J.P.Morgan

US Weekly Prospects

Economic and Policy Research

Michael Feroli
(1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA

Michael S Hanson
(1-212) 622-8603
michael.s.hanson@jpmchase.com
JPMorgan Chase Bank NA

Murat Tasci
(1-212) 622-0288
murat.tasci@jpmchase.com
J.P. Morgan Securities LLC

Abiel Reinhart
(1-212) 270 4058
abiel.reinhart@jpmchase.com
JPMorgan Chase Bank NA

Contents

Data Watch	2
Focus: Job finding and rising unemployment	5
Global Data Watch: Anything and everything	7
US Indicator forecasts	10
J.P. Morgan US forecast	15
US Economic Calendar	16

See page 15 for analyst certification and important disclosures.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

Data Watch

- **The July jobs report was a sizable disappointment, as the unemployment rate jumped 0.2%-pt to 4.3%...**
- **… and nonfarm payrolls rose a soft 114k, with downward revisions to prior months**
- **We now see the Fed cutting 50bp at the next two meetings, then 25bp thereafter to 3% next year**
- **Other labor market data this week show cooling wage growth but elevated jobless claims**

What a difference two days make. The July jobs report was a big downside surprise with fairly broad-based signs of weakening, including much-softer-than-expected job growth (up 114,000) and jump in the unemployment rate to 4.3%. Had the Fed had this report in hand going into the FOMC meeting this past Wednesday, it almost certainly would have cut the policy rate by at least 25bp. Now that it looks to be materially behind the curve, we expect a 50bp cut at the September meeting, followed by another 50bp cut in November. From a risk-management perspective, even somewhat stronger inflation or labor market data in the intervening releases should not preclude the Fed from catching up more quickly.

Indeed, a case could be made for an intermeeting easing, especially if the data soften further—although Fed officials might worry about how such a move could be (mis)interpreted. Regardless, with Chair Powell stressing in his press conference that the Fed is carefully watching for signs the labor market could be more than just cooling, attention will be keenly focused on his remarks at the Jackson Hole Symposium later this month, if not sooner. Dovish Chicago Fed president Goolsbee, who was the first Fed official to address the July jobs report, surprisingly advocated for caution and to not overreact to one month's number—but also declared that the Fed needed to balance policy with the economic data in "short order"and that multiple rate cuts are in the cards.

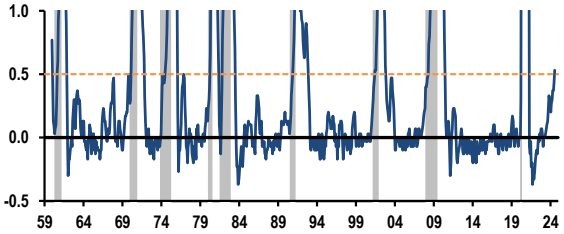
Looking beyond the next two FOMC meetings, we see the Fed continuing to cut 25bp per meeting until it gets the policy rate much closer to neutral. Assuming that is around 3%, the easing cycle would extend into 3Q25. Overall, this is a more accelerated easing pace than we had previously expected or the Fed had signaled in the now-stale June dot plot.

Looking Sahm-what worse

The details of the July jobs report were not good. The disappointing payroll gains reflected weaker growth across several sectors, and prior months were revised 29k lower. We had flagged the possibility that the impact of Hurricane Beryl could bias down both payrolls and the workweek, while biasing up average hourly earnings. In the event, the workweek was modestly softer (ticking down to 34.2) but wage growth rose just 0.2% overall and 0.3% for production and non-supervisory workers, easing the year-ago growth rates to 3.6% and 3.8%, respectively. The BLS concluded no measurable effect on the data from Beryl, and the distortions in the establishment survey may not have been large despite big jumps in people reporting they did not work or worked fewer than usual hours in the household survey.

The household survey should have been less impacted by Beryl by construction, leaving the two-tenths rise in the unemployment rate to 4.3% that much more concerning. This triggered the Sahm Rule as typically measured (Figure 1), but more importantly suggested a shift to a greater contribution from inflows into unemployment; the previous drift higher in the u-rate largely reflected a slowdown in outflows. Both household employment and unemployment rose with a gain in labor force as the participation rate rose another tenth to 62.7%. More encouragingly, prime-aged participation jumped 0.3%-pt to 84.0%— its highest rate since 2001. But that largely was the extent of any good news in the July release.

Figure 1: Real-time Sahm Rule
% deviation of 3mma u-rate from prior 12-month low



Source: St. Louis Fed, J.P. Morgan

In other labor market news….

Prior to the July jobs report, other labor market data this week were mostly pointing to some further gradual cooling, as Powell cited in his remarks. The June JOLTS report showed openings, hires, quits and layoffs all declining relative to May. The vacancy/unemployment ratio edged down to 1.20, a new cycle low. The job openings rate was stable at 4.9%, but this was boosted by a second consecutive month of surging openings in government (Figure 2).

On the wage front the news was generally favorable and should reinforce Powell's belief that the labor market is not contributing to inflationary risks. Labor cost pressures eased in 2Q relative to the beginning of the year, when we saw some unexpected strength in both the employment cost index (ECI) and unit labor costs (ULC). The latter can be quite noisy, but the former is the Fed's preferred gauge of wage inflation and eased to 3.7%q/q, saar after having popped 4.8%

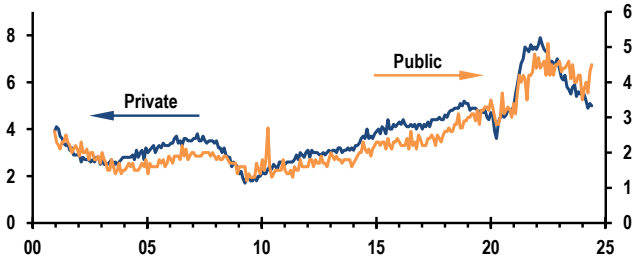
This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com
Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

in 1Q. Much like the JOLTS data, the ECI revealed still fairly elevated public sector compensation growth (4.9% for state and local employees versus 3.5% for private workers).

Figure 2: Job openings rate
%, sa, both axes



Source: BLS, J.P. Morgan

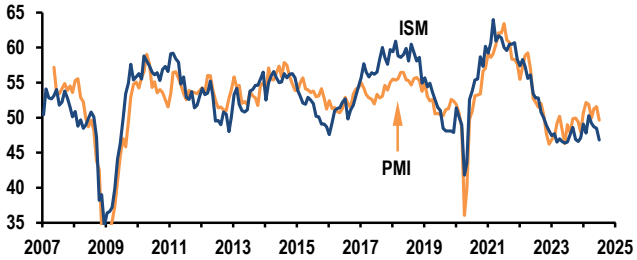
More timely news came with the weekly jobless claims report, which gave a more nuanced picture as both initial and continuing claims moved up, albeit with some residual noise from Hurricane Beryl arguably still affecting the levels. Initial jobless claims for the week ending July 27 jumped to a new high for this year of 249k (from 235k the prior week), and the four-week average approached its recent high from late June. Continuing claims, which shown some stability in recent weeks, broke higher again to 1.877mm. Questions about seasonality have dogged the interpretation of claims lately, and over the past few weeks the NSA initial claims numbers appear to be broadly following the pattern of prior years lower. But the recent rise in continuing claims remains in the NSA data, echoing the more concerning message of labor market weakness in the July employment report.

Manufacturing surveys: divergent declines

The manufacturing PMI and ISM surveys both weakened in July and point to softness in that sector. But the ISM survey is conveying a considerably more negative message, which so far has not been backed up in the activity data. The ISM composite declined to 46.8, which is barely above the current cycle low (Figure 3). By contrast, the trend in the manufacturing PMI has been modestly higher, with July marking the first decline in three months. While the latest reading of 49.6 is off its earlier peak and at the lower end of what is typically seen during economic expansions, the PMI remains comfortably above its cycle low. The modest uptrend in the PMI also appears more consistent with the actual activity data: manufacturing IP rose 3.6% on a 3m/3m annualized basis in June.

For the ISM survey, the most concerning part was the fall in the employment index, which plunged 6pts to 43.4. That was the lowest level of the current cycle and may point to job losses ahead, whereas the manufacturing PMI employment index does not signal weakness. In the event, the July employment report showed no change in manufacturing jobs.

Manufacturing survey composite indexes
Index, sa

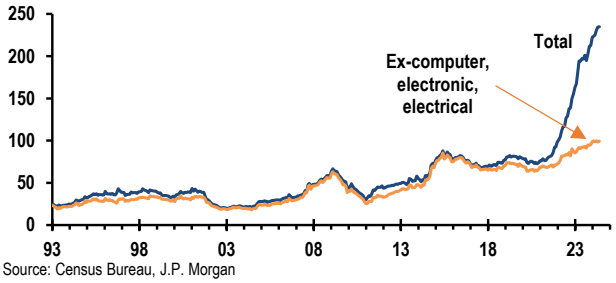


Source: ISM, S&P Global, J.P. Morgan

Home sales and construction data softened

Pending home sales, which lead existing home sales by one to two months, increased 5%m/m in June — albeit from an all-time low. When combined with still-soft weekly mortgage purchase applications, the data are consistent with existing home sales largely moving sideways at very low levels in the near term. The more timely news now for the housing market is what will happen to mortgage rates. With interest rate expectations dropping after the jobs report, mortgage rates could be set for a step down that would likely benefit sales later this year provided a weaker labor market doesn't materially undermine demand for housing. Construction spending for residential and nonresidential buildings also fell in June, and the trajectory points to the possibility for another drop in private structures investment in 3Q. The decline in housing starts to date should lead to further residential spending reductions in the months ahead, unless improvements begin rising again. For nonresidential building, the surge in manufacturing construction from new technology facilities is continuing but at a slower rate, while spending on most other building types is starting to fall (Figure 4).

Figure 4: Private manufacturing construction: total and ex-computers
$bn, saar



Source: Census Bureau, J.P. Morgan

Next week will be very light on data. The most important release will be the ISM services survey, with attention focused on whether a large plunge in new orders in June is at least partially reversed. We will also get the latest Senior Loan Officer Opinion Survey , which will offer a look at how credit conditions among banks were changing during 2Q.

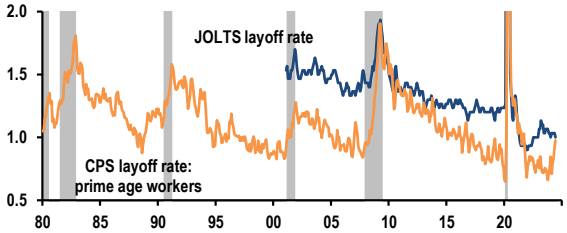
This document is being provided for the exclusive use of blake@sandboxfp.com.

Focus: Job finding and rising unemployment

This week's data pointed to a weakening in the labor market, though also highlighted areas of strength that have nonetheless failed to arrest the upward drift in the unemployment rate. In particular, layoff rates in the June JOLTS fell and have broadly been edging down since early 2023 (Figure 1). The message from this is that weaker hiring without a layoff increase was sufficient to drive higher unemployment. Compounding this challenge, the July employment report's 0.2%-pt increase in the unemployment rate came despite a stable job finding rate that month, indicating layoffs may also start to add upward pressure to unemployment.

Figure 1: Monthly layoff rates (through June)

Percent, 3mma, sa



Source: BLS, Ellieroth and Michaud, J.P. Morgan

One can also construct a measure of layoffs using the household survey (CPS) by observing workers who made a transition out of employment in a month due to a layoff. In a recent study, Ellieroth and Michaud (2024) construct such a layoff measure (Figure 1). The monthly CPS survey only registers a layoff when a worker (a) exits employment and (b) does not take another job by the time they are interviewed in the next month. Consequently, this CPS layoff rate is sensitive to the chance of finding new work during the month, as opposed to the JOLTS measure which captures all layoffs by surveying employers. Regardless of whether changes in this CPS rate are being driven by rising layoffs or falling hiring, the rate has notably increased in recent months. Its level, which is available through June, is not that much higher than 2019, but the upward move is potentially concerning if it signals more than a normalization following a period at historically low levels. Similar increases in the layoff rate have often, though not always, preceded recessions.

The re-employment rate, the fraction of the unemployed who transition to employment in a given month, is also useful for understanding hiring. Because unemployed workers can also enter employment by moving out of the labor force and later re-entering it, we complement the re-employment probability with the job finding rate introduced by Robert Shimer, which accounts for this. Both measures had been strong after COVID but have since declined a similar amount, signalling that unemployed workers are increasingly struggling to find employment, with the probabilities now slightly worse than in 2019 (Figure 2). However, the monthly job finding rate was stable in July even as unemployment jumped.

Figure 2: Measures of unemployment outflow

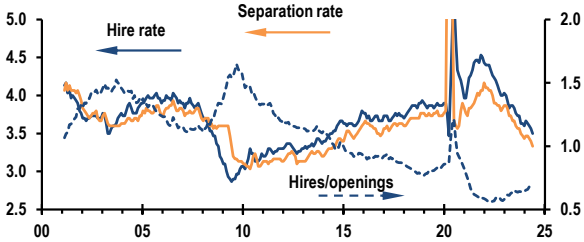
Percent, 3mma, sa | Percent, 3mma, sa

Source: BLS, J.P. Morgan

Returning to the hiring rate reported in JOLTS, declines now put it back at levels last seen in 2014. But because quits have simultaneously fallen, employment growth has only slowed a bit, unlike the sharp deceleration one would expect if the economy were tipping into recession. Indeed it's not clear whether quits are so low because hiring is low, or vice versa. For instance, very high levels of job re-allocation immediately following the pandemic might have pulled forward planned job switches, which could later result in low quits.

Figure 3: Hiring and separation rates vs hires/openings ratio

Percent, 3mma, sa | Ratio, 3mma, sa



Source: BLS, J.P. Morgan

A way to disentangle this is to compare hires to job openings (Figure 3), which will be low when the labor market is strong and hires cannot be made because of a lack of available workers. In 2Q this ratio was 16% below the 2019 level and 34% below the 2014 level, supporting the argument that the labor market is stronger than the hiring rate alone would suggest, although the series may have a downward trend making comparisons across time more challenging. That being said, it has been gently rising from all-time lows over the last couple years, indicative of gradually normalizing conditions, and as noted previously hiring for unemployed workers has not been strong enough to stop the rise in the unemployment rate.

This document is being provided for the exclusive use of blake@sandboxfp.com.

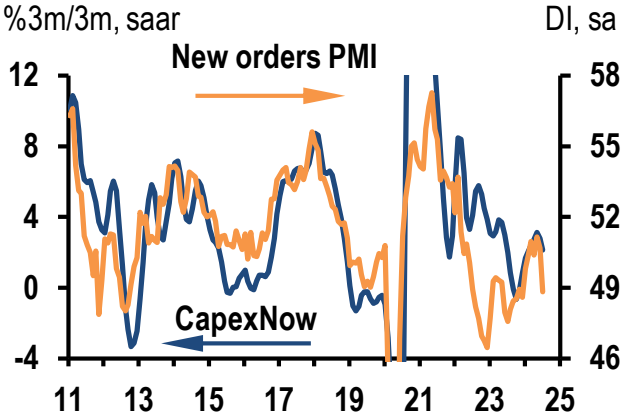
Global Data Watch: Anything and everything

- Interaction of rising growth and fading labor cost risk points to faster Fed
- Step-down in July global manufacturing surveys is broad-based
- BoJ on track toward 1% policy rate as Japan growth moves toward 2%
- Next week: All-ind PMI dips; RBA, RBI on hold; Banxico cuts 25bp

When asked what could go wrong with a macroeconomic forecast, the appropriate answer is always "anything and everything." Our narrative foresees resilient US and global expansions in which growth downshifts to a trend-like pace amid a broadening regional and sectoral base. Meanwhile we expect core inflation to remain sticky above central bank targets. The space for central bank easing has thus been anticipated to be limited. Recent releases challenge each of these views. The most important news is in the US where rising downside growth risks have been accompanied by moderating labor market pressures. Although the FOMC guided toward a gradual policy easing at this week's meeting, these developments likely interact to shift the Fed's perception of risk decisively toward labor market weakness. The door is thus opening for a more forceful monetary policy adjustment, and we now look for the Fed to ease 50bp at the next two meetings.

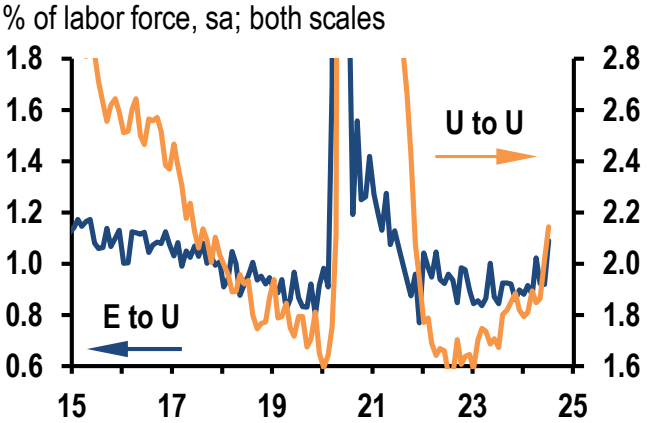
In recent weeks, the midyear slide in DM manufacturing surveys and signs of a loss in Euro area momentum were challenging our view of growth broadening out. These concerns are reinforced this week by a sharp decline in the July EM PMIs. Taken together, the global output PMI has dropped 2.5pts in two months, to a level consistent with a stall in global factory output gains. The details of the report point to even greater weakness in new orders (Figure 1). Combined with the rise in the inventory PMI, the report contrasts with our view that solid retail and capex growth will support 2H24 global IP growth close to the 2.1%ar it recorded last quarter.

Figure 1: Global goods demand indicators



Source: S&P Global, J.P. Morgan

Figure 2: US flows into unemployment



Source: BLS, J.P. Morgan

This document is being provided for the exclusive use of blake@sandboxfp.com.

Although the slowing in US employment gains to 114k last month was disappointing, we temper the weight placed on this slide. A surge in employees out of work due to bad weather alongside a workweek decline points to a Hurricane Beryl drag. The allowance for a modest reversal of this drag next month would align job growth with our trajectory of normalizing toward a still solid pace. However, three related labor market developments raise concern. First, as storms depress hours, incomes are normally smoothed as workers continue to be paid, a development not evident in this week's employment report. Second, the sectoral breadth of job creation narrowed sharply as the diffusion index slipped to 49.6 last month. This signal, consistent with recent business surveys, is not easily linked to bad weather. Third, we have attributed a rising unemployment rate to labor supply gains and a moderation in labor demand that has increased the duration of job searches (Figure 2). While this month's unemployment rate rise reflects these trends, a notable increase in the flow of workers from employed to unemployed hints at the start of a more troubling behavioral shift toward job shedding.

It is too early to distinguish between a moderation and break in labor market conditions, but the risks of a break are rising. As the Fed balances its dual mandate, a major shift in the inflation risk profile is taking place. The US unemployment rate has increased 0.9%-pt from last year's low as an immigration surge and a rise in the prime age participation rate to a 23-year high have rebalanced a labor market still generating strong demand. With this week's ECI report reinforcing the signal from average hourly earnings on wage moderation, and productivity gains limiting unit labor costs, inflation concerns related to tight labor markets have been allayed.

Together these shifts materially change the balance of risk, warranting a level adjustment in the Fed stance. While an easing at each of the meetings for the rest of this year looks likely, the magnitude of moves depends on the data. While there are two CPI reports before the September 18 meeting, news related to growth will likely play the biggest role.

Western Europe CBs to remain gradualists

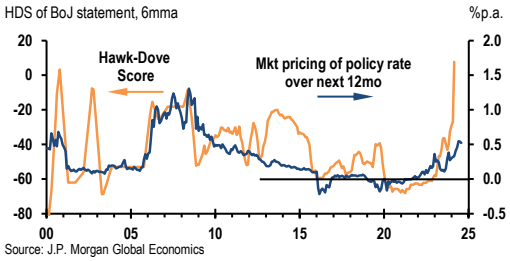
In contrast to this week's significant shift in our Fed call, the news flow keeps Western European central banks on track for the modest easing we expect through year-end. Key to this difference is a Fed that is responding to a more pronounced shift in the perception of risk. If the US slips into recession, the risk profile for Western Europe would change materially and therefore require a reassessment of our views.

- The Bank of England cut rates this week in a finely balanced 5-4 vote—delivering on our long-standing August call. The easing came despite a pickup in growth and ongoing strength in wages and services inflation. We interpret Governor Bailey's message, and the BoE's projections, as consistent with a quarterly pace of easing, in line with our forecast. The BoE did hint that it could cut more quickly if inflation risks dissipate but November is the most likely date for the next ease. Notably, the BoE will update fiscal assumptions after the Budget in late October. The new Labor government this week argued that higher near-term spending obligations necessitated new tax increases. We continue to expect these to be relatively small, however, with Labor also likely to accept cutbacks to future spending.
- In the Euro area growth disappointments remain modest while inflation stickiness persists. Regional manufacturing, particularly the German industrial sector, remains depressed, but spillovers to the labor market remained limited. Indeed, this week saw the Euro area unemployment rate rise to a level unchanged from a year ago alongside solid job gains. Meanwhile, core HICP inflation surprised to the upside with a 0.3%m/m July increase. With better news on service price inflation details and the regional-wide composite PMI slipping, the ECB is on course for a 25bp September ease. However, the case for a faster pace of easing will require a shift in the perception of macroeconomic risk.

BoJ delivers hawkish wake-up call

In hiking its policy rate 15bp this week to 0.25% and announcing a plan to halve its gross monthly bond purchases over the next couple of years, the Bank of Japan sent a hawkish message. Governor Ueda stated that more hikes will be delivered if the data flow comes in as expected and stressed that policy settings will remain accommodative even after a few more rate hikes. This clear hawkish break was reflected in our NLP model, which puts the statement on par with some of the most hawkish on record for the BoJ. In suggesting that a series of hikes would be needed to bring the BoJ closer to neutral, we think that Ueda has signaled in concrete terms that the terminal rate will be higher than the 0.5% level priced by markets over the next 12 months (Figure 3). We expect the BoJ policy rates to reach 1%.

Figure 3: Japan NLP Hawk-Dove Score and market pricing of BoJ



Source: J.P. Morgan Global Economics

The BoJ's hawkish turn seems to have caught some off-guard, given what has been a patchy run for macro activity over the

This document is being provided for the exclusive use of blake@sandboxfp.com.

past several quarters. The BoJ's outlook suggests that strong wage momentum will support spending and incoming activity data suggest that this recovery is now taking hold. This week's June retail sales and July consumer sentiment reports were positive, and manufacturers' projections into 3Q were nudged up. We have upgraded our forecast for real consumption and GDP to grow at a roughly 2%ar in the middle quarters of this year, a development that could be sustained in an environment of supportive external conditions.

A disappointing start to 3Q in China…

The disappointing news on China's activity continued this week. The July NBS PMI pointed to further softening in domestic demand, while a large 4.4-pt drop in the Caixin manufacturing output PMI raises concerns that China's exports, which provided a major lift to 1H growth, may also be losing momentum. Despite mounting pressure for additional policy support, this week's Politburo meeting did not convey any urgency. There was a greater emphasis on boosting consumer spending, particularly for services, but the 2H policy guidelines were like those from the April meeting. Additional fiscal stimulus remains unlikely after last week's rate cuts. Instead, policy support should come from accelerating the issuance of special local government bonds and providing more flexibility in the deployment of these funds. We see risks skewed to the downside of our forecast for GDP to advance a modest 4.5%ar in 2H24.

… but still-solid growth in EMAX

Against the weak outturns across most of the rest of the world, the July manufacturing PMIs remain consistent with solid growth in EM Asia outside Mainland China. The region's PMIs retraced only slightly from their two-year highs and new export orders held up at a strong level. The ongoing tailwind from tech demand, complemented by a modest recovery in domestic demand, keeps us confident that 3Q GDP growth will pick up to a 3%ar after disappointing in 2Q. This week, Korea's June IP posted a strong gain in tech production accompanied by a surge in shipments and a sharp correction in inventories. We expect Korean GDP to rebound 4%ar in 3Q from -0.9%ar in 2Q. Disappointment in China's export engine could still tilt regional growth risks to the downside, especially in economies where the share of exports to China still constitutes more than 20% of all exports (Indonesia, Korea, Taiwan).

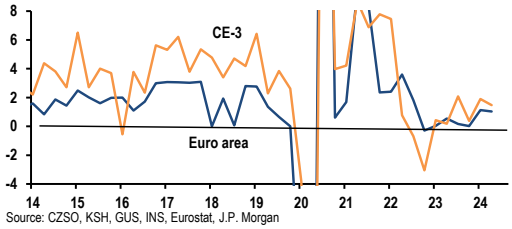
Financial stability risks to keep RBI on hold

We expect the RBI to stand pat at next week's monetary policy review and reiterate its "withdrawal of accommodation" stance. While food price dynamics should turn more benign as the monsoon improves, the central bank will need to see more evidence that food inflation—which constitutes almost half the basket—is softening durably and pushing headline CPI closer to the 4% inflation target. The RBI will also be mindful of ongoing financial stability risks given the surge in unsecured lending to households over the last 18 months, which has nonetheless started to soften in response to macroprudential measures. We expect the RBI to ease in 4Q as growth softens and inflation moderates.

CE-3 mirrors Euro area performance

The 2Q GDP releases from Central Europe mirror Euro area performance, a disappointment for a region with a higher underlying potential pace (Figure 4). Czechia and Hungary both disappointed, maintaining the sub-par pace of the previous two quarters. The region's export-oriented manufacturing sector has strong links with German supply chains and is facing similar problems. Moreover, a recovery in consumer spending has been underwhelming and EU fiscal transfers have yet to deliver an expected boost to capex in this cycle. Further growth disappointment could deliver more than the limited rate cuts we are forecasting. But, for now, policymakers remain focused on still sticky above-target inflation and elevated wage growth (outside Czechia). Poland's flash July CPI showed core inflation firming to a 4%ar in the three months to July (0.4%m/m, sa in July) while underlying inflation in Hungary is running close to a 5%ar.

Figure 4: Real GDP
%q/q saar; 2Q fcst for Poland: 4%



Source: CZSO, KSH, GUS, INS, Eurostat, J.P. Morgan

Idiosyncratic forces on Latam CBs

Three out of the five major Latin American central banks met last Wednesday, before this week's weak US labor report. Two delivered as expected, with Brazil's BCB keeping the policy rate at 10.5% and Colombia's BanRep cutting 50bp. BCB worries about de-anchored inflation expectations and FX depreciation, but remains comfortable with a stable SELIC rate, while internal BanRep divisions pointed to some who wanted a 75bp cut. Such developments are consistent with our forecasts for rates of 10.5% for Brazil and 8.5% for Colombia at year-end. Next week, we anticipate a 3-2 split with Mexico's Banxico delivering a 25bp cut.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

US Indicator forecasts

J.P. Morgan Research versus the consensus

Release date/ Indicator	J.P. Morgan forecast	Consensus median	Consensus range
Mon, Aug 05			
Services PMI (Jul final)	56.0	56.0	55.8 to 56.1
ISM services (Jul)	50.0	51.0	49.0 to 53.3
Tue, Aug 06			
International trade (Jun)	-$72.4 bn	-$72.5 bn	-$76.2 bn to -$71.0 bn
Thu, Aug 08			
Jobless claims (w/e Aug 03)	240k	242k	230k to 255k

Source: J.P. Morgan, consensus forecasts reported by Bloomberg Finance L.P.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com
Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

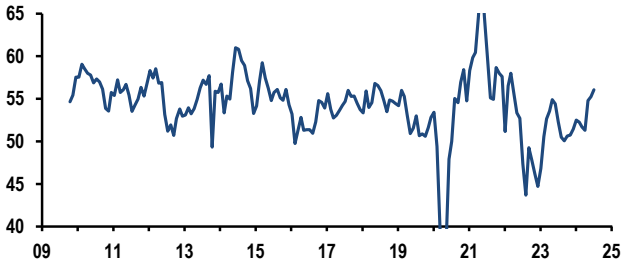
Services PMI (Jul final)

Released on Mon, Aug 05, at 9:45am

We forecast that the final July reading on the services PMI will be unchanged from the flash value of 56.0. As discussed in the forecast for the ISM non-manufacturing survey, the services PMI has looked surprisingly strong relative to other surveys recently, and it would not be surprising if it weakened in coming months. It is possible such a drop could happen in the final July survey, though usually the flash and final values are quite close. Based on past patterns if there was a decline in the final July report it would likely be no more than one point.

Services PMI: business activity

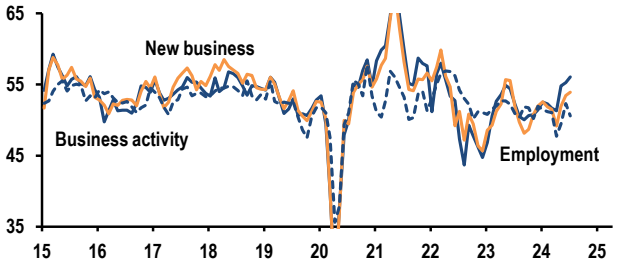
Index, sa



Source: S&P Global, J.P. Morgan

Key services PMI components

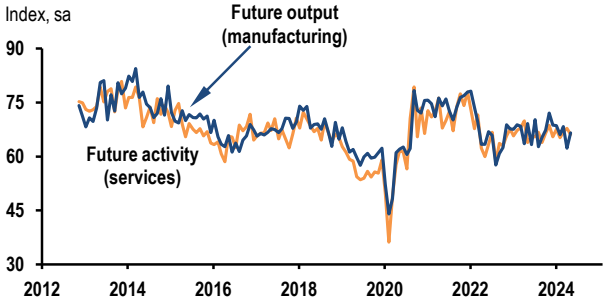
Index, sa



Source: S&P Global, J.P. Morgan

PMI expectations indexes

Index, sa



Source: S&P Global, J.P. Morgan

Services PMI

	Jul 23	Jun 24	Flash Jul 24	Final Jul 24
Business activity	52.3	55.3	56.0	56.0
Incoming new business	51.9	53.5	50.6	

Source: S&P Global, J.P. Morgan

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com
Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

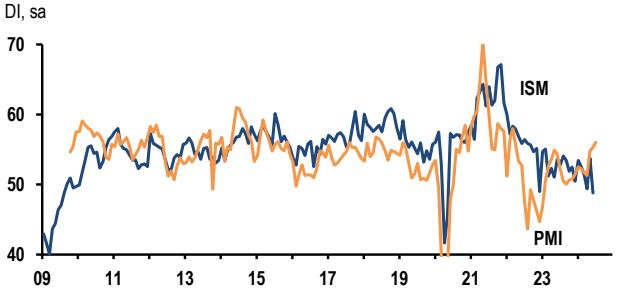
ISM services (Jul)

Released on Mon, Aug 05, at 10:00am

We look for the ISM non-manufacturing index to rise slightly from 48.8 in June to 50.0 in July. The index has been steadily softening for close to a year, but it has also been very volatile in recent months, and the value in June looked surprisingly low, especially with new orders collapsing dramatically to levels usually associated with recession. Consequently we think there is room for it to recover a bit, though our forecast would still be lower than the trailing three-month average of 50.7.

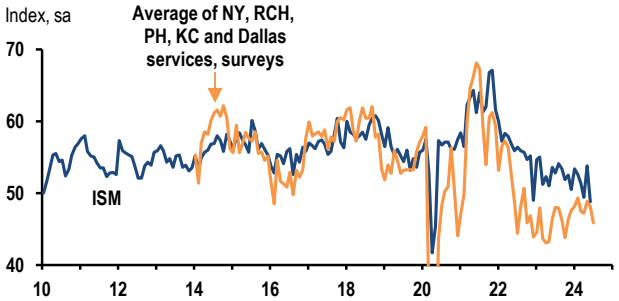
Other business surveys sent mixed signals during the month. The services PMI actually improved in July and is unusually high relative to the ISM non-manufacturing survey, which could argue for more of a recovery in the ISM survey. On the other hand the trend of these two surveys has been significantly different in recent months, and the average business activity reading from regional Fed services surveys worsened for a second consecutive month. The Fed surveys have been running unusually low relative to the ISM ever since COVID, which makes it harder to know what they imply for the level of the ISM, but their direction of travel is weaker, as their recent drop reverses an improvement over the first half of the year.

ISM services composite and PMI services business activity



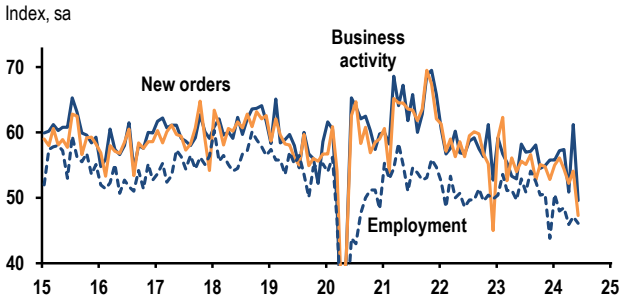
Source: ISM, S&P Global, J.P. Morgan

ISM services and regional services survey business conditions



Source: ISM, NY Fed, Philadelphia Fed, Richmond Fed, KC Fed, J.P. Morgan

Key ISM services survey components



Source: ISM, J.P. Morgan

ISM services survey

Sa	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24
Headline composite	53.4	52.6	51.4	49.4	53.8	48.8	**50.0**
Business activity (25%)[1]	55.8	57.2	57.4	50.9	61.2	49.6	
New orders (25%)	55.0	56.1	54.4	52.2	54.1	47.3	
Employment (25%)	50.5	48.0	48.5	45.9	47.1	46.1	
Prices	64.0	58.6	53.4	59.2	58.1	56.3	
Nsa							
Backlog of orders	51.4	50.3	44.8	51.1	50.8	44.0	
Supplier deliveries (25%)	52.4	48.9	45.4	48.5	52.7	52.2	
Inventory change	49.1	47.1	45.6	53.7	52.1	42.9	
Inventory sentiment	59.3	56.7	55.7	62.9	57.7	64.1	
New export orders	56.1	51.6	52.7	47.9	61.8	51.7	
Imports	59.9	54.3	52.4	53.6	42.8	44.0	

Source: Institute for Supply Management, J.P. Morgan forecasts. 1. Nonmanufacturing index weights in parentheses.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com
Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com
Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

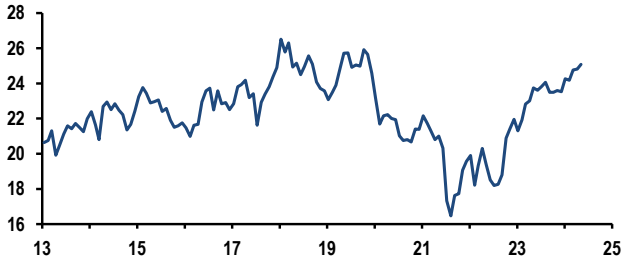
International trade (Jun)

Released on Tue, Aug 06, at 8:30am

We expect the nominal goods and services trade balance, which was -$75.1bn in May, to narrow to between -$73bn and -$72bn in June. Advance goods trade on a Census basis, which is close to the BOP basis in this report, was already released for June, and it showed the goods deficit shrinking during the month on the back of strong growth in exports. For services, we expect to see ongoing growth in exports and imports that should lead the surplus to continue to slowly increase. The services balance has been rebounding from its post-COVID low as segments like net exports of travel recover.

Nominal services balance

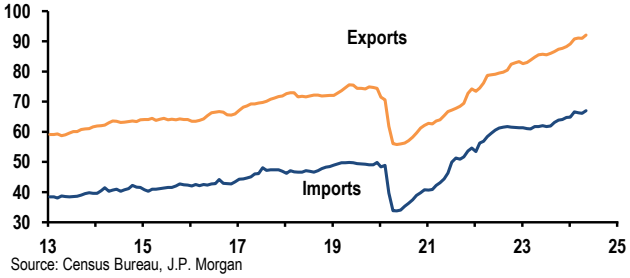
$bn, sa



Source: Census Bureau, J.P. Morgan

Nominal services trade

$bn, sa



Source: Census Bureau, J.P. Morgan

International trade

	Balance ($bn)			Exports (%m/m)			Imports (%m/m)		
	Apr 24	May 24	Jun 24	Apr 24	May 24	Jun 24	Apr 24	May 24	Jun 24
Total balance	-74.5	-75.1	***-72.4***	0.7	-0.7	***1.9***	2.3	-0.3	***0.7***
Services	24.8	25.1	***25.4***	-0.2	1.3	***0.7***	-0.4	1.3	***0.5***
Goods *(BoP)*	-99.3	-100.2	***-97.8***	1.2	-1.7	***2.5***	3.0	-0.8	***0.7***
Foods	-4.6	-4.8		-5.8	-1.3		-0.4	0.1	
Industrial supplies	5.5	2.0		-2.1	-3.4		2.3	2.6	
Capital goods	-25.4	-25.6		3.7	-0.7		3.1	-0.2	
Aircraft	1.0	0.6		13.2	-21.8		32.3	-22.0	
Motor vehicles	-26.8	-25.8		4.8	-3.2		10.5	-3.5	
Consumer goods	-43.5	-41.1		5.7	1.5		-0.3	-3.1	
Other goods	-3.4	-4.0		5.6	-4.1		6.5	2.6	
Real goods *(BoP)*	-94.0	-94.5	***-92.1***	0.3	-0.9	***2.9***	2.5	-0.4	***0.7***

Source: US Department of Commerce, Bureau of Economic Analysis, J.P. Morgan forecasts

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com
Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

Initial claims (w/e Aug 03)

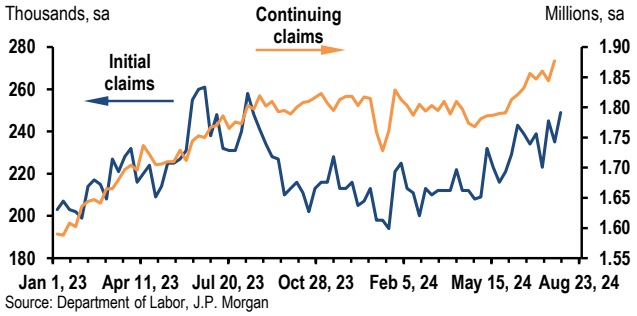
Released on Thu, Aug 08, at 8:30am

We project that initial jobless claims will pull back to around 240k in the week ending August 3 from 249k the prior week. The four-week average would rise to 242k from 238k, which would be just slightly above the prior high of 239k for this year, which was set at the end of June. Jobless claims last week had popped up by 14k. While a gradual loosening in the labor market could be causing claims to drift up, the lingering effects of Hurricane Beryl still appeared to be propping up claims in Texas last week by around 10k, so claims could drop in the latest week assuming Texas reverts to normal patterns.

Jobless claims rose last month during the summer before declining by the fall, and because claims rose at a similar time this year there are lingering questions around the residual seasonality in this series. We discussed this at more length here, noting that NSA claims were in fact more elevated than usual last year during the summer, but that this was boosted by unusual changes in Ohio, Texas, and Minnesota. When these states are excluded claims were much more similar to earlier years, and claims for this year are tracking quite close to prior year patterns. If the labor market loosens further then claims should increase over time. On the other hand if claims continue to follow the pattern from last year then seasonally adjusted claims would move lower by the winter. Last year initial claims were unusually low in the winter, likely stemming from lower agriculture and construction claims, and that pattern was repeated again during January and February of this year. Assuming that winter temperatures do not turn sharply colder than the last couple years the lower pattern of claims could repeat.

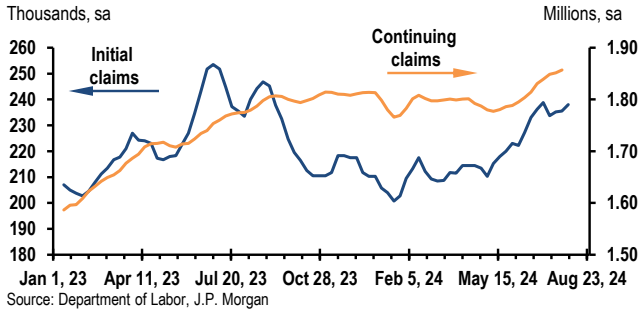
Continuing jobless claims have also increased recently, though they have shown some signs of stability over the last four weeks. While they rose again in the week ending July 20, claims stemming from Hurricane Beryl were likely a contributing factor. Excluding Texas, continuing claims rose slightly but were still similar to the prior month.

Jobless claims



Source: Department of Labor, J.P. Morgan

Jobless claims - 4 week average



Source: Department of Labor, J.P. Morgan

Jobless claims (regular state programs, seasonally adjusted)

	Jun 15[1]	Jun 22	Jun 29	Jul 6	Jul 13[1]	Jul 20	Jul 27	Aug 3
Initial claims (000s)	239	234	239	223	245	235	249	***240***
Weekly change	-4	-5	5	-16	22	-10	14	***-9***
4-week moving average	233	236	239	234	235	236	238	***242***
Weekly change	6	3	3	-5	2	0	3	***4***
Continuing claims (000s)	1832	1856	1847	1860	1844	1877		
Weekly change	11	24	-9	13	-16	33		
4-week moving average	1814	1831	1839	1849	1852	1857		
Weekly change	11	16	9	10	3	5		
Insured unemployment rate (%)	1.2	1.2	1.2	1.2	1.2	1.2		

Source: US Department of Labor, J.P. Morgan forecasts. 1. Employment survey week.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

J.P. Morgan US forecast

	%q/q, saar								%q4/q4			%y/y		
	4Q23	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	2023	2024	2025	2023	2024	2025
Gross domestic product														
Real GDP	3.4	1.4	2.8	1.0	1.0	2.0	2.3	1.8	3.1	1.6	1.9	2.5	2.4	1.7
Final sales	3.9	1.8	2.0	0.6	0.9	1.6	2.3	1.8	3.5	1.3	1.8	2.9	2.3	1.5
Domestic	3.6	2.4	2.7	1.0	1.3	1.8	2.3	1.9	3.2	1.8	1.9	2.3	2.5	1.8
Consumer spending	3.3	1.5	2.3	1.1	1.1	1.2	1.5	1.3	2.7	1.5	1.3	2.2	2.1	1.3
Business investment	3.7	4.4	5.2	2.1	3.4	5.3	5.7	4.1	4.6	3.8	4.6	4.5	3.9	4.3
Equipment	-1.1	1.6	11.6	1.0	1.8	4.0	4.5	3.3	-0.6	3.9	3.7	-0.3	2.4	3.6
Structures	10.9	3.4	-3.3	2.5	2.0	4.0	5.0	3.5	16.9	1.1	3.9	13.2	4.9	3.0
Intellectual property products	4.3	7.7	4.5	3.0	5.5	7.0	7.0	5.0	3.2	5.2	5.7	4.5	4.7	5.6
Residential investment	2.8	16.0	-1.4	-5.0	-4.0	0.0	10.0	8.0	0.4	1.1	5.9	-10.6	3.8	1.7
Government	4.6	1.8	3.1	0.6	1.3	1.6	1.4	1.0	4.6	1.7	1.3	4.1	3.0	1.4
Net exports ($bn, chained $2017)	-919	-960	-1007	-1031	-1056	-1073	-1081	-1089	-	-	-	-	-	-
Exports (goods and services)	5.1	1.6	2.0	-0.8	0.3	1.5	3.0	3.0	1.8	0.8	2.6	2.6	1.7	1.6
Imports (goods and services)	2.2	6.1	6.9	2.2	3.0	3.0	3.0	3.0	-0.1	4.5	3.0	-1.7	3.7	3.1
Inventories (ch $bn, chained $2017)	54.9	28.6	71.3	95.2	100.2	124.3	121.5	119.0	-	-	-	-	-	-
Contribution to real GDP growth (% pts):														
Domestic final sales	3.6	2.5	2.7	1.0	1.3	1.9	2.4	1.9	3.2	1.8	1.9	2.3	2.5	1.8
Net exports	0.3	-0.7	-0.7	-0.4	-0.4	-0.3	-0.1	-0.1	0.3	-0.5	-0.1	0.6	-0.3	-0.2
Inventories	-0.5	-0.4	0.8	0.4	0.1	0.4	0.0	0.0	-0.4	0.2	0.1	-0.4	0.2	0.2
Income and profits (NIPA basis)														
Adjusted corp profits	17.3	-5.4	2.0	2.0	2.0	3.0	5.0	5.0	5.1	0.1	4.7	1.5	4.1	3.4
Real disposable personal income	0.9	1.3	1.0	1.6	1.4	1.9	2.3	1.8	3.8	1.3	2.0	4.1	1.2	1.8
Nominal disposable personal income	2.7	4.7	3.6	4.0	3.9	4.0	4.2	3.9	6.6	4.1	4.1	7.9	3.9	4.0
Saving rate[1]	3.7	3.8	3.5	3.6	3.7	3.8	4.0	4.1	-	-	-	4.5	3.6	4.1
Prices and labor cost														
Consumer price index	2.7	3.8	2.8	2.1	2.8	2.4	2.1	2.3	3.2	2.9	2.3	4.1	3.0	2.4
Core	3.4	4.2	3.2	2.0	2.7	2.6	2.4	2.4	4.0	3.0	2.5	4.8	3.4	2.5
PCE deflator	1.8	3.4	2.6	2.4	2.5	2.1	1.9	2.1	2.8	2.7	2.1	3.7	2.6	2.2
Core	2.0	3.7	2.9	2.1	2.2	2.1	2.1	2.1	3.2	2.7	2.1	4.1	2.7	2.2
GDP chain-type price index	1.6	3.1	2.3	2.4	2.3	2.3	2.3	2.2	2.6	2.5	2.2	3.6	2.5	2.3
S&P/C-S house price index (%oya)	5.1	6.4	2.5	1.3	0.0	0.8	1.6	2.4	5.1	0.0	3.0	2.4	2.5	1.9
Employment Cost Index	3.8	4.8	3.7	3.0	2.8	2.7	2.9	3.0	4.2	3.6	2.9	4.5	3.9	2.9
Productivity	3.5	0.4	2.3	0.3	0.3	1.0	1.0	1.0	2.7	0.8	1.0	1.5	2.0	0.8
Other indicators														
Housing starts (mn units, saar)[1]	1.481	1.407	1.348	1.430	1.450	1.470	1.490	1.510	-	-	-	1.421	1.409	1.498
Industrial production, mfg.	-1.4	-1.3	3.4	0.4	0.3	1.0	1.0	0.8	-0.4	0.7	0.9	-0.5	0.0	0.9
Light vehicle sales (mn units, saar)[1]	15.7	15.3	15.7	15.6	15.6	15.8	16.0	16.2	-	-	-	15.5	15.6	16.1
Unemployment rate[1]	3.7	3.8	4.0	4.3	4.5	4.5	4.6	4.5	-	-	-	3.6	4.2	4.5
Payroll employment (ch, '000s, samr)[1]	212	267	177	150	115	150	150	125	-	-	-	251	177	138
Nominal GDP	5.1	4.5	5.2	3.4	3.3	4.3	4.6	4.0	5.9	4.1	4.2	6.3	5.0	4.1
Current account balance ($bn)[1]	-221.8	-237.6	-216.9	-221.9	-226.9	-232.0	-237.2	-242.5	-	-	-	-905.4	-903.3	-954.5
% of GDP	-3.2	-3.4	-3.0	-3.1	-3.1	-3.2	-3.2	-3.2	-	-	-	-3.3	-3.1	-3.2
Federal budget balance ($bn)[1]	-	-	-	-	-	-	-	-	-	-	-	-1690.0	-1915.0	-1850.0
% of GDP	-	-	-	-	-	-	-	-	-	-	-	-6.2	-6.7	-6.2

1. Entries are average level for the period. Federal balance figures are for fiscal years.

	Aug 2	3Q24	4Q24	1Q25	2Q25
Interest rate forecast (end of period)					
Fed funds target (top of range)	5.50	5.00	4.25	3.75	3.25
2-yr Treasury	3.87	3.60	3.20	2.75	2.35
5-yr Treasury	3.62	3.40	3.10	2.75	2.45
10-yr Treasury	3.79	3.75	3.50	3.30	3.15
30-yr Treasury	4.11	4.10	3.90	3.80	3.70

Source: J.P. Morgan

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

US Economic Calendar

Monday	Tuesday	Wednesday	Thursday	Friday
5 Aug **Services PMI**(9:45am) Jul final 56.0 **ISM services**(10:00am) Jul 50.0 **Senior loan officer survey**(2:00pm) 3Q Chicago Fed President Goolsbee speaks(8:30am) San Francisco Fed President Daly speaks(5:00pm)	**6 Aug** **International trade**(8:30am) Jun -$72.4bn Auction 3-year note $58bn	**7 Aug** **Consumer credit**(3:00pm) Jun Auction 10-year note $42bn	**8 Aug** **Initial claims**(8:30am) w/e Aug 3 240,000 **Wholesale trade**(10:00am) Jun Auction 30-year bond $25bn Richmond Fed President Barkin speaks(3:00pm)	**9 Aug**
12 Aug **Federal budget**(2:00pm) Jul	**13 Aug** **NFIB survey**(6:00am) Jul **PPI**(8:30am) Jul Atlanta Fed President Bostic speaks(1:15pm)	**14 Aug** **CPI**(8:30am) Jul	**15 Aug** **Retail sales**(8:30am) Jul **Import prices**(8:30am) Jul **Initial claims**(8:30am) w/e Aug 10 **Empire State survey**(8:30am) Aug **Philadelphia Fed manufacturing**(8:30am) Aug **Industrial production**(9:15am) Jul **NAHB survey**(10:00am) Aug **Business inventories**(10:00am) Jun **TIC data**(4:00pm) Jun Announce 30-year TIPS (r) $8bn Announce 20-year bond $16bn Philadelphia Fed President Harker speaks(1:10pm)	**16 Aug** **Housing starts**(8:30am) Jul **Business leaders survey**(8:30am) Aug **Consumer sentiment**(10:00am) Aug prelim Chicago Fed President Goolsbee speaks(1:25pm)
19 Aug **Leading indicators**(10:00am) Jul	**20 Aug** **Philadelphia Fed nonmanufacturing**(8:30am) Aug Atlanta Fed President Bostic speaks(1:35pm)	**21 Aug** **QSS**(10:00am) 2Q adv Auction 20-year bond $16bn	**22 Aug** **Initial claims**(8:30am) w/e Aug 17 **Manufacturing PMI**(9:45am) Aug flash **Services PMI**(9:45am) Aug flash **Existing home sales**(10:00am) Jul **KC Fed survey**(11:00am) Aug Announce 2-year note $69bn Auction 30-year TIPS (r) $8bn Announce 2-year FRN (r) $28bn Announce 5-year note $70bn Announce 7-year note $44bn	**23 Aug** **New home sales**(10:00am) Jul
26 Aug **Durable goods**(8:30am) Jul **Dallas Fed manufacturing**(10:30am) Aug	**27 Aug** **FHFA HPI**(9:00am) Jun, 2Q **S&P/Case-Shiller HPI**(9:00am) Jun, 2Q **Richmond Fed survey**(10:00am) Aug **Consumer confidence**(10:00am) Aug **Dallas Fed services**(10:30am) Aug Auction 2-year note $69bn	**28 Aug** Auction 2-year FRN (r) $28bn Auction 5-year note $70bn	**29 Aug** **Real GDP**(8:30am) 2Q second **Advance economic indicators**(8:30am) Jun **Initial claims**(8:30am) w/e Aug 24 **Pending home sales**(10:00am) Jul Auction 7-year note $44bn	**30 Aug** **Personal income**(8:30am) Jul **Consumer sentiment**(10:00am) Aug final

Source: Private and public agencies and J.P. Morgan. Further details available upon request.

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

Analysts' Compensation: The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

Other Disclosures

J.P. Morgan is a marketing name for investment banking businesses of JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide.

UK MIFID FICC research unbundling exemption: UK clients should refer to UK MIFID Research Unbundling exemption for details of J.P. Morgan's implementation of the FICC research exemption and guidance on relevant FICC research categorisation.

Any long form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material are Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

J.P. Morgan Research may, from time to time, write on issuers or securities targeted by economic or financial sanctions imposed or administered by the governmental authorities of the U.S., EU, UK or other relevant jurisdictions (Sanctioned Securities). Nothing in this report is intended to be read or construed as encouraging, facilitating, promoting or otherwise approving investment or dealing in such Sanctioned Securities. Clients should be aware of their own legal and compliance obligations when making investment decisions.

Any digital or crypto assets discussed in this research report are subject to a rapidly changing regulatory landscape. For relevant regulatory advisories on crypto assets, including bitcoin and ether, please see https://www.jpmorgan.com/disclosures/cryptoasset-disclosure.

The author(s) of this research report may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so.

Exchange-Traded Funds (ETFs): J.P. Morgan Securities LLC ("JPMS") acts as authorized participant for substantially all U.S.-listed ETFs. To the extent that any ETFs are mentioned in this report, JPMS may earn commissions and transaction-based compensation in connection with the distribution of those ETF shares and may earn fees for performing other trade-related services, such as securities lending to short sellers of the ETF shares. JPMS may also perform services for the ETFs themselves, including acting as a broker or dealer to the ETFs. In addition, affiliates of JPMS may perform services for the ETFs, including trust, custodial, administration, lending, index calculation and/or maintenance and other services.

Changes to Interbank Offered Rates (IBORs) and other benchmark rates: Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform. For more information, please consult: https://www.jpmorgan.com/global/disclosures/interbank_offered_rates

Private Bank Clients: Where you are receiving research as a client of the private banking businesses offered by JPMorgan Chase & Co. and its subsidiaries ("J.P. Morgan Private Bank"), research is provided to you by J.P. Morgan Private Bank and not by any other division of J.P. Morgan, including, but not limited to, the J.P. Morgan Corporate and Investment Bank and its Global Research division.

Legal entity responsible for the production and distribution of research: The legal entity identified below the name of the Reg AC Research Analyst who authored this material is the legal entity responsible for the production of this research. Where multiple Reg AC Research Analysts authored this material with different legal entities identified below their names, these legal entities are jointly responsible for the production of this research. Research Analysts from various J.P. Morgan affiliates may have contributed to the production of this material but may not be licensed to carry out regulated activities in your jurisdiction (and do not hold themselves out as being able to do so). Unless otherwise stated below, this material has been distributed by the legal entity responsible for production. If you have any queries, please contact the relevant Research Analyst in your jurisdiction or the entity in your jurisdiction that has distributed this research material.

Legal Entities Disclosures and Country-/Region-Specific Disclosures:
Argentina: JPMorgan Chase Bank N.A Sucursal Buenos Aires is regulated by Banco Central de la República Argentina ("BCRA"- Central Bank of Argentina) and Comisión Nacional de Valores ("CNV"- Argentinian Securities Commission - ALYC y AN Integral N°51). **Australia:** J.P. Morgan Securities Australia Limited ("JPMSAL") (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by the Australian Securities and Investments Commission and is a Market Participant of ASX Limited, a Clearing and Settlement Participant of ASX Clear Pty Limited and a Clearing Participant of ASX Clear (Futures) Pty Limited. This material is issued and distributed in Australia by or on behalf of JPMSAL only to "wholesale clients" (as defined in section 761G of the Corporations Act 2001). A list of all financial products covered can be found by visiting https://www.jpmm.com/research/disclosures. J.P. Morgan seeks to cover companies of relevance to the domestic and international investor base across all Global Industry Classification Standard (GICS) sectors, as well as across a range of market capitalisation sizes. If applicable, in the course of conducting public side due diligence on the subject company(ies), the Research Analyst team may at times perform such diligence through corporate engagements such as site visits, discussions with company representatives, management presentations, etc. Research issued by JPMSAL has been prepared in accordance with J.P. Morgan Australia's Research Independence Policy which can be found at the following link: J.P. Morgan Australia - Research Independence Policy. **Brazil**: Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Ombudsman J.P. Morgan: 0800-7700847 / 0800-7700810 (For Hearing Impaired) / ouvidoria.jp.morgan@jpmorgan.com. **Canada**: J.P. Morgan Securities Canada Inc. is a registered investment dealer, regulated by the Canadian Investment Regulatory Organization and the Ontario Securities Commission and is the participating member on Canadian exchanges. This material is distributed in Canada by or on behalf of J.P.Morgan Securities Canada Inc. **Chile:** Inversiones J.P. Morgan Limitada is an unregulated entity incorporated in Chile. **China:** J.P. Morgan Securities (China) Company Limited has been approved by CSRC

This document is being provided for the exclusive use of blake@sandboxfp.com.

to conduct the securities investment consultancy business. **Dubai International Financial Centre (DIFC)**: JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - The Gate, West Wing, Level 3 and 9 PO Box 506551, Dubai, UAE. This material has been distributed by JP Morgan Chase Bank, N.A., Dubai Branch to persons regarded as professional clients or market counterparties as defined under the DFSA rules. **European Economic Area (EEA):** Unless specified to the contrary, research is distributed in the EEA by J.P. Morgan SE ("JPM SE"), which is authorised as a credit institution by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). JPM SE is a company headquartered in Frankfurt with registered address at TaunusTurm, Taunustor 1, Frankfurt am Main, 60310, Germany. The material has been distributed in the EEA to persons regarded as professional investors (or equivalent) pursuant to Art. 4 para. 1 no. 10 and Annex II of MiFID II and its respective implementation in their home jurisdictions ("EEA professional investors"). This material must not be acted on or relied on by persons who are not EEA professional investors. Any investment or investment activity to which this material relates is only available to EEA relevant persons and will be engaged in only with EEA relevant persons. **Hong Kong**: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong, and J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. JP Morgan Chase Bank, N.A., Hong Kong Branch (CE Number AAL996) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission, is organized under the laws of the United States with limited liability. Where the distribution of this material is a regulated activity in Hong Kong, the material is distributed in Hong Kong by or through J.P. Morgan Securities (Asia Pacific) Limited and/or J.P. Morgan Broking (Hong Kong) Limited. **India**: J.P. Morgan India Private Limited (Corporate Identity Number - U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai – 400098, is registered with the Securities and Exchange Board of India (SEBI) as a 'Research Analyst' having registration number INH000001873. J.P. Morgan India Private Limited is also registered with SEBI as a member of the National Stock Exchange of India Limited and the Bombay Stock Exchange Limited (SEBI Registration Number – INZ000239730) and as a Merchant Banker (SEBI Registration Number - MB/INM000002970). Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990 and Website: http://www.jpmipl.com. JPMorgan Chase Bank, N.A. - Mumbai Branch is licensed by the Reserve Bank of India (RBI) (Licence No. 53/ Licence No. BY.4/94; SEBI - IN/CUS/014/ CDSL : IN-DP-CDSL-444-2008/ IN-DP-NSDL-285-2008/ INBI00000984/ INE231311239) as a Scheduled Commercial Bank in India, which is its primary license allowing it to carry on Banking business in India and other activities, which a Bank branch in India are permitted to undertake. For non-local research material, this material is not distributed in India by J.P. Morgan India Private Limited. Compliance Officer: Spurthi Gadamsetty; spurthi.gadamsetty@jpmchase.com; +912261573225. Grievance Officer: Ramprasadh K, jpmipl.research.feedback@jpmorgan.com; +912261573000.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Indonesia: PT J.P. Morgan Sekuritas Indonesia is a member of the Indonesia Stock Exchange and is registered and supervised by the Otoritas Jasa Keuangan (OJK). **Korea**: J.P. Morgan Securities (Far East) Limited, Seoul Branch, is a member of the Korea Exchange (KRX). JPMorgan Chase Bank, N.A., Seoul Branch, is licensed as a branch office of foreign bank (JPMorgan Chase Bank, N.A.) in Korea. Both entities are regulated by the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS). For non-macro research material, the material is distributed in Korea by or through J.P. Morgan Securities (Far East) Limited, Seoul Branch. **Japan**: JPMorgan Securities Japan Co., Ltd. and JPMorgan Chase Bank, N.A., Tokyo Branch are regulated by the Financial Services Agency in Japan. **Malaysia**: This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X), which is a Participating Organization of Bursa Malaysia Berhad and holds a Capital Markets Services License issued by the Securities Commission in Malaysia. **Mexico**: J.P. Morgan Casa de Bolsa, S.A. de C.V. and J.P. Morgan Grupo Financiero are members of the Mexican Stock Exchange and are authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **New Zealand**: This material is issued and distributed by JPMSAL in New Zealand only to "wholesale clients" (as defined in the Financial Markets Conduct Act 2013). JPMSAL is registered as a Financial Service Provider under the Financial Service providers (Registration and Dispute Resolution) Act of 2008. **Philippines**: J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. **Singapore**: This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 030/08/2023 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore), both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. **South Africa**: J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Conduct Authority (FSCA). **Taiwan**: J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material. **Thailand**: This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of

This document is being provided for the exclusive use of blake@sandboxfp.com.

Finance and the Securities and Exchange Commission, and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. **UK:** Unless specified to the contrary, research is distributed in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. JPMS plc is registered in England & Wales No. 2711006, Registered Office 25 Bank Street, London, E14 5JP. This material is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. Research issued by JPMS plc has been prepared in accordance with JPMS plc's policy for prevention and avoidance of conflicts of interest related to the production of Research which can be found at the following link: J.P. Morgan EMEA - Research Independence Policy. **U.S.**: J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its content.

General: Additional information is available upon request. The information in this material has been obtained from sources believed to be reliable. While all reasonable care has been taken to ensure that the facts stated in this material are accurate and that the forecasts, opinions and expectations contained herein are fair and reasonable, JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) make no representations or warranties whatsoever to the completeness or accuracy of the material provided, except with respect to any disclosures relative to J.P. Morgan and the Research Analyst's involvement with the issuer that is the subject of the material. Accordingly, no reliance should be placed on the accuracy, fairness or completeness of the information contained in this material. There may be certain discrepancies with data and/or limited content in this material as a result of calculations, adjustments, translations to different languages, and/or local regulatory restrictions, as applicable. These discrepancies should not impact the overall investment analysis, views and/or recommendations of the subject company(ies) that may be discussed in the material. J.P. Morgan accepts no liability whatsoever for any loss arising from any use of this material or its contents, and neither J.P. Morgan nor any of its respective directors, officers or employees, shall be in any way responsible for the contents hereof, apart from the liabilities and responsibilities that may be imposed on them by the relevant regulatory authority in the jurisdiction in question, or the regulatory regime thereunder. Opinions, forecasts or projections contained in this material represent J.P. Morgan's current opinions or judgment as of the date of the material only and are therefore subject to change without notice. Periodic updates may be provided on companies/industries based on company-specific developments or announcements, market conditions or any other publicly available information. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or projections, which represent only one possible outcome. Furthermore, such opinions, forecasts or projections are subject to certain risks, uncertainties and assumptions that have not been verified, and future actual results or events could differ materially. The value of, or income from, any investments referred to in this material may fluctuate and/or be affected by changes in exchange rates. All pricing is indicative as of the close of market for the securities discussed, unless otherwise stated. Past performance is not indicative of future results. Accordingly, investors may receive back less than originally invested. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. This material may include views on structured securities, options, futures and other derivatives. These are complex instruments, may involve a high degree of risk and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. The recipients of this material must make their own independent decisions regarding any securities or financial instruments mentioned herein and should seek advice from such independent financial, legal, tax or other adviser as they deem necessary. J.P. Morgan may trade as a principal on the basis of the Research Analysts' views and research, and it may also engage in transactions for its own account or for its clients' accounts in a manner inconsistent with the views taken in this material, and J.P. Morgan is under no obligation to ensure that such other communication is brought to the attention of any recipient of this material. Others within J.P. Morgan, including Strategists, Sales staff and other Research Analysts, may take views that are inconsistent with those taken in this material. Employees of J.P. Morgan not involved in the preparation of this material may have investments in the securities (or derivatives of such securities) mentioned in this material and may trade them in ways different from those discussed in this material. This material is not an advertisement for or marketing of any issuer, its products or services, or its securities in any jurisdiction.

Confidentiality and Security Notice: This transmission may contain information that is privileged, confidential, legally privileged, and/or exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein (including any reliance thereon) is STRICTLY PROHIBITED. Although this transmission and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by JPMorgan Chase & Co., its subsidiaries and affiliates, as applicable, for any loss or damage arising in any way from its use. If you received this transmission in error, please immediately contact the sender and destroy the material in its entirety, whether in electronic or hard copy format. This message is subject to electronic monitoring: https://www.jpmorgan.com/disclosures/email

MSCI: Certain information herein ("Information") is reproduced by permission of MSCI Inc., its affiliates and information providers ("MSCI") ©2024. No reproduction or dissemination of the Information is permitted without an appropriate license. MSCI MAKES NO EXPRESS OR IMPLIED WARRANTIES (INCLUDING MERCHANTABILITY OR FITNESS) AS TO THE INFORMATION AND DISCLAIMS ALL LIABILITY TO THE EXTENT PERMITTED BY LAW. No Information constitutes investment advice, except for any applicable Information from MSCI ESG Research. Subject also to msci.com/disclaimer

This document is being provided for the exclusive use of blake@sandboxfp.com.

Michael Feroli (1-212) 834-5523
michael.e.feroli@jpmorgan.com
JPMorgan Chase Bank NA
Michael S Hanson (1-212) 622-8603
michael.s.hanson@jpmchase.com

Murat Tasci (1-212) 622-0288
murat.tasci@jpmchase.com

Abiel Reinhart (1-212) 270 4058
abiel.reinhart@jpmchase.com

Sustainalytics: Certain information, data, analyses and opinions contained herein are reproduced by permission of Sustainalytics and: (1) includes the proprietary information of Sustainalytics; (2) may not be copied or redistributed except as specifically authorized; (3) do not constitute investment advice nor an endorsement of any product or project; (4) are provided solely for informational purposes; and (5) are not warranted to be complete, accurate or timely. Sustainalytics is not responsible for any trading decisions, damages or other losses related to it or its use. The use of the data is subject to conditions available at https://www.sustainalytics.com/legal-disclaimers. ©2024 Sustainalytics. All Rights Reserved.

"Other Disclosures" last revised July 06, 2024.

Copyright 2024 JPMorgan Chase & Co. All rights reserved. This material or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan. It is strictly prohibited to use or share without prior written consent from J.P. Morgan any research material received from J.P. Morgan or an authorized third-party ("J.P. Morgan Data") in any third-party artificial intelligence ("AI") systems or models when such J.P. Morgan Data is accessible by a third-party. It is permissible to use J.P. Morgan Data for internal business purposes only in an AI system or model that protects the confidentiality of J.P. Morgan Data so as to prevent any and all access to or use of such J.P. Morgan Data by any third-party.

Completed 02 Aug 2024 08:23 PM EDT

Disseminated 02 Aug 2024 08:23 PM EDT

This document is being provided for the exclusive use of blake@sandboxfp.com.