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Presentation by:

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P R O C E E D I N G S

MR. O'CARROLL: Okay, one minor correction. Capital Markets is in Richmond, Virginia. And, the reason I'm with, I was with a broker that was acquired by BB&T, which is headquartered three hours east of here, and hopefully, you saw a BB&T branch on the way from the airport to this place. But, they kept the capital markets operations in Richmond. My wife refused to go to New York when I left Reynolds. And, in hindsight, it was a very good move. Not to be in the trade tower, come the crash.

I have two hats. As a security analyst, I cover the publicly traded aluminum companies along with some of the other metals. And, then, sort of a original hat as a commodity economist and most of what I'm going to do today is with that hat on.

Okay. Going too fast. Okay. Well, okay, what I'm going to do is talk about what has happened, what has changed, and where we're headed for. If you see here, GDP growth for the last several quarters, you know, prior to the crash was quite sub-normal. In fact, if you look at the industrial economy, we have been in recession since the fall of 2000. I believe that when the official

arbiters of business cycles, National Bureau of Economic Research, get around to doing it, that this recession is going to be dated from September of 2000 and not September of 2001. This is a classic recession pattern. In industrial activity, we're down about five percent. And, unfortunately, we're not through with this process. We can see in the NAPM data that we saw yesterday at lunch. Again, if you carry this back over many business cycles, you would see this is classic recession activity. It's just that the guys who count GDP don't know quite what they're doing yet. And, because the shift in the kind of economy we're in. Again, we saw this yesterday.

_____ rates from the NAPM data was in positive territory by July, August, September. So, the story I was going to give you when Steve invited me was that, yes, we're in a little mini-recession, but it's over. That was clearly the situation prior to September eleventh, and that was the message I was going to bring. And, then we've got, but, let's step back into why were we in this mini-recession, and then we'll get to what's changed and go forward.

Number one driver of the economy in the last five

years has been over-investment in technology and telecom. We are at the stage today that eighty-five percent of all the optical fiber that was laid in the last five years is unused. There is no demand. And, just ask Nortel and Cisco and Quest and Corning and they went through classic boom followed by a bust. Truck trailer[?] would have a different kind of imbalance. Regulatory reasons drove trucks and trailer activity way up and then the correction, we had a downshift in consumer spending. Major inventory correction in the last twelve months, and then tight monetary policy.

The famous NASDAQ. I left Reynolds and joined the firm ninety-seven. And, then, for ninety-eight, ninety-nine, and two thousand, my colleagues in security analysis kept asking, why in the world would anybody ever put money in an aluminum stock when, obviously, all you have to do is by the next tech IPO, and you'll make a gazillion dollars by Tuesday. And, so, you know, the boom, and we knew the top was in NASDAQ when two of the best investors in history made shifts. One Julian Robinson at Tiger Fund folded his hedge fund because he was a classic value investor. He says, I don't understand

this game. I'm just folding my tent. I've just been losing my shareholders' money. I'm not going to do it anymore. The following two weeks after that, George Soros shifted all of their money in quantum fund into tech. That was the last value investor with money to shift in the tech, and that's what caused the last spike. After you got all the money out there, the game's over. And, then, we started getting more and more evidence of the lack of performance, the over-capacity and, bing, we're back where we started on the NASDAQ. Hopefully, none of you bought shares in those companies.

And, so, or you sold them all off the week before Soros put his money in.

What I've tried to do here is to look at the telecom and tech part of the economy. The green bar is the average annual growth rate from ninety to ninety-seven. So, that's the trend line. And, then the pink bar is the boom period. Telecom spending, we were growing at eight percent. All of a sudden, it took off to twenty-four percent. Average annual growth rate. Computer hardware, twenty-seven percent and it upshifted to forty-three percent. This was Y2K induced on top of everything

else. Software is pretty much -- although the kinds of software did a major shift. Lot of, you know, of Web programming, you know, the SAP, some of which took some companies down. And, I won't even tell you the horror stories from Reynolds of trying to implement business planning software.

Okay, the implication is since booms are always followed by busts, that the next two years, I think, we're going to take about three quarters to one percent of GDP underrun because of tech. That, because the money went in, we have this huge overcapacity all the way through that that investment is going to underrun the long-term trend substantially, and that's going to be major drag on the economy.

This is heavy and medium trucks. The issue here was you couldn't get a truck driver, and you couldn't get a truck driver by paying them higher wages because, guess what, the teamsters have national contract. Every truck driver makes the same thing that's unionized. So, how do you get a truck driver if you're at JB Hunt? You put him in new equipment. Bubba wants to be in a new freight liner. He will come and work, drive for you if you've got

a new freight liner, and so had the boom, and guess what? Freight liner was giving three year puts. They were offering to buy back the truck three years later at seventy-five percent of the initial value. And, so, when everyone had all new trucks, guess who has all the trucks in the country right now? On the back lot[line?] of freight liner has got more trucks that were produced last year.

But, I think, this looks like we're hitting bottom. Trailers. This is the cliff. That's, again, the issue here is regulatory. ABS systems had to be on the these trailers, so you had a huge boom. And, of course, we had the trailers follow trucks. Transportation people think that's a good pun. And then, we had trailers increasingly used in the GIT process as storage. There are a lot of trailers parked behind shopping centers as warehouse. All that came to an end, and, I mean, this is the largest drop in the trailer, history of the trailer industry. And, again, this is a bottoming process, and order rates are actually turning up. I mean, I think the worst is over, you know, for the trailer industry, but it's at a much lower level. And,

you can see the order rates you have turned up there.

Consumption patterns. The theoretical economists have spent a lot of time talking about the link between incomes and consumption, and there is, but those high NASDAQ stock price levels lead people to think they were wealthier than they turned out to be. And, so consumption was higher. If you had driven through Silicon Valley in 1999, you know, you would have thought that, you know, you were in Bavaria with all the beamers and Mercedes, you know, running around with an odd Lexus or Infinity. And, certainly, you wouldn't have seen an American car. You probably would have been thrown out of San Jose if you'd driven up in a Chevrolet. And, NASDAQ come down, and so now we're seeing the reverse of that.

I think that, so the consumption should be underrunning the long-term trend, but not by a lot.

Inventories, this is total inventories in manufacturing and trade in the economy. This is the quarter to quarter change. And, de-stocking has been major issue in the last year and a half in the US economy, and this is a large part of the manufacturing decline and a large part in the decline in the markets

for aluminum. It is, de-stock was serious. And, the good news is, I think it's pretty much over.

And, then, we had statements about irrational exuberance. Doctor Greenspan has been a major skeptic of the whole tech boom. And, of course, he was right. As he most the time is. And, so ratcheted[?], this is the federal funds target. Federal funds rate is the interest rate of bank reserves between banks overnight. This is the rate the Federal Reserve actually and literally controls. And this is the most important interest rate in the economy. So, you get these kind of increases, you are going to have an economic slowdown.

Tried to do here is say, okay, let's take the real funds rate. Federal funds rate less underlying inflation. And, so, ran it up very high, tight money. You slow the economy now. And, now, of course, we're driving fed funds towards zero. And, we're now in negative, you know, real Fed funds rate. This is extremely stimulative to the US economy. With a timeline[timelife?].

So, where were we if I was giving this presentation on September tenth? The economy had reached or was very near a bottom. The seven rate cuts of the

Federal Reserve plus the end of de-stocking was going to be enough to put a GDP growth forecast in Q4 in the one and a half, two percent kind of range. As opposed to I thought Q3 was going to be negative. I still think it, I think it will be. Q2 I think will be revised to slightly negative before it's all over. And, so, we had sort of a mini-recession and things were getting better.

Well, unfortunately, we did have September eleven events. We had the direct damage to the buildings, to the people. Consumer confidence, which is a major issue right now, business confidence, financial market reaction, and we are in full fledged garden variety recession today.

So, let's talk about that. This is the index of leading economic indicators saying things were getting better and the initial reading was down. Initial unemployment claims. This is recession, started down. This is a little longer time span of the federal funds rate, just to illustrate what's already happened. This is down to the two and a half level, which was the mood of October second. We have one or two more rate cuts ahead of us. Again, emphasizing, you know, we're down

here. We've got the same kind of stimulus now that we had in ninety-two to pull us out of that recession.

And, this is just illustrating that the impact of what we had in the past cycle.

The September consumer confidence data was down six percent. Roughly half of those surveys were filled out before the eleventh, and roughly half after the eleventh. So, that six percent, I think we can extrapolate down for the October data. Another six to ten percent. And, that's serious stuff. If we look at the, these bars are past recessions. Notice the extreme correlation with consumer confidence changes in the business cycle. I was trained in business cycle analysis by Jeffrey Moore. You know, when I came out of undergraduate school. And, so, all these charts were the basic methodology of the period. So, the key thing is what happens to consumer confidence from here? So, I think we're going lower in the October data, and that give us a hundred percent probability that the fourth quarter GDP will be down. My number's down 2.2 percent. But, economists use decimal points to show they have a sense of humor. So, they know the lack of precision of

forecast. In some ways, the worst thing to happen to the economic forecasting community was big econometric models with computers. Because, it gives you a number to seven decimal places that you know you're lucky if you get the first digit, you know, one versus two.

My undergraduate training was astrophysics. And, so, someone asked, you know, how did I compare economic forecasting with quantum dynamics, quantum mechanics. And, I said, well, quantum mechanics is easier. The answer does not change. Whereas, you're dealing with people and their response. Every cycle is somewhat different. But, the real key here is consumer confidence. How far down does it go? That's why the most important people in the country on this, George W. Bush, Rudy Guiliani, the public leaders coming forward and taking care of the problem. Making sure we don't get another plane blown out of the sky or the Hoover Dam or a power plant or whatever incident. That is critical. Because, if you get another incident, then we've got a serious problem. But, in terms of the forecasts, I'm assuming that September eleven is the major event, and we keep whatever else is going on under control, at least

for the time being.

Housing stocks has held up quite well, and I think is going to continue. Our fixed income people tell me that mortgage rates are in the sweet spot for refinancing for the first time in this entire cycle. Because, long-term rates have not come down very much in the last two years. You know, unlike short rates. Mortgage rates are driven by the ten-year Treasury rate. If you want to know what mortgage rates are doing, that's the only place you've got to look. And, so, households are going to refinance, re-establish their balance sheets, bring the - - and, that's going to free up a lot of cash flow. It's going to give a boost to housing starts, and provide a basis for spending when confidence turns up.

Automotive production fell off a cliff earlier. Rebounded. And, now the question is what's going to happen going forward? There is nothing more important from an economic market for aluminum than what happens on this chart. Well, in talking to the economic forecaster consultants that we use, talking to people at wards who track showroom traffic. Showroom traffic in the week after the crash was almost zero. It's been coming back,

you know, reasonably fast, and is now at seventy-five to eighty percent of the first half of September level. And, sales are starting to come back. Now, that's probably driven by those zero financing programs were which critical. But, if auto sales stay in reasonable size and keep production levels in this kind of arena, then aluminum is going to come out of this, you know, pretty well.

This is basically, this is total capital spending, but tech is _____ the problem. I mean, John Deere is not producing fewer tractors. It's the Ciscos and the Intels where all of the drop has been.

Conclusion, I think we're in a recession. There's no reason to think this recession is going to be any different in its internal dynamics, how long will it be, how deep will it be, than in the past. We've gone back and looked at consumer confidence in past tragedies. Everything from an Eisenhower heart attack to Nixon's resignation, to the Gulf War, and tried to say, okay, what kind of magnitude should we expect, based on history, and then build that in and what kind of recession should this give us? This recession looks a lot

like seventy-four, seventy-five. You had twelve months of small decline followed by two quarters of severe decline. So, I think the recession should bottom sometime in the first quarter. I'd say first half of the first quarter, which would put it average in terms of depth and length. In the second quarter, I think we're going to see a rebound that will be stronger than people think. And, the reason I think it will be stronger is there's no inventory out there. When people start buying things, there's nothing in the pipeline. So, somebody's got to produce it. And, then, the whole pipeline effect, you know, will be much larger than we've seen in past cycles.

The long-term growth trend, I think, is between three, three and a half percent. I'd lean towards three, but, you know, there's some evidence that it could be a bit higher. We have a head wind to subtract from technology and telecom. Inventory rebuilding is going to add one percent to GDP growth rates in that first four quarters of recovery. We'll get a kick from consumer spending and a major kick from government spending and tax cuts. We have forty billion dollars of stimulus that was approved right away, airlines helping New York,

helping the victims. Then we had, you know, the president outline major new tax cuts. The one thing I am very confident is defense spending will rise. The inventory of cruise missiles is pretty low. So, Raytheon might not be a bad stock to own. I don't follow it, so I don't know what percentage of the business is cruise missiles, and, by the way, that's about as much analysis as some byside investors put into it, as Travis knows. But, so, the defense build-up, which I think will be long-lasting. The, certainly the activities of this week and going forward over the next few months as the active campaign in Afghanistan continues, will be quite positive stimulus. And, then, you're going to have security spending, you're going to have acquisition of more cruise missiles, more lift. I mean, one reason why I think aerospace pessimism has been overdone is that, if you want to get a division of troops to Pakistan or Izbekistan, right now, you can't do it nearly as fast as you need. So, there is a plan in the Pentagon and, to acquire a number of 767's and I heard some rumors which I think are probably ridiculous of, you know, a hundred planes. But, that's going to be added in, and it will

take some time to produce those. I mean, that's why Boeing stock has gone up. You know, all those rumors of defense buying of those airplanes, plus those thirty planes in China.

So, when I put this together, I get a number around five percent GDP growth for that first four quarters. That's below the average recovery rate from recession of six percent.

And, so our forecast is down two two, up one four, and then five plus kind of numbers, you know, for the rest of the year.

On an annual basis, one eighth, and then we get five percent in 03.

There's been a lot of, the word recession in global economic terms gets thrown around. That does not mean that the world economy is going down. The definition is if you're under two and a half percent growth for global GDP, they call that a recession. 01 clearly qualifies. 02 barely qualifies. At least in the numbers we put together in trying to incorporate the numbers from forecasts for a lot of economies that I don't directly forecast from _____ and a lot of

other people. And, then four percent. Three and a half to four percent is the right growth rate long term, you know, for the global economy.

Okay, let's talk about aluminum. Domestic shipments peaked in early 2000. You know, I don't have to tell you guys this. But, fell sharply with some sign of some pick-up. This is the famous seasonally adjusted annual rate the economists like to do. But, definite sign of some pick-up from a horrible level. And, I think what all of this is about, manufacturing recession, inventory de-stocking, I mean, all of that bites back on your basic material producer. As we heard yesterday, just in time means my supplier owns inventory. And, so, this cut everything out. So, we're down roughly fifteen percent year to date. The numbers in the last quarter of 2000 were very low, so we'll get the, as financial analysts call them, we'll get good comparisons, so I think we're going to finish the year, you know, closer to ten percent down.

And, I'm looking forward, next year, with the recovery in the economy, you know, I think we'll be doing, you know, much better. Closer to a GDP kind of

thing. Order rates, again, very sharp fall off, and then this is a three month moving average because the data is so volatile month to month. And, again, this is all prior to September eleven. But, the foundation for improvement was really there. Again, the service centers are pretty much through de-stocking. You're already seeing it. Yeah, you were seeing it in your order books prior to the crash. And, as trailers and trucks and some of the other transportation markets begin to stabilize, order rates, while down a lot from where they were, the trend had turned up. I think you'll see a lot of confusion. Probably somewhat lower levels for the next couple of months, and then resume the uptrend.

The, you know, these are the bullets that basically cover the points. Let's talk about the global picture. This is western world definitions, which excludes Russia and China. And it's really a data limitation issue doing monthly data, how timely is data, which is why analysts do it this way. So, significant decline. But, also a significant decline in production. Now, this production was power, lack of power induced. The northwest that, you know, obviously, you know, we've

heard about Brazil, New Zealand, Tiwa Point is down, you know, Indonesia. And, as you read the trade press, there's speculation that there will be more of this. Again, this is, you know, lack of rainfall, lack of power. So, having _____ smelter capacity.

And, this is the US number, which is, you know, which is the north west. One of the most popular questions I get from investors is when are we going to see restarts? And, I says, well, the numbers as I put them in print time, after time, after time, some kind of metal price, fifteen hundred, sixteen hundred dollars a ton, and power below thirty melts[metals?]. Thirty metals or lower. You've got to have both of those and you don't have either today. And, I don't think you'll have either for a long time. Long being months, not _____ or quarters. So, early restarts I don't think happen.

And, there's also an issue of when will Bonneville be able to produce power themselves in a meaningful level above where they are today? And, again, that's a weather issue. When does it rain, how fast do the reservoirs build up, and that will tell you something about power

availability to northwest and therefore -- [tape changes sides].

-- and get, you know, forward numbers from _____ Columbia and they tell you a lot.

Okay, inventory has started to rise, but nowhere it was in the early nineties. This shortens the time period and shows you the extent. This is visible, you know, IPAI, _____ or IAI _____, plus LME stocks, and there are some strange things going on with LME inventories because two backward _____ this year, which sucks in the inventory onto the exchange that was previously unreported, and consignment programs have been in a lot of turmoil this year. Some of inruns difficulties. And, in day supply terms. This is a longer term view, and so, day supply really, at ninety-seven, ninety-eight kind of levels, and, again nowhere near what we saw in the early nineties.

We're looking at global consumption, and this is true global, including Russia and China and, you know, everywhere that can be counted down 1.9 percent this year, followed by 3.1 percent. I've seen some other people's numbers in the last week and they're all, you

know, in this kind of range. You know, production down this year. You know, all the weather, you know, lack of water issues. And, you know, partly offset by the two big smelters coming on. _____ and Alma, you know, for part of the year. And, so, for 02, we get a small increase, because we get a full year, you know, of _____ and Alma, and they'll, and I think there are a couple of other things, small things being re-started. You know, Alcast are starting line one and having been in that plant a number of times, God knows why. You take your life in your hands walking down that pot line.

So, the inventory change implied by this, a hundred and sixty-one thousand tons, which is very small surplus, and then a relatively small deficit next year. And, so, the fifteen days of surplus year end inventory for 01 and then drawing down next year. So, I'm looking at pressures. I mean, but that's how I think in terms of physical supply demand and then what pressures, you know, might they exert on pricing and obviously, we're not going to lay out my forecast. If you want to see those, if you're not already a subscriber, I'll be glad to send you some things, some samples. And, actually, I have a

few packets out on the table in the lobby with my recent reports.

But, you can see what's happened to, historically to LME. Huge swings. And, if you overlay this, you would see fundamentals drive prices over a reasonable timeframe. All kinds of other things influence prices in the near term. All kind of technical conditions. So, I would look for downward pressure coming from lower consumption, in the near term, and then sometime next year, we'll see that tide turn. A better economy, higher consumption, whether it be US or globally, or we'll put the pressure on the other side. And, Ron will attack me if I use any numbers.

Again, this is a shorter term version on that and the important numbers, yeah, the telephone number and the Email number, if you want to contact me to ask me questions, you know, that you don't want to ask in public. Or, if you're really enlightened and would like to form a relationship. You know, for those who don't already do that. And, so, I mean, I'm here for questions, and we'll go through whatever we can talk about in this forum. Remember the economists moto, however. Often

wrong, but never in doubt.

MR. : What do you think happens if there is another incident?

MR. O'CARROLL: Depending on the nature of the incident, how serious people think. I think consumer confidence, you know, plunges further. And, it puts off the recovery for a significant period of time that, depending on the incident, it may mean weeks or it may mean quarters.

MR. : [Inaudible.]

MR. O'CARROLL: Depending on do we have, what is the impression of the public if you have a full incident is the FBI got them and therefore we don't have anything. Or, does the police force stumble on it and, my God, they caught this one, but what about the next one. So, the impression of how effective law enforcement is will be very important.

MR. : [Inaudible.]

MR. O'CARROLL: Yes. Okay. He's saying, that compared, this recession pattern to seventy-three, seventy-four, and wasn't real estate values an important part of that? I would say the most, yeah, the major

issues in seventy-three, seventy-four cycle were oil prices, inflation, and then major attempts to bring that under control with interest rates skyrocketing. Yes, real estate, particularly commercial real estate, was an important factor there. I don't think that's the case here. I've talked to our re-analyst who follows those markets. He says that, certainly, in Silicon Valley, Northern Virginia, 128, Boston, there is vacant space, and that's going to get worse. But, if you move outside of those high tech areas, there is not an oversupply of real estate.

MR. : Was the interest rate hike necessary that Greenspan implemented a while back?

MR. O'CARROLL: It was my view at the time, and still is my view, that three quarters of it was necessary, but the, you know, the problem the fed has, and economists looking at it, is that you take a monetary action. Historically, it's six to nine months. But, it might be wider, depending on other factors, before it bites on the economy. So, you tighten, you look. Well, nothing's happening. Well, you tighten some more. And, so, what that means is you tend to overdue it both ways.

So, you know, they overtightened. And, some people in the bond market are worried that they will overloosen this time and take rates too low. I don't think that's an issue. I think inflation is not going to rear its ugly head for a long time. I worry more about deflation. And, if you want to see what deflation does to an economy, look at Japan. And, one of the saws[?] I learned in graduate school, there has never been deflation without depression. Let's not talk about recessions. Depression is what you get when you have persistent deflation.

MR. : [Inaudible.]

MR. O'CARROLL: They made the most important change in their handling of monetary policy a couple of months ago. And, before they were trying to target interest rates. Now, they are targeting quantities of liquidity in the economy. Inflation was killed in the US when Paul Volker targeted quantities in the late eighties. Yeah, the late seventies and up through the eighties. We will see the same thing in Japan, but it's going to take time. Because, they are pouring liquidity in. You know, I'm not looking for anything significant in Japan for, you know, a year or so. But, it will have a powerful effect

down the road.

MR. : Okay. We appreciate the information. Thank
you very much.

[END OF PRESENTATIONS AS RECORDED]