Erik: Joining me now is Geopolitica Institute founder and CEO Dr. Pippa Malmgren. By popular listener request, we've had quite a few emails from people basically saying, "You've got to get Dr. Pippa back to talk about the Iran conflict." Just wait, she's got a whole lot more to tell us than just Iran. But Pippa, it's great to have you back.

Let's start with the Iran conflict. I have to tell you, there is so much talk on the table about, oh the deal is just... we're hours away from closing the deal. The way I'm interpreting this is we're nowhere close to any kind of deal because President Trump has said very firmly and Iran has said very firmly at the same time Trump says they must turn over their 60% enriched near weapons grade uranium.

Iran says, "No way, not negotiable. We're never gonna give it up." It seems to me like until one of those sides caves on that specific point, there is no deal and there is no resolution. Am I reading that right?

Pippa: First of all, hi, Eric. It's so great to be back on with you. I do love the sessions with you 'cause you let me go deep into the whole breadth of what one needs to understand.

And on that, we need to start understanding, first of all, the superpowers are negotiating between themselves, right? The US, China particularly, Russia as well, and they are attempting to resolve all of the outstanding geopolitical issues all at once. This is a kind of Rubik's Cube approach, where you say you can't fix any one of them independently of the others.

And therefore, it really matters that we understand this, that the US is basically saying to China, for example, "We can negotiate a deal on Taiwan. There are conditions around that, but we accept that Taiwan is in your world and that Cuba and Venezuela are in ours. So you get out of our part of the world, we'll get out a little bit out of your part of the world."

Again, the conditions are important 'cause it's not just a clear swap. Part of the conditions are that China needs to become more like Taiwan, because the Chinese economy is not functioning very well, and if China's economy glitches, the whole world economy glitches. And so Trump has been reaching out effectively to the Communist Party saying, "You guys have two big choices in front of you," which I personally describe as either Star Wars or Star Trek.

Star Wars is where we go to war with people, which between these two superpowers would literally be the end of Earth. Nobody can survive that

superpower conflict given the level of nuclear weapons that we have today. Or we decide to go to war with problems. That's the Star Trek scenario And China is absolutely signaling that it prefers Star Trek, no question.

But to do Star Trek, China can't run its economy the way it has been, and therefore, not only does it need to be more like Taiwan, but the US needs to offer China access to the US market on more preferable terms than have been available in the past. And specifically, China needs to move from a world where everything's stamped "Made in China" to a world where they're stamped "Owned by China."

In other words, they need to copy the exact same model the Europeans did after World War II, the Japanese did a little bit later, which is you start by exporting cheap goods based on cheap labor, and you end up making goods in the US to the point that you can build global brands. Americans, a lot of Americans, they actually think that BMW and Mercedes are American brands these days, right?

And so this is the only way you can raise national income. So the US is basically saying let's figure out a deal that we can get us all there." They've just said they're gonna create a board to review which businesses in China can come into the United States on that basis. So Iran. So then Iran is part of this deal.

Now, first, who are the Iranians is a very important question because now that the leadership has either left for Moscow or been eliminated by the United States, what's left is not really leadership. It's like the remnants of a structure that no longer exists. It's we could almost say a lot of stragglers that are now competing with each other because they all know that there is a deal coming from the United States, and they want to emerge as the guy who gets to shake hands with the United States, in the same way that the new leader of Syria used to be considered a very bad terrorist guy and now is a head of state that the United States says good things about.

Because the strategy is not regime change. The strategy is conversion. It is to create the conditions that are so favorable that it's not worth remaining where you were. It is worth basically giving up the terrorism in exchange for a place in the world economy and some cash in the bank. So you're right, the uranium's the sticking point, but not for the reasons we think.

It's not about the Iranian nuclear program, in a sense. They know that everyone in the region is opposed to them becoming a nuclear power They know that China was their ally, but the, what was left of the, IRGC, when they made the decision to start lobbing closing the Strait of Hormuz, who did that hurt most?

That hurt China, their own sponsor. So at that point, China becomes extremely pragmatic and says "Hey guys we were on your side, but no, this is not gonna work." The president comes in and says, "Yeah, we agree." So the US and China start collaborating on the conditions under which the Strait of Hormuz can be reopened, and notice that the first ships that came through are all Chinese oil-carrying vessels.

Also, the US has been very clear with China, of course, China can buy all the oil it needs from Venezuela, from Alaska, right? We cut a deal to sell Alaskan oil to China during the Trump G summit. But there's a kind of silent parentheses which is, unless you wanna go to war with the United States, in which case the US can now turn the taps off on these things.

So that option of Star Wars is literally just not even available. So let's not talk about that. Let's go to Star Trek, which is where we all win. So the Iranians understand the real reason the president wants the uranium is because he wants to prove definitively the origin of that uranium, and his belief is that it is American, and that it was sent to Iran as part of the various deals cut under the period when Senator Clinton was the Secretary of State, when President Obama was in office, and when President Biden was in office, that part of the deal was not just sending vast amounts of cash to Iran, but also quietly, surreptitiously facilitating their nuclear program.

Now obviously that sounds completely nuts to many people, but this is what he is after, is the receipts. He wants to be able to prove that this nefarious position was even worse than we think. So that's why he also talks about gold dust, right? That the uranium is gold dust. In other words, he only needs a few grams to be able to prove the origin.

Also, now that the Iranian leadership, what's left of it, I don't even wanna call it leadership, it's just what remains, they started lobbing missiles at all their neighbors And destroying extremely valuable infrastructure, not to mention hitting a nuclear plant. So now everyone in the Middle East is aligned.

There is no daylight between them. They all are like, "This cannot continue. These guys cannot be allowed to disrupt the entire region." So they have no more friends in that respect, and now that Cuba and Venezuela are shaking hands with the United States and China's not supporting them anymore, what's left?

Russia. Russia, like China, is open to a swap. So if they have a choice between Iran and Ukraine, they're gonna focus on Ukraine, and the president understands

that. China understands that, and that's why the last piece of this Rubik's Cube that's being negotiated is not Iran. That's considered pretty much a done deal.

The question is, how long do these folks keep lobbing missiles around in their internal competition to emerge as the winner that gets to shake hands with the world? But the real problem is how do we get to a resolution over Ukraine? And I think the-- that's a separate conversation we can have, but I think now we have a better context and understanding.

And by the way, for those who haven't been paying attention, 'cause I find a lot of people are like, "Oh, what are you talking about? Cuba is never gonna flip." And I'm like, did you notice that the head of the CIA flew into Havana on the very day that Trump and Xi met? And the reason you don't see Secretary of State Rubio there is because the US is not doing diplomacy in Cuba.

The US is dictating terms, and it's basically said, "You can have 100 million in cash," which you need because they have no gasoline, they have no diesel, they have no lights on. So they are in a, raise your hand and say, "Uncle" moment, where they are up the creek and the conditions are being laid out by the US.

So these things are historic. Any one of them is historic, but you have to understand the whole thing together. It's a Rubik's Cube. It's not about individual locations anymore.

Erik: Wow, so much to unpack here. We'll definitely get back to Ukraine and all the rest of it, but I wanna stay on Russia for start. So I- I'm not following exactly what you're saying about the origin of Iran's uranium, and I think this is something that's been so badly not reported by the mainstream media that I wanna start with a little bit of context for our listeners.

Iran has 441 kilograms of 60% enriched uranium. It's in UF6, which is the stuff that's a gas when it's in the centrifuge, but it's a solid form at room temperature. It's in about 17 or 18 casks that are each about the size of a scuba tank. So that's the... And that's not speculation.

IAEA inspectors have gone and looked at it, put a seal on it and said, "We've seen this." So nobody disputes that they have that. The other thing to understand is 60% enriched uranium is never ever something, at least not in that quantity, that has any explanation in civilian use. This has everything to do with Iran being what's known as a threshold state.

They don't have nuclear weapons. They don't have weapons-grade uranium. But they've done 99% of the work necessary to get their uranium to weapons grade. It's only 1% more effort to go from 60% to 90% enrichment if you've got operable centrifuges to do that enrichment in. It's not clear whether or not their centrifuges are still working or completely destroyed or what the status is there.

But they've got this uranium. It sounds like you're saying, Pippa, you think that they got it from the US? And i- if so, how would you prove that? Even if you had these 17 canisters or tanks of uranium, each the size of a scuba tank, y- are you saying you do some kind of DNA test on it and figure out who sold it to you?

Pippa: Yeah, that's exactly. And I'm not saying that this is my belief. I am saying I believe it is the president's belief And the actions he's taking reflect this belief. But what's even more important is we have to be really careful about this idea of what constitutes a nuclear weapon. When I was in the White House I was very privileged to get the chance to work on nuclear threats to the domestic economy.

So everybody on the National Security Council was out chasing terrorists down globally, but the group that I was part of, we were looking at what would happen if a terrorist hit a shopping mall in America with not an ICBM, right? Not what you're talking about, a nuclear weapon, but something that has nuclear material attached to a traditional old-fashioned explosive.

That's what we call a dirty bomb. And this is where a lot of the confusion has come in about, what-- how close was Iran to having a nuclear weapon? The answer is they already had it. It's just w- are we talking about an ICBM that you can deliver for 5,000 miles, or are we talking about something you put in a backpack and you can destroy an area for 10,000 years, right?

Both of them are serious threats, and both of them are things that the, people that we're discussing seem to be perfectly morally content to do. So when we talk about getting the uranium, it's not just how highly enriched it is. You don't even-- You can take uranium from a dentist office refuse, and then you can put that in something, right?

We have to understand that we're talking about a range of nuclear threats, not just one kind. So that's the first thing. And now there's universal agreement, as I said, in the Middle East, everybody's "These guys can't have any of it. None." So that's a- an overarching understanding we have to have.

The second thing is, can you tell where it came from? My understanding is you can, and I think that what the president is aiming at... As he's undergoing a extraordinary effort to go back in time and find out exactly what happened when and why it happened, because it's ever more clear that, there was, a massive effort to undermine his first presidency, to prevent him from executing the vision that he had.

and he believes that the other side was willing to go to almost any lengths to get their way, and that included start being literally paying the very terrorists that we were supposed to be chasing down. And we know that. That's in the public domain now, right? Even when Trump recently entered office, the, when the excavation of USAID and other such channels began, and everybody's "Wait, why are we sending $40 million a week to the Taliban?

Wait, what the heck? What's causing that?" And it's part of this history of a belief that sometimes it's better to work with an opponent. It's the old, the enemy of my enemy is my friend logic, or the belief that you need an opponent to justify Congress allocating funds, or you're so used to working with an opponent that you've converted some of them, and so you have to give them cover stories.

There's a million reasons that the people doing all this would say were perfectly legitimate But in Trump's view, they were not perfectly legitimate. And so I'm just saying that one of the reasons that he is insisting on a physical access to this material is because of that, and the people on the other side know this, so they're holding out for the highest possible price.

So it strikes me that we're not actually in a state negotiation anymore, we're in a price negotiation. The folks left know that they are not going to be running this country, partly because, depends your-- how you count it, but something between, let's say 60 and 90 million Iranians are pretty mad about all this and do not want these people in charge.

So they're gonna have to face their own public, which is not gonna be pretty. So will they actually survive that? There's a chance they probably won't. That's why a number of them, when they were offered the opportunity to take the-- what Russia put on the table, which is take an apartment in Moscow, it's free, have a pension, and live a life where you can have a coffee without worrying, Americans are chasing you down.

But they didn't offer that to everyone. They only offered that to the really senior people. So the people left didn't get the offer. So where are they gonna go?

What options do they have? The only real option left is to either join forces with the US and become part of the new world. That was partly the reason that Trump said, "Okay, everybody joins the Abraham Accords now."

'Cause then everybody becomes an enforcer against this kind of thinking. And so basically, where are you gonna run and hide? The whole rest of the Middle East is gonna shut you down as well. There's no place to go. That's why I think we are gonna end up with a deal. I do think Iran is going to emerge back into the family of nations with new leadership.

Is it gonna be messy? Yeah. But the US is not doing what it did in Iraq, which is just to destroy the government and then walk away and hope for the best. They're instead saying, "Okay, let's all together work on removing the one group of people who have adverse interests to the whole rest of the world, and then try to figure out how do we create the conditions for Iran to choose their own leadership?"

Erik: Pippa, the distinction that you drew at the beginning of that between what's possible and what the president believes to be possible not being the same thing seems central in my mind. And frankly I'm just gonna point out that in the president's most recent Truth Social post, he was absolutely adamant-

Pippa: Yeah

Erik: that the US absolutely, positively, there's only two options that he said. One is Iran turns over its enriched uranium and gives it to the United States. The other is that the US Atomic Energy Commission be present in Iran and supervise and oversee any downblending or destruction operation that might occur in Iran.

Pippa: Yes.

Erik: I can't help but point out, Pippa, that the US Atomic Energy Commission was dissolved in 1974, 52 years ago. So the president's command of of all of these topics maybe leaves a little bit to be desired.

Pippa: Yeah, and I hear you, but no, what he means is American atomic energy experts, that basically a US team of, our most cutting edge experts to oversee the process.

Erik: Okay, but you think that the motive is not just to make sure that Iran does not possess this nuclear threshold state condition of having the, this near

weapons grade material. You think it is to to do an, a forensic operation- Yes ... to prove that it's really got Barack Obama and Nancy Pelosi's DNA mixed in with that U238 and 235.

There's also a little bit of Barack's fingerprints on it somewhere.

Pippa: Yes. I think that is the belief of this

Erik: White House. Of the president. And do you- Yes ... think that any of these nuclear experts, whether they're from whatever IAEA would be the normal agency to do that, do they believe that it's possible to do?

I've never heard of a forensic analysis of enriched uranium to determine its source. So far as I know it-

Pippa: And also remember, it won't only be about the material, it'll also be about the history and when you're negotiating and you're offering a lot of money on the table, what you're asking is for people to start singing.

You're saying, " We'll offer you this money, but we want to know what is the history? Where did things come from? Where did you get the insight? What, how, why did you m- how did you make this leap with your nuclear process? Was this given to you?" There's a whole forensic excavation that I think is occurring and going to continue occurring.

And so I'm just adding in that this piece of it Exists. Now, we can argue about whether it's sensible, and I'm not, a nuclear forensic expert by a million miles. But do we think that nuclear forensic experts could do this kind of work? I think the answer is yes. And when you listen to them, their answer is yes.

So I just think when we're trying to understand what's going on in the world, we cannot look at this thing the way the media is presenting it, which is the leadership of Iran is negotiating with the leadership of the United States, 'cause that is not what is happening. It is what is left of what was a command control structure negotiating really now with the various superpowers, 'cause China is very involved in this as well.

And even China agrees and has said, "We do not... we also don't support any nuclear weapons. Is their fundamental position, whether that's for Russia or Iran. So the US and China are aligned on this piece. And so I just think that's a better frame for understanding the back and forth than the traditional way of looking at it.

Erik: Okay. With that framework in place, let's come back to the current global energy disruption situation. What we have going on is both sides are saying they're not gonna back down on t- somebody's gotta cave on this giving over of the enriched nuclear material in order to end this conflict and fully reopen the strait.

Every single crude oil expert that we've spoken with has said the same thing, which is the buffers and safety margins have pretty much been used up. If the strait remains closed for another month, we're gonna be looking at out of control oil prices, $150, $200 oil prices. This has to get wrapped up in the next month, or the world is in a really big pickle with respect to energy.

Do you a-agree with that appraisal of the situation? And if so, do you see it, a, an agreement being made on this nuclear material in the next few weeks? Or how does this resolve? And if it doesn't, what happens to the global energy market?

Pippa: Sure. So first thing is we have to understand that the United States is perfectly fine with the strait remaining closed, because this forces the whole world to buy these molecules of oil and gas that are currently blocked in the strait, they have to buy them from America.

So the US is saying, "We're open for business. We got all-- everything the world needs, we can sell plus the petroleum byproducts. They're all here too." I'll give you an example. I remember a few weeks ago, I was in South Korea and went up to the North Korean border and, all the headlines were saying, "Oh my God, semiconductor production globally is gonna collapse," because since the IRGC hit the various production plants in Qatar, there was not enough helium for semiconductor production.

And I'm like, "But the largest helium reserve on Earth is in Texas. They're just gonna buy from Texas." And then three weeks later, headlines: Hynix, Samsung semiconductors close the deal with Texas. So we-- when-- It's like people don't understand, you can just shift the supply chain. Now, you can't shift it forever because the US doesn't have unlimited supplies forever, but it does have these supplies probably for about two years.

So that's one layer. Second layer is part of what the US is trying to do is shift the whole world away from molecules to atoms, because we're trying to enter a world where it's not oil and gas that power our future, it is small modular reactors, it is basically nuclear energy in new, safe forms.

And I keep referring it to my written work on Substack as we have to understand we now can put a star in a box, literally So for example, there's a company, there's several, but there's one in California called Valor Atomics. Valor is making a box that's literally half the size of a car, and what's miraculous is that it's not just a small modular reactor, which of course we've had, for decades.

That's what powered the US Navy since the '50s. So we know this works and it's safe. But they're putting them in these small boxes that then you can literally move anywhere you want. So not only can the US now create a nuclear power plant quickly, but we can create a distributed nuclear plant that we can put anywhere you need it.

So another one in Austin, where I'm now living, 'cause it's our new tech center, which is quite amazing here. Another one called Aalo which is making small modular reactors. These things are... Just to be really clear, 'cause I think people don't understand. The new technology evolves around what they call TRISO fuel, which are little tiny pellets the size of a poppy seed, which have super hard shells that are almost impossible to break, and inside is the fissile material, the nuclear material, I should say.

And so it can't melt down. This is not like Three Mile Island or Chernobyl. That risk does not exist. And it takes literally half a handful of TRISO pellets to fuel, as I'm told, 5,000 homes I had originally thought for a year, and I keep being corrected and being told no, indefinitely." Okay. So since the US and China are leading in this new nuclear technology The US is delighted to be making a ton of money on the oil that it can sell to the world for the next couple of years in order to finance the transition from the old drill, baby, drill approach to let's just use new forms of clean energy.

Of which, by the way, nuclear is just one. There's also a whole bunch of others which are developing super quickly. And by the way, this takes me to, and it's important we all know about the Genesis mission, and most people, even investors in the market, they're like, "What is that?" That's the announcement by the White House that all our national labs, so that's Los Alamos and Lawrence Livermore and the Argonne and all these amazing labs that have had our best scientists since the end of the Second World War, they've all been totally classified.

N- none of the data has ever been let out the door, let alone, even internally, they've never been allowed to talk to each other, right? It's like Apple, right?

People who work on the glass can't work on any other part of it, so that nobody knows, how to make a whole iPhone. The president said this is gonna stop.

We're gonna lift the lid off all of them. We're gonna run AI over all the data, and we're gonna connect the dots within the labs and across the labs, and we're betting there's a whole bunch of world-shaking technologies that are gonna come out of that and massively accelerate The solutions like new forms of energy.

Now, related to that is definitely gonna be nuclear fusion and how close are we? So again, I have investors who say, "Oh, nuclear, that means $30 billion and 30 years." No. In Austin, we have one company here that is a, it's a startup doing this technology I've described. They have built a small modular reactor with less than 300 people in less than 365 days, right?

The governor said go. I give approval. I can see that there's no, health risk here, no meltdown risk." Boom. We're in a different world. So that's why the US is like, "Okay, I understand everybody's in pain as long as the Strait of Hormuz is closed, but that's not our fault. It's these guys.

And if these guys would go home, then we could open everything up." But as long as they're gonna be a pain and keep it closed, the fact is we're a net beneficiary of this process. The US is also gonna be able to invest a whole lot more in its own oil and gas while this is going on, right? There's nothing like high energy prices to stimulate investment and CapEx and especially in alternative energies, which is definitely happening as well.

So you can start to see oh, that sort of explains why the White House is not like panicking like everybody else. But of course, if you're European, the idea that you have to buy your oil and gas from President Trump Is pretty galling, so they're like, "We don't wanna do it." But what other options do they have?

You can buy from the Russians. Who do you prefer? But these guys in the Strait are basically saying you can't buy it from anybody in the Middle East. So that's n- the US didn't do that, right? That was their decision.

Erik: So many things to unpack here, Pippa. Someday we're gonna have to sit down and have a debate on triso versus not triso fuel.

But- Sure ... I agree with you that that Allo particularly, which does not use triso fuel, is a really exciting startup right next to you- yeah ... in Austin there. They're doing some absolutely amazing things. If we had the best thing we

could do w- would be to make 25 more companies like Allo, because they're really on the right track.

Pippa: Exactly.

Erik: And I think we're headed in that direction. The thing I'm still missing, and I'm just gonna come very quickly back to it, is- Sure. ... we've got about 13 million barrels per day of production shut-ins in the Persian Gulf region as a result of the closing of the Strait of Hormuz. The US doesn't have spare capacity to service all of that.

There's a little bit that's going through the pipelines and so forth. The East-West Pipeline in Saudi Arabia is delivering some through the Red Sea.

Pippa: Yeah.

Erik: But still, we've got to somehow destroy about 10 million barrels of demand unless that strait gets fully reopened really quickly.

Where do you see that coming from?

Pippa: So why do you think Trump and Xi just had this meeting? That is exactly, they are in total alignment because who will suffer most? China, not the US. So you can be sure that China is also putting enormous pressure and incentives for this to stop, and so is everybody else in the Middle East.

So again, what are you actually dealing with? Are you really dealing with the leadership of a nation, or are you dealing with a bunch of people who understand that the whole world would like them to stop doing this and are willing to pay them to stop doing this, and your incentive is to just sit tight 'cause you'll get a bigger offer tomorrow than today?

So that's why the threat of another military action becomes necessary. It's not a costless decision to say no.

Erik: We've gotta get to the point where we reopen the strait. I think we, we can all agree that the strait needs to get reopened and reopened soon, or the world is going to face a real energy crisis.

And as you said, the most powerful nations around the world are all aligned on that. But the guys that have the drones and the missiles right next door to the strait are the Iranian IRGC, which has been, by its design, separated and

decentralized into 32 different command and control regions that all independently are engaged in a religious war.

Pippa: Exactly.

Erik: So what's gonna bring that to an end?

Pippa: Exactly. So and to my point, you have a whole bunch of independent groups that don't have a command control structure, and that's why, like you'll just see The Wall Street Journal is reporting right now, six hours ago US Navy is guiding ships through Strait of Hormuz, right?

They're just quietly coordinating, and everybody understands if you hit one of them, all hell is gonna break loose. So this is a way of beginning the process of moving the control away from these kind of warring factions. So I don't know. How long do these warring factions last? When do they finally either just get exhausted, they say yes to the money they get taken out by a military action?

I don't know, but it just strikes me with all of this alignment between the US, all the regional nations, and China That it's not gonna last that long is, I- would be my view

Erik: President Trump has said on several occasions, "Look, we've got time on our side," and I don't think that statement is true. I don't think we have time on our side.

Is he-

Pippa: Oh, yeah ...

Erik: Does he know better and he's just bluffing, and it's part of his negotiating style? Or does the president really believe that we've got plenty of time and we don't need to worry about-

Pippa: I think I just outlined the exact case of why the United States does in fact have time on its side, right?

It is exactly why. It's not the world has time on its side. It's the US has-

Erik: Okay ...

Pippa: time on its

side.

Erik: So this comes back to I'm thinking to something Louis Gave said on this program- ... a few weeks ago when I said, "Louis, how can it be that we're not, that the stock market is not freaking out about this energy crisis?"

And Louis said, "Unfortunately, the bottom line is that i- when we get to a real crisis situation, which we probably will, the resources go to the highest bidder, and if millions of people are gonna starve to death as a result of this crisis, they won't be in countries that affect NVIDIA's earnings, and that's the reason the stock market is not crashing on this."

Is that basically what's going on here, is if there's going to be massive human suffering as a result of this, it won't be in the US, it won't be in China, and it won't be any place that affects the earnings of NVIDIA?

Pippa: That's a... I do, I know and love Louis. It's a very brutal analysis that you've outlined there.

I think it's more that everybody understands that all the players are moving toward a resolution. They have agreed on quite a few issues. Yes, there's some sticking points, but it's not that we're starting from scratch. We've come a long way from day one. So I guess the market is just betting that, first of all, when you have that many nations all involved and moving in one direction, these guys can't hang on that long.

That's one. And remember, they have no support internally in Iran, right? Like I said they're... The reason they don't get thrown out is only because they're the only ones with guns. And are they really religious? Are they really a theocracy? That's also an open question. Some yes, but many no.

This is a pragmatic situation. That's why Scott Bessent has been very clear about, making the conditions such that they would have no paycheck for several months before the military action began, so they'd already be destabilized and vulnerable to negotiations which I think many of them were.

So I also think the world can see that we are quickly moving into a world where we need to be off oil and gas anyway, and we're coming up with new methodologies all the time, even in fertilizers, right? Everybody was like, "Oh my gosh, now no one will be able to plant. There won't be enough fertilizer."

And then suddenly you see we're developing all these new forms of things like green ammonia that don't even use any petroleum byproduct.

So it's accelerating the technological shifts away from oil and gas. Now, of course there's a lag, so I'm not saying this happens tomorrow, but it's the same thing. Like a parallel issue is the semiconductor production in Taiwan, and there's this debate right now where, Chemath came out a few days ago and said, "Yeah, the...

It's we've only gotta rely on Taiwan for another 18 months, maybe two years, and after that the production's moved to the US and T- Texas and Arizona, and they'll just take over." And then there was an outcry. People said, "No, we don't have the expertise. We don't have the capability. It's gonna take 10 years."

Okay, but all you've got is a bid offer spread then. The reality is that the core focus at the cutting edge of technology is going to happen in the US. It's not going to be happening in Taiwan the way it did. The US has already moved most of those engineers to the US anyway. These are the things we have to understand.

In an AI-led world, the speed at which you can shift from one kind of technology to another is absolutely blinding. And I think actually this is a wake-up call to everybody in the oil and gas industry who've been like, "Ah, yeah, nuclear, that's years and decades away. Nuclear fusion will never happen."

And you're like with artificial intelligence where you can do literally millions of test scenarios in seconds, it is happening, and it is gonna happen a lot faster than they realize, and you are gonna see the building of nuclear power plants at a speed and scale that doesn't match our mental model of 30 billion in 30 years.

So I think that's why the markets are like, " Yeah, we're in a transition, but not the end of the world."

Erik: Let's go a little deeper on a topic that I know you're passionate about, which is a lot of people right now are up in arms, and there's literally people protesting in the streets, particularly in universities, saying, "AI is gonna take all of our jobs.

It's gonna destroy the economy. We're going to have mass unemployment because AI is just the worst thing that's ever happened." I personally think that they're wrong, but give me your take. Why-- How should we think about both

AI and robotics? Are these the greatest productivity enhancers ever, or are these the greatest threats to employment ever?

Pippa: First, all technologies cut both ways, right? The car can safely transport you and your family from A to B, and it can kill everybody in your family as well, mow you down. So all technologies, it depends how you use them, and we need to be careful about that. But you have to understand the key thing about AI and robotics is we live in a world where the debt burden for all the major players, for the United States, for Europe, for Britain, for China, is so massive that a regular human being who needs to sleep at night can't outrun this thing.

So again, the superpowers are looking at this going, "The only way that we can get ahead of this terrible hole that's been created is to go to a whole new level of production." And this is not the same as productivity, because we're not talking about productivity. We're talking about how do we get to a world where energy doesn't cost anything, where literally the star in a box with TRISO fuel is permanently powering 5,000 homes and nobody is having to really pay more than pennies for that.

That world is now within reach because of AI and robotics. People have a hard time with that. They're like, "Wait, what?" And I keep pointing out, look, every single person, that's probably listening to this podcast, they all have a washer and a dryer. Those are robots. But they're not sitting around saying, "Oh gosh, I really miss the old days when I had to hand wash all the clothes."

No. You... They're doing it for you, and nobody misses this task So in a sense, we're confusing jobs and tasks with income and standard of living. And the disconnect is happening, and it's hard for the, especially the older generation, to imagine a world where you don't have to work very hard to get a high standard of living because the cost of supplying it is collapsing.

I'll give you a practical example. Here in Austin as well, there's this amazing company called Icon, which is doing 3D-printed homes, and in fact, 3D-printed neighborhoods. And I've driven through the neighborhood where you can buy a three-bedroom, absolutely stunningly beautiful house that's got perfect wiring and has a Tesla Powerwall, so you're already not really paying for your electricity and have the capacity to start selling your electricity back to the grid, which means your 3D-printed home is paying the mortgage on your behalf.

Now, not 100% today, but that will come. And I would add in, we're making big advances in some other new forms of energy like wireless transmission of energy space-based solar power. Japan has just made a big breakthrough there.

This is gonna happen. So now you're not even dependent on the power grid anymore because we can move energy without it.

So imagine a life where that 3D-printed home is only gonna cost 100 grand, because that's where we're heading, right? It costs the same or actually a little bit less now than a three-bedroom house that already exists in Austin. But once they get the hang of doing this, then the price is gonna collapse.

So suddenly then you can have a really nice house, not have to pay very much for the energy, if anything. Actually, maybe earn enough that it pays your mortgage or part of it. How hard do you have to work? The answer is not so hard. In other words, AI and robotics are about freeing us up from these basic tasks like laundry washing, do it on our behalf at a scale that's not achievable by a human And suddenly we can devote our time and attention to much more serious and interesting problems.

But this creates some social, dislocation, to say the least, because we're so accustomed to having our identity tied to our job. The idea that now you won't even be working for one company with one income stream, but you'll have a portfolio of activities, and you don't even need to earn that much to have a high standard of living, this means you have to start defining who you are without reference to a job title.

And I think that is not well articulated or even understood, but that is the bigger problem than even the, "I won't have a job," right? It's, "I won't have a job," means I won't have an income. But people are already figuring out how to get AI to generate income without us even having to do very much. So of course, not everybody's gonna figure it out, so I'm not saying everyone progresses at the same speed.

But when you watch especially young people starting to get the hang of it, they're creating crazy businesses. I'll just give you one that just personally tickles my funny bone. I just think it's so interesting. Some kid somewhere figured out that he could record the sound of the rain and then upload it as a track onto Sono, set up AI agents to go market this thing as a, like a, what do they call it?

AMSR, or ASMR, and suddenly he's making 10 grand a month. And you're like, We have to open our imaginations to what this stuff can do, which is very hard to do if you're all locked into, "I am terrified that I am going to lose my job." And by the way, why is your job all tasks? And if it is all tasks, let the

robotics and automation and AI do it, and figure out what's the more important problem that needs to be solved, 'cause that's where a human excels.

A human is the most brilliant problem solver ever to walk on the face of Earth. So it's about restoring our confidence and our capacity to be, epic problem solvers as opposed to cogs in a machine that are just conducting narrow tasks for a paycheck.

Erik: Pippa, last topic I wanna touch on, I, at risk of being what might sound a little bit conspiratorial, something's going on, and I'm not sure what.

But, you've talked quite a bit in past interviews about there being lots of different ways that warfare has evolved, and things don't really happen in terms of, soldiers in trenches shooting at each other anymore. The hybrid warfare is much more sophisticated. There's a couple of stories that don't get a lot of attention.

One is oil infrastructure all over the world, refineries and so forth. Some of them have been attacked as part of military conflicts, but there's a lot of other ones that just have had these mysterious accidents, like too many to explain by chance probability. And then there's all these scientists that keep disappearing.

It feels like, we're back to 1960s spy movies where somebody's taken out- ... the oil infrastructure, and the smartest people who know how to fix things are suddenly disappearing. I know that sounds conspiratorial, but is there something real to this?

Pippa: I have written a bit on these in my Substack column lately.

So I think, look, there are a few things. On the infrastructure when you have old infrastructure that's very hard to just walk away from because the capital investment has been so enormous, and the cost of decommissioning is so high. It's a very human tendency that things just burn down. Oh my goodness, and then you have insurance, and then you start again, right?

This has been happening throughout the course of human history, so that's not new. But maybe it's accelerating in a world where people can see that all these new technologies are arriving so rapidly that old infrastructure is redundant much faster than it used to be. So I'd put a little bit down to, oh my goodness, the darn thing burned down.

Gosh. There's that. I think we do-- you, you know that I've been arguing since, gosh 2021, I started to say I think we are now in World War III, and at that time it really sounded completely out there. People are like, "What are you talking about?" But now I think we can see in retrospect that it was beginning, right?

We started to see when, the Russians started to cut the sub cables in the Arctic which I've talked about a lot, in order to try to disrupt the global flow of information. That was a kind of precursor to the tanks rolling into Ukraine. That event now in retrospect, is clearly part of what was a global conflict, but it wasn't recognized as that at the time.

So today it's funny, we live in a world, people are like, "Oh my God, we're in World War III." And I'm like, "Actually, we've been in it, and I think now it's beginning to be resolved, like we're coming to the end of this episode." But others have only just recognized it. Anyway, if either way, it's not crazy to assume that your opposition isn't just going to try to deal with you on neutral ground or expected places.

Are there Russian or Chinese or Iranian operatives in the US that might have an interest in disrupting US critical infrastructure? I think Homeland Security under every single president would say yes. So are they successful sometimes? Probably yes. Does anyone want to explain it as that's what it was?

No, because then everyone would be totally scared, because the idea that there's a conflict here in the US is too terrifying. So instead you just have these accidents But I'm sure that people in that world of strategic security think a certain percentage of them might be from, opponents of the United States.

So the good news is that it seems pretty contained, right? We so far haven't had something that is on a scale that the public has really registered. So I think that's something. So I think there are many reasons why we might be seeing this happen. But again, what's so extraordinary is all these events occurring and the markets are still pretty solid.

So obviously the markets aren't too worried about the loss of the physical infrastructure, even in a war zone like what we see around the strait, let alone adding onto it critical infrastructure of oil and gas in the US. It's actually encouraging that you could remove that much capacity and everybody goes, "Okay, we'll just move on from here," right?

So that's one thing. The scientists are a related matter in my view. And th- this is a more-- to me, more interesting, more important subject because we have

maybe now something between 12 and 15 of the most senior American Nuclear scientists or people who were working on materials related to nuclear, capability have literally just disappeared or suddenly been killed in very odd ways, in statistically unlikely ways.

And maybe the tell has been that for a long time there was no investigation. And you're like, "Wait, how can our most senior people, people who are running things like the Air Force Research Lab, just suddenly be gone and nobody asks any questions? So what's going on?" And I think the answer is nobody knows.

We have started to realize this is not only happening in the United States, it's also happening in China. A lot of their senior scientists have suddenly disappeared, or especially younger ones, died under strange circumstances. So again, I look at this and I'm like look, we're having extraordinary events happen right now.

Not only the Genesis mission, which is where, like I said, all those super classified technologies around nuclear are suddenly going to be revealed, made available to the public in what the president will no doubt view as a kind of Robin Hood move, right? Take it out of the control of the traditional military industrial complex and put it into the control of the public who paid for it.

But are there gonna be people who don't want that to happen? Sure. It's nice having a monopoly on certain technologies. So is there a pushback going on? Is this about removing the people who know how to do these things? Is that? I don't know. I'm a little bit hopeful that it might be the opposite, that maybe there's a gathering of the best scientists on the planet on this subject in anticipation of announcements from both the US and China that we've had massively important breakthroughs.

So is this then tied as well to, or is it pure coincidence that you have a president who suddenly announced and is in fact executing the declassification of all the documents and evidence related to the famous UAP, UFO, call it what you will, anomalous phenomena subject. And I think they are intertwined.

It's difficult to disentangle them. And the public is beginning to see, and, let's face it a billion people have now looked at the declassified website that the White House put together. And I thought personally it was a very important signal when the White House set up two websites alien.gov and aliens.gov, and everybody laughed and said, "Okay, the president's losing his marbles," and da.

And I'm like, oh, this is maybe very clever because I bet a bunch of these scientists who've been working on these super hyper-classified subjects probably have developed patents around their knowledge, maybe not on the exact thing they're working on, but on tangential aspects, 'cause this is what scientists do, right?

But under US law, if the origin of a technology is not human, then the patents are not valid. So is this an effort by the president to say, "You guys who've had access to all this technology and didn't share it with the public, I'm gonna not only take it off you, but I'm not gonna allow you to say that you still own it through some patent claim.

And instead, you're gonna find out that because there's a possibility that it has a non-human origin, that patents are nullified." Could that be part of the story? I'm not saying that's definitively the case. I think it's an interesting thing to think about. And so now as this stuff is being declassified, We have to ask, why would anybody be upset about all this?

And notice the speech that the president gave a couple of months ago to the defense community, where he basically said, "You guys have been optimizing for share buybacks and for profits, and this is gonna end. You're now gonna optimize for the creation of defense equipment that actually works at a reasonable price.

And so the old game is over." Which, by the way, is the same position he has with the pharma companies, where he said you guys were charging Americans three times as much for drugs as you charged anybody else in the world. This is over, and that's just the way it is." And they have said that's what we're gonna do."

So it's a kind of a general strategy to reduce costs on the American budget and the American taxpayer. So even if it's not true, let's say there are-- there is no non-human intelligence, this whole thing is a ruse, it's still an interesting strategy for reorienting the balance of power over technology.

It's still an interesting strategy for bringing technologies that have been You know, outside of public use into public use. Now, whether or not you believe, there's intelligence beyond humans is a different matter, but I think this is also an extremely important, interesting question to ask at a time when AI is accelerating, and we all can feel it as we're talking to the AI.

It sure feels like an intelligent, maybe more intelligent something is on the other side. And I'm-- as I'm talking to you, I'm looking out a window at a bunch of trees, and I'm thinking we're so arrogant as humans when we say, "Is there intelligence, non-human intelligence?" And you're like, trees move in the direction of the sunshine.

That is an intelligence, right? We know that trees migrate their roots together, and they share information through that root network. That's intelligence. So this idea that, we're alone and there's nothing else this intelligent, that is actually not right. And can I just-- I know it's taking a little time, but can I just tell you one quick story about whales?

'Cause this is just my favorite one. AI has recently cracked one of the whale languages. They discovered that these whales have specific and shared nicknames for the marine biologists who study them. So of course, the marine biologists are all like, "Oh my God, what's its nickname for me?"

And I'm like guys, did anybody ask the whales what do they think? What is their opinion? What knowledge do they ha-" "No, we just wanna know what is it calling me," 'cause we're so darn egotistical. So are we at a moment with this declassification process that was forcing humanity to recognize that we are not the only intelligence in this universe?

There's plenty of it right outside our window if we just look at it and reframe it in a different way And what possibilities does that open to our understanding of the world? So I'm-- I think it's a very exciting time in technology, and this is the reason I'm not down on the, "Oh my God, we're all gonna have a recession."

I think that we're coming into something that is bigger than the Industrial Revolution, for all of humanity. So I wanna I be clear. I may be the most optimistic economist on the planet at the moment but somebody has to walk through the upside because everybody else has covered the downside.

Erik: Pippa, I can't thank you enough for a terrific interview. We do have to call it there in the interest of time. But for our listeners who want even more we do have more coming up in the sense that Pippa and I and Jim Bianco will be doing a video discussion for Zero Hedge about Kevin Warsh on the Fed and what that's going to bring, monetary policy, a whole bunch of things.

That's... We don't have, unfortunately, as of our publication, or at least as of we're recording this interview, we don't actually have a date for that from Zero Hedge, but it should be next week sometime. So follow Zero Hedge Debates on

X if you wanna find out about that one. We'll try to get it into this week's Research Roundup email, but I'm not sure that we'll get a date from Zero Hedge before we go to air on Thursday.

Meanwhile, we do have, by pure coincidence, Jim Bianco coming up for a cameo appearance coming up next to talk about an update on the Iran conflict. Pippa, before I let you go, I wanna come back to your Pippa's Pen and Podcast, which is your fantastic Substack. I'm addicted. For people who don't know about it we've got a link t- on the Research Roundup email where you can click to connect to it.

Tell people what they can expect to find there and how they can sign up.

Pippa: Yeah. So this is where I like to write about all these things that are going on in the world economy and to help people widen the aperture of the view through which they see the world.

The lens gets made smaller every day by all the algorithms that only give you more of what you like, and they fence off what you don't like. So I'm trying to widen the view, and that's what I write about on... in the column.

Erik: Patrick Ceresna and I will be back as Macro Voices continues right here at macrovoices.com.