

TRACKING THE COVID-19 ECONOMY ANALYSIS AND COMMENTARY

How Do We Interpret Our Latest Survey Results?

By Michael Trebing

June 18, 2020

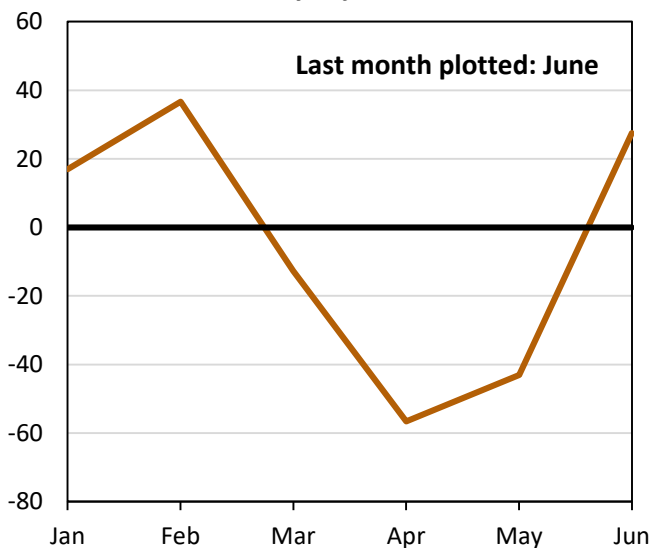
Taken together, results from today's releases of our *Manufacturing Business Outlook Survey (MBOS)* and of our *Weekly Business Outlook Survey on the COVID-19 Outbreak (COVID Survey)* offer a clearer picture of the region's economy. Moreover, contrasting the headline numbers from both surveys affords an opportunity to better understand how to interpret each survey's results, given the distinct approach that each survey employs.

As reported in the June *MBOS*, the diffusion index for current general activity returned to positive territory — increasing significantly from -43.1 in May to 27.5 this month. The weekly *COVID Survey* has also shown steady improvement since the week ending April 19, when an average of firm demand was -30.1 percent among manufacturers. As of the week ending June 14, manufacturing firm demand was down 18.4 percent.

How do we reconcile a sharp increase into positive territory for the *MBOS* while the *COVID Survey* shows steady improvement yet remains negative?

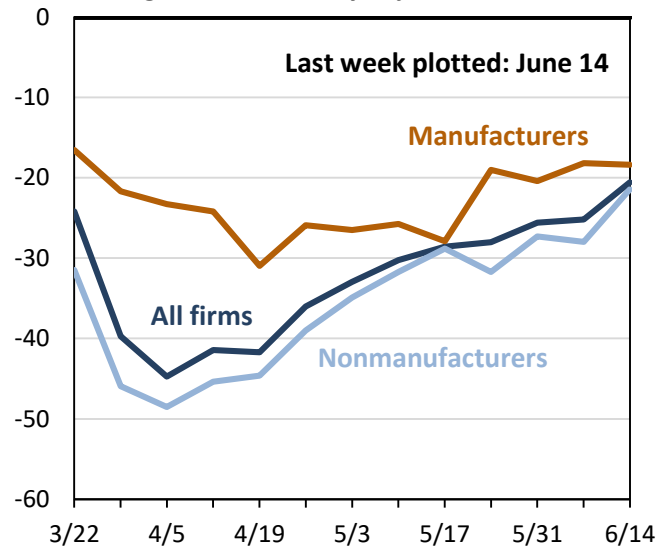
MBOS: Current General Activity Index in 2020

Diffusion Index; seasonally adjusted



COVID Survey: Average Impact on Past Week's Demand

Percent change; not seasonally adjusted



Interpretation of the MBOS

The 70.6 point increase in June is not surprising given how diffusion indexes are constructed. The diffusion index is a summary measure defined as the percentage of participants indicating an increase (in activity, employment, new orders, etc.) for a given month minus the percentage of survey participants indicating a decrease.¹ As such, the diffusion index tells us little about the magnitude of change. Rather, it conveys the direction of change and the breadth of that trend among the firms surveyed.

¹The percentage of firms indicating an increase in activity rose from 15 percent in May to 46 percent in June, while the percentage indicating declines fell from 58 percent to 19 percent. Thus, the diffusion index rose from -43 (or 15 – 58) to 27 (or 46 – 19).

Michael Trebing is a senior regional economic analyst in the Research Department of the Federal Reserve Bank of Philadelphia. The views expressed in this article are not necessarily those of the Federal Reserve.



TRACKING THE COVID-19 ECONOMY ANALYSIS AND COMMENTARY

In light of widespread falling demand and closures of some manufacturing plants across the region since mid-March, the index dropped below zero in March (to -12.7) then fell precipitously in April to -56.6. Through the course of March and April, the percentage of firms reporting declines more than tripled to over 60 percent. The June surge to 27.5 from May's -43.1 reflects that a majority of firms were either operating at reduced capacity or were closed altogether but now have begun coming back to life as state restrictions are relaxed.

The Special Questions in the June *MBOS* shed light on how much production has been impacted by the pandemic.

- When asked to estimate their total production changes for the three-month period ending in June, compared with the first three months of the year, the median firm response was that production is expected to be 25–30 percent lower.
- When asked to estimate their current capacity utilization rate as well as their utilization rate one year ago, the median firm response was 70–80 percent for the second quarter of this year, notably lower than the median rate of 80–90 percent reported one year ago.

Interpretation of the *COVID Survey*

Since mid-March, many of the same manufacturing firms have responded to our weekly *COVID Survey*, in which they are asked to estimate the impact of COVID-19 on new orders and sales, relative to what would have been expected before the crisis. This represents a more direct estimate of demand than the *MBOS's* diffusion index.

By mid-April, manufacturing firms were indicating a collapse of sales and new orders of about 30 percent. Reports improved slightly over the next four weeks. Since mid-May, the firms have indicated less impact, suggesting that some demand has returned, but as of the week ending June 14, the estimated demand for firms' output remains 18 percent below pre-crisis expectations.

Reconciliation of the *MBOS* and the *COVID Survey*

At present, both surveys indicate that economic activity has increased since May. Both can be interpreted as rebounding from lower levels, yet neither indicates a return to normal. Time will tell how far the recovery progresses. However, the nature of the *MBOS's* diffusion index means that it will appear to return to more normal levels of positive readings even as the current level of activity remains below the peak of the prior expansion. The *MBOS* will help us gauge whether the recovery continues. The *MBOS's* Special Questions and the *COVID Survey* offer greater insight into how far that recovery takes us toward pre-crisis levels of economic activity.

For the latest *MBOS* and *COVID Survey* releases, see:

<https://www.philadelphiafed.org/research-and-data/regional-economy/business-outlook-survey/2020/bos0620>

<https://www.philadelphiafed.org/-/media/research-and-data/regional-economy/covid-19-survey/2020/20200618/covid-19-bos-survey.pdf>

For more on diffusion indexes and the value of the long-running *MBOS*, see:

<https://www.philadelphiafed.org/-/media/research-and-data/publications/economic-insights/2018/q4/eiq418-mbos.pdf>

