January 2023

NATIONAL ECONOMIC OUTLOOK

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Executive Summary

Real GDP Grew Again at the End of 2022; Inflation Is Starting to Slow, But So Is Consumer Spending

- Real GDP increased 2.9% at an annual rate in the fourth quarter of 2022, following a 3.2% increase in the third quarter, but small declines in the first and second quarters of last year. Real GDP was up 1.0% in the fourth quarter from one year earlier, below the economy's long-term potential of around 1.7%. Real consumer spending rose 2.1% annualized in the fourth quarter, adding 1.4 percentage points to growth; most of the increase came on spending on services. There was a modest increase in business fixed investment, although there was a big drop in spending on equipment. Investment in residential structures (homebuilding, repairs, renovations) fell for a seventh straight quarter as higher interest rates remained a drag, declining almost 27% at an annualized rate and subtracting a very large 1.3 percentage points from growth. Trade and inventories were positives for growth in the fourth quarter. The GDP release for the fourth quarter came after PNC prepared its January forecast.

- Inflation-adjusted consumer spending fell 0.3% in December, the second straight decline after a 0.2% drop in November, revised from a small increase. Consumer spending rose in October and was up in the fourth quarter as a whole from the third quarter. Inflation-adjusted after-tax income rose 0.2% in December, the same pace as in November. Several drags are hitting consumer spending simultaneously, including slower wage growth, high inflation, rising interest rates, falling home sales and associated purchases, and a big drop in household wealth because of declining stock prices and home values. In addition, consumer spending is shifting from goods, which consumers have bought a lot of over the past couple of years, to services.

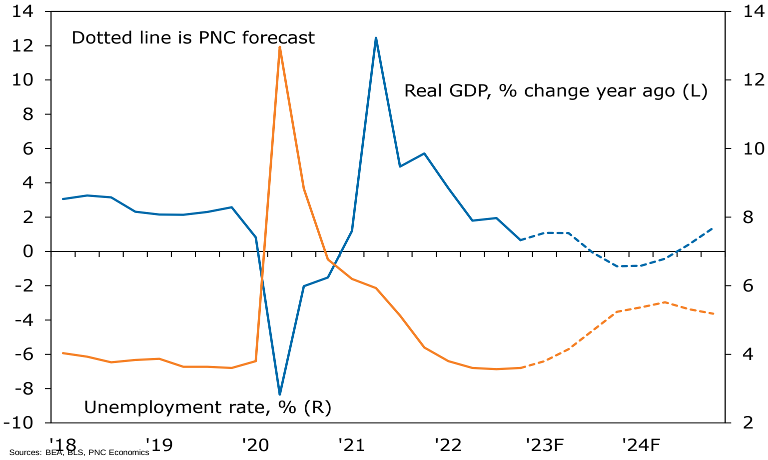
- The personal consumption expenditures price index, the Federal Reserve's preferred inflation measure, rose 0.1% for the second straight month in December. The core PCE price index, excluding food and energy, rose 0.3% in December, up from 0.2% in November. On a year-ago basis overall inflation was 5.0% in December, down from 5.5% in November and a peak of 7.0% in June. Year-over-year core inflation was 4.4% in December, down from 4.7% in November and a peak of 5.4% in February. Inflation is slowing, but remains above the Federal Reserve's 2% objective. Core inflation has been stronger than overall inflation in recent months; the Federal Reserve pays more attention to core inflation because it is less volatile from month to month. Some of the strength in core inflation is coming from housing, and that is reversing with house prices and rents falling. But the Fed is concerned that strong services inflation, driven by wage growth, could persist.

*Baseline U.S. Economic Outlook, Summary Table**

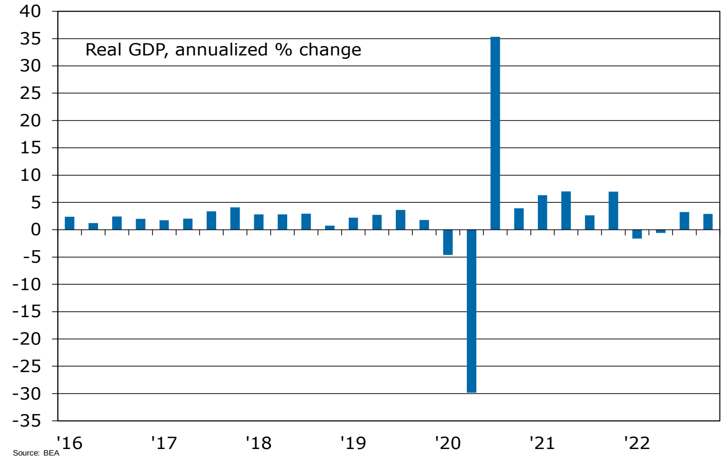
	3Q'22a	4Q'22p	1Q'23f	2Q'23f	3Q'23f	4Q'23f	2021a	2022p	2023f	2024f
Output & Prices										
Real GDP (*Chained 2012 Billions $*)	20055	20139	20140	20108	20041	19964	19610	20003	20063	20088
Percent Change Annualized	**3.2**	**1.7**	**0.0**	**-0.6**	**-1.3**	**-1.5**	**5.9**	**2.0**	**0.3**	**0.1**
CPI (*1982-84 = 100*)	295.9	298.4	301.1	303.4	305.4	307.0	271.0	292.7	304.2	309.3
Percent Change Annualized	**5.7**	**3.4**	**3.8**	**3.1**	**2.6**	**2.1**	**4.7**	**8.0**	**3.9**	**1.7**
Labor Markets										
Payroll Jobs (*Millions*)	152.7	153.5	153.5	153.1	152.4	151.6	146.1	152.0	152.7	151.4
Percent Change Annualized	**3.1**	**2.1**	**-0.1**	**-1.0**	**-1.7**	**-2.2**	**2.8**	**4.1**	**0.4**	**-0.8**
Unemployment Rate (*Percent*)	3.6	3.6	3.8	4.1	4.7	5.2	5.4	3.6	4.5	5.3
Interest Rates (Percent)										
Federal Funds	2.19	3.64	4.55	4.88	4.88	4.83	0.08	1.68	4.78	4.00
10-Year Treasury Note	3.10	3.82	3.80	3.72	3.58	3.50	1.43	2.94	3.65	3.41

a = actual f = forecast p = preliminary　　**Please see the Expanded Table for more forecast series.*

Unemployment Rate Will Get Above 5% With U.S. Recession in 2023



After Small Contraction in the First Half of 2022, Solid GDP Growth in Second Half of Year



Job Growth Is Slowing Entering 2023, But Not Enough for the Fed

After a remarkable recovery from recession in the first half of 2020, the U.S. labor market remains historically strong at the beginning of 2023. Although job growth slowed throughout 2022 it remains well above its pre-pandemic pace, and the unemployment rate ended 2022 at a 50-year low. Wage growth softened somewhat last year but is still elevated. The Federal Reserve is concerned that an overly tight job market could add to already-elevated inflationary pressures in the U.S. economy. The central bank is raising interest rates in an attempt to slow growth, cool down the labor market, and push inflation lower, but the most likely outcome is that the central bank overdoes it and the U.S. economy falls into a mild recession later this year.

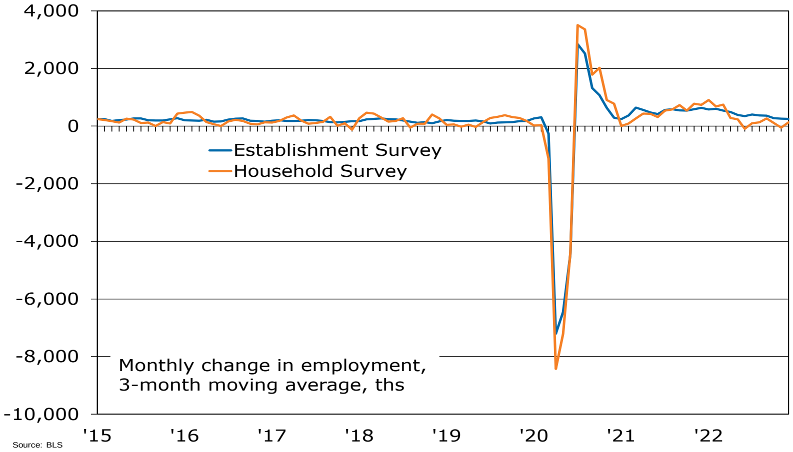
The U.S. job market has made an extraordinary recovery from the Viral Recession a few years ago. U.S. employment fell by 22 million in March and April of 2020 as the pandemic came to the U.S., and the unemployment rate soared from 3.5% in February 2020 to 14.7% in April 2020, the highest rate since the Great Depression. But as the economy started to reopen, the federal government aided households and businesses, and the Fed slashed short-term and long-term interest rates, the labor market roared back. The economy added 12 million jobs in the last 8 months of 2020, 7 million in 2021, and 4.5 million in 2022. At the end of last year employment was almost 1% above its pre-pandemic level. The unemployment rate started to fall in May 2020 and by the second half of 2022 had returned to the pre-pandemic rate of 3.5%, tied for the lowest rate in 50 years.

The labor market is extremely strong, but job growth did slow over the course of 2022, from average monthly gains of almost 600,000 at the beginning of last year to around 250,000 by the end of year. Job growth is still running at well above its 2019 monthly average of around 160,000, however, and the job market is too hot for the Federal Reserve. Businesses continue to compete for workers, driving up wages. Average hourly earnings in the U.S. economy increased by 4.6% in 2022, down from 4.9% growth in 2021, but up from below 3% before the pandemic. The central bank is concerned that strong wage growth from a very tight labor market will keep inflation persistently above the central bank's 2% long-run inflation objective as business raise prices in response to higher labor costs. In particular, inflation in service industries tends to be closely tied to wage growth. Thus the Fed wants to cool off job gains to something more sustainable over the long run, consistent with labor force growth, to around 100,000 jobs added per month.

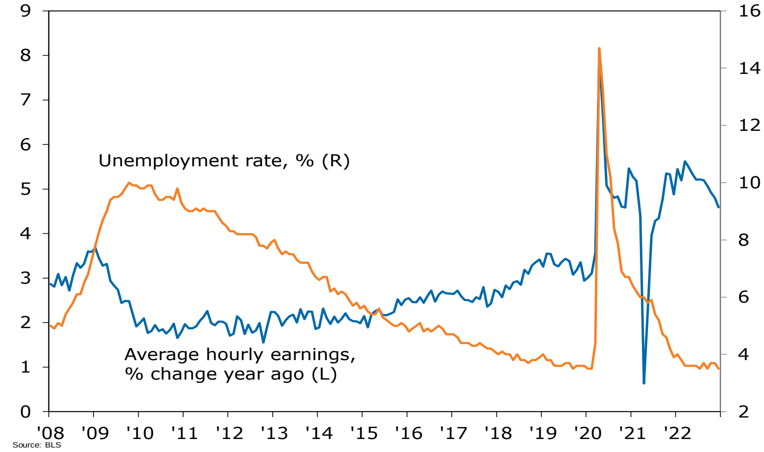
By raising interest rates the Fed is attempting to slow economic growth, and thus job growth. The central bank's aim is to raise interest rates enough to create a bit more slack in the job market, thus reducing wage pressures so that inflation settles in at around 2%, hopefully without causing a recession. But given high inflation and the very tight labor market, the Federal Open Market Committee has already raised the federal fund rate, their key short-term policy interest rate, by more than 4 percentage points in 2022. With further fed funds rate hikes likely in early 2023, PNC expects that the extraordinarily rapid increase in interest rates since early 2022 will push the U.S. economy into recession by mid-2023. The Fed is not trying to deliberately engineer a recession, but higher rates are already leading to contraction in industries where borrowing costs are a key driver, such as homebuilding. Job losses will start soon in interest-rate sensitive industries like construction and manufacturing, spreading later this year to other industries as the broader economy contracts. This will drive up the unemployment rate and create more slack in the labor market, slowing wage growth and inflation. But because businesses have had such difficulties in hiring over the past couple of years they will be reluctant to lay workers off during the downturn. Thus job losses in the upcoming recession will be smaller than in other recessions, limiting the depth of the overall downturn.

PNC expects job losses to start in the next few months, and total about 2 million (1%) before the economy starts to turn around in early 2024. The unemployment rate will increase throughout 2023 and peak at above 5% in the first half of 2024, sometime after the recession ends, before falling later next year as a recovering economy boosts hiring. Real GDP will fall by about 1% from the peak in early 2023 to the trough at the end of this year. The FOMC will keep the fed funds rate close to 5% through most of 2023, and then start to cut the rate at the end of this year as inflation moves down to 2% and the labor market deteriorates, with further rate cuts in 2024 supporting the economic recovery.

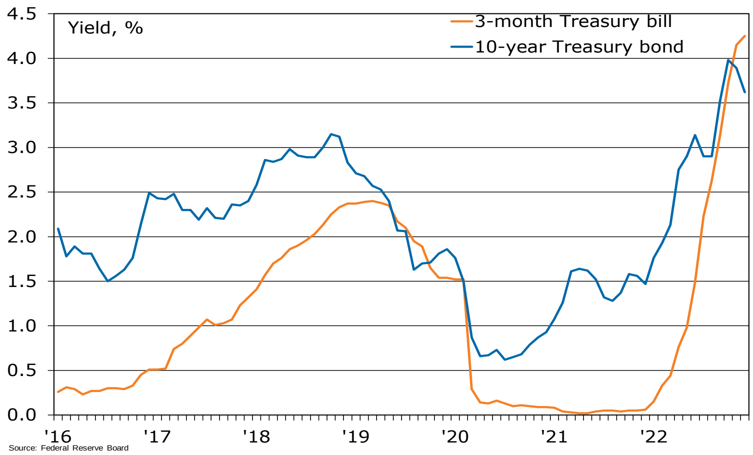
Slowing Job Growth in 2022, But Still Running Above Pre-Pandemic Pace



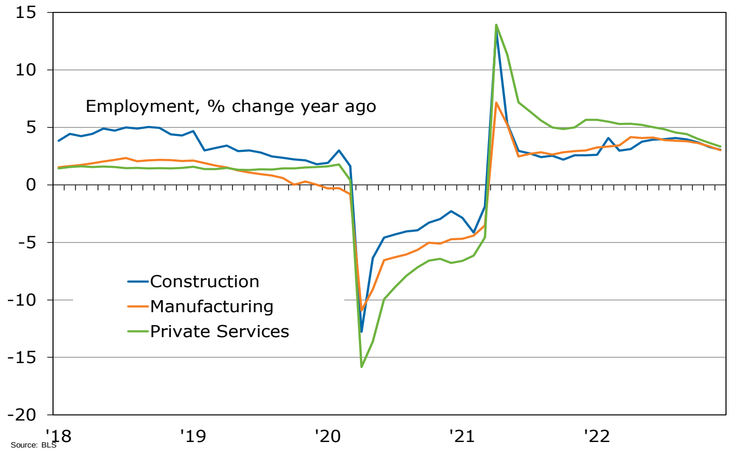
Unemployment Rate Dropped in December Back to 50-Year Low; Wage Growth Still Running Strong



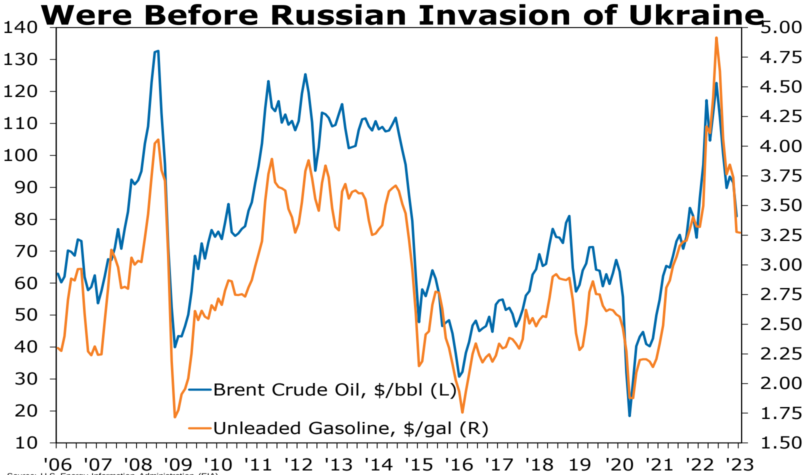
Fed Continued to Raise Rates at the End of 2022



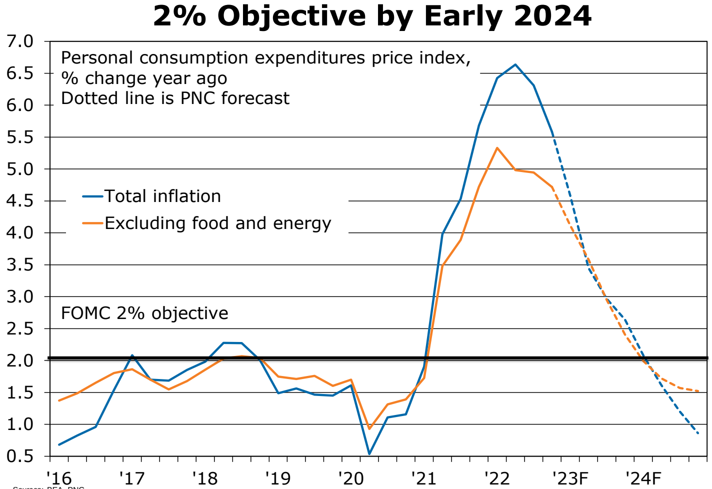
Broad-Based Job Gains to End 2022



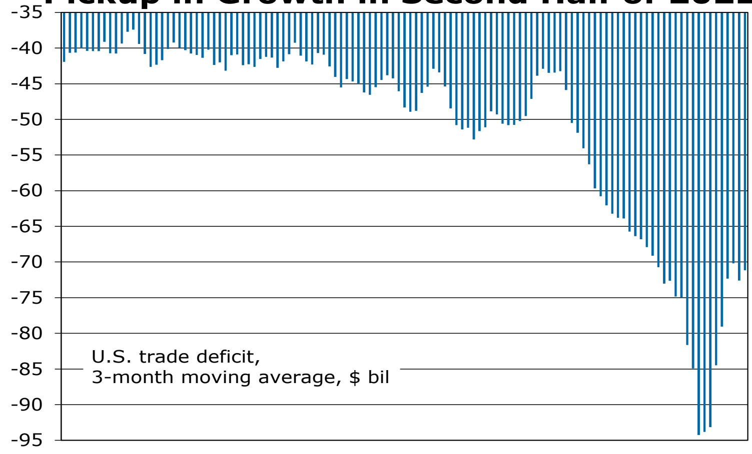
Energy Prices Are Back to Where They Were Before Russian Invasion of Ukraine



Inflation Should Be Back to Fed 2% Objective by Early 2024

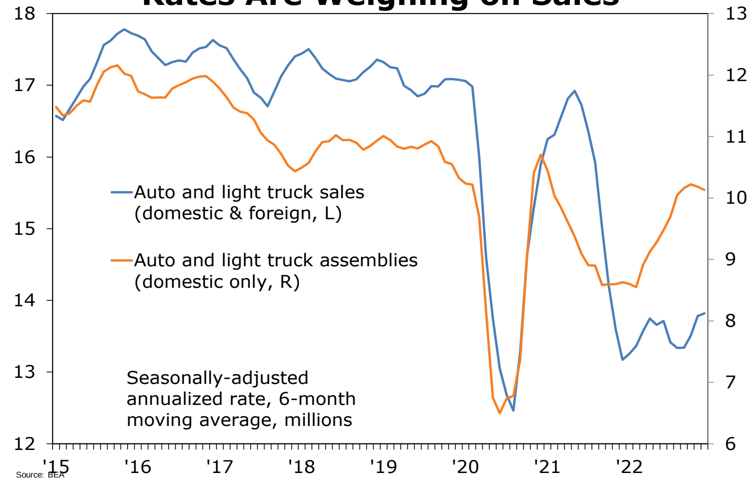


Smaller Trade Deficit a Big Reason for Pickup in Growth in Second Half of 2022



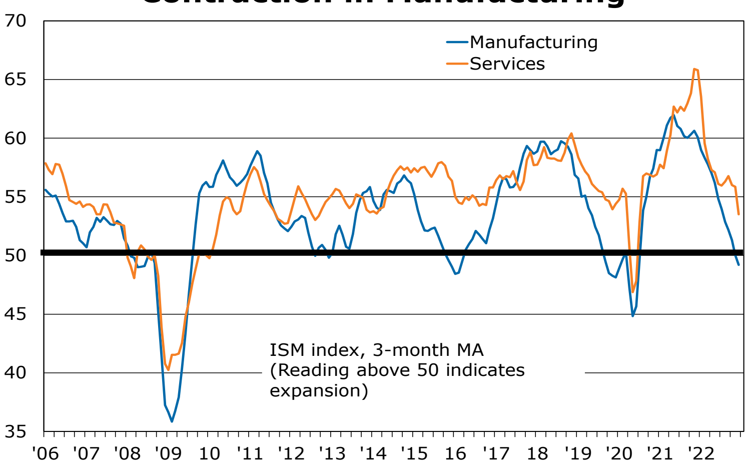
Source: BEA

Auto Production Is Improving, But Higher Rates Are Weighing on Sales



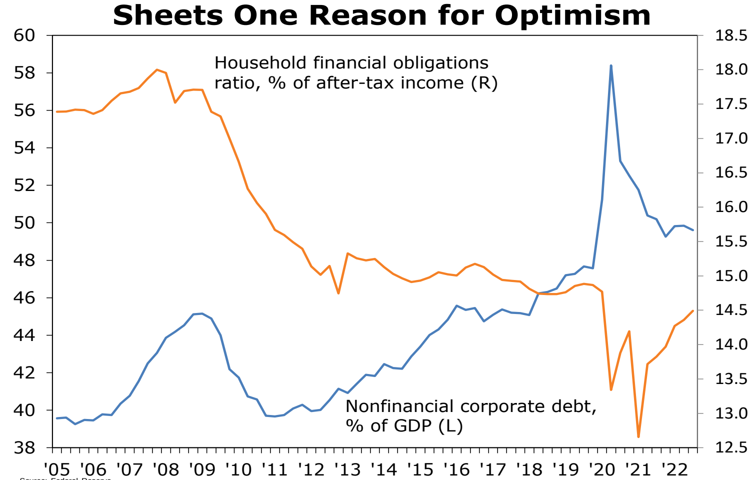
Source: BEA

ISM Index Now Showing Contraction in Manufacturing



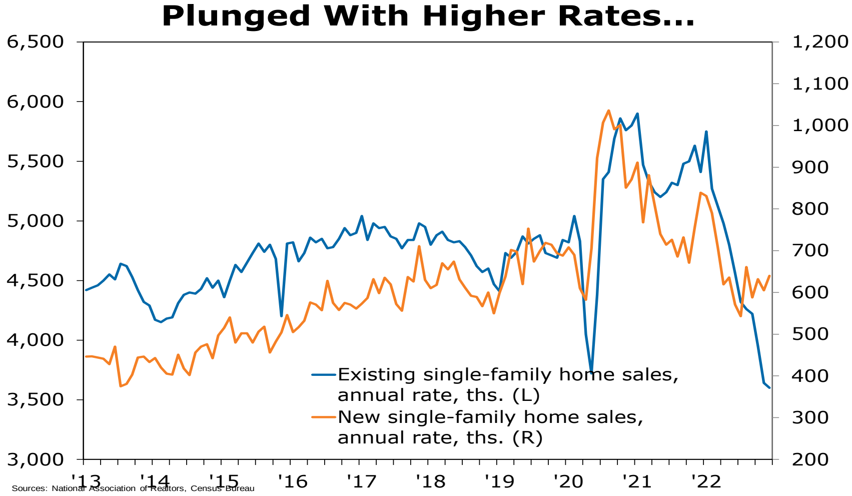
Source: ISM

Strong Households Balance Sheets One Reason for Optimism



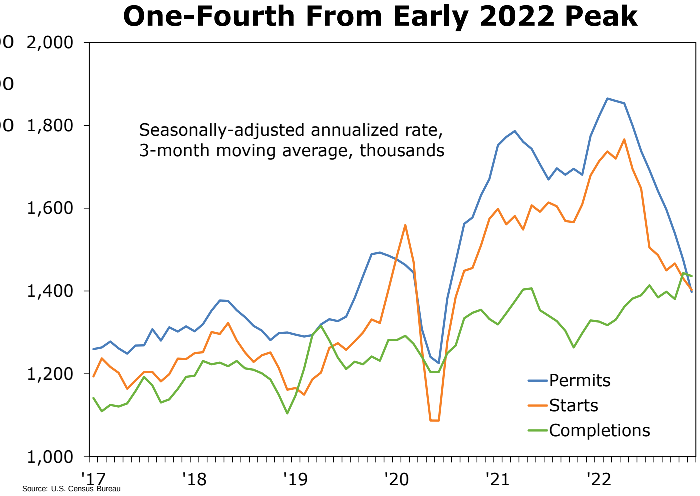
Source: Federal Reserve

Existing Home Sales Have Plunged With Higher Rates...



Sources: National Association of Realtors, Census Bureau

... And Housing Starts Down by One-Fourth From Early 2022 Peak



Source: U.S. Census Bureau

PNC Economics Group
January 2023

Baseline U.S. Economic Outlook, Expanded Table

	3Q'22a	4Q'22p	1Q'23f	2Q'23f	3Q'23f	4Q'23f	2021a	2022p	2023f	2024f
Output										
Nominal GDP (*Billions $*)	25699	26090	26316	26460	26542	26572	23315	25445	26472	26937
Percent Change Annualized	**7.3**	**6.2**	**3.5**	**2.2**	**1.2**	**0.4**	**10.7**	**9.1**	**4.0**	**1.8**
Real GDP (*Chained 2012 Billions $*)	20055	20139	20140	20108	20041	19964	19610	20003	20063	20088
Percent Change Annualized	**3.2**	**1.7**	**0.0**	**-0.6**	**-1.3**	**-1.5**	**5.9**	**2.0**	**0.3**	**0.1**
Pers. Consumption Expenditures	14179	14261	14275	14258	14229	14187	13754	14142	14237	14209
Percent Change Annualized	**2.3**	**2.4**	**0.4**	**-0.5**	**-0.8**	**-1.2**	**8.3**	**2.8**	**0.7**	**-0.2**
Nonresidential Fixed Investment	2960	2981	2972	2933	2881	2846	2835	2943	2908	2877
Percent Change Annualized	**6.2**	**2.9**	**-1.2**	**-5.2**	**-6.9**	**-4.7**	**6.4**	**3.8**	**-1.2**	**-1.1**
Residential Investment	620	573	532	504	481	466	719	642	496	469
Percent Change Annualized	**-27.1**	**-26.8**	**-25.7**	**-19.9**	**-17.0**	**-12.0**	**10.7**	**-10.7**	**-22.8**	**-5.4**
Change in Private Inventories	39	49	26	15	0	-50	-19	103	-2	-10
Net Exports	-1269	-1241	-1173	-1101	-1032	-966	-1233	-1357	-1068	-948
Government Expenditures	3411	3400	3391	3383	3366	3366	3426	3396	3376	3376
Percent Change Annualized	**3.7**	**-1.3**	**-1.0**	**-1.0**	**-2.0**	**0.0**	**0.6**	**-0.9**	**-0.6**	**0.0**
Industrial Prod. Index (*2012 = 100*)	104.7	104.7	104.7	103.5	100.4	98.5	100.0	104.1	101.8	100.5
Percent Change Annualized	**2.2**	**0.0**	**0.0**	**-4.7**	**-11.5**	**-7.4**	**4.9**	**4.1**	**-2.3**	**-1.3**
Capacity Utilization (*Percent*)	80.1	80.0	79.9	78.3	75.4	73.8	77.4	77.9	76.9	75.0
Prices										
CPI (*1982-84 = 100*)	295.9	298.4	301.1	303.4	305.4	307.0	271.0	292.7	304.2	309.3
Percent Change Annualized	**5.7**	**3.4**	**3.8**	**3.1**	**2.6**	**2.1**	**4.7**	**8.0**	**3.9**	**1.7**
Core CPI Index (1982-84 = 100)	297.0	300.2	303.3	305.7	307.7	309.3	277.3	294.3	306.5	312.3
Percent Change Annualized	**6.4**	**4.4**	**4.2**	**3.3**	**2.6**	**2.0**	**3.6**	**6.1**	**4.1**	**1.9**
PCE Price Index (*2012 = 100*)	123.8	124.8	125.8	126.7	127.4	128.1	115.6	122.8	127.0	128.8
Percent Change Annualized	**4.3**	**3.3**	**3.5**	**2.7**	**2.4**	**2.0**	**4.0**	**6.2**	**3.4**	**1.4**
Core PCE Price Index (*2012 = 100*)	124.0	125.2	126.2	127.0	127.7	128.2	117.4	123.2	127.3	129.4
Percent Change Annualized	**4.7**	**3.9**	**3.2**	**2.5**	**2.1**	**1.8**	**3.5**	**5.0**	**3.3**	**1.7**
GDP Price Index (*2012 = 100*)	128.2	129.6	130.7	131.6	132.4	133.1	118.9	127.2	131.9	134.1
Percent Change Annualized	**4.3**	**4.1**	**3.5**	**2.9**	**2.6**	**2.0**	**4.5**	**7.0**	**3.7**	**1.6**
Crude Oil, WTI (*$/Barrel*)	91.4	82.7	81.0	79.5	75.0	71.0	68.0	94.4	76.6	76.8
Labor Markets										
Payroll Jobs (*Millions*)	152.7	153.5	153.5	153.1	152.4	151.6	146.1	152.0	152.7	151.4
Percent Change Annualized	**3.1**	**2.1**	**-0.1**	**-1.0**	**-1.7**	**-2.2**	**2.8**	**4.1**	**0.4**	**-0.8**
Unemployment Rate (*Percent*)	3.6	3.6	3.8	4.1	4.7	5.2	5.4	3.6	4.5	5.3
Average Weekly Hours, Prod. Works.	34.0	33.9	33.8	33.7	33.6	33.6	34.3	34.0	33.7	33.6
Personal Income										
Average Hourly Earnings (*$*)	27.7	28.0	28.3	28.6	28.9	29.2	25.9	27.5	28.7	29.7
Percent Change Annualized	**5.3**	**4.7**	**4.6**	**4.5**	**4.1**	**3.5**	**4.9**	**6.1**	**4.6**	**3.3**
Real Disp. Income (*2012 Billions $*)	15056	15232	15321	15368	15378	15358	16130	15104	15356	15533
Percent Change Annualized	**0.9**	**4.8**	**2.4**	**-1.1**	**1.8**	**2.2**	**1.9**	**-6.4**	**1.7**	**1.2**
Housing										
Housing Starts (*Ths., Ann. Rate*)	1458	1390	1176	1057	993	965	1605	1554	1048	955
Ext. Home Sales (*Ths., Ann Rate*)	4770	4213	4079	4023	4135	4236	6127	5103	4118	4438
New SF Home Sales (*Ths., Ann Rate*)	597	611	538	515	481	459	769	648	498	465
Case/Shiller HPI (*Jan. 2000 = 100*)	302.1	298.1	292.2	282.3	271.7	263.2	276.9	298.1	263.2	263.0
Percent Change Year Ago	**13.1**	**7.6**	**0.6**	**-7.2**	**-10.1**	**-11.7**	**18.9**	**7.6**	**-11.7**	**-0.1**
Consumer										
Auto Sales (*Millions*)	13.4	14.1	13.9	13.5	13.2	12.6	14.9	13.7	13.3	12.3
Consumer Credit (*Billions $*)	4701	4764	4806	4837	4863	4882	4431	4764	4882	4997
Percent Change Year Ago	**7.9**	**7.5**	**6.2**	**4.7**	**3.4**	**2.5**	**5.9**	**7.5**	**2.5**	**2.4**
Interest Rates (Percent)										
Prime Rate	5.35	6.82	7.69	8.00	8.00	7.95	**3.25**	**4.85**	**7.91**	**7.12**
Federal Funds	2.19	3.64	4.55	4.88	4.88	4.83	**0.08**	**1.68**	**4.78**	**4.00**
3-Month Treasury Bill	2.63	4.06	4.31	4.24	4.16	4.09	**0.03**	**2.00**	**4.20**	**3.54**
10-Year Treasury Note	3.10	3.82	3.80	3.72	3.58	3.50	**1.43**	**2.94**	**3.65**	**3.41**
30-Year Fixed Mortgage	5.58	6.66	6.47	6.42	6.21	6.01	**2.96**	**5.32**	**6.28**	**5.59**

a = actual f = forecast p = preliminary

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