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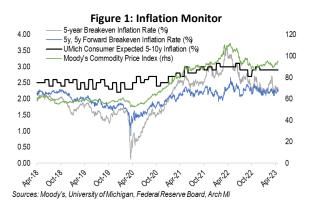
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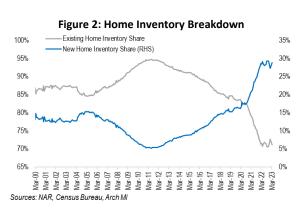


Weekly Wrap — Perfect Storm

- Evidence points to steadying confidence and activity after the banking squall, but growth is set to downshift.
- Resale housing activity will remain choppy amid tight inventory and volatile mortgage rates.
- Homebuilders are poised to take advantage of the challenged resale environment.

An anecdotal look at the post-banking squall economy came from the Fed's Beige Book where nine of the twelve reporting districts suggested economic activity continued at a similar pace. Lending standards were noted as tightening further, however minimal systemic credit risk implies a slow drag on growth from tighter credit. In contrast, the Conference Board's Leading Economic Index fell -1.2% m/m (cons. -0.7%) in March, the largest decline since April 2020. The index has had a good track record of presaging a recession, but context matters. The index's top negative contributors came from sentiment measures, equity prices and credit, which were negatively impacted by the banking squall. In April, consumer sentiment and equity prices have rebounded while measures of credit stress have eased substantially. Business surveys remain inconclusive with mixed April Fed manufacturing measures juxtaposed against the S&P U.S. Manufacturing PMI that rose to 50.4 (cons. 49.0) in the preliminary April reading, the first improvement in underlying operating conditions in six months. PMI price components rose as well, but so far, inflation expectations remain anchored (Figure 1).





Importantly, the housing sector's drag on growth is set to subside. The adage that housing is the business cycle implies that a recession was most plausible at the tail end of last year or the beginning of this year. What has occurred instead is a "rolling-cession," where peak stress in various sectors has emerged at different times across housing, tech and manufacturing. Existing home sales slowed -2.4% m/m (cons. -1.8%) in March after a stellar rebound in February, bringing the annualized pace of sales to 4,440k, -15% below four years ago. The resale market will likely remain touch-and-go given tight supply and a choppy mortgage rate trajectory. However, those factors, on top of rising incomes and new home supply that is now ~30% of total inventory (Figure 2), are contributing to the "perfect storm" for builders. Several national builders reported sales growth for 1Q23, alongside falling cancellation rates and a reduced need to lower prices to bolster sales, which is due to the fact that they can offer attractive mortgage rate buydowns to draw in marginal homebuyers. In fact, the XHB Homebuilders ETF is up 15% YTD compared to 7% for the S&P 500.

Accordingly, the National Association of Home Builders (NAHB) Sentiment Index increased for the fourth straight month in April to 45 (cons. 45). An improving outlook for new home sales has sparked home construction with single-family starts (2.7% m/m) and permits (4.1% m/m) up again in March, but given the large backlog of homes under construction, we still think that builders will remain cautiously optimistic and focus on drawing down inventories. Builders are aware that the Fed is near the end of its hiking cycle and recession risk is elevated. The former would remove some upward pressure from mortgage rates and alleviate some of the existing rate "lock-in" effect holding back resale inventory. The latter would likely negate the next housing cycle from getting firmly off the ground depending on the path of unemployment. Both scenarios, of course, would chip away at the current advantage homebuilders have, but for now, they will enjoy the winds at their backs.



Recent Data Releases

Key economic and housing data releases over the last week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
4/17/23	Empire Manufacturing	Apr	10.8	-18.0	-24.6	index, sa
4/17/23	NAHB Housing Market Index	Apr	45	45	44	index, sa
4/18/23	Building Permits	Mar	1,413	1,450	1,550	k, saar
4/18/23	Building Permits m/m	Mar	-8.8%	-6.5%	15.8%	sa
4/18/23	Housing Starts	Mar	1,420	1,400	1,432	k, saar
4/18/23	Housing Starts m/m	Mar	-0.8%	-3.5%	7.3%	sa
4/19/23	MBA Mortgage Applications	4/14/23	-8.8%		5.3%	w/w, sa
4/20/23	Initial Jobless Claims	4/15/23	245	240	240	k, sa
4/20/23	Continuing Claims	4/8/23	1,865	1,825	1,804	k, sa
4/20/23	Philadelphia Fed Business Outlook	Apr	-31.3	-19.3	-23.2	index, sa
4/20/23	Existing Home Sales	Mar	4,440	4,500	4,550	k, saar
4/20/23	Existing Home Sales m/m	Mar	-2.4%	-1.8%	13.8%	sa
4/20/23	Conference Board Leading Index	Mar	-1.2%	-0.7%	-0.5%	m/m, sa
4/21/23	S&P Global US Manufacturing PMI	Apr P	50.4	49.0	49.2	index, sa
4/21/23	S&P Global US Services PMI	Apr P	53.7	51.5	52.6	index, sa
4/21/23	S&P Global US Composite PMI	Apr P	53.5	51.2	52.3	index, sa

Sources: Bloomberg Consensus Survey of Economists, Arch MI

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

HOUSING INVENTORY CONTINUED TO SHRINK, KEEPING MARKET TIGHT

Home sales have struggled to break out from the current soft pace due, in part, to a very limited supply of homes for sale and still-elevated mortgage rates. Pending home sales were down roughly -23k y/y (Figure 3), or -32% below the year-ago level for the week ending April 16, 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 was -6% below the pre-pandemic average for this time of year, down from 11% above at the end of January. Higher mortgage rates have also weighed on potential sellers as new listings slowed to -25% below the pre-pandemic average from -22% four weeks ago. Meanwhile, the number of delisted homes rose to 22% above the pre-pandemic average for this time of year from 1% four weeks ago.

Figure 3: U.S. Existing Home Sales Market Dynamics Pending Sales 80% 70% New Listings from Pre-Pandemic Average Homes Delisted 60% 50% 40% 30% 20% 10% 0% -10% -20% -30% % -40% -50% Source: Redfin, Arch MI



The increase in new listings and increase in delisted homes offset the cooling pace of sales and pushed the number of active listings further down to -38% below the pre-pandemic average and well below last year's peak of -25% (Figure 4). Despite total homes sold being down -26% y/y and -13% below the pre-pandemic average, the national market remains somewhat tight given months' supply is 2.6 months, -30% below the pre-pandemic average for this time of year. The



current months' supply is a modest increase from the 1.8 months recorded for the same week in 2022 when the market was incredibly tight.

Figure 5: Annual Home Price Growth

25% — Median Sale Price (y/y)

20% — Median Sale Price Per Sq Ft (y/y)

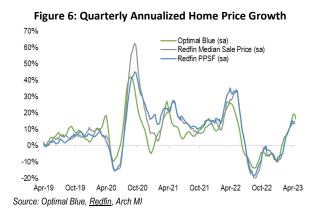
15%

10%

5%

Apr-19 Oct-19 Apr-20 Oct-20 Apr-21 Oct-21 Apr-22 Oct-22 Apr-23

Source: Redfin, Arch MI



Annual growth in the national median sale price per square foot held steady at -1.5% y/y, unchanged from last week, but well below the 18.2% annual gain recorded at this time last year. Risks for prices remain skewed to the downside with overstretched markets particularly vulnerable. However, home price growth is poised to reaccelerate in markets outside the West Coast. In fact, based on our seasonal adjustment of weekly Redfin data, the national median sale price per square foot has already accelerated from a quarterly annualized decline of -18% in August 2022 to a 15% annualized growth rate through April 16 (Figure 6). Applying seasonal adjustments to Optimal Blue mortgage application data, which leads Redfin sales price trends by several weeks, reveals some deceleration in quarterly annualized home price growth to 16% through April 14 from 19% last week and -13% last August.

Figure 7: Weekly Housing Monitor (as of 4/16/23)

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Metro	Median Sale Price Per Square Foot (y/y)		Active Listings with Price Drops		Share of Homes Sold Above List		Average Sale-to-List Ratio		Total Active	Median Days on Market vs Pre-COVID		Months' Supply vs Pre-COVID	
	Current	Year Ago	Current	(∆ y/y, ppt)	Current	(∆ y/y, ppt)	Current	(∆ y/y, ppt)	Listings (y/y)	Current	Year Ago	Current	Year Ago
All Redfin Metros	-1%	18%	5%	3%	29%	-23%	99%	-3%	9%	-12	-27	-30%	-52%
Atlanta	0%	24%	5%	1%	29%	-30%	99%	-3%	24%	-2	-23	-24%	-56%
Austin	-17%	25%	8%	6%	18%	-50%	98%	-8%	94%	34	0	50%	-41%
Baltimore	0%	10%	5%	1%	45%	-9%	101%	-1%	-8%	-15	-25	-45%	-59%
Boston	2%	10%	4%	1%	52 %	-17%	102%	-3%	-10%	4	2	-19%	-34%
Chicago	-1%	11%	2%	1%	37%	-10%	99%	-1%	-26%	15	11	-21%	-21%
Dallas	-5%	27%	7%	4%	26%	-43%	99%	-7%	53%	2	-16	-27%	-56%
Denver	-8%	21%	7%	5%	36%	-40%	100%	-7%	30%	3	-4	-15%	-50%
Houston	0%	21%	6%	2%	19%	-24%	98%	-3%	39%	-3	-26	-21%	-58%
Los Angeles	-5%	18%	3%	1%	44%	-25%	100%	-5%	-10%	0	-14	-17%	-39%
Miami	3%	26%	3%	2%	15%	-14%	97%	-2%	10%	-1	-17	-31%	-63%
Minneapolis	-1%	12%	4%	1%	42%	-19%	101%	-3%	-2%	-3	-12	-18%	-40%
Nashville	0%	29%	5%	2%	20%	-32%	98%	-4%	89%	3	-31	-8%	-62%
New York	-3%	14%	4%	0%	24%	-4%	99%	-1%	-12%	-29	-45	-22%	-46%
Phoenix	-8%	27%	7%	4%	16%	-42%	98%	-4%	47%	10	-22	0%	-53%
Portland	-5%	18%	5%	1%	38%	-28%	100%	-5%	16%	0	-11	-6%	-51%
Riverside	-4%	24%	4%	1%	34%	-32%	99%	-4%	8%	-8	-31	-25%	-55%
San Diego	-6%	25%	4%	1%	43%	-28%	100%	-6%	-12%	-3	-12	-42%	-57%
Seattle	-10%	22%	5%	2%	38%	-36%	101%	-10%	7%	-1	-3	-2%	-45%
Tampa	0%	31%	8%	4%	17%	-35%	98%	-4%	87%	-4	-27	-28%	-66%
Washington DC	-2%	10%	3%	0%	11%	-16%	101%	-2%	-4%	10	-0	-22%	-46%

Note: Data reflects 4-week averages; Source: Redfin, Arch MI

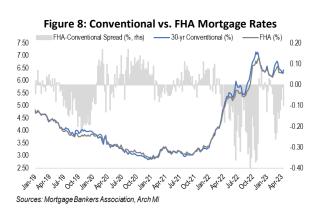
Of the major metros we track (Figure 7), annual home price growth was weakest in **Austin** (-17%), **Seattle** (-10%), **Denver** (-8%), **Phoenix** (-8%) and **San Diego** (-6%). Home price growth slowed most rapidly compared with a year ago in **Austin** (-42%-pts), **Phoenix** (-35%-pts), **Dallas** (-32%-pts), **Seattle** (-32%-pts) and **San Diego** (-31%-pts). Conversely, annual home price growth was strongest in **Miami** (3%) and **Boston** (2%). Median days on the market have extended alongside softening

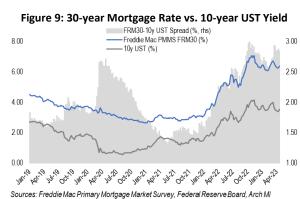


market conditions, with many markets exceeding pre-pandemic timelines. Markets with the longest median days on the market relative to the pre-pandemic norm include **Austin** (34 days longer), **Chicago** (15) and **Phoenix** (10), while some markets like **New York** (-29) and **Baltimore** (-15) remained well below pre-pandemic timelines. Months' supply remained below pre-pandemic levels in most markets (-30% below nationally), with **Baltimore** (-45%), **San Diego** (-42%), **Miami** (-31%), **Tampa** (-28%) and **Dallas** (-27%) remaining the tightest relative to their pre-pandemic averages. Markets that have deteriorated the most based on months' supply include **Austin**, **Phoenix** and **Seattle**, where months' supply climbed to a respective 50%, 0% and -2% relative to their pre-pandemic averages from -41%, -53% and -45% below one year ago.

MORTGAGE APPLICATIONS TOOK A BIG STEP BACK AS RATES JUMPED

According to the MBA Weekly Applications Survey, the average contract conventional mortgage rate rose 13bps to 6.43% during the week ending April 14 while the FHA contract mortgage rate also rose 4bps to 6.33%, resulting in a -9bps contraction in the spread between the FHA and conventional mortgage rate to -0.1% (Figure 8). Freddie Mac's more recent Primary Mortgage Market Survey (PMMS) for the week ending April 19 indicated that the FRM30 climbed 12bps w/w to 6.39% (Figure 9) as 10-year UST yields jumped 16bps to an average of 3.55% over the same period. Accordingly, the spread between the PMMS FRM30 and the 10-year UST narrowed -4bps to 2.84%, about 115bps wider than its typical non-stressed level prior to the pandemic and still close to the peak of 300bps reached last October. 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 before mid-year.





The MBA Weekly Applications Survey for the week ending April 14 declined -8.8% w/w, leaving the index down -44% year-over-year and down -61% 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 -10% decline in purchase applications, which remained down -36% y/y and -33% below the pre-pandemic level (Figure 10). Refinancing applications declined -5.8% w/w and were down -56% y/y and -80% relative to pre-pandemic levels (Figure 11).

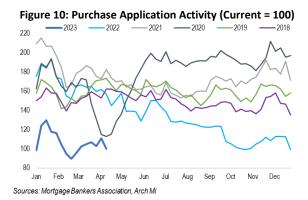


Figure 11: Refinance Application Activity (Current = 100) 2022 -2021 -2020 -2019 2023 1 500 1,200 600 300 Apr May Jun Jul Aua Sources: Mortgage Bankers Association, Arch MI



AS EXPECTED, EXISTING HOME SALES MODERATED IN MARCH

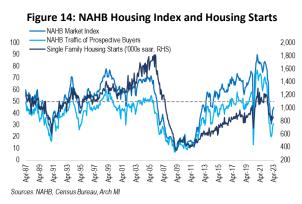
The pronounced rebound in February proved short-lived as existing home sales slid 2.4% m/m (cons. 5.0%) in March to a seasonally adjusted annual rate (saar) of 4,440k (Figure 12) with all regions posting declines apart from the Northeast, which came in flat. More real-time metrics of home sales telegraphed the decline with the recent uptick in mortgage rates likely adding further downside to sales momentum in the near-term. Supply conditions remained tight with inventory down for the second straight month and by -3.2% m/m to 1,089k (sa) units in March. Sales and inventory were -15% and -41% below their respective 2019 levels. Unsold inventory reflected only a 2.9 months' supply (sa) at the present sales pace, par with last month's print but down from the Nov.—Jan. average of 3.4. Limited inventory has kept the market tight, although the recent modest reacceleration of sales from a very weak 4Q22 has also helped pull months' supply lower (Figure 13). The seasonally adjusted median sales price of an existing single-family home rose 0.3% m/m and decreased-1.4% y/y, the second straight annual decline, to \$386k, although it is important to note that this figure is not adjusted for the quality, size or geography of homes sold.

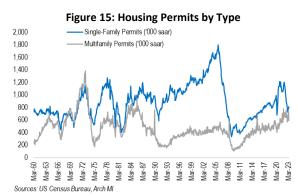




HOUSING CONSTRUCTION IMPROVES ON BACK OF SINGLE-FAMILY SEGMENT

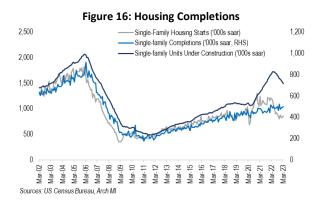
March housing starts declined -0.8% m/m (cons. -6.5%) to a seasonally adjusted annual rate (saar) of 1,420k (cons. 1,400k), with a downward revision to February as well (Figure 14). The slowdown was driven entirely by a -5.9% m/m drop in multifamily starts that only partially reversed the 16% gain last month. Single-family starts showed more signs of stabilization with a third advance in the prior four months, accelerating to 2.7% m/m from 1.8% in February. The nascent recovery in single-family starts accompanied the fourth straight monthly increase in the NAHB sentiment gauge in April to 45 (cons. 45) with the important current and future sales subcomponents reaching or crossing above the breakeven 50 reading for the first time in roughly nine months. Positively, the share of builders using incentives ticked up only slightly from March while the share of builders reducing prices has shrunk, suggesting that mortgage rate buydowns have been a key sales strategy.

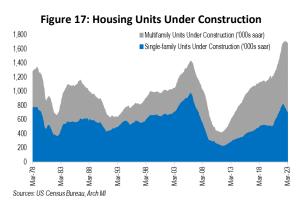






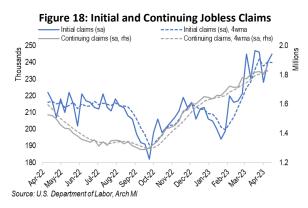
Similar to starts, single-family permits rose for the second month in a row, increasing 4.1% m/m but remained down 32% from last February's peak (Figure 15). Multifamily permits sunk -22% m/m and have been volatile lately. Total completions fell -0.6% m/m, maintaining the year-over-year gain of 13%. The monthly slump was led by the multifamily segment (-6.6%) while single-family completions inched up 2.4%. Despite the monthly increase, single-family completions remained down -0.2% y/y but have outpaced the annualized pace of starts since June (Figure 16). Improving supply chains and some easing of labor market conditions have allowed builders to start chipping away at the elevated count of 1,674k units under construction (Figure 17). Single-family units under construction have been declining since May and were down -12% y/y in stark contrast to the 17% y/y increase in the multifamily segment.

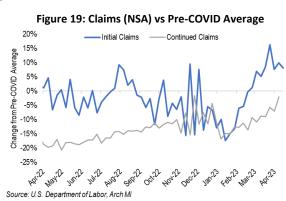




JOBLESS CLAIMS MARCHED HIGHER STILL

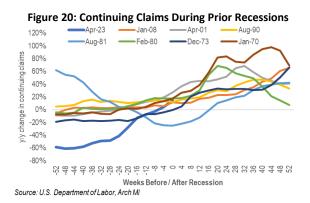
Initial and continuing jobless claims both rose faster than expected. The trajectory of the increase in continuing claims is becoming concerning and will quickly escalate recession concerns if the trend persists at the recent pace. However, there is still some hope on that front as initial claims took a step back compared with the pre-COVID trend, but the data is noisy and could easily shift higher in the weeks ahead. Initial jobless claims rose by 5k to a seasonally adjusted 245k (cons.: 240k) during the week ending April 15, leaving the four-week average unchanged at 240k (Figure 18). The non-seasonally adjusted level of initial claims moved down to 8% above its pre-COVID average (i.e., 2018–2019) from 10% the week before and remained up notably from -17% below in mid-January (Figure 19).

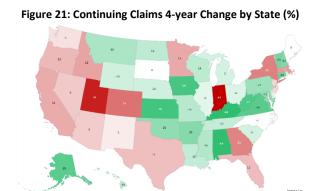




Continued claims for regular state programs (i.e., repeat filers for unemployment insurance) climbed by 61k during the week ending April 8 to a seasonally adjusted 1,865k (cons.: 1,825k), moving the four-week average up to 1,827k from 1,812k. The non-seasonally adjusted level of continued claims moved up to -2% below its pre-COVID average from -7% the week before and up from -17% below in mid-January. Continued claims are now up roughly 15% y/y, which has historically been the pace of the increase at the onset of recessions (Figure 20). However, it is important to note that continued claims were near record lows a year ago, so the y/y increase is a bit distorted. The four-year change (to remove the impact of the pandemic) remained at -5% but has been gradually trending higher.







The rise in initial claims is not uniformly distributed across the U.S.: initial claims are now higher than pre-COVID levels in 25 states, up from a dozen at the beginning of the year. Similarly, continued claims are now higher than pre-COVID levels in 20 states, up from five at the beginning of the year. The stress has been predominately concentrated in the western half of the U.S. (Figure 21), but Florida, New York, Massachusetts and New Jersey are notable outliers on the East Coast, with Minnesota and Indianapolis the big outliers in the Midwest. We have been expecting unemployment to climb as the year progresses and this is further evidence that the move higher is likely to get underway soon. The cumulative effect of Fed rate hikes is starting to pass through to the economy and with rates likely remaining in restrictive territory for the rest of the year, the headwinds should only increase. The key to focus on at this point will be the rate and breadth of rising stress.



The Week Ahead

This week will provide a wide-ranging update on the economy and housing market. Kicking off the big week of data releases are the February FHFA Purchase Only Home Price Index (HPI) and S&P CoreLogic Case Shiller 20-City HPI, which are expected to show a modest further decline in home price growth based on the Bloomberg Consensus Survey of Economists. March new home sales are expected to decline by -1.6% following three months of gains and March pending home sales are expected to increase modestly (cons. 1.0% m/m). 1Q23 real GDP growth is expected to cool slightly to a still solid pace of 2.0% q/q (saar) from 2.6% in 4Q22, although the headline figure masks the underlying strength in consumer spending due to the expected headwind from a slowdown in inventory accumulation. Although March real consumer spending is expected to contract slightly (-0.1%), an extremely strong gain in January is expected to lift 1Q23 real consumption by 4.0% q/q saar, a sharp recovery from a weak 4Q22 (1.0% q/q saar). The March Personal Consumption Expenditures (PCE) price index is expected to cool to 0.1%, which would bring the annual rate of PCE inflation down to 4.1% from 5.0% in February. Meanwhile, core PCE inflation (excluding food and energy) is expected to maintain February's pace (0.3%), which would bring the year-over-year rate down slightly to 4.5% from 4.6% previously.

UPCOMING DATA RELEASES

Key economic and housing data releases for the coming week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
4/25/23	FHFA House Price Index m/m	Feb		-0.2%	0.2%	sa
4/25/23	S&P CoreLogic CS 20-City m/m SA	Feb		-0.4%	-0.4%	sa
4/25/23	S&P CoreLogic CS 20-City y/y NSA	Feb		-0.1%	2.6%	nsa
4/25/23	New Home Sales	Mar		630	640	k, saar
4/25/23	New Home Sales m/m	Mar		-1.6%	1.1%	sa
4/25/23	Conf. Board Consumer Confidence	Apr		104.0	104.2	index, sa
4/26/23	MBA Mortgage Applications	4/21/23			-8.8%	w/w, sa
4/26/23	Wholesale Inventories m/m	Mar P		0.1%	0.1%	sa
4/26/23	Durable Goods Orders	Mar P		0.8%	-1.0%	m/m, sa
4/27/23	Initial Jobless Claims	4/22/23		250	245	k, sa
4/27/23	Continuing Claims	4/15/23		1,884	1,865	k, sa
4/27/23	GDP Annualized q/q	1Q A		2.0%	2.6%	saar
4/27/23	Personal Consumption q/q	1Q A		4.0%	1.0%	saar
4/27/23	Pending Home Sales m/m	Mar		1.0%	0.8%	sa
4/27/23	Pending Home Sales y/y	Mar			-21.1%	nsa
4/28/23	Employment Cost Index	1Q		1.1%	1.0%	q/q, sa
4/28/23	Personal Income	Mar		0.2%	0.3%	m/m, sa
4/28/23	Personal Spending	Mar		-0.1%	0.2%	m/m, sa
4/28/23	Real Personal Spending	Mar		-0.1%	-0.1%	m/m, sa
4/28/23	PCE Inflation m/m	Mar		0.1%	0.3%	sa
4/28/23	PCE Inflation y/y	Mar		4.1%	5.0%	nsa
4/28/23	PCE Core Inflation (ex Food and Energy) m/m	Mar		0.3%	0.3%	sa
4/28/23	PCE Core Inflation (ex Food and Energy) y/y	Mar		4.5%	4.6%	nsa
4/28/23	U. of Mich. Sentiment	Apr F		63.50	63.50	index, nsa
4/28/23	U. of Mich. 1 Yr Inflation	Apr F			4.6%	nsa
4/28/23	U. of Mich. 5-10 Yr Inflation	Apr F			2.9%	nsa

Sources: Bloomberg Consensus Survey of Economists, Arch MI