The following transcript has been edited for clarity and ease of reading, without compromising the intended content of the webcast.

Bruce Kirsch

Good afternoon and welcome to Linneman Associates' Summer 2024 Capital Markets Webinar, presented by Linneman Associates and Real Estate Financial Modeling. This is your host Bruce Kirsch, founder and CEO of REFM, provider of financial analysis tools and training to the CRE business since 2009. We are pleased to have an insightful program for everyone today, which will be presented by Dr. Peter Linneman, founder and CEO of Linneman Associates, which for those of you who do not know, is a strategic and investment analysis advisory firm. Without any further ado, Peter, how are you doing as we round the corner into fall?

Peter Linneman

It is a gorgeous day here in Philadelphia. I am back from my amazing annual visit to our educational charity, SAM Elimu in Kenya. I also went to Poland and Lithuania on the way back, so I am now back and the real world and, like a lot of people, grinding away. Bruce, I think it is worth mentioning that our next session will be on November 7th instead of the three-month rhythm that we normally do. That will be two days after the election. We thought that would be useful timing to have a session while people are thinking about it but also, we will know a little bit about the outcome on the political front. We will do a format that we did a while ago that is more like a question-and-answer session than a presentation. We will cover all the topics and then some. Bruce will lead the way and we will ask for questions ahead of time so that if any of you have particular questions you would like addressed we will have more time to get to them rather than jamming them at the end of the normal presentation. It will be a change of pace.

Let us begin by asking the question everyone is asking: Is the economy slowing? The answer is of course! The main reason it is slowing is because it was growing quite rapidly for the last two years simply because it was recovering from the deepest lows since the Great Depression. We forget what life was like just four years ago. Four years ago, everybody was wearing masks, nobody was traveling, no one was going to ball games, etc. Of course, every day that has gone by since those unprecedented circumstances we have been recovering back to normal. As we get closer to normal, we get more normal growth. Normal growth is lower than the extraordinary growth coming out of the downturn. For example, job openings have fallen quite dramatically. Thank goodness they have fallen dramatically! It shows a normalization of the labor market. In fact, the job openings that currently exist are around what you would expect in a normal economy that is growing. That is just one example. Do not be fooled. Normal is where we want to be, and it is a lot better than being overheated or way below and trying to catch up. We are back to being close to normal.

On top of that, the Fed is needlessly slowing about 20% of the economy. In particular, it is slowing autos and housing. It is very bizarre when you think about it. The Fed is slowing housing production and consumption, which is the main pressure point in measured inflation. They are fighting inflation by reducing the supply of something that is massively undersupplied. That is why pricing is going up there. It is a completely crazy policy. Autos are also being slowed because about two-thirds of auto consumers borrow relatively short-term money, as well as a lot of floating money. Business profits are high but flat because the economy is growing but high interest payments on lines of credit are chewing that up. Manufacturing has been high but flat for two years. Regional banks are suffering because the interest rate is way too high. We will come back to that.

The economy is not quite normalized, but it is recognizably normalized. We still have gaps in real GDP, employment, and many other things. One thing that I point out to people is that recoveries generally last 6-8 years. This is not a mathematical certainty; it is merely an old man's observation. You can find exceptions that are shorter or longer. For example, the pre-COVID recovery was almost 10 years. The reason is that it generally takes 6-8 years of recovery for excesses and problems to build that cause a recession in an economy. I point out to you that we are only three years into a recovery. This is still a very young recovery. I think people lose sight of that. We are still not quite back to normal. I do not see where there is a big risk of recession even with a Fed that is grossly bent on trying to cause one.

Figure 1 shows real (inflation adjusted) GDP, which is still about 2.2% below trend. The red line shows where GDP was before COVID, and the aqua line shows what the simple trend from the 2010s would have had it at. We have come a long way and have had a great recovery.

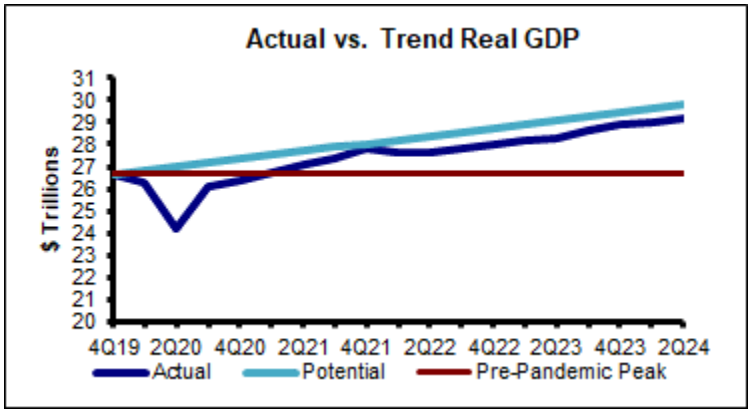


Figure 1

In the second and third quarters four years ago, people were saying we would never recover, and people would never travel again or go back to work. It was almost like we were going to become the people in Walle and sit around drinking sugary drinks and do nothing. Of course, what we saw is that people did come back. The world is the world. But we are still below potential GDP.

All I mean by potential is the simple trend, the kind of things that drive an economy day in and day out.

Figure 2 shows that we are about 3.3 million people or 1.5% below potential employment. This is consistent with where GDP is below trend. They kind of map, not surprisingly. Employment growth has slowed versus two years ago. Thank God! We are actually above where we were but we are still below where we would generally be given our population growth, etc. There is still room there for continued growth.

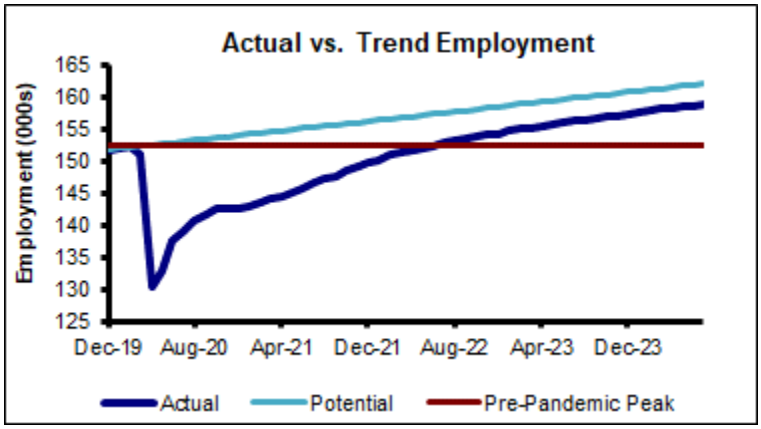


Figure 2

Figure 3 shows the percentage of industries adding workers. The red line shows 50%, so if it is above the line then more than 50% are adding. You can see that where we are at now is kind of normal. We got way above normal in 2021-early 2023. That is because so much had been shut down that a bunch of sectors that would not normally be adding jobs were adding jobs because they were shut down. Now we are getting back to a more normal situation. If you want a reminder of how strange this downturn was, remember that in a normal downturn Vegas occupancies fall by 4-5% when GDP falls 1-2%. Vegas was shut for about 9-10 months. It was not down 4-5%, it was shut. Orlando was not down 4-5%, which would have been normal in a normal downturn, it was shut. That is what we are coming back from. You have to remind yourself of that when interpreting the recovery. The goal is to look for normalization.

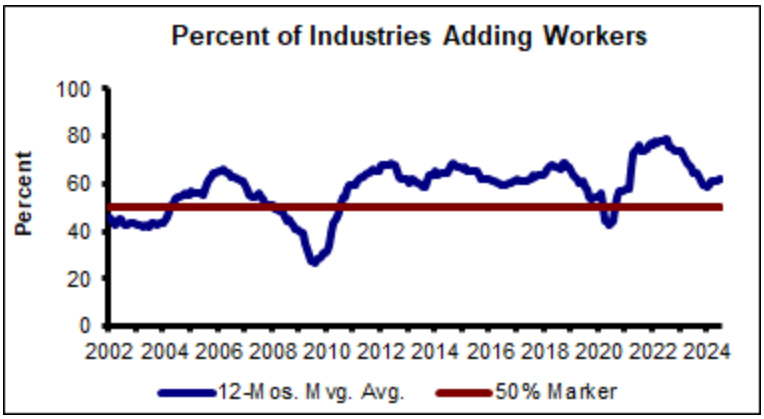


Figure 3

One thing that has not normalized is the labor force participation rate of people 65 and over, shown in Figure 4. I could use 60 and over or 62 and over and the chart would look the same, there is nothing magic about 65 per se. What happened was that this group was continuing to work ever more and ever longer into their lives. During the pandemic a notable chunk of them basically checked out and have not come back to the labor force. Every other age group in the population, immigrant or not, of all races and education levels, has come back to have labor force participation basically in line with before the pandemic except for this older group. Some of the older group died, or got stuck with long COVID, or said they do not want to go back to work after being off for two years. These are the missing workers. Some of them are unskilled, some of them are highly skilled, some are urban, some rural, but when you say where are the missing workers in Figure 2, this is the answer.

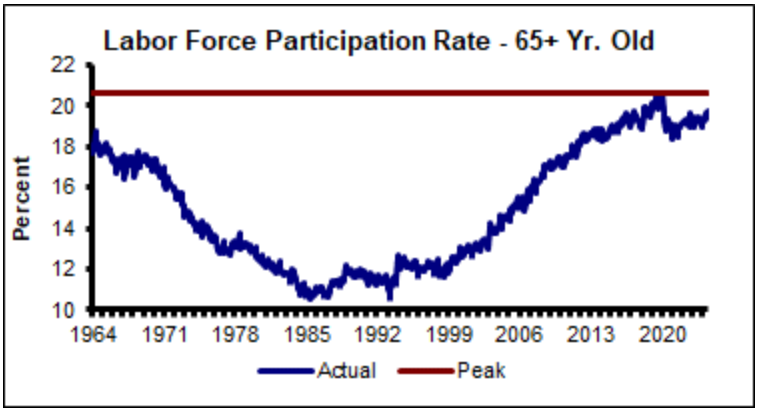


Figure 4

As a reminder, the Fed is only slowing about 20% of the economy with a focus on housing and autos. The reason the Fed's interest rate policy theoretically worked is that in a manufacturing economy, housing and autos were generally overheated when we had high growth. Therefore, when you raised the interest rate on those, they became less heated and it normalized the economy. This time was different. We had a shortage of housing, so it made things worse in terms of inflation, not better. Similarly, in terms of autos we could not go out to buy them in 2020. Just

as we could go out to buy them again, the supply chain made it impossible to buy due to lack of available supply. Just as we were starting to buy again, interest rates made it too expensive. It is a crazy policy. Those are the interest rate sensitive sectors.

What sectors are not interest rate sensitive? Government. We need teachers, policemen, firemen, etc. All of that activity is basically insensitive to the interest rate. That is about 35% of the economy. Medical care is about 18.5% of the economy. I jokingly say that nobody is saying "gee, I'm having a heart attack but I'm not going to go to the hospital until Powell cuts interest rates." Education is also interest rate insensitive. No one is waiting to send their kids to school until the interest rate falls. It is absurd. Adding in things like food and other staples, and we find that around 80% of the economy is not interest rate sensitive. That is a lot higher percentage than when I was born 73 years ago. We were much more of a manufacturing economy then, and government and the medical and service industries were a lot smaller. Education outlays were a much smaller part of the economy. Even over the course of my lifetime we have become much less interest rate sensitive. But there are sectors that are hurt.

One of the sectors that is interest rate sensitive is real estate development. As all of you know, most real estate development is funded using floating rate money. As that interest rate has gone up it has raised the cost, if you will, of capital notably and therefore cut off a lot of development. That is going to show up in 2025 and 2026 by causing a spike in apartment rentals. Right now, there is a surplus depending on the market, but if you shut down development and come back two or three years later, you are going to get a spike. I already mentioned auto. Probably around half of all credit card debt is nothing more than convenience. When you paid for dinner last night with your credit card you did not think of it as borrowing money. You will pay it off within the 21-day period, so it is not true debt, but it does get measured as debt. That is the main reason why credit card debt has gone up over time. It is not so much the profligacy of the consumer; it is the convenience of using credit cards.

Housing starts and auto sales are shown in Figure 5 normalized at 100 in 1976 so they can be shown on the same chart. This picture shows a really quick story, which is that housing (in blue) and auto sales (in red) pretty much lined up with one another until 2010. In 2010, they got a divorce. Auto sales recovered in 2011-2014 while housing stayed low. When housing did pick up there was a big gap between them and it was not until the end of the pandemic that the red and blue lines cointegrated again after a decade of not doing so.

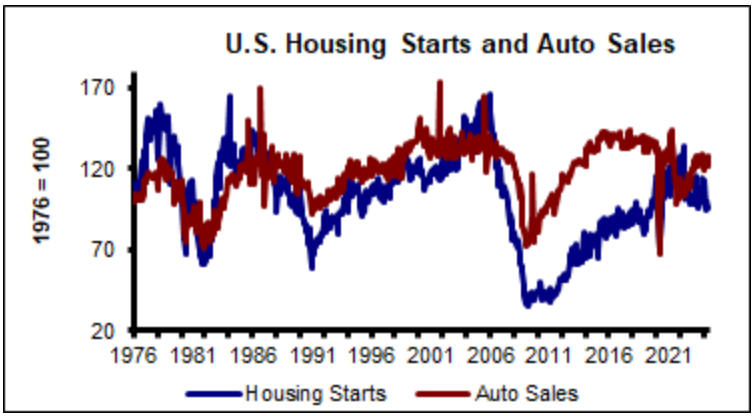


Figure 5

My view is that the reason housing did not recover is because in spite of an economic recovery, the Fed artificially kept the interest rate, on short-term, around zero. That robbed grandma as a safe saver on the income on her CDs. Grandma did not give the money that she otherwise could have to her grandkids for a down payment on their homes and that was a drag on the housing market. Grandma then died prematurely because of COVID and there was an early inheritance. Suddenly you saw down payments go up. Also, in 2020 and 2021 when there was nothing to buy people saved which increased the ability for down payments.

Housing and auto sales have joined once again and are more or less coincident. The bad news is that they are both too low from a fundamental point of view because of the interest rate effect. That will eliminate a lot of that gap in GDP. Most of that 2% gap comes from housing and auto under consumption for the last decade in the case of housing and the last four years in the case of autos. If we could get those two gaps back to long term normal, GDP would be caught up. But you are not going to get them back to normal as long as the interest rate is as high as it is. That is why the Fed is sitting in a very important position. More important than they realize.

Figure 6 shows real quarterly retail sales in brick stores as best as I can estimate. The red line shows the pre-pandemic high. Notice that there was a big drop during the early pandemic four years ago when people said no one is ever going to shop in a store again. I said that as soon as the stores opened again people would shop again, and that is what they did. You can see that real brick sales have been pretty flat for the last year, which means that nominal brick sales are rising around the same rate as inflation. Brick is a long way from dead. About five out of every six dollars sold are sold in brick outlets, not including autos. It is a little hard to perfectly measure but this gives you a picture.

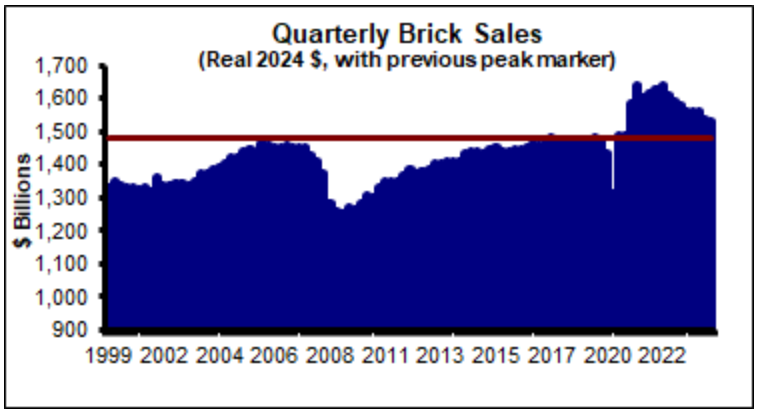


Figure 6

Figure 7 shows the percentage of total ecommerce retail sales as best as one can measure it. You can see that it spiked when no one could shop in shopping centers. When shopping centers opened the percent went back down. Again, you can see the normalization as it returns to trend. The red line is not the trend, but your eye would do that whether I put it in or not, so I put in the historic trend since 2009. It is going up again because of the intrinsic advantages of what can be done online.

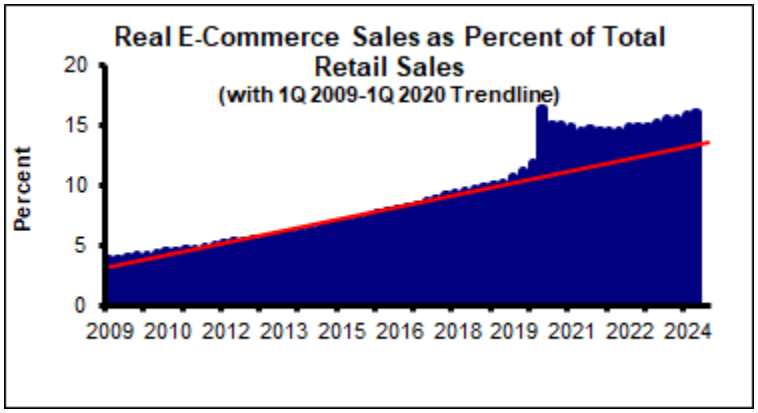


Figure 7

I always find it interesting how badly people misunderstand oil. Figure 8 shows the real West Texas crude oil price. The lowest occurred in early April 2020 when it was briefly negative. That is to say you had to pay someone to take oil off your hands. That was not true over the course of the month but it was down to $20 a barrel at that point. The high was back around 2008 at $180 and that is when people were saying it would be at $250. No, it is not.

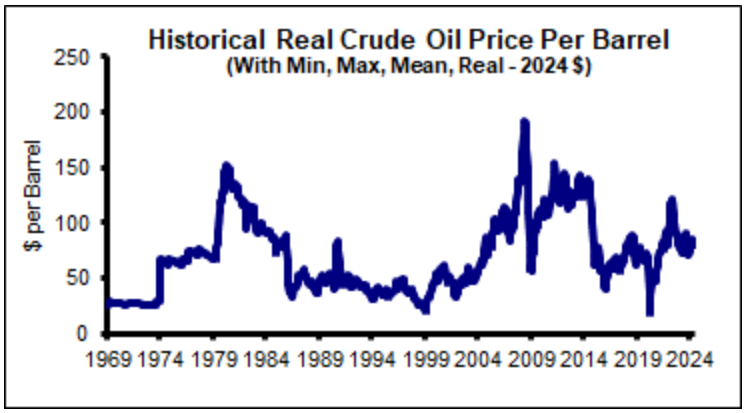


Figure 8

The extraction costs and breakeven point via fracking are around $40-45. If the breakeven point for fracking is around $40-45, there is a fundamental ceiling that is put on. There are temporary aberrations from geopolitical circumstances and OPEC, but the fundamental is dramatic. The red line shows the average since 1969 adjusted for inflation. We are very close to average right now. It is not high or low and it is very volatile, but it is around average. The economy functions pretty well with this oil price. Remember, the big change is that we are a net exporter of oil. We are energy independent. By the way, we are the largest producer of petroleum products in the world. We are the largest exporter of oil in the world. Not Saudi Arabia, not Russia, we are. That was not true 12 years ago.

A rise in oil prices does not help everyone in the U.S. economy, but it does help the U.S. economy. That is because the people who benefit from high oil prices gain more than the rest of us lose, but net net we gain from high oil prices. The Ukraine situation has been a net good for the U.S. economy. I talked about when the war broke out that the U.S. economy would benefit from it because of the energy, particularly natural gas but also oil, and secondly agricultural products. Both of them were agricultural exporters. Third is military equipment, we are the largest producer of military equipment. Those have actually boosted our economy. It is tragic, but true, that an unstable world has boosted our economy. It is not our fault; it just happens to be in our wheelhouse. Every time you hear someone say that oil prices are going to go to $12 or $180, stop reading the article. It would be a very temporary thing. If you are an oil trader, keep reading, but if you are a fundamental person, it does not matter.

Figure 9 shows the global supply chain pressure index that the New York Federal Reserve put together. This basically shows whether or not there is an excess demand or an excess supply across the economy. If it is below the line (zero), there is an excess supply. If it is above the line there is excess demand. Not in every industry, but you can imagine that if I told you to go out to measure a bunch of industries and average them up, you would see whether there was on average excess demand or supply. This chart shows how big that excess is in standard deviations. The simplest way to say it is that almost all the time the economy as a whole is within plus or

minus one standard deviation of balance. Which is to say pretty much up to measurement error the economy is balanced. Then, we suddenly shut down the economy which is the big area circled in red, and we got to four standard deviations of excess demand.

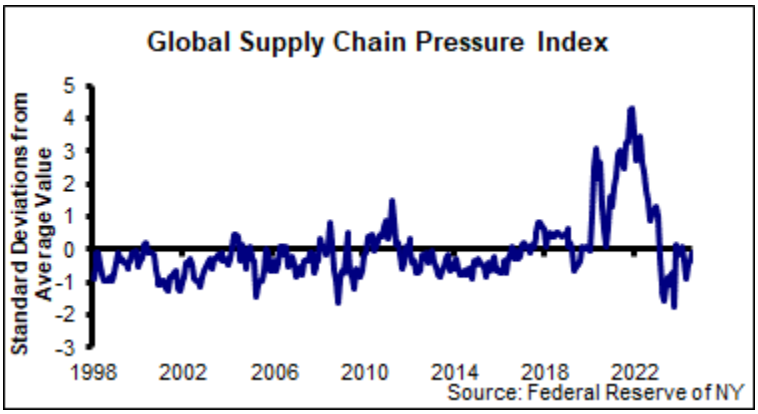


Figure 9

What happens when you get an economy that has four standard deviations of excess demand? First of all, this had never happened before and had nothing to do with monetary policy. It had to do with logistical situations, companies going out of business, workers not coming back to work fast enough, etc. When you get four standard deviations of excess demand, prices will rise. The beautiful thing about our system (it is not perfect) is that when you have that excess demand prices rise very fast. In fact, prices have risen in the economy by about 20% over the last three years. Not 20% per annum but over the last three years.

By the way, including wages, which are up about 23%. Net net, people are better off because they have 23% higher wages and only 20% higher prices. You can find people who have not kept up, but you can find plenty of people who have. Anyone on social security or welfare kept up with inflation and more. Do not let the newspaper article that says Mary Smith has not had a raise in four years fool you. It may be true that she has not had a raise in four years but it is not indicative of the economy. The 20% increase in prices created profits, and profits bring about new supply. And what did you see happen to the excess demand? It disappeared. Starting about a year and a half ago, we swung from a position of massive excess demand to a bit of excess supply. Gee, what happened to prices in the economy? Independent of anything the Fed did, you suddenly saw that inflation went down. The main source of inflation over the last year and a half above the Fed target is housing, and we will come back to that. Remember what I said about choking off supply actually bidding it up.

Figure 10 shows annualized monthly inflation going back about a year ago. Basically, what you can see is if you take out owner equivalent rent from the indexes (CPI and PCE) we have been down around 1% for the last several months. Even headline CPI has not risen for two months. If you look at what the index was two months ago and look at what it is today, you will see it has

not changed. That does not mean that no prices have changed, it just means that the basket has not changed. If you annualize a zero increase, it is a zero increase. That is with the mismeasurement of housing that I will discuss shortly. We are actually very possibly running a small deflation if you actually adjust these indexes in a sensible way.

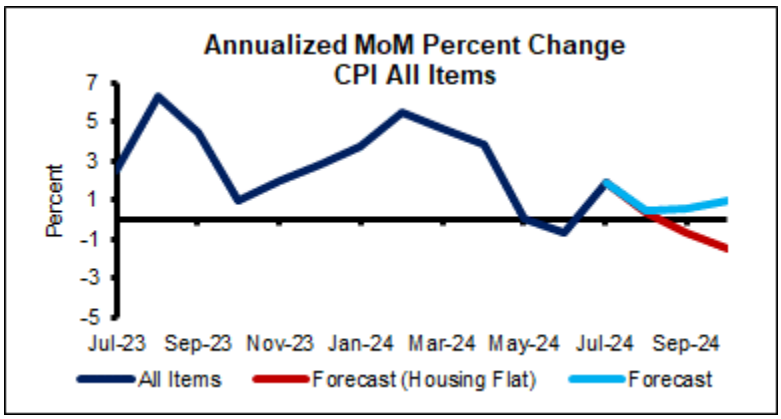


Figure 10

Over the last year, we have had 2.9% CPI inflation. By the way, it is about 2.1% for PCE. The main reason is it has a much lower weight for housing. CPI has about a third of everything being whatever happens to housing prices. PCE has it at about 18%. When housing prices are moving faster than everything else, CPI is higher. The annualized rate of housing inflation over the last year was 4.6%. Annualized inflation over that period was 1.8% without housing. The main reason that housing is high is because they have owners paying rent about 5% higher than they were paying a year ago. Those of you who are owners, are you paying 5% more in rent than a year ago? Of course you would say you do not pay anything in rent, because when you own your home you own the right not to pay rent. Two thirds of all households are owners, and only a third of households rent. They include rent for renters with a 6–7-month lag for strange reasons.

Over the last 30 years, net of housing, CPI has been 2.02%. If all you do is take out one item (owner equivalent rent) you get flat inflation over the last two months. That is, there has been no increase in CPI or PCE. Year-over-year there has been a 1.4% increase without owner equivalent rent. Everything that is happening to headline inflation is all about housing and is primarily due to this odd category of owner equivalent rent. CPI attributes 24% of everything that a household buys to something that no one has ever bought. PCE attributes 12% to the same thing, which no one has ever purchased. This is just obvious. In fact, Europe occasionally gets things right relative to us; they do not include anything for owners in their price indexes. The rationale is that they track the increase in home prices, because that is an asset. I track stock prices, bond prices, gold prices, bitcoin prices, etc. Those are assets, they are not consumer items. I am not saying that you should turn a blind eye to what is happening with home prices, I am

saying that you should not conflate it with consumer expenditure inflation. They are very different.

Figure 11 shows CPI all items less shelter going back to 1991. What you can see is that we are back to normal. The last year on this chart to the far right is, if anything, slightly lower than all the things to its left other than the explosion we just talked about during the shutdown. The whole read of inflation has been crazy. Probably real inflation, as experienced by real people paying for real things that they live on, is probably around 1.5%. None of these indexes are right, they are all wrong, just like what I just said is arbitrary. The headline will say yes, but the price of garbanzo beans is up 38%. Yes, you have 78,000 items. If you have 78,000 items that consumers could theoretically purchase, one of them is going to be up 38%. It is a small item. It makes a great story but it is not the average.

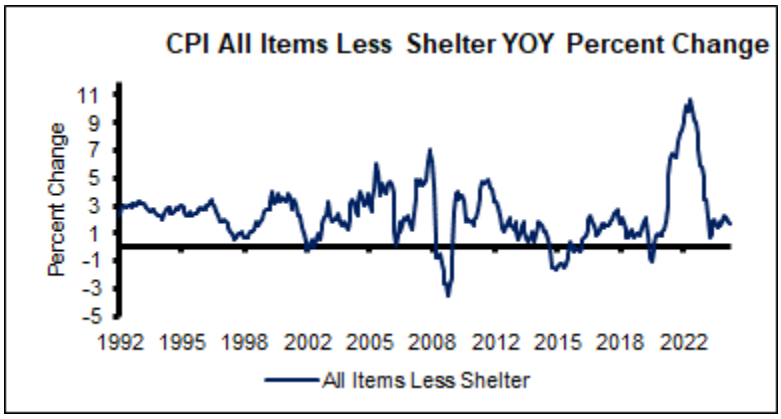


Figure 11

If you look at where Fed interest rates are at, they are just bizarre. Even if you take headline inflation with no adjustments for anything I have said and take the average of CPI and PCE year-over-year, you come out with around 2.4%. If inflation is 2.4%, why do you have the short-term safe interest rate 300 bps higher? That makes no sense from a capital markets perspective. Especially given that the economy is slow, and it is below trend and the sectors that are causing it to be below trend are the most affected sectors in this interest rate sensitivity sense. If you have a 1.5-2% interest rate and put a 150-bps premium on it, you get a 3.5% Fed funds rate, not 5.25-5.5%.

3-4 months ago, my friend Willy Walker and I talked about this, and I said we are going to get at least three cuts this year. Of course, no one believed that at the time. Right now, 75 bps is the consensus. Some are saying 100, I think there is a chance for that because they have so misplayed it. When the numbers started being more obvious, I sent Willy a note with a photo of me picking out shoes because he said if he was right he would kiss my feet. I have my shoes picked out for Willy. If you believe, as I do, that the inflation rate is probably closer to 1.5%, 150 bps over that would have the Fed funds rate at 3%. And 150 bps is a big spread. A 100-bps spread would have

a rate of 2.5%. If you have the long rate 200 bps above inflation, you should have around 3.5%, and 200 bps is a little higher than the modern spread. By modern I mean once the Soviet Union collapsed and China joined the world in terms of creating wealth and creating more demand for U.S. government bonds. People ask me where I think the interest rates will steady out. The short rate should come down to at least 3%. They are not going to do it over night. This is just price fixing. They are not going to admit they were that wrong. But 3% is probably where the short rate should be right now. And the long rate should probably be 3.4-3.5% and it should head down from there.

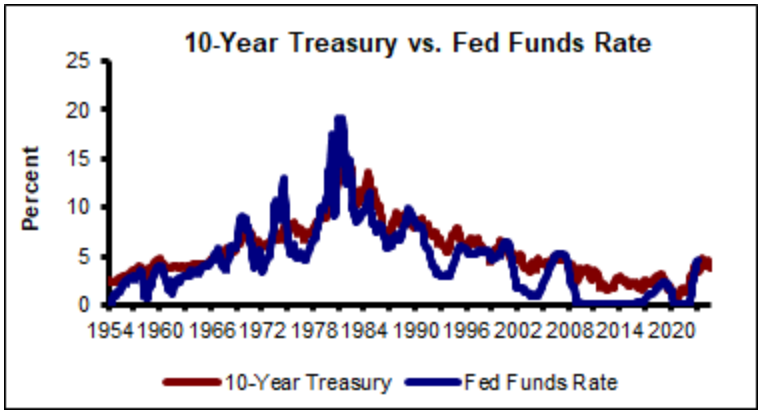


Figure 12

Figure 13 shows a template to work around what I just said using your own views for the asset you are buying of where the long-term cap rate should be. If I have a 2% inflation rate and I put 175 bps spread over that for the treasury, and I put in the normal risk premiums for, let us say apartments, I think you come out with a cap rate in the 4.3% range. It will be a little lower if it has higher growth potential, it will be higher if it is not as liquid. I just want to remind you that we have that template available to our subscribers. It gives you a basic framework.

Linneman Associates Cap Rate Calculators				
Standard Model			Gordon Perpetuity Model	
Exp. Inflation	2.00%		CRE Discount Rate	6.25%
10-Yr T Spread over Inflation	1.75%		less Exp. CF Growth Rate	-2.75%
Exp. 10-year Treasury Yield	3.75%		Exp. CF Cap Rate	3.50%
CRE Risk Premium	2.00%			
CRE Liquidity Premium	0.50%		CF as a Percent of NOI	80.0%
Exp. Total CRE Return	6.25%		Exp. NOI Cap Rate	4.38%
Exp. Inflation	2.00%			
CF Growth Spread over Inflation	0.75%			
Exp. CF Growth Rate	2.75%			
Exp. Total CRE Return	6.25%			
less Exp. CF Growth Rate	-2.75%			
Exp. CF Cap Rate	3.50%			
CF as a Percent of NOI	80.0%			
Exp. NOI Cap Rate	4.38%			
Source: Linneman Associates; Inputs in yellow – See Excel model				

Figure 13

By the way, my research shows that cap rates are not very sensitive to interest rates. Think of the seabed at a particular GPS coordinate. Obviously if the seabed eroded, it would be closer to the surface of the water. If you have accumulation, it would be less height to get to the top of the water. The seabed matters, and interest rates matter, but what really determines the height of the water at a given point in time is winds, storms, rains, and tides. These factors swamp movements that occur in the seabed. It is not that the seabed does not matter to the ultimate height of the water above the seabed at any given time, it is just that they get swamped by the flows and tides. Interest rates are the same. Of course, they matter but they get swamped at any moment by the floods, storms, and droughts of money. The tide has been out for the last 18-20 months. The nice thing is that the tide always comes back in. Storms of capital occur. When it does, cap rates will fall. It is very simple. It is not about interest rates; it is about whether money flows.

We still have a modest shortfall of multifamily housing starts nationally, shown in Figure 13. The shortfall stands around 357,000 units out of a 47-million-unit base, so it is not huge, but it is notable in a few submarkets. By and large it is not terrible.

On the other hand, Figure 14 shows the shortfall in single-family starts at around 3.5 million out of around 100 million single-family units. That is for something that people really want. It is not for bubblegum. If we had a 3.5% shortage on bubblegum, we would not see a huge pressure on bubblegum. There would be some pressure, but there are a lot of alternatives. People really want housing. We know that because we see how much of people's income they will spend in New York or California or Tokyo if they have to. It is not like people want to spend 18% of their income, but they will spend what they have to spend.

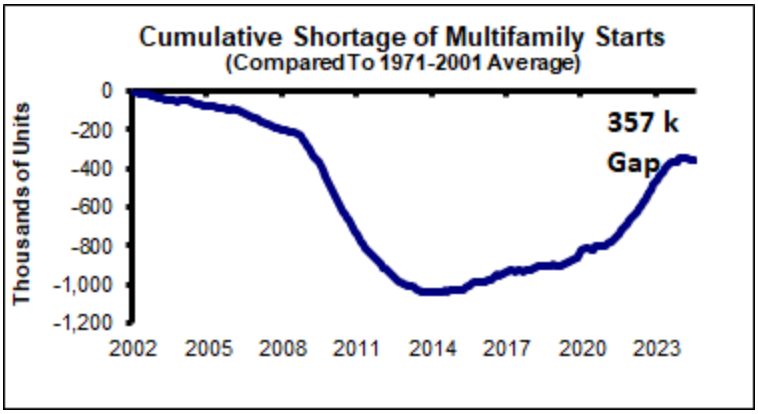


Figure 14

We have a fundamental shortage of single-family housing. That is why home prices are rising faster than overall inflation. That will continue until we start eliminating this, which is almost impossible. Think about it. Imagine you walk into your community, that normally produces 1.1 million units, but this year you are going to do 4.5 million units to get rid of the shortfall. There is no way you would get approvals. If you could make progress of 5-10% of this shortfall per year, it would be enormous progress, yet you would still have a shortage over a decade. This is great news for apartments. Interestingly, it is good news for home builders in that they get the demand push from price but their buy ins are low.

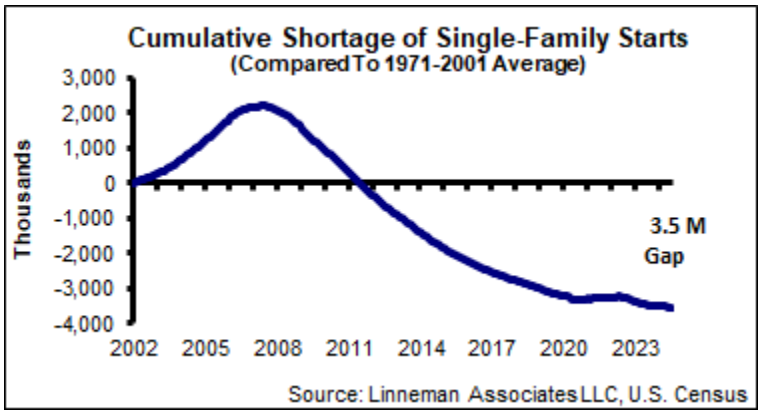


Figure 15

Let us take a quick trip around the property sectors. Office vacancy rates, shown in Figure 16, are up but are probably stabilizing. It is not the same everywhere. Interestingly, when you go to other places around the world people are much more back to the office than we are here. Yes, none of the places I know of are back as much as they were pre-COVID, but we are the world laggard in terms of being back. As labor markets adjust and normalize you will see more people going back to the office. My friend Jeff Blau once described the situation as on Monday, half the people are in. Tuesday-Thursday is pretty normal, and Friday is a national holiday. That is not exactly accurate but it summarizes the situation. It does appear to be showing some stabilization.

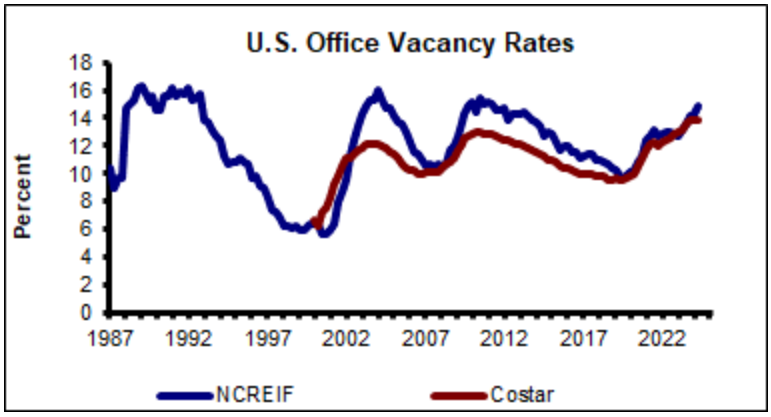


Figure 16

Industrial vacancy rates (Figure 17) are low. They have ticked up, particularly for commodity spaces. CoStar numbers have ticked up more than NCREIF, which is more institutional, but by historic standards, both are still quite low. This is because online sales are growing, and online sales use a lot more storage space than traditional retail because of handling and wider aisles, etc. This sector still has pretty good strength from a rent and occupancy point of view.

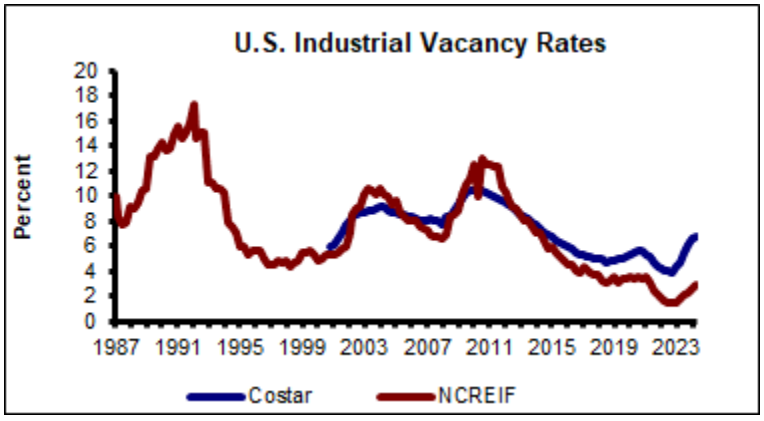


Figure 17

There has been almost no new retail space built. You have some replacements and improvements that resulted in a little net growth, but there has not been a lot. As the economy came back, good retail has done really well. It is hand to hand combat in retail because you are in the business of

satisfying ever-changing consumer preferences. If you have a good location, you know you are going to be the place where those preferences are satisfied. But you just spent money getting into the space. Somebody who has satisfied those preferences four years ago may not do so as well today because of changing tastes and purchasing patterns. Bad retail has always been bad retail.

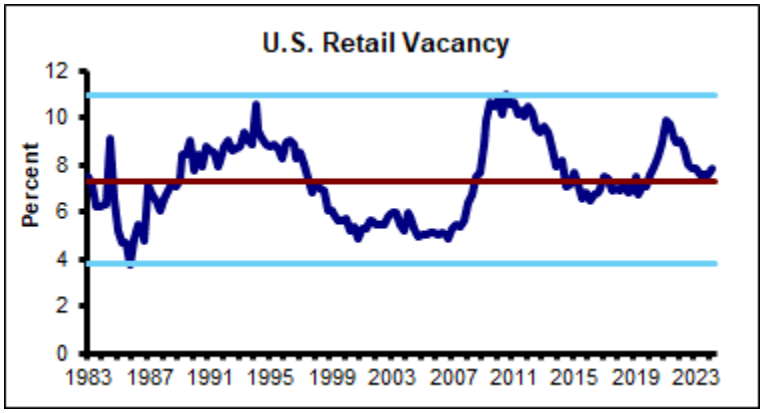


Figure 18

Hotel occupancy (Figure 19) has picked up but it is still below pre-pandemic levels. There is also a bit lower supply and a lot of pent-up demand for travel. If airlines could ever get their acts together it would help, and I say this having traveled a lot over the last month. It is just absurd. As one little anecdote, I had a friend who was trying to decide whether she would take the route I was taking from Copenhagen to Newark. She asked the agent in Lithuania if there were any seats on the Newark flight and she said it was completely sold out without checking anything. I got on that plane and out of the 40 seats in business class, eight were empty. That was nice service. It is just crazy. The airlines are a big bottleneck.

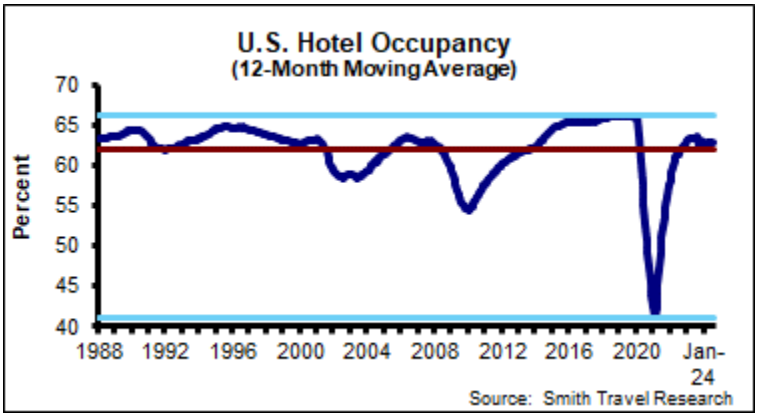


Figure 19

Multifamily vacancy rates (Figure 20) are up. Like everything else in the economy, multifamily benefited from the shortfall and brought a lot of supply online. That has pushed rents down

temporarily. High interest rates are now going to create a shortfall next year and the following year. Vacancies are up but not awful and things look decent.

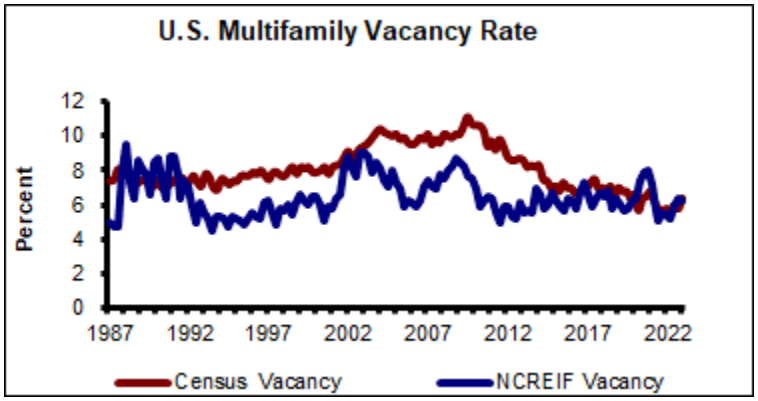
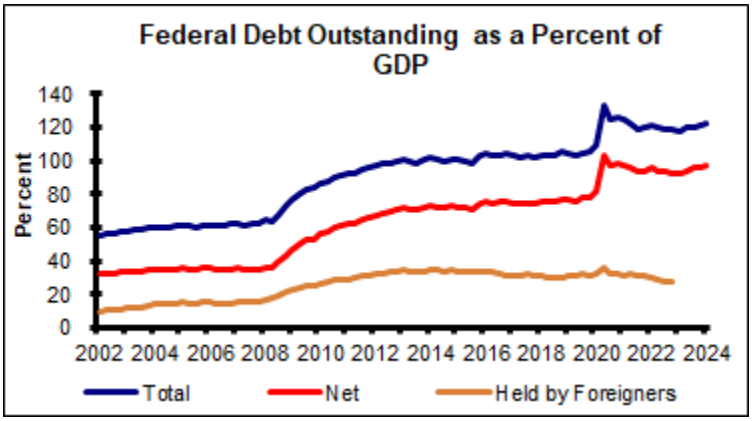


Figure 20

I include Figure 21, which shows outstanding government debt, as a reminder. It is not meant to be political. It seems like everyone in Washington just lives to spend your money, and if they cannot get money from you to spend they will borrow money from your future to spend. This chart shows three metrics of U.S. government debt as a percentage of GDP. The top is the headline debt divided by GDP. It has risen notably. The red line takes out any debt that any part of the federal government owes. If the federal government owes itself, that is intracompany debt. You could pay it off or not pay it off, it does not make a difference. This is also up but is not nearly as high or dramatic as the total debt. It is more in the 60-70% of GDP range, which is much more manageable. The orange line, which is the lowest, is the debt owed to foreigners outside of our system. That has gone down over time.



The main reason federal debt went up so dramatically over the last four years was that the Fed bought the debt. The Fed is not technically a branch of the government, but it is like a wholly owned subsidiary. A branch of the government bought the debt from the government. Yes, we spend crazily, but we can afford this. Bill Gates can afford to spend stupidly because he has so many resources. Someone who has $10,000 in income cannot afford to spend stupidly. They do

not have the resources. Zimbabwe cannot afford this kind of debt. They do not have the resources to make these stupid spending decisions. We do. The most enjoyable part of federal spending is the creativity they use when coming up with how to title what is they are spending on. If they were a business they would be sued by the FTC for false and misleading advertising. Bruce, let me stop there and answer questions.

Bruce Kirsch

Thank you very much, Peter. We had several participants write in about what is going to happen when we do have rates drop. Is that the only thing that is preventing development transactions from going forward?

Peter Linneman

It is not the only thing. There is softness in the near-term market. It is probably the major thing at this point because demand is pretty good. It is not that there is weakness because there is no demand or that the economy has fallen apart from a lack of demand. There was a surge in supply and on top of that the development costs went up. One of the things that will happen is you will hear the cheer from anyone that has floating rate debt, which includes almost all developers. But remember that there are other people with floating rate debt. Think of a manufacturer who secures their inventory in receivables, and they have a line of credit. They are not getting any benefit from inflation right now. This is the distortion. They are paying as if there is inflation on their line of credit. If there were inflation commensurate with the inflation rate, it would be a wash. They are not getting it on the revenue side, that is the issue. It is very distortionary. You will see the long rate fall another 25 bps pretty quickly when the Fed finally cuts. You will see auto consumption start nudging up a little bit. Not on 25 bps, but as we get more than that. There are no consumers of automobiles saying, “sweetheart, if the short-term rate goes down by 25 bps, we can afford it.” That is too precise. There may be an MBA student with a model who says that, but not most people. The 50-75 bps drops are what matter to people.

Bruce Kirsch

Thank you. We also had several ask that, given that the U.S. economy is less interest rate sensitive now because it is much more service based, is it as meaningful to look at yield curve inversion as a potential indicator of an upcoming recession?

Peter Linneman

Yield curve inversion has never been a very good predictor of recessions. We just lived through two years of that being shown to be the case. Remember that two years ago everyone said that the yield curve was inverted so we would get a recession. First of all, empirically it has not been

very accurate. The theoretical concept is one that says you get a yield curve inversion because of short-term outlooks being very different from long-term outlooks. The short-term outlook is different but it is all artificially created by the Fed. If you did not have a Fed (I am not saying we should or should not) and we simply let the short-term interest rate be determined the same way all other interest rates are determined it would be something like 3% with inflation running where it is. The inversion is all caused by the Fed. You could say that that distortion is going to crash the economy. It will not crash the economy because we were so far below trend to start with. It is slowing the economy but not crashing it. That is a big difference.

Bruce Kirsch

Thank you. You mentioned before that you estimated that we are two to three years into a 7–8-year recovery. Where do you think we are in terms of the real estate cycle?

Peter Linneman

Early. By the way, this is true of a lot of cycles. Remember, Figure (federal reserve excess demand) shows a huge excess demand. Apartments and warehouses would have been in that demand. You have this situation where the distortion occurred from the shutdown which created these shortages as the economy came back. That created the spurt in prices which created profits which created a spurt in supply. That cycle is really just beginning. The spurt in supply happened with pretty good demand, with the exception of office. We are still early in that cycle. I think demand will continue to grow at a normal rate, not at 5-8% a year. Did you really think that inflation would be 1% and NOI would grow at 10%? Of course not. Maybe at one property but not in general. We are going to get back to a much more normalized situation happening over the next few years.

Bruce Kirsch

Thank you very much. Unfortunately, we are out of time so we will not be able to address the other questions that came in. Peter, thank you again and we will see you back in early November.

Peter Linneman

Thank you, have a great day.