keep out all sorts of illicit behaviour. But a big consequence of that is they also keep people locked in financially. So if you're stuck in a jurisdiction with 20% annual currency growth, weak capital markets, you know, if you're very wealthy, you might vote to get an offshore account, but if you're middle class or lower, you're probably going to have a lot more trouble with that. And that even if even if you are wealthy, they can block you from basically getting your money out.

And what some of these technologies do, you know, bitcoin does it but also with something like a stablecoin, you can put the central hub in any better jurisdiction. And then now basically, the gates are down on these 160 different currency bubbles. So for example, You can't bring much cash or gold through an airport. But you can memorize 12 words as your Bitcoin, private key essentially. And you can go in there with an unlimited amount of money, or go out of there with an unlimited amount of money. If I want to hire a Nigerian graphic designer, you know, they can send me a string of characters in an email and I can pay them, they can show me a QR code over a camera and I could pay them. So whether it's remittances, whether it's peer-to-peer financial market transactions, whether it's even just bringing physically with you through ports of entry, that all those 160 firewalls around countries are basically a lot more porous now, not just with Bitcoin, but also with these other ones. And I think that has long term ramifications for a lot of these countries being able to retain their own, you know, little like siloed ecosystems financially.

Erik: Let's talk a little bit more about stable coins and their relationship with Central Bank Digital Currencies, you've got an entire chapter, chapter 27 in the book about that. I think this is most interesting, because clearly, there's a desire on the part of actors in the mainstream financial system to consider more adoption of digital currency. But when you look at the official issuers of fiat currency, the government's well their product is the Central Bank Digital Currencies. And so far, people are saying uhmm I could take the official government-labelled digital currency and assume the government actually knows what they're doing when it comes to building a digital currency or I could put my money in this thing called a stablecoin, which is like a private actor creating a digital currency that just parallels an existing fiat currency. Chutz is the US dollar. And even though it's not official, from the official issuer of the US dollar, I think that might be better, because I trust the guy that made the stablecoin more than I trust the US

government to know about digital currency. But wait a minute, I trust the guy with the stable coin to know more about it, but I don't necessarily trust them not to use that knowledge against me. And that's what's happened is we've had some stablecoin operators that were more savvy than the US government about understanding digital currency and in a better position than the CBDC issuers to come up with something that was viable, but they didn't necessarily have the investors goals in mind, and some of them stole the money. So what do we do with this environment? It seems like we're really in the wild west of digital currency adoption, and nobody's really sure where it's headed.

Lyn: Yeah, I think those are great questions. I think that's normal for the early phase of this industry. I think on one hand, when we talk about stable coins, I think it's important to separate algorithmic stable coins from collateralized stable coins. So algorithmic stable coins, are basically trying to back themselves with a kind of fluctuating crypto made out of thin air, and a collateralized stable coin. If they're on the up and up, they are, you know, they're being wired money, they're storing that in some sort of safe collateral, they're issuing tokens that are then redeemable for dollars on-demand by large entities. And of course, any smaller entities that can't redeem a bit can still trade, you know, with larger entities that can so you basically create this token that is backed by supposedly full reserves. And you know, there are various attestations, or audits or proof of reserves that can happen, there's all different types of transparency that can happen, like you can list all your cruise ships, you know, there's various ways to increasingly solidify those types of assets and make them more reputable, you know, what jurisdiction they're in what who's their custodian, who, you know, which firms have audited or tested that they have the collateral, right? So I think that over time, these things can become more serious. And they've already kind of trended towards that direction. Some of them have withstood large bank runs. But you know, make no mistake they are they are centralized, they're basically, you know, the ones that are offshore, basically digital Eurodollars, the ones that are onshore are, you know, onshore dollars that have a global reach, then, like I said, there's also ones that not even dollar base like you can have a gold-backed stablecoin. There are a number of those that exist are not nearly as big but they're out. Basically, you can have like a gold token that is redeemable in size for Swiss gold, for example.

And so, basically what these do is these assets are now available globally. And the the jurisdiction from which it operates from or whose assets it holds has power over it. So for example, if someone uses stable coins for criminal activity that is enough to be recognised, the central issuer can freeze those assets. And they can use various surveillance techniques to try to do that they can they can try to block access to certain countries. That's the either upside or downside of those centralized assets depending on how you look at them is that for example, Argentina can't do anything about the fact that stable coins exist but the United States could is kind of the main point. Or for example, if it's a Swiss entity with gold. You know, Turkey can't do anything about the fact that that exists, but Switzerland can, right? So it really comes down to whether or not those high power jurisdictions would like the fact that these things can operate in their countries and provide access to their assets in a global way. So when we talk about things like for example, BRICS countries trying to dedollarize. When you actually have boots on the ground in those countries, the people in those countries generally are not currently on track for

dedollarization. So their presidents might be. Their Congress's might be but when you go down to the public level, there's still a lot of network effect around the dollar, and things like that. And so they're happy to have things like physical dollars if they can, or stablecoins, if they're more tech savvy type of plays, and it's obviously harder to get dollars. And so basically, this is just a... the gates are down on 160 different, you know, kind of currency bubbles here. And it really kind of comes down to the pleasure of some of these strong, stronger jurisdictions if they want to allow that.

Now with Bitcoin, Bitcoin is different because there's no central entity that can censor it, unless they managed to achieve and maintain over half of the network hash rate. And it's kind of showed remarkable resilience in the sense that, you know in 2021, for example, the majority of the hash rate was in China. China banned it. And so you know, they had, quote unquote banned it a number of times, but it never really stuck. But this time, they were more serious about it. And so you saw about half of the network come offline. And if you had told, for example, Amazon or Microsoft, you have to move your servers internationally. And you have to shut them off next week. You can imagine the disruption and the uptime problems that they would have for basically the next year or more. Whereas with Bitcoin, when half the network went offline, all it did was slow down by a little under half. So the average block time was, you know, about 18 minutes instead of like 10 minutes. And that lasted about a week or two until the automatic difficulty adjustment kicked in. And then it went back to normal speed. So it operated with 100% uptime as its miners were basically, you know, shut down and then dispersed globally, almost like a swarm kind of reforming itself, in a different set of jurisdictions. So there's different levels of decentralization here. But I think the main thing it comes down to is, is the fact that even if you, you know, there's something like Bitcoin is an interesting challenge, even to the stronger jurisdictions, whereas something like stablecoins or other, you know, tokenized assets, like gold, or T-bills are a challenge to virtually any of the weaker jurisdictions and are basically an advantage for some of the stronger jurisdictions.

Erik: Lyn, you finished your book with three entire chapters dedicated to what I think is the most important topic of our times, really, which is financial technology, and its implications on human rights and I think this is a very underappreciated subject. Why did you put so much attention in this and give us a quick summary of your views?

Lyn: When I cover these markets, I do it both from an investor's standpoint, right. So if an investor sees 160 currency gates down, that's an interesting opportunity. I would say basically it's kind of like how technology has disrupted media is disrupted publishing. Now it can increasingly disrupt finance. So there's an investor's standpoint there. But then there's also you know, I think, a bigger story about what that means for power structures, what that means for human rights in general, what that means for options that are available for people. For people that follow my work for a while, they probably know that every year I travelled back and forth between United States and Egypt. My husband's originally from Cairo. And so a lot of our family is in Egypt, that's our second home. And so each year, I experienced both a developed country and a developing country. So I see what happens to people when they have 20% money supply growth every year like clockwork, what happens when they get capital controls, what happens

when they don't have the depth of capital markets available to them to invest in? And what do they end up doing? Like I know, doctors that hold physical cash dollars as savings, because that's what they've looked around and decided was some of the best things to hold. You know, earning no interest, susceptible to theft and of course, very hard to get in jurisdictions like that. And there's any number of those jurisdictions, and then we see, for example, increasing amounts of kind of big data surveillance. You know, basically, it's kind of a race between top-down surveillance and control methods, including, for example, China is now a leading exporter of surveillance equipment and software to countries around the world.

And at the same time, you have some of these bottom-up technologies, you know, kind of starting with encryption, and going from there, you can encrypt information, you can encrypt value, which is the type of information and these are basically defences that people have against ever increasing ways to kind of surveil people, control people, lock them in. And whenever people hear that it can kind of sound conspiracy-like. We just have to remember that again, there were, you know, just nearly 200 countries out there, a very large percentage of them are authoritarian, semi-authoritarian, have all sorts of capital controls, have all sorts of existing structures. And a lot of these things just make those even more thorough, which is why I think trying to make kind of robust technologies for them to kind of have options to push back kind of like how I think it's useful for the Internet and information to spread into these places. I also think it's useful for there to be more competition for global assets. So people that are in a jurisdiction should not just have access to their local assets, which, you know, could be kind of bad across the board. In many cases, they should have ways to build savings and investments, or even have more portable capital that they could bring with them, and basically just have more access to the best assets of the world.

Erik: Listeners, again, the book is [Broken Money](#), there's a link in your research roundup email to find the Amazon listing for the page. In addition to the book, Lyn has also prepared a slide deck to accompany this week's interview, you'll find the download link in your research roundup email as well. If you don't have a research, Roundup email, just go to our homepage [macrovoices.com](#), click the red button that says looking for the downloads. Lyn, you've got the end of the peace dividend on the page one. It seems rather timely this week. We have escalations in the conflict with Ukraine and Russia. And of course, we also have the eruption of this major conflict between Israel and Hamas. What's on your mind as you put the end of the peace dividend on this slide and how does it pertain to markets.

Lyn: So, I think in large part, people have learned the wrong lesson from the past 30 years, which is that that debt does not matter, or at least public debt does not matter. And I think there's a couple things that kind of gave us that false belief. And so when you go back in history, debt in the US and large other portions of the Western world, but focusing on the US with these charts, debt as a percentage of GDP on the public's level was very low. And that was a large part because you had, you know, long period of inflation, you had rising rates for a long period of time. But then we entered this 40-year period of steadily declining interest rates, and that allowed more and more debt accumulation. And if you are constantly accumulating debts, but you're also constant, reducing your interest rate, your interest expense is very manageable. And

if you look at the late 80s, that was a time period where interest rates were still high, and debts and deficits were rising very quickly. And that was kind of the peak alarm or the peak zeitgeist of public debts. And so for example, the famous debt clock was put in place in the late 80s. Ross Perot ran the most successful independent presidential campaign based largely on fighting the debts and deficits in the early 90s. And that was kind of the the peak moment. And if you look at those charts, that was also basically the peak moment for interest expense as a percentage of GDP. What some of those people didn't expect, and you can argue could not have expected is that there'd be an unprecedented period of disinflation and falling interest rates for the next three decades.

And that was in large part tied to, you know, the opening of China in the 80s, and 90s, which really ramped up in the 2000s. The fall of the Soviet Union in the early 90s. And then the opening up of Russia, including gas to tear up. So we had all these disinflationary pressures. We basically brought Western capital together with Eastern labour and resources. And that brought a lot of order to the world. It brought a lot of globalization, disinflation, that allowed interest rates to go steadily down. That allowed more financialization, more debt accumulation. And it really kind of pushed back the timeline that those people were concerned about by about 30 years. But of course, the problem is when you eventually run into zero interest rates, and then you turn to larger and larger fiscal, and you get kind of a sideways to up structure in interest rates, you stop having that offset from that rising debt and deficits, and so suddenly, interest expense starts to matter, again. Suddenly, the sheer amount of fiscal driven money supply and treasury issuance starts to matter again. And then these things tend to feed on themselves. So crises you know, geopolitically can lead to sovereign debt crises. And at the same time, sovereign debt crises can lead to geopolitical crises, because people can see that, you know, you're more financially vulnerable, that you're more focused domestically, and they can do things to kind of address or take back some of what they perceive as their share. So I think we've transitioned away from this, like 30 years of ever greater global integration and disinflation and falling interest rates. And now, you know, we're entering a period where I think the debts are going to start mattering again. I think we've already seen that playing out. And I think that's going to be a longer term cyclical trend that kind of comes and goes going forward. And a lot of people I think, have been lulled into complacency over the past 30 years about the idea that the public debts in the West don't really matter.

Erik: Let's talk about the end game for that. I agree with you that people have been lulled into believing, hey, deficits don't matter. We had that whole debate back in the 90s and it blew over. Everybody forgot about it, deficits don't matter, just just just keep spending, don't worry about it. When does that actually meet its day of reckoning? What's the mechanism that causes that to all come crashing down?

Lyn: I think the challenge is when central banks find themselves in a position where inflation is above target, but they still have to buy sovereign debt, that's really kind of the checkmate. Right now, Japan's in that situation but they also have decades of accumulated positive net international investment position. They have extremely high social harmony. And they have a lot of control over their markets. They basically have a balanced trade situation. And a lot of their

monetization has happened over the past decade. Like if you look at their central bank balance sheet, it really started ramping up in late 2012. So a little over 10 years now, and that coincided with the commodity bear market. So if you've a, you know, commodity bear market, and you have a current account surplus, and you have generally, you know, benign global conditions deficit monetization isn't the end of the world necessarily. But we start getting a commodity bull market due to, you know, a CapEx cycle having concluded and if you're a different country that's running a structural trade deficit to begin with, then that combination can get more toxic I think. So I think again, people have a benign understanding of the idea that is going to be Japan eventually. And I think that the reality is likely to be more volatile, messier, and probably on average more inflationary than the story of Japan has taught us over the past decade.

Erik: On page two, you're showing the 102 year chart of the capitalization cycle, what's the story here?

Lyn: So this is a chart I've shown a number of times, I've updated it over time. And it basically just shows I've made a lot of times that comparison that the 2020s are like the 1940s. And this is the primary chart that I used to show it, that basically, when you have falling interest rates, rising debts in the private sector, eventually you hit zero. And you get a basically a massive bank recapitalization. Now that is historically not inflationary. But it's the second phase is when you're risk inflation. Basically, you've pushed debt from the private sector to the public sector, you've gone through a period of economic stagnation, usually associated with periods of rising populism. And then that's when you're more vulnerable to public debt, sovereign debt currency type of crises, or at least inflation. And some of that populism starts to kind of unfold in various ways. And so we had kind of a one two punch in both the 1930s and the 1940s. And then again, in the 2010s and the 2020s, which is first you have the popping of a private debt bubble, which was the 1929 crash, and then again it was the 2008 crash.

Then you have bank recapitalizations. It's a disinflationary period, more more debts up to the public level. And then where it starts to get the kind of the next era is when you have very high public debts. And you're no longer in a position where interest rates are as effective of a tool of managing that because if you raise interest rates, while public sector debt is low, then it has the desired effects of pushing down the private sector, slowing inflation, slowing economic activity. And it's it doesn't really result in much larger deficits. But if you do that same thing, while you already have 120% debt-to-GDP or more, then as you raise interest rates, you do push the same downward pressure on the private sector. But you also spill out a lot more money into the private sector, through larger deficits that are largely because of that interest expense. And so basically, we shift from a period of monetary dominance to fiscal dominance. And I think that's the era we're in now. And that's why I think that some of these technologies we just talked about are important, even for developed markets. Because the normal tool set to deal with very high sovereign debt levels is financial repression. They basically try to corral more and more capital to kind of stay where it is, get into treasuries, even when those Treasuries are performing very poorly, and they're generally trying to kind of run the inflation playbook. And so but in the era of social media, and in the era of, you know, being able to memorize 12 words and bring unlimited amounts of value across borders, that's just a much harder environment to do things like that

than they did. You know, the developed world did it back in the 1940s and thereafter and the developing world does it all the time now. And these technologies just make that much harder to repeat these playbooks.

Erik: Page three, you're talking about the net international investment position. What do you mean by that phrase, and what is the chart telling us?

Lyn: So what that is, is a measure of how much foreign assets are owned by a country and its citizens versus how much of that country's assets are owned by other countries and their citizens. You know, whether at the sovereign wealth fund level, or just at the household level, corporate level. And, you know, a country like Japan has a very positive net international investment position, they basically, they take years of trade surpluses, current account surpluses, they invest them overseas and in a variety of different assets. It could be owning US stocks, it could be owning US bonds, it could be owning European assets, it could be owning copper mines in, you know, random country. They basically owned all these foreign assets. And when they have crises, they have the option to kind of repatriate capital, pull it back. Whereas the US has been on the other side of this arrangement, where we have a deeper and deeper negative net international investment position. And that has been structurally tied to our currency system. A fellow analyst, Luke Gromen covers this quite a bit. They basically a key kind of cost for having the global reserve currency is that if everybody needs your currency, you have to supply the world with your currency. And the way that the market makes that happen, is through at least in the current era, is through the trade deficit.

So for example, there's so much extra demand for the dollar, that it boosts the value of it, and then that makes it so that Americans have a lot more import power than they otherwise would. But some of their lower margin exports are a lot less competitive than they otherwise would be. So they're kind of more restricted to like intellectual property type of work. And so basically, part of our export is dollars. And that kind of takes away from some of our other exports. And so we have this kind of increasing situation where every one of these cycles that goes by the foreign sector accumulates more and more, a larger and larger percentage of US financial assets. And that's what results in some of these instabilities. That's why we have things like swap lines, that's why we have kind of a, you know, kind of disturbing sell offs when there's volatility events is that although the foreign sector needs a lot of dollars, they increasingly have a lot of assets to sell, to get dollars. And it's basically along with the debt levels. It's another kind of sign that this existing system as it's been in place for a number of decades, is basically every year that goes by the instability keeps increasing.

Erik: Finally page four, you've got what you're calling the world's most important chart, I certainly relate to that. It's the our world in data global primary energy consumption by source chart, which was also the star of my energy transition crisis documentary series. Tell me why you think this is the world's most important chart, I certainly agree with you. But let's get your perspective on why this matters so much.

Lyn: Well, I think one of the only things that can compete with broken money as things that you don't want to break is broken energy. Probably the most important thing you don't want to have go bad is your access to energy. Our current population is based on the amount of energy we have, the standard of living is based on the amount of energy we have. And this chart shows the rapid increase in energy over the past century, the world has enjoyed. And it's mostly increasingly gone towards more and more dense energy sources. So we went from traditional biomass to coal to oil to natural gas, and nuclear, and hydro. Those are all quite, you know, increasingly dense energy sources. And they make up the vast majority of the energy we produce. And the challenge going forward is that this is the hard trajectory to maintain to say the least. And that's where you get all sorts of political and geopolitical challenges with it. You get environmental concerns, you get concerns about whether or not some of these energy sources are going to be able to keep growing at the rate they have been even putting aside any environmental impacts. And then you have confusion or conflicts around some of the technologies that are able to likely keep growing our energy usage, and whether or not they should be allowed to keep growing. And that's also why I think that your Docuseries, the energy transition crisis was super important because, you know, other than kind of drawing people's attention to how the monetary system works. I think one of the biggest things over this next decade is drawing people's attention to how energy works and what's at stake with with our energy.

Erik: Well, I couldn't agree more and I think it's going to be a very interesting ride. One of the things that concerns me the most is how politicized This is and how the political process actually detracts from people's understanding of the core underlying issues. Let's talk about energy in the context of current political events, Lyn. The Market Ear put up a really interesting post earlier this week where they just showed past geopolitical events and the rally in crude oil. So the 1973 oil embargo, I think this is a very different time than 1973 and I don't think it's valid to try to say that this is equivalent. But look, that was a 279% increase in the price of oil over the course of 17 weeks. The Iranian Revolution 42% in 22 weeks. The Gulf War 93% up on oil in 10 weeks. The Iraq war 50% up on oil in 16 weeks. The Ukraine war 38% increase in the price of oil over the course of three weeks. Now we've got the Israel-Hamas war as it's being called. And we've got only a 4% increase in the price of oil. Now, a lot of people would say, well that's because Israel and Gaza are both places where there's no significant oil production, so it doesn't matter. I would argue the exact opposite. I would say that the potential of this conflict to grow into a regional conflict that lasts for many years and affects oil producers across the entire region of the Middle East is very high. And it seems like very few people are realising that. I feel like I've got one of the highest Variant Perception moments of my career here, second only to the pandemic in January of 2020. When I started shorting crude oil futures, I'm going the other direction now because it seems to me like the market is badly underpricing the risk of what could go wrong here. How do you see this? Am I missing something or are we underpricing the risk of what could happen next?

Lyn: So I agree with you. And I separate this into two layers, which was before these events unfolded, I've already had a structurally bullish view on most types of energy, energy producers, including oil. And that's largely just due to the CapEx cycle, basically that there's been a period

of under development, most of the growth has been from US shale, which is, you know, basically has trouble growing at the same rate that it has been going forward. And, you know, when you add geopolitical conflicts into it, it the upside only gets more significant. So even before this, the first layer is just purely the CapEx cycle. And when you have an already tight energy market, any marginal supply that either goes offline, or gets blocked from certain areas, or just more frictions are added to how that supply gets to where it needs to be, can only make the problem worse. And so I have no particular insight on the probability of oil being disrupted in say, the next 6 months, 12 months, I would leave that to geopolitical experts, basically, you know, when I look at, say oil producers, I consider them kind of positive carry, you know, just options long term on there being another energy bull market within the next several years, because they're profitable, minimum of good balance sheets, they pay dividends, and should get significant, you know, longer term oil appreciation, they're well positioned. And of course, you can also play with the commodity directly, you can play it with drilling or support services companies, there's multiple ways to play it. But I think that basically, the world is due for another CaPex cycle that only happens with higher prices. And those can come sooner or later, depending on geopolitical outcomes. And another thing worth mentioning, is that we look back, you know, almost exactly 50 years ago. The high energy prices in the United States had two significant components to the one is that if you look at, you know, prior to that point, US was a huge producer of energy. And I mean, they've reclaimed that in recent years. But if you look at a chart from say, the 1870s, up to the 1970s, oil production in the US increased almost every year, it was a structurally upward trend of more and more conventional oil production. And that peaked in 1970. And it started to rollover structurally for decades. And so the US became increasingly reliant on imports. And even putting that aside, just the world lost, its basically, you know, primary grower of oil production during that era. And so that's where the Middle East became a very large dominant producer, because the US was no longer able to keep growing supply. Until of course, we go forward decades to get to the shale changes. But during that multi decade window, and especially early on in that window, there was a lot of leverage given to the Middle East, and they were able to push that.

And so really, it comes down to two things going together. One is that the existing supply can no longer grow at the rate that it has been, and those that either can do supply or have power supply, realize that fact. And so I would say we're in a somewhat similar position now in the sense that you I think that US shale can grow more, but I think it grows at a more decelerated rate at best, and that the marginal source of new oil has to come from elsewhere, especially at the scale that the world's likely going to need it. And just that the supply situation is very tight, globally. And I think that it is an area that is not getting enough attention. I think that, you know, there's so much focus on the 60/40 portfolio, but both stocks and bonds prefer disinflation overall. They prefer kind of order. They prefer low commodity prices. And if someone wants to protect their other holdings, whether it's their equities, whether it's their cash, I think you have to be aware of how significant a spike of energy would likely harm your other investments. And so I think that's an under allocated area for most investors portfolio.

Erik: Lyn, I can't thank you enough for a terrific interview. But before I let you go, tell us a little bit more about Lyn Alden Investment Strategy and what you do there.

Lyn: So I provide research for retail and institutional investors on what's happening in macro markets, as well as you know, kind of specific industries or investments. And, you know, I also cover the stuff we cover here, basically, what's happening in the world of Bitcoin, what's happening in the world of stablecoins, anything that might be relevant to I think I would describe it as more serious pools of capital. So like, I'm not particularly interested in the crypto frauds and things that are happening, but any sort of innovations that are happening that I think are relevant on a macro scale, and I'm also I work with Ego Death Capital that does venture work in that space. So kind of this covering everything related to money, energy, and macro is stuff I like to focus on across my platforms.

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