Minutes of the Advisory Board Meeting

October 20th, 2022

The European Energy Crisis

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Key Take Aways:

- **The Incrementum Inflation Protection Fund has received a five star rating from Morningstar.**
- **Europe has been systematically under investing in their electricity grid for the last 10 years. This includes electricity production assets, location related assets to transport electricity, and timing of the grid.**
- **Renewables rely on storage, but for now, neither the technology nor the infrastructure to support this, exists.**
- **It might be too late to start reinvesting in grid supply, because it takes 15-20 years for assets to start producing electricity (from initiation to completion).**
- **Nuclear power seems to be the perfect answer to energy problems world-wide. Unfortunately, the systemic under-investment in this sector, because of political interference, has caused a severe lack of supply (in resources and skills).**
- **Most metals, with the exception of base metals like iron ore, seem to be great investments at the moment, because of basic discrepancy between supply and demand forecasts.**
- **There has also been structural underinvestment and general lack of CAPEX in the oil industry. Although the US has shale gas, it still imports a significant amount of oil from the East.**

Biography of our special guest: Alexander Stahel

Alexander was a captain in the Swiss military, has a degree in economics and a MBA from Gallen University. He worked as an investment banker and venture capitalist, and has served on various company boards.

In 2014, he founded Burggraben Holding AG, a long/short equity value investment firm, specializing in natural resources, where they focus primarily on raw materials such as oil, natural gas and metals, and also the related industries such as transport, utilities and service providers.

Ronnie Stoeferle

Ladies and gentlemen, it's a great pleasure having you here for our Q4 Advisory Board meeting. It's an even greater pleasure to have a real energy expert here on the discussion. Alexander Stahel. Alexander. Thanks for taking the time.

Alexander Stahel

Thank you for having me, Ronnie. Nice to be here!

Mark Valek

Hey, Alexander. Welcome from Liechtenstein.

Alexander Stahel

Thank you Mark, hello!

Ronnie Stoeferle

Mark took the orange pill and has been attending some bitcoin conferences recently. We can talk about Bitcoin later on as well. But we will focus on energy markets. Over the last couple of years, we saw that everybody became a virologist, then a geo-political expert, and now everybody is an energy expert. But I prefer talking to real experts, and Alexander is such an expert. He actually

became quite a star on Twitter recently putting out some fabulous threads about energy markets. So Alexander, thanks for taking the time again.

Alexander Stahel
Thank you for having me.

Ronnie Stoeferle
Well, before we get going, let's do some housekeeping! What happened over the last couple of weeks, and what's going to happen in the fourth quarter on our end?

Well, first of all, we are very proud that our inflation protection fund just received five stars at Morningstar. That's the best rating, obviously, and we're pretty happy about the performance. So far, one would think that inflation protection is quite easy in this year, but actually, most of the classic inflation sensitive assets didn't really perform as expected. So we're very happy about our positive performance and about the five stars that we just got from Morningstar. Then Mark and I just attended the Russell Napier seminar in London. His financial history course, which was obviously quite interesting. If you're sitting in the middle of, it was like 40 asset managers primarily from London. In a week, where the GILT market almost collapsed. So that was really a moment to remember. It was very interesting to see what's going on, how close we were to a complete implosion of not the smallest bond market.


UK gilts 'explosion' took banks by surprise

Lenders were left exposed as pension funds wobbled after fall in prices and surge in yields in wake of 'mini' Budget

Then what else happened? I attended two large mining shows: In Colorado, the Precious Metals Summit, as well as the Denver Gold Show. I had 74 one on one meetings with mining companies, we continue to see lots of value in the sector, but obviously, there's some weak spots that we see, especially in the developing space. I think they're facing some sort of a triple whammy at the moment, with a complete implosion of risk aversion in the gold sector, rising capital costs and obviously cost inflation when it comes to building a mine. So I think in the junior space, but also for the large caps and the royalty space, there's lots of great companies that we put on our web watch list, and that we will add to our portfolio, once our inflation signal switches to rising inflation. Then, over the next couple of weeks, we'll be very, very busy. We will be on the road quite a lot.

Mark is speaking at a big conference in Dubai. He's going to be on a panel with the head of the LBMA, but also the Moscow Gold Exchange. I will be in Zurich at the precious metal summit as well as the Edelmetallmesse in Munich. Then there's the Deutsche Goldmesse, Mark is going to be in Prague. You also spoke at a great Bitcoin Conference in Innsbruck. So, as you can see, we're quite busy these days, and it's absolutely exciting being a market commentator, but primarily an asset manager, in times like these. Now I want to formally introduce Alexander Stahel. First of all, I wanted to ask you, this is a question coming from one of our partners, Stefan Kremeth, who is a big FC Zurich supporter. Are you somehow related to Florian Stahel?

Alexander Stahel

No.

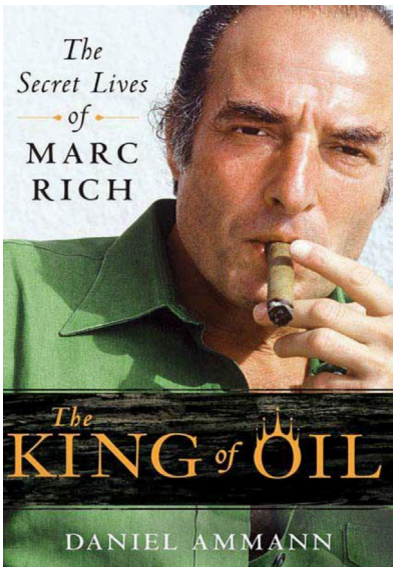
Ronnie Stoeferle

Okay. He was a great defender, Florian Stahel, playing for FC Zurich. Well, Alexander Stahel, as I've said before, he is very active and very vocal on Twitter. That's where we actually met. I really love his threads, his deep dives into the energy sector. He is now the founder and CIO at Burggraben Holding AG, which is a long/short, equity/debt, value investing boutique. Before you worked at Babcock and Brown in London, where you were a senior executive partner. Before that, you worked at Mewag AG in Bern. Your education, you have a Bachelor of Economics at the University of Zurich, and an MBA at the prestigious University of St. Gallen. And you're a captain and commander of a tank company in the Swiss Army. That's a very, very impressive CV that you have Alexander, I won't read all the board experience that you have. So thanks again for taking the time. Well, I think to start off, it would be great if you can introduce us a little bit to your investment style, what Burggraben actually does, and where you focus currently. Then, we will focus on particular trends in the commodity space and the energy space. Then we'll see where the discussion is heading to. The floor is yours, Alexander.

Alexander Stahel

I'll start with a couple of angles that people may not know. My father was a cotton trader, and in fact, quite a large one in the 1980s. I think the second largest one in the world. What happened there is two things. First of all, a lot of cotton comes out of the former Soviet Union. So we always had an angle to look at this specific region and it was in hindsight helpful for me to learn about these things early. Secondly, of course, you discuss commodities. When you do one, you discuss others to, and that is very helpful because there are certain specifics in commodities that apply to all of them and that are not the same for equities or debt. You know, I like to say that equities and

debt, they are anticipatory assets, they look into the future and discount something in the present. Whether it's a bond or a piece of real estate, or a security, whatever it is from Google to oil, anything, commodities, they live in the present. So they need to clear the spot price, according to demand and supply, and there are specifics for such commodities. They are very different, depending on the type of commodity, and I'm sure we'll get back to that. So oil is not the same as say, aluminium where storage is not a problem, but for oil it truly is. Okay, so that's one angle, then secondly, believe it or not, I never wanted to go into commodities. I thought it's very boring. By the way, Mark Rich, the oil trader also from here in Zug, that moved here when he was called the enemy of the United States, he moved to Switzerland and became very close to my dad.



In fact, they became partners later on, when Glencore took off on its own, without Mark, also because of age reasons. I always had quite a good insight into the world of commodities, so that's another angle that many people that probably don't know.

I thought I wanted to do something a bit more challenging. So I went into investment banking and tech in at the you call it TMT desk, and I came in right at the Dotcom bubble. Everything that happened there, was a very helpful lesson, because I think it is repeating right now, it had to do with interest rates, but it was also this narrative driven perception about what companies can do. You remember, I'm sure you guys remember, in 1999, Cisco was the thing that everyone thought that can only go up. And then there was obviously Microsoft already, the success story, it went on and on and in fact, our bank at the time, SGC Warburg was part of the Amazon IPO, and was part of the Google IPO. So, I was indirectly a little bit involved in that, although I wasn't anywhere close to the lead team that helped in the IPO, but we sure read a lot about it. And you know what, it was never obvious to me, although I did a lot of work in the sector. It was never obvious to me that Amazon will become the winner, or Google. You'll remember that there was Alta Vista, which was a much more user-friendly, what we called at the time, directory. So anyway, I touched that sector quite a bit, and in fact I went on to work for a software company because there was a gentleman, a very successful entrepreneur in the medical industry that asked me to join his company, because there was a couple of things to be fixed. So I spent three years in a software company called Obtree, in Basel, running it in various functions, being so to speak, the trusted person, not the only one, but certainly an important person. I started to better understand how difficult that industry is and how hard it is to scale a software company. And I think later on that helped me to go back into

the commodities world with confidence, because often when you don't know a sector, they look a little bit greener and a little bit shinier from afar than what they really are. It was also this 2000 to 2003 experience that was the main reason I started to read every single book about Warren Buffett. He never himself wrote a book, but I certainly read every book that every person out there wrote about him. That deeply influenced my style today. So I am really someone, first of all, that takes care of my own money, but also takes care of clients' money, and we try to invest as if we only invest 20 times in our lives. We try to invest in a company, not a piece of stock, and we try to really look at these things as if we own it completely.

That gives us a process where we try to deeply understand how every element of the company, whether it's the production side, or it's the reservoir side, because we have a tendency to focus on commodities, or I would say, we are commodity specialists, or whether it's the logistical side of the company, and so on. But also the political side, because obviously, I'd love to invest in commodities in Switzerland, but we don't have any! Or in Austria, but you don't have any, and, or in Germany, right, they have very few there. So we have to go to places where you and I or Mark, we didn't grow up, right. But we somehow have to have a perception about how they function, what it really is. And also from that angle, I think my family background, again, was helpful, because obviously we would discuss these issues, there are regions today, where I went to, and I wanted to understand a lot, but I concluded that it's just unhealthy to invest. Then there are other regions, however, which I think are in the perception of the minds of people that do it casually not like the three of us, I think they are perceived as too risky, when they are actually not that risky. They may be corrupted in places, they may be more volatile in their political landscape, although I'm not quite sure about that anymore, because Europe is also very volatile these days. So, that's a thing or two about us.

Ronnie Stoeferle

Alexander, having a look at your Twitter feed, I can tell that you're, let's say somewhat critical when it comes to European politicians, and especially energy policy, especially, Germany regarding nuclear power plants and their strategy, if they have the strategy. You're very critical when it comes to the stability of the grid, and you're also very, very vocal when it comes to ESG. You said that the cure to the disease is killing the patient. Very interesting things that you bring up and that many investors out there don't really dare to mention and to even start discussing. Now. I would like to start with Europe and the European energy infrastructure. I don't know if you saw this, this opening speech by High Representative Josep Burrell, did you see that one? I thought it was really fascinating because he actually really addressed some of the concerns that that we already had for quite a while.

Josep Borrell

He was speaking at the EU ambassador's annual conference, and Borrell said: "*Well, it's a world of radical uncertainty, the speed and scope of change is exceptionally we have to accept it and to adapt to it prioritizing flexibility and resilience*". Then he goes on and says, "*Let me try to summarize what is happening to us. Maybe I'm wrong, but I want to discuss with you about it. I think that we Europeans are facing a situation in which we suffer the consequences of a process that has been lasting for years in which we have decoupled the sources of our prosperity from the sources of our security*". And obviously, he mentioned the dependence on cheap energy, primarily coming from Russia, but also the dependence on cheap labour and cheap products coming from China. So, I thought that was really a fascinating speech. Very, very open. You usually don't expect something like that from an EU representative. So, Alexander in a nutshell, what's your view? What's your analysis of the status quo and the near future of European energy markets?

Alexander Stahel

Great. So when we talk energy, I would say let's divide it into oil, because that is going be slightly different than European gas, and then we have European electricity. That last one, electricity, you see, I will try to be short here, we have structural issues in our electricity grid. When I say "our", it is our, because it's an interconnected grid, that is synchronous for all the European continent households. So it goes literally from Morocco, to Turkey, and it goes from Sicily, up to Denmark, the Scandinavians have a different grid and then the UK, Ireland have a different grid, meaning separately synchronized. However, they are all talking to each other exchanging electricity.

We have over, I would say, 10 years now, systematically under invested in the grid, and when I say underinvested, the grid is about three things: It's about the production assets that produce the electricity, and they can come from different profiles. It's about the location of this, because we cannot just transport electricity without having transmission lines, and certainly not for any distance. And then, thirdly, and that's probably the most important of them all, it's about timing. So, our grid functions on a minute by minute basis. The load, meaning the consumption and the production of electricity, has to match. And that we measure with frequency of 50 hertz, and that frequency has to be in a very tight, narrow window, if it gets out of that, infrastructure gets damaged, meaning a transmission line can overheat and break down and rather quickly. So, operators are aware that they have to keep the frequency in sync, they have seconds to do so, that's why they have a very careful planning process. There are 40 operators around in Europe and they constantly talk to each other. They have a quarter hour planning, half an hour planning, hour planning and then a day planning schedule, and so on. And the electricity gets matched in order to match the load. We have, however, for 20 years now in Germany, what they call "*Energiewende*", i.e. energy transition. Then we have in different parts, different variations of problems.

Why is the *Energiewende* a problem? Isn't that what we all want and what we all need to do because of climate change? We need to decarbonize, isn't that a great thing? Well, it isn't it isn't. Because the German way of doing it more or less says: "By the way, the future assets will be wind, solar and a bit of gas". And then you have some leftovers like biomass and waste but they don't move the needle. And "What you have today, coal and lignite and nuclear, you have to get rid of". The problem is the fossil fuel-based electricity as well as nuclear, they are what we call baseload power production assets. They can deliver the electricity if and when the operators at the gate level need it, in order to match the load. And the load, by the way, on a daily variation can change drastically because, when we come home, as human beings tend to use the most electricity between six and 10 o'clock at night. Then, during the day we use a lot of electricity on the industry side and then, at three o'clock in the morning, we don't use a lot of electricity, so you have to get the load down again.

So there are these constant matching pulses daily in fluctuation and over the year you add seasonality to it because we use more electricity in winter versus the summer, so the seasonality of the grid needs matching and needs very competent people. And we have them at the grid level, so let's be grateful. But the point there is, you can throw only so many problems at them, and at some point, they will not be able to solve it in time. And again, time means seconds, it doesn't mean

someone can sit there and think about the problem and say, “Let me call my boss”, and “What should we do”. It means you need to have a reaction immediately, in order to match the two.

So, what’s the problem with the wind and solar? They fluctuate with the mood of the weather, and when we have cloudy days or no wind, then they don’t come, and then we need to have different solutions. And those are advertised to be a storage in the future, right, and transmission lines that we’re going to have. But we made progress on neither. Storage, in reality, we can talk more about that, but in general, take it from me, storage is in what I call the “prototype stage technology” for great scale. So, we are nowhere there. We have, by the way, in Europe have almost no storage installed. And I’m talking chemical storage, that can be released quickly, because there is also mechanical storage, which the Austrians, the Swiss, French, and the Norwegians have a lot of in the form of water reservoirs, where we can store energy there. But that’s mechanical storage and that releases differently for grid purposes, meaning within days. But when you have to match the grid, again, you need chemical storage to the grid that can be released in seconds. And that can scale again. So we are nowhere there, and yet, what happens in the political landscape is that nevertheless, climate laws put in place in June 2021 in Europe, for your audience that are outside Europe that don’t know this, this means everyone has to decarbonize.

So we don’t invest in the old and then has two aspects of it. So the old means either producing a hydrocarbon asset, like a coal plant or so, but we also don’t invest in the production of the feedstock of those assets. So we don’t invest in hydrocarbon production, whether it’s coal, or whether it’s oil, or whether it’s gas. So that has ramifications at some point. While some parts of the world still invest in it, we as Europeans, or call it “The West” invest in renewables, and that is now ongoing for years. Now, that could be fine. If all of us human beings would consume less of it, I wouldn’t mind. If we can get rid of that in a very structured way, and everyone would agree that we don’t like hydrocarbons because they emit CO2, and that it heats up the planet over a long period of time. And I’m not a climate scientist, I don’t want to go into that too much, but the point is, if we will use less, I would not mind. The problem is we all still use the same amount of energy. Now some people say “No, no, no, you don’t understand, I have this new car and it uses less diesel than it used to use 10 years ago”. But that’s not me or him or her saving, that’s the industry saving for us, and that’s gone as well now. Because the car industry, by now is not putting their engineers to work to create a more efficient auto engine. But it’s actually about producing battery electric vehicles, and that’s where the brains sit now. And that’s what they develop for and therefore there is a big chance that we actually consume more in the future because the progress on the engine side becomes less and less. And there are exceptions. Toyota takes a different approach for good reasons. But,

I would say all the other main car manufacturers actually are going in the direction I just explained. So that's the grid. And then, the last part of the grid, we have clearly over the last 20 years, we've had what I call the "green movement", led in Germany, that is anti-nuclear, and that has, like a cancer, spread into all sorts of pockets in Europe. And having said that, yes, we've seen the exit of this green movement in nuclear, for instance, in Sweden we just saw it very clearly. They committed, the new government that just came in two weeks ago now, to actually build out nuclear rather than getting rid of the six nukes they have. And we have a new nuclear silo in Finland and so.

Ronnie Stoeferle

But sorry, didn't it take them, like 15 years to build in Finland?

Alexander Stahel

Yes.

Ronnie Stoeferle

But what I just wanted to say is, I think, even if we have a swing in this direction that nuclear power is now being accepted. If we take the decision now: Let's build more nukes. There's a huge, huge time lag involved. And I think Cameco was very smart in hindsight, to make that move with Westinghouse.

Westinghouse changes hands again as Cameco buys into $7.9 billion deal

So what would you say on average? How long is it going to take to build if I make the decision now? How long is it going to take to start producing energy at a new nuclear silo?

Alexander Stahel

I will tell you exactly. So in the past, we used to do them at between six and nine years, to produce them from permitting, to finishing, everything from start to end. And we did not one or two, but hundreds, all over Europe, all over the US between the 1950s and the end of the 1980's. And since then we are not getting any of it off the ground anymore, we lost confidence about the technology, it's considered high risk technology, which I completely disagree with. So that led to different elements, which are, for one permitting takes longer and longer. Two, we have an absence of

talent, or call it industrial scale companies that are ready to do so. Right, we used to have, you know, different countries with nuclear competence.

Certainly in Germany, we had a huge competence cluster, and we we've more or less lost it, as one example. And so, yes. It took the Finns 17 years, not 15. Then we have two nuclear silo's in Slovakia, which Enel was trying to build. One is now complete, reactor three, and reactor four is still not quite finished but almost. That took 18 and 19 years, so far. And those are state of the art nukes, generation three, they will be just fine. But yet there is resistance. So, Enel, and not some small company, despite having the support from the European Union, lost financing twice because of nuclear lobbying. There was one, then they said "oh no, we don't want to have anything to do with it anymore". At first they said yes. Then they said no. And so there is a lot of brinkmanship going on behind the scenes when it comes to new nuclear and therefore you're right, and we call that problem, the age-bomb. What is the age-bomb? Well, we're going to lose from an age perspective. When we just look at the European nuclear reactors, we are going to lose 20 gigawatts installed by 2030. Realistically, you know, they usually have a lifeline of 40 years, they are most often extended to 50. And many of them can do 60. And that doesn't mean it's the original nuke that was there, right? They are constantly upgraded and improved. Like so many other things in life, right. And, and yet, if we just stick to the age that they have, we need to replace 20 gigawatts installed. And there are almost no new projects. There is another one in France at the moment, one project, and there is one in the UK, and that's the end of the story.

So, your audience may say, what's the problem? Let's replace them with wind and solar. Well, I just explained that A, that's not baseload power. B, we don't have storage and C, if you want to do that, replacing 20 gigawatts would need something like 3400 windmills and for your audience, I've installed and invested in wind. So I know a thing or two about it. I read a lot of rubbish out there, but we've done it. And I'm not talking 3400, of the ones that we currently use, I'm talking a 15 megawatt turbine that we would need, and we have one installed in the Netherlands offshore so far.

So what I'm saying here is that the energy density of nuclear is de facto not possible to replace. And I don't like when politicians take over, the "green language" or even media, all these European, very serious, media platforms take over the language of the green party in Germany, where they talk about "high risk technology". Well, if it's so high risk, why don't we build the new generation four?

Bill Gates has a long video on YouTube about it, explaining it because he invests in that technology. Why don't we just make sure that we only have the latest generation because they are obviously safer than the second or third generation, right, if that's really the concern. And there, I think, comes in this political misunderstanding, where everyone thinks we have options. In my opinion, from doing numbers and doing models, we know, more or less, the entire European grid to the penny. We know all the numbers and we have them live, every day, in terms of performance. And I have to tell you, it's not going to be possible to have that kind of energy in the way that the Germans are trying to do. If the other European countries try to go in that direction, the result will be: A, a less stable grid, probably rolling blackouts, as we see in California, or Western Australia, and three, we're going to have high energy prices. And that's going to lead to de-industrialization of many places, certainly Germany, and in Germany, it's potentially already too late to fix it. But certainly in other countries, we can still fix it.

And I think it's extremely irresponsible to just look in one direction and say, I'm worried about all this in 30 years, when we actually at the moment, causing significant and very serious pain today, and tomorrow, and for the next five years. I find that irresponsible, and I don't like the fact that politicians don't open up the terminal for technology and get the engineers out and say: "Look, this is not for us to decide who wins here. It's for the engineers and the leaders of utility companies to get the cheapest best solution in place". And they may say, look, "over 40, 50, 60 years we want such and such carbon targets". That's fine for me. But at the same time, it has to be a fight for the best technology out there. And if we can have coal plants that know how to carbon capture, in the cheapest possible way, who are we to say no? I don't like ideology. I like the market to fight with each other for the best solutions. And I have nothing against wind, I installed a lot of it, as I've just explained, some of it is very, very good. If you go up to Finland, the higher north you go, and offshore, you have to be offshore, you get productivity as high as 38%. That's very good. You know, a gas fire plant has a productivity of when I say a capacity factor of 42%, a windmill can do 38%, a company with the right storage, which we are yet to find, and the right transmission lines, which should all be included in the cost, you know, those things are fine. But to have solar in Austria or Switzerland, or God forbid, in Germany. It's just a waste of our resources. It's a 9% capacity factor, if even that. Let the solar be in Spain, fine.

Mark Valek

This is great. This is fascinating, and there are so many different angles to that. Just now you mentioned something which I wanted to ask also. I'm definitely not an expert on this topic, but that's why we've got you. So in the general discussion, so first of all, you painted the picture and pointed out this baseload problem or fact, I think, which it is we need baseload in the general discussion, then the point comes storage, we need this storage solution in order to potentially enable the renewables to get a more significant role. And so you just mentioned you haven't found the solution yet. How certain are you? I think, because this is often kind of a little bit the whole point which is put out. Well, we will kind of find the storage solution sooner than later. But, but we haven't. Could you shine some light on this problem?

Alexander Stahel

I don't know Mark, and I think you're asking the question because you are an expert in the mining sectors, and you know a thing or two about that, and we do to, and we look at lithium, and I couldn't tell you how Europe. Let me let me go more extreme. So let me start different. If done as advertised, and by advertising, I don't mean someone talks, I mean, the law. If they want to, by 2035, get rid of the coal and get rid of everything that we explained, the nukes, they get rid of next year already, now three months late, and do what they say. They need for the scolding German "Dunkelfauten", *periods of little light and very little wind*, they need storage in order to accommodate the minute by minute situation of the grid. And we calculated that because we can measure *Dunkelflauten*. And to me it looks like they, and of course there has to be a best and worst case kind of scenario, and in that scenario, it looks to me as if they need between 15 and 25 terawatt hours of storage, chemical storage, not pumped, not mechanical. Now, that is more than the output of the Gigafactory once it's done, one year production. Now, do we have the lithium? We should ask, to build a full scale Gigafactory in Nevada, in order to even build all the batteries that they want to build? And, I'm talking one year only. And the answer is, for the moment we wouldn't. It will be a multiple of all the lithium we currently used in the world globally. And we are merely addressing a German *Dunkelflauten* situation for the energy. We're not even talking about the European scale ambition for climate change. And we are certainly not talking about that of the West or China and everyone else included. So the answer, of course, Mark, to your question is that we will never get there regardless of technology. Because, storage, by definition, is never going to find the minerals and metals it needs, as far as we know the earth's crust has available at the moment in order to do what is advertised, certainly not in terms of reserves. Some people may say: "Don't you worry about lithium, we have enough out there", and we probably do. But then people need to know what mining means. No one wants a new mine in the backyard. Nobody.

If we as a team combined, and we convince the Lundin family to join us here in Geneva, they are probably the best, miners other than Friedland, and perhaps I forgot someone, but you know, just the best and money doesn't matter. For all of us. It does but we would pretend for a moment it doesn't. If we then would go about this, I think Ronnie you would agree with me, Mark, we need at least 15 years and we are sensational then. Friedland just did it in the DRC. He did it with the best and money didn't matter, and he got the Chinese on board in order to get the mine up and running. And their production stays here, and they will be fine. It's a copper mine in this case. But that took, he would probably say 20 years, if you ask him, because he would say: "When I sent the engineers out first, in order to find the copper it was 20 years ago". So I think people just have an absence of knowledge about this industry and what it takes and where these deposits are. There are two wonderful deposits in Russia that I wanted to go and see, one is called Udoka in the middle of nowhere in Siberia. Well, that's an orphan now. There is no money for it. No one wants to invest in it. Technology, access is gone. Here was one of the most important deposits of copper, and I'm not talking copper growth, I'm talking replacing the existing, aging mines. And it's gone now too. So you know, this is a complicated world and everyone has a lot of silly expectations about it.

Ronnie Stoeferle

Alexander, what I wanted to talk about is, I thought it was really fascinating what the CEO of Toyota said. And I mean, I think they introduced the Prius in 1996, which was a phenomenal hybrid car. I mean, it's not beautiful, but it's very, very efficient. And people always wondered why Toyota being very, very early on with the technology, why they never switched to, like 100%, EV's, like the German automotive producers actually do now. And the CEO gave a lot of interviews recently, he basically said, well, because we know that the raw materials that the commodities that we would need for that move, they're simply not there. And I posted on LinkedIn, a couple of studies, one from the University of Leuven in Belgium, I think, which is really fascinating. And it clearly showed that there simply not enough stuff out there, when it comes to lithium, when it comes to nickel, a commodity that I'm particularly excited about. But even when it comes to copper, and cobalt, you name it. So, I think that was really a fascinating move by Toyota. However, I think one thing that we tend to forget when talking about the scarcity and the bottlenecks in commodities.

There is this kind of Club of Rome direction, that we live in a finite world, I think people tend to forget the technological progress. And I think if we want to take something positive out of the whole situation, the whole mess that we are in, at the moment, it's probably that people realize we actually need the stuff called commodities for our cell phones, we need it to heat our homes, we need it for

our lifestyle. So I think, on a positive note, I would say, the public kind of realizes that commodities necessarily aren't something bad. Another good thing, is that there's now lots of resources, lots of financial resources, but also human resources, working on solutions. So would you say this whole scarcity and this whole crisis that we face at the moment, couldn't it also lead to a huge leap in technological progress when it comes to energy, when it comes to becoming much, much more efficient when it comes to production, but also to storage? What's your take on that?

Alexander Stahel

First of all, I have great confidence in our ability to innovate, but for that, please allow the human species to innovate, rather than constantly stopping them from innovating, which is what we're doing right now in politics. I made that point earlier. Secondly, I don't think we're in a crisis from a nature perspective, I think we are in a crisis of our own making by reducing optionality. And then you get to that crisis. And thirdly, yes, you'll see it, you already see small examples, cobalt, for sure. They're going to help the engineering of these batteries, cobalt helps to control temperatures in lithium batteries. I think they might find ways, although I just met the former copper head trader, or second guy, at Glencore, the other day, we had lunch together. And he's not so confident of how easy that will be for them in reality, but we'll see. So, I think they're working on that. But at the end of the day, you still need the metals. And I guarantee you that when it comes to the law, you know, does everyone agree, we like wind? I think almost everyone I know agrees, why not? Let's get it done. And I'm sceptical about certain aspects of it, but positive in terms of having it in the mix. Having said that, our experience in installing wind was extremely painful. It couldn't have been more painful. It's exactly the same, NIMBY, not in my backyard syndrome that we see for nuclear. No one wants a new wind farm in their backyard. First of all there is in German "Schattenwurf". So, the shade that comes out of a wind farm is enormous and disturbing for everyone that lives nearby and two, there is quite a bit of noise although people think it doesn't make noise it does. It's noisy, and then three you need the grid access and so on and so forth. Offshore it gets trickier and trickier. Although we have to go offshore. So, Ronnie, I think I'm an optimist when it comes to human species, but I'm not a very optimistic within the Democratic cycles of usually four to five years, our behaviour can be quite messy. At some point I hope that the right politicians come in and then hopefully we make a jump or leap forward, but we're not there yet. That's all I can say.

Mark Valek

I even heard that it's influencing the microclimate, right? If you have excessive wind farms, I think the temperature increases slightly, which can already have effects on agriculture, but all kinds of problems associated with wind and renewable, I'm sure that's pretty clear by now.

Alexander Stahel

Mark, you're also going to lose 20% of the wind power you have. So when you have your first wind turbine here and your last one here, and we all want to build farms, not one turbine. Between here and there, you lose 20%. Wind, therefore, this is going to be say offshore, but 35% efficiency factor, are in here, you're gonna have 20% less. And yes, the climate is influenced. That's a correct statement.

Mark Valek

So, all kinds of problems. But now, zooming out again into the broader energy mix. So obviously, we need some kind of fossil fuel for the time being. I think there's no way around that. And I think that's also part of your focus where you invest. So, when we go on a sectoral view, we already discussed metals a little bit, obviously hugely structural bullishness for this battery metals, do you have some thoughts, which would you give us some kind of a ranking in terms of metals? That would be perhaps interesting. When you go so far, which one you really like most?

Alexander Stahel

All of the ones we mentioned, I don't like iron ore and some base metals. That's a very clear no-go, because it's subject to the Chinese property cycle, which obviously is collapsing. So you want to be careful with coal, which is obviously used for steelmaking. You want to be careful with whatever goes mostly into China as raw material in order to provide metal to the property sector, and that's done, finito, finished for years. All the other metals I like a lot, I probably will put lithium on top for now, although we are going to have, at some point, potentially a oversupply, and you know how sensitive commodities trade on the margin when this moment will occur. I like copper a lot because it's the conductor of everything, and it's needed in all the applications out there, not just in the battery. So we need it for the electrification of everything in every application. So copper is nice, and it's very hard to replace, although people argue we can replace it with aluminium. If you go here to Obi, a German home improvement store chain, and talk to them about it, they are not happy. When they have projects that cost gazillions and that are supposed to work for 45 years, they all don't want to experiment.

Because obviously, aluminium reacts differently when it's in contact with water and other properties. So the transmission lines are made of aluminium because they are obviously much lighter, but they conduct 60% less than copper. So, the compromise there is fine because of weight and the conductivity qualities that we don't need and in a static, safe environment. But when it

comes to underground, and at the moment, we need to build a lot of subsea transmission lines to communicate with each other between the European parts. Then they use copper and so I go, cool. So copper I like a lot I like nickel, of course, and then I want to go into more detail why, because I think what we see at the moment with Russia, call it de-linking from the Western world there, you want to pay attention to what's most effective there and how we're going to solve that. And so that's going to be in a structural bull market. But when it comes to my commodity pyramid, the Maslow, call it the Stahel pyramid, the most important I think is electricity.

For us, it's about life or death. And then the second best is gas, because gas is used not just for eating, but for feedstock, and therefore it goes back into the fertilizer, and it's about food. And then thirdly, it's clearly the transportation of everything, which is oil, at the moment. That's going to be very hard to replace for a very long time to come. And people think too much about their own little microscope, and our own privileges and that we worked very hard. So our predecessors in Austria and in Switzerland, in Germany, they made this fantastically functioning democracy here. But forget all that, right? The growth comes from a rising middle class in Asia, which has a long way to go, and the growth comes from pure population growth, which is forecast to go from eight to 12, or something billion. And if that's true, they all want to participate a little bit in the commodities, because they all want something from, transport or heat, or communication or something. And that's where you need commodities. So therefore, I have a very hard time when the EIA goes out and says: "We need less oil in 2050". Because this is actually what the climate laws are saying, when actually in reality, it's going to be completely different.

Ronnie Stoeferle

There was a great speech by by Amin Nassir the head of Saudi Aramco recently, obviously, he's his little bit biased, but I really enjoyed reading his summary about the supply issues and the CAPEX issues that the industry is facing now. But let's talk about the bottom of the "Stahel pyramid". Let's about natural gas, but also about oil. Perhaps, Alexander, you could shine some light on that, on that topic, as we're seeing for example, for the United States, we are currently seeing that US drilling activity seems to be slowing big time, so that the number of drilled, but uncompleted wells is at the lowest level since 2013. Would you say that, first of all, the role of the United States as a swing producer, is kind of over? How would you say are the trading skills of the US administration now, being very, very active with the strategic petroleum reserves? Do you think they timed the market well? Then the third thing, and I know that those are all three very large topics? How would you interpret the rumours or rather the news that recently broke out that Saudi

Arabia might be joining the BRICS? And basically, completely undermine this very, very important alliance between the US and Saudi Arabia?

Alexander Stahel

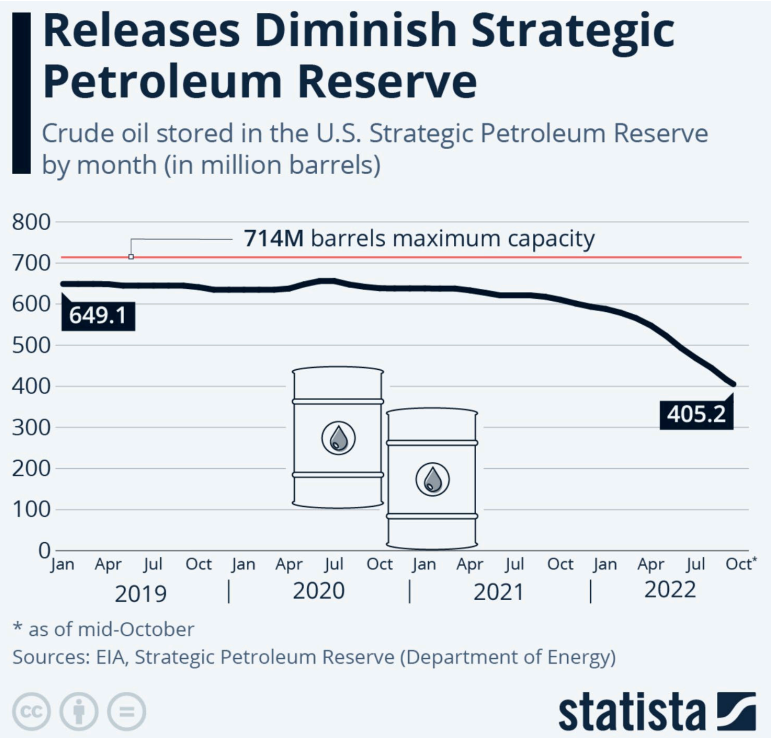
Yeah. Okay. Let me try and keep it short and crisp. So first of all, the US has shale, which is called unconventional oil. Why is it unconventional? Because oil is usually either in a sandstone or a stone deposit that actually allows the oil to flow, and that's what we call a conventional field. It flows less or more, then it needs a bit of help, less or more. Then we have shale, which is a different type of stone, which is very tight, and in there, there is oil, which we know of for a long, long, time, and we by the way, have tons of it in Europe too. Then you need to fracture that stone and then you need to put in some fluids and sand in order to cool it, make the oil flow and then you need on top you need help to make it flow. And that was always a very silly idea to have. I never invested in it. Once I understood how it works, I thought that they never going to make a single cent of money. It's not going to happen, right? It's like a liability. There's a decline rate of 75% in the first year. How can you invest in something that has a decline rate? When you have an asset that deteriorates 75% in the first year, how can you ever make money from that? Okay though, wait, just think about that. And so, I was very sceptical. But what is true is that they have a lot of it. What then happened in 2010, to 2018 is that as the Americans are, they had this amazing advertising campaign about how it's the biggest thing since the plow, right, and you have to be in this. And then there were, I don't know, $250 billion worth of junk bonds put into that, and most investors just lost their shirt. And that period, more or less, came to an end in 2017, 2018, everyone was critical. Judgement time came because promises now had numbers attached. So history, and then people sobered up. Half of what they said is not true, and is not going to be true. Therefore, it became much more about location. Because there is tier one, tier two, tier three locations there and so they became more economic about it. And now, I think there was a meeting that they called the meeting in Boston in 2018, where the big pension funds took them to Jesus and said: "Guys, which part did you not understand? You're here to make money not to waste our money". Okay, so end of story, finished.

Then came a bit of COVID, because in 2018 or 2019, we became quite vocal about it that the shale growth is over. Yes, there is potential, but it's not this hype, because it constantly keeps the oil price in a window of $45 to $65. Because everything prices at the margin, and we're going to get out of that. By now, we are out it, no one throws good money after bad money, in US shale, yes they will have a business and the best ones will have and they consolidate, and it's much more serious and it's like an industrial rollout. But that is, accompanied by very critical matrixes, where they make sure they make money. And so sometimes that's more efficient, less efficient, but for

now, they are all back in the let's make money business, and "we have to pay dividends", rather than just in "this is a growth story", right? That's over. And you would agree with me that the higher interest rates go, the more that story is over, for sure. Okay, so that's that. And then your second question was the Saudis, are they going to abandon the United States partnership? No, not going to happen. They will be partners for a long time to come. The Americans, they can say whatever they want, but today it's even more in their strategic interest to keep the waters around Saudi Arabia and Iran clean and working and the US Navy will not let go there because the Americans also need to import, although some believe they are energy independent, they are not. They need to import something like 6 million barrels per day. A lot of that comes from the Middle East. Yes, they have exports against it, but they have a quality mismatch with their refinery system. But leaving that aside, the Americans have an interest to keep that oil system working. And they will. And I think the Saudis have an interest to keep it working with the Americans. Note that every single American president each time makes it cheap politics when oil prices go higher, because he's afraid he's not going to get re-elected in the midterm, right? I mean, that game is now as old as there are American presidents and oil. And it's always going to be drama and then usually good men in the background say at some point: "Guys, now calm down, we're all in this together here and we need to make sure this is going in the right direction". Now with Biden, you have a rather dysfunctional administration that doesn't seem to understand that at the moment, but also that's not new. If you go to the Milton Friedman videos. I mean, they were talking exactly the same problems that we talk now, right. And presidents came out and said let's tax more, let's do this or that. All the wrong recipes, everything not to address the supply side problem that we are facing. And Ronnie and Mark I think our duty as investors is to best navigate those waters and take advantage of it. Because if we start to moralize it, then we all go nuts. Then you have a third question, which was?

Ronnie Stoeferle

The strategic petroleum reserves.



Alexander Stahel

Oh, the SPR. That the new toy of the President right. Now he is under the illusion that the releasing of SPR has actually gotten prices down, I would argue it was a purely macro coincidence, where we went into what quad 4, and consecutively, three quarters in in a row. When we went into those, that's why oil prices came down from USD 120, down to USD 90, and not so much because of the SPR release. Look, if we do correlation, we do correlations for everything, and we try to be on top of the cycle, then, usually the best correlation for American oil price and American inventories, you get by including all inventories, so the coat, The Standard Commercial Petroleum code, inventory, the product inventories, so diesel, NAFTA, whatever, you know, on top, and then thirdly, also the SPR. And then you get the correlation. And therefore, from that perspective, using the SPR is a wash, it's going from left to right pocket, so it doesn't matter for prices. And that's exactly what we can show. So, I think at the moment, WTI is at fair value at $92, somewhere around there at the current SPR level. Now, we can sadly not do the same correlation for the entire world. Because while we have a lot of data, we don't have enough history to be comfortable to say this is actually going to be the regression that we are seeing. But at some point we can then we can make a statement there too.

Ronnie Stoeferle

Alexander, you emailed me and said you're actually covering roughly 500 companies, and you previously told me that you are actually a big data company, and you really, really know your companies that you're focusing on very, very well.

Alexander Stahel

Like family.

Ronnie Stoeferle

So I, I think you've got the micro part very, very well covered. Now let's talk about the macro part. And obviously, we are now seeing this huge interplay, or let's say, challenge between consumer

price inflation, and on the other hand, an enormous amount of asset price deflation, and we're seeing this enormous strength of the US dollar we're seeing that markets are clearly now starting to get really nervous about a recession. So from my point of view, if you just have a sober look at it, it's obvious that markets are now focusing much more on the recession topic than on the inflation topic. Obviously, we've got lots of political risk in markets, we know what's going on in bond markets and so forth. So actually, I would say, you know, given this, turmoil that we're seeing, I think the GSCI is now down 26% from its highs, which is not so bad. Alexander, what's your macro view? You told me that you enjoy following Hedgeye, for example, and their approach. So how does in your investment style, this interplay between the macro, the top down and the micro, the bottom up picture, actually work out?

Alexander Stahel

Yeah. So we cover the sectors ourselves, and we barrel count, or we gas molecule count or atom count whatever, in detail, where we can have real time data. So we need real time, otherwise it doesn't even make sense to cover a commodity, because what's the point if it's all priced at the margin, very little change makes a big difference in price and you're always late. So, those that we discussed, and some others, we cover very carefully. And then we think about in Q4 2018, where we were very long oil, and suddenly everyone was very short oil, and I was scratching my head and saying, "Gheez, I'm blind in one eye". What is happening here? And I said, I need to change. And so I really engaged and looked for the right macro template, and not, these casual reports that come out of banks that try to explain to you a rosy world, but a process, an everyday kind of thing. Because again, in macro too, it's about the rate of change rather than the absolutes. And we found this boutique, Hedgeye. I think they should pay you for advertising it. But the point is, I really like what they do. I think it's rather affordable, and it's professional, and it's different. And we adhere to that. And then obviously, we started to collect more and more of our own data in order to follow the costing rate of change process for inflation and GDP, for different parts of the world. And what is happening right now is that we are in a slowdown both of inflation, now we have to be careful, let's say the US is in a slowdown of inflation at the moment, although at a very light level. And then, in a slowdown of GDP. And that's what we call quad 4. In that process, in quad 4 is usually when accidents happen in capital markets.

And, you know, you mentioned before, the UK pension fund system, because inflationary pressures push up rates, and that usually in those highly leveraged environments, doesn't bode well for how they can navigate this.

Maybe just a word on inflation. What we see, there was this golden rule that Druckenmiller once explained is that we never manage to get inflation CPI back down, unless we had the Fed target rate above it, and that's the rule for the last 50 years. And that probably, we're going to break it this time, right. Because if we take the Euro area, I think it's 1.25% ECB target rate, and we have on average 9.1% CPI for the Euro area and as high as 15%, and then a bit lower in certain parts. So we're probably not going to get the ECB target rate above nine and yet, I would say one has to be very careful to expect a slowdown in CPI in the Euro area, because a weakening Euro against the dollar, because of some structural issues on the commodity side, and then on top, we created for ourselves an electricity problem. So that's pretty bad, the combination, right, which again goes into everything that we produce. And so on that basis, I have a hard time to see inflation slowing down

in Europe. We now created an recession in 23 years, those have a self-healing effect on inflation. How much of that inflation is really the demand side driven, and how much is supply side driven?

There was even a study out by the ECB, that said about 5% is supply side driven, and we'll see how that pans out. The point is, those rates have to go up. And they are just at the beginning. And people have to think very hard about that, because this environment of the last 25, 30 years, this constant deflation where everyone and their brother were explaining that money is going to be cheap, regardless what central banks do, that period is over. And we are now probably in a five, maybe 15 year patch, where we have scarcity of all sorts of things, because we underinvest, we created more bits and bytes instead of molecules. And now the chickens come home to roost and we will need a lot of time to correct that. And because that's true, everything changes in the investment landscape. Because long duration risks, like tech, like real estate, like bonds, they are going to get punished on a higher interest rate environment and over proportionally so. And probably accelerating. Now people argue then and go on forever and say no, but you don't understand the facts, the ECB, they're going to break everything, they have to stop at some point and I say that is a misunderstanding. They are not here for Wall Street, while that was convenient to be there for them in the past. At the moment, their issue is now (inaudible), the normal citizen on the street, they have to go back to their original mandate about controlling inflation. And if they don't, the ECB, then don't be surprised if for a moment we all wake up. We read our newspaper on Sunday morning thinking nothing bad, and then we read that the Deutsche Mark is back, because the Bundesbank has reintroduced the Deutsche Mark because they are afraid the ECB doesn't manage to control inflation. We all know the Germans hate inflation since the Weimar Republic. They fear it more than the Devil. I think people have to take a step back and look at what is happening here and what the causes are for it and the world is inflation, and the world is commodities.

That's why I once Tweeted that: If you don't do commodities, you will have a hard time to navigate this environment, because I think so much can be understood from that angle this time around, when nothing was to be understood 10 years ago, now, almost everything. And I hope we can benefit for our shareholders on that basis. But yes, it's tough and it's going to stay tough out there. I think that the rate increase is in the beginning, certainly in Europe, and is also not done in the United States, and then we'll have to see, because what the Fed currently is doing is more or less a manufacturing recession, to take, 3% demand side inflation out. And then let's say they meet that 5%, the 10 year. Or call it the Fed funds target rate, to keep it simple, and the CPI. They meet, say in Q2 2023 at 5%, or 5.5%, let's say that, right? Let's assume, so we're at the moment at 8.2%. If

that's the case, then our answer is okay, fine. So now we are fine, now what? Then we go back to economic activity, we look forward a little bit, we come out of the GDP contraction, then we are right back in everything, which we discussed now. So that's why I say the economic cycles are shortening, and we're just going to have more spikes instead of calling go seven to nine year outlooks where what the normal economic cycle would look like, I think we're now into a three year cycle.

Mark Valek

That's extremely fascinating. I don't know, if you had the chance to look at what we wrote in our In Gold We Trust report this year, it's quite an extensive read. But I mean, also, in our conclusions, this reminds me very much of what we wrote this year, also last year's report. Our scenario was that we're going to have a structurally higher inflation environment. But also, we do point out to people that during such a period, inflation rates can definitely drop in the short term, which shouldn't be confused with thinking that this problem will go away. That's actually how we also see this short and medium term, rather than that inflation rates perhaps will turn down sooner than later, and this could be misinterpreted by the market, that basically this problem is going away. And the tightening cycle will perhaps be ended way too early to basically get rid of all this inflationary pressures, which have been building over so many years. So I think we're very much in the same camp on this greater macro picture.

Alexander Stahel

May I add we are in a stagflationary environment for a decade, maybe two, who knows that comes down to policymakers, not least because of climate laws, we'll see how we progress, and we can change our mind when people start to do the right things, they don't at the moment. On that basis, don't mix up what I call "*the cyclical nature of inflation*" with the "*structural nature of inflation"*. And we are slowing down rate of change, and we go back up and slow down, we go back up and those can go large.

Mark Valek

Right, Right, and at the end of the day, I don't know if you have a view on that, too. I mean, obviously central bankers and the banking industry is not completely monolithic. There are obviously many different viewpoints within this kind of community too. But I think one of the considerations, especially from the central banking side, which they obviously hardly ever would admit, is some kind of reflation or inflating away the huge amounts of debts. They're clearly conscious of this problem, I'm sure. So, that also would be perhaps not even officially, as I said, but also perhaps

would be a scenario which they, from that point of view. Yeah, they're quite sympathetic to that because isn't that kind of the best case outcome for the system to some extent?

Alexander Stahel

Look, the problem is, as Milton Friedman once said: "Every inflationary phenomenon is strictly monetary". And then he said a lot more about it. There are some counter theories about it. But anyway, I think we also de-globalize versus we globalize. So we have mega trends changing at the moment, but one thing, one element that helps, this monetary phenomena is already starting to mean that the Federal Reserve and the ECB are monetizing the government debt. That usually is the sign when even the MMT guys ring the alarm. And say, we like MMT, and we explain to you why we believe we can do it, but now that you Fed monetized our government bonds, and you are the last resort buying it. That's not good. That leads to inflation. So I mean, if you read Stephanie Kelton's book, that is in there too. To be fair to the MMT guys. So we're not on a good path.

Ronnie Stoeferle

Alexander, we're slowly coming to an end of a fascinating discussion. What I wanted to ask you, we are pretty active in the commodity space as well. And I think like one year ago, for example, if you talked to an institutional player about commodities, well, actually, you probably weren't even invited, you couldn't pass the secretary in the office. So now, it really seems that there's some sort of shifts slowly happening. And I mentioned, the uranium space, for example, we do manage one uranium fund. We're seeing, in general, that people are a little bit more concerned and following energy markets in general. What would you say? Being a very active investor, when it comes to commodities. So far, they basically don't have any allocation in commodities whatsoever, due to ESG. I think, from a legal point of view, many of them actually had to shun and sell everything that is related to fossil fuels. We know that I think Munich Re, they said, for example, we won't give any insurance for new projects in the fossil fuel space anymore. Do you see some sort of a renaissance slowly happening when it comes to institutional players? Or will it take even more time?

Alexander Stahel

I think it takes more pain. I don't see resource allocation, I don't see change. If anything, we have to be grateful if it doesn't get worse, because I think, we Europeans are already acting along the lines you just described, but the Americans are not necessarily but they are going now in that in that same direction. And I think it needs more pain, I think $90 oil is no pain, this oil molecule is such a powerful thing for the human species. And people just lost any respect for it, and I think at

some point, commodities will have to go in an phase where it's $200, and then everyone starts to respect it.

Ronnie Stoeferle

Yeah, I mean, on an inflation adjusted basis, oil is dirt cheap, obviously. Mark, is there anything else that you want to ask Alexander?

Mark Valek

We could go on for hours. It really is fascinating. Perhaps just very shortly, one question still on the US dollar? We know that structurally, commodities are negatively correlated to the US dollar, that's like the super top down perspective, if you will. Do you at all consider the dollar because, I mean, it's something which is not very predictable so easily, but currently it looks very strong. Also, due to the structural differences of the economies, which we already partly touched, but I mean, commodities this year, have proven to be able to also arise in a strong dollar environment. So, do you look at it at all, and do you have any opinion?

Alexander Stahel

Oh, yes. It's a very important data point for what we do. We went bearish metals, mainly because of China and the dollar, in May. I publicly said on Twitter and we went bearish. And people didn't like me going bearish, but I am bearish on oil since July and not like mega bearish, but carefully so, "educatedly" so and the main reason is the dollar, which was what I call the US dollar wrecking ball. And then, people from a US perspective tend to have a hard time, and not I'm not talking the pros of the pros, I'm talking the average person. They say: "Well, what are you talking about, everything's fine", Right, but in Asia at the moment, the dollar is doing a lot of damage. For instance, if we look at Russian export, the Far East is not under sanction can do you know gets Russian oil at $22 discount, and yet they are almost not buying Russian oil at the moment, it's just that the dollar is hurting their purchasing power a lot, and this is a warmup.

Again, I think 2023 what is it about, the dollar, right? It's our dollar, your problem, everyone needs it, everyone needs to refinance it, I don't know, 77% of all transactions are in dollar in the world. And so everyone is then kind of, in those recessionary times, short the dollar, and now they need to buy even more. And that process needs to run out. And then I think we can come down again, and that's when you have those spikes that I'm describing. Because then demand comes immediately back in commodities. But what we are seeing at the moment is helping demand. So from that perspective, it's not the wrong measure to look at in commodities, but there is no good

correlation over 30 years on it, because it really comes down to the threshold it breaches. And that can change, depending on the environment. So just because, and don't look at the DXY because

we have to compare the dollar to something, you want to look at emerging market currencies, that's where the sensitivity is on demand, the DXY, which measures mainly the euro, and the dollar in the bit of yen, and the bit of pound, is completely irrelevant. That doesn't tell you anything about demand of oil on the side, people talk about a useless measure.

Ronnie Stoeferle

Yeah, that's a very good point that you bring up Alexander. I think we're seeing extreme strength of the US dollar, or rather, weakness of the pound and the Japanese yen and the euro versus the dollar. But for example, measured against the Brazilian real, actually, it's fairly stable it kind of goes sideways.

Alexander Stahel

Which is why Brazil is booming as the only exception of all the emerging markets.

Ronnie Stoeferle

So I couldn't envision, strength of the dollar versus the very dirty shirts when it comes to currencies being, the yen, the euro, and perhaps also the pound, although, there will be a bounce happening from a technical point of view, but also weakness of the US dollar measured in commodities terms. I think that could be a scenario playing out. And by the way, Liz Truss, she stepped down just now,

I saw that. Okay, well, there was this meme on Twitter, showing lettuce and then Liz Truss, and it says: “Can this lettuce outlast Liz Truss?” So, actually the lettuce won! And yeah, I mean, that’s, that’s another confirmation how, how volatile everything is at the moment.

So Alexander, we’re coming to an end. First of all, thank you very, very much for your time, we really enjoyed this, we hope that we can meet in person soon. I would like to to quote Charlie Munger, who is on your webpage, saying: “*The whole secret of investment is to find places where it’s safe and wise to non-diversify. It’s just that simple. Diversification is for the know nothing investor. It’s not for the professional*”. And I think over these one and a half hours, we clearly saw that you’re a true professional. So thank you very, very much for your time. We greatly enjoyed this. Let’s meet again soon.

Alexander Stahel

Let’s stay in touch guys. It was a pleasure to be here. And thank you very much. It’s an honour and I admire your platform you created so my congratulations to you Mark and to you Ronnie.

Mark Valek

Thank you very much appreciate that.

Appendix: Permanent Members of our Advisory Board

James G. Rickards

Jim is the author of the international bestsellers *Currency Wars* and *The Death of Money: The coming collapse of the international monetary system*. He is portfolio manager at the *West Shore Fund*. During his career, Jim has held senior positions at *Citibank*, *Long Term Capital Management*, and *Caxton Associates*.

Dr. Frank Shostak

Frank is chief economist at *AAS Economics*. He has over 35 years of experience as a market economist and central bank analyst. He holds a PhD, MA and BA honours from South African universities. He was professor of economics at the *Witwatersrand University* in Johannesburg. He is one of the world leaders in applied Austrian School of Economics and an adjunct scholar at the *Mises Institute* in the US.

Rahim Taghizadegan

Rahim is the founder and director of the *Scholarium*, an independent research institute in economical and philosophical issues in Vienna. He is a bestselling author and a popular speaker internationally. Rahim studied Physics, Economics and Sociology in Vienna and Lausanne. He has worked in the fields of economics, space research and journalism. He has also taught at the *University of Liechtenstein*, the *Vienna University of Economics and Business Administration* and the *Universität Halle an der Saale*.

Ronald-Peter Stoeferle, CMT

Ronni is partner of Incrementum AG and responsible for Research and Portfolio Management.

He studied Business Administration and Finance in the USA and at the *Vienna University of Economics and Business Administration*, and also gained work experience at the trading desk of a bank during his studies. Upon graduation, he joined the Research department of *Erste Group*, where he published his first *In Gold We Trust* report in 2007. Over the years, the *In Gold We Trust* report became one of the benchmark publications on gold, money, and inflation.

Since 2013 he has held the position as reader at *scholarium* in Vienna, and he also speaks at *Wiener Börse Akademie* (i.e. the Vienna Stock Exchange Academy). In 2014, he co-authored the book *Austrian School for Investors* and in 2019 *The Zero Interest Trap*. Moreover, he is a member of the board at *Tudor Gold Corp*. (TUD), a significant explorer in British Columbia's Golden Triangle and a member of the advisory board at *Affinity Metals* (AFF). He is also an advisor to *Matterhorn Asset Management*, a global leader in wealth preservation in the form of physical gold stored outside the banking system.

Mark J. Valek, CAIA

Mark is partner of Incrementum AG and responsible for portfolio management and research.

While working full time, Mark studied Business Administration at the *Vienna University of Business Administration* and has continuously worked in financial markets and asset management since 1999. Prior to the establishment of *Incrementum AG*, he was with *Raiffeisen Capital Management* for ten years, most recently as fund manager in the area of inflation protection and alternative investments. He gained entrepreneurial experience as co-founder of *Philoro Edelmetalle GmbH*.

Since 2013 he has held the position as reader at *scholarium* in Vienna, and he also speaks at *Wiener Börse Akademie* (i.e. the Vienna Stock Exchange Academy). In 2014, he co-authored the book *Austrian School for Investors*.

About Incrementum AG

Incrementum AG is an independent investment and asset management company based in Liechtenstein. Independence and self-reliance are the cornerstones of our philosophy, which is why the four managing partners own 100% of the company. Prior to setting up Incrementum, we all worked in the investment and finance industry for years in places like Hongkong, Frankfurt, Madrid, Toronto, Geneva, Zurich, and Vienna.

We are very concerned about the economic developments in recent years, especially with respect to the global rise in debt and extreme monetary measures taken by central banks. We are reluctant to believe that the basis of today's economy, i.e. the uncovered credit money system, is sustainable. This means that particularly when it comes to investments, acting parties should look beyond the horizon of the current monetary system.

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