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Foreword

In the third issue of Brennan Barometer, we continue to provide in-depth analysis of the regional economy of the Wyoming Valley. As this is the rst issue of the year, we take a look back at how the local economy has been performing over the past year. We also examine the national economy since the two are closely connected.

We would like to take this opportunity to extend a special thanks to Steven Zellers from the Center for Workforce Information & Analysis, PA Department of Labor & Industry for his valuable insights and suggestions. However, we solely are responsible for our analysis and any errors or omissions.

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Executive Summary

Labor Markets

During 2022, the behavior of the labor markets in the region was consistent with the national trend. The labor market for the Scranton-Wilkes-Barre-Hazleton Metropolitan Statistical Area (SC-WB-HZ MSA) experienced record or near-record low unemployment rates. In the local markets during this period, as the labor force increased, so did the number of employed. Not only did the unemployment rate fall, but the number of unemployed also fell in the MSA and the two largest counties, Lackawanna and Luzerne. Four out of every ve new jobs were created in the private services sector, with transportation, warehousing, and utilities sub-sectors leading the way. The leisure and hospitality sector

In ation

Throughout 2022, in ation remained very high, fueled by a combination of supply side and demand side factors. The disruption of supply chains, rise in energy and grain prices due to the war in Ukraine, and increased consumer spending all contributed to the current in ation. Much of the in ation is driven by an increase in service costs, and especially of shelter. The Federal Reserve's demand-side policy of raising the interest rate and borrowing costs has had some moderating effect on in ation. However, because a signi cant proportion of consumer spending goes toward services, in ation persists.

The Big Picture

In January 2023, although CPI-based in ation declined for the seventh consecutive month, the rate of in ation and core rate of in ation remains very high. The full effects of the seven interest rate increases in 2022 have not yet been felt due to lags in monetary policy. However, the Federal Reserve will certainly continue to raise interest rates to cool down the economy and reduce in ationary pressure. With the labor market showing exceptional resilience, it is not impossible that unemployment will not increase signi cantly, and the economy may achieve a "soft landing" without going into a recession as in ation is brought under control.

Labor Market: Employment, Unemployment in the Local Economy

Satyajit Ghosh

The Scranton - Wilkes-Barre - Hazleton Metropolitan Statistical Area (SC-WB-HZ MSA) is currently experiencing historically low unemployment rates. According to the Pennsylvania Department of Labor and Industry's report on January 31, 2023, the seasonally adjusted unemployment rate for the region remained at its record low of 4.8 percent in December 2022, the same as in November. The last time the MSA's rate was 4.8 percent was in April through June 2000. Regional records have been maintained since January 1976. Since our previous report (Brennan Barometer, October 2022), the unemployment rate in the MSA has steadily declined between September and November 2022.

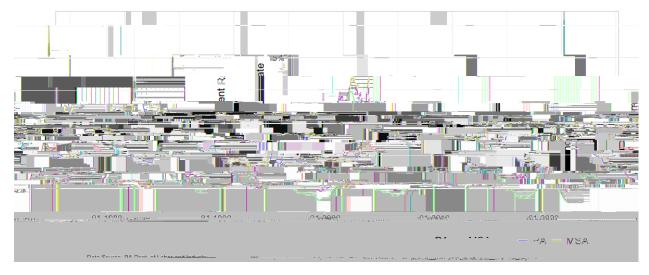


Figure 1: Unemployment Rate in Pennsylvania and the SC-WB-HZ MSA

As Figure 2 indicates, the three counties in the MSA also recorded near record low unemployment rates. In Lackawanna county, the unemployment rate in December 2022 was at 4.4 percent. In the recorded history of 47 years, the lowest unemployment rate in the county (4.2 percent) was observed in September and October of 2022 and prior to that only in April 2000. The MSA's largest county, Luzerne also had very strong unemployment number. It was 5.1 percent in December. It was lower only once in April 2000 when it reached 4.9 percent. The MSA's smallest county, Wyoming also had a very strong showing in December when the unemployment rate stood at 4.2 percent. In its recorded history, the county reached a lower unemployment rate of 4.1 percent only in January and February of 2001.



Figure 2: Unemployment Rates in the Lackawanna, Luzern, Wyoming Counties, and SC-WB-HZ MSA

Continuing its downward trend, the unemployment rate in Pennsylvania fell to a record low 3.9 percent in December. All these are consistent with the national experience. The unemployment rate for the nation fell to 3.5 percent, its lowest level since 1969. In January 2023, the national unemployment rate fell further to 3.4 percent, its lowest level since 1953. For the Scranton-Wilkes- Barre-Hazleton MSA, the turnaround from a historic high unemployment rate of 17.9 percent in April 2020 to a record low unemployment of 4.8 percent in 33 months is truly remarkable if not miraculous. We should remember that the Congressional Budget Of ce (CBO) predicted on February 1, 2021 that the national unemployment rate may return to the pre-pandemic level in 2024-25. At that time, this prediction was viewed to be too "optimistic." And to put in perspective, locally the pre-pandemic (February 2020) unemployment rate for the SC-WB-HZ MSA was 5.5 percent, a

2021 to 5.1 percent in December 2022) and its labor force increased by 0.96 percent. In Wyoming county, the unemployment rate fell by more than half a percentage point (0.6 percent)—from 4.8 percent in December 2021 to 4.2 percent in December 2022, while its labor force increased by 2.29 percent. The increase in the size of labor force in all three counties of the MSA indicates the sustained perception that the local economy is turning around and the regional labor markets continue to be strong.

The three largest cities in the MSA also recorded reduction in the unemployment rates in December, compared to the previous month, with Scranton reaching an unemployment rate of 3.5 percent followed by Wilkes- Barre (4.6 percent) and Hazleton (5.5 percent).

Table 1: Labor Market Indicators in the Cities, December 2022 (Data not seasonally adjusted)

City	Unemployment rate	Total Unemployment	Total Employment	Labor Force
Scranton	3.5%	1300	34500	35800
Wilkes Barre	4.6%	800	17300	18100
Hazleton	5.5%	600	10600	11200

In all three cities between November and December 2022, the total number of unemployed workers fell, and, with the exception of Hazleton where the total volume of employed workers stayed the same, in the bigger cities of Scranton and Wilkes- Barre, the total number of employed workers increased.

Between December 2021 and December 2022, not only the labor force increased in the Scranton-Wilkes Barre-Hazleton MSA, the level of unemployment also fell - a pattern that was also observed in the two bigger counties in the MSA: Luzerne and Lackawanna.

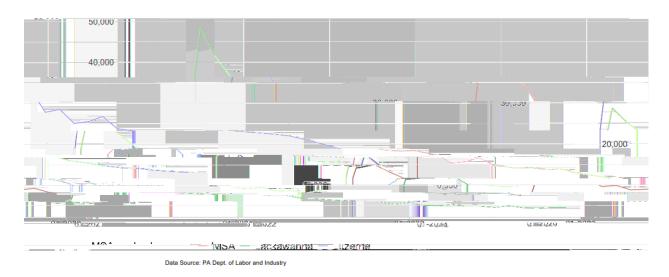


Figure 3: Number of Unemployed in the SC-WB-HZ MSA and Lackawanna and Luzern Counties

Thus, it must not be surprising that the volume of employment, i.e., the number of employed workers increased in the MSA. It is interesting to note that while the S-WB-H MSA is not regarded as a "new jobs driver" in the state and in December 2022 in spite of its low unemployment rate, it ranked the third highest in terms of unemployment rate among the 18 MSAs in the state it ranked 7th. in new job creation, when it added (seasonally adjusted) 4500 new non-farm jobs during December 2021 and December 2022.

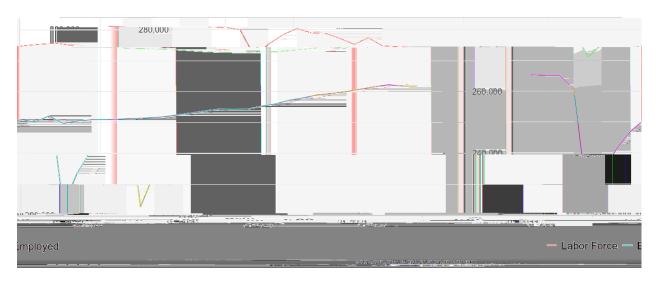


Figure 4: Labor Force and Number of Employed in the SC-WB-HZ MSA

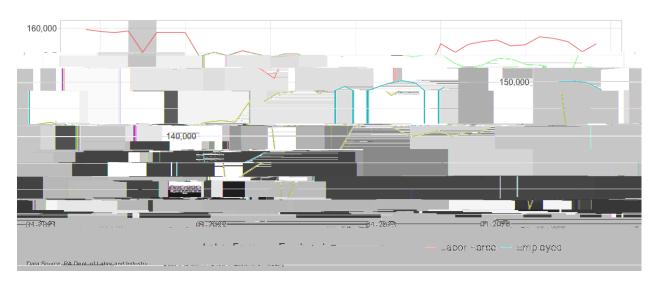


Figure 5: Labor Force and Number of Employed in the Luzerne County

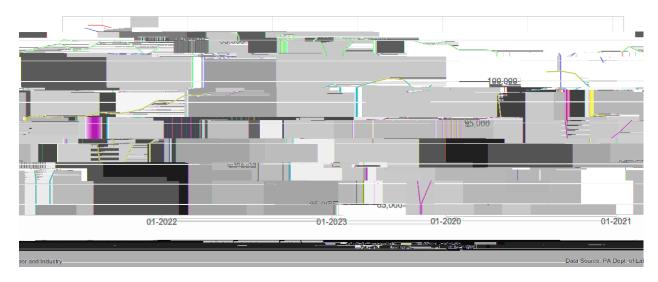


Figure 6: Labor Force and Number of Employed in the Lackawanna County

The goods-producing sector that includes manufacturing, mining, logging and construction created 1000 (22%) new jobs, out of which the manufacturing sector contributed 90% of the goods-producing sector's new jobs. But most of the jobs in this service-oriented region were created in the private service-providing sector that created the remaining 3500 (78%) new jobs. There was no addition in government service jobs. In the service providing sectors most of the jobs were created in the Trade, Transportation, and Utilities sector that added 3900 jobs. Because of the growing importance of warehousing, dating back to the Covid-19 pandemic period, within this sector, Transportation, Warehousing and Utilities contributed to 2600 of these new jobs – accounting for 74% of the new service jobs and 58% of the total new non-farm jobs. Retail trade added 1000 new jobs.

Leisure and Hospitality sector that includes accommodations and food services has become one of the most important job providers in the region. Between December 2021 and December 2022, this industry added 1500 jobs in the MSA, accounting for 42% of the new service jobs and 33% of the new non-farm jobs.

But not all industries shared the good fortune of the region. Of these, two are particularly important. Between December 2021 and December 2022, the Professional and Business Services lost 1700 jobs - a 6% decline from its December 2021 level. This loss of employment is somewhat perplexing, because it cannot be explained as a continuation of the effect of the Covid-19 pandemic, as the industry had added 11% jobs between December 2020 and December 2021. Health Care and Social Assistance sector, that includes Hospitals, continued its downturn. Once believed to be a pillar in the region as a source of employment, lost another 700 jobs – almost a 2% decline from the December 2021 level. In spite of the opening of a new hospital in Lackawanna County, hospital employment fell by 200 – or 2.6% compared to December 2021. After the pandemic, there was a sharp reduction in national employment in the health care sector, as many health care workers preferred to switch to jobs in the retail and leisure and hospitality sectors for better working conditions. The same trend appears to be continuing also in this region.

Is the Region's Recovery Complete?

The sharp increase in the unemployment rate during the Covid-19 pandemic is still fresh in our memory. In April 2020, the unemployment rate shot up to 17.9%. The unemployment rate stayed at a double-digit level until October 2020. Noting that in December 2022, the unemployment rate stayed at 4.8% for two months in a row, which is the lowest in the MSA's recorded history, it is tempting to conclude that the recovery from the Covid-19 recession must be complete.

But the comparison of unemployment rates between a pre-recession and a post-recession

dates may not be sufficient nor desirable to determine if the recovery is complete. The unemployment rate is measured as the number of unemployed workers (those who are jobless, but actively seeking work and available to take a job) as a percentage of the labor force (the sum of the employed in full-time, part-time, or temporary employment and unemployed). If the labor force stays unchanged over time, a reduction in the unemployment rate implies an increase in employment and job creation and, hence, points to economic recovery or expansion. However, labor force is not a xed number, as is evident from the experience of our region's labor markets. Every month, a few unemployed workers stop looking for jobs, perhaps because they have not had any luckedh0(ets)15(su4uate)-290kssge(ym

Table 2: Employment in Selected industries in SC-WB-HZ MSA in December 2022 (Data not seasonally adjusted)

Industry	Employment level	Net change from December 2019
Manufacturing	29,300	+1000
Transportation, Warehousing, Utilities	32,200	+6900
Retail trade	31,000	+400
Professional and business services	27,300	(-)1900
Leisure & hospitality	21,600	(-)1600
Health care and social assistance	39,700	(-)6200
Hospitals	7,500	(-)1200

progress and the unemployment rate reached a record low, we still have a long way to go

Housing Markets

Aram Balagyozyan

Building Permits and Housing Starts

The number of approved housing permits is one of the ten components of the Index of Leading Economic Indicators computed by the Conference Board, and is a leading indicator closely tied to consumer con dence.

The graph in Figure 7 illustrates the number of housing permits approved in the US, Northeast, and Pennsylvania. Throughout 2022, the number of approved housing permits in the US has been declining and in December 2022, it reached a level lower than any observed after the COVID recession. This decline is likely due to the tighter monetary policy, higher interest and mortgage rates, and cooling housing market and economy. While a similar decline has not occured in the the Northeast and PA, the sharp increase in permits observed at the end of 2021 did not persist throughout 2022. As of December 2022, the number of housing permits approved in Pennsylvania and the Northeastern region were 2,241 and 9,831 respectively. These numbers are in line with with the long-term trends.

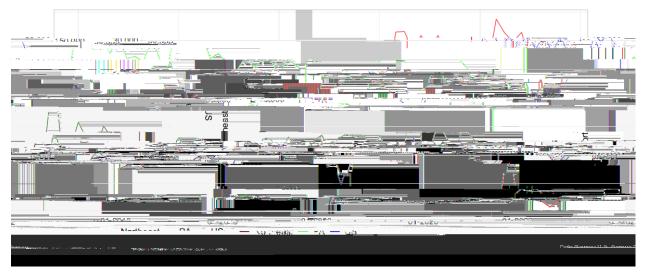


Figure 7: Total Number of Housing Permits in the Northeast, PA, and the US

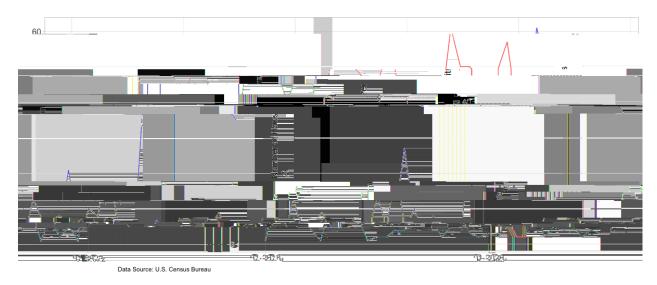


Figure 8: Total Number of Housing Permits in the Scranton – Wilkes-Barre – Hazleton MSA

The data presented in Figures 8 and 9 demonstrate the number of approved housing permits and year-over-year changes in the Scranton - Wilkes-Barry - Hazleton Metropolitan Area (SC-WB-HZ MSA). The gures indicate that in 2022, the SC-WB-HZ MSA has experienced more robust and sustained relative growth in housing permits than Pennsylvania, the Northeast, and US. It is encouraging that this growth was not impacted by increased borrowing costs.



Figure 9: Year-over-year Change in Total Number of Housing Permits in the Scranton – Wilkes-Barre – Hazleton MSA

Real-Estate Market Hotness

Realtor.com publishes data on the market hotness index. The index (shown on Figure 10) is an equally-weighted composite metric of a market's supply score (based on days on market) and demand score (based on Realtor.com listing views). In December 2022, the value of the index was 66.22, down nearly 20 points compared to November 2022 and up 1 point compared to December 2021. This means that in December 2022, the real-estate market in the SC-WB-HZ MSA area was cooler than a month before but marginally hotter than a year before. According to Realtor.com, the median number of days that a for-sale housing property remained in the market was 66 with the housing inventory moving 15% slower than last year and 1% faster than the US overall. Properties in the area were viewed on average 1.6 times more than the US average. With the December score of 66.22, the area ranked number 72 out of 300 metropolitan areas in the country.

Figure 10: Real-Estate Hotness Score

Home Sales Inventory

Realtor.com also publishes the count of active single-family and condo/townhome listings for a given market during the speci ed month (excludes pending listings). ¹ With lower numbers representing fewer houses listed for sale, this statistic is often viewed as an overall indicator of the tightness of the housing supply. One resounding trend of the COVID pandemic was a greater demand for larger housing spaces and units driven by an increasing number of workers switching to remote work. By looking at Figure 11 that shows the monthly for-sale housing inventory in the United States and the SC-WB-HZ MSA, one can easily spot a downshift in housing supply, and therefore tightening of the housing market, that occurred after the pandemic. However, by looking at Figure 12 that shows the year-over-year percent change in housing inventory, one can conclude that

¹https://www.realtor.com/research/data/

during the last months of 2022, both the SC-WB-HZ MSA and the US had more forsale inventory than a year before. Again, this is a clear indication of a softening housing market.

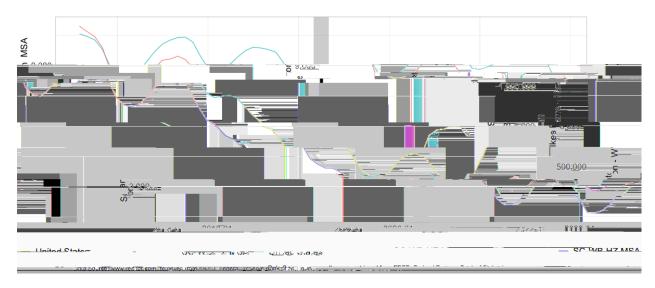


Figure 11: Monthly Number of For-Sale Housing Inventory



Figure 12: Year-over-Year Percent Change in Monthly Number of For-Sale Housing Inventory

Home Prices and Rents

While an increase in home prices is welcomed news among current homeowners, it is inversely related to housing affordability and a cause for concern for perspective home buyers. It should not come as a surprise that as a result of the recent softening of the

housing demand (largely caused by a tighter FED's policy and higher mortgage rates) and loosening of the post-COVID supply-chain pressures, growth of home prices across the United States and Northeast has been cooling. Figure 13 exhibits year-over-year growth of the quarterly housing price index published by the Federal Housing Finance Authority (FHFA) for the SC-WB-HZ MSA, Pennsylvania, and the US. The data re ect all metro-area transactions. It must be obvious from the chart that housing price growth in 2022 in all three areas has remained very strong (between 10 and 25%), well outpacing CPI in ation. However, between the second and third quarters of 2022, this growth has declined, again, most likely due to higher borrowing costs and improved supply-chain conditions. It is worth noting that while historically growth of housing prices in Pennsylvania exceeded that of the SC-WB-HZ MSA, since the beginning of the pandemic in 2020 and especially in 2022, housing prices in the local area grew at a signicantly faster pace than in Pennsylvania.

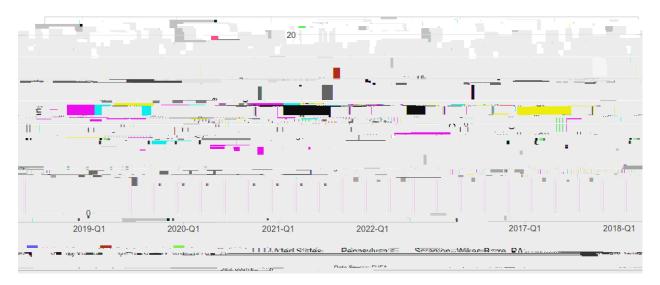


Figure 13: Year-over-Year Percent Change of the FHFA Quarterly Housing Price Index

Still, housing in the SC-WB-HZ MSA remains much more affordable. Realtor.com also publishes historical data on the median listing price of single-family and condo/townhome housing within the speci ed geography during the speci ed month.² Figure 14 exhibits the historical monthly data of this metric for the SC-WB-HZ MSA, Pennsylvania, and the United States. In December 2022, the median home value in the SC-WB-HZ metropolitan area was \$289,054, around three quarters of the median house price in Pennsylvania (\$399,899) and less than half of the median house price in the United States (\$693,996). However, as it can be observed in Figure 15 (that exhibits year-over-year percent change of the median house price) since early 2021, growth of housing prices in the SC-WB-HZ MSA slightly outpaced growth of housing prices in Pennsylvania and the US.

²ibid. see the footnote on page 13.



Figure 14: Median Housing Listing Price on Realtor.com

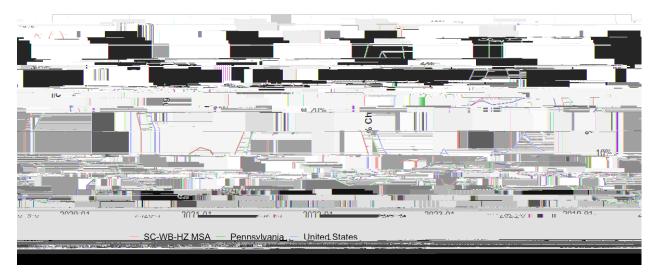


Figure 15: Year-over-Year Percent Change of the Median House Price Index

A similar conclusion can be reached regarding rental prices in the area. We source our data on rents in the Scranton metro area from zillow.com, that publishes its Observed Rent Index (ZORI) for different types of geographies (metro area, city, ZIP code, etc.).³ ZORI is a measure of typical observed market rent in a region; it represents repeat rents as well as the rents of those homes that are currently listed for-rent. The index is computed by considering the mean of listed rents that fall into the 40th to 60th percentile range for all homes and apartments in a given region. Figure 16 shows the mean rents in Scranton, PA, Philadelphia, PA, and the US over time. The chart reveals that rents in the Scranton metro area on average have been and still are much lower than in the Philadelphia metro

³https://www.zillow.com/research/data/

area or in the US in general. In December 2023, the average rent in Scranton, Philadelphia, and across the US were \$1,182, \$1,777, and \$1,981 respectively. One may wonder whether the relatively lower rent in the Scranton area is directly translatable into a more affordable rental housing? The answer depends on the counterpart in the comparison group. According to the 2020 US Census data, the median annual household income in Scranton, Philadelphia, and the US were \$41,687, \$49,127, and \$67,000 respectively. These numbers imply that in December 2022, a median household in both, the Scranton area and the US spent about 35% of their 2020 income on rent, while the same measure of rental affordability for Philadelphia was around 43%. This means renting a house in the

Credit Conditions

Aram Balagyozyan

The state of consumer credit is an important coincident indicator of how well households are doing nancially. It is also a leading indicator of economic conditions in the region as it predicts consumer spending on goods and services. One metric that allows us to gauge consumer credit conditions in the region is the estimate of "subprime population," percentage of population with a credit score below 660. This quarterly metric is produced by Equifax and Federal Reserve Bank of New York, and we retrieve these data for Lackawanna, Luzerne, and Wyoming counties from FRED, Federal Reserve Bank of St. Louis. As Figure 18 indicates, in the 1st three quarters of 2022, credit conditions in these three counties remained relatively low and unchanged, after declining sharply through the beginning of the pandemic. In the third quarter of 2022, subprime population of Wyoming, Lackawanna, and Luzerne counties were 18.43, 21.83, and 23.69 percent respectively. This disparity and recent trend appear to be a mirror re ection of the recent unemployment rates in the region (in November 2022, the unemployment rates in Wyoming, Lackawanna, and Luzerne counties were 3.6, 3.8, and 4.5% respectively.)

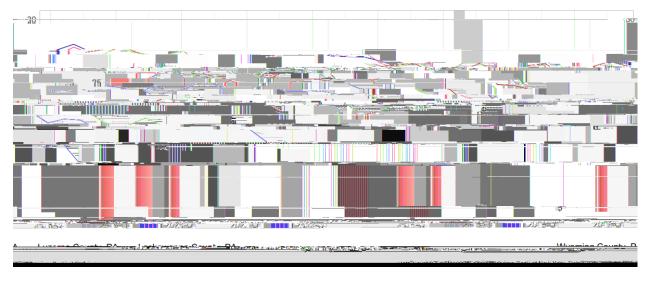


Figure 18: Equifax Subprime Credit Population

In ation, Egg ation, and the Burden of Rising Prices

Satyajit Ghosh

In a very closely watched report on February 14, the Bureau of Labor Statistics revealed that in January Consumer prices increased at an annual rate of 6.4% - a slight reduction from the 6.5% in ation in December 2022. On an annual basis, in ation fell for seventh straight months, but in ation still remained high and the January rate was higher than the 6.2% analyst forecast.

u, that killed roughly 44 million egg-laying hens since February 2022, causing a major disruption of egg production. Combination of these factors have led to the sharp increase in price of eggs, which is expected to level off and start to fall from March 2023. The increase in the price of eggs may seem like a curiosity, but it helps explain how in ation affects different income groups.

In January 2023, the Consumer Price Index (CPI) that measures the change in prices paid by consumers for goods and services, increased by 0.5% over the previous month. Prices for commodities increased at the monthly rate of 0.4%, while the prices of services increased by 0.7%. Food prices went up 0.5% Cost for food at home increased in the

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measure of the change in costs of suppliers' goods and services, rose 0.7% in January,

in turn would reduce interest sensitive spending and other capital spending and cause employment and income to fall. In other words, the Fed took measures to manage in ation by slowing down the economy, which increased the chances of it slipping into a recession.

Is the Federal Reserve succeeding in reducing spending and lowering in ation? In 2022, Real GDP (Gross Domestic Product, the measure of the country's total production of nal goods and services, adjusted for in ation) increased by 2.1%. compared to 5.9% in the previous year. Growth of Real GDP is commonly regarded as the rate of economic growth. The Real Disposable Income, the after-tax income adjusted for in ation, fell by 6.4% compared to an increase of 6.2% in the year before. The Real personal consumption expenditure that accounts for nearly 70% of the GDP increased by 2.8% compared to 8.3% in 2021. All of these are already an indication that the economy is slowing down.

The data for the last quarter of 2022 are particularly interesting. In the fourth quarter of 2022, Real GDP increased at the annual rate of 2.9%, which was higher than what most economists expected. The Real Disposable Income, increased at a robust rate of 3.3%, at a much higher rate than the previous six quarters, and the Real Personal Consumption expenditure increased at the annual rate of 2.1%. Since personal consumption expenditure is the largest component of GDP, it is not a surprise that it contributed to 1.42 percentage point of the quarterly economic growth. However, in the fourth quarter of 2022, a reduction in trade de cit or an increase in net exports contributed to 0.56 percentage of the growth. But the reduction in net exports was caused by a substantial reduction in imports (in addition to a small reduction in exports) which weakened spending mostly by

pate such a dramatic increase in the interest rate by the current Federal Reserve. But due to the persistence of current in ation, it is certain that the Federal Reserve will continue to raise interest rate in 2023.

Is recession the inevitable cost of controlling in ation? Since the Federal Reserve wants to reduce spending by increasing the cost of borrowing, it will likely cause a slow down of the economy. However, since the labor market is very strong, the cyclical slowdown may avoid a recession or lead to a shallow and a short recession when the unemployment