

**Exchanges at Goldman Sachs
What's Ahead for Inflation?**

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Recorded: May 20 and 21st, 2021**

Allison Nathan: This is Exchanges at Goldman Sachs where we discuss developments currently shaping markets, industries, and the global economy. I'm Allison Nathan, a Senior Strategist within Goldman Sachs Research.

Today we'll be discussing a topic that's a growing concern for companies, investors and individuals: inflation. To do that, joining me here today is David Mericle of Goldman Sachs Research and Josh Schiffrin from our Global Markets Division. David is our Chief US Economist and he's here to talk about the economic implications of inflation and what inflation developments suggest for Fed actions ahead. David, welcome to the program.

David Mericle: Thank you, Allison.

Allison Nathan: David, it seems like signs of inflation are everywhere; from the price of raw materials and commodities to rising wages, and even the price I'm paying for my coffee right now. Earlier this month, we did see a surprisingly strong CPI print. What do you make of these inflationary impulses? Are they transitory? Or should we expect a lasting inflationary environment ahead?

David Mericle: Certainly, we've seen over the last couple of weeks a number of data points that are pretty alarming from an inflation perspective. We had expected a strong CPI report in April. And the report that we got blew past even our expectations. Now, I think most of what we've seen so far is not necessarily indicative of where inflation will be in the medium to long-term run. In particular, when you look at what drove that big increase in inflation in April, there are mostly two stories here. One story is in a lot of virus-affected service categories, like travel services for example, hotels, airfares, you saw huge price declines last year when demand completely collapsed. And as demand has started to come back as people have gotten vaccinated, prices are going back to normal.

As you would expect, that's happened pretty quickly because a lot of people have suddenly decided they want to take a vacation once they got their vaccine. And so, those big, quick price normalizations that we're seeing are causing big spikes in prices, though not to a particularly high level at this point.

The other story is a little bit more complicated. But effectively, a lot of sectors of our economy are a little bit screwed up from a pretty weird year. And in particular, I think one common thread that you see in a lot of the manufacturing sector with a lot of goods prices is that manufacturers assumed, as would be perfectly natural, that as in a typical recession, demand for goods was likely to fall.

And instead, this turned out to be a very strange recession in which the government gave people even more income than they usually had. And since they couldn't spend it on services, they instead spent it on goods. And so, we wound up in a position with a bit of a supply/demand imbalance, especially in the goods sector. And that has resulted in higher prices.

Allison Nathan: So, how do you resolve these imbalances?

David Mericle: I think we are probably in the process of dealing with that from both sides of the equation. On the demand side, as normal consumption opportunities become available, I would expect that there's a little bit less demand for some of these constrained goods and other items like that. On the supply side, I think producers have clearly figured it out, that this is not your typical recession, that demand is not soft at all, but in fact quite strong, and are doing everything they can to bring supply back up to normal levels.

So, I don't think that anything we've seen so far in the CPI report necessarily tells us we're going to be looking at strong inflation for the next couple of years.

Allison Nathan: Are there other factors going on though that might give you more concern about inflationary risk ahead?

David Mericle: Absolutely. I think the key issue is to focus on risks where we're learning something that tells us something about inflation beyond this year. I don't think that price rebounds in travel categories or temporary supply shortages or supply chain disruptions tell us a huge amount beyond this year. But there are other inflation factors, where if I see upside to

my expectations, I would reevaluate on a longer run horizon. So, let me point out a few things.

I think big picture, the story that you ought to be worried about is simply that with the magnitude of the fiscal stimulus and of the pent up savings that households have acquired over the last year, coupled with still historically easy financial conditions, we just wind up with demand running well ahead to the economy's potential supply. That's a possibility.

In our forecast we wind up with GDP going, say moderately, but not dramatically, above our estimate of potential GDP. And that results in moderately, but not dramatically, above 2 percent inflation. That's what the Fed wants to achieve anyway. So, I think that would be fine.

Allison Nathan: And what risks do you see beyond that big picture risk?

David Mericle: Beyond that big picture risk, I would highlight three things that I'm keeping an eye on where if we saw, again, upside surprises to my expectations, I would take that seriously and consider revising my forecast. And I would say on each of these issues we do expect a bit of these risks to materialize. But there's probably a risk that more materializes than we think. So, let me talk through each.

The first issue would be that wages pick up at a much faster rate than we're anticipating. One of the curious things about this pandemic recession is that wage growth never really slowed down. It's been running at about 3 percent steadily since last year. That's more or less where it was before the pandemic. Typically, wage growth slows a lot in a recession.

Now, 3 percent is not a particularly high level. But it is a pretty high starting point when you're first emerging from a recession. And we got some evidence last month in the very strong average our early earnings number, that perhaps an unusually tight labor market at this stage in the cycle is creating even more upward pressure at a faster pace than we would expect just from normal cyclical recovery.

My best guess is that what's going on here is that although we have a 6.1 percent unemployment rate, the labor market is effectively much tighter than that because of the generous unemployment benefits, and also because some people are probably still worried about the virus or there's some obstacle in their

life to them really looking for and taking a job.

Now, by the end of the fall I would not expect either of those two things to be major factors anymore. And so, I would expect the increase in labor supply to relieve a little bit of the current pressure we're seeing on wages. But it's hard to know exactly what to make of that. And I think there is some upside risk there.

The second big factor that I'm focused on is the fact that we have a severe national housing shortage that's already pushing up home prices at a double digit rate. And it's possible that that will flow through to faster rent inflation at an even faster pace than we expect.

Now, we've already incorporated a lot of this in our forecast because the rent category tends to be the most reliability cyclical category. So, as the economy and the labor market improve, you would expect for rent inflation to pick up quite a bit. And on top of that, we have already incorporated some additional spillover effects from increases in home prices.

Home prices do not filter directly into the inflation statistics. But for a person who could choose between buying a home and renting, economic intuition would suggest that there should be some spillover. And we account for that. Even so, when I look at the supply/demand imbalance we have in our housing sector, which looks the most severe since the 1970s, it's hard to know exactly how that will be resolved in the coming years. And I think there is probably some upside risk even to our forecast.

Allison Nathan: And what about the final risk?

David Mericle: The third risk would be that the factors I highlighted at the beginning, price rebounds and reopening industries and temporary supply shortages, really do turn out to be temporary, but they make such a big impression on people's inflation expectations that via our sense of what is a normal inflation rate, it becomes self perpetuating.

So far, we have seen a big increase in inflation expectations. Now, some of that is simply that gas prices are up a lot. And gas prices tend to make a big impression on people's inflation expectations. After all, you drive a few blocks and you see in big, bold letters the price of gas, it's not surprising that things more salient for people's expectations than other prices.

Some of the increase though seems to go beyond that, perhaps reflecting the price spikes we've seen recently. Or, perhaps, reflecting the fact that the Fed is trying to raise inflation over time. I don't think where we are now is in any way problematic. In fact, I would agree with Chair Powell who said at his press conference a couple weeks ago that you probably want this increase in inflation expectations to go a little bit further. But if it were to go a lot further, and it's possible that we'll get some further increases as we see further price spikes for things like airfares, that that could make a bigger impression on people's sense of what normal inflation is. And that that could become problematic.

Allison Nathan: When will we have a sense if some of these risks are materializing to a problematic point? What's the timeline you're looking at?

David Mericle: Yeah. I think by the last quarter of this year, the obstacles to labor supply will be basically gone. The Federal top up to the unemployment benefits is scheduled to go away in September. In many states that's going away early. And hopefully, by then people who have virus-related concerns will no longer have those concerns about going back to work. So, really by the late fall the labor market side of things should be taken care of.

On the supply constraints that are not due to labor constraints, I think it's a little bit more of a mixed timeline. The semiconductor chip shortage issue, for example, is going to take a while to resolve. You can't just turn up a new semiconductor plant overnight and start churning out chips. But already we're seeing in the auto production schedules that it looks like companies are finding ways to work around this. And we're at least moving in the direction of getting back on track.

So, I think we're probably in for a couple more months of firm inflation prints reflecting these supply chain disruptions and reflecting price rebounds in reopening sectors. If we get that, that would not surprise me. And that would not make a big impression on my longer-term inflation expectations. But if by the end of the year we're still looking at a lot of problems getting supply back to normal levels and we're still looking at a labor market where labor market tightness feels a couple percentage points lower in unemployment rate terms than the official unemployment rate, that would worry me a little bit more.

Allison Nathan: And so, what is your inflation forecast right now?

David Mericle: My forecast for core PCE inflation is to peak next month at 2.8 percent before coming down to about two and a quarter by the end of this year. By the time we get to 2022, I think most of these pandemic special factors should be behind us. And over that period, we expect to accelerate from about 2.1 at the end of 2022 to about 2.2 percent by the end of 2024. That's not particularly high. But I would point out that path is higher than we ever got to on core PCE in all of the last business cycle. So, I think it's not obvious by any means that we even get there.

Allison Nathan: So, what are the implications of all this for the Fed? You just talked about a lot of risks that could be coming down the pike and materializing post the fall, later this year, more visibility on that. How concerned are you they could get behind the ball, in a sense, on these inflation risks?

David Mericle: In thinking about the Fed's response, you have to think about the order of operations for taking back policy accommodation. They're starting with ending the asset purchases, and only after that's done do they tend to consider rate hikes. So, they've said with respect to the asset purchases that they want to see substantial further progress on both sides of the dual mandate, on both the labor market side and the inflation side.

I think the labor market is probably going to be the binding constraint here. Fed officials have made a big point that we are a long way from getting back to pre-pandemic levels of employment. That the unemployment rate is quite high. And that the true level of labor market slack is even quite a bit higher still. And that was all before we got a very disappointing April employment report in which the unemployment rate actually increased.

So, it looks like we're a ways away on the labor market side of things from even starting to hint at the asset purchases being phased out. And our forecast is it won't be until early next year that they actually begin tapering. I think they'll start talking about it some time in the fall of this year, late summer to fall, but I don't think they'll actually start until early next year.

Allison Nathan: And how long do you expect that tapering process to last?

David Mericle: I would expect that the tapering of the asset purchases consumes about a full year. If they go at a pace of 15 billion per taper, which would already be faster than what they did last time, it would still take you eight meetings or one full year worth of meetings to finish off. And so, if you start in early 2022, you wouldn't be done until the end of 2022 at the soonest. And I would think they'd then want to take a little break. So, that probably means that rate hikes are not really on the table until some time in the first half of 2023, about two years from now.

Now, at that horizon, they can go as fast as they deem it necessary to go. The question is, where will inflation be at horizon? The FOMC statement right now says that in order to lift off, inflation needs to be at 2 percent and on track to moderately exceed 2 percent for some time. So, I think they probably, in reality, need a little bit of a buffer above two if they're going to declare to the world that they have confidence that we're going to stay there for some time. And I think it's very possible that we'll be there by then. But in our forecast, we don't get there until early 2024.

Allison Nathan: Let me just ask you one last question which is in the opposite side of the spectrum, which is we've heard so much about the shift towards a digital economy, the acceleration of that in the midst of the pandemic, which I think most people take to be deflationary than inflationary. So, you know, could there be some deflationary offsets to the inflation that we are seeing or could see?

David Mericle: Yeah, absolutely. We are pretty optimistic about the productivity consequences of the pandemic. And other things equal, if businesses are able to operate in a more productive way by saving on business costs like travel, entertainment expenses, or by allowing more workers to work remotely, which might allow them to tap lower cost labor markets, then that means costs are growing more slowly in the medium term. And that, in turn, means the prices don't need to grow as quickly either.

So, I think there is some offset. You know, I think this is probably a slow moving process. It's probably not relevant for the next couple of months. But over the next few years, if that thesis turns out to be right, that there are productivity gains

that will be lasting that we can harvest from this experience which has introduced or accelerated a number of productivity-enhancing developments, then I think that could be a meaningful disinflationary offset.

Allison Nathan: Thanks, David. It's all worth watching. Great to have you on the program today.

David Mericle: Thanks very much, Allison.

Allison Nathan: We'll now turn to Josh Schiffrin from our Global Markets Division for his perspective on the implications of higher prices on interest rates and risk assets. Josh is Co-Head of both US and Global Interest Rate Products and has worked in the firm's inflation business since 2003. Josh, welcome to the program.

Josh Schiffrin: Thanks, Allison. It's great to be here.

Allison Nathan: So, what are the measures that the market typically looks at when assessing inflation risks? And what are they broadly telling you now?

Josh Schiffrin: I think the market looks at a variety of things. It looks at the strength of the economy. A strong economy, clearly, I think, is connected to higher inflation outcomes. It looks at commodity prices. It looks at wage information. The market very much views sustainable rises in wages as being very much linked to a more long-term, less transitory kind of inflation.

And then I think overriding this all, Federal Reserve policy in the market's mind is very much connected to the risks around the inflation outlook.

Allison Nathan: So, if you look at these different measures and you would just assess given the clients that you speak to everyday, how concerned is the market right now? And how has that evolved?

Josh Schiffrin: I think it is as concerned as I've ever seen it in 20 years in the markets. And I think that's because you have a series of policy forces that all push in one direction. A large boost in fiscal policy with potential infrastructure. You have a Federal Reserve who is really trying to generate a very strong recovery and, I think, to some degree you can kind of get behind the curve and allow inflation to rise and only lift off

at maximum employment.

So, you have these big policy forces that are very much designed to ensure that the outcomes that followed the great financial crisis are not repeated. Where you had a relatively slow recovery, inflation never really got to target. You have policy makers acting to ensure it's a different set of macro economic outcomes for this recovery. And as a consequence of that, investors are looking out and saying, "Well, if there's ever a time to worry about inflation, now is that time."

Allison Nathan: And are clients acting on that concern? I mean, are they putting hedges in place? And what do you think are the most attractive hedges right now for inflation risk? We hear about TIPS, gold. Is there a specific way that makes more sense right now?

Josh Schiffrin: So, to date this year, we've seen a sharp sell off in the bond market. The ten year note is about 75 basis points higher than it was at the end of last year. So, I think the market has clearly repriced itself to some degree. Commodities have been strong performers this year. So, I think there has certainly been a lot of activity in the commodity market. There has been strong performance in the TIPS market and break evens have rallied. Another route that people are taking is to hedge upside outcomes for interest rates and buy option-like protection.

I don't think gold has kind of been the asset of choice. You mentioned it so I'll just kind of address it. It just feels like that has not necessarily been the go to in inflation hedge.

Allison Nathan: Could there be knock-on effects of all this to other assets?

Josh Schiffrin: To date, the rise in treasury yields has really been driven by increased inflation compensation, wide or break evens. The nominal rate in treasuries you can decompose to real rate and break even. The rise in treasury yields has been predominantly a break even story. And that was first related to the theme of reflation reopening. But more recently, some of the inflation dynamics we've been discussing.

I think a sharper rise in real rates to the extent in particular, it's driven by reassessment of the likely path of monetary policy. Our communications from the Fed, which certainly have a, maybe, different set of knock-on effects to

other assets. Additionally, contemplated fiscal actions that are perceived as boosting the real productive capacity of the economy could very well cause the market to reassess some of the declines in secular real rates we've seen over the last decade where the lack of fiscal response led the market down a path of secular stagnation.

So, you know, I'm very open to the idea that moves in real rates could have different knock-on effects to other assets. I'm also very open to the idea that there's a bunch of forces that could lead to higher real rates over time. The level of real rates is by nearly most historical measures quite low at the moment.

Allison Nathan: Let me just ask you one last question which is, as we're contemplating this more inflationary environment, does anything look mispriced to you? Is the market too concerned about inflation? Or maybe not concerned enough?

Josh Schiffrin: I'm a little surprised that the levels of volatility around the bands of possible outcomes haven't widened more. Just given the sheer uncertainty of how I think things can potentially play out, the market has shifted to being fearful, pricing, I would say, modestly above target inflation. But not 3 to 4 percent for a sustained period of time.

I have a lot of sympathy for just the idea right now that we're just living through extraordinary times. And the sheer scale of the policy response from the government and the easing actions from the Fed, combined with the macro economic recovery from a sudden stop recession, just leaves the bands of outcome very wide. I think you can have a central scenario. But it's probably a time where one should just have a healthy respect for just the sheer magnitude of possible future outcomes. And I think that's a little bit the story of the data we've seen over the last few weeks in that big data surprises are possible. And I think the macro economy can evolve in unexpected ways at this time, certainly relative to the last decade where we saw broadly a 2 percent economy, very stable growth in payrolls. And as a consequence, financial markets had very low volatility in line with the low volatility in the real economy. Now I think we're moving to a period of real change and activity and dynamism in the real economy.

Allison Nathan: Thanks for joining us today, Josh.

Josh Schiffrin: It's great to be here, Allison. Thanks.

Allison Nathan: That concludes this episode of Exchanges at Goldman Sachs. Thanks for listening. And if you enjoyed this show, we hope you subscribe on Apple Podcasts and leave a rating and comment.

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