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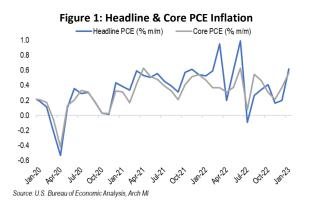


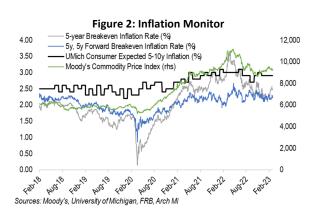
Weekly Wrap - The Heat Is On

- The hot streak for inflation and macro data continued with a step higher in PCE inflation and consumption growth.
- Mortgage rates rose further in response to the hot data and demand for existing homes continued to cool.
- New home sales are another story as homebuilders manage through the cycle and offer attractive incentives.

Data last week reaffirmed the reacceleration theme that has taken hold to start the year. The second estimate for 4Q22 real GDP was revised marginally lower (2.7% vs 2.9% previously) on the back of weaker consumer spending on goods while private investment and inventory accumulation were revised higher. This suggests business activity entered 2023 on more solid footing than previously thought. Meanwhile, January real personal spending rose a robust 1.1% m/m (cons. 1.1%) with strength across goods and services categories. Preliminary February S&P Global U.S. composite PMI surprised to the upside (50.2 vs cons. 47.5), with both the services and manufacturing components beating expectations amid a rebound in new orders and production — suggesting 1Q23 growth is setting up to be quite solid. Fears of a recession in early 2023 have been pushed out to late 2023 with the string of surprisingly strong economic data releases driving the Federal Reserve Bank of Atlanta's GDPNow model estimate for 1Q23 to a 2.8% seasonally adjusted annual rate (saar).

Last week's most important data release, however, was the January report on Personal Consumption Expenditure (PCE) consumer inflation, which came in hotter than consensus forecasters expected (up 0.6% m/m vs cons. 0.5%) and much hotter than the 0.2% gain in December (Figure 1). Even more concerning than the headline print, core inflation (excluding food and energy) accelerated to 0.6% m/m (cons. 0.4%) from 0.4% in December. The reacceleration of inflation in January and the resilient labor market, combined with inflation expectations inching higher (Figure 2), will strengthen the Fed's resolve for hiking further into restrictive territory. As such, risks remain elevated that the early economic momentum of 2023 will meet stronger headwinds over the second half of the year when financial conditions will be even tighter.





Persistently elevated mortgage rates have locked many existing homeowners into their current homes. This has limited the inventory of existing homes for sale and allowed homebuilders to step in with attractive incentives that have increasingly lured buyers into the new home segment of the market. Existing home sales decreased for the twelfth straight month in January, falling -0.7% m/m to 4,000k saar (cons. 4,100k), representing an annual decline of -37%. More real-time data on pending home sales from Redfin suggests buyers are pulling back from the resale market again in February in response to rising rates. Meanwhile, new home sales climbed for the second consecutive month in January, jumping 7.2% m/m to a 670k saar pace (cons. 620k) on top of an upwardly revised December. The divergence in the housing market is also apparent in the trajectory of months' supply for both segments. The inventory of existing homes for sale has climbed to 3.5 months in January from a trough of 1.9 months a year ago while the inventory of new homes for sale has declined to 7.9 months in January from a peak of 10.1 months last August. Going forward, we expect the inventory of existing homes to remain relatively tight — limiting the magnitude of price declines before the market finds a new equilibrium — and for homebuilders to continue to manage through the challenges presented by this cycle and find a new balance in relatively short order.



Recent Data Releases

Key economic and housing data releases over the last week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
2/21/23	S&P Global US Composite PMI	Feb P	50.2	47.5	46.8	index, sa
2/21/23	Existing Home Sales	Jan	4,000	4,100	4,030	k, saar
2/21/23	Existing Home Sales m/m	Jan	-0.7%	2.0%	-2.2%	sa
2/22/23	MBA Mortgage Applications	2/17/23	-13.3%		-7.7%	w/w, sa
2/23/23	GDP Annualized q/q	4QS	2.7%	2.9%	2.9%	saar
2/23/23	Personal Consumption q/q	4Q S	1.4%	2.0%	2.1%	saar
2/23/23	Core Personal Consumption q/q	4QS	4.3%	3.9%	3.9%	saar
2/23/23	Initial Jobless Claims	2/18/23	192	200	195	k, sa
2/23/23	Continuing Claims	2/11/23	1,654	1,700	1,691	k, sa
2/24/23	Personal Income	Jan	0.6%	1.0%	0.3%	m/m, sa
2/24/23	Personal Spending	Jan	1.8%	1.4%	-0.1%	m/m, sa
2/24/23	Real Personal Spending	Jan	1.1%	1.1%	-0.3%	m/m, sa
2/24/23	PCE Inflation m/m	Jan	0.6%	0.5%	0.2%	sa
2/24/23	PCE Inflation y/y	Jan	5.4%	5.0%	5.3%	nsa
2/24/23	PCE Core Inflation (ex Food and Energy) m/m	Jan	0.6%	0.4%	0.4%	sa
2/24/23	PCE Core Inflation (ex Food and Energy) y/y	Jan	4.7%	4.3%	4.6%	nsa
2/24/23	New Home Sales	Jan	670	620	625	k, saar
2/24/23	New Home Sales m/m	Jan	7.2%	0.7%	7.2%	sa
2/24/23	U. of Mich. Sentiment	Feb F	67.0	66.4	66.4	index, nsa
2/24/23	U. of Mich. 1 Yr Inflation	Feb F	4.1%	4.2%	4.2%	nsa
2/24/23	U. of Mich. 5-10 Yr Inflation	Feb F	2.9%	2.9%	2.9%	nsa

Sources: Bloomberg Consensus Survey of Economists, Arch MI

Green = beat expectations; Red = worse than expectations; (compared vs. prior if no consensus estimates available)

HOUSING DEMAND FIZZLED AS RATES SURGED

The modest recovery in housing demand has been challenged by a renewed surge in mortgage rates as concerns about the stickiness of inflation have lifted the policy rate outlook. Pending home sales troughed at -6% below the pre-pandemic level of activity during the last week of November 2022 — when mortgage rates hovered around 7% — then staged a brief recovery to 11% above pre-pandemic sales by the end of January as mortgage rates declined toward 6%. Since then, mortgage rates have climbed back into the upper-6% range (~6.8% according to Mortgage News Daily) and sales activity has consequently started to cool again. Pending home sales were down roughly -18k y/y (Figure 3), or -33% below the year-ago level for the week ending Feb. 19, per Redfin data. Annual comparisons will remain challenged over the first half of the year given the vastly different buying environments. Case in point, despite the large year-over-year decline, the recent pace of pending sales remained 4% above the pre-pandemic average for this time of year but deteriorated slightly from 7% above last week and 11% three weeks ago. Higher mortgage rates in recent weeks have also weighed on potential sellers as new listings declined to -23% below the pre-pandemic average from -13% four weeks ago. Meanwhile, the number of delisted homes rose to 33% above the pre-pandemic average for this time of year from 5% four weeks ago.

The decline in new listings and increase in delisted homes offset the cooling pace of sales and pushed the number of active listings further down to -33% below the pre-pandemic average (Figure 4). Despite total homes sold being down -31% y/y and -11% below the pre-pandemic average, the national market remains somewhat tight given months' supply is 3.5 months, -26% below the pre-pandemic average for this time of year. The current months' supply is a significant increase from the 2 months recorded for the same week in 2022 when the market was incredibly tight. Annual growth in the national median sale price per square foot slowed to 1.1% y/y from 1.6% last week and 2% four weeks ago, all of which



represent a drastic slowdown from the 17% annual gain recorded at this time last year. Risks for prices remain skewed to the downside with overstretched markets particularly vulnerable to price declines.

Figure 3: U.S. Existing Home Sales Market Dynamics New Listings Delisted (inverse) -Pending Sales 50 40 30 Year-Over-Year Change (000s) 20 10 0 -10 -20 -30 -40 -50 Feb-20 Aug-20 Feb-21 Aug-21 Feb-22



Source: Redfin, Arch MI

Of the major metros we track (Figure 5), annual home price growth was weakest in **Austin** (-10%), **Seattle** (-10%), **Denver** (-5%), **Los Angeles** (-5%) and **Phoenix** (-5%), with home price growth having slowed most rapidly compared with a year ago in **Austin** (-36%-pts), **Phoenix** (-33%-pts), **Seattle** (-33%-pts), **San Diego** (-29%-pts) and **Dellas** (-26%-pts). Conversely, annual home price growth was strongest in **Miami** (8%), **Tampa** (5%) and **Nashville** (3%). Median days on the market have extended alongside softening market conditions, with many markets exceeding pre-pandemic timelines. Markets with the longest median days on the market relative to the pre-pandemic norm include **Austin** (38 days longer), **Phoenix** (21) and **Denver** (20), while some markets like **New York** (-32) and **Baltimore** (-18) remained well below pre-pandemic timelines. Markets that have deteriorated the most based on months' supply include **Austin** and **Seattle**, where months' supply has climbed to a respective 50% and 14% above their pre-pandemic averages for the same week from -54% and -46% below one year ago. Despite the aforementioned outliers, months' supply remains below pre-pandemic levels in most markets (-26% below nationally), with **Baltimore** (-41%), **San Diego** (-36%), **Tampa** (-23%), **New York** (-22%) and **Atlanta** (-22%) remaining the tightest relative to their pre-pandemic averages.



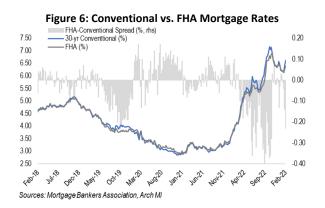
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Metro	Median Sale Price psf (% y/y)	Median Sale Price Same Week '22 (% y/y)	Active Listings with Price Drops (% share)	Active Listings with Price Drops (ppt Δ y/y)	Homes Sold Above List (%)	Homes Sold Above List (ppt Δ y/y)	Average Sale-to- List Ratio (%)	Average Sale-to- List Ratio (ppt Δ y/y)	Total Active Listings (% y/y)	Median DoM (Δ Pre- Covid)	Median DoM Same Week '22 (Δ Pre- Covid)	Months' Supply (% Pre-Covid)	Months' Supply Same Week '22 (% Pre- Covid)
All Redfin Metros	1%	17%	5%	3%	21%	-20%	98%	-3%	21%	-13	-32	-26%	-58%
Atlanta	3%	24%	6%	3%	20%	-28%	98%	-3%	28%	-2	-37	-22%	-60%
Austin	-10%	26%	7%	6%	11%	-41%	97%	-6%	115%	38	-16	50%	-54%
Baltimore	3%	9%	5%	1%	32%	-7%	101%	0%	1%	-18	-27	-41%	-60%
Boston	2%	9%	3%	2%	34%	-16%	99%	-3%	5%	2	-11	-18%	-42%
Chicago	0%	12%	3%	1%	24%	-8%	98%	-1%	-11%	14	-23	-12%	-37%
Dallas	0%	26%	6%	4%	15%	-39%	97%	-5%	86%	10	-25	-20%	-64%
Denver	-5%	19%	7%	6%	22%	-41%	98%	-5%	65%	20	-16	-3%	-56%
Houston	3%	21%	6%	3%	13%	-19%	97%	-2%	43%	-1	-34	-15%	-59%
Los Angeles	-5%	16%	4%	2%	31%	-29%	98%	-5%	7%	7	-19	-4%	-45%
Miami	8%	25%	4%	2%	9%	-10%	96%	-2%	7%	5	-7	-21%	-64%
Minneapolis	1%	9%	4%	2%	26%	-19%	99%	-2%	14%	-2	-26	-13%	-43%
Nashville	3%	28%	5%	3%	13%	-30%	97%	-4%	105%	11	-35	6%	-66%
New York	-3%	16%	4%	1%	20%	-4%	98%	-1%	-6%	-32	-40	-22%	-49%
Phoenix	-5%	28%	8%	5%	12%	-33%	97%	-4%	62%	21	-25	-2%	-61%
Portland	-2%	17%	5%	2%	24%	-27%	99%	-3%	35%	10	-26	4%	-51%
Riverside	0%	24%	5%	3%	26%	-34%	98%	-4%	28%	1	-36	-20%	-61%
San Diego	-5%	24%	5%	2%	30%	-34%	99%	-5%	18%	2	-27	-36%	-65%
Seattle	-10%	23%	5%	3%	21%	-38%	99%	-8%	59%	12	-18	14%	-46%
Tampa	5%	29%	9%	6%	12%	-27%	97%	-3%	112%	-2	-34	-23%	-74%
Washington DC	-1%	10%	4%	1%	30%	-17%	99%	-2%	9%	5	-17	-12%	-44%

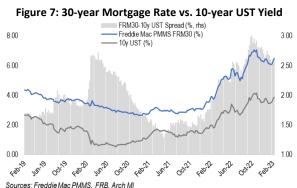
Figure 5: Weekly Housing Monitor (as of 2/19/23)

Note: Data reflects 4week averages; DoM = Days on Market; Source: Redfin, Arch MI

MORTGAGE APPLICATIONS COOLED FURTHER AS RATES SURGED

According to the MBA survey of lenders, the average contract conventional mortgage rate rose 23bps to 6.62% during the week ending Feb. 17 while the FHA contract mortgage rate also rose 14bps to 6.39%, resulting in a -9bps contraction in the spread between the FHA and conventional mortgage rate to -0.23% (Figure 6). Freddie Mac's more recent Primary Mortgage Market Survey (PMMS) for the week ending Feb. 22 indicated that the FRM30 jumped 18bps w/w to 6.50% (Figure 7) as 10-year UST yields jumped 15bps to an average of 3.89% over the same period. Accordingly, the spread between the PMMS FRM30 and the 10-year UST widened 3bps to 2.61%, about 90bps wider than its typical non-stressed level prior to the pandemic. We expect rate volatility and mortgage spreads to remain wide until more clarity is gained around the path of inflation and monetary policy, which is not likely to occur until well into the first half of this year.

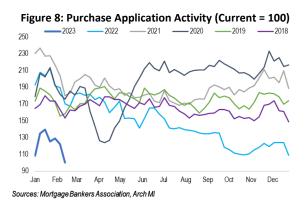


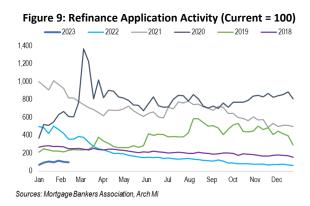


The MBA mortgage application survey for the week ending Feb. 17 declined -13% w/w, leaving the index down -57% year-over-year and down -57% compared with pre-pandemic levels (i.e., the average of the same week in 2018, 2019 and 2020). The weekly decline was driven primarily by a -18% decrease in purchase applications, which are now down -41% y/y and



-38% relative to the pre-pandemic level (Figure 8). Refinancing applications declined -2.2% w/w and were down -72% y/y and -73% relative to pre-pandemic levels (Figure 9).





EXISTING HOME SALES FELL FURTHER IN JANUARY

Existing home sales decreased for the twelfth straight month in January, falling -0.7% m/m to 4,000k saar (cons. 4,100k), representing an annual decline of -37% (Figure 10). Supply conditions remained tight, but inventory ticked up 2.7% m/m to 1,171k (sa) units in January, the second straight monthly increase. Sales and inventory were -20% and -38% below their respective 2019 levels. Unsold inventory rose to a 3.5 months' supply (sa) at the present sales pace, not much of an uptick from the 3.4 level that held for the prior three months with the primary driver being the decline in the pace of sales as opposed to the modest rise in inventory (Figure 11). The seasonally adjusted median sales price of an existing single-family home rose for the first time since May 2022, up 0.2% m/m to \$383k, although it is important to note that this figure is not adjusted for the quality, size, or geography of homes sold.

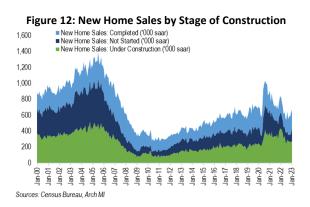


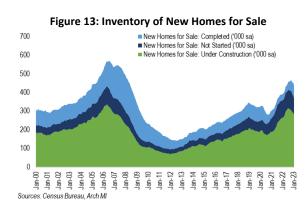


NEW HOME SALES KEEP CHUGGING HIGHER

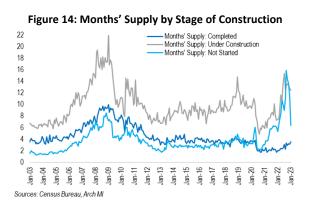
Data from the Census Bureau showed new home sales climbed for the second consecutive month in January, jumping 7.2% m/m to a 670k saar pace (cons. 620k) on top of an upwardly revised December. The continued recovery in the pace of new home sales stands in stark contrast to the negative headlines for the resale market. Several dynamics are at play, particularly the fact that the Census reports gross sales, not net, meaning cancellation rates are not captured by the data. On that note, recent commentary from homebuilders indicate that demand is showing signs of recovery from basement levels, suggesting that cancellation rates have peaked or are close to peak, coinciding with recent improvement in the NAHB homebuilder sentiment index. Additionally, the rising use of incentives by builders to move product has also likely played a factor in bolstering sales at better-than-expected levels. Nonetheless, new home sales are down 19% y/y and still 35% below the cycle peak in August 2020 (Figure 12), but only 5% below the pre-pandemic pace of sales.

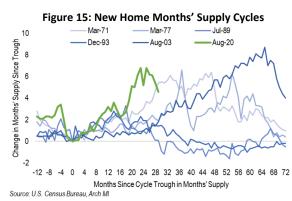






The supply of new homes has not experienced a rebound —contracting for the third month in a row and by -2.9% m/m in January, but remained up 11% y/y. The inventory of new homes for sale in January represented a 7.9 months' supply, down sharply from the cycle peak of 10.1 months back in September and not too far above the historical average of 6 months. Completed home sales continued to fall further, declining -9.1% m/m and -8% below 2019 levels. Accordingly, the supply of completed, ready-to-occupy inventory continues its multi-month march higher, rising 1.5% m/m and 113% y/y (Figure 13). Undoubtedly, the rise of completed home inventory is a hallmark of easing materials shortages, a slower sales pace and builders prioritizing completing units already under construction instead of breaking new ground. This has brought months' supply for this segment to 3.5 months, roughly par with level at the onset of the pandemic (Figure 14). The bulk of new home inventory remains skewed toward units not started and under construction, which comprise 85% of the total inventory when combined.





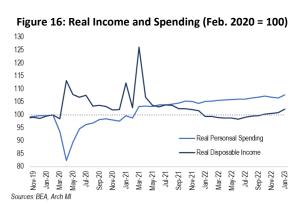
Homebuilders have managed this whiplash-inducing housing cycle much better than during the Global Financial Crisis (GFC). The current cycle for the new home market has been defined by extremes in both magnitude of the slump and its duration. The months' supply of new homes surged from a record-low of 3.3 months in August 2020 (defined as the peak of the cycle) to a peak of 10.1 months in September 2022 (defined as the trough of the cycle), or an increase of 6.8 months. This deterioration is surpassed only by the GFC when months' supply climbed by 8.7 months to a peak of 12.2 months (Figure 15). However, it took over half a decade for the new home sales market to go from its cycle peak in August 2003 to its trough in January 2009, compared with just under two years for the current cycle. As mentioned above, in just a few months, the months' supply of new homes has returned to within shouting distance of its historic average.

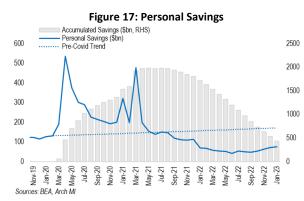
CONSUMERS BOUNCED OFF THE MAT IN JANUARY

The January personal income and outlay report showed that consumers recovered their spending ways after a soft 4Q22 aided by a strong gain in disposable income. Nominal personal income rose 0.6% m/m (cons. 1.0%) with steady gains in private wages as the labor market remained tight. On the non-wage front, a sharp 8.7% cost-of-living-adjustment (COLA) for Social Security recipients was offset by the expiration of one-time state tax credits. Meanwhile, nominal disposable



income jumped 2.0% m/m due in large part to a step down in taxes withheld. Nominal spending beat consensus expectations, increasing 1.8% m/m (cons. 1.4%) with real spending climbing -1.1% m/m (cons. 1.1%), showing broad-based strength that matched related data on retail sales and card spending from major banks. Real disposable income continued to rise on a three-month rolling annualized basis, up 7.9% in January, the fastest pace since before the pandemic, pushing the absolute level further above where it started prior to the pandemic (Figure 16).

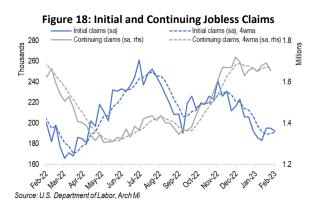


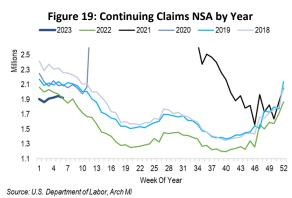


Downward revisions to spending over the prior few months accompanied by the cut in taxes withheld (which typically do not repeat in the subsequent months after the January reset) allowed the savings rate to tick up to 4.7% — the fourth consecutive monthly increase and up nicely from the cycle low of 2.7% last June (Figure 17). Households are seemingly dipping into their savings less to fund spending given the ongoing strength in the labor market and cooling inflation that has seen real incomes recover. That said, we do see the COVID-era savings buffer being depleted by 3Q23 and sooner for lower-income households given that the bulk of savings are sitting with higher-income households. With the stock of excess savings being depleted, the outlook for the consumer rests on how long the labor market will remain resilient and how willing consumers are to tap into credit to maintain consumption. We expect the labor market to cool in 2023 and accordingly envision consumer spending downshifting as the year progresses, although there is upside risk to that outlook if consumers are confident enough to increase borrowing activity, for which they certainly have the capacity.

CLAIMS DECLINED BUT UNADJUSTED DATA REFLECT COOLING LABOR MARKET

Initial jobless claims declined by -3k to a seasonally adjusted 192k (consensus: 200k) during the week ending Feb. 18 from 195k the previous week, moving the four-week average up to 191k from 190k (Figure 18). Continuing claims for regular state programs (i.e., repeat filers for unemployment insurance) declined by 37k to a seasonally adjusted 1,654k (consensus: 1,700k) during the week ending Feb. 11. Despite the large weekly decline in the seasonally adjusted measure, the unadjusted level of continuing claims has surpassed its year-ago level for the first time since the pandemic started (Figure 19). This again points to challenges we have noted with the seasonal adjustment factors and suggests the underlying momentum of the labor market may be cooling faster than the headline figures suggest. The pace of the increase is not alarming at this point, but warrants watching in the months ahead.







The Week Ahead

This week will provide an update on the housing market, auto sales and economic activity. Housing updates include January pending home sales, which are expected to have increased slightly, according to the Bloomberg Consensus Survey of Economists. Additionally, December home price indexes will be released by FHFA and S&P CoreLogic Case-Shiller, which are likely to show a modest further contraction in home prices. February auto sales are expected to cool to 14.8m from a strong January in which 15.7m cars and trucks were sold. This week will also provide several survey-based measures of February economic activity in the U.S. from the Institute for Supply Management (ISM) and S&P Global, which are generally expected to reflect steady or accelerating growth with the services sector outperforming relative to the manufacturing sector.

UPCOMING DATA RELEASES

Key economic and housing data releases for the coming week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
2/27/23	Durable Goods Orders	Jan P		-4.0%	5.6%	m/m, sa
2/27/23	Pending Home Sales m/m	Jan		1.0%	2.5%	sa
2/27/23	Pending Home Sales y/y	Jan			-34.3%	nsa
2/28/23	Wholesale Inventories m/m	Jan P		0.1%	0.1%	sa
2/28/23	Retail Inventories m/m	Jan		0.2%	0.5%	sa
2/28/23	FHFA House Price Index m/m	Dec		-0.2%	-0.1%	sa
2/28/23	S&P CoreLogic CS 20-City m/m SA	Dec		-0.4%	-0.5%	sa
2/28/23	S&P CoreLogic CS 20-City y/y NSA	Dec		4.7%	6.8%	nsa
2/28/23	Conf. Board Consumer Confidence	Feb		108.5	107.1	index, sa
3/1/23	MBA Mortgage Applications	2/24/23			-13.3%	w/w, sa
3/1/23	S&P Global US Manufacturing PMI	Feb F		47.8	47.8	index, sa
3/1/23	ISM Manufacturing	Feb		48.0	47.4	index, sa
3/1/23	ISM Prices Paid	Feb		46.5	44.5	index, nsa
3/1/23	Wards Total Vehicle Sales	Feb		14.7	15.7	m, saar
3/2/23	Nonfarm Productivity	4Q F		2.5%	3.0%	q/q, saar
3/2/23	Unit Labor Costs	4Q F		1.6%	1.1%	q/q, saar
3/2/23	Initial Jobless Claims	2/24/23		195	192	k, sa
3/2/23	Continuing Claims	2/18/23		1,668	1,654	k, sa
3/3/23	S&P Global US Services PMI	Feb F		50.5	50.5	index, sa
3/3/23	S&P Global US Composite PMI	Feb F			50.2	index, sa
3/3/23	ISM Services Index	Feb		54.6	55.2	index, nsa

Sources: Bloomberg Consensus Survey of Economists, Arch MI