

# North Dakota Economic Outlook

# MOODY'S

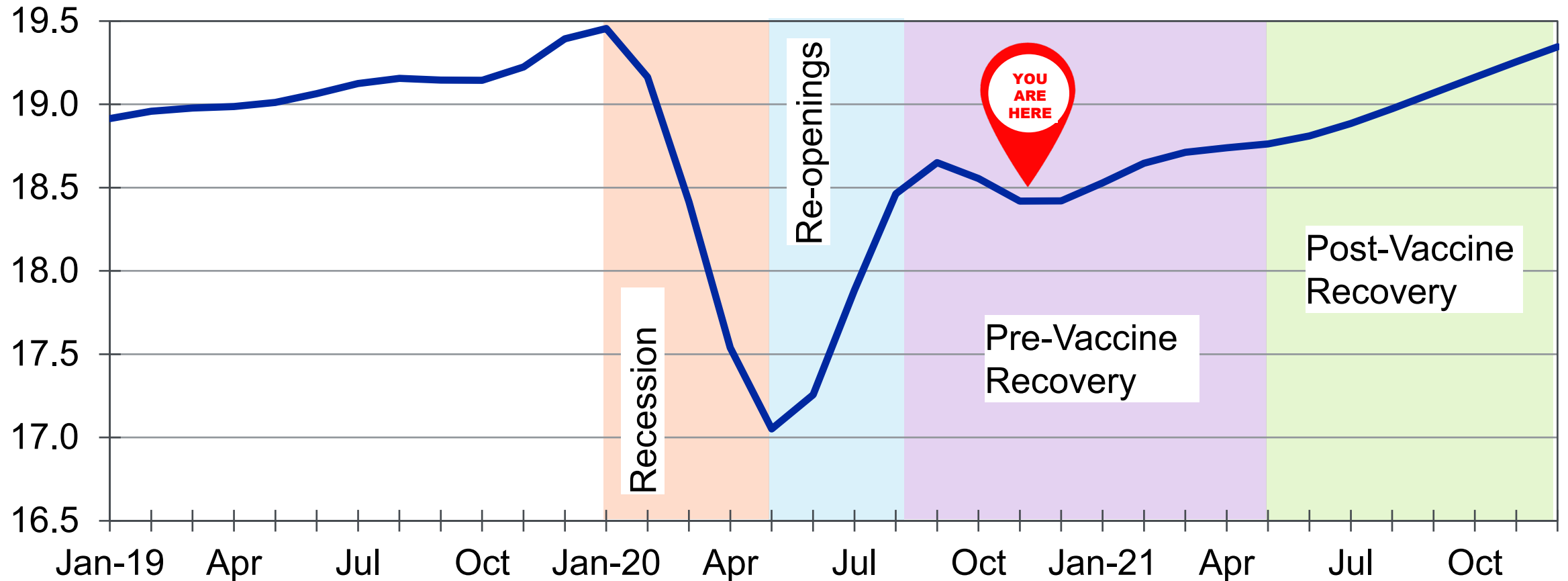
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# The Pandemic Economy Roadmap

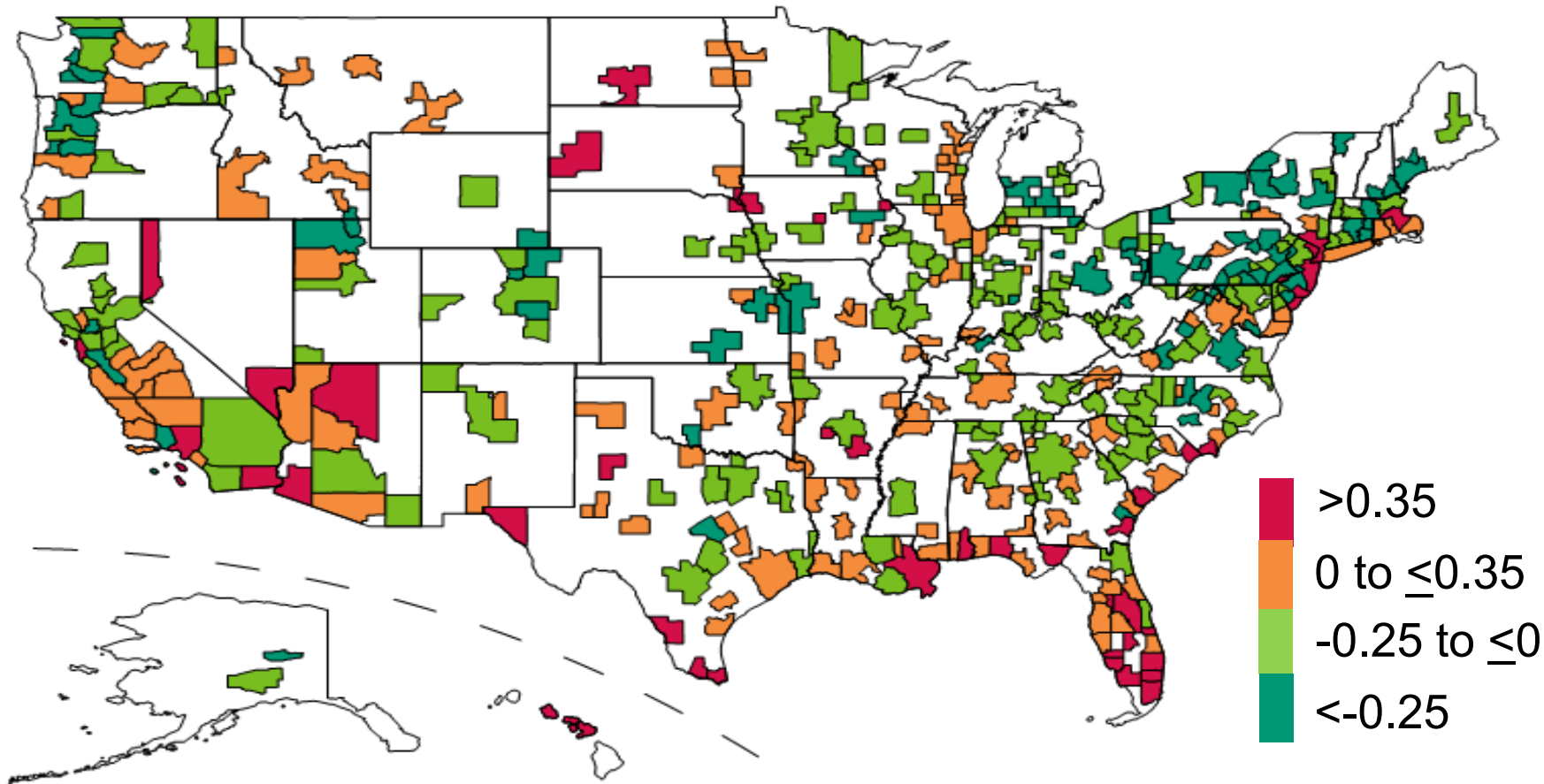
U.S. Real GDP, Moody's Analytics Baseline Scenario, Trillions 2012\$, SAAR



Sources: BEA, Moody's Analytics

# Where the Economy Is Most Vulnerable

COVID Economic Exposure Score, 0=metro area avg, Nov 2020



## MA Economic Exposure Score Key Components:

- Previous infections
- Demographics
- Commuting patterns
- Population density
- Industrial mix
- Income levels

Source: Moody's Analytics

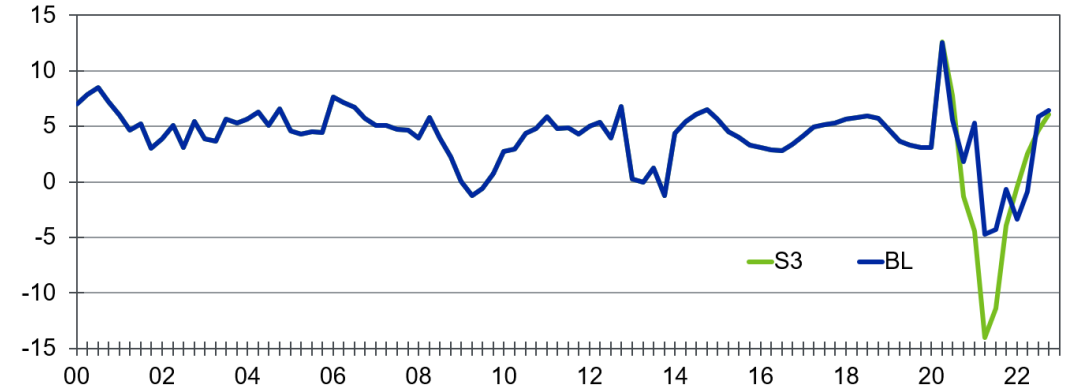
# Important Forecast Assumptions and Risks

## Stimulus Assumptions Are Key

- Federal fiscal stimulus helped buoy personal income thus far into the recession, offsetting some potential revenue weakness.
- Expiration of key income assistance measures like enhanced UI represent a major difference in our baseline and downside scenarios.
- Knock-on effects from lower consumer spending could prolong the recession well into FY22 in most states.

## Incomes Drive Revenue Forecast

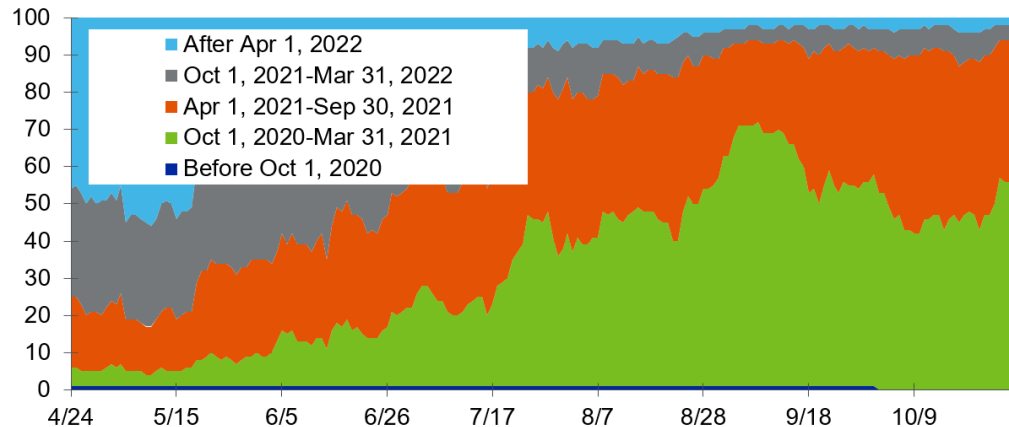
U.S. disposable personal income, % change yr ago



Sources: BEA, Moody's Analytics

## Vaccination Availability

Probability, timeframe for 25 million inoculations in the U.S. (10/29)



Sources: Good Judgment Project, Moody's Analytics

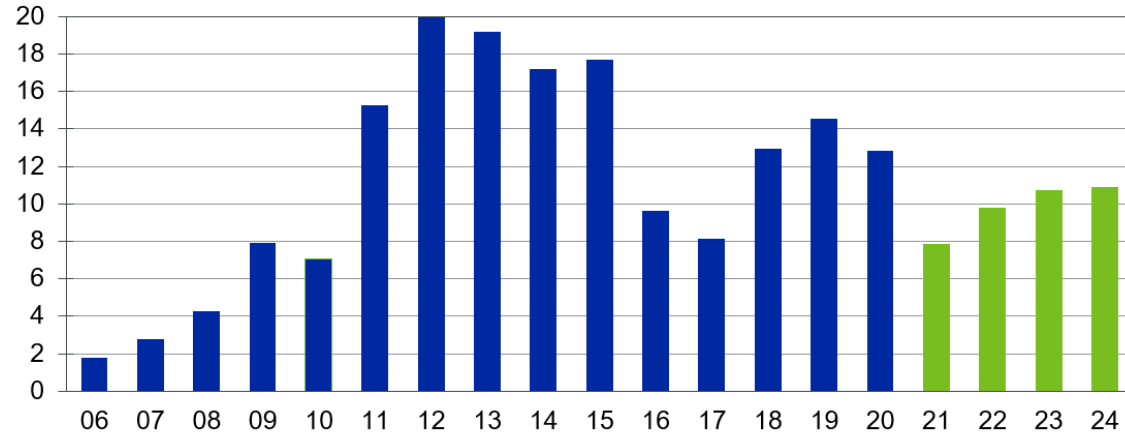
## Vaccine Roll-out AND Acceptance

- Budget forecast assumes a vaccine is released in first quarter of 2021, with relatively widespread acceptance by mid-summer.
- It will take time to get Americans comfortable with any vaccine and to accelerate to a normal pace of recovery.
- Recent developments represent a significant upside risk to the forecast should acceptance prove faster than expected.

# Drilling Activity Key to Revenue Recovery

## Energy's Outsize Role in Taxable Sales

Mining direct spend as a % of total taxable sales and purchases



Sources: ND Tax Commissioner's Office, Moody's Analytics

## Spillover to Other Industries

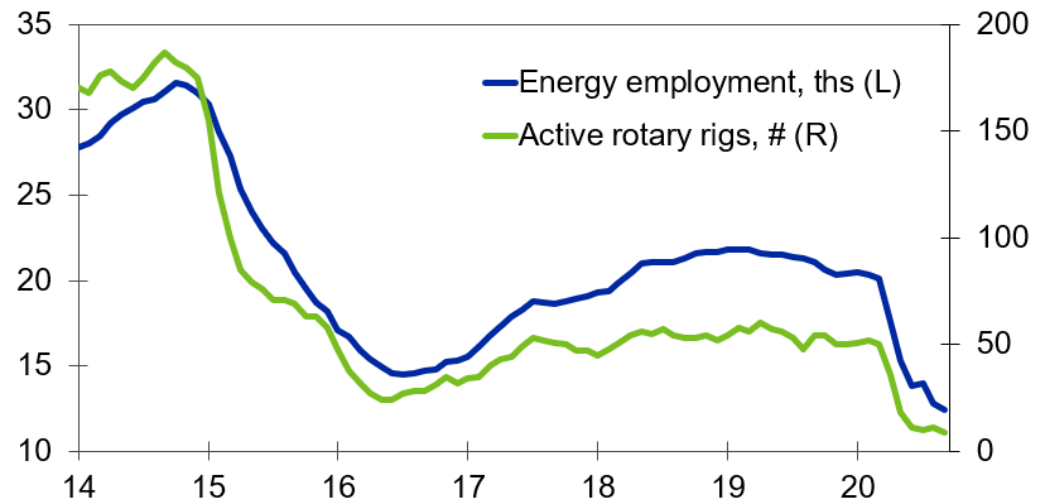
- The employment impact from fewer rigs operating in the state creates additional stress to the revenue base.
- This will play out in lower sales taxes immediately, and personal and corporate income tax collections further down the road.

## Direct Impacts

- Direct energy expenditures make up the largest share of North Dakota taxable sales and purchases.
- Fiscal 2021 industry spending is forecast to be the lowest since just after the Great Recession

## Drilling and Jobs

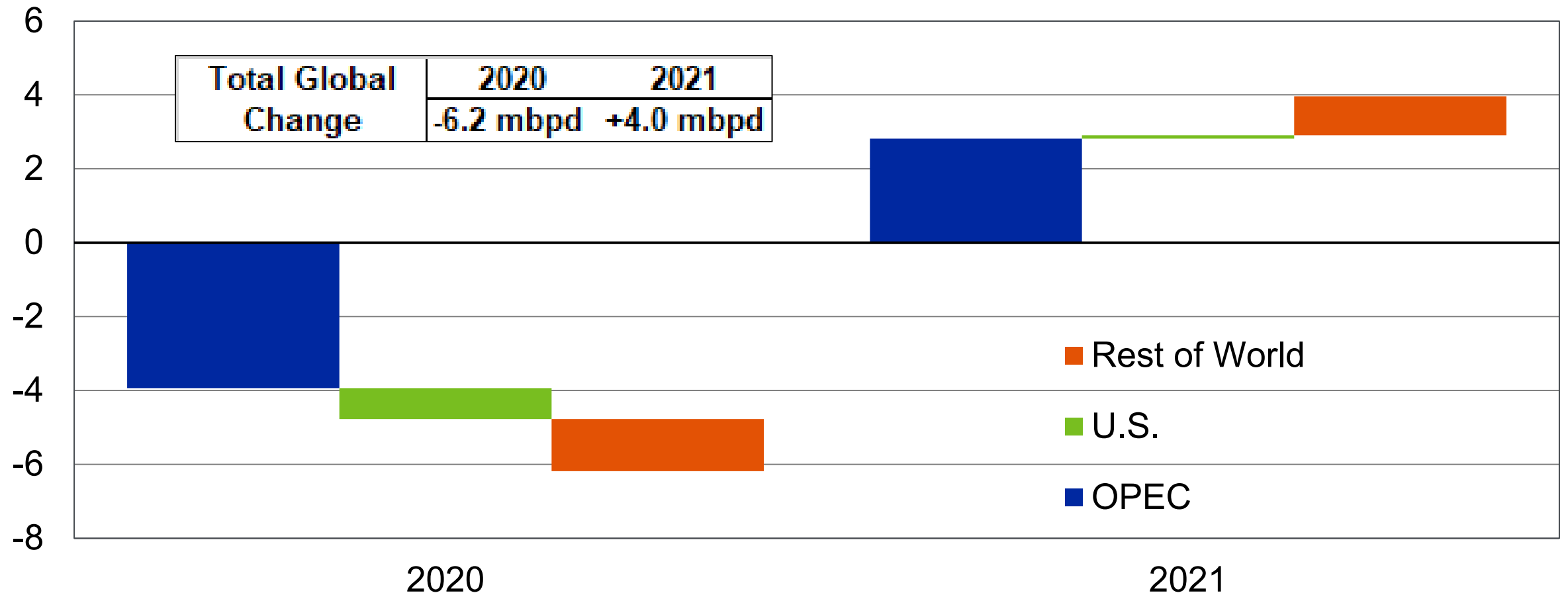
North Dakota



Sources: BLS, Baker Hughes, Moody's Analytics

# OPEC Will Lead Production Rebound

Year over year change in crude oil production, million barrels per day



Sources: EIA, Moody's Analytics

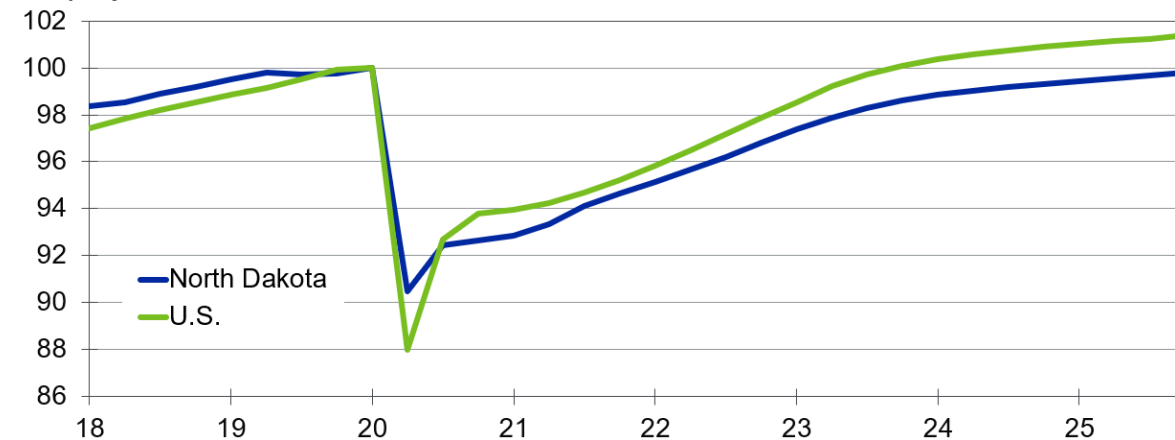
# Long Road Ahead

## Core Industries Hurting the Most

- Job losses in the state's core industries have been more severe than other states thus far in the business cycle.
- Energy, construction, transportation and manufacturing are leading the way in terms of losses.
- Consumer industries remain much more resilient than the national average.

## Lengthy Recovery Ahead

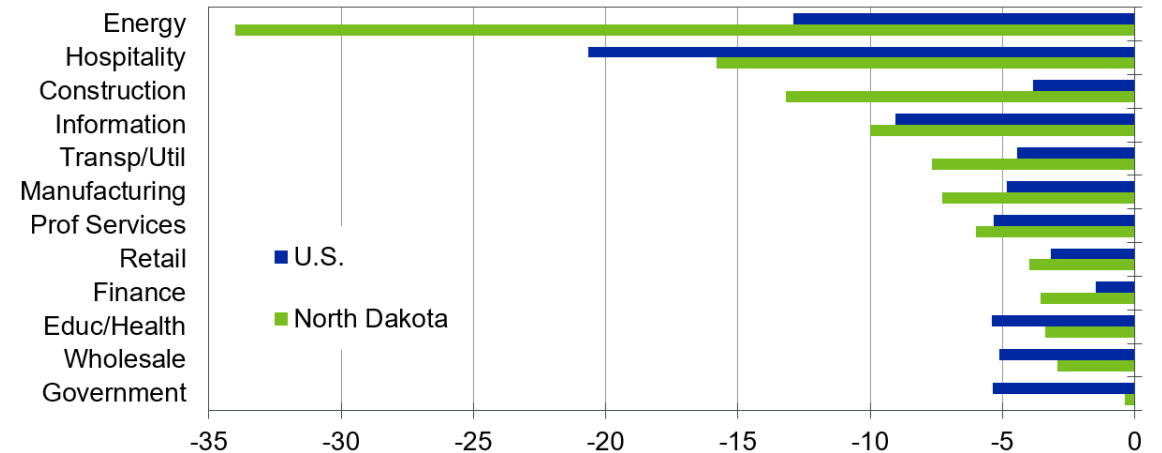
Employment, 2020Q1=100



Sources: BEA, Moody's Analytics

## Underperforming in Core Industries

% change in jobs from Feb 2020 by industry, Oct 2020



Sources: BLS, Moody's Analytics

## Long Road Ahead

- Imbalances in energy markets will prevent the state's core driver from mounting an aggressive recovery.
- North Dakota labor market could take as many as five years to get back to pre-pandemic levels.



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