

US Economics Weekly

Chair Powell: "The time has come"

Economics

Americas

Economic Comment: The time has come

Chair Powell said "the time has come" to being dialing back monetary policy restraint in his remarks today at the Jackson Hole symposium. The Chair again noted that the balance of risks has changed — the downside risks to employment have risen, while upside risks to inflation have diminished. As expected, the Chair did not offer much color on the exact pace and timing of rate cuts, using the word "appropriate," and said "the timing and pace of rate cuts will depend on incoming data, the evolving outlook, and the balance of risks." We recap the Chair's remarks inside and Alan offers his review of the Chair's view of the recent inflation experience. We continue to expect three 25 bps rate cuts at each of the three remaining FOMC meetings this year. We have been expecting the economic slowdown would prompt the FOMC to get out of restrictive policy faster than signalled in their last several quarterly projections, but that shift has come sooner than we thought early this year, and looks to start in a matter of weeks. The Economic Comment begins on the next page.

Preliminary benchmark revision reveals a weaker labor contour

The BLS released its preliminary estimate of the annual benchmark revision to nonfarm payroll employment this week, estimating that the NSA level will revise down by -818K jobs as of March 2024. We think the Fed staff had likely already expected a significant downward revision to establishment survey employment, but the magnitude was larger than we and they likely expected. We recap the revisions inside, and implications for other measures like productivity.

The US Fiscal Outlook: An "unsustainable" path

With most of the 2024 fiscal year behind us, this week we updated our estimates of the fiscal contribution to growth, and our assessments of the potential impact of the Presidential election, and a view of the debt trajectory and potential implications in our latest [US Fiscal Outlook](#).

Week Ahead: PCE prices and GDP

Next week we expect Q2 real GDP growth, originally reported to be 2.8%, to be little revised, but income revisions will take on board the Q1 QCEW data (see chart on page 7). We expect both core and headline PCE prices rose 0.15% in July, leaving the 12-month change in core prices at 2.64% through July. Headline durable goods orders are expected to bounce back in July off of a rebound in aircraft orders, which fell in June. The Conference Board consumer sentiment index should improve a touch and the final estimate of University of Michigan sentiment should be little changed. The run of regional Fed surveys for August will continue as will the run of housing data for July. In the wake of the Jackson Hole symposium, the Fedspeak calendar looks light. The Week Ahead begins on page 17.

The Week in Review: All eyes on Jackson Hole

The shadows of the Tetons stole the spotlight, but the BLS's preliminary benchmark revisions stole some thunder, which we walk through on page 4 to 9. The July FOMC minutes and FOMC participant comments have been somewhat superseded by the Chair. The flash S&P Global manufacturing PMI for August slid to its lowest level all year. Sales of existing homes rose moderately in July but remained at a low level, especially after the June tumble. However, sales of new homes rose robustly in July and the dial-back in mortgage rates in recent weeks could ease some pressure. We estimate that the impacts of Hurricane Beryl and auto plant shutdowns continue to dissipate in the unemployment insurance claims data. The Week in Review (and links to the remaining Jackson Hole agenda) begins on page 9.

Amanda Wilcox

Economist
amanda.wilcox@ubs.com
+1-212-713-2000

Jonathan Pingle

Economist
jonathan.pingle@ubs.com
+1-212-713 2225

Alan Detmeister

Economist
alan.detmeister@ubs.com
+1-212-713 1222

Abigail Watt

Economist
abigail.watt@ubs.com
+44-20-7567 1062

Sonia Meskin

Economist
sonia.meskin@ubs.com
+1-212-713 1424

Economic Comment: The time has come

Chair Powell said "the time has come," to start dialing back monetary policy restrictiveness. In his remarks at the Jackson Hole symposium ([see agenda here](#)), he again noted the risks have shifted, with rising risks to employment and diminished (and diminishing) risks to inflation failing to move back to 2%. As expected, he did not give a concrete indication on the anticipated pace of easing, just noting that with an "appropriate" pace he believed the economy could achieve 2% inflation and a strong labor market. We continue to expect 25 bps rate cuts at each of the three remaining FOMC meetings this year.

"The time has come for policy to adjust. The direction of travel is clear, and the timing and pace of rate cuts will depend on incoming data, the evolving outlook, and the balance of risks," the Chair said.

Two points worth noting. One, the Chair did not use the word "gradual" to describe the pace, as has been the case with a number of other FOMC participants in the past few weeks. Second, he no longer views the labor market as a potential source of upside risk to inflation, at least for the time being. That removes an important reason for constraining the pace of growth, in turn removing a reason for restrictive monetary policy.

Powell no longer considers the labor market to be an upside risk to inflation.

"Nominal wage gains have moderated. All told, labor market conditions are now less tight than just before the pandemic in 2019 — a year when inflation ran below 2 percent. It seems unlikely that the labor market will be a source of elevated inflationary pressures anytime soon. We do not seek or welcome further cooling in labor market conditions." — Chair Powell, August 23

Similar to the minutes, the shift in tone in testimony and as we discussed in our preview Wednesday, risk management has come to the fore. The Chair made clear that the balance of risks has shifted: upside risks to inflation decreased while downside risks to employment increased. He also stated clearly he would like to avoid the labor market slowing further.

"We will do everything we can to support a strong labor market as we make further progress toward price stability. With an appropriate dialing back of policy restraint, there is good reason to think that the economy will get back to 2 percent inflation while maintaining a strong labor market," the Chair said.

Overall, the time has come. We expect conditions are not so weak yet to warrant 50 bp rate cuts, but we expect the Chair would like to remove policy restrictiveness more quickly than the quarterly pace seen in the Summary of Economic Projections. The risks have shifted and the FOMC is facing a more serious tradeoff between growth and inflation.

Inflation was all about supply and demand

Powell spent much of his relatively short Jackson Hole speech outlining his view of why inflation rose and fell, noting that the debate is far from settled (and that there would be [presentations on that topic](#) in a session later in the day). In Powell's version of the inflation history: During the pandemic there was a large burst of demand for goods brought on by "pent-up demand, stimulative policies, pandemic changes in work and leisure practices, and the additional savings associated with constrained services spending" as well considerable supply constrained from "a combination of lost workers, disrupted international trade linkages, and tectonic shifts in the composition and level of demand". As a result, inflation that was "running below target through 2020" (i.e. the first year of the pandemic) swung to a spike in inflation in March and April 2021 that was concentrated in goods that were in short supply.

He recounted that initial supply was expected to improve quickly and inflation would come down sharply. Indeed, he noted that this appeared to be the case over the next six months. However, in October 2021 inflation started to pick up again and broaden into services prices. At that point, the Fed pivoted toward tightening monetary policy. The

rising inflation was further aided by new supply shocks in early 2022 from the Russia invasion of Ukraine and further COVID waves. PCE price inflation peaked at 7.1% in June 2022.

Overall Powell notes that "Pandemic-related distortions to supply and demand, as well as severe shocks to energy and commodity markets, were important drivers of high inflation, and their reversal has been a key part of the story of its decline. The unwinding of these factors took much longer than expected but ultimately played a large role in the subsequent disinflation... This narrative attributes much of the increase in inflation to an extraordinary collision between overheated and temporarily distorted demand and constrained supply." That said, he believes that monetary policy has played a key role in inflation coming down by helping to moderate demand and maintaining anchored inflation expectations.

Powell believes monetary policy successfully anchored inflation expectations.

How much did the Fed really help ease inflation?

Powell's basic narrative largely aligns with our view. However, Powell went further than the narrative by stating that "An important takeaway from recent experience is that anchored inflation expectations, reinforced by vigorous central bank actions, can facilitate disinflation without the need for slack." We are somewhat skeptical of this takeaway. While it is possibly correct, it is also quite possible that the inflation surge would largely have come back down without interest rates rising notably above neutral. We have noted that this was the case in the [post-World War II inflation](#) — which also had pent-up demand, changes in work and leisure, disrupted international trade linkages, and tectonics shifts in the composition and level of demand. It is by far the closest comparison to the recent inflation that we have in US history.

We are also somewhat less certain about the role of inflation expectations — something that FOMC members have long focused on but many inflation forecasters are less enamored with (as eloquently [laid forth by a current Fed staffer](#) who has been a leading voice among the inflation forecasters on the Fed Board staff for the past 25 years).

Directionally tightening monetary policy was clearly appropriate, what is not clear is how tighter monetary policy improved goods supply, increased the size of the labor force participation, satiated pent-up demand, or led to most of the excess saving being spent — probably the biggest reasons inflation has slowed. While the Fed's tightening of monetary conditions has not put the US into recession yet (and our baseline forecast does not include a recession), with the unemployment rate and credit card and auto delinquencies rising, the future is not yet written, and it will be some time before the full impact and appropriateness of the Fed's actions are clear.

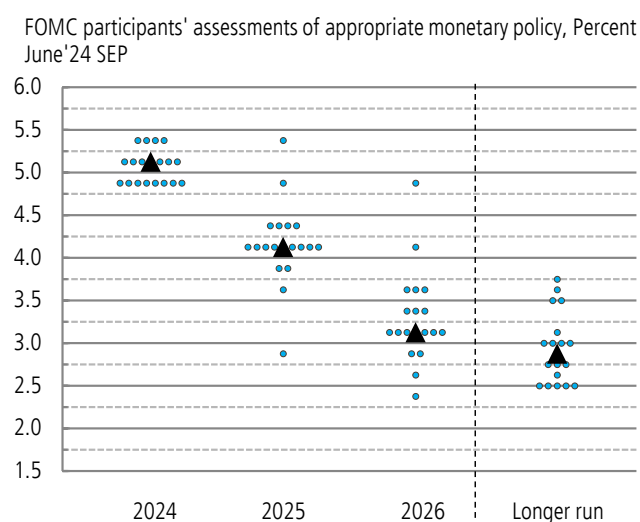
But we believe the extent to which policy has been appropriately rather than overly restrictive is yet to be seen.

Figure 1: June Summary of Economic Projections

Variable:	2024	2025	2026	LR
Change in real GDP	2.1	2.0	2.0	1.8
Mar projection	2.1	2.0	2.0	1.8
Unemployment rate	4.0	4.2	4.1	4.2
Mar projection	4.0	4.1	4.0	4.1
PCE inflation	2.6	2.3	2.0	2.0
Mar projection	2.4	2.2	2.0	2.0
Core PCE inflation	2.8	2.3	2.0	
Mar projection	2.6	2.2	2.0	
Federal funds rate	5.1	4.1	3.1	2.8
Mar projection	4.6	3.9	3.1	2.6

Source: Federal Reserve Board, UBS

Figure 2: June FOMC dot plot: quick shift away



Source: Federal Reserve Board, UBS

March 2024 NFP looks set to revise lower

The BLS released its preliminary estimate of the annual benchmark revision to nonfarm payroll employment, estimating that the NSA level will revise down by -818K jobs as of March 2024. That would imply the current published 242K average pace of employment gains for the 12 months ending March 2024 was closer to 174K per month. That more rapid pace of job gains fuelled the view of the economy's resilience, and bolstered the view that neutral rates of interest must be higher. Combined with falling inflation, this new estimate would seem likely to incrementally undermine that view, and reenforce the sense that monetary policy has been restrictive.

Chair Powell has mentioned the NFP overstatement and Governor Bowman has discussed it specifically in her last two speeches touching on the economic outlook, including yesterday. Bowman mentioned the Q4 Quarterly Census of Employment and Wages data released on June 5. That suggests to us a downward revision to nonfarm payroll employment has been expected by the Federal Reserve Board and their staff since at least then, and more likely for several months. Our guess is that the staff has been prepared for a downward revision of as much as -500K already. How much this incremental news might shift the view from that starting point is unclear.

As the table below shows, the distribution of employment shifted sharply too. Almost the entire estimate of the downward revision is expected to be to private employment, leaving in place the very strong gains in government employment during that period, which averaged a brisk 55K jobs added per month in the 12 months ending in March 2024. Our view has been that strong fiscal policy buoyed growth in 2023, helping to insulate the expansion from the impact of interest rate hikes by the Federal Reserve. This new information would be consistent with that view.

Figure 3: BLS prelim. estimate of revision to NSA level in March 2024

Industry	Benchmark rev. (in thousands)	Benchmark rev. (in pct.)
Total nonfarm	-818	-0.5
Total private	-819	-0.6
Mining and logging	-11	-1.7
Construction	-45	-0.6
Manufacturing	-115	-0.9
Trade, transportation, and utilities	-104	-0.4
Wholesale trade	-33.6	-0.6
Retail trade	-129	-0.8
Transportation and warehousing	56.4	0.9
Utilities	1.7	0.3
Information	-68	-2.3
Financial activities	-76	-0.8
Professional and business services	-358	-1.6
Private education and health services	87	0.3
Leisure and hospitality	-150	-0.9
Other services	21	0.4
Government	1	<0.05

Source: BLS, UBS

We have been writing for most of the last year that we thought nonfarm payroll employment gains were overstated by roughly 30K per month, and in the event, the estimate this week would suggest something double that. Note that an average pace of gains of 174K per month is still a respectable pace of job gains, and not much different than the pace in 2018 and 2019 pre-Covid. A counterfactual chart of job gains that incorporates today's announcement is shown in Figure 1.

Also, note that today's estimate is preliminary. Last year the preliminary estimate of nearly -306K was revised to be smaller, -187K, when the final assessment was made and incorporated into the published data series with the January employment report released in early February. We expect again that this year, that the final revision is likely smaller than what was announced today, due to the processing of tax records and reconciliation of multiple work sites.

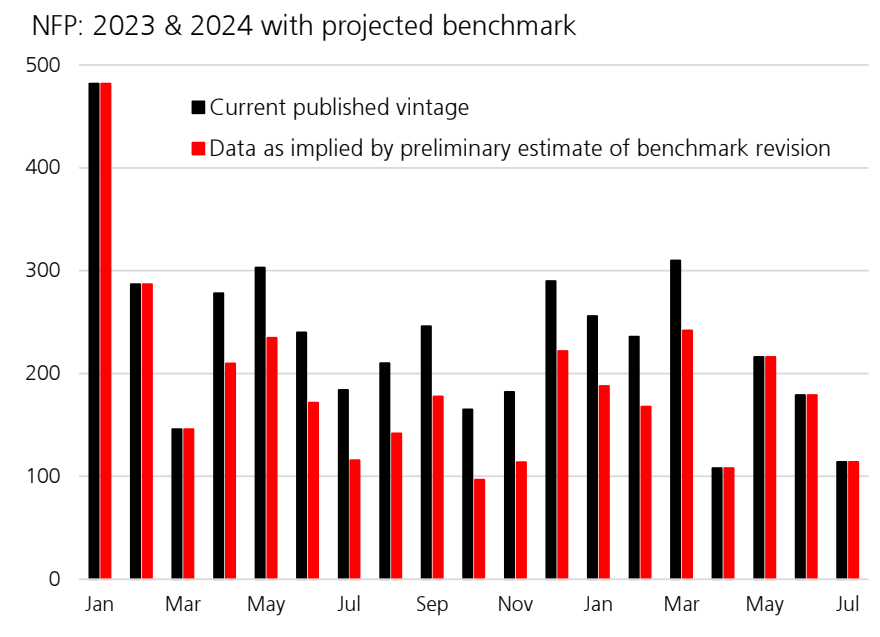
We have been writing about how the monthly employment report was overstating the strength, and in the event more than we thought it seems.

The Federal Reserve Board already appeared to know a downward revision was coming.

Even more than before, fiscal policy appeared to driven an outsized share of the growth in 2023.

Note that the tendency has been for the actual revision to be more positive than the preliminary estimate.

Figure 4: Pre and post revision contour of job gains

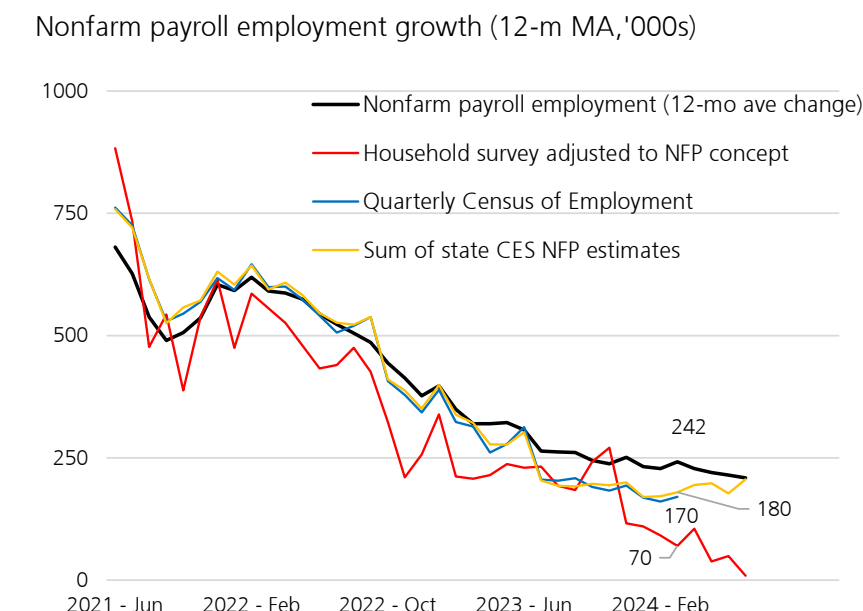


Source: BLS, Haver, UBS calculations

Today's data implication that the average pace of job gains was 174K per month over the 12 months ending in March 2024, would bring the pace of nonfarm payroll employment into alignment with the pace of job gains in the Quarterly Census of Wages and Employment, which is constructed from the same source data, the so-called ES-202 program. It would also align with the sum of state nonfarm payroll employment, data which had been benchmarked through September and is constructed in partnership between the BLS and state employment agencies. The figure below shows the data labels of each series as of March 2024.

Even if the 242K average pace of gains turns out to actually have been 174K jobs per month, that's not all that bad.

Figure 5: Bringing series into line, except the household survey



Source: BLS, Haver, UBS

As the chart also shows, the household survey data has been running noticeably different for the past few years. Note we reviewed how net international migration might play a role in our note, [US Population Growth](#). It can explain some but not all of the deviation. A recent paper by Brookings also addresses this issue of how the

household survey is exaggerating the weakness ([link here](#)).

The announced estimate today will be updated, and incorporated into the published data series with the release of the January 2025 employment report released in early February of next year. At that time, the published data from April 2023 to March 2024 will revise. New residual birth death adjustments will be estimated for the post-benchmark period, April 2024 through December 2024, and along with the annual reevaluation of seasonal adjustment, the data will all be re-seasonally adjusted. New sample units will also be introduced at that time.

The source data used to estimate the benchmark revision are tax records, the tabulated accounting reports that accompany tax payments made by businesses that employ workers and paid to the states. There appears to be some confusion over whether some kind of eligibility determination for unemployment insurance is needed to be included in this source data. There does not, and employees who are eligible and ineligible are included. These reports are a by product of the accounting system in each state. Employers fund the state unemployment insurance systems through tax payments ("proceeds payable"), and the tax assessments depend upon several factors, including the number of employees and compensation which are expected to be provided with the tax payment, and are subject to audit. As a result, the reports are generally considered an accurate assessment of the near census of employees in the United States.

From the BLS: *"These counts are derived from state unemployment insurance (UI) tax records that nearly all employers are required to file," and "along with these accounting reports, employers provide funds for their contributions payable, which finance the UI benefits system in each state."* The tabulations of the accounting reports filed with tax payments has nothing to do with who does or does not collect unemployment insurance benefits. Eligibility in most states is linked to an earnings determination test, and many part-time workers do not qualify in many states because they do not work enough hours. Because part-time workers might be ineligible for unemployment insurance, would they not be included in the benchmarked estimate of nonfarm payroll employment? That is not how the BLS description of the data is written, nor does that reflect how most firms pay taxes. Employees who are part time are included in revised nonfarm payroll employment data, and that can be seen simply by looking at the workweeks reported in the data.

Productivity implications: a smidge better not a big shift

The preliminary estimate of the annual revision is based upon data that has already been partly incorporated into estimates of wage and salary data in the National Income and Product Accounts, and the estimates of compensation used in computing compensation per hour and unit labor costs. Because unit labor costs is output and compensation and abstracts from hours worked, the estimated revision has only minor implications for unit labor costs, that published measure has already had the income data benchmarked to the UI tax records through Q4.

The chart Figure 2 shows the downward revisions over the last few years reflecting the overstatement of wage and salary income by the monthly employment report, a point we have been writing about for some time. Because the income data has been benchmarked through 2023Q4, the news today has no implication for the saving rate through the end of last year. The Q1 records will be incorporated into the personal income estimates with the second release of Q2 GDP week after next.

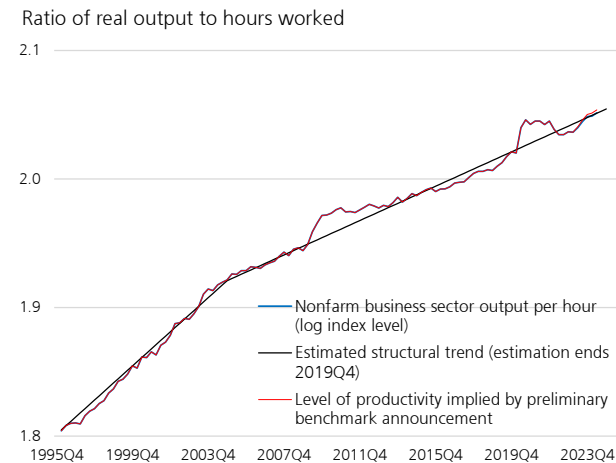
The 0.6% downward revision to the level of private employment would be consistent with a 0.536% downward revision to the level of hours worked in the nonfarm business sector in 2024Q1, and thus imply roughly 0.5 pp more productivity growth over the four quarters ending in 2024Q1, or growth of 3.5%, from the current four quarter pace of 2.9%. Note that the compensation data through Q4 has already been benchmarked so holding Q1 constant the revision would imply higher compensation per hour, and unaffected unit labor costs (through Q4).

That added productivity would push the level a little further above the trend as of 2024Q2, or from being 0.068% above the trend to 0.601% above the trend. That could imply that either the level of output is too high (which seems very plausible) or there is room for more hiring or hours worked. Or maybe the trend should be a wee bit higher.

Do people think that businesses are doing a UI eligibility determination before paying federal, state and local taxes?

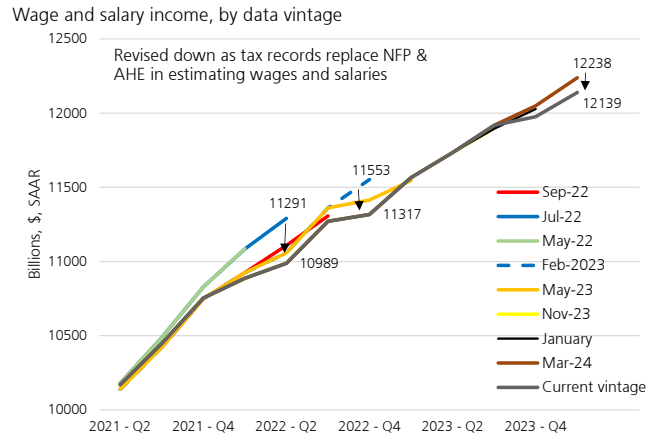
The implications for productivity growth are relatively minor.

Figure 6: Productivity estimated to be 0.536% higher



Source: BLS, Haver, UBS calculations

Figure 7: Income implications already in the data, in part



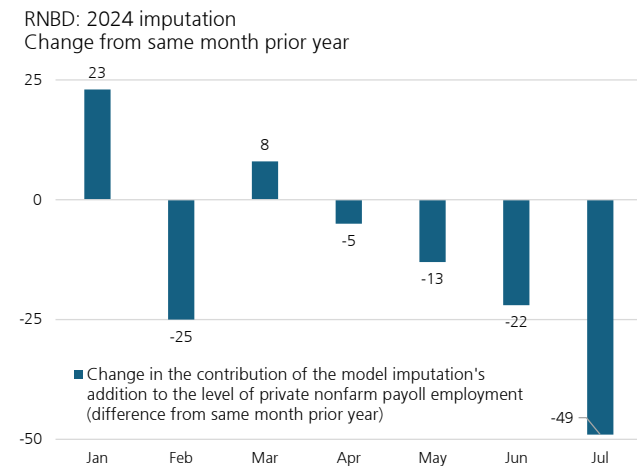
Source: BEA, Haver, UBS

Implications for current data

Analysts should be careful extrapolating too much. One point worth noting, which we published after the July employment report, the residual birth death adjustment is starting to revise. That is likely the primary source of the overstatement reported this morning. In July the imputation added 246K jobs. In July 2023 the imputation added 295K. That deceleration of 49K jobs accounts for most of the deceleration in the over-the-month change between those two months. In other words, if we added another 49K jobs to the July 2024 change in nonfarm payroll employment, the same as the imputation added in July 2023, the over the month change would have been +163K jobs. If July 2024's gain was 163K jobs, that would not be much different from the 184K gain in July 2023, when many assessed the labor market to be very strong. A significant amount of the shift in view appears to have been due to the evolution in a model-based imputation. Is that reflective of "truth"? We won't know until we see the next annual revision estimate next year.

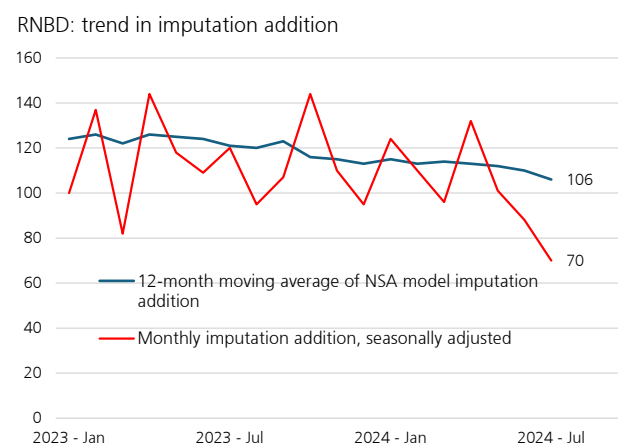
Be careful extrapolating too far. We expect a large part of the downward revision is due to the residual net birth death adjustment being off, and that is now starting to revise. The July 2024 addition to NFP was noticeably shy of the July 2023 addition, likely holding down the July 2024 gain in nonfarm payroll employment.

Figure 8: Residual net birth death adjustment revising



Source: BLS, Haver, UBS

Figure 9: An SA counterfactual fell off sharply in July 2024



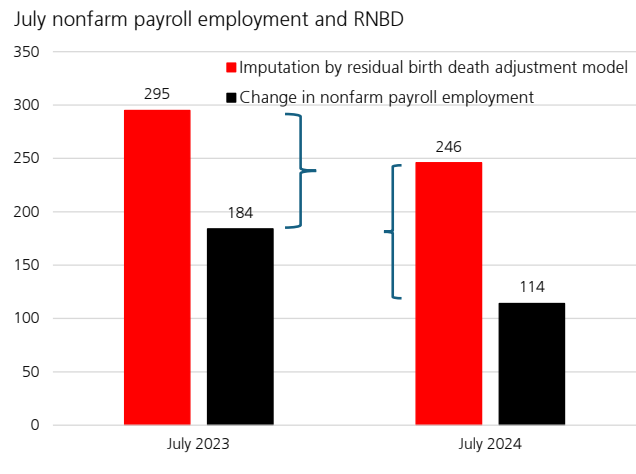
Source: BLS, Haver, UBS

While much of this is a debate over measurement, initial and continuing claims which are administrative data seem to continue to hang in at levels consistent with slowing but nothing ominous. Note that the claims data should capture any slowing in hiring, despite the common misperception of the data only capturing layoffs. First the flows of the labor market are large. If the flow into jobs (hiring) slows, the number of people moving from benefits to employment would likely slow and the stock of continuing claims would rise. Second, from 2011 to 2019, layoffs steadily climbed. Initial claims

steadily fell. Why the disconnect? Because hiring was strong. Someone leaving a closing or shrinking establishment is less likely to file an initial claim if hiring is strong and that person can transition into a new job more quickly. If hiring slows, the more likely someone laid off files an initial claim.

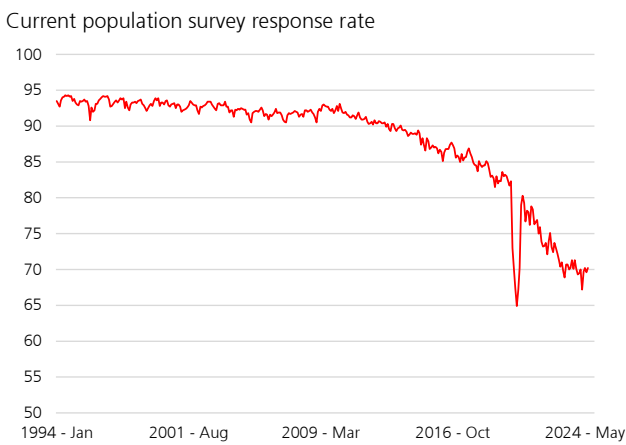
Finally, mismeasurement abounds. The sample size for the Current Population Survey has fallen sufficiently that only about 40K households are representing over 333 million, Plus, we published a note on immigration arguing the population weights are incorrect. The tiny sample relative to the population, known problems with the sample weights, and disproportionate representation of some demographic groups among respondents, suggests treating the household survey data cautiously too.

Figure 10: Y/Y the RNBD change mapped July change



Source: BLS, Haver, UBS

Figure 11: Household survey measurement suspect too



Source: BLS, Haver, UBS

The Week in Review: All eyes on Jackson Hole

The focus of attention in the macro world this week was in the shadows of the Tetons, where Jerome Powell today [addressed](#) the yearly gathering of monetary policymakers and academics at the Jackson Hole symposium (see the agenda for the conference "[Reassessing the Effectiveness and Transmission of Monetary Policy](#)," as well as the paper [links](#)). As we expected, Chair Powell said "the time has come" to start dialing back monetary policy restrictiveness. The Chair defended the progress of disinflation back to the FOMC target, as well as the strength of the labor market, although it is clear that the FOMC faces a changed balance of risks. We explore the speech in more depth in the Economic Comment, as well as the preliminary BLS benchmarking of the nonfarm payrolls data, which suggested that job gains in the 12 months ending in March are set to revise 68K lower per month, on average.

The data flow was relatively light otherwise. The flash S&P Global manufacturing PMI for August slid further into contraction to its lowest level all year. The August run of Federal Reserve bank regional activity surveys continued remained soft with data from FRB of Philadelphia and FRB of Kansas City. Housing data this week was mixed — sales of existing homes rose moderately in July but remained at a low level, especially after the June tumble. However, sales of new homes rose robustly in July and the dial-back in mortgage rates in recent weeks could ease some pressure. We estimate that the impacts of Hurricane Beryl and auto plant shutdowns continue to dissipate in the unemployment insurance claims data.

In other news, Vice President Kamala Harris accepted the Democratic presidential nomination in the Democratic National Convention in Chicago this week, formalizing the ticket alongside Minnesota Governor Tim Walz, the nominee for vice president. In addition, Canada's two main railroads shut down for several hours on Thursday after talks with a labor union failed to result in a deal. The stoppage threatened to snarl North American supply chains, but late on Thursday, the Canadian government told a labor board to end the shutdown and forced arbitration. Steve MacKinnon, Canada's labor minister, [said](#) that he expects trains would be rolling "within days." As such, it appears that significant disruption will be avoided.

Chair Powell signals a cut in Jackson Hole, other participants chime in

The clear headline of the week's FedSpeak was the Chair's remarks at the Jackson Hole symposium, where he gave the strongest indication yet that the Committee is looking toward lowering rates at the September meeting, and highlighted the shifting balance of risks that the FOMC sees. Beyond that, he did not offer much color on the pace and timing of future cuts, nor the labor market conditions that might prompt a more aggressive rate cut in September or before year-end. Instead, he said that the Committee will rely on the incoming data. See the Economic Comment for a deeper dive into the speech.

A handful of other FOMC participants hit the airwaves as well and generally signalled their support for upcoming policy easing, although some were more strident than others about the need to cut rates (and when). FRB of Atlanta President Bostic, who has long expressed that his outlook was one 25-bp rate cut at the end of the year, said today in a CNBC interview from Jackson Hole that it is possible that more than one cut may be needed by year-end. This is a shift in his publicly expressed view, as he noted that inflation had slowed more than he expected, and he said it may be appropriate to "pull forward" the first rate move. *"You can't ignore the data ... the data has come in in a way which would suggest that it's going to be appropriate to be closer to moving,"* he said. When asked if he favors more than one rate cut this year, he said "it is in play." Meanwhile, FRB of Boston President Collins reiterated her view that the Committee will begin dialing back monetary policy restrictiveness "soon."

FRB of Kansas City President Schmid offered a cautious outlook on rate cuts this week, saying that he needed to see more data before supporting a decision to begin rate cuts. Speaking after the preliminary benchmark revisions to the establishment survey were released, he brushed aside concerns that the labor market had been cooling by more and for longer than previously thought. "While it's a big number, it doesn't really change the path of the way I think of things when I think about monetary policy," he said. Taking a more concerned tack in reference to the labor market, FRB of Chicago President

The Chair said it: the time for rate cuts is here. More data to come before the September meeting, but we see the Committee teeing up a 25-bp rate cut.

More soft activity survey data for August.

Vice President Kamala Harris formally accepted the Democratic nomination for president.

The time has come.

Bostic could be open to more than one rate cut this year, and Collins repeated the word "soon."

Schmid and Goolsbee see the labor market slowing with different levels of urgency, highlighting a range of views on the Committee.

Goolsbee argued that by "almost all measures" the job market is cooling, and that policy is at its tightest point of the current cycle. In comments last week, Goolsbee indicated that he is growing more concerned about the labor market. *"On the margin, I'm getting more concerned about the employment side of the mandate," he said last week.* The comments from Schmid and Goolsbee may highlight the range of views the FOMC currently holds on the labor market outlook, and stridency to ease policy.

July FOMC meeting minutes: the balance of risks shifting

The July FOMC meeting [minutes](#) released on Wednesday reflected the FOMC seeing the balance of risks shifting. Inflation risks have been receding, and risks to the labor market expansion were rising. This prompted a notable shift in between the June and July FOMC meetings, on not all that much change in the tenor of the data, we would argue, to get most FOMC participants on board with a September rate cut, and presumably a 25-bp rate cut.

"The vast majority observed that, if the data continued to come in about as expected, it would likely be appropriate to ease policy at the next meeting. Many participants commented that monetary policy continued to be restrictive, although they expressed a range of views about the degree of restrictiveness, and a few participants noted that ongoing disinflation, with no change in the nominal target range for the policy rate, by itself results in a tightening in monetary policy," said the minutes. Several participants saw a case for lowering rates at the July meeting, according to the minutes, but in the end all participants supported the decision to leave policy unchanged.

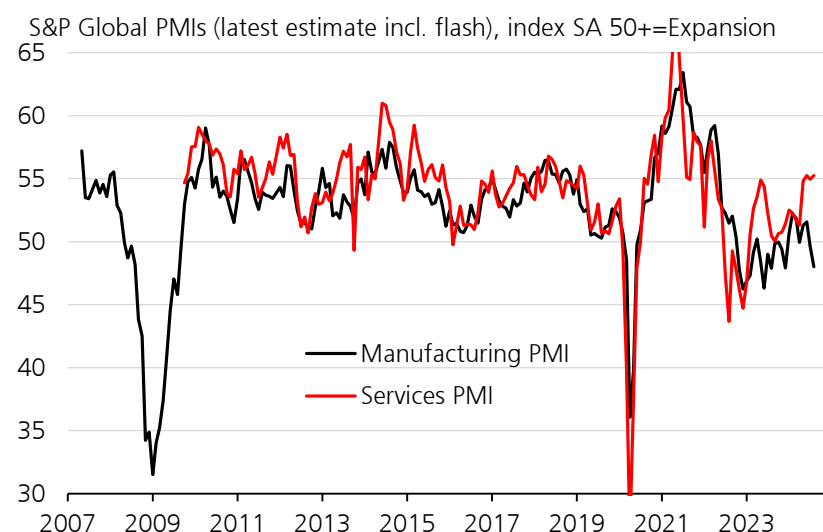
The labor market was still assessed as strong, despite the shifting risks, with the summary characterization of *"Participants generally assessed that, overall, conditions in the labor market had returned to about where they stood on the eve of the pandemic — strong but not overheated."* For more detail, see our recap [here](#).

S&P Global manufacturing PMI slides, still contractionary at 48.0

The S&P Global manufacturing PMI headline fell 1.6 points to 48.0 in the flash August data, remaining below the 50 breakeven, the weakest reading for the index this year, and weak for an economic expansion. Among the components, the new orders index fell 0.2 points to 47.2, remaining in contraction for the second month. The employment index fell 2.1 points to 50.2, moving closer to stalling at the 50 breakeven level, but still remaining somewhat above levels seen at the end of 2023. Supplier delivery times shortened, up 2.6 points to 52.6 (in this index, above 50 indicates shorter delivery times). Comments indicated that firm optimism was checked in part by uncertainty regarding the presidential election and concerns about future demand.

The services PMI, which is not a composite but a business conditions index, increased 0.2 points to 55.2. The index has remained above 50 since February of last year, and in recent months has moved more into the range seen during the 2010-2019 expansion.

Figure 12: S&P Global manufacturing PMI contracted again



Source: Copyright © 2024, UBS, S&P Global™

The minutes may be eclipsed by events such as the July employment report, but at the time of the meeting at least the "vast majority" of the Committee was on board to start to ease policy at the next meeting (September).

Mentions of election-related uncertainty have been a recurring theme of late in activity survey comments, and these were present in the flash August S&P Global PMI.

The flash August manufacturing PMI fell to 48.0, its lowest level all year.

FRB of Philadelphia non-manufacturing survey falls again in August

The FRB of Philadelphia non-manufacturing index fell six points to -25.1 in the August data, following a 22-point plunge in July. The employment components were especially weak. Full-time employment plunged 10.0 points to -14.9 and part-time employment fell 4.5 points to -0.5, though the workweek picked up 3.1 points to 2.1. New orders picked up 6.8 points but remained in contraction at -0.3. The capex component for physical plants plunged 11.5 points into contraction (-2.2), though equipment & software rose 4.2 points to 15.0.

Looking ahead, the outlook was very gloomy. Six-month expected business activity slumped 28.7 points to -9.0, tracing back improvement in 2024 and bringing the index back to the lowest level since late 2022. Like other regional non-manufacturing surveys, the FRB of Philadelphia index has recently been weak for an expansion and the move in August pushes the index further into the lower end of the range we have seen in the index since mid-2022.

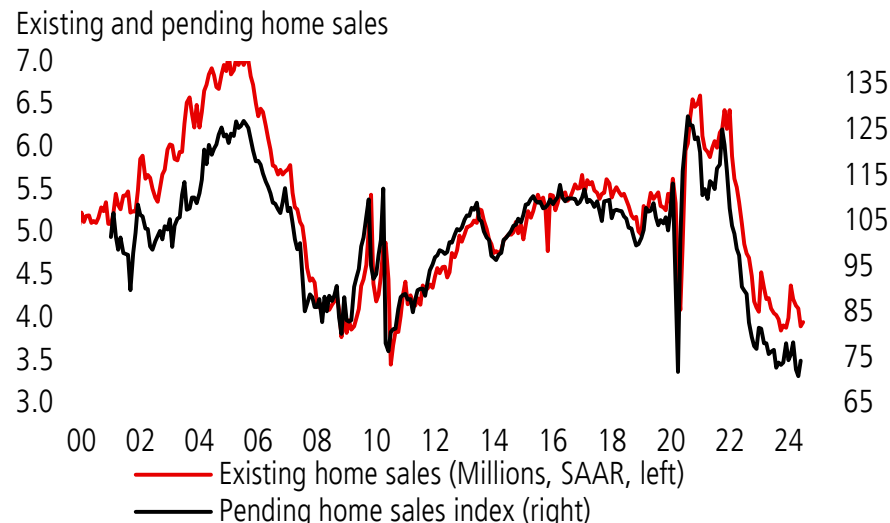
FRB of Kansas City manufacturing survey rises but still weak

In August, the FRB of Kansas City manufacturing gauge rose 10 points to -3, leaving the index 5.0 points higher at 47.9 on an ISM-adjusted basis, still below the 50 breakeven. The new orders, shipments, employment and workweek components all rose but remained contractionary. The production index increased 18 points to 6, back into expansion. However, the six-month outlook for capex deteriorated, falling 14 points to -4.

Sales of existing homes rise 1.3% in July

Existing home sales (EHS) rose 1.3% on the month to 3.95 million (SAAR) in July, after a revised 5.1% tumble in June. Even with the July increase existing home sales remain quite low. The median existing-home sales price rose 4.2% on the year in July, while months' supply at the current sales pace ticked down 0.1 to 4.0. Existing home sales rose or were flat in every region but were particularly strong in the Northeast, where they rose by 5.1%.

Figure 13: Existing home sales still at low level



Source: National Association of Realtors, UBS

New home sales rise robustly in July, May and June heavily revised

Sales of new single-family homes surged in July by 71K to 739K (10.6% on the month), beating consensus (623K) and our estimate (610K). A caveat to the front-month NHS data is that the figures (from the Census Bureau) are often revised heavily in subsequent months. The three months subject to revision in today's report were upwardly revised a cumulative 102K. The bulk of the revisions (96K) were added to May (45K) and June (51K), with the April level revised up 6K. With the large rise, the July report saw the level of new home sales 39K below its July level last year and 128K above its November 2023 trough. The level is also now in the range it occupied in late 2019, on the eve of the pandemic. Months' supply for new single-family homes at the current sales pace fell 0.9 to 7.5.

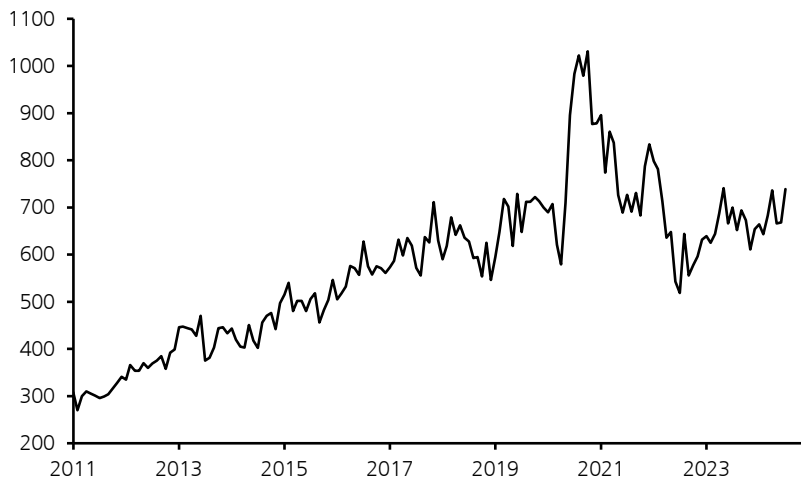
The employment components of the FRB of Philadelphia non-manufacturing survey were especially weak.

Although the FRB of Kansas City manufacturing gauge improved in August, it remained in contraction.

In spite of the move upward in July, the level of existing home sales still remains depressed.

Figure 14: New home sales within the eve-of-pandemic range

New Homes Sold
Thous. (SAAR)



Source: Census Bureau, Haver, UBS

New home sales rose 10.6% on the month in July, and the two prior months were revised up, bringing the level up to the range it occupied in late 2019.

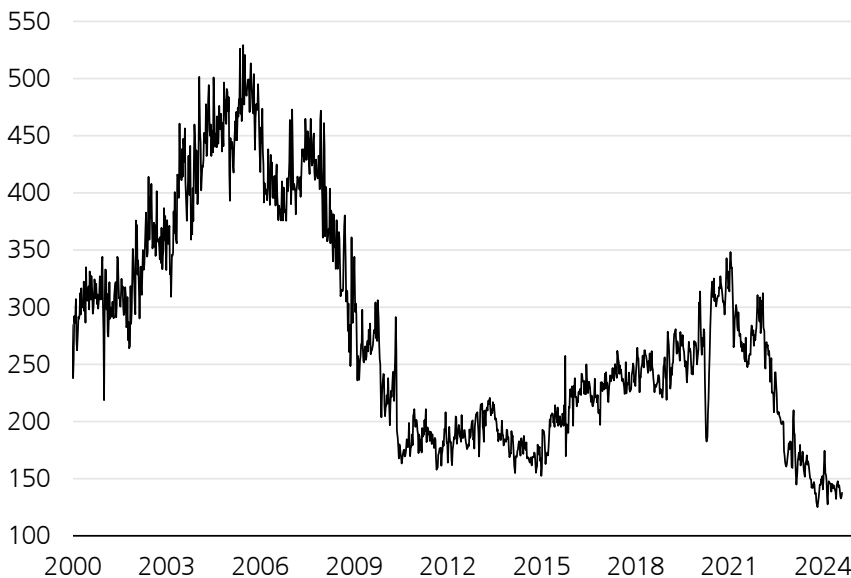
Mortgage applications fall further

Mortgage applications for purchase fell further, -5.2%, in the week of August 16, following a 2.8% rise the preceding week, according to the Mortgage Bankers Association. A number of housing market indicators were weak in the second quarter, and the weakness in mortgage applications for purchase continues as the index languishes through mid-August. The 30-year fixed rate mortgage contract rate remained elevated at 6.50% in the latest week, though that is down from 6.82% at the end of July and off recent peaks of about 7.6% in October 2023.

Housing market data continues to struggle to gain traction in the high interest rate environment.

Figure 15: Mortgage applications still historically depressed

Mortgage loan applications for purchase, Index, SA



Source: Mortgage Bankers Association, Haver, UBS

Initial claims edge up to 232K, Texas further normalizes

Initial claims for unemployment insurance rose 4K to 232K in the week ending August 17. Initial claims filings in hurricane-impacted Texas continue to unwind the July noise. We wrote in our [preview](#) that we expected to see the continued impact from special factors — Hurricane Beryl and auto plant shutdowns — wane in the initial filings, and that looks to have been borne out in this week's data. For more detail on this, see our [recap](#). We also wrote that we did not see discernable impact from Hurricane Debby in

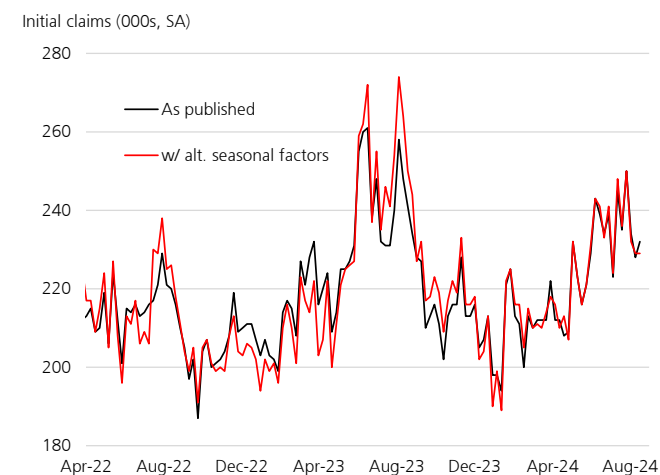
Noise related to Hurricane Beryl and auto plant shutdowns looks to be quieting in the claims data.

Florida, Georgia, and South Carolina in last week's data, and that appeared to be the case this week as well.

Continuing claims have felt the follow-through of falling initial claims in recent weeks. In the week ending August 3, continuing claims rose 4K to 1863K, below consensus expectations (1870K) but closer to our estimate (1860K). We estimate that continuing claims are still running about 5K above what they would be without the hurricane impact. Note that hurricane-related initial claims do not always flow through to continuing claims because many people are filing initial claims as part of the process to claim Disaster Unemployment Assistance (DUA) claims, a program run by the Federal Emergency Management Agency (FEMA), not the regular state programs.

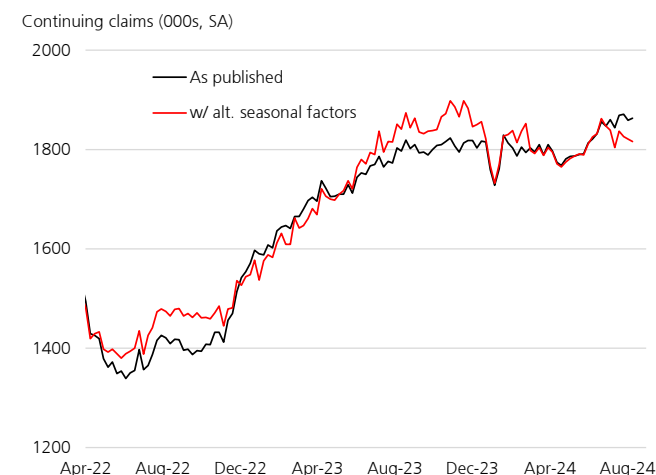
For another comparison, with our estimates of pre-pandemic seasonality, in this report initial claims were unchanged at 229K and continuing claims fell 5K to 1816K. In either case, continuing claims' rise, typically an indication of hiring slowing, backing up the stock of claimants, has leveled off somewhat in recent weeks.

Figure 16: Initial claims stabilize



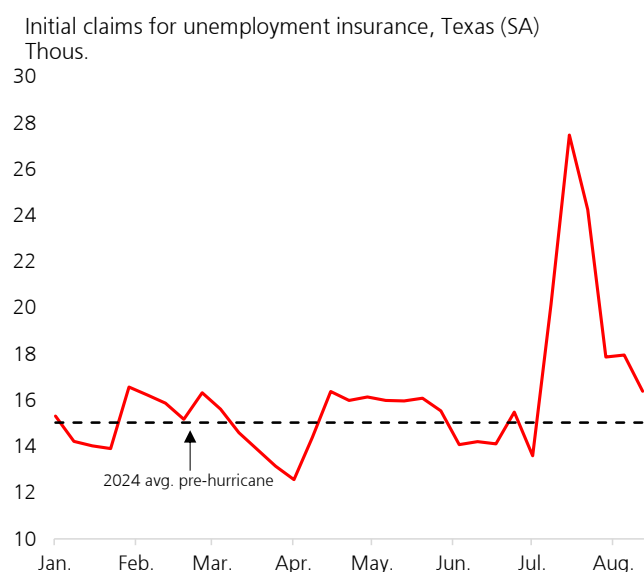
Source: DoL, UBS

Figure 17: Continuing claims too



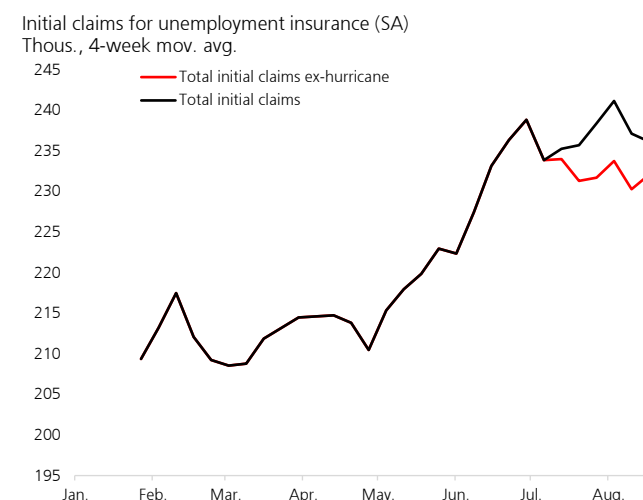
Source: DoL, UBS

Figure 18: Initial claims jumped in Texas post-Beryl, but have normalized significantly



Source: DoL, UBS

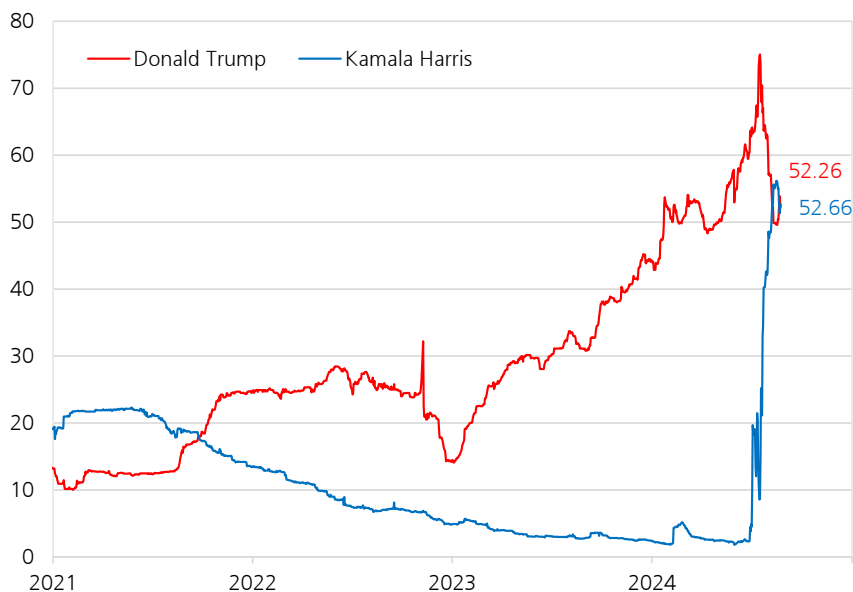
Figure 19: Gap between total and ex-hurricane claims is narrowing as noise subsides



Source: DoL, UBS

Figure 20: Probabilities of election outcome from betting odds

Donald Trump vs. Kamala Harris, US Presidential Election (2024): Winning Candidate, %



Source: UBS Evidence Lab ([Access Dataset](#)) . *Implied probability based on betting odds at leading bookmakers, compiled by UBS Evidence Lab, with data and details available at the source link. Please note UBS does not try to predict the outcome of elections.

Figure 21: Factors affecting reserve balances

Factors Affecting Reserve Balances

Reserve Bank credit, related items, and reserve balances, of depository institutions at Federal Reserve Banks (Millions of dollars)

Wednesday figures (EOP)

Change from week ended
Aug. 14, 2024 Jul. 24, 2024 Aug. 23, 2023 Week ended
Aug. 21, 2024

Factors Supplying Reserve Funds

Reserve Bank credit	(37,948)	(66,287)	(1,004,736)	7,098,080
Securities held outright	(18,994)	(43,125)	(806,819)	6,715,162
U.S. Treasury securities	(14,949)	(24,989)	(607,758)	4,398,736
Bills	-	-	(64,129)	195,293
Notes and bonds, nominal	(14,984)	(26,315)	(530,590)	3,742,444
Notes and bonds, inflation-indexed	-	1,048	(20,505)	344,044
Inflation compensation	36	279	7,467	116,956
Federal agency debt securities	-	-	-	2,347
Mortgage-backed securities	(4,045)	(18,137)	(199,061)	2,314,079
Unamortized premiums on securities held outright	(612)	(2,281)	(31,022)	260,059
Unamortized discounts on securities held outright	(142)	(288)	2,786	(24,712)
Repurchase agreements	1	1	1	1
Foreign official (FIMA Repo Facility)	1	1	1	1
Others	-	-	-	-
Loans	(1,319)	(7,732)	(148,417)	104,212
Primary credit	(349)	(4,690)	(129)	2,061
Secondary credit	-	-	-	-
Seasonal credit	17	29	32	97
Paycheck Protection Program Liquidity Facility	(23)	(149)	(3,251)	2,566
Bank Term Funding Program	(964)	(2,922)	(7,898)	99,488
Other credit extensions	-	-	(137,171)	-
Net portfolio holdings of MS Facilities LLC (Main Street Lending Program)	(270)	(245)	(8,877)	10,635
Net portfolio holdings of Municipal Liquidity Facility LLC	-	-	(5,615)	-
Net portfolio holdings of TALF II LLC	-	-	(1,581)	-
Float	22	(55)	(101)	(325)
Central bank liquidity swaps	-	(8)	(79)	151
Other Federal Reserve assets	(16,635)	(12,554)	(5,014)	32,896
Foreign currency denominated assets	212	692	484	18,785
Gold stock	-	-	-	11,041
Special drawing rights certificate account	-	-	5,000	10,200
Treasury currency outstanding	14	56	708	53,003
Total factors supplying reserve funds	(37,721)	(65,539)	(998,544)	7,191,109

Factors Absorbing Reserve Funds

Currency in circulation	(1,742)	(463)	19,065	2,347,140
Reverse repurchase agreements	(3,671)	(87,440)	(1,393,987)	718,527
Foreign official & international accounts	3,472	(9,648)	101,217	397,198
Others	(7,143)	(77,792)	(1,495,204)	321,329
Treasury cash holdings	(15)	(24)	62	377
Deposits with Federal Reserve banks, other than reserve balances	(54,519)	(54,236)	300,887	897,420
Term deposits held by depository institutions	-	-	-	-
U.S. Treasury, General Account	(54,096)	(32,692)	318,696	734,727
Foreign official	(2)	(3)	(5)	9,681
Other	(421)	(21,541)	(17,805)	153,011
Treasury contributions to credit facilities	-	-	(8,400)	4,958
Other liabilities and capital	2,063	(6,569)	(97,869)	(136,391)
Total factors, other than reserve balances, absorbing reserve funds	(57,883)	(148,732)	(1,180,242)	3,832,031
Reserve balances with Federal Reserve Banks	20,162	83,193	181,698	3,359,078

Source: Federal Reserve, UBS

Economic Forecast

Figure 22: GDP, employment, inflation, and interest rates

August 23, 2024	2023				2024				2025				2022	2023	2024	2025	2026
	Q/Q % ch, ar												Q4/Q4 % ch				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1Q	2Q	3Q	4Q					
Real GDP	2.2	2.1	4.9	3.4	1.4	2.9	1.2	1.1	1.3	1.6	1.6	1.7	0.7	3.1	1.6	1.6	1.7
Personal consumption exp	3.8	0.8	3.1	3.3	1.5	2.4	2.2	1.5	1.4	1.5	1.5	1.5	1.2	2.7	1.9	1.5	1.5
Goods	5.1	0.5	4.9	3.0	-2.3	2.5	2.1	0.4	0.5	0.7	0.3	0.3	-0.6	3.3	0.7	0.4	0.8
Services	3.1	1.0	2.2	3.4	3.3	2.3	2.3	2.0	1.8	1.9	2.1	2.1	2.1	2.4	2.5	2.0	1.8
Business fixed investment	5.7	7.4	1.5	3.8	4.4	5.2	0.8	-0.2	1.7	2.1	2.7	2.6	5.6	4.6	2.5	2.3	2.8
Structures	30.3	16.1	11.2	10.9	3.4	-3.4	-0.4	-0.5	-1.5	-0.5	1.5	2.0	0.8	16.9	-0.3	0.4	2.2
Equipment	-4.1	7.7	-4.4	-1.1	1.6	11.6	0.1	-2.5	1.0	1.5	2.0	2.0	5.3	-0.6	2.6	1.6	0.9
Intellectual property products	3.8	2.7	1.8	4.3	7.7	4.5	2.1	2.1	4.0	4.0	4.0	3.5	8.3	3.1	4.1	3.9	4.7
Residential	-5.3	-2.2	6.7	2.8	16.0	-1.4	-8.3	5.5	3.0	4.0	3.0	2.0	-17.4	0.4	2.6	3.0	4.0
Government purchases	4.8	3.3	5.8	4.6	1.8	3.1	1.1	1.1	1.1	1.1	1.1	1.2	0.8	4.6	1.8	1.1	1.2
Net exports (contrib, pct pt)	0.6	0.0	0.0	0.3	-0.7	-0.7	-0.1	-0.2	-0.2	-0.1	-0.2	-0.2	0.2	0.2	-0.4	-0.2	-0.2
Exports	6.8	-9.3	5.4	5.0	1.6	2.0	1.4	1.8	2.1	2.2	2.2	2.1	4.3	1.8	1.7	2.1	2.0
Imports	1.3	-7.6	4.2	2.2	6.1	6.9	1.6	2.6	2.7	2.7	3.0	2.7	2.1	-0.1	4.3	2.8	2.8
Inventory contribution (pct pts)	-2.2	0.0	1.3	-0.5	-0.4	0.8	-0.2	-0.1	0.0	0.1	0.1	0.2	-0.3	-0.4	0.0	0.1	0.1
Memo: Private domestic final purchases	3.6	1.7	3.0	3.3	2.6	2.6	1.5	1.4	1.5	1.7	1.8	1.7	2.0	2.9	2.0	1.7	1.8
Labor market																	
Payrolls (monthly pace, 000s)	305	274	213	212	267	168	148	123	105	105	110	115	377	251	177	109	114
Civilian unemployment rate (%)	3.5	3.6	3.7	3.8	3.8	4.0	4.2	4.2	4.3	4.3	4.3	4.3	3.6	3.8	4.2	4.3	4.1
Labor force participation rate (%)	62.5	62.6	62.7	62.6	62.6	62.6	62.7	62.6	62.6	62.6	62.5	62.5	62.2	62.6	62.6	62.5	62.4
Inflation																	
CPI-U	3.8	3.0	3.4	2.7	3.8	2.8	1.1	2.6	2.9	2.4	2.1	2.5	7.1	3.2	2.6	2.5	2.4
Core CPI-U	4.9	4.7	3.0	3.4	4.2	3.2	2.0	3.3	3.2	2.6	2.5	2.6	6.0	4.0	3.2	2.7	2.5
PCE Chain Price Index	4.2	2.5	2.6	1.8	3.4	2.6	1.4	2.0	2.3	2.1	1.7	2.0	5.9	2.8	2.3	2.0	2.1
Core PCE Chain Price Index	5.0	3.7	2.0	2.0	3.7	2.8	2.0	2.3	2.5	2.2	2.0	2.0	5.1	3.2	2.7	2.1	2.1
Incomes																	
Average hourly earnings	4.4	4.7	4.4	3.6	4.3	3.5	3.5	3.3	3.3	3.3	3.3	3.3	5.0	4.3	3.6	3.3	3.4
Employment cost index	4.7	4.1	3.8	3.8	4.5	3.5	3.4	3.3	3.2	3.1	3.0	3.0	5.1	4.1	3.7	3.1	3.0
Real disposable income	10.8	3.3	0.5	0.9	1.3	1.0	1.1	1.0	1.1	1.8	1.3	0.9	-1.5	3.8	1.1	1.2	1.0
Saving rate (%)	4.8	5.1	4.3	3.7	3.8	3.4	3.1	3.0	2.9	3.0	2.9	2.7	3.2	3.7	3.0	2.7	2.2
Other indicators																	
Housing starts (mil, a.r.)	1.37	1.46	1.38	1.48	1.41	1.34	1.37	1.49	1.50	1.51	1.52	1.53	1.40	1.48	1.49	1.53	1.54
Nonfarm business productivity	-0.3	3.3	4.6	3.5	0.4	2.3	0.6	0.1	1.1	1.5	1.3	1.4	-1.8	2.8	0.8	1.3	1.4
Federal budget balance (\$ bil, FY)													-1376	-1694	-1897	-1943	-1926
Federal funds rate (top of range, %)	5.00	5.25	5.50	5.50	5.50	5.50	5.25	4.75	4.50	4.00	3.50	3.25	4.50	5.50	4.75	3.25	3.25

Q2 2024 included expected revisions, Q3 onward are UBS forecasts. Source: Commerce Dep't, Federal Reserve, Bureau of Labor Statistics, Treasury Department, & UBS

The Week Ahead: PCE prices and GDP

Both core and headline PCE prices are expected to have risen 0.15% in July, which would leave the 12-month change in core PCE prices at 2.64%, a similar pace to June. We still expect that base effects will keep 12-month core PCE prices tracking broadly sideways until the end of the year. We expect that July spending was robust at 0.5% in nominal terms, while nominal incomes are expected to have risen a muted 0.1%, suggesting a possible tick lower in the saving rate in July. The second estimate of Q2 GDP is expected to be little changed. Headline durable goods orders are expected to bounce back in July, but core orders are expected to be soft. The Conference Board consumer sentiment index is expected to improve a touch in August, and the final estimate of University of Michigan sentiment is expected to be little changed. The run of regional Fed surveys for August will continue, as will the run of housing data for July. The FedSpeak calendar is looking a little light.

We expect real GDP to be little revised next week, but the compensation data will take on board the Q1 UI tax records.

Figure 23: The data in the week ahead

	Release	Time (ET)	Consensus	UBS Est.	Previous
Mon, Aug 26	Durable goods (Jul)	8:30 AM		6.6%	-6.7%
	Ex transport (Jul)	8:30 AM		-0.1%	0.4%
	Nondefense capital goods ex aircraft (Jul)	8:30 AM		-0.1%	0.9%
	Shipments of nondef. capital goods ex aircraft (Jul)	8:30 AM		0.1%	0.2%
	Dallas Fed manufacturing survey (Aug)	10:30 AM			-17.5
Tue, Aug 27	S&P/CS home prices, Composite 20 index (Jun)	9:00 AM			0.3%
	Conference Board confidence (Aug)	10:00 AM		101	100.3
	Richmond Fed manufacturing survey (Aug)	10:00 AM			-17
	Richmond Fed nonmanufacturing survey (Aug)	10:00 AM			-9
	Dallas Fed nonmanufacturing survey (Aug)	10:30 AM			-0.1
Wed, Aug 28	MBA Mortgage applications for purchase index (Aug 23)	7:00 AM			XX
Thu, Aug 29	GDP (Q2, 2nd est)	8:30 AM		2.90%	2.8%
	Real consumption (Q2, 2nd est)	8:30 AM		2.40%	2.3%
	Core PCE prices (Q2, 2nd est)	8:30 AM		2.80%	2.9%
	Corporate profits (Q2, prelim)	8:30 AM			-1.4%
	Initial claims for unemployment insurance (Aug 24)	8:30 AM		235K	232K
	Continuing Claims (Aug 17)	8:30 AM		1855K	1863K
	Advance trade goods balance (Jul)	8:30 AM		-\$97.7B	-\$96.6B
	Retail inventories ex auto (Jul)	8:30 AM			0.2%
	Wholesale inventories (Jul)	8:30 AM			0.2%
	Pending Home Sales Index (Jul)	10:00 AM		0.2%	4.8%
	Personal income (Jul)	8:30 AM		0.1%	0.2%
	Nominal personal spending (Jul)	8:30 AM		0.5%	0.3%
	Real personal spending (Jul)	8:30 AM		0.3%	0.2%
	PCE prices, m/m % change (Jul)	8:30 AM		0.15%	0.08%
	Core PCE prices, m/m % change (Jul)	8:30 AM		0.15%	0.18%
Fri, Aug 30	PCE prices, 12-month % change (Jul)	8:30 AM		2.51%	2.51%
	Core PCE prices, 12-month % change (Jul)	8:30 AM		2.64%	2.63%
	Chicago PMI (Aug)	9:45 AM			45.3
	Univ. of Michigan sentiment (Aug, final)	10:00 AM		66.4	66.4
	Strike report (Aug)				

Source: Bloomberg, Haver, UBS

Figure 24: FOMC participants speaking in the week ahead

Date	Event	Time (ET)	Subject / Event
Mon, Aug 26			
Tue, Aug 27			
Wed, Aug 28	Atlanta Fed Pres Bostic	6:00 PM	Economic Outlook at Stanford Club of Georgia
Thu, Aug 29	Atlanta Fed Pres Bostic	3:30 PM	Economic Outlook Georgia Tech
Fri, Aug 30			

Source: Bloomberg, UBS

Data in the week ahead:

Monday, August 26

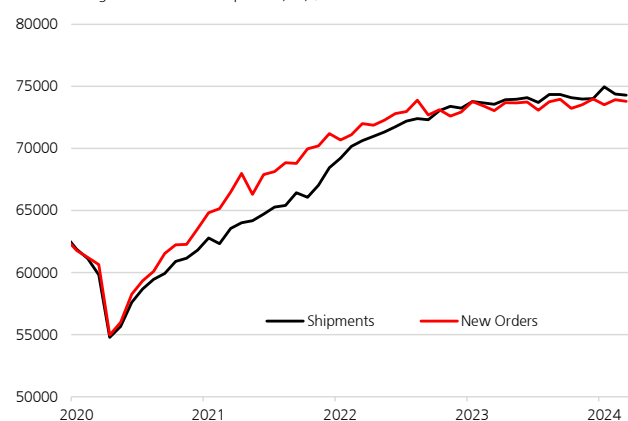
Durable Goods (Jul), 8:30 AM

We estimate headline durable goods orders rose 6.6% in July, reversing the 6.7% decline seen in June. We expect durable goods orders excluding transportation and orders of non-defense capital goods excluding aircraft (core goods) both ticked down 0.1%. Core goods shipments are expected to advance 0.1% over the month in July. We had been forecasting a drag from aircraft orders in the durable goods report in recent months, given weak orders reported by Boeing, which was clear in the June data. However, Boeing's reported aircraft orders were stronger in July, and we therefore expect a rebound in aircraft orders reported by the Census Bureau in next week's report. In June, the headline durable goods orders plunged 6.7% over the month. When transportation orders were stripped out, orders were up 0.4% on the month. Non-defense capital goods orders excluding aircraft (core goods) reversed their 0.9% May decline, increasing 0.9% over the month in June. Shipments of core goods inched up by 0.2% on the month. Core shipments and orders have been moving sideways since 2023, but the level of orders was broadly in line with orders in June after lagging behind in recent months.

Headline durable goods orders likely increased in July driven by a rebound in aircraft orders.

Figure 25: Orders and shipments moving sideways

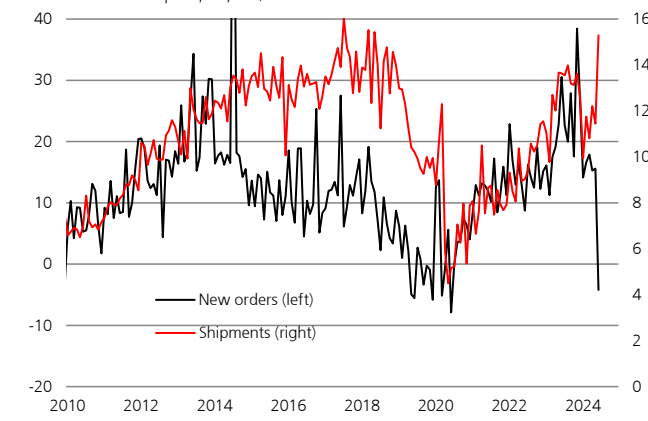
Core durable goods orders and shipments, SA, \$ Mil



Source: Census Bureau, Haver, UBS

Figure 26: Aircraft orders slid in June

Nondefense aircraft & parts, SA, Bil. \$



Source: Census Bureau, Haver, UBS

Regional Manufacturing Surveys (Aug 26-30)

Figure 27: Factory surveys, ISM-adjusted

Manuf.	ISM-adjusted			
	May	Jun	Jul	Aug
ISM Man.	48.7	48.5	46.8	
S&P PMI	51.0	51.4	49.7	48.0
Empire	46.9	49.0	48.0	47.2
Philly	46.4	47.0	54.9	52.5
Richmond	50.2	48.3	46.9	
Dallas	47.6	49.2	48.5	
Kansas City	49.8	47.2	42.9	47.9
Chicago	39.6	49.1	46.8	

Source: Copyright © 2024, UBS, S&P Global™, Federal Reserve, ISM, Haver, UBS

With the exception of the FRB of Philadelphia index, the swathe of manufacturing surveys for August so far have been contractionary on an ISM-adjusted basis.

Next week, the FRB of Dallas manufacturing activity index and the Chicago PMI will round out the manufacturing surveys for August. In July, the Dallas Fed survey declined to 48.5 in ISM-adjusted terms from a prior of 49.2. It was noted in the comments from the survey that Hurricane Beryl had impacted activity in July, so it is possible we see an improvement in the index in August. The Chicago PMI, which will also be released next week, declined in July after rising strongly to near breakeven in June. The series has generally been even weaker than the weakness signaled across the range of manufacturing surveys with the index remaining in contraction since November 2023. In the flash August data, the S&P Global manufacturing PMI fell 1.6 points to 48.0, the weakest level all year and weak for an economic expansion.

Regional Fed manufacturing surveys have softened so far in August.

Tuesday, August 27

S&P/Case-Shiller Home Price Index (Jun), 9:00 AM

The monthly pace of increase in S&P/Case-Shiller home prices has been moderating in recent months. In May the nationwide existing home price index increased 0.3% over the month, little changed from the April rate, but slower than the pace seen at the beginning of the year and down from the monthly rates that prevailed through the summer of 2023. The composite-20 subindex increased 0.3% in May after a 0.4% April climb. Over the year, the nationwide index grew 5.9% and the composite-20 subindex rose 6.8%.

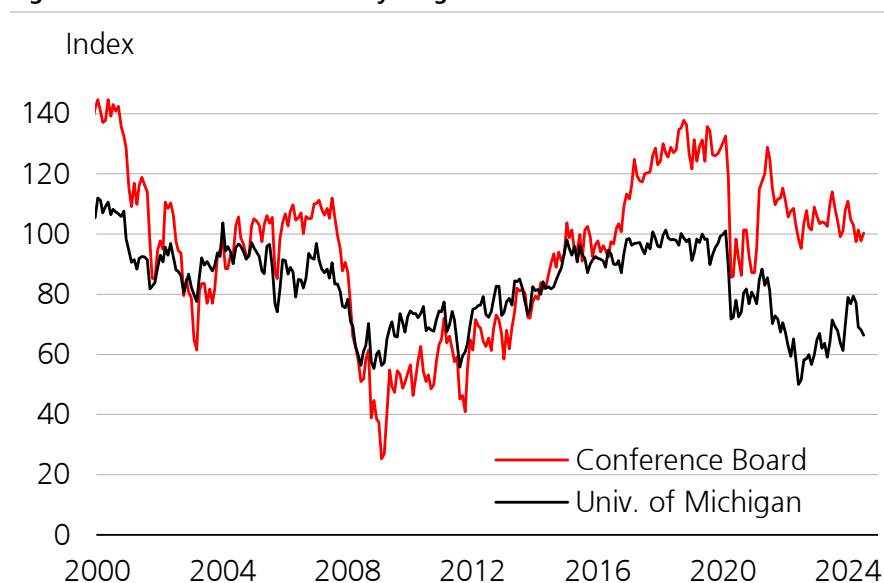
Home price growth has slowed in recent months.

Conference Board Consumer Confidence (Aug), 10:00 AM

We expect a small improvement in Conference Board consumer confidence to 101 in August from a prior of 100.3 July reflecting the small improvement seen in the University of Michigan sentiment index in the preliminary release, and also despite the intra-month volatility in equity markets the S&P 500 gained back its losses relative to the end of July by the August 15, likely before the survey cutoff date. The Conference Board index has been fairly range bound in recent months and the tick higher we are projecting would put the index back towards the upper end of that range.

Conference Board sentiment to improve a little.

Figure 28: Conference board fairly range bound



Source: Conference Board, University of Michigan, Haver, UBS

Regional Non-manufacturing Surveys (Aug 27)

The Richmond and Dallas Fed nonmanufacturing surveys for August will be released next week. So far, for August the surveys have been mixed with the Philadelphia Fed's nonmanufacturing survey declining 6 points to -25.1, while the New York Fed's services index rose 6.3 points to 1.8. The S&P/Markit Global services PMI, which isn't a composite, and instead is a business activity index, increased 0.2 points to 55.2 in the flash August data.

Regional nonmanufacturing surveys have been mixed so far in August.

Figure 29: Services surveys

Services	Activity/Headline			
	May	Jun	Jul	Aug
ISM Serv.	53.8	48.8	51.4	
S&P PMI	54.8	55.3	55.0	55.2
Kansas City	11	2	-4	
Philly	-0.6	2.9	-19.1	-25.1
Richmond	-7	-8	-9	
Dallas	-12.1	-4.1	-0.1	
NY	3.0	-4.7	-4.5	1.8

Source: Copyright © 2024, UBS, S&P Global™, Federal Reserve System, ISM, Haver, UBS

Thursday, August 29

GDP (Q2, 2nd est), 8:30 AM

The second estimate of real GDP growth is expected to revise to 2.9% (saar) from the advance estimate of 2.8% (saar). Real goods spending is likely to be left unrevised at 2.5% (saar) in the print next week, with the cumulative [revisions](#) to control group sales very minor through May and June, just up 2 bp. Real services spending is estimated to have risen 2.3% (saar) with the QSS data, relative to the 2.2% (saar) pace in the advance estimate. There is also potential that revisions to Q2 data could come in the advance trade report, and the retail and wholesale inventories reported next week alongside the second estimate.

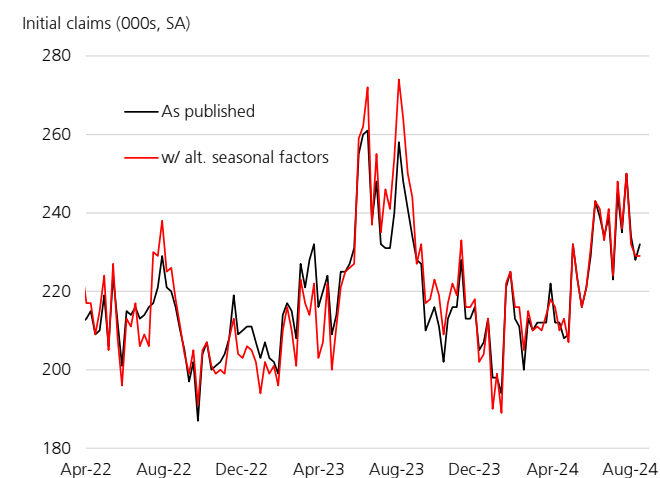
We see minor 0.1 pp revision to Q2 GDP growth in the second release next week.

Unemployment Insurance Claims (Aug 24), 8:30 AM

We expect initial claims to rise 3K to 235K in the week ending August 24. We continued to see the impact from special factors — Hurricane Beryl and auto plant shutdowns — wane in this week's data. Initial and continuing claims in Texas still remain slightly elevated above the pre-hurricane pace, so there is still a little room to unwind in the coming data. Filings in auto-intensive states, such as Michigan, Ohio, Kentucky, Illinois and Missouri, saw NSA declines in this week's data, so we note that auto industry related claims appear to be normalizing too. We also didn't see any discernable impact from Hurricane Debby in state claims from Florida, Georgia and South Carolina this week but we note that ongoing disruption could be a potential upside risk.

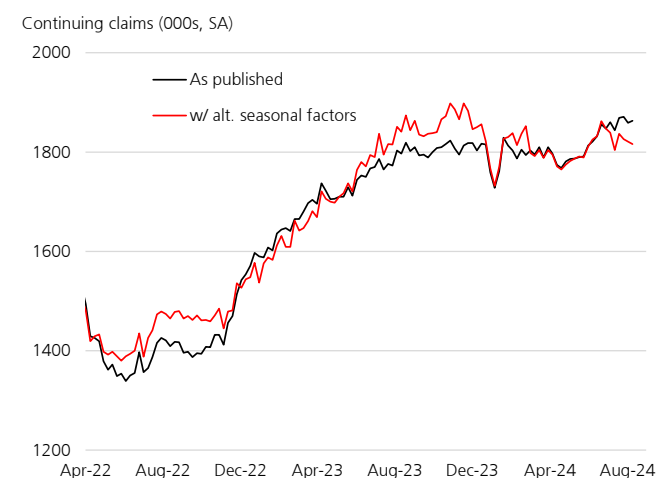
Initial claims to rise a touch, continuing to decline.

Figure 30: Initial claims rise



Source: DoL, Haver, UBS

Figure 31: Continuing claims edged higher



Source: DoL, Haver, UBS

Continuing claims are expected to decline 8K to 1855K in the week ending August 10. In the week ending August 3, continuing claims rose 4K to 1863K. We estimate that continuing claims are still running about 5K above what they would be without the hurricane impact, so there is still some potential for normalization. Note that hurricane-related initial claims do not always flow through to continuing claims because many people are filing initial claims as part of the process to claim Disaster Unemployment Assistance (DUA) claims, a program run by the Federal Emergency Management Agency (FEMA), not the regular state programs.

We expect that seasonal adjustment that appears slightly out of line with pre-pandemic history is putting a little upward pressure on the seasonally adjusted level of initial claims, while the opposite is true for continuing claims.

Advance Goods Trade Balance (Jul), 8:30 AM

We expect the goods trade deficit to widen \$1.1 billion to \$97.7 billion in July. Underlying this, we see exports declining 0.2% over the month, with capital goods exports to moderate after rising a strong 3.6% in June, and imports are expected to rise 0.3% on the month. The tick higher in imports reflects a reversal of the 1.6% decline seen in imports of food, feeds and beverages in June as well as stronger imports of industrial supplies and materials with these up 0.7% over the month relative to the 3.4% decline seen in June.

We expect the goods trade balance to widen in July.

Wholesale & Retail Inventories (Jul), 8:30 AM

The build-up in retail inventories has been driven by the auto industry for more than a year. Stripping out autos, retail inventories have been moving sideways and a similar trend has been visible in wholesale inventories. In June, retail inventories increased 0.7% over the month to \$802.1 billion. Most of the growth, as in prior months, came from the continued build in autos inventories with these rising 1.8% on the month, absent this retail inventories were up 0.2% in June. Wholesale inventories rose 0.2% on the month to \$903.0 billion following 0.5% in May and 0.2% in April.

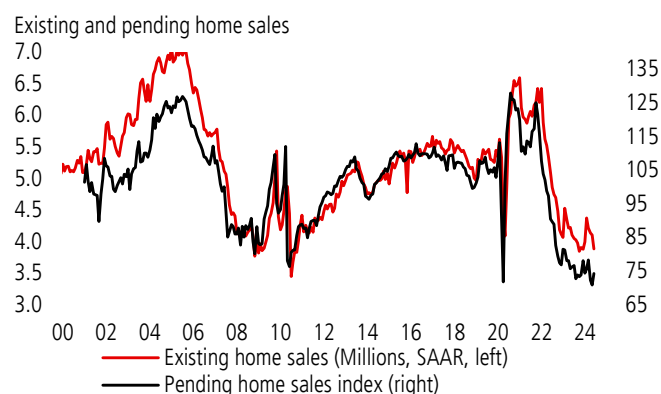
Auto inventories have been driving retail inventories for some time, absent these inventories have been moving sideways.

Pending Home Sales Index (Jul), 10:00 AM

We project that the pending home sales index will be relatively flat, rising 0.2% in July. General weakness continues in most of the housing market data, though new home sales rose robustly (10.6%) in July, and the drop in mortgage rates in July could be an upside risk. Mortgage applications declined 4.8% over the month in July.

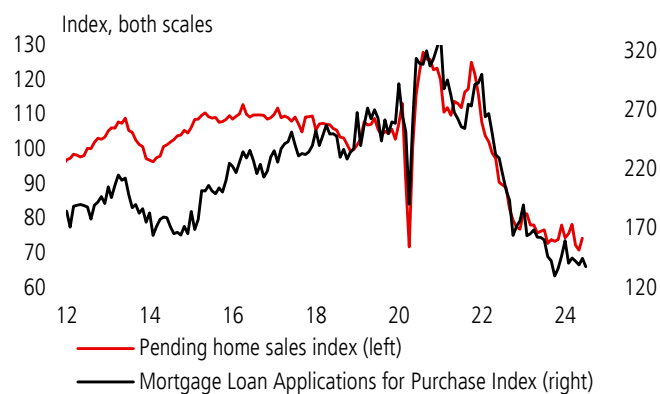
We expect pending home sales were relatively flat in July.

Figure 32: Home sales still soft



Source: National Association of Realtors, Haver, UBS

Figure 33: Mortgage purchase apps also weak



Source: Mortgage Bankers' Association, Census Bureau, Haver, UBS

Friday, August 30

Income and Spending, PCE inflation (Jul), 10:00 AM

Both headline and core PCE prices are projected to have risen 15bps in July. With these increases, along with a slight downward revision projected to prior months, the 12-month change in core PCE prices is projected at 2.64% through July — roughly unchanged from June and more than 80% of the way back to the FOMC's 2.0% inflation target from its 5.6% peak in February 2022.

Headline and core PCE prices are expected to have risen 15 bp in July.

We estimate that nominal spending rose 0.5% over the month in July. Alongside our PCE price estimate, this would imply real spending growth of 0.3%. Spending was likely supported by the push of auto sales into July, after a disrupted sales period in June given the cyberattack hitting sales software at dealers. We think incomes rose 0.1% in nominal terms implying a potential tick higher in the saving rate in next week's release.

Figure 34: Income and spending

	12-m % change				m/m % change			
	Dec 2021	Dec 2022	Dec 2023	Jun 2024	Mar	Apr	May	Jun
Income	8.0	4.5	4.5	4.5	0.5	0.2	0.4	0.2
Disposable income	6.3	4.5	6.6	3.6	0.5	0.2	0.4	0.2
Consumption	13.5	6.8	6.0	5.2	0.7	0.2	0.4	0.3
Real disposable income	0.1	-0.9	3.8	1.0	0.2	-0.1	0.3	0.1
Real consumption	6.9	1.3	3.3	2.6	0.3	-0.1	0.4	0.2
Saving rate (%)	6.1	3.4	3.6	3.4	3.5	3.5	3.5	3.4
PCE prices	6.2	5.4	2.6	2.51	0.34	0.27	0.03	0.08
Core (ex food & energy)	5.2	4.9	2.9	2.63	0.33	0.26	0.13	0.18
Market based	4.5	4.8	3.0	2.4	0.3	0.2	0.1	0.2

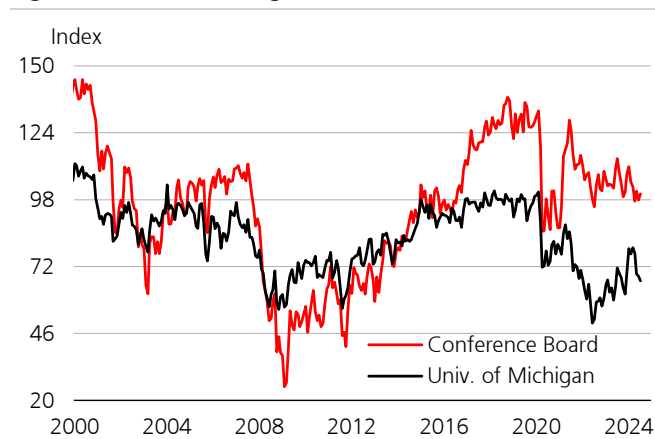
Source: BEA, Haver, UBS

Univ. of Michigan Consumer Sentiment (Aug, final), 10:00 AM

The preliminary release of the University of Michigan sentiment index for August saw sentiment rise by 1.4 points to 67.8, reflecting stronger expectations which rose from 68.8 to 72.1, while consumers perceptions of current conditions actually worsened down to 60.9 from a prior of 62.7. The median 5-10 year ahead inflation expectations remained at 3.0% in the August preliminary estimate, where they have been since April.

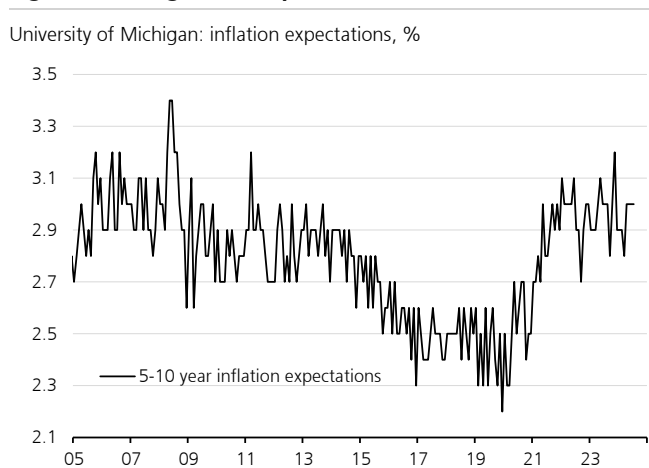
The final read of the University of Michigan consumer sentiment index is expected to be little changed next week.

Figure 35: Uni. of Michigan and Conference Board



Source: University of Michigan, Conference Board, Haver, UBS

Figure 36: Longer-run expectations around 3.0%



Source: University of Michigan, Haver, UBS

"Beige Box" Methodology:

UBS Evidence Lab is a sell-side team of experts that work across numerous specialized labs creating insight-ready datasets. The experts turn data into evidence by applying a combination of tools and techniques to harvest, cleanse, and connect billions of data items each month. Since 2014, UBS Research analysts have utilized the expertise of UBS Evidence Lab for insight-ready datasets on companies, sectors, and themes, resulting in the production of thousands of differentiated UBS Research reports. UBS Evidence Lab does not provide investment recommendations or advice but provides insight-ready datasets for further analysis by UBS Research and by clients. All published UBS Evidence Lab content is available via UBS Neo. The amount and type of content available may vary. Please contact your UBS sales representative if you wish to discuss access.

UBS Evidence Lab collects and analyzes betting odds from 10+ leading bookmakers to track the probabilities of different outcomes of political events as implied by betting odds and to see how the implied probabilities change over time. The data is presented daily and for a curated list of events and outcomes. In this dataset we present the implied probabilities, which reflect the betting odds as set by bookmakers and betting exchanges. This report leverages the following UBS Evidence Lab asset: Political Probability Monitor.

Required Disclosures

This document has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates, including Credit Suisse AG and its subsidiaries, branches and affiliates are referred to herein as "UBS".

For information on the ways in which UBS manages conflicts and maintains independence of its UBS Global Research product; historical performance information; certain additional disclosures concerning UBS Global Research recommendations; and terms and conditions for certain third party data used in research report, please visit <https://www.ubs.com/disclosures>. Unless otherwise indicated, information and data in this report are based on company disclosures including but not limited to annual, interim, quarterly reports and other company announcements. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report. This recommendation was finalized on: 23 August 2024 08:10 PM GMT. UBS has designated certain UBS Global Research department members as Derivatives Research Analysts where those department members publish research principally on the analysis of the price or market for a derivative, and provide information reasonably sufficient upon which to base a decision to enter into a derivatives transaction. Where Derivatives Research Analysts co-author research reports with Equity Research Analysts or Economists, the Derivatives Research Analyst is responsible for the derivatives investment views, forecasts, and/or recommendations. **Quantitative Research Review:** UBS Global Research publishes a quantitative assessment of its analysts' responses to certain questions about the likelihood of an occurrence of a number of short term factors in a product known as the 'Quantitative Research Review'. Views contained in this assessment on a particular stock reflect only the views on those short term factors which are a different timeframe to the 12-month timeframe reflected in any equity rating set out in this note. For the latest responses, please see the Quantitative Research Review Addendum at the back of this report, where applicable. For previous responses please make reference to (i) previous UBS Global Research reports; and (ii) where no applicable research report was published that month, the Quantitative Research Review which can be found at <https://neo.ubs.com/quantitative>, or contact your UBS sales representative for access to the report or the Quantitative Research Team on qa@ubs.com. A consolidated report which contains all responses is also available and again you should contact your UBS sales representative for details and pricing or the Quantitative Research team on the email above.

Analyst Certification:

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner, including with respect to UBS, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS AG London Branch: Abigail Watt. **UBS Brasil CCTVM S.A.:** Alan Detmeister. **UBS Securities LLC:** Amanda Wilcox, Jonathan Pingle, Sonia Meskin.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

UBS Global Research Disclaimer

This document has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates, including former Credit Suisse AG and its subsidiaries, branches and affiliates are referred to herein as "UBS".

Any opinions expressed in this document may change without notice and are only current as of the date of publication. Different areas, groups, and personnel within UBS may produce and distribute separate research products independently of each other. For example, research publications from **UBS CIO** are produced by UBS Global Wealth Management. **UBS Global Research** is produced by UBS Investment Bank. Research methodologies and rating systems of each separate research organization may differ, for example, in terms of investment recommendations, investment horizon, model assumptions, and valuation methods. As a consequence, except for certain economic forecasts (for which UBS CIO and UBS Global Research may collaborate), investment recommendations, ratings, price targets, and valuations provided by each of the separate research organizations may be different, or inconsistent. You should refer to each relevant research product for the details as to their methodologies and rating system. Not all clients may have access to all products from every organization. Each research product is subject to the policies and procedures of the organization that produces it.

This document is provided solely to recipients who are expressly authorized by UBS to receive it. If you are not so authorized you must immediately destroy the document.

UBS Global Research is provided to our clients through UBS Neo, and in certain instances, UBS.com and any other system or distribution method specifically identified in one or more communications distributed through UBS Neo or UBS.com (each a system) as an approved means for distributing UBS Global Research. It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means.

All UBS Global Research is available on UBS Neo. Please contact your UBS sales representative if you wish to discuss your access to UBS Neo. Where UBS Global Research refers to "UBS Evidence Lab Inside" or has made use of data provided by UBS Evidence Lab and you would like to access that data please contact your UBS sales representative. UBS Evidence Lab data is available on UBS Neo. The level and types of services provided by UBS Global Research and UBS Evidence Lab to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g., market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS Global Research and UBS Evidence Lab and legal and regulatory constraints.

When you receive UBS Global Research through a system, your access and/or use of such UBS Global Research is subject to this UBS Global Research Disclaimer and to the UBS Neo Platform Use Agreement (the "Neo Terms") together with any other relevant terms of use governing the applicable System.

When you receive UBS Global Research via a third party vendor, e-mail or other electronic means, you agree that use shall be subject to this UBS Global Research Disclaimer, the Neo Terms and where applicable the UBS Investment Bank terms of business (<https://www.ubs.com/global/en/investment-bank/regulatory.html>) and to UBS's Terms of Use/Disclaimer (<https://www.ubs.com/global/en/legalinfo2/disclaimer.html>). In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (<https://www.ubs.com/global/en/legalinfo2/privacy.html>) and cookie notice (<https://www.ubs.com/global/en/legal/privacy/users.html>).

If you receive UBS Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, provide to any third party, or in any way commercially exploit any UBS research provided via UBS Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via UBS Global Research or otherwise, without the prior written consent of UBS.

In certain circumstances (including for example, if you are an academic or a member of the media) you may receive UBS Global Research otherwise than in the capacity of a client of UBS and you understand and agree that (i) the UBS Global Research is provided to you for information purposes only; (ii) for the purposes of receiving it you are not intended to be and will not be treated as a "client" of UBS for any legal or regulatory purpose; (iii) the UBS Global Research must not be relied on or acted upon for any purpose; and (iv) such content is subject to the relevant disclaimers that follow.

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction.

This document is a general communication and is educational in nature; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. By providing this document, none of UBS or its representatives has any responsibility or authority to provide or have provided investment advice in a fiduciary capacity or otherwise. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. None of UBS or its representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. The recipient should carefully read this document in its entirety and not draw inferences or conclusions from the rating alone. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors.

Options, structured derivative products and futures (including OTC derivatives) are not suitable for all investors. Trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Prior to buying or selling an option, and for the complete risks relating to options, you must receive a copy of "The Characteristics and Risks of Standardized Options." You may read the document at <https://www.theocc.com/publications/risks/riskchap1.jsp> or ask your salesperson for a copy. Various theoretical explanations of the risks associated with these instruments have been published. Supporting documentation for any claims, comparisons, recommendations, statistics or other technical data will be supplied upon request. Past performance is not necessarily indicative of future results. Transaction costs may be significant in option strategies calling for multiple purchases and sales of options, such as spreads and straddles. Because of the importance of tax considerations to many options transactions, the investor considering options should consult with his/her tax advisor as to how taxes affect the outcome of contemplated options transactions.

Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

UBS notes that no globally accepted framework or definition (legal, regulatory or otherwise) currently exists, nor is there a market consensus as to what constitutes an "ESG" (Environmental, Social or Governance) or an equivalent-label, or as to what precise attributes are required for the Information (as defined below) to be defined as ESG or equivalently-labelled. Any information, data or other content including from a third party source contained, referred to herein or used for whatsoever purpose by UBS or a third party ("Information"), in relation to any actual or potential ESG objective, issue or consideration is not intended to be relied upon for ESG classification, regulatory regime or industry initiative purposes ("ESG Regimes"). Nothing in these materials is intended to convey, suggest or indicate that UBS considers or represents any product, service, person or body mentioned in these materials as meeting or qualifying for any ESG classification, labelling or similar standards that may exist under the ESG Regimes. UBS has not conducted any assessment of compliance with ESG Regimes. Parties are reminded to make their own assessments for these purposes.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Prior to making any investment or financial decisions, any recipient of this document or the information should take steps to understand the risk and return of the investment and seek individualized advice from his or her personal financial, legal, tax and other professional advisors that takes into account all the particular facts and circumstances of his or her investment objectives.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in any materials to which this document relates (the "Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party. In no circumstances may this document or any of the Information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or

(iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

UBS has policies and procedures, which include, without limitation, independence policies and permanent information barriers, that are intended, and upon which UBS relies, to manage potential conflicts of interest and control the flow of information within divisions of UBS and among its subsidiaries, branches and affiliates. For further information on the ways in which UBS Global Research manages conflicts and maintains independence of its research products, historical performance information and certain additional disclosures concerning UBS Global Research recommendations, please visit <https://www.ubs.com/disclosures>.

UBS Global Research will initiate, update and cease coverage solely at the discretion of UBS Global Research Management, which will also have sole discretion on the timing and frequency of any published research product. The analysis contained in this document is based on numerous assumptions. All material information in relation to published research reports, such as valuation methodology, risk statements, underlying assumptions (including sensitivity analysis of those assumptions), ratings history etc. as required by the Market Abuse Regulation, can be found on UBS Neo. Different assumptions could result in materially different results.

The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by UBS Global Research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS and/or its divisions as a whole, of which investment banking, sales and trading are a part, and UBS as a whole.

For financial instruments admitted to trading on an EU regulated market: UBS (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms under English law or, if not carried out by UBS in the UK the law of the relevant jurisdiction in which UBS determines it carries out the activity) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

Within the past 12 months UBS may have received or provided investment services and activities or ancillary services as per MiFID II which may have given rise to a payment or promise of a payment in relation to these services from or to this company.

United Kingdom: This material is distributed by UBS AG, London Branch to persons who are eligible counterparties or professional clients. UBS AG, London Branch is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. **Europe:** Except as otherwise specified herein, these materials are distributed by UBS Europe SE, a subsidiary of UBS AG, to persons who are eligible counterparties or professional clients (as detailed in the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) Rules and according to MiFID) and are only available to such persons. The information does not apply to, and should not be relied upon by, retail clients. UBS Europe SE is authorised by the European Central Bank (ECB) and regulated by the BaFin and the ECB. **Germany, Luxembourg, the Netherlands, Belgium and Ireland:** Where an analyst of UBS Europe SE has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE. In all cases it is distributed by UBS Europe SE and UBS AG, London Branch. **Turkey:** Distributed by UBS AG, London Branch. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG, London Branch is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce. Where an analyst of UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). Should not be construed as an individual Investment Recommendation for the purpose of the Russian Law - Federal Law #39-FZ ON THE SECURITIES MARKET Articles 6.1-6.2. **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **Italy:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Italy Branch. Where an analyst of UBS Europe SE, Italy Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Italy Branch. **France:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, France Branch. Where an analyst of UBS Europe SE, France Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, France Branch. **Spain:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Spain Branch. Where an analyst of UBS Europe SE, Spain Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Spain Branch. **Sweden:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Sweden Branch. Where an analyst of UBS Europe SE, Sweden Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Sweden Branch. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **UAE / Dubai:** The information distributed by UBS AG Dubai Branch is only intended for Professional Clients and/or Market Counterparties, as classified under the DFSA rulebook. No other person should act upon this material/communication. The information is not for further distribution within the United Arab Emirates. UBS AG Dubai Branch is regulated by the DFSA in the DIFC. UBS Investment Bank is not licensed to provide banking services in the UAE by the Central Bank of the UAE, nor is it licensed by the UAE Securities and Commodities Authority. **Israel:** This Material is distributed by UBS AG, London Branch. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS AG, London Branch and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS AG, London Branch and its affiliates may prefer various Financial Assets to which they have or may have an Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this Material must not be furnished to, relied on or acted upon by any other persons. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a 'non-US affiliate') to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this report must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Brazil:** Except as otherwise specified herein, this Material is prepared by UBS Brasil Corretora de Câmbio, Títulos e Valores Mobiliários S.A. (UBS Brasil CCTVM) to persons who are eligible investors residing in Brazil, which are considered to be Professional Investors (Investidores Profissionais), as designated by the applicable regulation, mainly the CVM Resolution No. 30 from the 11th of May 2021 (determines the duty to verify the suitability of products, services and transactions with regards to the client's profile). UBS Brasil CCTVM is a subsidiary of UBS BB Servicos de Assessoria Financeira e Participacoes S.A. ("UBS BB"). UBS BB is an association between UBS AG and Banco do Brasil (through its subsidiary BB – Banco de Investimentos S.A.), of which UBS AG is the majority owner and which provides investment banking services and coverage in Brazil, Argentina, Chile, Paraguay, Peru and Uruguay. UBS Brasil CCTVM is regulated by the Comissão de Valores Mobiliários (CVM) and by the Central Bank of Brazil. Ombudsman: 0800-940-0266/ <https://www.ubs.com/br/pt/ubbbb-investment-bank/ombudsman.html>. UBS may hold relevant financial and commercial interest in relation to the company subject to this Research report. **Hong Kong:** Distributed by UBS Securities Asia Limited. Please contact local licensed persons of UBS Securities Asia Limited in respect of any matters arising from, or in connection with, the analysis or document. **Singapore:** Distributed by UBS Securities Pte. Ltd. [Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this report has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the report. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (ABN 47 088 129

613 and holder of Australian Financial Services License No. 231087). For all other recipients: Distributed by UBS Securities Australia Ltd (ABN 62 008 586 481 and holder of Australian Financial Services License No. 231098). This document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. **New Zealand:** Distributed by UBS New Zealand Ltd. UBS New Zealand Ltd is not a registered bank in New Zealand. You are being provided with this publication or material because you have indicated to UBS that you are a "wholesale client" within the meaning of section 5C of the Financial Advisers Act 2008 of New Zealand (Permitted Client). This publication or material is not intended for clients who are not Permitted Clients (non-permitted Clients). If you are a non-permitted Client you must not rely on this publication or material. If despite this warning you nevertheless rely on this publication or material, you hereby (i) acknowledge that you may not rely on the content of this publication or material and that any recommendations or opinions in such this publication or material are not made or provided to you, and (ii) to the maximum extent permitted by law (a) indemnify UBS and its associates or related entities (and their respective Directors, officers, agents and Advisors) (each a 'Relevant Person') for any loss, damage, liability or claim any of them may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material and (b) waive any rights or remedies you may have against any Relevant Person for (or in respect of) any loss, damage, liability or claim you may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This report may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. This material is intended for professional/institutional clients only and not for distribution to any retail clients. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). This material is intended for professional/institutional clients only and not for distribution to any retail clients. **India:** Distributed by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 3 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Number: INZ000259830; and Research Analyst services bearing SEBI Registration Number: INH000001204. Name of Compliance Officer Mr. Parameshwaran Shivaramakrishnan, Phone : +912261556151, Email : parameshwaran.s@ubs.com, Name of Grievance Officer Parameshwaran Shivaramakrishnan, Phone : +912261556151, Email: ol-ubs-sec-compliance@ubs.com Registration granted by SEBI, and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. UBS may have debt holdings or positions in the subject Indian company/companies. UBS may have financial interests (e.g. loan/derivative products, rights to or interests in investments, etc.) in the subject Indian company / companies from time to time. Within the past 12 months, UBS may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: https://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html **Taiwan:** Except as otherwise specified herein, this material may not be distributed in Taiwan. Information and material on securities/instruments that are traded in a Taiwan organized exchange is deemed to be issued and distributed by UBS Securities Pte. LTD., Taipei Branch, which is licensed and regulated by Taiwan Financial Supervisory Commission. Save for securities/instruments that are traded in a Taiwan organized exchange, this material should not constitute "recommendation" to clients or recipients in Taiwan for the covered companies or any companies mentioned in this document. No portion of the document may be reproduced or quoted by the press or any other person without authorisation from UBS. **Indonesia:** This report is being distributed by PT UBS Sekuritas Indonesia and is delivered by its licensed employee(s), including marketing/sales person, to its client. PT UBS Sekuritas Indonesia, having its registered office at Sequis Tower Level 22 unit 22-1, Jl.Jend. Sudirman, kav.71, SCBD lot 11B, Jakarta 12190. Indonesia, is a subsidiary company of UBS AG and licensed under Capital Market Law no. 8 year 1995, a holder of broker-dealer and underwriter licenses issued by the Capital Market and Financial Institution Supervisory Agency (now Otoritas Jasa Keuangan/OJK). PT UBS Sekuritas Indonesia is also a member of Indonesia Stock Exchange and supervised by Otoritas Jasa Keuangan (OJK). Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens except in compliance with applicable Indonesian capital market laws and regulations. This report is not an offer of securities in Indonesia and may not be distributed within the territory of the Republic of Indonesia or to Indonesian citizens in circumstance which constitutes an offering within the meaning of Indonesian capital market laws and regulations.

The disclosures contained in research documents produced by UBS AG, London Branch or UBS Europe SE shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and in any event UBS accepts no liability whatsoever for any redistribution of this document or its contents or the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2024. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

