

ECONOMIC OUTLOOK

QUARTERLY REPORT

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PRIVATE ENTERPRISE

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Abstract

The Economic Outlook quarterly report uses the North Dakota Forecast Model developed by the NDSU Center for the Study of Public Choice and Private Enterprise to predict economic trends for the state of North Dakota and its three largest metropolitan statistical areas: Fargo, ND-MN; Bismarck, ND; and Grand Forks, ND-MN. The model uses past trends and empirical relationships in data to predict (forecast) future trends. These forecasts focus on key economic indicators such as wage growth, labor force participation, unemployment, and the housing price index. Like all forecast models, this method faces limitations and the specific values in the forecast should not be direct cause for decision-making. Rather, forecasting provides information about what is possible and can help establish expectations. The Economic Outlook report is released each quarter with updated data from the forecast model.

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Introduction

The Center for the Study of Public Choice and Private Enterprise has developed a forecast model to showcase the economic outlook for the state of North Dakota and its three largest metropolitan statistical areas: Fargo, ND-MN; Bismarck, ND; and Grand Forks, ND-MN. As of May 2022, the model also includes a state outlook for Minnesota. This report details the results of the model for the second quarter of 2022 (2022q2).

The forecast focuses on key economic indicators such as wage growth, labor force participation, unemployment, and the housing price index. The data used to create these forecasts come primarily from the St. Louis Federal Reserve. Each figure illustrates the model's projections with each panel showing both the actual forecast and the 90% confidence interval around the forecasted number. A 90% confidence interval shows the upper and lower limits of the projections with 90% certainty. This means that, statistically, we can be 90% confident that the value in the given quarter will fall between the upper and lower CI limits. Interconnected variables are incorporated into the model to demonstrate how state-level conditions impact predictions for metropolitan areas and how commodity price projections impact economic conditions. All projections are based on the trends of the past few quarters. As explained below, a forecast model does not and cannot account for unforeseen factors and changes that may affect economic performance. For more information about the North Dakota Forecast Model, see the accompanying technical appendix.

Limitations

Forecasting has long been a mainstay in the field of economics. It conveys much needed information about the world and trends in economic variables that can be useful for public and private decision-makers. However, it is important to acknowledge the limitations of any forecast. There are many reasons a forecast model may not produce correct predictions. The model uses historical data and past trends to predict (forecast) future trends. As a result, unexpected changes in economic conditions, public policy, or other factors may disrupt the accuracy of the forecasts. Similarly, the model cannot incorporate all of the complexity and uncertainty surrounding an economic system.

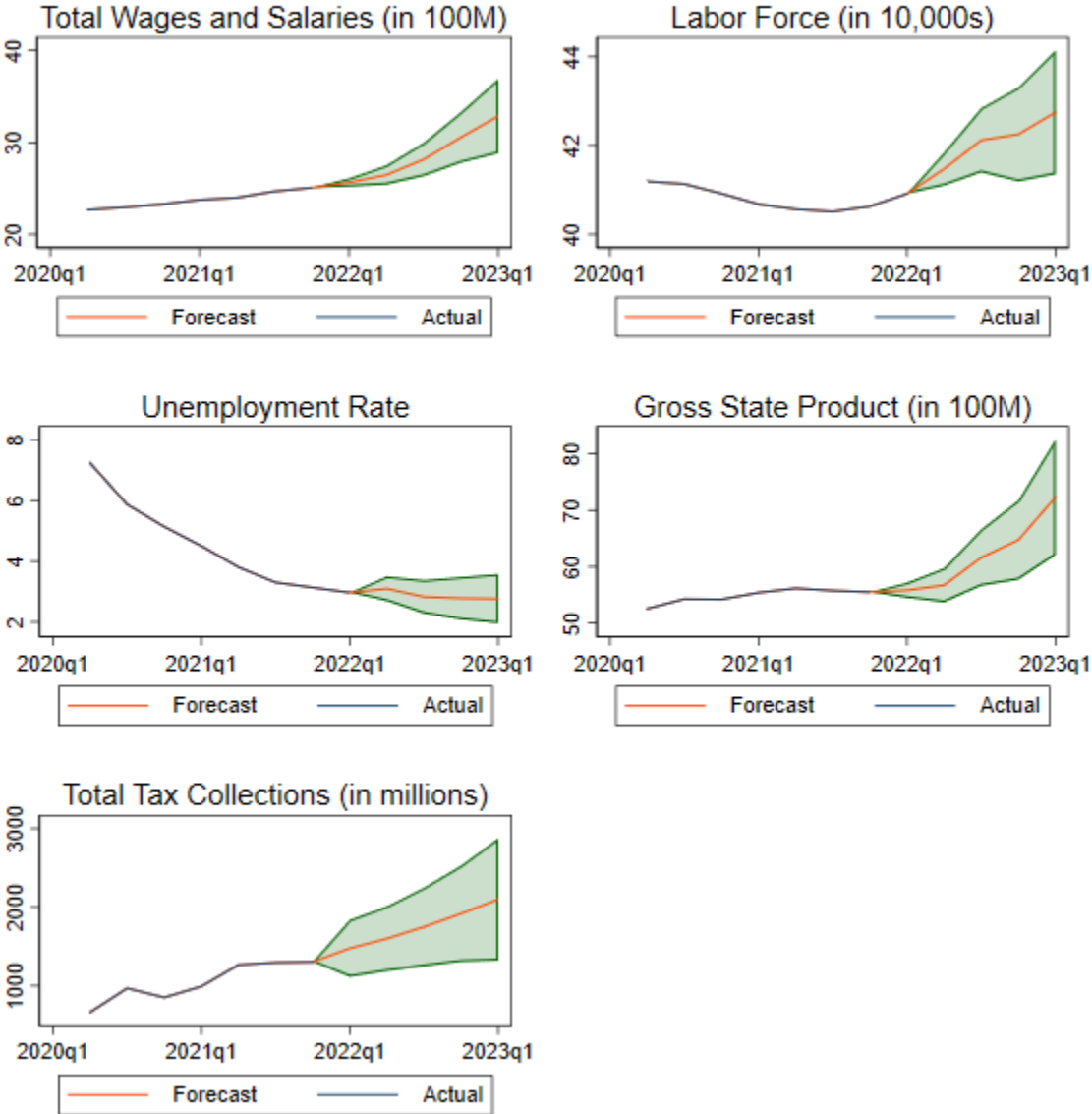
Key Points

- The North Dakota outlook continues to improve with signs of economic growth in 2022. This includes growth for wages and salaries in the state, as well as a growing labor force, decreasing unemployment rates, strong total tax collections, and rising gross state product.
- The economic outlooks for Fargo, Bismarck, and Grand Forks are positive.
- The Minnesota economic outlook is mixed, while the outlook for Minneapolis is positive.
- The national economy shrank in the first quarter of 2022 and shows signs of entering a recession.
- This report represents forecasts based on the most recently available data when the model was run on April 28, 2022. These forecasts serve as a projection for how the economy will respond to current economic conditions based on historical data and trends.

Quarterly Outlooks

Figure 1

North Dakota Quarterly Outlook



North Dakota Outlook

The overall economic outlook for the state continues to improve. The forecast is showing a reduced risk for decreases in the labor force despite small labor force declines in recent quarters. Total wages and salaries are forecast to continue growing in the near term. The rate of growth is projected to accelerate each quarter. Consistent with the previous forecast, the labor force grew by nearly 1 percent in the first quarter of 2022 (2022q1). This growth is expected to continue over the next year. The state unemployment rate fell below 3 percent and may decline slightly in the near term. The state unemployment rate is forecast to hold steady near its current level just above 3 percent. North Dakota's gross state product (GSP) fell by almost half a percentage point in the fourth quarter of 2022 (2022q4), consistent with the previous forecast. GSP is forecast to move back into growth in 2022 with slight growth during the first and second quarters before accelerating through the rest of 2022. Projected growth in income, GSP, and strong commodity prices are all contributing to a forecast of strong and growing total tax collections.

Alternative Scenarios for North Dakota

Because the North Dakota economy is heavily tied to petroleum extraction, we produced forecasts for the state under several different scenarios for the WTI price of crude oil to compare against the baseline path for crude oil as set by the forecast model. Scenarios for the path of the WTI crude price were: the upper bound of the 90% confidence interval, a 10% quarterly growth rate, a 10% quarterly decay, and the lower bound of the 90% confidence interval. With current trends in crude prices, the upper bound of the 90% confidence interval may be the most likely scenario.

Figure 2 replicates the panels in Figure 1 with the addition of a graph for the different WTI price scenarios. Each line represents the path of forecasted variables under the different price scenarios.

Alternative Outlooks

These graphs demonstrate North Dakota's growth is mildly dependent on the price of crude oil. The greatest impact of oil price trends is on total tax collections and gross state product. Each of these have continued forecast growth except under worse-case crude price scenarios. Under the worst-case scenario, tax collections are projected to remain flat. Other forecast indicators are less influenced by potential crude price trends. The red lines in Figure 2 represent the worst-case scenario with the WTI price falling to the 90% lower bound of its projected confidence interval (a near zero price). The green line represents the 90% upper bound of its projected confidence interval. The maroon line represents a 10% rate of decay for the WTI price, and the dark blue line represents a 10% growth rate.

Figure 2

North Dakota Quarterly Outlook - Alternate Scenarios

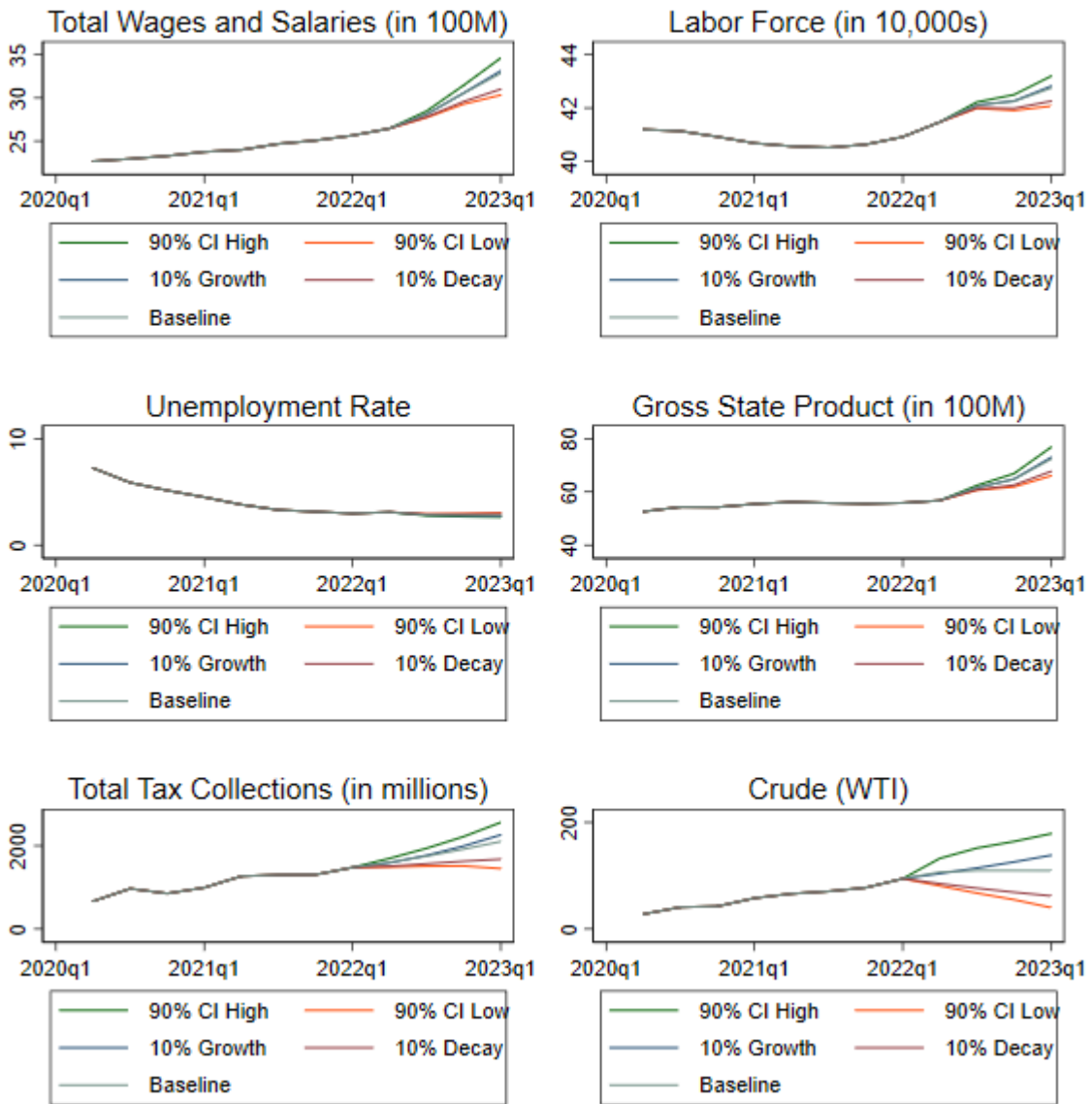
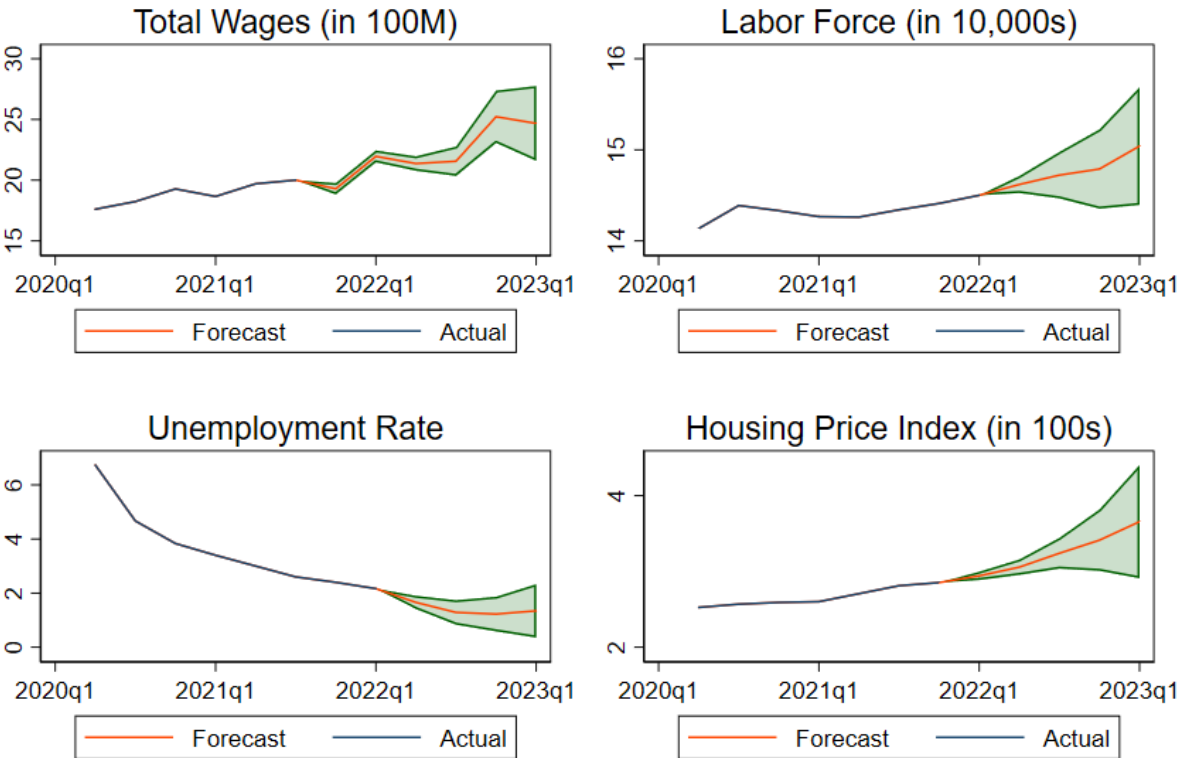


Figure 3

Fargo Quarterly Outlook

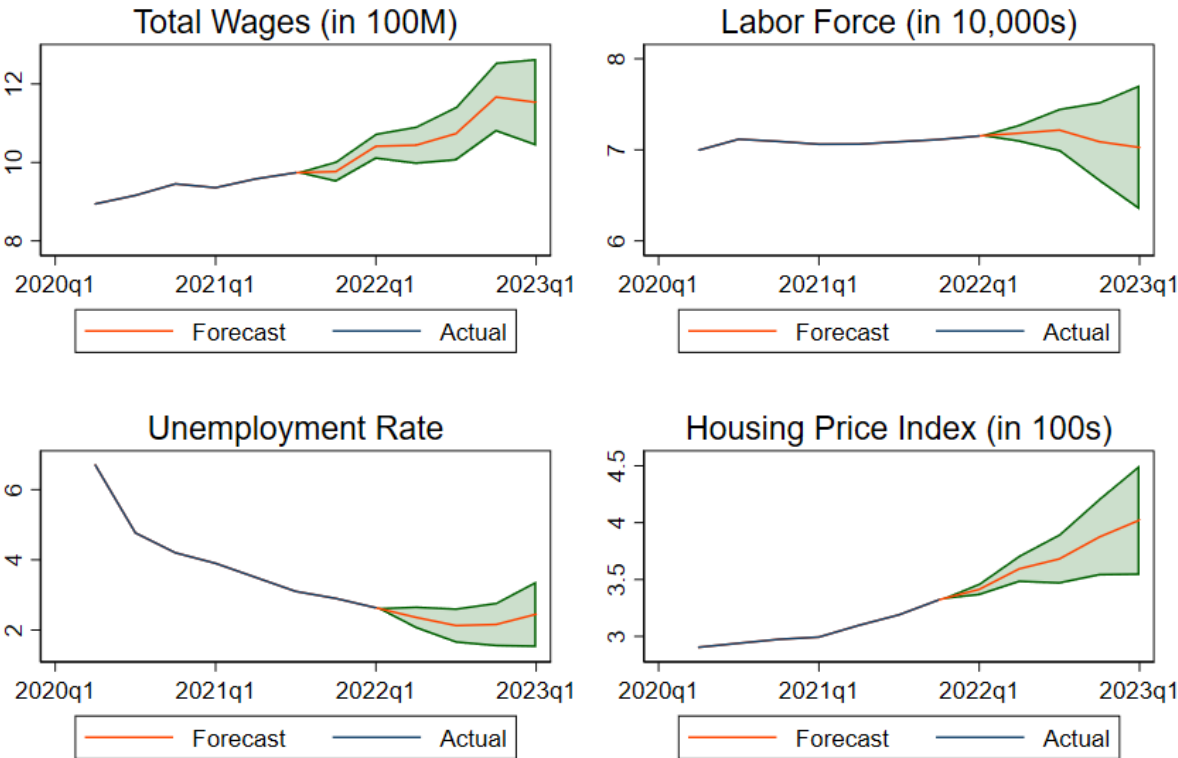


Fargo, ND-MN Outlook

Figure 3 shows an improved and positive economic outlook for Fargo, ND-MN. Total wages are forecast to follow a general growth trend through 2022. The Fargo labor force (the total number of people employed plus those seeking employment) is forecast to grow at nearly 1 percent per quarter through 2022. The unemployment rate is expected to continue to fall through 2022. The unemployment rate for 2022q1 was 2.17 percent. The Fargo housing price is forecast to continue its growth trend in 2022. This continued growth will depend on how much housing demand is impacted by rising mortgage rates.

Figure 4

Bismarck Quarterly Outlook

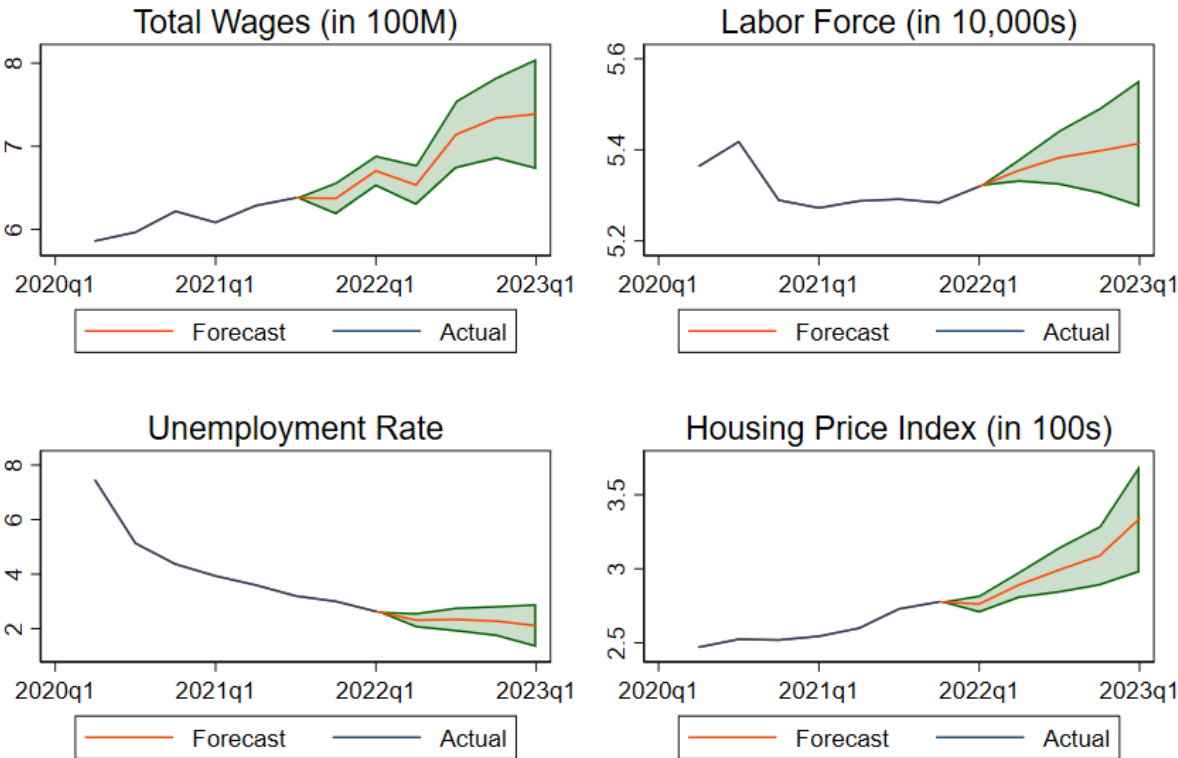


Bismarck, ND Outlook

The Bismarck, ND, metro area continues to have a positive economic outlook. Total wages are expected to grow throughout 2022. The size of the labor force grew by half a percentage point in 2022q1. This small growth may continue in the near term, but a small decline is possible late in 2022 into 2023. The unemployment rate was 2.63 percent in 2022q1, which is down from 2.9 percent in 2021q4. The unemployment rate is forecast to continue this decreasing trend. The Bismarck housing price index continues to grow at a rate near 3 percent per quarter. That growth rate is forecast to continue in the near term.

Figure 5

Grand Forks Quarterly Outlook

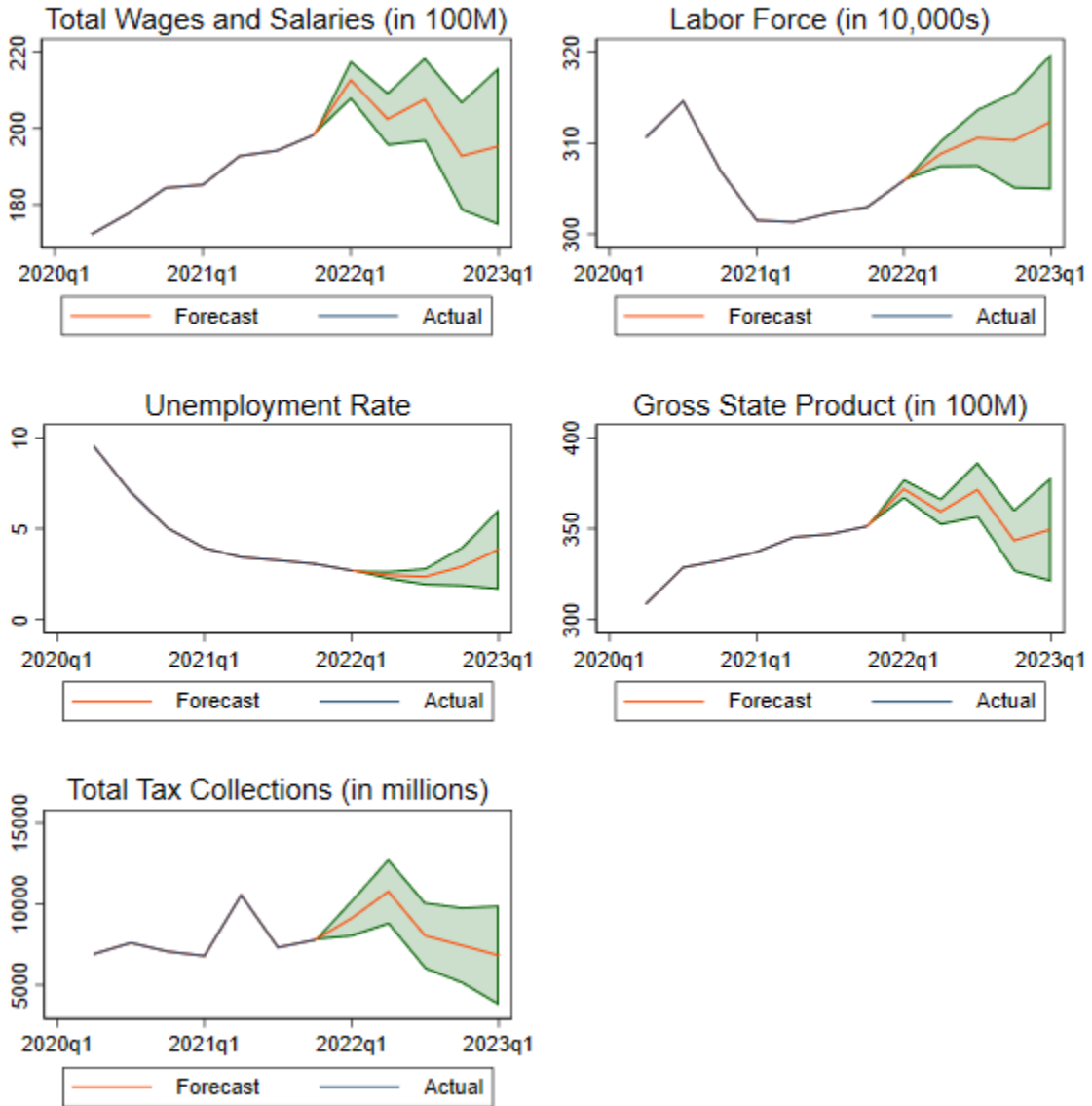


Grand Forks, ND-MN Outlook

The Grand Forks, ND-MN, metro area has a positive economic outlook. Total wages are expected to grow over 2022. The Grand Forks, ND-MN, labor force reversed course in 2022q1 by growing just over half a percentage point. This growth trend is expected to continue throughout 2022. The unemployment rate in 2022q1 was 2.63 percent, down from 3 percent in the previous quarter. Unemployment is expected to continue to fall throughout 2022. The Grand Forks housing price index experienced strong growth in recent quarters. A small downward move is forecast for the first quarter in 2022 before turning to strong growth throughout 2022 into 2023.

Figure 6

Minnesota Quarterly Outlook

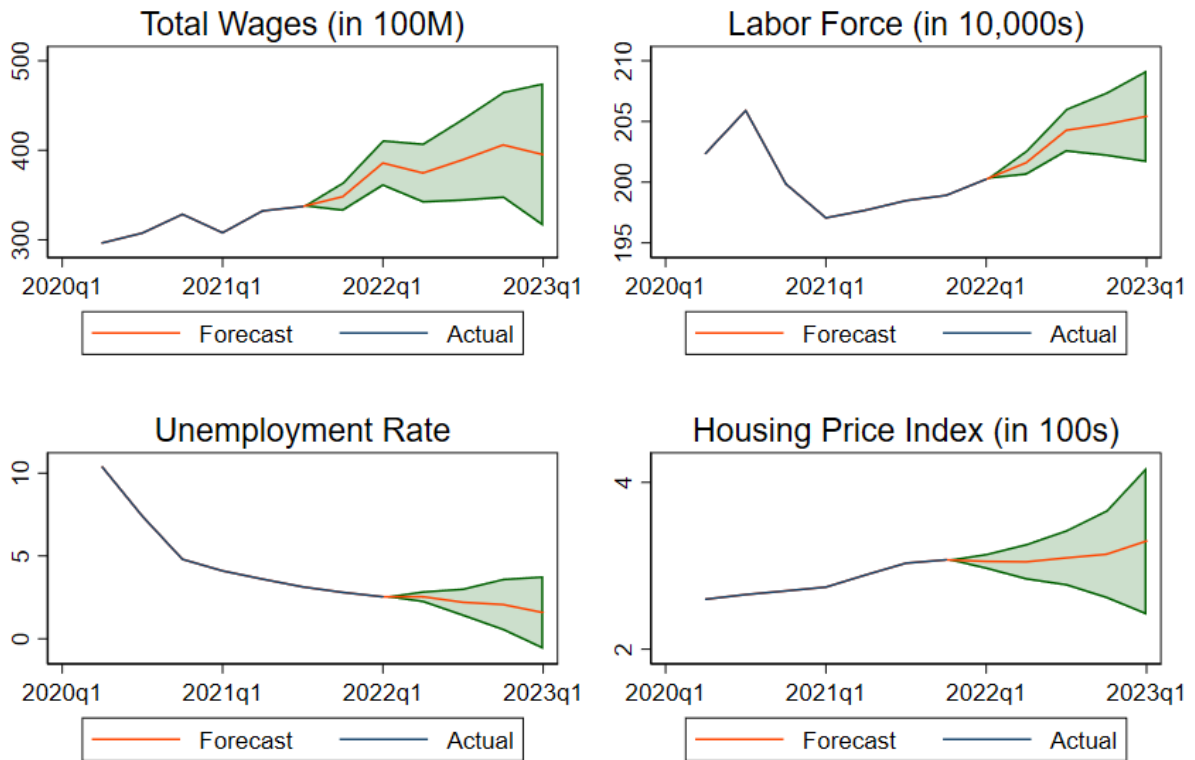


Minnesota Outlook

The economic outlook for Minnesota is mixed. The forecast is showing a reduced risk for decreases in the labor force despite small labor force declines in recent quarters. Total wages and salaries may experience some short-term growth in 2022q1 but are expected to decline over 2022. The labor force is showing signs of expansion. It grew by nearly 1 percent in the first quarter of 2022 (2022q1). The state unemployment rate fell 12 percent to a level of 2.7 percent in 2022q1. The unemployment rate may continue to fall in the upcoming quarters, but there is a forecast increase in the unemployment rate in 2022q4 into 2023. Minnesota's gross state product (GSP) grew by 1.23 percent in the fourth quarter of 2022. GSP is forecast to grow in 2022q1 before falling throughout the remainder of 2022. Total tax collections are forecast to increase in the first and second quarters of 2022 before falling below 2021 levels in the remaining quarters.

Figure 7

Minneapolis Quarterly Outlook

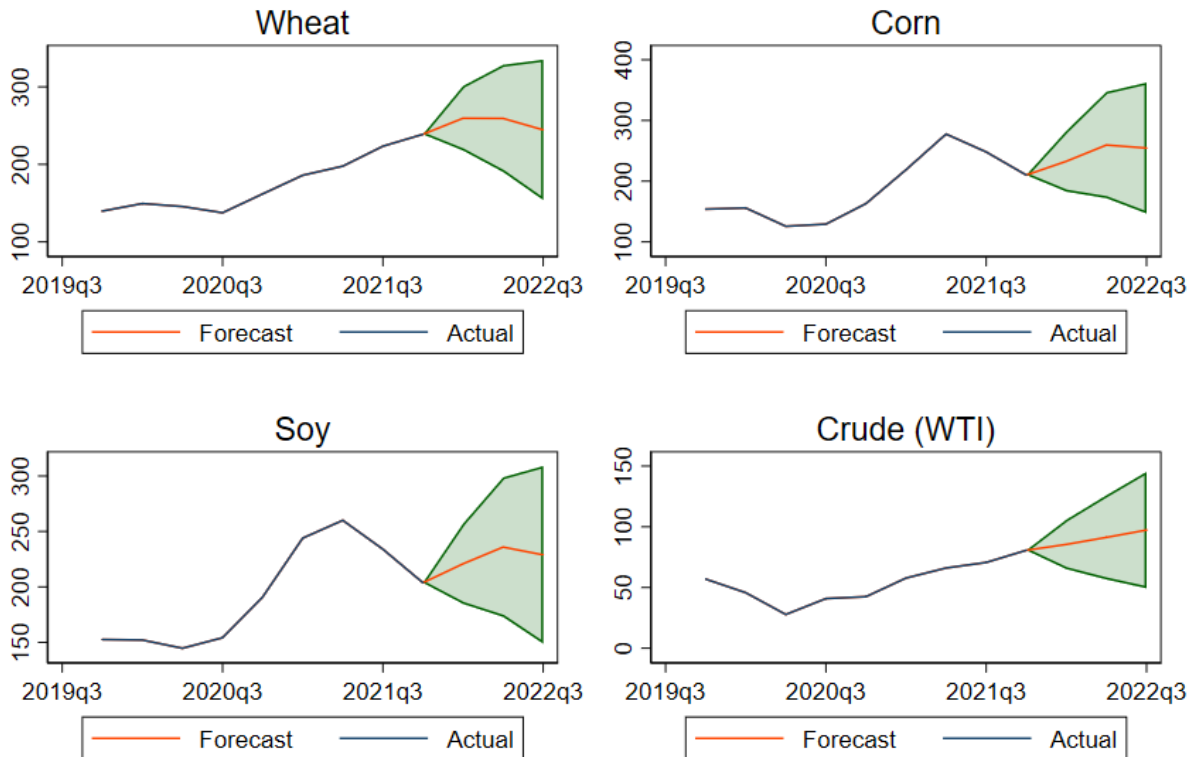


Minneapolis, MN Outlook

While the Minnesota outlook is mixed, the outlook for the Minneapolis area is promising. Total wages are forecast to follow a general growth trend through 2022. The Minneapolis labor force grew by 0.67 percent in 2022q1 and is forecast to continue to grow into 2023. The unemployment rate has rapidly declined from its pandemic peak and is expected to continue to fall through 2022. The unemployment rate for 2022q1 was 2.53 percent. The Minneapolis housing price index is forecast to hold steady in 2022.

Figure 8

Commodity Quarterly Outlook



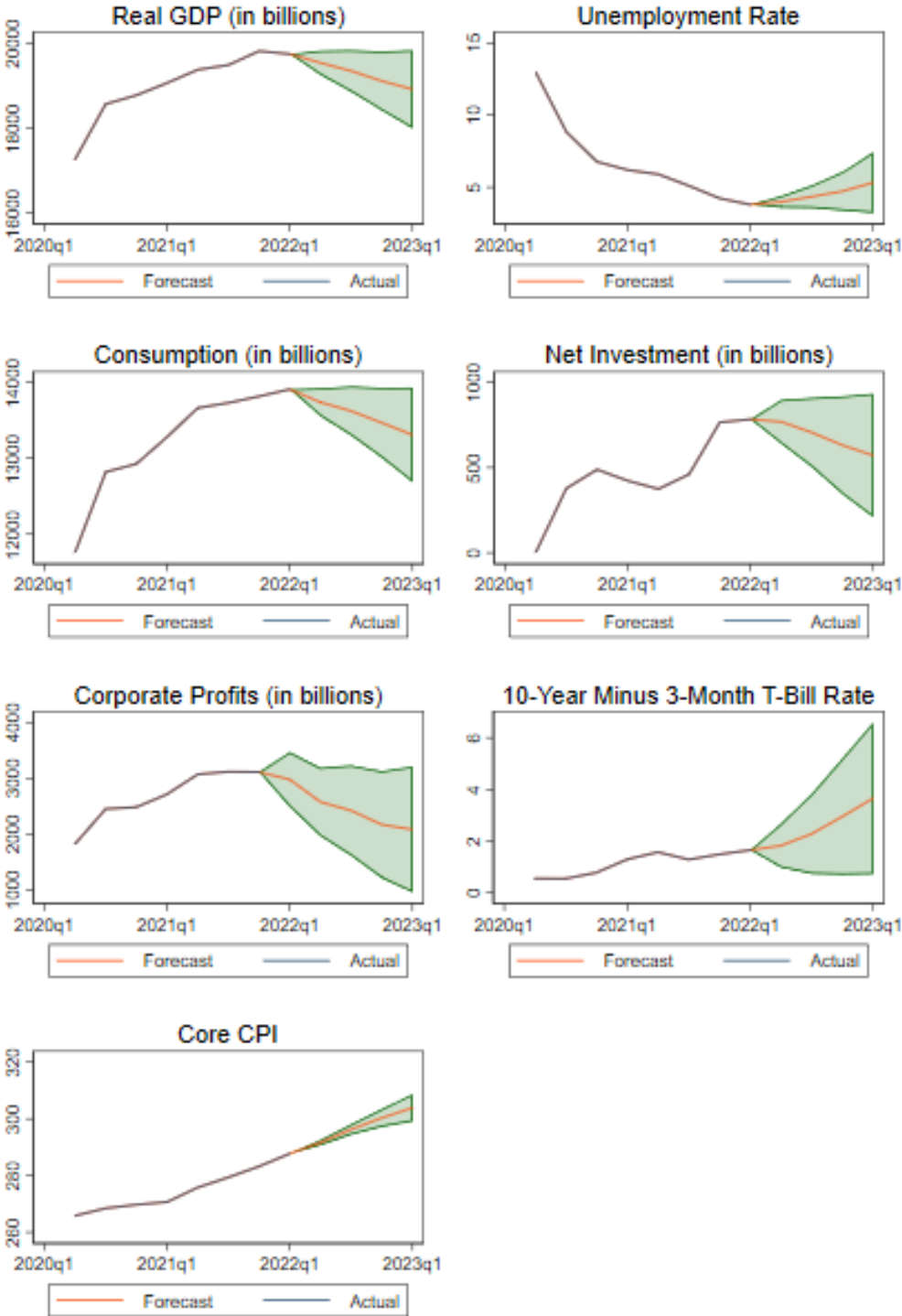
Commodity Outlook

Comparing last quarter's commodity outlook to this quarter reveals corn and soy prices increased as predicted. Likewise, the previous forecast predicted an increase in the soy price, which was realized in the first quarter of 2021. The price of wheat is expected to hold steady while corn and soy may edge higher. Crude prices have continued to increase and may continue to rise with global supply chain uncertainty remaining a factor.

The model uses a producer price index for wheat, corn, and soy prices. A producer price index measures the average changes in prices received by domestic producers for their output. The price of crude is the average daily price of West Texas Intermediate (WTI) futures contracts. The confidence intervals surrounding all commodity price trends are large, reflecting a high level of uncertainty in pricing trends.

Figure 9

National Quarterly Outlook



National Outlook

The national economic outlook is worse than the previous quarter. The first chart shows Real GDP, the inflation-adjusted value of the goods and services produced by all labor and assets in the United States. Real GDP decreased by 0.36 percent in the first quarter of 2022 (2022q1). This trend is forecast to continue with a growth rate of about negative 1 percent each quarter through 2022. The unemployment rate fell to 3.8 percent in 2022q1 but is forecast to rise throughout 2022. Consumption grew by 0.67 percent in 2022q1. Consumption is forecast to decline throughout 2022.

Net investment (the total amount of investment in capital by the business sector used to expand the capital stock) grew slightly in 2022q1. It is forecast to fall over the remainder of 2022. Corporate profits fell by 0.18 percent in 2021q4 and are forecast to fall throughout 2022. These trends are forecast to be accompanied by continued increases in the CPI (inflation).

On a positive note, the 10-year to 3-month treasury bill spread is forecast to remain positive. This spread is a commonly used leading indicator for the national economy. The spread historically goes negative (higher short-term bond yields compared to long-term) just before the economy transitions to recession.

Summary

The forecasts in this report use historical data to predict future trends. The model used to generate the forecasts was run using data available on April 28, 2022.

North Dakota

Economic forecasts for North Dakota show a state with a growing economy. Forecasts show increasing wages and salaries, a low unemployment rate, and an expected increase in the labor force. The outlook for tax collections remains strong.

Fargo, ND-MN

The Fargo, ND-MN, metro area is showing signs of economic growth. Wages, labor force, and housing prices are forecast to follow a growth trend, while the unemployment rate is forecast to decline.

Bismarck, ND

The Bismarck, ND, metro area is showing signs of economic growth. Wages and housing prices are forecast to follow a growth trend with a declining unemployment rate. The labor force looks to hold steady.

Grand Forks, ND-MN

The Grand Forks, ND-MN, metro area is showing signs of economic growth. Wages, labor force, and housing prices are forecast to follow a growth trend, while the unemployment rate is forecast to decline.

Minnesota

The Minnesota outlook is mixed. While the unemployment rate has been declining, that trend may soon change. Total wages, gross state product, and total tax collections all show signs of negative growth rates, while the labor force is forecast to increase.

Minneapolis, MN

The Minneapolis, MN, metro area is showing signs of economic growth despite the poor trends in the state and national outlooks. Wages, labor force, and housing prices are forecast to follow a growth trend, while the unemployment rate is forecast to decline.

National

The national economy shrank in the previous quarter and shows signs this will continue throughout 2022. Consumption, net investment, and corporate profits are expected to decline. Increases in the unemployment rate and price level (inflation) are expected.