# The Economic Toll of the Coronavirus Contraction

## Predicting the Decline in Economic Activity from the Virus

### Jake Schneider

#### Wednesday, April 15, 2020

A large white building

Description automatically generated

*Wall Street in the Financial District in Lower Manhattan of New York City closed and vacant of people and reported during the COVID-19 breakout caused by the coronavirus pandemic.*

Photo: iStock

In exactly two weeks, on April 29, the Bureau of Economic Analysis (BEA) will release its advance estimate of 1st Quarter Gross Domestic Product (GDP). This will be our nation’s—and the world’s—first glimpse of the economic toll born by the United States economy during the Coronavirus pandemic.

Early indicators signal that the devastation might be quite severe. Countless businesses are shuttered, trillions of dollars of market value on the financial indices have been lost and unemployment claims have been at their highest levels *ever* for the past three weeks consecutively.[[1]](#footnote-1)

A sign on the side of the street

Description automatically generated

*Santa Monica, CA/USA - March 21, 2020: Department stores closed on Third Street Promenade during coronavirus quarantine.*

Photo: iStock

Currently we do not know the extent of the contraction. With only preliminary reports showing the potential loss in economic activity, it is not clear what the BEA’s first GDP numbers will report when released at the end of the month. To help add clarity, I have conducted a cursory analysis extrapolating from known data to provide an estimate of the economic loss. The results demonstrate a potentially severe contraction.

A screenshot of a cell phone

Description automatically generated

Using data from The Conference Board and the Federal Reserve Bank of St. Louis (FRED) in combination with assumptions about unemployment and productivity, I estimate the following results for the US economy for 2020:

* **Base Case Scenario** with 14% Unemployment and Moderate Pull-Back in Output per Worker: Decline in GDP of $4.3 Trillion
* **Best Case Scenario**with 10% Unemployment and Low Pull-Back in Output per Worker: Decline in GDP of $3.1 Trillion
* **Worst Case Scenario** with 25% Unemployment and High Pull-Back in Output per Worker: Decline in GDP of $6.9 Trillion

The estimates are just that—estimates. Without more detailed and temporal data, it is difficult to forecast *future* economic activity, let alone predict the *present*. As such, these results should be viewed as a continuum of possible values with bounded ranges of statistical probability attached to each.

For example, is it likely that the unemployment will average 25%, the peak unemployment rate for the Great Depression, throughout *all* of 2020? No, but that is why this is the worst case, most devastating scenario. On the other hand, is it likely that unemployment will only be 10%, the peak unemployment for the Great Recession, for 2020? Again, probably not; Federal Reserve Chairwomen Janet Yellen reported that unemployment in March was probably *already* at 13% with the true “value heading much higher.”[[2]](#footnote-2) Thus, the reality is likely somewhere in the middle and to reflect this reality, our ‘Base Case’ Scenario relies on at 14% unemployment, as predicted by this author previously [here](https://medium.com/@jschneids13/the-coronavirus-contraction-may-be-more-severe-than-the-great-depression-8e31f5196f2), and a moderate decline in worker productivity.

We won’t know for sure the true economic and financial effects of the crisis until March later this year. Although the first GDP release will be announced on April 29, we will know have the final revisions to this number until June 25, nearly three months after the 1st Quarter has ended.[[3]](#footnote-3) In addition, even beyond the 1st Quarter impact, the Coronavirus will likely hamper our economy until a viral therapy is synthesized. Thus, it might be months—or even years—before we fully understand its true economic impact.

## About the Author

Jake W. Schneider is the President, CEO and Founder of Schneider Economics, LLC, a bespoke economic research firm that uses the intersection of tried-and-true analytics with up-and-coming data science techniques. Mr. Schneider is a Master in Public Administration in International Development candidate at the Harvard Kennedy School (2020) where he concentrates on the intersection of economics, public policy and international development. Previously, Mr. Schneider has served as a consultant for the Multilateral Investment Guarantee Agency (MIGA) at the World Bank, a researcher at The Brookings Institution and an analyst reporting directly to former Federal Reserve Chairman Dr. Alan Greenspan at Greenspan Associates, LLC. Mr. Schneider holds a B.A. in economics *magna cum laude* with honors from The College of William & Mary in Virginia.

## About the Analysis

The complete code can be found on the author’s GitHub page: <https://github.com/jschneids13/GDP-Forecasting-2020>.

# Bibliography

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Tappe, Anneken. 2020. *A 3,000% Jump in Jobless Claims Has Devastated the US Job Market*. CNN Business*.* April 2. Accessed April 9, 2020. https://www.cnn.com/2020/04/02/economy/unemployment-benefits-coronavirus/index.html.

1. (Tappe 2020) [↑](#footnote-ref-1)
2. (Knutson 2020) [↑](#footnote-ref-2)
3. (Bureau of Economic Analysis 2020) [↑](#footnote-ref-3)