



HaMMR Digest

Stay current with economic and mortgage market trends.

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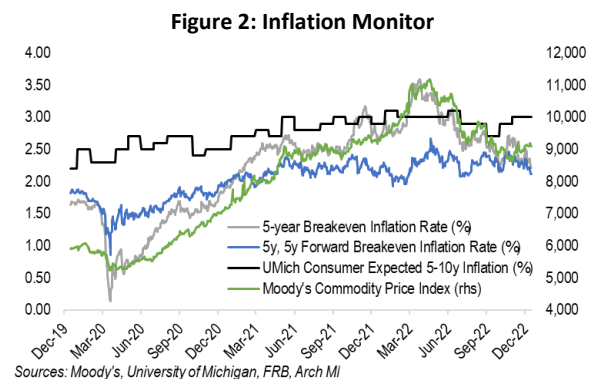
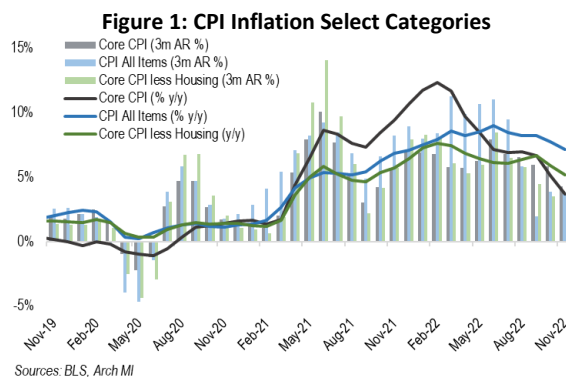
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Weekly Wrap – Posturing

- Inflation surprised to the downside again in November, dragged lower by core goods prices.
- The Fed delivered a hawkish 50bps rate hike with markets eyeing growth as the key risk in 2023 instead of inflation.
- Housing affordability will improve next year but we do not expect a pronounced rebound in activity.

The October inflation slowdown could have been discounted as an aberration, but November's CPI report confirms disinflationary pressures are well underway. Headline CPI inflation rose 0.1% m/m (cons. 0.3%) on a seasonally adjusted basis in November, or 7.1% y/y, while core CPI, which excludes food and energy, rose 0.2% (cons. 0.3%). Core CPI, excluding housing, slowed to 1.0% on a three-month annualized basis, down from 8.4% in June (Figure 1). Core goods prices have done the heavy "sinking," accelerating their decline to -0.5% m/m, while core services slowed for the third month in a row to 0.4% m/m despite rental components reaccelerating.



The impetus for inflation is tilted to the downside, given continued weakness for import, gasoline and oil prices while market measures for rental inflation will eventually filter into official CPI data. That said, we should not expect the drag from core goods and select COVID-19-disrupted services to perpetually decline. Eventually they will find a bottom and trend higher with the hope being that by that time, CPI rental inflation will cool from its multi-decade highs to keep overall inflationary pressure skewed lower (Figure 2) while a softer labor market allows wage growth to ease.

The Fed continues to focus on hot wage growth, which is likely behind the hawkish 50bps rate hike that brought the fed funds target range to 4.25-4.50%. According to the survey of economic projections, the Fed now sees the terminal rate at 5.1%, up from 4.6% in September, alongside much weaker growth and higher unemployment, implying that the Fed's hope for a soft landing is dwindling. What was most surprising was the significant upward revision to core Personal Consumption Expenditure (PCE) inflation projections given the latest inflation data, which climbed to 3.5% for 2023 from 3.1% previously and likely reflects the Fed's view that a tight labor market will keep sustained upward pressure on inflation via strong labor income growth.

The Fed could be posturing to ensure financial conditions remain sufficiently tight to slow growth and cool the labor market, which in their eyes are necessary to reach their 2% target. The severity of the slowdown in growth will likely be the key risk markets focus on in the months ahead, rather than inflation; hence the disconnect between the Fed's projections on rates and bond yields that barely budged from where they began last week. Growth risks were somewhat vindicated as industrial production declined -0.2% m/m (cons. 0.0%) in November, falling for the third time in the last four months. Survey metrics out of the Philadelphia and New York Fed regions show further deterioration in goods output and capex intentions for December, which have been leading the slowdown in unfilled core goods orders since January. Retail sales fell 0.6% m/m (cons. -0.2%) in November, the largest decline since last December but also on the heels of a strong 1.3% advance last month. The industrial cycle is likely to get weaker before it finds a bottom next year, while the retail sales report could be a harbinger of what is to come as the labor market weakens. The next few months will determine whether the Fed-envisioned "soft landing" scenario is achievable or if the slowdown manifests into a recession. Stay tuned.

Recent Data Releases

Key economic and housing data releases over the last week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
12/13/22	NFIB Small Business Optimism	Nov	91.9	90.5	91.3	index, sa
12/13/22	CPI m/m	Nov	0.1%	0.3%	0.4%	sa
12/13/22	CPI Core (ex Food and Energy) m/m	Nov	0.2%	0.3%	0.3%	sa
12/13/22	CPI y/y	Nov	7.1%	7.3%	7.7%	nsa
12/13/22	CPI Core (ex Food and Energy) y/y	Nov	6.0%	6.1%	6.3%	nsa
12/14/22	MBA Mortgage Applications	12/9/22	3.2%	--	-1.9%	w/w, sa
12/14/22	Import Price Index y/y	Nov	2.7%	3.2%	4.1%	nsa
12/14/22	FOMC Rate Decision (Upper Bound)	12/14/22	4.50%	4.50%	4.00%	
12/15/22	Empire Manufacturing	Dec	-11.2	-1.0	4.5	index, sa
12/15/22	Advance Retail Sales m/m	Nov	-0.6%	-0.2%	1.3%	sa
12/15/22	Retail Sales Control Group m/m	Nov	-0.2%	0.1%	0.5%	sa
12/15/22	Initial Jobless Claims	12/10/22	211	232	231	k, sa
12/15/22	Continuing Claims	12/3/22	1,671	1,674	1,670	k, sa
12/15/22	Philadelphia Fed Business Outlook	Dec	-13.8	-10.0	-19.4	index, sa
12/15/22	Industrial Production m/m	Nov	-0.2%	0.0%	-0.1%	sa
12/15/22	Capacity Utilization	Nov	79.7%	79.8%	79.9%	sa
12/15/22	Business Inventories m/m	Oct	0.3%	0.4%	0.2%	sa
12/16/22	S&P Global US Composite PMI	Dec P	44.6	46.9	46.4	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)

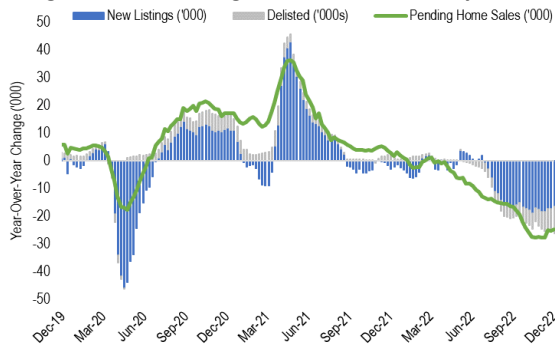
SETTING UP THE 2023 HOUSING MARKET

The best phrase to describe this year's housing market is "gut check." We started the year in a buying frenzy as buyers scooped up any available listings they could find, taking advantage of record-low mortgage rates with the share of homes off the market within two weeks hitting a record of 54% in April. How quickly things changed in response the Fed's most aggressive hiking cycle since the 1980s, which caused mortgage rates to more than double to a peak above 7% by October. Affordability quickly evaporated with mortgage payments (based on 10% down payment and the median sales price of an existing single-family home) spiking 64% y/y in October and 47% year-to-date (YTD). To put that into perspective, a household earning an annual income of \$75,000 had a mortgage payment that was 20% of their monthly income last October compared to 33% after the rate shock. Accordingly, sales tumbled with existing home sales falling 27% YTD. Home builders saw buyer traffic dwindle and accordingly sidelined new projects, with single-family starts falling 29% YTD.

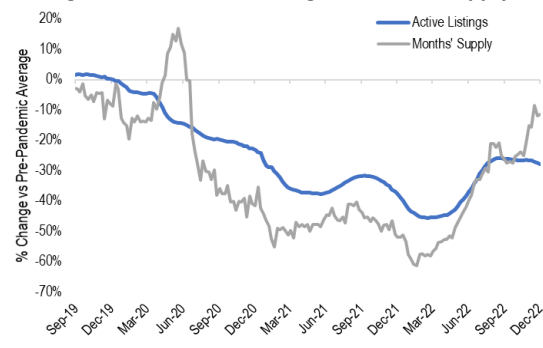
All is not lost, however. Home prices have already begun to adjust, more so in some markets than others, but that is exactly what is needed to support the longer-run sustainability of housing demand. We expect job growth to slow, but income growth to remain healthy. Alongside lower home prices and mortgage rates (relative to 2022), we expect home sales to find a floor in the coming quarters. As such, the risk of double-digit declines for national home prices next year seems rather remote. The key catalysts needed for home prices to correct rapidly, poor mortgage credit and high unemployment, are not present, given improved mortgage underwriting standards over the past decade and a still tight labor market. Throw in the record amount of home equity that has been amassed — total outstanding mortgage debt as a percentage of total homeowners' equity was 42% as of 3Q22 compared to 54% in 4Q19 and 70% in 4Q06 — there is remote risk of the widespread distressed selling that characterized the mid-2000s downturn.

What has been encouraging is how quickly demand responded to the recent step down in mortgage rates. The annual decline in pending home sales has improved somewhat based on the latest data from Redfin for the week ending Dec. 11, hovering around -25k y/y (Figure 3) for the prior three weeks, or -41% below the level a year ago. Sellers continued to leave the market and have helped keep downward pressure on total inventory: New listings were down -17% and delisted

homes up 13% relative to the pre-pandemic averages for this time of year. Total active listings continued to trend lower compared to the pre-pandemic average, helping keep months' supply in check (Figure 4). If the economy avoids recession and mortgage rates continue to creep lower, home prices are likely to find a bottom by late next year with only a moderate amount of pain. If inflation were to instead remain stubbornly high, the Fed will likely push further and tip the economy into a recession, which alongside higher mortgage rates would see a more severe and sustained decline in home prices than we currently expect.

Figure 3: U.S. Existing Home Sales Market Dynamics


Sources: Redfin, Arch MI

Figure 4: U.S. Active Listings & Months' Supply


Sources: Redfin, Arch MI

According to Redfin data through the week ending Dec. 11, annual growth in the national median sale price per square foot ticked lower to 3.8% y/y from 4.0% in the prior week, remaining well below the double-digit growth rates that had become the pandemic norm. Risks for prices remain skewed to the downside given the downward trajectories for the sale-to-list ratio and the share of homes sold above list price. That said, both price metrics are hovering above pre-pandemic averages for this time of year and have seen their downward trajectories moderate slightly. Overstretched markets are particularly vulnerable to negative price action and underlying data show that most of the national price weakness is emanating from the West region.

Figure 5: Weekly Housing Monitor (as of 12/11/22)

Metro	Median Sale Price psf (%) y/y	Median Sale Price Same Week '21 (%) 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 Days on Market (Δ Pre-Covid Avg)	Median Days on Market Same Week '21 (Δ Pre-Covid Avg)	Months' Supply (%) Pre-Covid Avg	Months' Supply Same Week '21 (%) Pre-Covid Avg
All Redfin Metros	4%	17%	6%	3%	25%	-17%	98%	-2%	16%	-13	-22	-11%	-52%
Atlanta	7%	25%	6%	3%	22%	-26%	98%	-3%	29%	-4	-22	-6%	-57%
Austin	-6%	36%	8%	5%	12%	-35%	96%	-5%	70%	21	-8	80%	-42%
Baltimore	5%	8%	6%	2%	33%	-7%	100%	-1%	-8%	-13	-17	-30%	-56%
Boston	1%	11%	5%	2%	42%	-14%	100%	-2%	1%	1	0	-13%	-42%
Chicago	2%	11%	3%	0%	24%	-8%	98%	-1%	18%	14	-25	-6%	-50%
Dallas	7%	25%	8%	6%	19%	-31%	98%	-4%	61%	-8	-27	-5%	-61%
Denver	1%	19%	9%	6%	18%	-34%	98%	-3%	71%	7	-16	19%	-59%
Houston	8%	19%	7%	4%	15%	-16%	97%	-2%	37%	-14	-31	1%	-52%
Los Angeles	1%	15%	4%	2%	34%	-25%	99%	-4%	8%	2	-11	14%	-42%
Miami	11%	27%	4%	2%	13%	-6%	96%	-1%	-3%	-8	-12	-10%	-56%
Minneapolis	3%	10%	6%	2%	29%	-16%	99%	-2%	15%	-4	-13	13%	-42%
Nashville	8%	26%	6%	4%	15%	-28%	98%	-3%	79%	0	-25	9%	-63%
New York	1%	16%	4%	1%	25%	-1%	99%	0%	-6%	-30	-32	-16%	-42%
Phoenix	0%	30%	8%	5%	13%	-31%	97%	-3%	56%	14	-13	57%	-49%
Portland	2%	17%	7%	3%	25%	-23%	99%	-3%	44%	-5	-20	20%	-56%
Riverside	2%	24%	5%	3%	28%	-28%	98%	-3%	27%	-6	-23	7%	-55%
San Diego	3%	20%	6%	3%	26%	-32%	98%	-4%	46%	-1	-17	-5%	-64%
Seattle	-5%	25%	6%	4%	18%	-38%	98%	-7%	111%	3	-15	35%	-65%
Tampa	10%	27%	10%	5%	14%	-24%	97%	-2%	92%	-5	-24	7%	-63%
Washington DC	3%	11%	5%	2%	26%	-13%	99%	-1%	-1%	3	-5	7%	-43%

Note: Data on 4wk-moving average basis; Median Days on Market and Months' Supply are 3y/3y changes on 4wk-ma basis; Source: Redfin, Arch MI

Of the major metros we track (Figure 5), annual home price growth was weakest in **Austin** (-6%), **Seattle** (-5%), and **Phoenix** (0%), with home price growth having slowed most rapidly compared with a year ago in **Austin** (-42%-pts), **Phoenix** (-30%-pts), **Seattle** (-30%-pts) and **Denver** (-18%-pts). The four-week average of annual home price growth has been negative for five straight weeks in Austin and for four straight weeks in Seattle. Median days on the market have extended alongside softening market conditions, with some markets exceeding pre-pandemic timelines, including **Austin** (21 days longer), **Chicago** (14) and **Phoenix** (14), with markets like **Washington, D.C.** (3) and **Seattle** (3) also starting to climb above their pre-pandemic days on market. Markets that have deteriorated the most based on months' supply include **Austin** and **Phoenix**, where months' supply has climbed to a respective 80% and 57% above their pre-pandemic average for the same week from -42% and -49% below one year ago.

MORTGAGE PURCHASE APPLICATIONS BOUNCED BACK TO HIGHEST LEVEL SINCE SEPTEMBER

According to the MBA survey of lenders, the average contract conventional mortgage rate rose 1bps to 6.42% during the week ending Dec. 9 while the FHA contract mortgage rate also rose 1bps to 6.4%, resulting in an unchanged spread (-0.02%) between the FHA and conventional mortgage rate (Figure 6). Freddie Mac's more recent Primary Mortgage Market Survey (PMMS) for the three days ending Dec. 14 indicated that the FRM30 declined -2bps w/w to 6.31% (Figure 7) as 10-year UST yields climbed 2bps to an average of 3.53% over the same period. Accordingly, the spread between the PMMS FRM30 and the 10-year UST narrowed -4bps to 2.78% but remained roughly 110bps wider than its typical non-stressed level. 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 next year.

Figure 6: Conventional vs. FHA Mortgage Rates

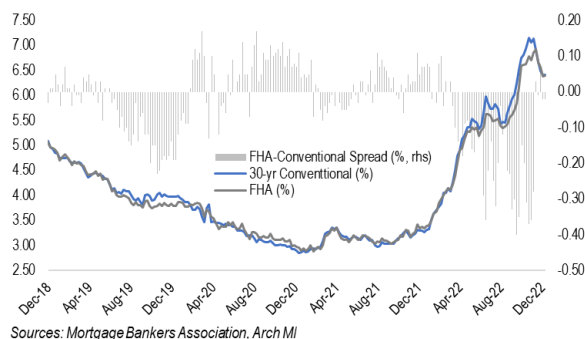
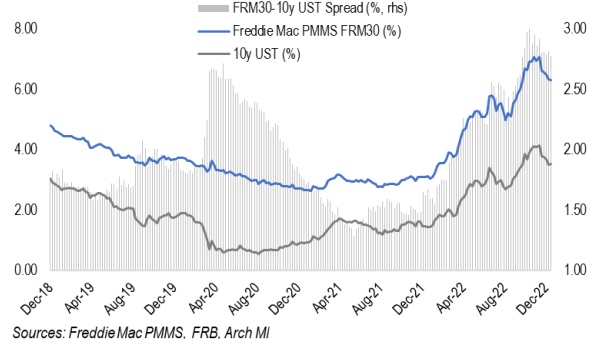


Figure 7: 30-year Mortgage Rate vs. 10-year UST Yield



The MBA mortgage application survey for the week ending Dec. 9 increased 3.2% w/w, leaving the index down -64% year-over-year and down -60% compared with pre-pandemic levels (i.e., three years ago). The weekly increase was driven primarily by a 4% increase in purchase applications, which remained down -39% y/y despite the weekly increase, and -32% over three years (Figure 8). Last week's gain brought purchase application activity back to the highest level since September, with the recent recovery coinciding with a roughly 100bps drop in mortgage rates since late October. Refinancing applications increased 2.8% w/w but remained down -85% y/y and -83% relative to 2019 levels (Figure 9).

Figure 8: Purchase Application Activity (Current = 100)

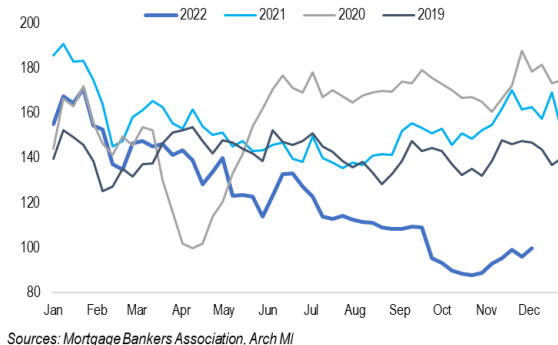
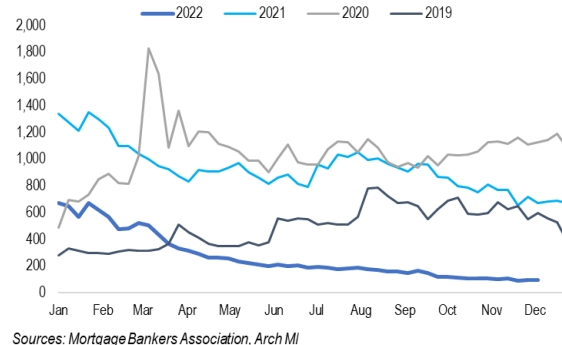


Figure 9: Refinance Application Activity (Current = 100)



CONSUMER CORE GOODS PRICES COOLING FASTER THAN EXPECTED

November's consumer price inflation decisively showed that core goods prices are leading the charge in overall disinflationary pressures as headline inflation rose by just 0.1% m/m (sa), below consensus expectations for a 0.3% gain. Given the deceleration in the monthly pace of inflation, year-over-year price gains also slowed to 7.1% from 7.7% in October and the cycle peak of 9.1% in June (Figure 10). Gasoline prices sank -2.0% and energy prices subtracted -13bps from monthly headline inflation. Mild weather has so far kept the cost of energy services in check, falling -1.1% m/m led by a -3.5% decline in piped gas. Energy prices are likely to trend flat to higher in the coming months and thus keep energy's impact on headline inflation relatively limited, dependent on weather and geopolitical events, as always.

Figure 10: Year-over-Year Contribution to CPI Inflation

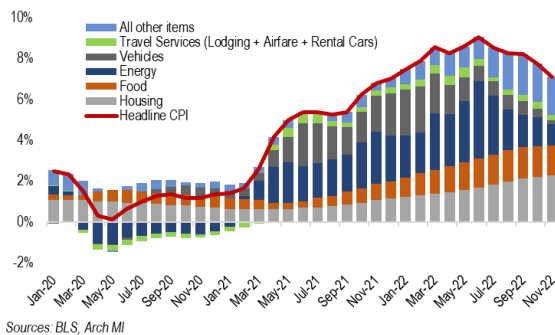
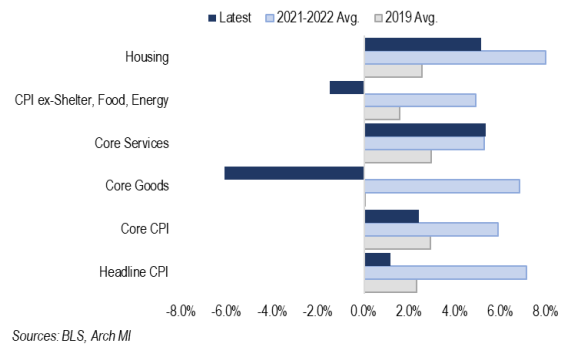


Figure 11 Annualized Monthly CPI Inflation



Core inflation (excluding food and energy) rose 0.2% m/m, or 2.4% annualized (Figure 11), 10bps shy of consensus expectations and the lowest monthly advance since August 2021. The primary headwind within core inflation was goods, which accelerated its decline to -0.5% m/m, or -6.1% annualized. Signs are building that goods deflation will sustain for some time across categories led by used vehicles (-3.0%), education and communication goods (-1.6%), and recreational goods (-0.4%). Meanwhile, core services inflation decelerated only 10bps to a 0.4% m/m pace, bringing the annualized pace down to 5.4% from 6.3% last month. Medical services continued to be a drag, falling -0.7% m/m, given updated inputs imputed last month by the BLS, while transportation services prices significantly cooled to -0.1% m/m from 0.8% previously amid a -3.0% drop in fares and a -2.4% decline in vehicle rentals.

Growth in rents and owners' equivalent rent reaccelerated 10bps each to a respective 0.8% and 0.7% m/m in November, inching back closer to multi-decade highs for both measures of housing inflation. Housing tends to be noisy on a month-to-month basis but real-time measures for both rents and home prices have been showing weakness for several months now, which will slowly manifest into the BLS data. However, based on the historical lag, housing inflation is likely to remain elevated and keep upward pressure on core inflation into early next year.

RETAIL SALES TAKE A BREATH

November nominal retail and food services sales tumbled by -0.6% m/m (cons. -0.2%), reflecting weakness in autos (-2.3%), furniture (-2.6%), and e-commerce (-0.9%). Auto sales were not a surprise as a separate report from the BEA showed vehicle sales declined -6.5% m/m to a 14.1m seasonally adjusted annualized rate in November and likewise for gas sales as retail gasoline prices declined for the month. The rest of the retail sales report showed similar weak breadth with only four of the 13 major categories recording monthly increases, resulting in a -0.2% drop for total retail sales excluding auto and gas and a -0.2% decline for the important control group (excluding auto, gas, building materials and food services), which also saw downward revisions for the prior two months and feeds directly into the GDP report. Notably, food services (i.e., dining out) rose 0.9% m/m, hinting at the ongoing shift toward services consumption.

Adjusted for inflation, retail sales fell -0.7% m/m, the weakest monthly increase since last December. On a three-month rolling annualized basis, real retail sales fell -1.5%, partially giving back the pronounced 3.5% uptick last month. Real retail sales have generally remained flat this year (Figure 12), a sign that consumers are simply maintaining their real spending

at elevated levels. Despite this year's lack of real spending growth, real retail sales remain 14% above February 2020 levels and 5% above the pre-COVID trend (Figure 13).

**Figure 12: Retail and Food Service Sales
(Change from February 2020)**

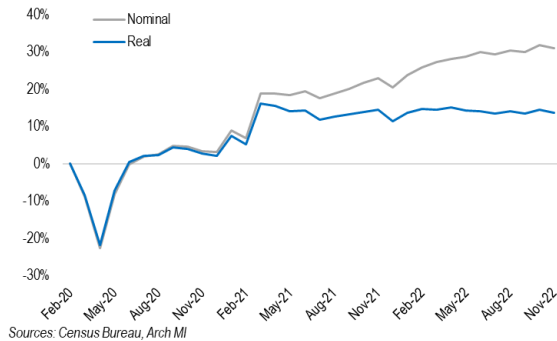
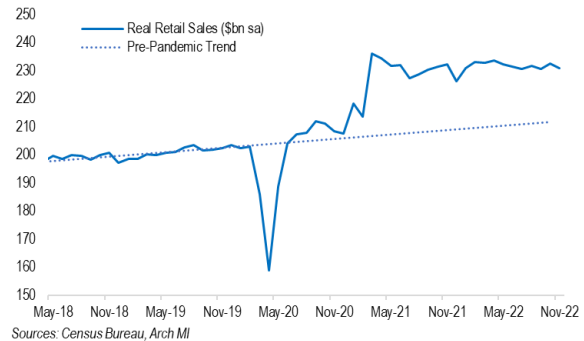


Figure 13: Real Retail and Food Services Sales



JOBLESS CLAIMS TAKE A STEP BACK

Initial jobless claims dropped by -20k to 211k (consensus: 232k) during the week ending Dec. 10 from 231k the previous week, moving the four-week average down to 227k from 230k (Figure 14). Continuing claims for regular state programs (i.e., repeat filers for unemployment insurance) climbed by 1k to 1,671k (consensus: 1,674k) during the week ending Dec. 3. Despite the relatively large weekly decline in initial claims, the trend in non-seasonally adjusted data continued to track roughly in line with the years leading up to the pandemic (Figure 15). This suggests that layoffs have remained within the typical range expected for this time of year and the recent uptrend since the end of the summer has not been reflective of a rapid softening of labor market conditions. Taken together with other employment and wage data, we see the labor market as moderately tight at the end of 2022 — an improvement from the exceedingly tight market of early 2022.

Figure 14: Initial and Continuing Jobless Claims

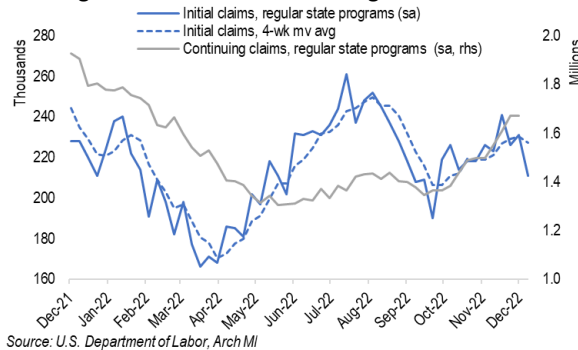
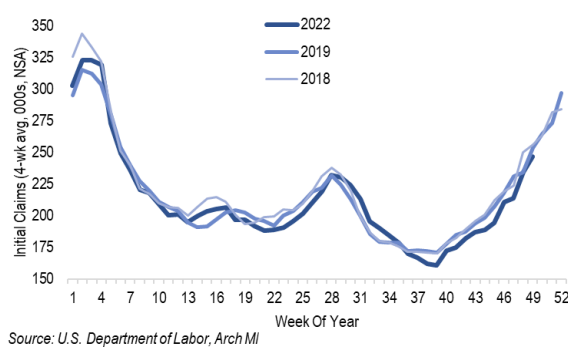


Figure 15: Non-Seasonally Adjusted Initial Claims by Year



The Week Ahead – One Last Update on the Housing Market

This week will present several updates on the housing market and consumer. According to the Bloomberg Consensus Survey of Economists, the December NAHB Housing Market Index is expected to tick up slightly, likely in response to the recent drop in mortgage rates. The November New Residential Construction report from the U.S. Census Bureau is expected to reflect a continued slowdown in building permitting and housing starts as builders instead work through their substantial backlogs. The National Association of Realtors will report November existing home sales on Wednesday, which are likely to slow further as suggested by previously released pending home sales data. November personal income and spending are expected to have cooled from the hot pace in October, with inflation-adjusted spending anticipated to be roughly unchanged on the month despite PCE inflation expected to slow to 0.1% m/m (sa) from 0.3% in October. The week is likely to conclude on a down note, with November new home sales expected to decline another 5% to a seasonally adjusted annualized rate of 600k.

UPCOMING DATA RELEASES

Key economic and housing data releases for the coming week:

Date	Indicator	Period	Actual	Consensus	Previous	Note
12/19/22	NAHB Housing Market Index	Dec	--	34	33	index, sa
12/20/22	Building Permits	Nov	--	1,491	1,512	k, saar
12/20/22	Building Permits m/m	Nov	--	-1.4%	-3.3%	sa
12/20/22	Housing Starts	Nov	--	1,400	1,425	k, saar
12/20/22	Housing Starts m/m	Nov	--	-1.8%	-4.2%	sa
12/21/22	MBA Mortgage Applications	12/16/22	--	--	3.2%	w/w, sa
12/21/22	Existing Home Sales	Nov	--	4,200	4,430	k, saar
12/21/22	Existing Home Sales m/m	Nov	--	-5.2%	-5.9%	sa
12/21/22	Conf. Board Consumer Confidence	Dec	--	101.0	100.2	index, sa
12/22/22	GDP Annualized q/q	3Q T	--	2.9%	2.9%	saar
12/22/22	Personal Consumption q/q	3Q T	--	1.7%	1.7%	saar
12/22/22	Core Personal Consumption q/q	3Q T	--	4.6%	4.6%	saar
12/22/22	Initial Jobless Claims	12/17/22	--	225	211	k, sa
12/22/22	Continuing Claims	12/10/22	--	1,675	1,671	k, sa
12/22/22	Conference Board Leading Index	Nov	--	-0.4%	-0.8%	m/m, sa
12/23/22	Personal Income	Nov	--	0.3%	0.7%	m/m, sa
12/23/22	Personal Spending	Nov	--	0.2%	0.8%	m/m, sa
12/23/22	Real Personal Spending	Nov	--	0.0%	0.5%	m/m, sa
12/23/22	Durable Goods Orders	Nov P	--	-0.7%	1.1%	m/m, sa
12/23/22	PCE Inflation m/m	Nov	--	0.1%	0.3%	sa
12/23/22	PCE Inflation y/y	Nov	--	5.5%	6.0%	nsa
12/23/22	PCE Core Inflation (ex Food and Energy) m/m	Nov	--	0.2%	0.2%	sa
12/23/22	PCE Core Inflation (ex Food and Energy) y/y	Nov	--	4.6%	5.0%	nsa
12/23/22	U. of Mich. Sentiment	Dec F	--	59.1	59.1	index, nsa
12/23/22	U. of Mich. 1 Yr Inflation	Dec F	--	--	4.6%	nsa
12/23/22	U. of Mich. 5-10 Yr Inflation	Dec F	--	--	3.0%	nsa
12/23/22	New Home Sales	Nov	--	600	632	k, saar
12/23/22	New Home Sales m/m	Nov	--	-5.1%	7.5%	sa

Sources: Bloomberg Consensus Survey of Economists, Arch MI

The next HaMMR Digest will be on published on Jan. 9 — Happy Holidays!