Exchanges at Goldman Sachs What's ahead for economies and markets in 2023? Jan Hatzius, Head, Goldman Sachs Research, Goldman Sachs' Chief Economist Dominic Wilson, Senior Advisor, Global Markets Research, Goldman Sachs Allison Nathan, Host, Goldman Sachs Research Recorded: January 11, 2023

Allison Nathan: Global growth slowed sharply in 2022, weighed down by surging inflation, interest rates, and geopolitical turmoil. So what's in store for economies and markets in 2023?

Jan Hatzius: We feel pretty good about the idea that a soft landing is possible. Doesn't mean it's assured. We do assign a 35% probability to a recession. That's not a low number. But we feel good about the idea that the baseline is no recession.

Allison Nathan: I'm Allison Nathan, and this is Exchanges at Goldman Sachs.

In this episode, we discuss the economic and market

outlook for the year ahead. To do that, I'm joined now by Jan Hatzius, head of Goldman Sachs Research and the firm's chief economist, and Dominic Wilson, senior advisor in the global markets research group. Jan, Dominic, welcome back to the program.

Dominic Wilson: Thank you.

Jan Hatzius: Great to be with you.

Allison Nathan: Jan, you believe the US will avoid a recession this year, and that's actually an out-of-consensus view. Most forecasters are expecting recession. So what's driving that relative optimism?

Jan Hatzius: Just specifically on growth, I think two things. One, we had a large decline in real disposable income in the first half of 2022 because of fiscal normalization and the surge in inflation, especially after the Russian invasion of Ukraine. But that is now really behind us. If we look at real disposable household income, it's started to grow at pretty rates, and we're expecting further 3-3.5% numbers for real disposable income growth. And it's really driven by no more fiscal drag and lower headline inflation at a time when wage growth is still relatively high. Headline inflation is slowing more quickly than wage growth. That's good for household income.

Second reason, and I think this is probably the biggest disagreement with other forecasters that have a recession in their forecast and that is the majority, is that, while the tightening of monetary policy and the tightening of financial conditions is a very substantial drag on growth, we think that drag is actually peaking right around now. We're estimating that financial conditions tightening is subtracting something close to 2 percentage points from growth at this point, late last year, early this year. But that, as we go through 2023, that drag is actually going to diminish.

Both of those factors I think are going to keep growth positive.

Allison Nathan: And if we talk about the inflation view a little bit more, obviously a key focus over the last couple of years, you believe that the Fed can bring down inflation and essentially manage this soft landing we just discussed but with only a modest increase in unemployment. And

that's despite the fact that the Fed has never been able to do that in the past, especially during high-inflation periods like in the 1970s. So why do you think this time will be different?

Jan Hatzius: Yeah, what's different this time specifically relative to the 1970s, I would say, number one, inflation expectations are very well anchored. Whereas, they were not anchored at all or anchored at extremely high levels in the 1970s. If you look at 5- to 10-year inflation expectations in the University of Michigan, they were close to 10% in the late '70s. They're now at about 3%, which actually historically is consistent with inflation closer to 2%. So very, very well anchored.

Number two, I think we are already seeing this in the data. We're getting a number of inflation freebies defined as drivers of disinflation that don't really require a large amount of economic weakness. One is the flattening out and decline in commodity prices, which is now weight on inflation. Another is the resolution of the supply chain imbalances, which has started to bring down core goods inflation. There's still a ways to go there, and I think there's still more in the pipeline. The last one is that you have this big increase in rents as you are coming out of the pandemic, out of the lockdowns, and that's still very visible in the CPI and the personal consumption deflator. But if you look at timelier measures of rents, those have already started to stagnate or even decline a little bit. So we can be pretty confident that the rent measures are going to come down substantially in 2023. So inflation expectations, inflation freebies.

And then lastly, I would say, if I look at the labor market, there's a big debate about whether the US labor market is overheated and whether the unemployment rate is going to have to increase substantially to bring the labor market back into balance. My view is that the labor market is overheated but not because we're employing too many people. I don't think that the level of employment or the level of the unemployment rate even is at a level that is highly unsustainable. But what I think is unsustainable is that we have still a very large number of job openings. Job openings have come down somewhat, but we're still above 10 million job openings versus about 6 million unemployed workers. That is an imbalance that does need to be corrected, but I think we'll be able to continue to correct it by job openings coming down. And we think that's also

going to bring wage growth to levels that are more sustainable.

I think all three of these observations are quite different from past periods when the economy was very overheated and inflation was too high. And so we feel pretty good about the idea that a soft landing is possible. Doesn't mean it's assured. We do assign 35% probability to a recession. That's not a low number, but we feel good about the idea that the baseline is no recession.

Allison Nathan: So Dom, Jan is optimistic relative to most other forecasters, but what about relative to the market? What type of growth scenario is the market pricing right now?

Dominic Wilson: Yeah, it's a good question. I think what's clear is, relative to the dominant narrative in the market and the things that investors say they're most worried about and relative to other forecasters, this is a pretty optimistic view. I would say the focus and the dominant focus is still on recession and the likelihood of recession and/or on the focus that inflation will cool only slowly and that the Fed will have to lean against that for

longer than expected.

When you look at the pricing of the market, though, particularly at how things have shifted over the last two or three months, we've moved closer I would say towards a more optimistic view despite what people are still worrying about and talking about. If you look at the pricing of US cyclical versus defensive equities, which is one way we used to benchmark what we think the growth that's being priced is there, that's not a recession re-levels. It's at weak levels around the weakness that we're seeing in the economy currently but definitely not at the kind of discounts that you would normally see in a full recession.

And even for all the worry about upside inflation risks that you hear people talking about, if you look at the inflation pricing in the market, it's actually pretty benign now over the next three or four years.

I think, at the end of the day, you have to remember that the market is pricing across a distribution of outcomes. And so if we just get the view that Jan is forecasting that central case and we move along that path and that becomes the dominant outcome that's priced, my guess is that that is generally friendlier than what is being reflected across the markets overall. Most clearly, the market is also pricing rate cuts in the back of this year and then well into '24 and '25. If we move along this track where the economy holds up, you don't get the recession, inflation's cooling gradually, those cuts are going to have to come out. So there are definitely significant places in the market that are not really pricing the view that Jan reflects. Although I think the talk and the narrative in the market is perhaps more bearish than what's actually being priced.

Allison Nathan: Let's clarify that a little bit, Jan, because what are you expecting for the Fed at this point?

Jan Hatzius: Our expectation is that there will be another shift down to a 25-basis-point rate increase in early February. So in December, they shifted down from 75 to 50. We think they'll likely shift down to 25. It's still somewhat data dependent, and they haven't completely dipped their hand. If you look at the FOMC minutes, there wasn't really a strong hint. That said, if I just look at what Chair Powell said in the December press conference, that they were going to, quote, feel their way to a sufficiently restrictive level of the funds rate, to me, that sounds like 25 basis points.

I also think there's a pretty good argument for going to 25. If you're worried about overshooting, you think that you may still have a reasonable amount of work to do, at least some more work to do, but you also don't want to overshoot. If you go 25 basis points every six weeks, the likelihood that you make an error is just quite a bit lower. So 25 in February.

And then we've got another two 25-basis-point moves at the next two meetings in March and in May, which would take you to a 5 to 5.25% funds rate by the May meeting. And then we have them effectively stay there in our modal forecast, stay at 5 to 5.25% into 2024. So that's very similar to the dot plot to what the Fed themselves are projecting. The way we get there is probably a little bit different because we have a somewhat stronger view on the real economy, somewhat stronger growth, not as big an increase in the unemployment rate. But our inflation forecast is now lower than the FMOC's. The FMOC for core PCE inflation by the end of this year is at 3.5%. We're at 3. So that's starting to be a somewhat meaningful difference. But in terms of the modal outcome, that's where we are. Now, as Dominic said, there's of course a distribution of outcomes. And if I think about our probability-weighted path for the funds rate, it's lower than the modal path because, again, we're assessing a 35% probability of a recession. And if there is a recession, they would likely cut and probably cut pretty meaningfully.

Allison Nathan: So if we compare your forecast relative to the market right now, we're a bit more hawkish.

Jan Hatzius: Yes, but only a bit. If we look at the probability-weighted path, probably because markets are assessing perhaps a somewhat higher probability of a recession. And we do think that the Fed funds futures curve should be sloping downward under our forecast for the economy and the different scenarios but maybe a little bit less than what we observe in market pricing.

Allison Nathan: So what are the implications of that for yields? We've seen the peak in yields? Where do we go from here?

Dominic Wilson: On yields, our central case is that

yields are going to move somewhat higher through the course of this year. Inflation declines that we're seeing are helpful in keeping things anchored, but when you listen to what Jan's talking about in the central forecast, the growth picture's still going to hold up. We're going to avoid recession in the central case. Non-US economies, which we haven't talked about much yet, I think probably are going to pick up over the course of the year. The funds rate probably won't outside that recessionary scenario be cut in the way that the market is pricing. And so all of those things work to push the longer data yield structure in our central case gently higher.

But I do think it's possible that we saw the literal peak in the longer dated yields in the fall of last year. We're well off those levels now. And so even if we're moving higher, we may not go all the way back to where we were at the peaks of 2022.

And I think, more importantly than that, the total return on bonds in our central case is likely to be modestly positive, I think. You're getting decent carry and yield there offset by the possibility of some capital loss. You've clearly peaked through the period I think of intense front loading of Fed tightening. So that sense of kind of rates as a risk to the broader asset market and economy, that's not over but it's likely to be a lot less intense than some of the periods we saw in 2022. And partly because of that rate volatility we think has peaked so it pressures from that side and beyond certainty from that side is coming down. And so when you mix those things together, bonds do look like a significantly better investment as part of a portfolio than they did last year. The yields are higher. They're recession protective in a way that they weren't protective against monetary policy shocks last year. And I think the overall case for having them in portfolios is a lot stronger than it was.

Allison Nathan: And rates have been such a key driver of equities over the past year. We're about to kick off our earnings season here. What is the implication for that for equity valuations and the equity market more broadly?

Dominic Wilson: Yeah, I think with the equity valuations, you have to distinguish a little bit geographically. One of the things I would say that is clear across the board is that the very deep valuation discounts that we sometimes see as we move through the troughs of

bear markets and troughs of recession cycles are not things we're really seeing anywhere at this point. But you're seeing significantly greater discounts in European and emerging market equities as we move through the back end of the year.

If you look at the US, the picture's a little bit more complicated than that. Equities are cheaper in absolute terms than your were a year ago. We saw obviously significant declines through the course of 2022. But when you compare them to what's happened to government bonds, to created, so to other yielding assets, it's in a relative sense they've probably got richer over that period. You have pretty substantial increases in real yields across the government bond curve, including long-duration assets that are comparable to the long-duration equities that you see dominate the US equity market. And so you don't really get a sense on a relative basis that the US market is yet particularly cheap and certainly not cheap in the way that it has sometimes been at the beginning of new bull markets.

And so I think the challenge a little bit there is that cash and bonds -- cash with a T bill at 465 at the moment on a 6-month basis. We haven't seen that since pre-GFC. There's a real alternative asset classes in a way that wasn't as clear for a while. And so I think valuation is not a binding constraint. It would be helpful if yields overall came down. That would be one way to alleviate the valuation issues in the US. Without that, I think you can still imagine situations where there's upside from here, but I think to imagine a kind of strong bull market out of the current situation is just a lot harder given the starting point than it was in the last two or three cycles.

Allison Nathan: So Jan, as we've discussed, you believe the US will avoid recession, but what about Europe?

Jan Hatzius: We had a recession, a mild recession but nevertheless a recession, in Europe in our forecast until very recently. And the rationale was that Europe is seeing a much worse outcome for real disposable income. In the US, the recovery in real disposable income is really an important part of our no recession call.

In Europe, of course, you've had this large hit to household utility bills from the Russian gas issue and the energy crisis extending into natural gas. But a few things have happened that make us think that recession is no longer the base case, even though we still expect maybe a small decline in GDP in the fourth quarter, but we no longer have a recession base case. What are these developments?

Number one, the economy has held up generally better than expected, at least if you look at the hard economic indicators. Despite the weakness in the surveys and despite very substantial squeeze on energy and the big decline in energy consumption that you've seen, industrial production has basically continued to go sideways across the major economies. So somewhat more resilience.

Number two, we've seen a very warm winter so far. A big drop in natural gas prices. That is going to support real disposable household income, with a lag because there's obviously a difference between wholesale and retail prices. But that's going to help. So we now think that real disposable income is actually going to do better from here.

And then we haven't really touched on this yet, but the outlook in China obviously has also changed pretty significantly. Probably we'll see a strong rebound eventually at least in China, and that's going to be helpful for several of the key economies in the euro area, especially Germany. So we've upgraded our forecast. We're now looking for positive growth in 2023 and are above consensus in the euro area as well, not just in the US.

Allison Nathan: And how do you expect the ECB to respond to that better growth outlook?

Jan Hatzius: I think the next couple of moves have been signaled relatively clearly already. We're looking for two 50-basis-point moves. And then we've got another 25basis-point move to take us from 2% at the moment for the deposit rate to 3.25%. We debated adding a little bit to that in light of a stronger growth outlook, and perhaps it should be a little bit higher. On the other hand, the ECB historically has also shown that they're quite sensitive to headline inflation. And one of the key reasons for why the growth outlook is better is that the headline inflation outlook has actually come down because of lower gas prices, so it might end up being a wash from the ECB's perspective. So we're still at 3.25, at least in the baseline.

Allison Nathan: So you mentioned China as a potentially very large driver of better European growth ahead. So talk

to us a little bit more about China. We've obviously seen pretty massive reversal in their COVID policy. So what are the implications of that for growth?

Jan Hatzius: So fourth quarter is likely to be very weak. You know, sizable contraction. We've downgraded our 2022 estimate. But we've been adding to the 2023 forecast pretty substantially. We're now looking for 5.2% for the annual average and 7.2% for the fourth quarter to fourth quarter rate. And the idea here is basically a V-shaped recovery in terms of activity in especially areas that involve a large amount of face-to-face interaction.

And in terms of high frequency data, it now looks like the peak of nationwide cases is behind us. Hard to know because the authorities of course are no longer really publishing these numbers. But just inferring from a variety of indicators, we think we're through the worst at least in terms of infections. We are seeing some increases in high-frequency economic indicators like subway traffic and utilization on passenger flights. So we would expect a pretty rapid acceleration in activity through the first quarter. I think in quarterly terms, probably the second quarter is really when you see the big bounce back. But it certainly looks like we're on the cusp of very material acceleration.

Our China team estimates pre reopening, the level of GDP was about 4-5% below the level that you would have seen ex COVID restrictions and ex COVID cautions. So in principle, there's quite a lot of room for above-trend growth to get back to somewhere close to that baseline.

Longer term, China still has some very substantial challenges. None of the demographic challenges or property market challenges that we've repeatedly discussed and that have been repeatedly discussed in markets. None of that is changing. But in the near term, it looks like it's going to be quite a bit firmer.

Allison Nathan: If we are set to have this big acceleration in growth, much bigger than we had originally anticipated several months ago, will that export inflation? Does that feed back into the inflation challenges that other countries are facing? Or do you think that will be manageable?

Jan Hatzius: I think only to a limited degree. There

probably will be an impact on commodity markets from things like domestic flights. So far, it's been reasonably limited. We haven't seen a lot of moves in oil markets, but our commodity team certainly expects to see more of an impact. They also make the point that, while equities, let's say, or bonds are anticipatory assets, oil and commodities are assets that depend on clearing of markets in real time. So it may still take a while before we really see this in prices. But that is an area where it does mean somewhat more inflation relative to what you would have gotten otherwise.

I think in other areas, probably not so much. A lot of the recovery in China that we're likely to see is going to be in the service sector and especially areas that involve large amounts of face-to-face interaction. Those are very domestically focused and probably don't have large spillover effects on other economies. So we haven't upgraded our core inflation forecast for other economies, and I wouldn't expect that. Certainly not for economies like the US or Europe that are pretty far away from China in any case.

Allison Nathan: But Dominic, let me turn back to you.

If we are seeing better growth out of Europe, out of China, what does that imply for the dollar, which has had a very strong run here? Have we seen the peak? Where do we go from here?

Dominic Wilson: Yeah, I think our view has evolved on that. I think the latest forecasts are that the peak, the literal peak in the dollar, was seen in September/October of last year. And I think the FX team has focused a lot on setting out the conditions historically for the dollar to peak. And I think the combination of forces that you've wanted to be comfortable, that the dollar might turn from what is pretty overvalued level is really a mix of sort of two things.

One is to take the Fed to its position where it's at least moving towards the exits, and that intense tightening phase is behind us. And the other, which has been the sort of harder thing to identify, is a story of kind of non-US and global growth acceleration. And historically, the mix of Fed relief plus China reacceleration and European reacceleration ultimately is the one that is traditionally most powerfully dollar weakening, I would say, with the US sort of soft but not recessionary. And I think more of those pieces have fallen into place in the forecast, with China picking up now, with Europe avoiding the worst of its recession, with the US weak but not necessarily recessionary weak, and the kind of most intense part of the Fed cycle over. We think you probably have set the stage for the beginning of a period of dollar weakness.

We've obviously had pretty meaningful weakness already over the last couple of months. I think the chances are the next little while could be choppier around that. The US is still doing relatively well. There's some rate cuts that are in the back half of this year that may not be realized unless a recession occurs. Not our central view. And so there may be some back and forth. But I think we're probably over the longer haul on a track for the dollar to turn and for a period where the dollar does extend this kind of weakening that we've seen.

Allison Nathan: And what about other ex US assets? Are they set to perform better off of this relative improvement in growth?

Dominic Wilson: Yeah, look, I think the most likely answer is yes. Again, the market is quick. It notices what's going on, and we've seen a couple of months of pretty significant outperformance, both in non-US equities in general and then in China equities in particular. So we continue to experience what we've experienced through all of this sort of pandemic and post pandemic cycle, which is that the market is very fast to incorporate the information and the inflections that you think you're seeing.

Having said that, most of the benchmarking that we do suggests that process is not over for the views that we have now as non-recessionary European view and a China reopening driven growth boost.

And we mentioned before, the valuation picture has discounted more in those markets. You've got a more obvious growth acceleration behind you. I would say that sets the stage for more of this kind of tailwind, at least in the near term. I think, you know, what Jan mentioned about China is important to remember for the longer term. When you stretch the horizon out, there are structural weaknesses in China in particular but also kind of structural risks in Europe that don't have the same degree or parallels in the US economy, I would say. And it's also true that, if we go back to rate and commodity price pressures and that's sort of where we end up heading further down the track, that the US in general has been more resilient than a lot of other places in the faces of those kinds of pressures. So I'm not sure how long a trajectory this is, but I think, if you look at what we're seeing cyclically right now, it is more supportive of some of these non-US markets than it has been for a while.

Allison Nathan: So let's end with a discussion on risks. I already started talking a bit about risks, Jan. But if you think about the year ahead, what risks are you most focused on that would make you revisit or rethink some of your forecast?

Jan Hatzius: The central risk, I would say, is that it is a narrow path to a soft landing. We need some weakness in economic activity. We need a below-trend growth environment because there still is labor market overheating. We still have a gap between jobs and workers of more than 4 million, which is still historically a very large gap. Wage growth, while it appears to be decelerating, still is probably too rapid to be compatible with something in the twos for inflation on a sustained basis. So we need weakness. But if we have too much weakness, then, you know, there's more risk of negative multiplier effects. So adverse multiplier effects where job losses start to really build on themselves and we end up with a sort of more traditional recession where the unemployment rate moves up but a lot more quickly. So calibrating the kind of policy stance correctly to keep the economy on a below-trend growth path I think is going to continue to be challenging.

I would also note that, if I'd just look at the current data flow, there is a pretty wide range of interpretations depending on which indicator you focus on the most. You look at real GDP tracking estimates for the fourth quarter, those look firm. We're at 2.6% at the moment. Payrolls are still growing more than 200,000. Jobless claims are still close to 200,000. Very low levels. All of that is looking very robust.

And then I look at some of the business surveys and our current activity indicator, which is pretty dependent on these surveys, and some of those are looking very weak. Borderline contractionary or worse in some cases. My instinct in this sort of situation is to take an average of the different signals, and that average is pretty consistent with what we think is actually necessary to rebalance the economy. Namely, clearly below-trend growth but still positive growth. But I think the uncertainty around that is probably somewhat larger than normal just because the range of signals is wider.

Allison Nathan: And Dom, if some of these risks do play out and we end up in a more recessionary environment, what would that look like for markets at this point?

Dominic Wilson: Yeah, I'm going back to where we started. The market is priced towards recession, but in our view it's not generally pricing recession. So if you get a recession that evolves over the course of the next few months in terms of just tracking down the weaker path of the indicators that Jan mentioned, I think we see that as generating pretty reasonable downside to equities and created markets. So to the risk asset complex. And quite possibly through the lows that we saw last summer.

If it was coming alongside evidence that some of this inflation progress was also being unwound, that would be more meaningfully difficult for those risky assets. But I think, you know, the chance of that probably diminished with the data that we've seen over the last few months.

And I would say alongside that, in the limit, commodities, we think the structural supply situation is tight, but if there's a significant enough downturn in activity, those markets are probably also going to head lower. And the market is pricing cuts in the rate market, but I think, if you tipped into a recession -- certainly if you tip into recession in the next few months as some of this sort of peak period of weakness that Jan has mentioned, if that generated something worse over that period, I think what you would do is you would bring those cuts forward and make them deeper and curves would steepen up. So we're pricing a sort of risk of that, but I think you would see the market rally on the bond side and the market price at a more precise and concrete Fed-easing cycle than it's doing at the moment.

Allison Nathan: Should I be bold and ask about an upside case here, though? We have seen some pretty positive economic momentum in a lot of the major economies, so if we were to see more resilience, what would that look like?

Dominic Wilson: You can be bold. It's funny. If you'd asked me two, three months ago, I would have said that part of the struggle was to define a kind of credible and plausible upside case that really aligned with the distribution of outcomes that we were envisaging. And I think one of the things that has changed over the last two or three months is it's a little bit easier to define at least a version of that story.

And I think for me it relates to some of the changes that we've talked about. Obviously, running behind this for the last few months there's been more confirmation that you can get some relief in inflation without damaging the economy, particularly and get relief in wages with an unemployment rate that has stayed very low. So reinforcing the general view that Jan and the team have had, that you don't need that kind of recessionary damage to generate disinflation, which has been a big debate in the market.

And then on top of that, to have economic upgrades potentially in Europe and China, you have a mix that I think, overall, is leaning more favorably, at least in parts of the kind of asset universe, than people have been ready for coming into the beginning of this year. I think that the challenge a little bit, still going back to the issue on valuations, is that not having a recession with current valuation constraints is at some level a bit of a doubleedged sword. We're starting at a point where there's a limit certainly in the US on how much you can really envisage growth reaccelerating from a situation where the economy has already done pretty well and where capacity is still pretty tight and the labor market's in good shape already. And then you've got valuations that are not as discounted as they often are coming into new bull markets.

So I think the challenge is a little bit, even if there's an upside scenario, even if things are better than we think they're going to be, how much true upside and how much runway we have, both from a valuation perspective or before the constraints on growth either just mechanically or from commodity markets or central banks feeling they need to lean against it, how quickly those will kick in.

But I do think we're looking at a situation where the outlook looks friendlier than I think people have anticipated, at least over the next three to six months. **Allison Nathan:** Jan, Dom, thanks so much for joining us.

Jan Hatzius: Thank you.

Dominic Wilson: Thank you.

Allison Nathan: Thanks for joining us for this episode of Exchanges at Goldman Sachs, which was recorded on Tuesday, January 10th, 2023. If you enjoyed this show, we hope you follow on your platform of choice and tune in next week for another episode. Make sure to share and leave a comment on Apple Podcast, Spotify, Stitcher, Google, or wherever you listen to your podcast. And if you'd like to learn more, visit GS.com and sign up for Briefings, a weekly newsletter from Goldman Sachs about trends shaping markets, industries, and the global economy.

This transcript should not be copied, distributed, published, or reproduced, in whole or in part, or disclosed by any recipient to any other person. The information contained in this transcript does not constitute a recommendation from any Goldman Sachs entity to the recipient. Neither Goldman Sachs nor any of its affiliates makes any representation or warranty, express or implied, as to the accuracy or completeness of the statements or any information contained in this transcript and any liability therefor (including in respect of direct, indirect, or consequential loss or damage) are expressly disclaimed. *The views expressed in this transcript are not necessarily those of* Goldman Sachs, and Goldman Sachs is not providing any financial, economic, legal, accounting, or tax advice or recommendations in this transcript. In addition, the receipt of this transcript by any recipient is not to be taken as constituting the giving of investment advice by Goldman Sachs to that recipient, nor to constitute such person a client of any Goldman Sachs entity. This transcript is provided in conjunction with the associated video/audio content for convenience. The content of this transcript may differ from the associated video/audio, please consult the original content as the definitive source. Goldman Sachs is not responsible for any errors in the transcript.