

RECESSION REMEDIES



Lessons Learned from the use of Nontraditional Data during COVID-19



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Nontraditional Data

Over the last decade, an explosion of data collection has led to a robust set of nontraditional data sources for both monetary and fiscal policymakers to incorporate into their decision-making. In normal times, existing and time-tested datasets compiled by government statistical agencies often do a good job of capturing the evolution of the economy at a monthly or quarterly frequency, accurately and without bias. However, when the economy turns quickly—times when policymakers need to be particularly responsive—nontraditional data sources may be able to fill important gaps.

The COVID-19 crisis provided a test case of the usefulness of these alternative data sources. Nontraditional data sources aided—or, in some cases, did not aid—policy decision-making during the pandemic. These alternative data sources provided a view into economic activity weeks or months before most traditional data would become available. They also illuminated household and business activity at a granular level, helping to clarify the mechanisms affecting the pandemic economy. Having access to nontraditional data specific to this episode also allowed policymakers insight into how the virus and associated health policies were evolving. One important question is whether these data were valuable only because of the unusual and rapid nature of the recent downturn or whether they will be important in future economic crises.

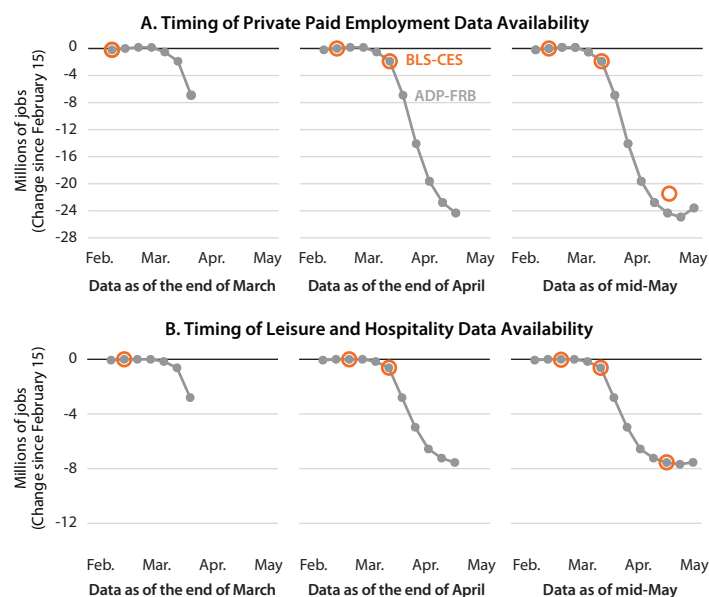
The Benefits and Pitfalls of Nontraditional Data Sources

- Timely measurement of the economy is aided by the use of nontraditional datasets to learn, in close to real time, about aggregate developments in the economy that will be reflected only later in traditional data. The benefit of such timely measurement is important to policymakers, especially in times of sharp contractions, such as March 2020.
- The granularity of nontraditional data sources means that, due to their nature, some nontraditional data sources may provide reads on aspects of firm or consumer behavior for which there is no standard government data source (even with a lag). The finer granularity could be related to frequency (e.g., daily data), geography (e.g., data broken down by region), or individual characteristics. Generally, being

able to do granular analyses in almost real time could allow for faster evaluations of the costs of shocks or the benefits of policies, which in turn could serve to fine-tune subsequent policy actions.

- The availability of data from so many different sources allows policymakers to answer specific, unanticipated questions that are unique to a particular crisis. For these unique uses, it is not clear that investment in generating these statistics during normal times would be worth the cost, underscoring the importance of quick access in times when they are.
- Unlike government statistics, most alternative data sources are not designed with the purpose of generating statistics but are instead a byproduct of another use (such as card transactions). As such, the data are not designed to be representative of consumers or firms and may be hard to interpret or, worse, misleading.

Snapshots of Employment Data in 2020



Source: ADP, Inc. 2020, Bureau of Labor Statistics BLS n.d.; authors' calculations.



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At the onset of any crisis, economic policymakers must identify whether they are confronting a demand shock or a supply shock and the magnitudes and likely persistence of those shocks. As the episode unfolds, policymakers also want to understand how the shocks are propagating to the broader economy. Consequently, much of the nontraditional data used in the pandemic recession will likely prove useful in the future: daily point-of-sale card swipe data, surveys of consumer sentiment, credit card data, and weekly automotive transactions should give an early warning of a downturn.

High-frequency, granular data will probably continue to reveal aspects of business cycle dynamics that we can learn from for many years. Understanding the propagation of shocks to the rest of the economy may be aided by nontraditional data on payrolls, business exits/entries, or supply chain disruptions. These are some of the series policymakers need to have and understand for every crisis, and they should plan for the next crisis by investing in nontraditional data sources now—to build longer time series of timely indexes to supplement traditional data sources, to improve the usability of existing data, to validate the granular details that may be available and become important during a downturn, and to hone their skills in working with these data.

It is also important to understand the pitfalls of using nontraditional data. The absence of a long time series in many of these series hinders seasonal adjustment, makes levels difficult to interpret, and impedes comparisons at a business cycle frequency. These data can also be unreliable because they are nonrepresentative, methodologically inconsistent, highly variable or noisy, or susceptible to discontinuation. The resources to develop the human capital to address these issues are large—and that is over and above the cost of the data itself.

Even if these nontraditional data sources have limited use during an expansion, it is worth developing them to be prepared for the next crisis, the next government shutdown, or the unexpected. Some shocks, often supply shocks, seem more idiosyncratic across episodes, and so the relevant data are as well. In the 1970s, timely data on global oil markets and inflation expectations would have been valuable but were largely unavailable. In the most recent recession, data on COVID-19 hospitalizations and public shutdowns were valuable but seem unlikely to be important in future cyclical events. It is hard to know what types of idiosyncratic series will be valuable in future episodes, but a culture that embraces transparency and data sharing can only help.



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Overview

The COVID-19 pandemic posed an extraordinary threat to lives and livelihoods, triggering a sharp economic downturn in the United States. Yet, the recovery was faster and stronger than nearly any forecaster anticipated due in part to the swift, aggressive, sustained, and creative response of U.S. fiscal and monetary policy.

Recession Remedies evaluates the breadth of the economic policy response. Chapters address Unemployment Insurance, Economic Impact Payments, loans and grants to businesses, help for renters and mortgage holders, aid to state and local governments, policies that targeted children, Federal Reserve policy, and the use of nontraditional data to monitor the economy and guide policy.

The Hamilton Project and the Hutchins Center on Fiscal & Monetary Policy at the Brookings Institution gathered scholars with deep expertise to describe specific economic policy responses to the pandemic, summarize the available evidence about the outcomes of those policies, and analyze the lessons learned for future recessions by separating policies that were pandemic-specific from those that were not. Because when the next recession arrives, it most likely won't be triggered by a pandemic. Overall, we learned that:

- A strong, broad, and inclusive social insurance system provides effective relief to households as well as macroeconomic stimulus.
- The sizable fiscal and monetary policy response helped stabilize the economy. However, its size, particularly in the spring of 2021, was a factor behind the unwelcome surge in inflation.
- Generous Unemployment Insurance may have smaller disincentive effects than previously thought.
- Support for the business sector should be more targeted.
- Support for households should better reflect the state of the economy and the needs of the households.
- Federal and state governments should improve their administrative capacity now so they can respond quickly to changing economic conditions.
- Policymakers need more reliable, representative, and timely data.