# U.S. ECONOMIC OUTLOOK, 2022 – 2023

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## BACKGROUND

As we move through the summer of 2022, many concerns have been raised over the economy's future path. In this white paper, we will review some prominent forecasts of national economic activity and prices and summarize what the forecast models tell us about the economy in 2022 and 2023.

We start by narrowing the focus of this paper. There are too many national economic forecasts to capture in a single paper. And there is a plethora of economic measures that we could review. We will focus on the major economic forecasts and the primary economic measures. We will focus on three economic measures:

1. Real Gross Domestic Product (Real GDP), a measure of economic output
2. Unemployment Rate, a measure of the health of the labor market
3. Core Personal Consumption Expenditures Deflator (Core PCE Deflator), a measure of price inflation in the economy.

We note two things about our choices. First, we look at the labor market along with more traditional measures of output and prices. While output measures ultimately form our view of the economy's health, most of us experience the economy through our ability to work for money in the labor market. Second, we use a less commonly used measure of price inflation. The more commonly used measure, the Consumer Price Index, is inherently flawed. Many papers have shown the biases in its methodology. The Federal Reserve Bank no longer uses it to measure inflation for their policy discussion. They use the "Core" Personal Consumption Expenditures Deflator. This measure captures households' consumption choices more fully during steady, falling, or rising prices. Thus, it is a better measure of inflation to capture economic conditions.

As for forecasts, we use three publicly available forecasts put out by publicly funded organizations:

1. The "DSGE Model" published by the New York Federal Reserve Bank (Federal Reserve Bank of New York, 2022)
2. The "PRISM-II" forecast developed by the Philadelphia Federal Reserve Bank (Federal Reserve Bank of Philadelphia, 2022a), and
3. The "U.S. Economic Outlook for 2022–2024", published by the Research Seminar in Quantitative Economics at the University of Michigan (Ehrlich, 2022).

We also include data from the Survey of Professional Forecasters (SPF) at the Philadelphia Federal Reserve Bank (Federal Reserve Bank of Philadelphia, 2022b). This survey collects forecasts from numerous professional forecasters in business and academia and combines them to produce consensus estimates.

Once again, we note that there are numerous other forecasts that one could use to develop a sense of the direction of the economy. But we see these as the significant publicly available forecasts and should impart a notion of the consensus of forecasters. We also note that we do not use forecasts from private businesses except in the consensus estimates of the SPF. While there are some very able forecasters in these organizations, there is always a question of motivation for specific forecasts. For example, banks and investment companies may want price inflation to be seen as lower to mitigate against the Federal Reserve raising interest rates. Also, many of these private forecasts are not publicly available, and models are not documented extensively.

## CURRENT SITUATION

We review the most current information from economic reports to set the context for the forecasts. First-quarter 2022 output growth, as measured by Real GDP, was -1.5% on an annualized basis. This result was surprising, as full-year 2021 output growth averaged 5.7%. The average of "economic nowcasts" that we track indicates that the economy will grow in the 1.5 to 2.0% range in the second quarter. Even though this result is an improvement over the first quarter, it still lags behind the long-run average growth rate of around 2.0%.

The national unemployment rate stands at 3.6% as of May 2022. This rate is almost as it was just before the COVID-19 pandemic and associated economic downturn, and over 11% less than peak pandemic unemployment. The labor market is nearly fully recovered from the pandemic. The biggest concern for the economy has recently been inflation. As measured by the Core PCE Deflator, inflation was just under 6.3% in April. This level is down slightly from the near-term high reading of 6.6% in March but is significantly above the Fed's target of 2.0%. Many businesses and households fear a substantial future increase in interest rates by the Federal Reserve Bank to try to stamp out inflation. This increase would lead to a potential downturn in the economy.

## FORECASTS FOR 2022

Table 1 lists the forecasts for our measures in 2022. We note a considerable range in the estimates of economic growth and inflation. Most forecasters see economic growth in 2022, averaging around 2.5% to 3.0%. However, the New York Federal Reserve Bank (N.Y. Fed) model not only sees lower growth but a recession for this year. And while the N.Y. Fed and Philadelphia Federal Reserve (Philly Fed) models roughly agree with the mean estimate of the Survey of Professional Forecasters (SPF) for inflation, the RSQE model sees higher inflation. This prediction may be partly due to a different measure of inflation but is still higher than the other estimates. All three models which predict unemployment see it running about where it is now throughout 2022—unfortunately, the N.Y. Fed model does not give a forecast for the unemployment rate.

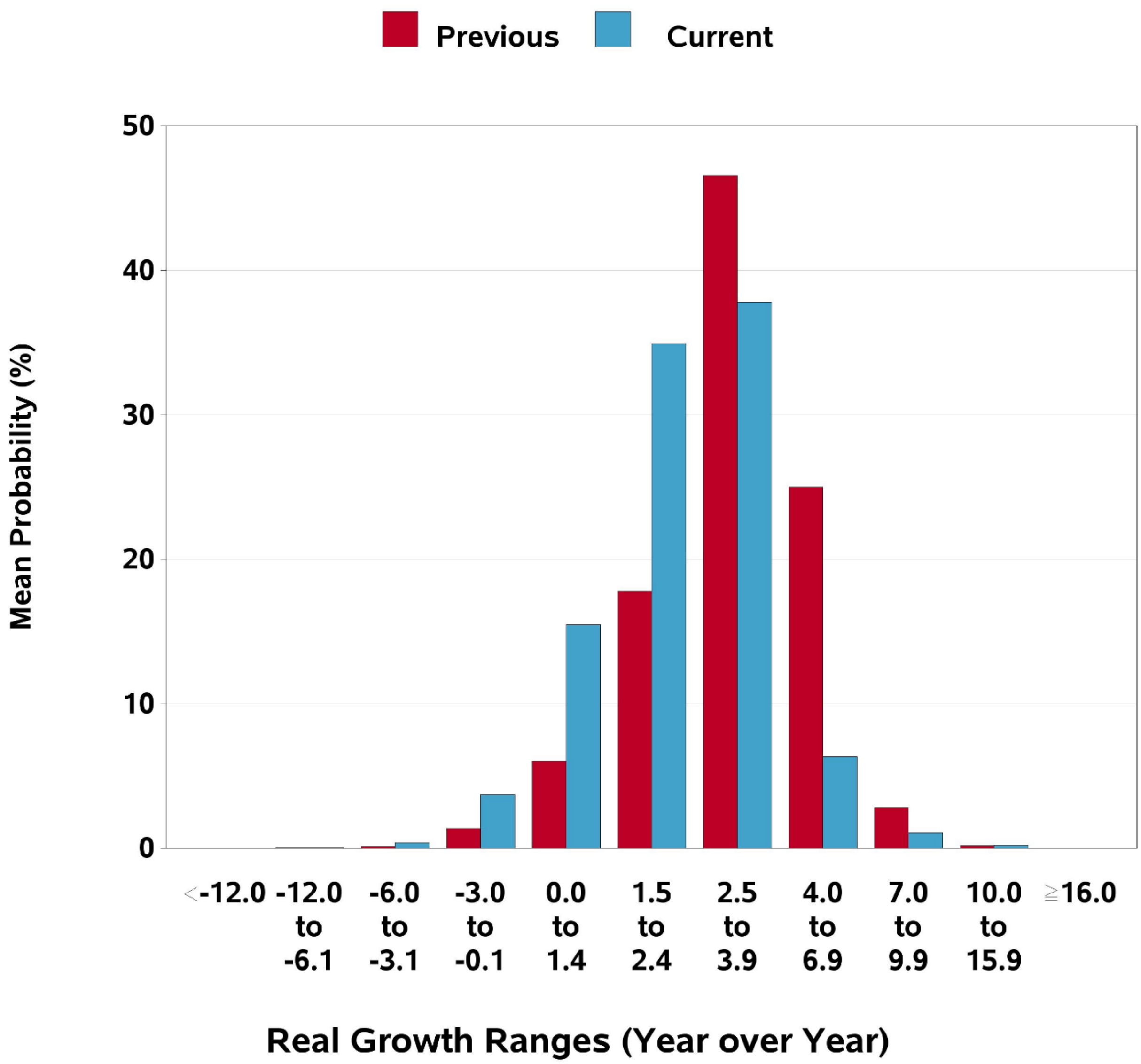
**Table 1. Summary of Economic Forecasts for 2022.**

| Measure/Forecast | NY Fed DSGE | Philly Fed PRISM-II | RSQE | SPF |
|---|---|---|---|---|
| Real GDP | -0.62% | 2.50% | 2.90% | 2.50% |
| Unemployment Rate | | 3.60% | 3.60% | 3.60% |
| Core PCE Inflation | 3.80% | 4.00% | 5.5%* | 4.10% |

**Note: The RSQE Forecast uses the Core Consumer Price Index as a measure. This index tends to indicate higher inflation than the Core PCE Deflator.**

We can illustrate this range of uncertainty with a figure from the SPF. The Philly Fed translates the predictions of the individual forecasters in the panel to probabilities of a specific outcome. In Figure 1, we can see that the most recent Philly Fed model considerably increased the chance of economic growth of less than 2.4% in 2022 while reducing the likelihood of growth of 2.5% or more. The overall dispersion of the forecasts is much greater in the last survey than in prior ones.

**Figure 1. Mean Probabilities for Real GDP Growth in 2022.**




**Source: Federal Reserve Bank of Philadelphia. 2022b.**

## FORECASTS FOR 2023

Table 2 shows the estimates for 2023 by forecaster and measure. Most forecasters see economic growth of between 2.0% and 2.3%. Once again, the N.Y. Fed model is an outlier and predicts a continuing recession. The results for inflation are similar to 2022. The two Fed models and the mean of the SPF estimates suggest 2.5% consumer price inflation. The RSQE model continues to predict a higher inflation rate. The RSQE and mean SPF forecast 3.6% unemployment, while the Philly Fed model sees slightly higher rates.

**Table 2. Summary of Economic Forecasts for 2023.**

| Measure/Forecast | NY Fed DSGE | Philly Fed PRISM-II | RSQE | SPF |
|---|---|---|---|---|
| Real GDP | -0.47% | 2.00% | 2.10% | 2.30% |
| Unemployment Rate | | 4.50% | 3.60% | 3.60% |
| Core PCE Inflation | 2.50% | 2.50% | 3.7%* | 2.50% |

**Note: The RSQE Forecast uses the Core Consumer Price Index as a measure. This index tends to indicate higher inflation than the Core PCE Deflator.**

## CONCLUSION – A SIMPLE ENSEMBLE MODEL

Without having suitable measures of the historical accuracy of the various forecasts, we cannot build a better "ensemble" prediction than to take a simple average of the individual forecasts (on ensemble forecasting methods see, e.g., Kriz (2019)). If we take the unweighted average of the estimates, then we arrive at the predictions in Table 3. Our simple average ensemble estimates of economic growth for 2022 is 1.8%, and 1.5% in 2023. These forecasts suggest a somewhat stagnant economy in the short term. The unemployment rate is predicted to stay relatively the same in 2022 but rise slightly in 2023. Inflation is expected to fall to 2.5% in 2023. We will note that these figures are not much different than the average growth, unemployment, and inflation reading throughout the mid-to-late 2010s, prior to the COVID-19 pandemic. Longer-term growth will be restrained by an aging population and immigration at levels less than necessary to replace retiring workers. Once again, we stress that there is a large amount of uncertainty in these forecasts, and readers should take them with a large grain of salt.

| Measure/Year | 2022 | 2023 |
|---|---|---|
| Real GDP | 1.82% | 1.48% |
| Unemployment Rate | 3.60% | 3.90% |
| Core PCE Inflation | 3.97% | 2.50% |

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