

Robert Mullin on the Investment Case for Commodity Companies

We are delighted to share the following interview with Robert Mullin, general partner and portfolio manager of Marathon Resource Advisors, conducted by MOI Global contributor Rohith Potti.

Robert has authored a widely shared paper, [The Road Ahead for Natural Resources](#), which serves as the backdrop to our conversation.

Robert discusses the valuation of commodities and natural resource-based companies in historical context; makes the case for tin, a niche metal; shares his investment thesis on Whitecap Resources (Canada: WCP), and much more.

Robert's work has been [featured](#) in an issue of *Grahamian Value Week in Review*.

The following transcript has been edited for space and clarity.

Rohith Potti: The preface to Ben Graham's *Security Analysis* contains a beautiful quote from Horace: "Many shall be restored that now have fallen, and many shall fall that are now in honor." A sector that has remained fallen, at least in the investor's eyes, for more than a decade now is the commodity and natural resources space. Our guest today, Robert Mullin, has spent more than a quarter of a century thinking about this space. He's a general partner and portfolio manager at Marathon Resource Advisors, a firm focused on investing in dividend-paying natural resource equities. Thank you for doing this, Robert.

Robert Mullin: Thanks for having me. Your quote is a highly appropriate one when looking at this sector.

Potti: That's one of my all-time favorite quotes. Robert, I want to begin by thanking you for the research you shared with the world in January. That's how I came to know of you and how you think. One thing I can say for sure is that it's been widely shared in India. I've gotten it from multiple communities I'm part of. For all those interested in natural resource investing, I would urge you to drop everything and read this piece of research. It is one of the most brilliant things I've read.

Mullin: It's very gratifying. You put a lot of work into something like that, and then you release it into the wild, hoping it finds an audience. I released that in January, and it took two or three months for the audience to come around. Quite honestly, it was spearheaded internationally, and I've noticed that a number of people clicking onto and subscribing to my website are clearly of Indian descent. I thank you and your cohorts out there for spreading our gospel.

Potti: I must tell you that you already have quite a few fans in India, at least among those looking at the commodities and natural resources space. Let's start with your background. Can you describe how you entered into the world of investing, and how did your journey into natural resource equities and commodities begin?

Mullin: My journey to investing was routed directly. Until he retired in 2000, my father was a senior executive. He was first with EF Hutton, then Smith Barney, and ultimately, with Morgan Stanley. I grew up with my father and namesake discussing stocks around the table. That was always an interest to me, and I started getting into it more in high school. I always brought to it a mathematical bent. My

strength in analysis has always been the ability to look at a page of numbers and hopefully make some sense or pattern recognition out of it, see where margins are expanding or contracting in a financial statement or certain prices going up and down. That was always very intuitive to me.

I studied economics and business with a minor in English at the University of Colorado at Boulder. I backpacked around the world for a year, which included a wonderful visit through Delhi, Agra, and Jaipur. I vividly remember holding in my hands what I think is the world's largest cut topaz, which one of the maharajas out there had used as a belt buckle. It was a marvelous experience. I came back from that and started working for the Franklin Templeton Group, relatively quickly moving up there and covering a number of different sectors, including consumer products and cable. However, I really gravitated when I was handed the energy industry and traditional oil and gas. That was an area where I had a bit of family knowledge - my mom had grown up on a West Texas cattle ranch, and I had a number of relatives in Texas in ranching and raw materials. They looked for oil and gas on our property. They never found it, but that world was quite familiar to me.

Moreover, it very much played to my mathematical strengths. When I was a consumer products analyst, the analysis was, "What multiple do you want to put on Gillette's earnings? Do you think it deserves 15x or 25x?" In the resource sector, you have very homogeneous companies. They're all producing basically the same thing, but if you're able to look down and truly understand their production costs, sustainability, and dynamics, you can go through an analysis. You can try and buy a dollar's worth of assets for less than \$1, and to me, that was very intuitive. It fit with my skill set. I convinced them to start a natural resource fund, and I launched the Franklin Natural Resource Fund there in 1995, if I remember correctly.

Potti: Just curious, when did you first gravitate towards energy? What year was that?

Mullin: That was probably 1993, but I was interested in it even before that. I remember senior year of college. During spring break, some friends and I chartered a boat to sail through the Bahamas. Everybody had brought interesting stuff to read. I brought *The Prize* by Daniel Yergin. It may not have made me particularly popular with women, but the interest has always been there.

Potti: That's a beautiful book. I remember reading it, and one big takeaway for me was that I should never, ever try to predict the price of oil even two months in advance. It's impossible.

Mullin: Yes, it's a glorious book on the industry. It's required reading for anybody who's going to try and spend a lot of time and invest capital here.

Potti: Let's delve into commodities and natural resources. We have inflation and commodity prices rallying in the current news. Historically, it seems like there is a correlation between inflation and commodity stocks. Could you explain why that is so? Given your extensive experience, I'm also curious to know if there has been a time in the past where we've had strong inflation, but the commodity stocks have not done well.

Mullin: That's a great question. If you look back to the 1910s to 1920s, then the late 1960s to late 1970s, as well as the 1998 to 2008 timeframe, you typically get these 10- to 15-year periods where commodities outperform, and those typically correlate with inflationary periods. Where it doesn't, where you had an inflationary period, but commodities didn't significantly outperform financial assets was in the mid-1940s to the mid-1950s. It was an interesting one where all of them went up. Regular equities went up as well as commodities. Commodities didn't outperform by much because the broader equities were so cheap going into that. In post-war 1945, stocks were trading at 7x or 8x earnings. Commodities did well, as did stocks, but you didn't get much outperformance out of the resource sector.

Typically, you've got these inflation-deflationary cycles where capital chases what has worked or looks like it will continue to work. Those trends are extrapolated into the future. This inflection point from deflation to inflation is usually a time when commodity stocks are very cheap because no one thinks you need them for anything, and growth-related stocks are very expensive because growth is scarce, so people have built up the valuation. Whether it's the Nifty Fifty stocks, the original internet bubble back in 1998/1999, or today's FANGMAN stocks, you typically get these wonderful movements where not only are the underlying businesses of commodity companies doing better in inflation, but they're also coming into it at such depressed valuations that you get a significant multiple pickup on top of it.

Just for context, the multiples with which resource companies went into late 2020 were the most depressed versus the broader market we have ever seen in 100 years of financial history, and it makes sense. If you're in an inflationary environment, and people value things they need more than things they just want, the prices of the building blocks of what you need - food, shelter, transportation - should rise faster than the prices of things you don't really need, like an extra toaster, another car, or a vacation.

Potti: You mentioned the relative performance of commodity stocks versus normal equities. During times of rising inflation, has it ever happened that, on an absolute basis, commodities have not performed well?

Mullin: You can pick out a few times where some individual commodities did not do particularly well, and that's because of very specific supply and demand dynamics, periods of unusual oversupply, massive commodity discoveries that imbalanced supply and demand. If you go back over those three or four commodity cycles, you don't see any periods where inflation was accelerating and commodities fell. Even in the deflationary last 15 years, commodity stocks outperformed pretty dramatically. I would argue that even with the recent pickup, the bar is still set very low on inflationary expectations. It's relatively easy to envision an environment where commodities outperform and commodity stocks outperformed by even more.

Potti: Let's bring bonds in the picture. They are the most expensive they've ever been. At this price, I don't think they're going to do the work they were supposed to do in the past, which is to provide a hedge to the portfolio. Could you tie that in with the beautiful story of Frank Lloyd Wright you refer to in your research piece and what we can learn about portfolio construction from that story?

Mullin: Let me provide a bit of background for those who have not had a chance to read the piece. I've always been an architecture buff. When I wasn't reading *The Prize* as a high schooler, I was hand-drawing Fallingwater, Frank Lloyd Wright's spectacular residence in Pennsylvania. He had had great success selling his first style homes, and his type of architecture had done very well in the late 1800s, early 1900s. However, there was this new wave of architects, like Le Corbusier and Mies van der Rohe, who had a much more stark, modern, poured concrete, steel glass kind of thing, and Frank Lloyd Wright was somewhat on the outs. His commissions had started to decline but his spending habits hadn't, and he was in a tough spot.

When he was younger, he had spent a lot of time traveling to Japan, and he truly loved and engaged with the architecture there, with what he called the unity of it. The way that the Japanese architecture come together was very purposeful. When the commission came up to rebuild the Imperial Hotel in Tokyo - the main destination for Westerners visiting Tokyo for the last 40 or 50 years - he fought for it and got it. This was around 1914 or 1915. He built a spectacular hotel, but he was working with extremely interesting constraints. I think of this like being a portfolio manager: what are the materials you build with? what is the setting in which you are building? He had to build this big hotel using foreign substances and dealing with language barriers, among other things, but most importantly, he had to build on 100 feet of liquid soil in the most active earthquake zone in the world.

What he decided to do was a kind of revolution. He thought about it very differently. That was the time when the Woolworth Building had just gone up and steel construction had taken form. Intuitively, it made a lot of sense to build with that in Japan. You had rigid buildings that would maybe stand up to the earthquakes and wouldn't burn down because they weren't made of wood. That was becoming extremely popular, and a number of buildings were going up there. Frank Lloyd Wright went in the absolute opposite direction. He said, "I don't want to fight the earthquake. What I want to do is work with it." What he did was pour a foundation that was cut into 50 or 60 different sectors and floated on individual piling. He didn't go down into the bedrock. He did a number of different things, including supporting floors from below, like a waiter would hold the tray, as opposed to from walls so that if they were shaking, the floors wouldn't drop out. He did a lot of very thoughtful things to try and make sure this building could survive a great earthquake.

Right before completion, the board came back to him and said, "We're running out of money, so we can't do this whole reflective, decorative pool out in front." He was steadfast and said, "Look, not only is it part of what makes the entry beautiful, but if you have a fire and the water lines break, which they tend to do, you're going to need something to protect the property, to douse the fires." They relented. Sure enough, the Great Kanto earthquake happened in 1923 happened, and it was, at the time, the worst natural disaster in the history of Japan. Either through earthquake or fire, roughly 70% of the buildings were destroyed or suffered major damage. Word didn't travel particularly fast at the time. It took a week, and there was a lot of rumor that the building had been destroyed. Even newspapers had carried that story. Sure enough, he got a cable from the manager that said, "The hotel has operated perfectly, stands as a monument to your genius."

I saw that in a documentary at the Sundance Film Festival in 1998. The feeling of getting that telegraph, of having built something which had survived an incredibly adverse environment and people were better off for it - it was very moving, and I carried that idea with me for 20-odd years, knowing as I had this career in the resource industry, knowing that at some point, I would pull that metaphor out and use it for a letter. I originally used it in my December 2019 update, right before COVID hit, and I made this allegory. It's like a portfolio manager, where I think of Frank Lloyd Wright as being highly creative in the way he used materials.

The problem with being a portfolio manager as opposed to an architect is that when you're a portfolio manager, the setting is always changing. You don't have one piece of land. You can't build for that as it evolves over time. Most of the time, it evolves very slowly, but there are periods where you need to think about doing things radically differently. The simile I use in the paper is that we are in a period where every home or portfolio has been constructed for a deflationary environment. If you follow someone like Chris Cole from Artemis Research, everyone owns short ball assets, effectively, the assets that benefit from a deflationary environment. They are now stocked with record expensive asset classes, whether you look at equity, bonds, or anything else. So, the materials are expensive, the ground is shifting, and it is indeed a time where inertia is making people very comfortable holding assets that if you looked at how expensive this is relative to the last 15 years, you'd say, "Why in the world am I holding this?"

The flipside of that is natural resources, which are the one thing that I believe genuinely protects you from the most debilitating outcome to the majority of portfolios today, which is an inflationary outcome. They stand as cheap as they ever have been in somewhere between 50 to 100 years of history versus the market. In my opinion, it's time for portfolio architects to think differently about how they construct their portfolios. It's incredibly easy to look back at the last decade and at resource securities and say, "Horrible returns and huge volatility. Why would I ever want to put these in?" However, you need asset classes to help you in an adverse environment that's going to impact the other asset classes you have. I think that's exactly the opportunity in the resource sector.

Potti: I read the story and loved the way you connected architecture and investing. Your enthusiasm and the passion are very evident. The reason I like the story is that there are so many fundamental ideas that come out of it. One is the sheer contrarianism and having your own set of foundation ideas and sticking to them despite what the world says, which is the bedrock of investing in general. The other thing is that you don't resist a force stronger than you. You align yourself with it, and good things will happen to you. In your example, it was liquid soil, and he decided to move along with it rather than resist it directly. In the environment we have today, with the inflation in commodity price and the stocks so cheaply valued, it's better to play with them rather than try to counter them in any other way. Thank you for sharing that beautiful story.

From the limited time I have spent trying to understand commodities and natural resources, my belief is that the most important variable in that space is supply. You write in your research report that the most powerful and durable commodity bull markets are those built not on rapidly rising demand but on structurally constrained supply. Could you expand on this? Where are we today in terms of supply, and why are we there?

Mullin: That's the cornerstone of what I think is the legitimate bull case for resources. Many people have boiled the commodity case down to either a) you've got to have rapidly rising economic growth, like we did in the 2000s with an industrializing China, or b) you have to have this CPI prints five, or six, or seven. Honestly, I think people are making it too complicated. What drives commodities is supply and demand, and if you assume a modestly growing demand environment, you've got to pay attention to the supply. If you look at the last 20-plus years of capital expenditures for the S&P Global Natural Resources Index - which is, I think, 85 companies across energy, mining, basic materials - in 2011 or thereabout, they were spending around \$165 billion dollars per quarter building new projects, filling their future pipeline with supply. Many times, that takes 5, 10, or 15 years to come to fruition.

It started to decline pretty dramatically at that point, and for the last three or four quarters, COVID stuck its boot on their head. That \$160 billion-plus of quarterly spend has gone down to about \$45 billion. The amount of money spent by these big publicly traded companies to both bring on stream and replenish their reserves has contracted by 65%, and yet, we're now producing broadly 20% or 25% more than we were 10 years ago, when that peak happened. I guess the natural inclination is, "Gee, we can pat ourselves on the back. We've gotten so much more efficient at producing these commodities," but that's not the case.

What we've been doing is living off of supply we built up in the great commodity bull run from 2000 to 2008 and in the aftermath of that, where people were still allocating capital like you had a China infrastructure growth story. You had this big backlog of projects, and that is part of the reason why commodities perform so poorly. It's definitely part of the reason why commodity equities performed so poorly; they misallocated a bunch of capital and built too much supply. They shot themselves in the foot and had to deal with subpar returns after issuing a ton of equity debt for the better part of a decade. But the piper is coming due. We have taken those projects they built with that money from 2000 to 2010. That's what we built in 2010 to 2018. The pipeline is relatively dry here, and the cost to produce commodities is not going down; it's going up. The capital intensity and even what we view as the great technological resource play of the last 15 years, which is US shale, are going up. They were telling us seven or eight years ago that you could do it at \$25 or \$30 a barrel. None of these companies are making money at \$60 a barrel, or at least industry is not, broadly speaking. You can say the same thing for copper. Both spaces are very much the same. Capital expenditures have risen dramatically, but the amount of gold they're finding is shrinking. We can't rely on this subpar \$40 billion to \$50 billion of quarterly capital expenditures to deliver or sustain the level of resource production we've had.

I think it sets up something wonderful, which is a modestly rising supply-demand dynamic. You have a

bunch of energy and mining company executives who have been chastised relentlessly by Wall Street for the last decade every time they've tried to grow. Now, they've done exactly what the market told them to do. They have paid down debt. They're paying big dividends. They're returning the cash to shareholders. They're not growing, and here we are now. It makes for an extremely interesting issue that can't be fixed quickly. Even the head of Freeport said yesterday, "If you came to me and guaranteed me \$6 or \$7 copper, I could get you more supply in seven years." The head of Glencore said the same thing. It's going to be a very interesting time, and I think we haven't seen anything like this since the 1970s. I'm not comparing this time economically or inflation-wise to the 1970s, but in terms of resource constraint, it may even be better than the 1970s because there's an artificialness to that with OPEC withholding supply. Now, I think the barrels aren't easily available, nor are the pounds of copper or the tons of nickel. It's setting up to be a radically different backdrop, and the world hasn't figured that out.

Potti: You mentioned this current capital expenditure of around \$40 billion or \$45 billion per quarter. When was the last time you saw this low a number? That context might be interesting to have.

Mullin: You can go back to maybe one year in 2005, but it was higher than this in 2004. It was higher all the way through 2006 and ramped steadily up to \$160 billion in 2012. It fell as low as about \$60 billion a quarter in 2015 and has never recovered.

Potti: Natural resource companies globally are spending an amount that hasn't been as low since 2005. We can also argue we have more inefficient capital expenditure today because the margin and geology have only become worse, and the technology has not been able to keep up with the deterioration of the geology. It's extremely interesting. I get why you see the constraint in supply as probably one of the worst in the last few decades.

Mullin: Quite honestly, I'm not sure we've seen something like this since maybe the 1950s, to the point where you had constrained supply and didn't have a good fix that was less than five to seven years out.

Potti: You mentioned that the amount we're spending is not enough for even the modest increase in demand that we'll see, but I think one important variable there is how fast supply can come on stream. I like to use this idea of irreducible minimums of time in some investment approaches. Buffett put it best when he said you can't produce a baby in one month by getting nine women pregnant. I think that's an incredibly powerful idea. In the commodities that you look at generally, how do you see the irreducible minimum of time? I believe something like copper takes 7 to 10 to 15 years. If it's a big mine, it may take 10 to 15 years to develop. How does that look across the majority of common commodities we see today?

Mullin: The outlook for copper demand is great. If we truly are going to make any massive spending push into EVs and renewables, it's hugely copper-intensive. You have constrained supply for things like nickel, cobalt, and lithium and a robust demand picture. When the energy sector went from 13% or 14% of the S&P to 2%, which is where it was in the third quarter last year, people had given up energy for dead. Exxon was kicked out of the Dow. For true contrarians, it was the buy signal of a century. You couldn't deny it. To me, however, energy looks really good, the reason being that, historically, you had these great big legacy projects that took five to seven years to get up and get commissioned and then bring online. Oftentimes, they were offshore or in a challenging jurisdiction.

Potti: How large are these fields in terms of production? When you say large field, what do you mean?

Mullin: A single field is going to produce 75,000, 100,000, or 200,000 barrels a day. Such big capital projects typically took a long time. Then shale came along. It was this incredible capital-eating

monster that consumed \$750 billion of private equity capital alone. If you tack everything else on top of it, it was way more than \$1 trillion. That was all fast cycle, but you had massive decline rates in the first year. We spent 10 years building up this massive productive base and went from effectively zero to north of five million barrels a day, which means that 100% of the global increase in demand over the last decade was essentially met by shale.

Potti: Sorry, Robert, just to make sure I got it right: are you saying that OPEC, non-OPEC, everybody included, the entire incremental production over the last 10 years was entirely by the shale producers in the US?

Mullin: Non-OPEC. You had a bit of an increase from OPEC, but non-OPEC effectively said, "We're done. We're just going to go to maintenance levels." They were not commissioning big projects. Even the super majors were all spending their money in shale. What we found is that the IRR on that \$750 billion, when you count up all the private equity funds, was zero. Effectively, there was no return during one of the greatest bull markets in history. What do you think is going to happen to capital allocation going forward? When you pitch an upstream story to the pension endowment world, they go, "No, sorry. We've been there. We've done it." They're still stinging. It takes them years to come back to the table after getting beaten that badly. The super majors have been big drivers, and they're getting pummeled by the public, courts, and their shareholders to spend less money producing oil and gas and more money on renewables and carbon capture. It's this remarkable pivot from double-digit to single-digit returns. However, that \$40 billion to \$45 billion quarterly overstates how much is being spent on oil and gas and things like that because it includes what people are spending on renewables and carbon capture. That's not just the traditional commodity. That's everything.

We've got this truly interesting dynamic where we can see non-OPEC stepping back and everybody else saying "Shale's got this." They stopped developing their pipeline. That was three, four, five, six years ago. The things that should be coming online right now to offset the production declines in Mexico, the North Sea, and places like that are not in the pipeline. The number of major field commissions has fallen by 65% or 70%. Even if they had been commissioned, the Exxons, Shells, Royal Dutches, and BPs are being told by their investors, "That's not where you should spend your money." It creates a remarkable fun umbrella that can have a lot of profit underneath it. You want to be in a sector where capital has fled. You don't want to be in a sector like renewables where capital is pouring and driving down the rates of return.

I think energy is a very interesting play here. There are fun niche metals with highly constrained supply and interesting demand. To me, tin is maybe one of the best stories. It's hard to express it via the equity world, but tin is a fantastic story. Platinum is now recovering as part of the PGMs complex. Palladium has been a wonderful story. Rhodium has been a spectacular story, almost keeping up with bitcoin over the last six or seven years, but no one pays attention to it. There are virtually zero Google searches for rhodium – it's me and maybe there or four other people. There are some fascinating opportunities in some of those niche metals.

Moving to the other end of the spectrum, of less interest to me are your classic steels and iron ores. Those can be fine markets, but the supply-demand doesn't seem as pinched as battery and EV metals, some of the specialty metals, rare earths, as well as most of the energy complex. Uranium is a tweener in there if you include the demand coming from physical buying of ETFs and companies using equity capital to effectively buy pounds of uranium, which tightens up the market in a bit of a circular reference. Uranium looks okay to me. It's the stocks that outperform the commodity, and now the stocks are issuing equity to help the commodity catch up with the stocks. I've got a little exposure there, but I'm not nearly as zealous on uranium as many of the other folks out there who focus more on the sector. To me, it's not quite as easy.

Potti: There's a lot to dig into in that particular answer. My understanding is that energy is first in the pecking order for you. Just curious, if an OPEC country like Saudi Arabia wanted to increase production by a million barrels per day, how long does it generally take for them to bring that on stream?

Mullin: They still have some excess capacity within OPEC. Saudi sits now with maybe a couple million barrels. There's not a lot outside Saudi. Then you've got Iraq and Iran, which are very constrained, not a lot of capacity there. The Saudis have got some fields that can add incremental capacity, but it would take three to five years. An interesting little tidbit is that the rig count in the Middle East has grown faster than in any other place in the world over the last 10 years. It's because these great old giant fields, like Ghawar and some of the fields in Kuwait, are in decline. Behind the scenes, they've furiously brought on new production to offset the increased water and associated gas. They're now cutting into those old reservoirs they have.

I think OPEC has the ability to do that. The question is whether they want to. Going back five to seven years, OPEC was the gang that couldn't shoot straight, but the amount of discipline they have shown over the last five years in balancing markets and compliance with those cuts has been exemplary. Being able to bring Russia to the table has been a big deal. Even though Russia is technically producing below capacity, I don't think there's much there. The fields in most of Russia are tired and have been overproduced for a number of years.

There is capacity for the next couple of years, in my view. If you gradually bring back Iran, and Saudi can amp back up a million-million plus, you can meet that incremental demand for the world and keep a lid on oil prices somewhere in the \$60 to maybe \$75-\$80 WTI range. Once you move past that, the potential for significantly higher prices — because the lead times to be able to get even more OPEC or non-OPEC supply is simply too long. I don't think we could throw the same kind of capital at shale where we could get two million or three million barrels a day out of it because it would take another \$500 billion, and I don't know who's going to allocate it.

Potti: I like the way you painted the thesis for energy. It looks like it's a generational contrarian opportunity because, on the one hand, you're coming off a terrible period of exceptionally poor capital allocation in what was one of the best bull markets ever. Then you have the whole ESG thing happening where they are even more incentivized not to invest more in in the business. That sounds really interesting.

Let's now go diametrically opposite to electric vehicles. What do you think is the best way to play that trend? As you mentioned, copper supply takes anywhere from seven to 15 years to come on stream. It's used in pretty much everything in renewables and electric vehicles. At least in my opinion, some of them can be a mirage. For example, cobalt is used quite commonly in many batteries today, but in my understanding, 50% to 70% of cobalt comes from Congo. That's too much reliance for the entire world on one country. We don't know what the laws and governance are in that country. There is a high probability that it might be engineered out to some more prevalent metal. Which metals do you think cannot be replaced? What does the supply dynamic look like in terms of how long it takes for supply to come?

Mullin: You've got a couple of highly interesting questions wrapped up in there, one of which is what's a realistic view of what EV and renewables penetration looks like and what the demand will be for the materials there. How best do investors try to make money off of that? I'll start with the second one, and then I'll share what I deem an interesting statistic. Somewhere in the mid-first quarter, January/February, I went and looked at the combined market cap of the entire renewables sector as defined by Bloomberg. It's 635 companies, wind and solar-related and some battery tech in there, but no EVs — it didn't include Tesla. The market cap of those 635 companies was close to \$750 billion. If

you looked at the other side of the balance sheet, there was also about \$150 billion in debt, so almost \$900 billion enterprise value. The cumulative earnings of those 635 companies with \$900 billion of enterprise value were \$5 billion, so they were trading at roughly 160x, 200x if you do it on the equity cap.

Now, the flipside is that if you believe renewables will grow, which I do, and if you believe that wind and solar will take increasing share of the marginal electricity generation, which I also do, you can buy the companies that make the copper, silicon, manganese, and cobalt, which is part of the story as much as I think it's distasteful to invest in the Congo. If you're going to make widescale, low-cost EVs, cobalt is going to be part of the equation for a while. If you take out cobalt, then you've got a nickel problem because you have to dramatically increase the amount of nickel you have. All of these things will be important. The rare earth minerals are all going to be extremely important as well.

We've just gone through a political season that was effectively a bidding war where different candidates competed on who could promise energy independence, a low-carbon future, and EVs the fastest. "I swear by 2040. No, no, no, I say 2035." None of that had any basis in fact, economics, logistics, and physical constraints. When we truly look at these things, it's an enormous challenge to make this energy transition. Throwing random targets out there might be inspirational and aspirational, but it's exceptionally hard to make an investment case that can go even close to that fast. You had the head of Toyota come out and say, "I know, the Japanese government has said we want to have this many EVs by 2025, but do you realize we'll run out of battery materials by 2023 if we build at that pace?"

The same thing happened in the UK. The government said, "We've got these great 2040 mandates, and for that, we want to make sure we're 100% EV sales by 2030." I think it was the head of earth sciences at the British National Museum who raised his hand in the back of the room and said, "Just so you know, to do that, the UK, which represents 1% of global population, would consume 100% of every year's annual growth in copper. Then we'd consume 300% of the growth in lithium, and 500% of the annual growth in rare earths." In other words, there's a wild disconnect between the anticipation of how fast this will come and the equity of opportunity that lies there. Taking this back to how you invest in it from an equity standpoint, you've got almost \$1 trillion worth of enterprise value, with \$5 billion in earnings. I've got a single palladium and platinum-producing company with a \$12 billion market cap that produces \$5 billion in earnings. If you believe that hydrogen or all these things need to have platinum, and that you need to continue to have auto catalysts because you still have a lot of cars on the road, we can go from 5 million EVs to 150 million EVs over the next 10 years.

It's huge growth, but you're still going to see internal combustion engine cars go from about 1.2 billion to probably 1.5 billion. There will be more internal combustion engine cars on the road in 15 or 20 years than there are today. It's just math. You cannot transition that fast. We don't have the money, and we don't have the materials. From that standpoint, I think the way to play it is the companies that are deeply involved with the materials necessary for EVs to grow. They won't grow as fast as people expect they will, but that doesn't matter. They're going to grow fast enough and within the constraints of those individual markets, and the price of these raw materials will be the regulator on it.

Potti: As a follow-up on that, how long does it take for a material supply of some of these metals – nickel, lithium, cobalt, palladium, platinum, rhodium – to come on stream once a new field is discovered?

Mullin: Once you hit go, it varies by jurisdiction, but if you are in a good jurisdiction, after you make a discovery, it takes between two and five years to fully drill out, run an economic study, preliminary and final, go out and raise the capital to build it. Maybe that's not a big deal for Rio Tinto, and it can get it done. For these big projects, it's typically three to five years of construction. From start to finish,

and if you really hustle, we're talking maybe a decade for big projects.

Potti: Wow! Is this for all those metals?

Mullin: Yes, this is for all those metals. Lithium is a bit easier because you can do pond evaporation. Some of the biggest copper/gold projects were drilled out when I was working at Franklin Templeton 15 or 20 years ago, and they still haven't come because they're in the wrong place. People have their vacation homes close by, and they don't want the top of the mountain cut off. Even when the metal is there, it's hard to get out. Sometimes even when you build the mine and start to get it out, you have these countries that then say, "We're now going to tax you more for it." That's what we're seeing in Chile and Peru right now in the copper mines. It's a really hard business. The CEOs have been beaten into submission on capital discipline, and it's going to take a lot for them to break that discipline. The market will have to show them that they do want the growth, and the only way to do that is by allocating capital and running the stocks up.

Potti: Each style of investing has a favorite pattern. The Buffett-Munger style looks for great brands with pricing power and huge moats. Given your experience over the last 25 years, what does the dream investment look like in natural resources? That would be great to hear. It would be even better if you could give an example as well.

Mullin: I'll do it on a macro level for what I'm looking at for a specific commodity, and then I'll give a company-specific allocation because it's different. When I look at commodities, I think tin is in a setup where you have a relatively niche market with robust and growing demand, very inelastic. There aren't many things that can do what tin does in soldering for semiconductors. The only thing you can replace it with is lead, which is now a distinctly non-ESG metal, so it's not a good choice. You need to have a market that's been misunderstood for a long time and out of favor because the dynamics of that market are really interesting. You have these massive alluvial clay deposits that were incredibly cheap and easy to develop in Indonesia, Malaysia, and similar areas. At one point, 60% of the global tin supply was from those two or three countries. That's shrunk to 1/3. You made up the difference by pulling down stockpiles. Some of these stockpiles dated back to the Cold War, when we stockpiled tin to make sure the US could develop the electronics that we did. We built a massive tin reserve back in the 1970s and 1980s, but we have been running it down ever since. The global tin council also built up a big reserve in the early 2000s.

So, you had this artificial suppression of prices that led nobody to do any exploration. Then all of a sudden, you've got Intel, Taiwan Semi and all these companies seeing massive \$15 billion new fabs going up all over the world. What are they going to glue them all together with? You need the tin. The other thing I really like is that there's about \$0.04 worth of tin in your iPhone. How much could tin go up before it impacts your decision to buy an iPhone? Tin could easily double or triple and no one would blink because the end products are too expensive. It's like uranium, the cost of uranium and nuclear reactors de minimis relative to the capital cost of building it. Those are elements I really like.

The cherry on top would be when you have very few ways to express it from an equity standpoint because the fewer number of vehicles you can express it in, the more likely that you're going to be in the one people truly feel like they need to be in. I can't discuss it because I'm involved in both of them right now, but anyone could look up on publicly traded tin producing companies, and there are like three. It's that shortage, whether it was LNG back in the late 1990s, or whenever you have a shortage of ways to play something with a great narrative around it, that's where I've always made the most money.

Let's shift to what I look for in a specific company. I'll look for energy. Full disclosure - I own this company. It is called Whitecap Resources, a Canadian oil and gas producer. If I were to build an

energy company from scratch, what would the perfect oil and gas-producing company look like? It would be in a safe jurisdiction, like Western Canada. It would have a big long-life, low-cost reserve base, so 10, 15, 20 years' worth of running room, and low production costs, so you make money even when prices are low and most people are losing money. It would also generate lots of free cash. One hugely important factor is a low decline rate. Shale companies were growing very quickly, but you bring a shale well online, and it's producing half of what it was initially a year later. You had a massive decline rate. If you're producing 100,000 barrels a day from shale oil wells, next year, you have to go out and find another 50,000 barrels a day of production to be able to offset that decline. If you only have a 20% decline rate or lower, your capital reinvestment needs are much lower. You are highly likely to be producing sustainable free cash. In the best of all worlds, it comes to a management team that says, "Okay, we'll use some of that for growth, some for optimization, and we'll return the rest of it to shareholders in the form of a dividend or distribution." This ticks all the boxes for us.

Also hugely important for me is companies that position themselves to be counter-cyclical acquirers of assets. I don't want to invest with guys who smoke their own supply at the top of a commodity market where they're buying crazy things and going, "Yeah, money is cheap." I want to invest with the guys who husband and shepherd capital extremely well, so when the inevitable wipeouts come, they go in, pick through the wreckage, and find the stuff they want. Grant Fagerheim has been the CEO of Whitecap for almost 20 years. He was the CFO of one of the first companies I invested in up in Canada. He's made three acquisitions in the last nine months in the aftermath of the COVID blowup, and that's exactly what you should be doing. They have all been wildly accretive, with all of those things I like – great unit economics, high free cash flow generation, and low decline rates that enable high capital efficiencies.

In the best of all worlds, you've got to kicker or two, something people aren't paying attention to. I think Whitecap has two of them. One is that it's done a great job of pivoting from a more gas company years ago to a more oil company now, but it has still got a lot of natural gas production. That's potentially a big benefit to Whitecap, something that sits there latent on the balance sheet, and nobody's paying for it. The other thing is that in an increasingly ESG-focused world, it happens to have what I think is the single best carbon capture project in all of traditional energy. Its Weyburn project makes it, as an entire company, a net carbon sequesterer. With all the production and growth the company has done, it's still a net carbon sequesterer, and it's got a stranglehold on this technology, which I think it'll be able to grow. It's not a wild growth business, but it will be able to grow that, in my opinion.

When the pensions, endowments, or money managers said, "I don't want any energy. Even if it's only 2% of the S&P, I don't want to any of it," it was fine while energy was underperforming. Now that it has outperformed the S&P by 50% in the last six months, they're probably looking around and saying, "Maybe I need to have a little, but if I'm still going to be ESG-cognizant, where can I buy an energy story where I can at least go in front of my investment committee and say this is the best carbon sequesterer?" Whitecap has been a good stock. At the trough in March, it was less than \$1. It's now a little over \$5. It trades at a modest premium to its group. Given how good it is, the quality of the returns, the quality of management, and the ESG story here, it is one of those that could potentially have significantly premium valuation relative to its group. Quite frankly, I think it deserves it.

Potti: That was great. If I were to generalize the things you listed for Whitecap, they might be applicable to pretty much all resource names. You talked about geography, meaning regulatorily safe to you, which limits risk. You talked about anti-fragility in the sense that the balance sheet is strong, and the company's capital allocation is counter-cyclical.

Mullin: That's a great term for it, by the way – anti-fragility is the perfect way to describe it.

Potti: You have that, and then you have great unit economics in terms of long-life, low-cost asset, backed by great operators and capital allocators. What I also love and look for in my investments is the optionality and triggers hidden in the balance sheet that nobody's paying or looking for. This definitely takes things by surprise. What I also loved in your framework was scarcity. It seems to be across everything you look for, situations where you have only one way to play that particular trend. This is the framework for all, and the best framework for all resource equities. Would you agree?

Mullin: It is, by far, what I have found the most success with. Many people address this market in different ways. There have been some good investors who have simply decided to buy the cheapest pound of copper or the cheapest barrel of oil and exploration companies. If the deposit is there and it's big, you're going to make 5x to 10x your money. What I have found is that if you are going to believe this is a cyclical business – of which I'm convinced – you need to have companies capable of surviving through those cycles. You would think that dividend-paying, highly profitable ones would not be the companies that are up the most in a good commodity price case. I've gotten a lot of pushback from potential investors who say, "Why don't I own all this hairball, marginally profitable stuff?" If you absolutely, 100% know that it's a straight line up into the right, go for it. Own those names.

I'm a huge believer that the underlying plumbing of the broader market of the financial system is as fragile now as it has ever been and that even if companies are well positioned, there are curveballs that lie ahead even if I'm a big commodity, as I am. The people who can truly take advantage of that are those who can buy when it's down. Those are companies producing cash and having the balance sheet flexibility to do something. That great exploration company is going to have to sell equity at the low or farm out half of the project to somebody else to make sure it can keep the lights on. In option parlance, you can build convexity in your option if you build anti-fragilely. On the flipside, you can lose convexity in what you think are the most convex names if your business isn't built, your balance sheet, isn't built sufficiently.

Potti: Agreed. In effect, anything that lets us sleep well at night. I mean, you can have fun with the marginal names in terms of the volatility, the ways it goes up and down. However, if you want to have a good night's sleep for a longish period of time, it's good to go for the strong balance sheet, income-generating names you've referred to.

Mullin: Not only is the volatility lower, but, quite honestly, the overall returns are better. That's before even the mental aspects of watching these stocks every day, and most people are. It's a hard business as it is. To have solvency risk as a real thing for more than three or four names in your portfolio seems like layering on too many levels of risk.

Potti: We've spoken a lot about the bull case, but two questions here. First, the biggest bias we have is commitment consistency endowment. Once we love something, we tend to love it more. Once we have expressed a view, we tend to find it difficult to change our mind. How do you ensure you don't fall in love with your thesis? In that context, when do you know to sell when the thesis is playing out?

Mullin: That's a great question and a hard one. Quite frankly, I have struggled with this over my career because frequently, the time to sell these is when the stocks feel like the business is going the best. That's maybe not a resource thing alone but a broader market thing. The truly interesting part of the environment right now is that there are so many different themes developing, and they are good. I could talk about shipping, which I find fascinating. For me, it's easier to sell names in this environment because there are so many exciting, different things – it's tin, it's platinum. There's so much good stuff that if you start to see a story is either not developing as you thought it was – it's disappointing expectations, either yours or the markets – or it's simply not doing as well as something else, it's time to be a little more dispassionate and move.

As I often say, you've just got to choose the fastest horse. It's hard to do. This is what I found for me, anyway. The more I talk about a name, the harder it is to sell because you feel like, "I've just pitched everybody on this. How can I simply sell it?" This is my full disclosure: if I find what I consider a significantly better stock tomorrow at a better valuation, I'm going to sell some Whitecap and buy some of that. It's hard to do, but after watching great profits turn into mediocre profits or even losses over 30-plus years of doing this, it's something you've got to train yourself to do although I don't mean to minimize the challenge it represents.

Potti: Are there any quantitative indicators applicable across the companies you look at, maybe the capex to depreciation ratio or profitability being at multiyear highs, that you consider when selling even though there is no other opportunity to relocate that capital? Is there a framework you use?

Mullin: There isn't because there's always so much specific variability to given assets. It's extremely hard to set targets without context for these things. For me, it's broader portfolio-driven. If a story is good and everyone seems to say so, if you're starting to see it get tons of Twitter hits, and people are throwing out #gottowintin, it's probably time to sell some. Fortunately, the advent of social media now gives us more ways to capture the manias and depression of the crowds. Tanker was going bonkers on Twitter in March/April of last year. That was the time we should have been selling the stocks. In September/October, nobody was talking about it, which was exactly the time to be buying it. Not to minimize the inherent challenges of this, but it helps to be intellectually curious and continue to look for new ideas, to find as many interesting facets as you can to be able to express those views.

Potti: In your research, you mention multiple times that we are at a 100-year low in terms of valuation of commodities and commodity stocks in relation to S&P and commodity prices in relation to S&P. There is one particular chart you've shared in your note as part of that discussion, and maybe you can talk us through its contents and how you see valuation in that context.

Mullin: I believe you're referring to the violin charts, which look at two different measures. One is a look at 50 years of commodities versus stocks, the GSCI Commodity Index versus the S&P 500. It examines how financial assets are positioned versus physical assets. It shows a pretty wide range - the ratio is somewhere between 0.4 or so and 1.4 for most of the last 50 years. Over that same period, the 50% confidence interval is between 0.7 and 0.9. That's where this measure has been for most of the last 50 years. The other chart is a valuation, how resource equities, energy, mining equities are valued against the S&P 500. This is a combination of measures such as book value, price-to-cash flow, and price-to-earnings. It's not my number - it belongs to the guys at Grantham, Mayo, & Van Otterloo (GMO). They are extremely talented managers in the resource space. Lucas White, who is the portfolio manager over there, is a truly gracious guy. I've talked to him about this measure a number of times. This measures how resource companies are valued versus the S&P 500. The range has been very high, but there has been very little between 9 and, say, 6. The majority of the time, this measure has been between 3 and 5 since at least 1926.

Where are we now? When I published this chart - I was going off Q3 2020 there - we were at levels that had effectively broken the bottom out of these charts. Before then, commodities, S&P, had never traded below 0.3, but in 2020, it did; it traded there the entire year and continues to trade there. The question is where you think commodities can rebound to. In this great inflationary/reflationary trade, it's a little easier to get this straight GSCI to S&P, but it's now back from a trough of about 0.8 to 0.9 to 0.16. We're still in uncharted territory. We've had this massive rally in commodities versus the S&P, and yet, we remain at a level that is lower than where we were for 50 out of the last 50 years before 2020. We've got a long way to go before commodities are truly reflecting a reflationary outlook if the measure by which you use that is how commodities are trading versus stocks.

In terms of the relative valuation, we also plumbed new lows. This measure had never traded below

about 0.8, and it went to 0.4. I don't know exactly what level we're back to, but if you think about the math on this, resource stocks have outperformed the S&P over the last six months, but their earnings have outperformed the S&P by even more. You can argue that the relative valuation is probably not too much off for very long.

Here's the math on this. If you think that commodities can get back to the lowest levels they ever were relative to the S&P 500 before 2000, you still think that they can roughly double versus the S&P. That's assuming the S&P is flat, commodity prices roughly double, oil's at \$120, copper is at \$70. That is what would get us back to the bottom end of that chart. If you run that through most companies' earnings statements, when you have commodity prices double, earnings typically go up somewhere between 3x and 5x. If it costs you \$40 to produce a barrel of oil, and oil goes from \$50 to \$100, you're not going to get that whole \$10 to \$60 move because you'll have increased taxes, and probably the costs go up, but you'll get probably \$10 or \$30 or more. What you typically see here is that if commodities double versus the S&P, earnings will go up 250% to maybe as much as 400%. Again, we're at the most discounted multiple we've ever had. We somehow managed to fall through the floor of 100 years' worth of valuation history. If all we do is get back up to that floor, you can have the multiples double as well. If you've got a double or tripling of earnings and a doubling of multiple, it's a lot of upside.

When I put together this chart, I said 3x to 5x upside. The person who had been my head of marketing 10 or 15 years ago is now working with me as advisor, and she's incredibly bright and financially savvy. She's picked hedge funds for the State of New York Pension. She said, "Are you saying with this chart that you think the stocks can go up 300% to 500%?" When I said yes, she replied, "You can't say that!" All of a sudden, your credibility is totally busted. However, it's just math. That's how oversold we got. That's what happens when energy goes from 13% of the S&P to 2%. I decided not to blow too many horns about this when I originally released it, but now that the stocks are up 30%, 50%, 60%, or maybe even 100% for some of them, it sounds a little more credible that this is the potential upside. It's a long way of saying that despite people talking about inflation, we are still nowhere near resource equities discounting an inflationary outcome.

Potti: This chart and your whole discussion on valuation were quite an eye opener and one of my many favorite pieces in your document. Connecting to this, historically, how long have the commodity cycles lasted? I know it's extremely difficult to predict such things, but how long do you think it will take for us to go back to at least the lowest of the mean level in the last 50 or 100 years? Do you have any idea on the time horizon?

Mullin: I can guess. Every time someone says inflation right now, typically, they also say transient or base effects, so there's a lot of expectation out there. They're probably right to some degree in that the largest inflationary pulses, at least on a year-on-year basis, are going to be in the next quarter or so. People will likely start to pivot around. I think there's reasonable upside in stocks. What will cause more upside is reaching that pulse, and then people start to come around to the potential vulnerability of their portfolios if inflation goes up from there and they start to position for it. Because if you believe that 2% or 1.5% is no longer the right number, even if you only think the right inflation number is 3.5% or 4%...Look, I am very cognizant of significantly deflationary forces that still exist in both the overhang debt and demographics, and I've written extensively about this. But you do see a lot of things turning that have the potential to run prices higher, not the least of which is the commodities going higher. I think CPI is not going to drive commodity prices higher; commodity prices are going to drive CPI.

The flipside is the balkanization of supply chains and the changing of globalization begin to reverse effectively, so you've got these major tides that are changing. That's a long way of saying that I think stocks can get closer to that floor over the next 6, 8, or 10 months to go significantly higher than that.

If we just got to the low end of the 50% confidence interval — The numbers on the stocks truly are silly, and I'm not even going to throw them out there right now, but the asymmetry in this sector is tremendous to that. I do believe it will take a sustained inflationary pulse that I'm not entirely sure we'll get in the next year or year and a half. The pressures for that are likely going to be much higher. If the stock market falls, we'll likely have another roll in of the Fed and other central banks. They have to go to the next step of helicopter money and loan guarantees and change the channel by which Fed stimulus gets to the end consumer, UBI and such. That is what I think takes you to the next level of inflation, where people can say, "All right, we're going to pay a more historically average multiple for these types of stocks."

Potti: At least for the next year, you expect them to go back to the lower end. After that, it depends on how one moves beyond COVID, the demand, and also the regulatory actions.

Mullin: Yes, and I think that's going to be the general case. That's even the case for the dirty commodities that people dislike. If investors come around and figure out that the main beneficiaries and moneymakers on the EV and renewable trends are the materials companies, those companies can go up many multiples because they have that scarcity thing. Then they become legitimate growth companies, and it becomes a huge narrative by which people feel like they need to allocate money, and they stop looking at valuation. They're included in passive indices and ETFs that are a more broad-based look at who really contributes to EV and renewable power, and then things could get marvelously silly.

Potti: Got it. So, you have energy and tankers, which are more cyclical trades, over the next two to four years. You also have potential EV materials and your PGM bucket, which could be long-term compounders as well.

Mullin: The only thing we haven't touched on, which is the other anchor to this, is gold. Gold has historically played a hugely interesting part in an inflationary environment and has the protection of capital and kind of an anti-bubble, so to speak. With bonds losing their power to provide that portfolio diversification, gold would have done a better job had crypto not crashed the party over the last six to nine months. The crypto narrative used to be the operating system and the transactions, but that narrative has evolved to one which is more about protection from fiat debasement, which is gold's court — it's the OG in that space. A lot of people who have been looking at crypto and have maybe invested in it may look at its volatility and say, "Perhaps I should put some gold in there, too. Maybe I should put some trust in the thing that has historically played that role for 2,000, 3,000, 4,000 years." You can do it in conjunction with crypto. It might be a brave new world, but just in case it's not, you might want to have the thing that's reliably done that for a few millennia.

Potti: As Taleb would say, the Lindy effect is in favor of gold quite strongly.

Mullin: Absolutely. When I came into the business in the 1990s, gold stocks had huge multiple premiums to the market. They were trading at 14x to 18x cash flow and 2.5x or 3x book value because they carried that optionality of protection from inflation, which is a much more recent memory for people back in the 1990s. Now, you probably have the best case for emerging inflation you've had in 25 or 30 years, and yet, gold equities are as cheaply valued as I have ever seen them. The compression of valuation has been extraordinary. Gold is the best free cash-generating sector in the entire market. At the same time, it's also the cheapest, so if there has ever been a wildly asymmetric way to play a higher gold price via gold equities, it is today. From that standpoint, it's like having these massive, long-duration, low-theta options on the gold price, many of which are paying dividends now. You've got a 3% or 5% positive carry on this massive long-life, anti-bubble call. To me, that's an enormously compelling story.

Potti: What is the free cash flow to market cap yield right now in gold equities?

Mullin: Across the entire industry, it's about 6%. I've got gold companies with 15% or 18% free cash flow yields. It's absurd.

Potti: That's crazy.

Mullin: They have 5% or 6% dividends, and they've got the ability to do 5% to 10% special dividends on top of that. There are people still building mines, so some of these guys are still cashflow negative, but there are some companies that have built wonderful assets counter-cyclically and have 12-15 years of inventory to work through, maybe even some additional projects to tack on for which they can pay with a portion of their free cash flow while paying you these great dividends. Typically, that part of the portfolio acts a little counter-cyclically to the energy and EV metals, as well as traditional energy and the shipping stocks. In the attempt to build the most robust and resilient portfolio of resource assets, that's the way I think of trying to group these asset classes or subsegments together.

Potti: Robert, gun to head: energy, EV metals, PGM, gold – how would you rank them for the next five years?

Mullin: I've got three kids, and you're asking me to pick a favorite. Quite honestly, it's extremely hard to say. I'm not sure I could pick one. If I were to say EV metals, I see less potential of downside there simply because there is now an undeniable political will to make this happen. Two years ago, I would have told you we'll never spend that much money to effectively build out what is a more expensive and less energy dense efficient system. Now, when the ability to spend has completely untethered from the revenues of a given entity, we'll probably spend the money, so we'll get there. It's not a risk game. That's probably the easiest one. From a contrarian standpoint, though, energy and gold both look great to me. Whenever I went to conferences, I would always look for the empty rooms. Unless you're looking at what to short, you don't want the standing room only, with people piling out the door. You want the one where it's just the analyst, three or four guys from the host company, and maybe one guy who's there for the food. That's the room I want to look at, and both energy and gold feel like that right now.

People are talking about it, but if you look at flows into ETFs, like the GLD or GLDJ or even the XOP in the energy space, it's not new money. We've covered a lot of shorts, and the more tactical money has come in, but the big money, the big pensions and endowments — Singer from Elliott Management is a guy who talks to the 100 biggest pensions in the world, and he said none of them are positioned for inflation. They don't change positioning in three to six months. They probably haven't even improved to meet with the managers they're thinking about allocating to that. The realization that real assets might be the new fixed income for portfolio balance hasn't played out at all.

Potti: I'm a huge fan of Elliot Asset Management and Mr. Singer. When was this particular story mentioned to you?

Mullin: He said that several times, probably first back in 2015 in one of his annual letters. That was when the pensions and endowments were still allocating to MLPs and these big slugs of private equity and energy. That was before energy had fallen from probably 6% or 7% of the S&P at that point down to 2%. If they were completely underexposed then, where are they now? In Jerome Powell speak, they haven't even thought about thinking about getting there.

Potti: In gold, we Indians have a big role to play in terms of demand. We will influence the price to some extent, wouldn't you say so?

Mullin: Yes, 100%. The physical demand in India is one of the main drivers of gold demand. Around that, you look at physical flows into the ETFs and financial flows that have been going in. Relatively recently, from 2016 to 2020, I was at Tocqueville Asset Management, and I got to work alongside John Hathaway and Doug Groh, who are the best managers in the gold space, in my opinion. They are brilliant communicators and exceptionally savvy analysts, with a network that is second to none. You learn a lot about gold sitting next to those guys. You cannot minimize the importance of the physical flows and the belief. If all of India decides that they want to give their daughters crypto for their dowries, then we might have some issues. You're in a better spot than me, but I don't really foresee that.

Potti: Not going to happen.

Mullin: If we think about how a global monetary system evolves from here, what do you think the central banks will be inclined to do - give power to an asset like crypto that they have no control over or perhaps revalue an asset they already have a ton of on their balance sheets? The major powers, the guys with the guns - US, China, and Russia - would be the biggest beneficiaries of a significant upward revision in the price of gold. That's a bull case for three or four years from now, but in the way that I think about allocating capital, it's yet another long-duration call option sort of opportunity set where it makes sense. You can't invest for that today, but the good news is we have a lot of great fundamental near-term factors that allow us to invest today very comfortably.

Potti: Allow me to finish with a question is on crypto. In a conversation on natural resources and commodities, we can't skip talking about that, so I wanted to hear your views on that space.

Mullin: It's way out of my realm of expertise. I've done a little work on the energy consumption side, so I think I'm relatively educated there. In terms of its store value, I'm not the guy to talk to. I know exceptionally smart people whose thought process I admire greatly that are on both sides of this argument, who are non-coiners and total hodlers. I worked closely with some of the forefront venture investors across the bitcoin blockchain architecture who have called this exactly right. I would leave it to somebody else to call crypto. I do believe gold has the potential to earn back some of its debasement cred here. I also think there's an extraordinary amount of bad information out there about the real energy footprint of bitcoin from both sides, some saying it's way more energy-intense, others saying it's all being fed by renewables. When a single coal mine gets flooded in China, and the hash rate goes down by 15%, you can't tell me that bitcoin is 85% or 90% renewable. You just can't.

I don't mean to say that bitcoin shouldn't survive or thrive or doesn't justify the use of that. It's simply a fact. The argument that it can be run purely on surplus renewable energy is theoretically interesting but utterly fanciful from an operational perspective, much like the goals we have for renewable energy. Again, it's an area I'll leave to much smarter people than me, but if it makes more people believe that we need to protect ourselves from the actions of reckless central banks, hopefully, they won't choose only one way to express that view. If you scratch under the surface of the resource space and find incredibly cheap valuations, I think it makes sense to have some of that, too, and for that, I like to think I'm your guy.

Potti: Thanks a lot for spending time with us, Robert. I really appreciate it.

Mullin: It's been a real pleasure. Thanks for your interest in what we've been doing. I didn't know MOI before you reached out to me, but I have now been digging into it. It looks like a fantastic organization for the circulating of great fundamental research, of which there's not enough in the world these days. I wish you all good luck, and I hope to be part of the community, perhaps even a contributor to it going forward.

Potti: One last thing. If people want to know more about your thought process, how do they go about doing that?

Mullin: I've got a website you can get on, mrafunds.com. I'm not a super frequent contributor to social media, but @mrafunds is my Twitter handle. I'm looking at scaling that up a little and being a bit more active, but you'll usually see me reach out on some topics once every other week. I typically do that whenever I release my quarterly updates for any big macro pieces. If people want to subscribe to what I'm doing, they can go to the website and get on my update list to receive my thoughts on a real-time quarterly basis.

Robert Mullin is a finance professional with nearly three decades of experience managing natural resource investment portfolios for individuals, family offices, and institutions. He serves as general partner and portfolio manager of Marathon Resource Advisors. Previously, he was a portfolio manager at Tocqueville Asset Management from 2016-2020. He served as a partner and portfolio manager at RAEIF from 2010-2016 and as general partner of Marathon Resource Investments from 1998-2012.