Chris Cole: Dragon portfolio revisited in the eye of the storm

April 16th 2020

Erik: Joining me now is Artemis Capital founder, Chris Cole, who regular listeners will recognize. Chris just recently was on the program, we had another interview just a few weeks ago. We've got a link to that in the Research Roundup and on our homepage on the description of today's interview. I highly encourage anyone who didn't listen to that interview to listen to it first, because today's interview is basically a follow-up.

Chris, for anyone who didn't have time to listen to that full first interview, let's just do a quick recap. The dragon portfolio is something you designed. Basically, it is the optimized portfolio to last 100 years. Tell us a quick review of what it is, what it's designed to do, what does it try to accomplish.

Chris: Absolutely. Well, I wrote a research paper that came out this January called the "Allegory of the Hawk and Serpent."

And I posed this question to the reader: Imagine you have the opportunity to grant your family great wealth and prosperity over 100 years, but it's subject to one final choice. You have to decide what assets to invest in, and maintain that allocation for an entire century.

And what I did is I went back and I tested various financial engineering strategies, portfolio allocation strategies – not over 10 years, not over 20 years, over 100 years.

And I looked at the combinations of different strategies and asset classes that not only performed the best through that 100-year time span but also performed well through every market cycle – periods of secular growth and periods of secular decline.

And what I found is that the average retail investor and average institutional investor are dangerously overexposed to periods of secular growth and equity-linked asset classes and are dangerously reliant on bonds as their only form of diversification.

And that if institutional or retail investors truly wanted to protect their wealth through any period – a period of secular growth or decline – what they needed to do is radically differ their asset allocation and pursue a portfolio that was approximately one-fifth equities, one-fifth US Treasury bonds or high-quality bonds, one-fifth gold, one-fifth trending commodities, and one-fifth active long volatility.

And that portfolio, which represents a combination of the hawk (which represents periods of secular decline or change) and the serpent (which represents periods of secular growth), is what I call the dragon portfolio.

And that portfolio quantitatively, mathematically, can be proven to outperform over a lifetime compared to almost any alternative. And it's all there in the paper – math, numbers, everything.

Erik: That paper that Chris just mentioned, listeners, you'll find it linked in your Research Roundup email, and I highly recommend that you read it.

Quick overview, one of the things that it reveals is that, although that 60/40 portfolio of stocks and bonds that the whole industry focuses on has worked for the last few decades, Chris's research reveals that it has worked just horribly badly longer term than that.

And there's a lot of reasons to think that there are secular changes in the economy where we should really be questioning it.

So let's go ahead and fast-forward to today. After that interview we did last time, Chris, one of the things that we discussed is that it's kind of an all-weather portfolio. It's designed to help investors ride out the bumps in the road as well as taking advantage of the positive periods of growth and prosperity.

Well, boy, we just had a really big bump in the road. In fact, we're still in the middle of it with the coronavirus crisis.

How have the hedging functions – which is primarily, I think, long volatility and also commodity trend and I suppose gold to some extent – how have those performed in your model portfolios? Are you up or down net on this crisis? Obviously a lot of stock investors are down very hard. How is the dragon portfolio performing in the midst of this coronavirus crisis?

Chris: Well, first of all I'd just like to say to everyone listening at home, I hope they're safe with their family and that everyone is doing well through this crisis – as well as one can do.

As far as the portfolio implementation, Artemis is a long-volatility hedge-fund manager. People should understand that we fill that role in the portfolio. But the hedging components of the dragon portfolio have performed really well.

And we've looked at the modern implementation of the dragon portfolio as being the S&P 500 Index of Treasury Bonds, the HFRX Macro CTA Index, the Eurekahedge CBOE Long Volatility Hedge Fund Index (which Artemis is a constituent of), and then, finally, gold.

A portfolio that is approximately one-fifth exposure to all those different asset classes is actually up 5% this year – this year being the first three months of the year – up 5% for the first quarter.

That compares to the classic 60/40 portfolio, which is down 9%, and a risk-parity portfolio, which is down approximately 14%.

So I think what we've clearly seen is what I've called the dragon portfolio, this portfolio that includes major allocations to things like gold, long volatility, and CTA, is actually up on the year, through this incredible period of turbulence.

Most of that hedging has come from the long-volatility component of the portfolio. The CBOE Long Volatility Hedge Fund Index was up about 25% in March alone. So long volatility, which for a long time many institutional investors have shunned as a strategy – that has been flat, negative over the last several years – suddenly has performed incredibly well during this period of market stress.

We've seen solid performance by bonds. But one of the things that has been interesting is that there were periods of time, particularly in March, where bonds and stocks sold off together as large risk-parity funds were delevering all at the same time.

And, very similar to the period of the 1930s, an over-reliance on bonds as a diversifier is highly problematic because what can happen is that at the zero bound you do not have as much convexity benefit on your bond portfolio as you would with rates at 6% or 8%.

One of the things that we talked about in the first interview is that for you to get the same non-linear benefit in a bond portfolio that you got in '08, rates would have to drop to negative 2%. And we are very, very close to the zero bound already. So that's very problematic.

People talk about this being a new thing. But it's not a new thing. We saw the same thing happen in the 1930s.

And that's what makes asset classes like long volatility, like CTAs in gold, incredibly valuable during these periods of secular decline. Because you need to find asset classes that are non-correlated to stocks and bonds and boldly size them in your portfolio.

And the investors that understood that and took steps to position their portfolio ahead of time are doing very well right now.

But the investors that sought excess return, correlated excess return, are discovering the difficult way that that does not perform in a period of secular decline. That extra 2-3% you're getting on private equity or that extra 2-3% you're getting by shorting volatility, that extra 2-3% you're getting by going to illiquid instruments that are equity-linked, that's not saving you if we enter into a multi-year period of secular decline.

And many, many people are going to learn that the hard way.

Erik: Chris, I think that's a really good point about secular decline. Because something that I'm seeing in this market is just about every is saying, okay, we're almost at peak infections. Okay, it's almost over. Light's at the end of the tunnel. Let's go baby, everything's back to normal. All-time highs in the stock market coming next.

I'm not sold on that.

First of all, I think this crisis may just be the pin that popped a proverbial bubble that had been growing for the last 10 years.

But also, I'm not at all persuaded that the crisis is over just because we're maybe at peak infections on the first wave. There's a lot more research that's come out just in the last few days talking about multiple paths that the virus can take – T-cell infections, secondary infections, relapses. There is a whole lot that maybe is not done and there's a whole lot of businesses that have failed.

So how are you looking at what might be on the horizon? Do you think that it's almost over and back to all-time highs? Or could we be looking at a multi-year bear market here?

Chris: Well, if you go back and you look at any bear market or depression, there are many periods of bear market rallies and false hopes.

I agree with your assessment that the coronavirus really is the spark that ignites a fire that becomes a recession or a depression. You had I had spoken earlier this year, even before the coronavirus had become a big problem, talking about how it appeared that we were at the top of a market cycle. And that it just needed a catalyst to push us over the edge into something like a recession.

Why would I say something like that?

You look at stats like corporate debt to GDP, all-time highs at 47% of GDP. (That was prior. Who knows where GDP is going to come in at now?) You look at valuations on where they were, just the incredible size of the corporate debt bubble and the incredible underfunding and lack of savings of both institutions and individual investors.

We have certainly come a long way in the longest bull market in American history. And that had been driven on cheap money and leverage.

And now we face this catalyst that is likely to challenge our ability to continue that level of prosperity without some sort of severe recession or depression.

If you look at the stock market right now, year-over-year it's unchanged. So if I go back to last

April, you haven't made or lost any money.

That's incredible, when you think about it. If you were to tell me a year ago that we were looking at 20% unemployment, record levels of jobless claims, blowouts in credit spreads at the greatest levels since 2008, and the stock market would be unchanged, that seems almost unbelievable.

There definitely seems to be a major disconnect between what's happening on Main Street and what's happening on Wall Street. Of course the Fed is largely behind that, the Fed backstopping the system the way they are.

But I think we are kidding ourselves to think that this is not over.

I'm not an epidemiologist, but studying the 1918 flu, there were three waves of that flu. The most deadly was the second wave. And even beyond, even if they come up with a vaccine for the coronavirus, they haven't come up with a vaccine for the historic levels of corporate debt and the default cycle that we are about to undergo with the level of unemployment and a change in consumer and business behavior.

And I think we're just kidding ourselves that we can escape that without (a) some sort of a default cycle and substantial declines in the stock market or (b) if the Fed decides to go full helicopter money, some sort of major default in fiat and explosion in the price of gold beyond where it is today.

And I think that's where we stand.

And this is ushering in what some might call the fourth turning or a period of secular decline where we go into a default or stagflationary cycle that's largely dependent on how policy makers respond to these economic problems.

That makes, with interest rates near the zero bound, it makes diversifying asset classes like long vol, CTAs, and gold even more important.

If we pursue a default cycle and we end up having – you look at the number of the lowest tranche investment grade, about $1 trillion to $1.5 trillion worth, that could potentially get downgraded and overwhelm the entire junk bond market – that's what the Fed is trying to backstop right now, shockingly so.

If we end up going into some sort of default cycle, naturally that flows through volatility.

If you look at high-yield OAS spreads to investment grade, or if you look at triple-C yields, they follow the VIX. So, naturally, equity volatility in many ways is a precursor and a brother in the risk to credit default and credit stress.

If they decide to go full MMT, print money, buy equities, if the Fed decides to buy equities, they decide to make the balance sheet legal tender, and we pursue some sort of a stagflationary environment, then it's asset classes like gold and commodity trending that are going to perform for your portfolio.

In either of these default scenarios, either the credit default scenario or the fiat default scenario, your bonds and your stocks get crushed either on a nominal or a real basis.

So it makes these alternative asset classes extremely important to the fiduciary that is not only looking to protect their portfolio but also prosper through this period of secular decline.

And what is scary is how our institutions – and by institutions, I mean state pension systems – are precariously underfunded and leveraged equity-linked products, will face solvency issues, absent just pure money printing.

Erik: Chris, it seems to me that if there is one major secular trend right now in financial markets, it's government intervention. Clearly, as you mentioned, we've seen the bailout of junk bonds by the Fed. Which, as far as I'm concerned, was both illegal and immoral.

But that didn't slow them down. They made up a story about how supposedly this SPV that puts the Treasury as an intermediary somehow turns a junk bond into a government bond.

I'm sure that you must have thought about this overarching trend of interventionism when you designed the dragon portfolio. So why don't you talk us through what the implications are?

Because, obviously, that kind of intervention tends to suppress stock volatility. But I suppose that in the process of doing so it's got to be helping gold and treasuries, because they're buying up all the assets.

Did you consider this new theme of interventionism in the design of the portfolio? And talk us through what some of the consequences are of that kind of intervention.

Chris: Yes, it's nothing new.

If you go back and you look at the 1930s for example, there were huge, huge rallies. By rallies, I mean over 100% rallies in periods of less than three months. When there were devaluations versus gold – I think in 1932 and then 1934 were the two years – there were huge, huge rallies.

And then obviously the Nixon shock, which was a form of devaluation, in '71.

These events represent a form of fiat devaluation. And obviously in those scenarios that's a form of volatility suppression. And in each of those scenarios, exposure to physical gold was extremely beneficial for the institutional portfolio.

In the ‘30s they made it illegal to own physical gold. But obviously, like in the 1970s, as you were losing money on a real basis in your stock portfolio and your bond portfolio, you were able to make 800% in physical gold.

Those periods also tend to be really good for vol, though.

I think one of the things people don’t realize is that in the 1930s vol carried positively between 1929 and 1942. And vol performed through the 1970s as well. So, in that sense, volatility as an asset class performs for long periods and periods of secular decline.

And you could also play volatility on different asset classes. We own, for example, call options on gold. And that’s something we actively play. Gold in the 1970s, volatility of gold, went all the way up to 80-100% compared to it’s been 12% for the last couple of years.

So you definitely can see volatility perform during periods like that. Although, if you’re looking to play fiat devaluation, obviously a large allocation of physical gold is incredibly important. And it’s just shocking that major institutions are not using that as a substantial asset class.

Obviously the third asset class there is commodity trend, which also performed very, very well over the 1930s and in the 1970s.

So I think, long story short, the playbook for the last 10 years – and, to be frank, the last 30 years – as rates have come down, globalization has expanded, taxes have come down. That has been 30 years.

I mean, over 90% of the gains in a classic stock/bond portfolio have come in the last three decades. It’s been incredible. We covered that in our first interview, just how recency bias is a systemic risk right now.

Well, the whole playbook for the last 30 years, which is lever bonds on the assumption that rates keep dropping, lever stocks and go try to seek excess return, correlated excess return, at any cost, by shorting volatility.

That playbook is now turning on its head.

And I believe over the next at least five years we’re in a framework that’s going to reward strategies that are long volatility, long autocorrelation, that seek to play or profit from fiat devaluation. And these are things like volatility gold and commodity trend.

And those are the things that have been protecting the institutional portfolio in the first quarter, for those who have been smart enough to have them.

Erik: Okay, Chris. As we go through all of the asset classes in the dragon portfolio, stocks and high-quality bonds our listeners understand those already.

Gold, we've done a lot of coverage on MacroVoices with other guests.

Trend following, we've got Niels Kaastrup-Larsen joining us for a cameo interview in today's post-game segment. So listeners stay tuned for that after this interview with Chris.

Let's zoom in now on the strategy that you actually manage a fund for for a living, Chris, which is long volatility. Now, I know for regulatory compliance reasons you are not at liberty to discuss your performance on the air. Suffice it to say, listeners, Chris's fund is up huge in March while all of the stock funds were down huge. So congratulations there.

Let's talk about what worked and what didn't work. You told us a bit about how you run this strategy in the last interview.

What went the way you expected it to? What went the way maybe that you didn't expect it to? What worked better and what worked worse than your expectations?

Chris: When you look at what happened in March, it really is a culmination of all the factors that were in a paper I wrote in 2017 called "Volatility and the Alchemy of Risk." It was a complete wipeout of the global short volatility trade.

And I think to watch it happen was really incredible – to see, largely, the number of investors having to delever all at the same time. And had the Fed not stepped in, we would have had multiple 1987s.

You had large risk-parity players obviously all rolling for the exit at the same time. And the exit was too small.

So I think the most shocking thing to me was the fact that we had these huge days where stocks were down, bonds were down, and gold was down all at the same time. And that was really because you had some very large risk-parity players deleveraging all at once. That was particularly interesting to watch.

When you are long volatility, most people think about vol as just where the VIX moves, where implied or realized vol moves. I think what people don't really understand is that volatility, the returns from volatility, can be decomposed into different segments.

There is the return from the vol itself, which reflects the jump in implied volatilities. There is the return in gamma. And gamma reflects the trend effect.

So when the market drops day after day after day, that's gamma. When we talk about these environments where people anticipate mean reversion and buy the dip, that's mean reversion or the opposite. But when you're long gamma, you're playing the dynamic for the market to drop day after day after day after day.

And we certainly saw that play out in a quite violent way. We saw huge up days and down days. That's something that's very emblematic of most financial crises. There were days where the S&P was rebounding upwards of 10% and additional days where the S&P was dropping 10%.

A lot of people would sit back and say why is the VIX staying elevated even though the S&P is up huge? Well, most people forget that when the S&P is moving 5-10% a day, that's implying volatility at a 60+ level.

So, really, volatility is agnostic to price direction. We don't necessarily need the market to go up or down; we need the market to move.

And so the way that you can get profit in vol is through that movement of the market. But then also through the autocorrelations or gamma effect with that trend.

The other thing when we own a portfolio of options, most of the world is short liquidity and you are long liquidity at that point in time, you can be a liquidity provider in that sense.

And, lastly, if you own options you are also long interest rates. That's not a factor that played out.

But the big driver of the performance, at least for us – most people think it's high vol. For us, it has a lot more to do with what I call the gamma effect, where the fact that the market is consistently down day after day after day in a brutal fashion. And that was a driver that I think would surprise people on how important that is for what, at least, Artemis does.

I think the most surprising thing to me was the ferocity of the rebound. That's been most surprising. I was fully expecting to retest lows, and that hasn't happened. And really since mid-March, we have seen the VIX trade at anywhere between a 10- to 50-point discount to realized volatility.

And that is one of the largest discounts to realized volatility, consistent discounts to realized volatility, in history.

So once the Fed stepped in, the market has fully embodied that and has been – actually, volatility has been consistently trading lower than where it's been realizing at the greatest degree in history, including '08. And the only way I can interpret that is that that is the market just truly believing with all conviction in the power of the Federal Reserve to backstop the entire system.

And so far, the results have been what they are. I can't dispute that it appears that they've been successful as volatility has come back down and credit spreads have come back in, I wonder at what cost.

I'm appalled at the moral hazard that these companies that were just months ago doing lavish share buybacks to enrich company ownership are now first in line for the largest bailout in the history of the world.

Not to mention that the very first firms that got bailed out were these mega hedge funds that were doing levered risk-parity trades and levered basis trades that were bailed out via the repo market so they could delever those trades without completely capsizing their firms.

So people talk about bailing out the pizza restaurant down the street or the small-business owner. They're getting the table scraps.

The guys who are first, who are dining at the buffet, are the mega hedge funds. They're getting huge liquidity handouts from the Fed so that they don't have to post losses on their levered basis trades and their levered risk-parity trades.

And then right after that are these big corporations that just previously were feasting on levered share buybacks are now being supported directly by the Federal Reserve. That impact is shocking, just shocking to me. And I'm not even going to say shocking. I think it's just quite sad.

And it makes me sad. It makes me sad. You almost feel like capitalism died in this last month. Maybe that's melodramatic, maybe not. Maybe that ages well, maybe it doesn't. I don't know. But something is wrong when it's happening this way.

But I think that explains some of the behavior that we see in vol, where vol is trading at this major discount to realized, as people who are buying vol or selling vol are just understanding the Fed is willing to do anything to prop up and bail out the people who don't need to be bailed out.

Erik: Well, Chris, I'm going to resist the temptation to take your cue there and go on the morality of these bailouts, because we'd be here for a long time. But I very much agree with you. It really is sad to see what's going on.

With respect to what price it might come at, I think the answer is going to be – and I'm not sure if it's sooner or later – but I think the answer has to be that eventually we finally make the shift into secular inflation.

The reason obviously being that if you pump this much money into the economy, it has to be inflationary. Especially as these new forms of stimulus are much more aimed at consumers and the real economy as opposed to the financial economy.

What would the implications be on the dragon portfolio if we did see a shift towards secular inflation in coming years?

Chris: I think we'd end up getting a replay of something like maybe the '70s would be an interesting replay of that. You know, you have a stagflation. And I think they have to go this way.

Because if you look at the average pension system, it's 70% funded. And that's assuming this fantasy 7.25% return that they're not going to get.

So if you use more realistic return assumptions going back 100 years, the average pension system is 50% funded and one-third of the state systems are under 30% funded. The state pension systems and retirement systems were insolvent before this crisis started.

So at the end of the day, one way that you bail out, say, pension systems is, well, you bail out the intermediaries, which are the mega hedge funds.

But I think at the end of the day, MMT and some sort of complete fiat devaluation has to be on the table. And they have to engineer some sort of inflation to trick the populace into not understanding that their savings are being destroyed. That will, in essence, limit the impact of the defaults in many of these programs.

So in that framework, if you look at something, if you can engineer inflation higher by money printing, well, naturally, a repeat of the 1970s would be kind of the proxy for that.

And everyone uses these terms like "hyperinflation." Well, it doesn't need to be hyperinflation. You know, 10-15% inflation a year. You get that for a couple of years, and any obligations are cut in half. So I think you need Weimar, Germany type of hyperinflation to accomplish the goal of getting rid of some of these liabilities.

But how do you protect your portfolio on that? Well, gold naturally performs really, really well in that environment. The 1970s saw a huge expansion in gold.

Volatility can do well. It does not do as well as commodity trend, which did exceptionally well in periods like the 1970s that played the explosion of different commodity prices.

Commodity trend hasn't done that well this year. I think that index is up maybe – as I'm looking at it, it's kind of flattish on the year right now, the index that I'm looking at. But I would expect if we went into that type of stagflationary environment, that is the component of the dragon portfolio that would really be saving people, along with long volatility and gold.

So if one is worried about that type of environment, those are the asset classes I think that are going to be vital.

Erik: Chris, that brings a question to mind, because I talked to Niels Kaastrup-Larsen, who runs the Top Traders Unplugged podcast, which is all about trend following. And he loved your last interview.

He asked me to ask you a question, though. Because the way that all of these trend-following guys got started 20-30 years ago was in commodity markets. And it's CTAs generally that run these commodity-trend-following strategies.

What he said, though, is he was very curious that you seemed to habitually use the phrase "commodity trend," which seems to imply trend following on commodities.

And he said most of the people in his industry – he works for a fund and I know they're up big in March so I'm not sure what's going on with the index, but at least the people that I know in the trend-following space are doing extremely well during this crisis. He said, really, you get a lot more diversification by chasing the futures trends. Not just in commodities but also in stock index futures and in bond index futures and interest rates and all of the other things that there are commodities futures contracts for.

So when you say "commodity trend," do you mean to imply specifically commodities? Or do you just mean computerized trend-following strategies?

Chris: I truly mean commodity trend. Because when I back-tested these strategies going all the way back – keep in mind, when I was writing the paper I was recreating many of these financial-engineering strategies going back 100 years. So when I recreated the commodity trend, I actually did that purely on a broad basket of commodities.

So when I say that in the paper, I mean it explicitly. That is not to say there is not tremendous value in trend-following approaches on other asset classes.

I think one of the things that people don't always realize is that trend on the S&P or trend on bonds is not the same thing as having exposure to bonds. It's a different – it can transform into a different asset class.

I fact, I talked earlier in the interview, we were talking about how one of the things that is a profit center for volatility is this idea of gamma. When you own an option, you own gamma.

What that means, in plain, simple, non-derivative-speak language, is that if you own gamma you own trend. You own the trend in that particular underlying. And that can be exploited in an options price through and are isolated through a Greek called gamma.

Well, you can recreate gamma. And that's what commodity-trend advisors do, on various different asset classes.

So I think the big thing that occurs in these periods of secular decline is that markets become autocorrelated. That's something that we've completely forgotten, what autocorrelation is in markets. Until we get a very painful reminder in a month like March.

Now, keep in mind when I mean trend I mean autocorrelation. I mean the fact that the market

– if yesterday was down, the market is more likely to be down today. And more likely to be down tomorrow. That's what a trending market is.

Between 1929, and really between the mid-'30s and the 1970s, equity markets were highly autocorrelated. There was a tremendous effect of trend in equity markets that existed. And that trend is amplified in periods where rates are rising.

So, to this effect, markets are more or less likely to follow whatever trend they are going, up or down.

The last 40 years, we've reached multi-decade lows in autocorrelations. Or another way of saying that is we've reached multi-decade highs in mean reversion.

So what that means is that, if yesterday was down, today is likely to be up. And you can plot this. It's actually in the "Allegory of the Hawk and Serpent" research paper.

So what's very interesting is that part of the reason of why there was a break in trend in equity markets is because rates have been dropping. And that's provided a buffer. You've had this Fed reaction response.

So to the effect that the Fed cannot flood the system with money either by cutting rates or by doing QE, or to the point where fiat becomes ungrounded, that results in inflation. And it results in a framework where equity prices tend to trend in one direction or the other.

So I think the key thing that commodity-trend advisors do – and this is a factor in vol – is trend. It's gamma. It's part of the same thing that vol managers profit from.

And what people fail to realize, what big institutional investors and retail investors fail to realize, is that the autocorrelation or trend effects in markets are secular. They exist in secular regimes.

And we are now exiting a period, presumably exiting, a period of ultra-high mean reversion that has lasted since the mid-'80s, late '70s, mid-'80s.

Markets were not always that way. So I definitely think there is a value to a diversity of underlying asset classes.

Although I would say this much: If one is truly looking for the best diversification against stagflation, you're going to want to find a CTA that does a lot of commodities. Because commodities are the thing – that is where you're going to see the biggest benefit from inflationary trends, more so than equity markets.

Erik: And what about some of these CTAs that use trend following to follow bonds? Because it would seem to me that in a stagflationary environment, bonds should exhibit some significant trends as well.

Chris: Certainly. I am not an expert on CTAs necessarily. I've replicated a CTA index. But we excluded the bond and the stock component of that and really focused just on the commodity component of that.

But there definitely is value in that. And definitely in a stagflationary environment, people should be able to play whatever trend persists in whatever asset class. But I think if we end up in sort of a dangerously inflationary environment, you tend to see that in commodity prices.

Erik: Chris, we're going to need to leave it there in the interest of time. Listeners, the "Allegory of the Hawk and Serpent" is the paper describing this whole dragon portfolio strategy. It's linked in your Research Roundup email.

Chris, we weren't able for regulatory compliance reasons to talk about the performance of your fund, as much as I would have liked to. For accredited investors who do want to see that information and see your tear sheet, how can they contact you or your firm in order to get that information?

Chris: Sure. If an investor is accredited, they can just go ahead and email us or visit our website. They can email us at info@artemiscm.com. But all that contact information is available on our website at artemiscm.com.

Erik: Well, Chris. Thanks again for another terrific interview. We look forward to getting you back in a few months for another update.

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