



Signs of the Times: Perspectives on Falling Energy Prices, Credit Market Meltdown, Housing Bubble Burst and More

William A. Strauss

Senior Economist & Economic Advisor

Federal Reserve Bank of Chicago

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(The following may contain unintelligible or misunderstood words due to the recording quality.)

BILL STRAUSS: All right. So I have the honor of being here.

Thank you, Steve, and standing between you and cocktails, always a challenge, and I was just wondering whether Steve really wanted me to finish up over here so that they would actually sell more drinks at the reception.

With such depressing news, you might want to drink; however, the news is mixed. You know, we're clearly looking at an economy which is struggling. It's by far the worst economic downturn that we have seen in many, many decades, and financial headwinds that we are facing look to have growth that will return to be quite muted, and I'll talk more about that as I go through some of the charts, but we will have growth.

This is something that many people a few months ago would have questioned because often the question I would get is, "What is going to turn this downward spiral that we are in to turn it to be a growth period?" And the answer is it's sometimes very difficult to make that determination. We're in a recession, and often we look at what past recessions are like, but there's an old adage which I use which is, "There is nothing typical about a typical

recession." There are different factors that lead us into it and there are going to be different factors that will lead us out of it.

We are beginning to see, as the expression goes, green shoots, and there's reasons to understand that recessions do, in fact, come to an end and we begin to see growth. Certainly we can be encouraged by what has happened with regard to the stock market, and while the stock market tends to be an over-predictor, explaining, often predicting the return of growth ten out of the last six times, nonetheless, one has to be encouraged to see an over 30 percent increase in the stock market in less than two months. In addition to that, we have a lot of monetary stimulus; we have a lot of fiscal stimulus that will certainly help to underpin the return to growth for the U.S. economy.

That being said, we can take a look at where we are at this point in time. We produce something at the Chicago Fed called the National Activity Index. This is a measurement looking at over 80 different variables, but many of them are focused on the industrial sector; that tends to be the sectors that tend to move around, growing the most when things improve and hitting the skids the most when things deteriorate.

When we are at trend growth for the U.S. economy, roughly 2.5, 2.75 percent, that would mean that this indicator is near that black line, that zero line, and as you can see, we are well below that. So we are looking at a period where we are actually below this roughly minus 0.7 to minus 1.3, kind of an area where the growth of the economy is at zero, kind of a recession borderline growth for the economy.

So we are still struggling. This is dated through March, and as we all

know, March GDP came in quite weak at a minus 6.1 percent – very, very deep down. So the question is, how quickly will this index get back up closer to that shaded area and closer to zero where we get back to trend. And as you can see in the past, when we have had these recoveries, they can happen quite quickly.

Another thing to make note of is the fact that initial claims for unemployment insurance peaked in early April. The four-week average has been trending lower, and when you look at past business cycles, the National Bureau of Economic Research, our official arbiters for business cycle, have often listed the trough of the recession roughly four to six weeks after the peak in initial claims for unemployment insurance. So with that in mind let's take a look at some of the data.

When you look at GDP, you can see that this is a very unusual recession where, in fact, for the first two quarters, beginning in 2008, GDP actually went higher. For those of you who think that the definition of a recession is two consecutive negative quarters of GDP growth, that is absolutely not the definition of a recession. It's violated both in 2001, when you can see we did not have two consecutive quarters ever. It was three down quarters, but none of them consecutive, and this one in particular, where we actually saw growth, and in the second quarter pretty substantial growth occurring, but in large part driven by the international trade, which had benefitted us for quite a while.

But then we had the financial crisis that came towards the end of the third quarter and that really caused a major collapse of activity in the fourth

quarter with a drop in excess of 6 percent, and decline in the first quarter of basically an equal basis.

So when we decompose that first quarter, there is some signs that we shouldn't be as negative about that decline in the first quarter as occurred in the fourth, and the reason for that is outside of business fixed investment, which contributed a major decline, the second most negative factor was a decline in inventory investment.

Manufacturers, and of course the entire stream of the supply chain, have been extremely aggressive, more than ever before, in getting inventories to match the reduced selling pace. That means that when the recovery occurs, we're going to see a much quicker response to production because of that. So basically half of that drop in the first quarter was because of this reduction of inventories, as compared with the fourth quarter where it was largely driven by a reduction in consumer spending. In fact, look at consumer spending in the first quarter. It actually went up by 1.5 percent, or contributed 1.5 percent to growth is how I should have expressed that.

So what does the future look like? Well, according to the Blue Chip forecasters - these are 50 economists from around the country – they had expected to a pretty substantial drop in the first quarter. They're a little bit more optimistic. At early April they were thinking closer to 5 percent. It was just over 6 percent, but these numbers get revised for GDP so we'll just have to wait and see, but then they see a decline continuing in the second quarter, but at a much more reduced pace.

Now some people make jokes about that that, you know, it's declining

and that the pace of decline slowing is not something that we should be thinking about. Well, that's absolutely not the way that recessions come to an end. It's not like all of a sudden we're falling at a rapid pace and we change. Certain sectors begin to slow and begin to grow sooner. Some will be delayed and won't recover until after the trough of the general economy, but the pace of decline has got to moderate. All right? So that's what's being expected, is that we'll be seeing this pace where the declines become less negative. In fact, the second derivative – those who remember your calculus – is positive, and then by the third quarter we begin to see some growth, but even that growth in the third quarter is basically zero. So we're going to see, you know, basically a flattening out of the economy middle of this year.

In the fourth quarter the growth is still below 2 percent, below trend. So for the year as a whole it's a pretty lousy year. I think it's a technical definition we use. By next year we're up to trend growth, 2.7 percent, so big thumbs up there, with the exception of when an economy falls as hard as this one has fallen – and this will be the worst two-year period for the economy since the Great Depression – when it falls this hard we should be looking at growth rates that are twice what is being forecast for next year; however, I think the reason for this more muted path is because of the financial headwinds that the economy is going to be facing, and I'll close up with some charts to talk more about that.

So let's put this downturn into perspective because, unfortunately, the word "depression" is tossed about very lightly, and so I want to kind of put what we're dealing with right now into perspective compared to, say, the last

50 years' worth of business cycles. So we've had a number of them, and they're listed in the footnote. It's hard to see up there, but this is data going back to 1960. The average duration for a recession has been about 11 months, just shy of a year, with a range of between six and 16 months. Well, we are currently in the 15th month of the recession. We just completed it in April, so we are now right now in the 16th month. So if we end sometime in the next couple of months, we'll be looking at an 18-month – probably if it ends by June – 18-month recession. If it's later in the year, as our chairman has suggested in testimony just yesterday, that would make it about a 24-month recession. So clearly from what we've seen in the past this is one of the longest-lived economic downturns.

In terms of the decline of GDP – and by the way, the Great Depression, economic output fell for 43 consecutive months so, you know, significantly more than what we're even talking about right now - in terms of the loss of GDP, a decline of 1.7 percent is what typically has occurred, with as much as a 3 percent decline that occurred in the severe recessions of the 1980s.

Given the forecast by the Blue Chip, it would come in at about 3.5 percent, so again, a very, very substantial drop in economic activity beyond anything that we've seen in the last 50 years, but during the Great Depression economic output fell 26 percent. So, you know, to use the word about this being something like the Great Depression really doesn't do justice to what was going on back then. I mean those numbers put this current scenario - we're not even in the same city, let alone the same ballpark of consideration.

Now there is no official distinction between a recession and a

depression; although I have heard some people suggest that maybe about a 10 percent drop in economic activity could be thought of as that cusp between the two. That's not a bad number, in my opinion, to think about, which would still say that at a 3.5 percent drop, we're, you know, threefold away from even thinking about using the word "depression" to describe where we are.

Unemployment rate is expected to go up to about a 9.6 percent rate, well below where we were back in 1980, but the loss of employment, which typically drops about 2 percent, here again has been pretty aggressive at reductions. You know, we're right now through the month of April -- sorry, through the month of March. We'll be getting April Friday. We have already experienced a 3.7 percent drop so we have set a new bound with regard to the job losses that have occurred, and it's been quite dramatic.

So with regard to inflation, The Fed had been worried about inflation through the first half of last year so it was concerned about growth. It was concerned about inflation, but with commodity prices peaking in the summertime, we have seen a significant pull-back by those prices, and hence a significant pull-back in inflation. In fact, you look at the chart for energy prices. You know, you can see those prices had skyrocketed up to, you know, \$147 a barrel on the daily rate in July. You know, who in this room would have thought that by the end of the year we'd be looking at oil prices below \$50 a barrel? Yeah, I don't see any hands going up. So we have a lot of honest people, because if you really believe that, you should be down in some private island in the Caribbean for what you could have made on that kind of a bet.

Good news here. Energy prices, which have pulled back substantially,

have contributed to a lot to underpin consumer spending. For every one penny reduction in the price of gasoline - and gasoline prices have fallen by over \$2 a gallon - that contributes, one penny reduction, an extra billion dollars in consumers' pockets so that has helped keep consumers a bit void compared to having those prices remain up at \$4 a gallon.

In addition, I'll give you the other flipside. Energy prices, after going down as low as about \$35 a barrel, today they're up to over \$56 a barrel. They've risen over the last several months, since basically the market began to recover as well.

This is good news, and it's good news because those prices were driven down because of a lack of demand worldwide. The fact that they are now rising is because demand is coming back. The economy is trying to return back to a positive growth path. This is adjusting those oil prices for inflation, and you can get a sense that historically, the prices which existed at \$40 a barrel in nominal terms back in 1980, once you adjust for inflation, is actually over a hundred dollars in today's dollars. So that price of \$140 a barrel is still a relative bargain, and especially where we are right now in real terms, we're significantly below those previous peaks.

So even in the summertime, I was really not concerned that the \$4 a gallon gasoline was going to tip us into a recession, and the reason for that is that consumer spending on energy goods and services amounted to seven cents of every dollar. Now it had risen quite dramatically, but compared to what has averaged over the last 50 years, it has averaged about 6.4 cents of every dollar. So it just basically was returning up to more of an average level that we have

seen existing and, in fact, right now, it's down to around five cents of every dollar, and nowhere near the kind of level that existed back in 1980 when it was at 9.5 cents of every dollar.

So, you know, in terms of what we can expect for the long run, well, the futures markets have energy prices moving higher. By the end of next year, they have it rising up to, you know, closer to 70 to \$80 a barrel. So we'll probably see this share continue to move back up, but still probably because of all the slack in the economy, not go up significantly above that green line.

So once we remove food and energy prices, we get the core rate of inflation, and because of all this slack in the economy - as we use that term in economics to refer to the fact that we are underperforming what we are capable of doing - it has led to not a lot of inflationary pressure on underlying prices. So the core rate of inflation is kind of hanging out right at that comfort zone that Fed policymakers have often been comfortable seeing. So we can focus and continue to focus on trying to keep the economy from being any weaker than it is and continue to try to stimulate demand.

What is expected for the future on inflation? Well, at least going out to end of next year, inflation is expected to remain contained, where the forecast by this group for CPI is roughly at a 2 percent rate, falling this year to a 0.4 percent rate, so a disinflation period this year, but then returning as the economy returns back to sustained growth up to around 2 percent.

Employment, you know, there are some really ugly charts over here where you can see that employment losses have been significant. Over five million people have lost their jobs. The ADP report - last couple of months, by

the way, it's been over 600,000 jobs a month - the ADP report, which came out today, which has been a very iffy forecaster for the employment number, they're suggesting a number that's just a little less than 500,000 jobs were lost in April, but on Friday we'll get the actual number, but that would still be a significant improvement from the 600,000. And again, we're going to have to first see these numbers begin to moderate before we reach that bottom.

Now even when the economy begins to get close to growing at trend, I can see employment declines continuing, but the magnitude of them has got to moderate. Unemployment rates have reached levels of 8.5 percent, and the expectation by this group is that they will peak at around 9.6 percent. When that number come out on Friday, while often the media will focus on the unemployment rate as the highlight, you know, I would not be paying too much attention to that. I can guarantee you it's going higher. It's a lagging indicator. As bad as we know the first quarter was on GDP, it certainly says that unemployment rates will move higher, and unemployment rates will continue to move higher through the end of this year, peaking in the first quarter of next year, according to the Blue Chip Group, at 9.6 percent. So you really want to focus on the number of jobs that are actually lost or created as a more contemporaneous indicator.

So what does the future hold with this? Well, if we look at the past cycles, this says that, you know, we can be a little bit discouraged about this. So, for example, the magenta or pink lines up there, those are the number of months that jobs continued to decline following their peak, and the bottom one there, or I should say the second from the bottom, that is the last recession,

which was very short-lived, lasting only nine months; however, employment fell for 30 consecutive months; two and a half years employment went lower. And then the green bar is the number of months that it took us to recover all of those lost jobs until we reached the previous peak, and that was another 18 months. So we're looking at a period during the last cycle where we added no new jobs to this economy for four years.

Keep in mind that we have employment growth of roughly 1 percent. We should be adding, you know, in the tune of 1.4 million jobs every year. So we had a gap that we created that we should have been fulfilling for that four-year period that even by the end of it, we were shortfall by the order of around five to six million jobs.

So the question is, how quickly will employment stop declining? We are already at 15 months. If we replicate what happened the last time, this could go on for another year and a half, you know, another 15 months or so if we repeat what we had last time, and then how quickly do we get them back? And we can come up with a number of scenarios, and I'm a little bit dismal on this - that's why we call it dismal science - dismal about the fact of how quickly these jobs are going to come back in our economy.

So when we look at a lot of these economic factors with regard to what it means for vehicle sales, using the old stoplight analogy, many of these economic indicators are certainly flashing red, and we have a couple that are yellow, and just two that are green, in particular referring to inflation as well as Fed policy, but really, the underlying economic factors at this point are signaling that it's not going to be a great year for vehicle sales.

Vehicle sales have collapsed well below profitable levels for the U.S. industry and, you know, selling right now at around, you know, just shy of ten million pace, hanging out in the nine million pace, but the manufacturers have been, again, very aggressive, same as across the spectrum, whether you're looking at steel producers, whether you're looking at aluminum, and any producer out there. They have also been showing some very significant declines in line with the reduction in sales. So the inventories all in all have been kept in relatively good shape, and consumer attitudes for buying a vehicle, because we're in a recession, because of all the job losses, remains quite low, but something to think about, and certainly the word to describe the automotive industry over the last ten years has been transition, and the transition continues with the fact that, you know, we just had Chrysler go into bankruptcy and we have a timeline now for the end of this month to see what happens with General Motors. We're going to continue to see transitions happening.

So what this one here points out is that this is not a phenomenon which just happened because of this recession. These trends have been going on for quite a while. So, for example, if you look at where we are right now with respect to the Detroit Three, they right now have less than 50 percent market share, and that's been the case now for over a year. So more vehicles sold in the United States have a foreign nameplate attached to them than GM, Ford or Chrysler. You go back ten years ago and you can see that that share was over 70 percent so this decline in market share has been going on now for over ten years.

Go back to 1980, though, and you can see the fact that the Detroit Three, or back then referred to as the Big Three, controlled over 70 percent of the market. Remember your Economics 101. That's called an oligopoly, and an oligopoly, is that good or bad? The answer is yes. It's bad if you're a consumer, when you think about the product choices, the product quality and the product prices that existed back then, but it's good if you're the oligopolist because you have that market pricing power and your profits can be above what normally should be occurring, but as we move forward, you can see the fact that - and we imported about 25 percent of our products back then - and as we move forward you can see this red area, what used to be referred as transplants, I think more appropriately we should think of them as the new domestics that are manufacturing here.

These are the foreign nameplates that are producing vehicles in the United States, and lo and behold, when we fast forward to the first quarter of 2009, our last data point up there, you add in those producers and we are at over 70 percent of the vehicles that are sold in this country are made in this country, but not made by these three companies. They're made by, including the Detroit Three, 13 different nameplate manufacturers and, as you know, Volkswagen announced that they're coming back to the U.S. after leaving in the mid-1980s. So we'll have 14 manufacturers in just another couple years, and about 25 percent of our vehicles are still imported.

Our previous speaker I agree with - the cost of transportation has suggested, as well as dollar movements, that many manufacturers have figured out that if you're going to sell in a market, you're going to need to produce in

that market. So who will be doing that production is definitely in this transition.

So I want to close off by talking about kind of the two real critical sectors of the economy, and what I've been leading us into, this financial weakness, which is the housing sector, and then I'll close off with the financial crisis.

So residential investment continues to struggle, and you can see that in the first quarter the decline was, you know, nearly 40 percent. So this sector is very much still in midst of making its corrections; however, I think we are far closer to the bottom of this sector than the beginning of it, by far and, in fact, the declines that we are seeing right now are not the same from a macro standpoint that we saw in early 2006. The reason is, back in early 2006 this industry represented over 6 percent of GDP, but falling at a path of over 20 percent for the last three years, that sector is now representing less than 3 percent. It is less than half of its size of what it was. So even with the same magnitude declines that we saw back then, it has half the weight on a macro level. So the drag from this sector has to moderate just from its relative smaller share.

When we look at the inventory, the sales ratio here, we can see the fact that the problem is we have too much inventory of homes, but this is a little misleading. It's really the fact that demand for buying a house has disappeared because when we look at what's been happening, they have tried to get their production rates down, although I would say not as aggressively as the manufacturers in the typical manufacturing industries, as we see in this

recession. They were slow. In fact, their initial cutbacks were less than what occurred in the early 1990s, considering that this housing crisis is the worst that we've seen since the Great Depression, but now they've gotten religion, and as you can see, their production cuts are at 50 percent from where they were a year earlier.

So this has brought down housing starts to the lowest level since the post-World War II period and, in fact, in the first quarter, they were producing homes at a 500,000 run rate.

The number of homes that get worn out, destroyed by fire, floods, other natural disasters, it's probably about 300,000 units a year. So this industry right now is operating at barely above replacement demand. Given all of the growth that we have seen with regard to our population, this suggests that trend says we should be adding about 1.5 million homes every year. So we're operating at one-third the level that we should be and, by the way, this chart is kind of misleading, same as my initial chart on energy prices, which was a nominal needed to adjust it for real, because this is saying, look at this. We're at the lowest production rate that we've had in the last 60, 70 years, but the reality is, is to compare a number of homes put in place in 1960 when we had less than 200 million people in our country compared to today when, as you know, we're over 300 million, 50 percent larger, it's ridiculous to do those kind of comparisons.

So if we adjust for the number of households, so here is the number of houses started per thousand households, it makes it even more dramatic of how low we are at, and what it certainly tells you is that, at least to me, it says that

at the current rate, given that people haven't been buying houses for the last three years, it's not going to take much to consume up this excess inventory that's out there and, in fact, I would suggest that maybe in about two years, two and a half years, we'll be talking about the shortage of housing; that this industry didn't react to all the excess demand, this pent-up demand that is being built up.

As many of you might have some kids still at home with you that you would really like to get rid of, maybe some of them can't wait to get out of your house, but they're kind of waiting for economic conditions to improve, and they will. Mortgage rates, through some of The Fed programs of buying some of this mortgage-backed securities, we've driven down interest rates to levels that we have never seen before, currently 30-year money at 4.8 percent.

In addition, the biggest issue here was the Ponzi-like scheme of people going into homes as investments and, you know, putting no money down or even getting 105 percent loan-to-value rates, drove prices up enormously and we've seen a major correction in home prices, and home prices have continued to move lower, although the path of that decline seems to be moderating as well, and the weakness of housing is very much focused in the areas where prices were moving up very aggressively.

So this map here shows in red the states that are experiencing very significant price declines, in excess of 10 percent on a year-over-year basis, and it's those areas that you would often think about - California, Nevada, Arizona, Florida, Georgia, the Washington D.C. area - where it was those prices had moved up at astronomical rates.

Michigan shows up in red. For them it's not prices of homes; it's the auto transition that's been taking place. It's the fact that employment in Michigan peaked in June of 2000. They're approaching nine years without creating jobs, losing jobs to the amount of 750,000 jobs have disappeared out of Michigan, and they have not figured out a way to stem that tide. It is not a pretty picture.

So a year from now I would suspect that this chart here will show that prices have stabilized to a very large extent, with the exception of Michigan. I think Michigan, because of their economy, will remain the weakest housing market going forward for the next several years.

Affordability, once you take into account the fact that interest rates are so low, the fact that incomes, all in all, haven't fallen that dramatically, and the fact that prices of homes have adjusted downwards, is what you would expect in excess inventory situation, it's the best time to be buying a home. So the real estate agents, for the first time in a long time - because whenever you meet a real estate agent, they'll always tell you how it's the best time ever to buy a house, right? This time they're actually telling you the truth. Their noses shouldn't be growing like Pinocchio. But the reality is, is when they do the surveys and ask people, "Are you buying a home in the next six months?" They say no. Is this is irrational? We're in a recession. People are concerned about having their hours cut back. People are concerned about one or the other of the spouses, significant others, losing their jobs, or perhaps they've already experienced a shock like that. It's not a time to be thinking about taking on a large amount of new debt so this is to be expected.

In addition, prices continue to move lower. Even though the pace is slowing, if people think that they can buy that house six months from now for 5 percent less, they're going to wait. It's when they suspect that that house is not going to be available that they want to get in five or six months that they're going to start thinking about moving.

In those markets, in particular in California where they believe that the prices have come awfully close to bottoming, activity is robust. At this meeting that I was at the last couple days, there were a couple of economists from the California area talking about how aggressive and how busy many of the brokers and real estate agents are in these communities so it's beginning to occur.

However, the financial headwinds are going to put a damper on this recovery. When they ask the senior loan officers at these institutions, "Are you willing to make mortgage loans? Are you increasing or are you tightening your lending standards," through the first quarter - and the second quarter just came out yesterday. It improved a bit, but still, they're indicating that conditions continue to be tighter and tighter. What this says is that you might have had a FICO score good enough to get a mortgage a year ago. Today, it's a lot tougher. So that is going to restrain a lot of people who maybe are thinking now is the time to go out and buy that home.

The same is true about auto loans and so forth. Those conditions about this tight credit market are causing all of those markets to be or have a more muted demand response than what otherwise would be the case.

The credit crisis that really came to a head in the fourth quarter of last

year, the crisis part began in September of last year, I kind of use an automotive analogy where credit is the oil in our engine, and what was happening was that beginning in the springtime of 2007 somebody had loosened up the bolt holding that oil into our engine and it began to drain out, and then it popped in September, so that the oil really began to drain, and as we all know, as that oil drains out, there's a risk that the engine is going to overheat, and if it drains out entirely, that engine is going to seize up, and that was basically the concern, was that our economy, with the liquidity draining out, the credit draining out, was going to seize up.

So there's one chart to kind of illustrate this, because I could talk just an hour just on this issue. So here we have two borrowers. The green line there is your best corporate borrowers, corporate AAA, and as you can see, throughout this period it has remained relatively stable at just between 5 and 6 percent costs. The risky borrower, the high-yield borrower, often referred to as the junk borrower, beginning in the springtime, June of 2007, they began to see their borrowing costs escalate as people began to reassess risk.

This was the period when, in the springtime of '07, instruments that were rated as AAA, number of these collateralized debt obligations and fancy structured investment vehicles began to have default rates that were beyond what a AAA-rated security should be incurring, and that began to scare the markets, saying, "We need to reassess risks," and what had been extremely low differentials of 200 basis points, or 2 percent, began to escalate so that by the end of August of 2008, 14 months later, these risky borrowers saw their borrowing costs go up from 8 percent to 12 percent, a 50 percent increase in

their borrowing costs.

It's a huge increase. Doesn't look that bad because of the scale of what happened in September, when in September of last year, what took 14 months, took less than a week to see that same increase of 400 basis points, and by the end of November the increase was 1,000 basis points, 10 percent. In essence, this market stopped functioning. Nobody was borrowing. Nobody was lending when those rates were at 22 percent. This market had ceased. This was one of the worst markets out there.

As you can see, more recently that market has begun to improve and, in fact, more recently - these are daily rates through Friday - these rates have improved at a more rapid pace so these markets are beginning to re-liquify. The differential between them is called a credit spread and, as you can see, the credit spreads went from 2 percent, or 200 basis points, up to 1,700 basis points, so a huge increase at kind of the peak of all the trouble. They are now down to about 1,000 basis points, so significant improvement from where we were last fall, although probably a long way to go before we get to a normal market.

What's a normal market? That's really hard to say. Probably above 2 percent. I think 2 percent, and I think many of you could agree with me, is ridiculously low, to say that you're only going to get an extra 2 percent to lend to the most risky companies compared to the best companies out there. So I think these credit markets are going to probably settle in somewhere around 4 to 6 percent is what I would think. So we're still a ways away from there, but we're improving rapidly, but until this gets back to a more normal market,

these are going to be the headwinds.

Fed policy, which began to bring interest rates down, not last fall, but a full year before that, beginning in basically August of 2007, we began to modify Fed policy, and by the end of last year interest rates were brought down basically to zero. We reached our zero bounds and, in fact, rules, like what's referred to as the Taylor Rule, named after an economist, John Taylor, would suggest that we should be having a minus 4, minus 5 percent on our interest rates. We haven't quite figured out how we can get people to pay us to take their money, but that's what we're basically talking about.

So some people have said, "Well, that means The Fed's policy is irrelevant." I think it means that to look at The Fed funds rate as a determination of what The Fed is doing at this point is irrelevant because we have that zero bound; however, The Fed has come up with what is called this quantitative easing. What it is, is basically expanding the Fed's balance sheet from what had been a very boring balance sheet and, by the way, from The Fed standpoint, boring is good. We like boring.

You go back to 2007. You can see it was mainly blue. Those were Treasury securities, primarily of a short-term nature, that we kept on our balance sheets. We began in 2007 to make credit more available through a term auction facility. That's the term auction credit in orange, and then we've added to that with Central Bank swaps providing liquidity to foreign markets where there was demand for dollar-denominated assets.

In addition to that, we have a number of other facilities, such as the buying of the residential mortgage-backed securities that I had mentioned

earlier, and in October, coming up with a commercial paper facility, which has been very helpful for the automotive industry and, as you can see, more recently some of those facilities have reduced from their levels of the past. The whole portfolio has increased only because The Fed has become more aggressive at going after new markets, and the most recent one on Friday, The Fed announced that we will be going into the commercial mortgage-backed securities where no new issuances have been made in that market in over a year. So The Fed is trying to be as aggressive as we can to try to liquefy these markets.

Now some people have been concerned about this nearly tripling, or at least more than doubling of The Fed's balance sheet as having inflationary consequences. So those of who remember your Macroeconomics 101 or money in banking will remember the fact that The Fed creates what is called high-powered money, the initial creation of money, and that's what you're seeing over this, this significant increase; however, the vast majority of that money that we have in circulation is created not through Fed programs, but through the actual lending process that financial institutions do, but as we've talked about, that market is not functioning very well. So that market has not been making their loans; and, therefore, The Fed has stepped in to try to offset that.

To that end, it will be incumbent upon The Fed to be nimble enough that when those markets begin to return to a more normal function that we have an exit strategy that will not allow the balance sheet to remain as large as it is.

On some of this I think we're in good shape. For example, the commercial paper facility, which has been of great benefit. We've heard that from the institutions that have been utilizing it. There is a pretty premium to using that so that when that market returns to being more normal, nobody will want to come to us because we'll be having the highest prices in the market. So we will put ourselves out of business by the market putting us out of business, which is a great exit strategy.

On some of this term auction facility money, that, too, most of that is fairly short-term duration of anything from 30 to 90 days. We just need to not issue any additional auction credits, and within 90 days that orange area disappears to zero.

The one that's going to be more tricky is our most recent offering of the TALF, this Term Asset-Backed Loan Facility, lending facility that we have in place. This is the one that's offered to try to assist student loan, auto loan, small business loan.

Most recently, as mentioned, they've added the commercial mortgage-backed securities. These have three- to five-year duration. This will be a little bit more challenging for The Fed to deal with. At this point it's only representing a very small share. In fact, at this point TALF issuances are less than ten billion. That number up there is two trillion. So we've got ten billion that's in TALF at this point, although this program is expected to begin to increase over time, but it's just something else that we're going to have to deal with, so some challenges out there.

So basically, in conclusion, it's going to be a tough year, even returning

up to normal growth next year. This says that all of what we call the gap that existed over the last couple years is not going to be made up. So that's going to suggest that employment, where you need to have the economy actually grow a bit faster than trend to absorb all of this excess unemployment, is probably not going to occur. So that's why unemployment rates are expected to remain still very high by the end of next year, but because of the slack in the economy, inflation is not going to be an issue so the Fed can continue to be as aggressive as we have been in terms of trying to stimulate the economy without worrying about inflation because ultimately, mark my words, if inflation gets out of control, it's the Fed's fault. Okay? We know that.

Milton Friedman famously said that inflation always and everywhere is a monetary phenomenon. Okay? It's because we allowed the money supply to expand at a more rapid pace than what the market requires, but these risks that remain out there are that the improving credit markets - and I am highly encouraged by what I've seen, especially over the last month, two months in those credit markets - let them continue to improve, but there's a risk that something else happens on those markets and that this improvement stops.

And then the other one is, of course, housing, which appears to be getting close to a bottom. In fact, I'm encouraged to believe that the housing market, at least on the production side, will bottom also around mid-year. I cannot fathom that this industry can operate at 500,000 units.

And then with the vehicle side, because of the consumer having all the job losses that are going to probably continue through the end of this year, probably remain weak all in all, even into next year, but above levels that we

have seen in the early part of this year. Estimates are that we could be looking at a selling rate that is going to be just a little above ten million by the end of this year, and improving to 11 or 12 million next year. The industry is often thought to need about 12 million just to break even so we are barely talking about break even selling pace next year. So that's going to continue to put a lot of pressure on the auto industry.

So with that, if we have time for a question for two, I'll be happy to take them, one or two, and I'll be out there having a drink with all of you. I could use one after hearing myself talk about this. So if you want to talk to me individually, just find me outside afterwards.

AUDIENCE: Thank you very much. I enjoyed your comments. You talked a lot about unemployment and low inflation. I'm wondering if you've taken into account the mandatory furloughs and reduced salaries that people are facing.

BILL STRAUSS: Great question. That is certainly something we think about. In fact, all right, so how does that get into this? So as bad as the unemployment rates are, more and more we have been talking with companies who have told us that they've taken on a bit of a socialistic bent to the way they've been handling this downturn, where hours have been cut back. There's one manufacturer that would tell us that they've cut hours back to seven hours a day, and then the six hours a day without letting anybody go; feeling that everybody's willing to share the pain to some degree, so everybody's willing to take a 25 percent reduction in their income rather than seeing specific people get unduly harmed by actually losing their jobs.

We've heard those stories. That would certainly suggest to us that the five million is even more underrepresented than what is actually occurring, and that the unemployment rate would be a lot worse had that not been going on, and I think that's partly why, when we talk about what the future holds, the Blue Chip Group is again seeing growth next year of just 2.7 percent because the data is probably suggesting that things are actually even worse than what the data is actually suggesting. So the labor market is really in tough shape, no doubt about it, and will remain a challenge.

One more? Cocktails, I don't blame you. All right. Thank you very much. It's been a pleasure.

(CONCLUSION OF SESSION)

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