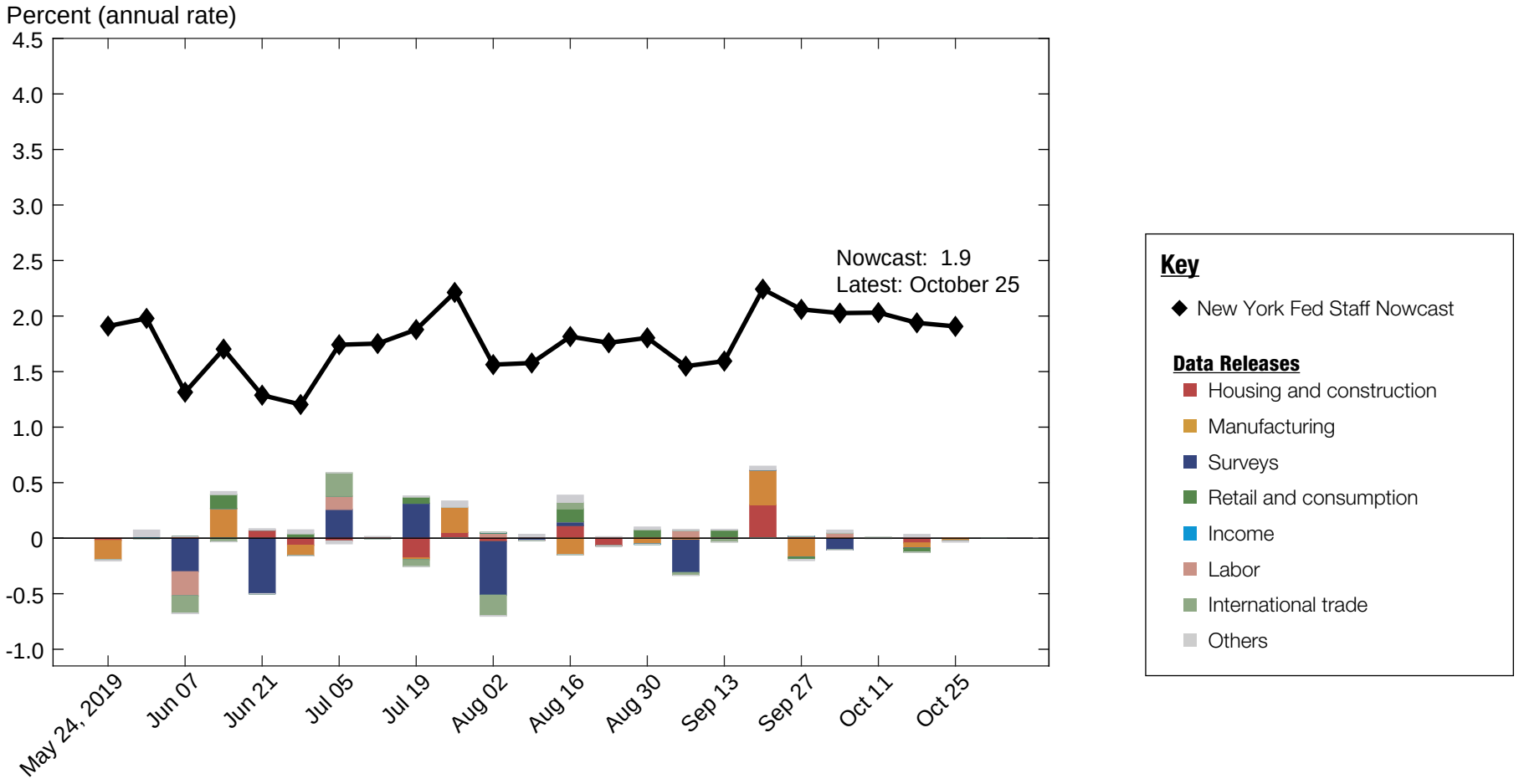
NOWCASTING REPORT

Updated: October 25, 2019

- The New York Fed Staff Nowcast stands at 1.9% for 2019:Q3 and 0.9% for 2019:Q4.
- News from this week's data releases left the nowcast for 2019:Q3 broadly unchanged and decreased the nowcast for 2019:Q4 by 0.1 percentage point.
- Negative surprises from manufacturing data accounted for most of the decrease for 2019:Q4.

The New York Fed Staff Nowcast is not an official forecast of the Federal Reserve Bank of New York, its president, the Federal Reserve System, or the Federal Open Market Committee (FOMC).

1| 2019:Q3 GDP Growth



Source: Authors' calculations, based on data accessed through Haver Analytics.
Note: Colored bars reflect the impact of each data release on the nowcast.

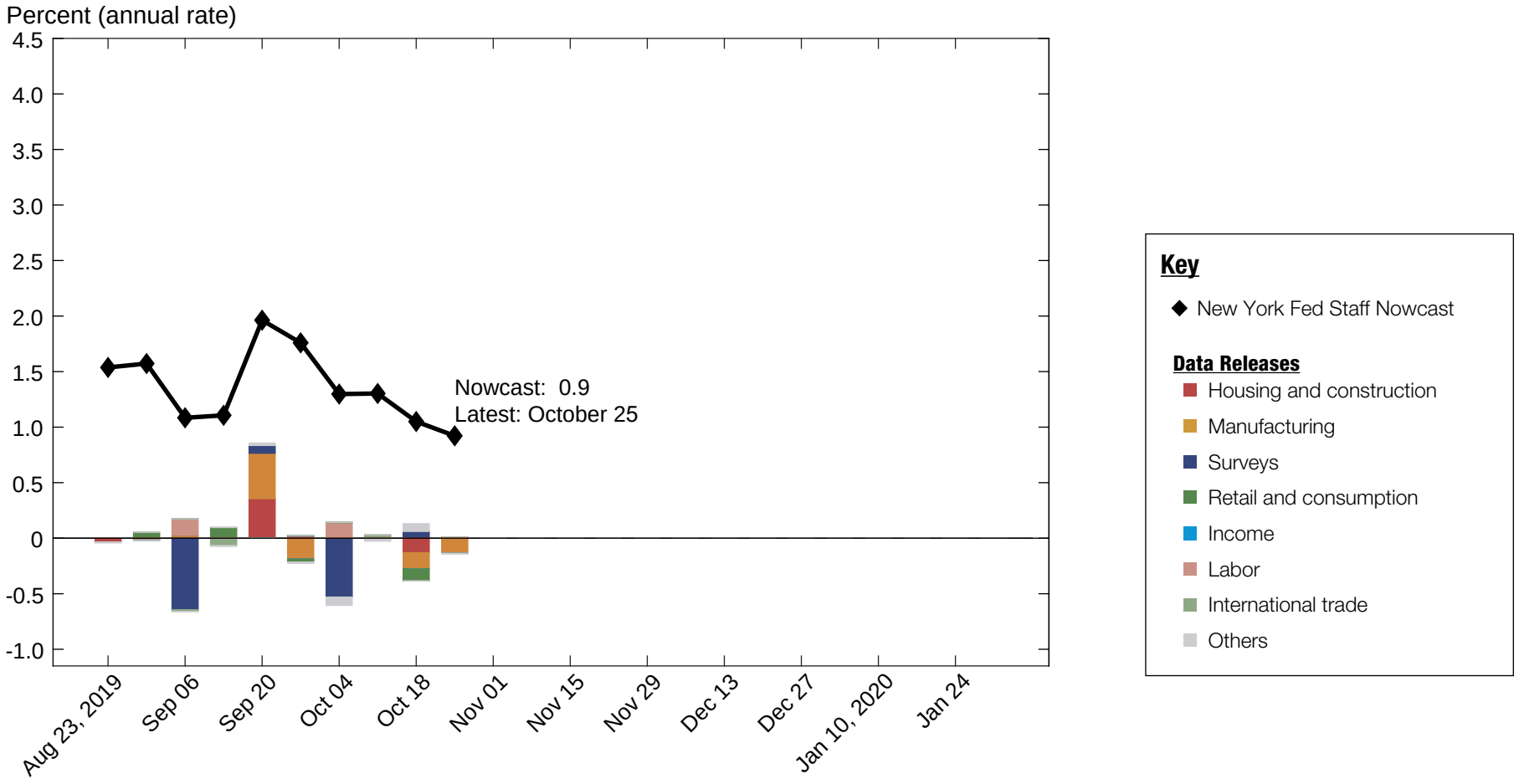
1.1 | Nowcast Detail

Housing and construction | Manufacturing | Surveys | Retail and consumption | Income | Labor | International trade | Others

Update	Release Date	Data Series	Reference Period	Units	Forecast	Actual	Weight	Impact	Nowcast GDP Growth
					[a]	[b]	[c]	[$c(b-a)$]	
Sep 27									**2.06**
	10:00 AM Oct 01	ISM mfg.: PMI composite index	Sep	Index	50.9	47.8	0.020	-0.062	
	10:00 AM Oct 01	Value of construction put in place	Aug	MoM % chg.	0.055	0.135	0.014	0.001	
	10:00 AM Oct 01	ISM mfg.: Prices index	Sep	Index	47.6	49.7	0.003	0.006	
	10:00 AM Oct 01	ISM mfg.: Employment index	Sep	Index	50.0	46.3	0.012	-0.043	
	8:05 AM Oct 02	ADP nonfarm private payroll employment	Sep	Level chg. (thousands)	101.6	135.0	*0.191	0.006	
	10:00 AM Oct 03	ISM nonmanufacturing: NMI composite index	Sep	Index	54.6	52.6	0.001	-0.002	
	10:00 AM Oct 03	Inventories: Total business	Aug	MoM % chg.	-0.010	0.148	-0.031	-0.005	
	8:30 AM Oct 04	All employees: Total nonfarm	Sep	Level chg. (thousands)	88.3	136.0	*0.149	0.007	
	8:30 AM Oct 04	Exports: Goods and services	Aug	MoM % chg.	0.332	0.219	0.041	-0.005	
	8:30 AM Oct 04	Imports: Goods and services	Aug	MoM % chg.	0.306	0.504	0.036	0.007	
	8:30 AM Oct 04	Civilian unemployment rate	Sep	Ppt. chg.	0.040	-0.200	-0.129	0.031	
		Data revisions						-0.001	
		Parameter revisions						0.026	
Oct 04									**2.03**
	8:30 AM Oct 08	PPI: Final demand	Sep	MoM % chg.	0.102	-0.337	0.031	-0.014	
	10:00 AM Oct 09	JOLTS: Job openings: Total	Aug	Level chg. (thousands)	63.0	-123.0	*0.004	-0.001	
	8:30 AM Oct 10	CPI-U: All items	Sep	MoM % chg.	0.054	0.023	0.043	-0.001	
	8:30 AM Oct 10	CPI-U: All items less food and energy	Sep	MoM % chg.	0.190	0.132	0.052	-0.003	
	8:30 AM Oct 11	Import price index	Sep	MoM % chg.	-0.398	0.239	0.010	0.006	
	8:30 AM Oct 11	Export price index	Sep	MoM % chg.	-0.315	-0.239	0.022	0.002	
		Data revisions						0.015	
Oct 11									**2.03**
	2:50 PM Oct 14	Empire State Mfg. Survey: General business conditions	Oct	Index	2.10	4.00	0.000	0.001	
	8:30 AM Oct 16	Retail sales and food services	Sep	MoM % chg.	0.120	-0.252	0.091	-0.034	
	8:30 AM Oct 17	Housing starts	Sep	MoM % chg.	-4.47	-9.38	0.007	-0.034	
	8:30 AM Oct 17	Building permits	Sep	Level chg. (thousands)	-24.5	-38.0	0.001	-0.009	
	8:30 AM Oct 17	Phila. Fed Mfg. business outlook: Current activity	Oct	Index	3.24	5.60	-0.001	-0.002	
	9:10 AM Oct 17	Industrial production index	Sep	MoM % chg.	-0.207	-0.387	0.098	-0.018	
	9:10 AM Oct 17	Capacity utilization	Sep	Ppt. chg.	-0.190	-0.433	0.124	-0.030	
		Data revisions						0.034	
Oct 18									**1.94**
	8:30 AM Oct 24	Manufacturers' new orders: Durable goods	Sep	MoM % chg.	-0.408	-1.13	0.008	-0.006	
	8:30 AM Oct 24	Manufacturers' shipments: Durable goods	Sep	MoM % chg.	-0.223	-0.390	0.049	-0.008	
	8:30 AM Oct 24	Mfrs.' unfilled orders: All manufacturing industries	Sep	MoM % chg.	0.120	-0.001	0.002	-0.000	
	8:30 AM Oct 24	Manufacturers' inventories: Durable goods	Sep	MoM % chg.	0.034	0.494	-0.023	-0.010	
	10:00 AM Oct 24	New single family houses sold	Sep	MoM % chg.	-1.86	-0.708	0.003	0.003	
		Data revisions						-0.011	
Oct 25									**1.91**

Source: Authors' calculations, based on data accessed through Haver Analytics.
Notes: MoM % chg. indicates month over month percentage change. QoQ % chg. indicates quarter over quarter percentage change. The weights with the asterisk are multiplied by 1,000 for legibility.

2 | 2019:Q4 GDP Growth



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Nowcasting Report Q&A

1. What is the ultimate goal of the exercise?

Our model produces a "nowcast" of GDP growth, incorporating a wide range of macroeconomic data as it becomes available. With this approach, we aim to read the real-time flow of information and evaluate its effects on current economic conditions. The platform provides a model-based counterpart to the more routine analysis at the bank, which has traditionally been based on expert knowledge.

2. What is the modeling strategy?

The platform employs Kalman-filtering techniques and a dynamic factor model. The approach has a number of desirable features. It is based on:

- a reliable big data framework that captures in a parsimonious way the salient features of macroeconomic data dynamics;
- a design that digests the data as "news," mimicking the way markets work.

3. What are the input data? What has been driving the data selection?

We include all the market-moving indicators—the same data that are also constantly monitored by market participants and commentators.

4. Why should we trust the model?

Extensive back-testing of the model, research, and practical experience have shown that the platform is able to approximate best practices in macroeconomic forecasts. The model produces forecasts that are as accurate as, and strongly correlated with, predictions based on best judgment.

The methodology has been tested for accuracy in many countries, including large developed economies (the Euro area, Italy, France, Germany, Spain, the United Kingdom, Japan, and Canada), small open economies (Australia, Ireland, Belgium, New Zealand, the Czech Republic, and Scotland), fast-growing economies (Brazil, Russia, India, China, and South Africa), and developing economies (Mexico, Indonesia, and Argentina).

5. How should we read the output of the model?

- The model produces forecasts for all variables taking into account their dynamic interactions.
- Since it is a fully specified dynamic model, the platform provides an intuitive reading of the incoming data as "news."
- The difference between two consecutive forecasts (that is, the forecast revision) is the weighted average of the news during the week.
- News is defined as the difference between released data and model predictions. The weights account for the information content as well as the timeliness of the data releases.
- The contribution of new data to the forecast revision is reported in the two charts with colored bars. To make the charts easier to read, we grouped variables in a few broad categories. Detailed information about the composition of the groupings is provided in the accompanying tables.

References

- *Banbura, M., D. Giannone, M. Modugno, and L. Reichlin*. 2013. "Nowcasting and the Real-Time Data Flow." In G. Elliott and A. Timmermann, eds., *Handbook of Economic Forecasting*, Vol. 2. Amsterdam: Elsevier-North Holland.
- *Bok, B., D. Caratelli, D. Giannone, A. Sbordone, and A. Tambalotti.* 2017. "Macroeconomic Nowcasting and Forecasting with Big Data." *Federal Reserve Bank of New York Staff Reports,* no. 830, November.
- *Giannone, D., L. Reichlin, and D. Small.* 2008. "Nowcasting: The Real-Time Informational Content of Macroeconomic Data." *Journal of Monetary Economics* 55, no.4 (May): 665-76.

Nowcasting Report FAQs

1. What is the schedule for reporting and updating the nowcast for each quarter?

We start reporting the nowcast of GDP growth for a reference quarter one week after the publication of the second official GDP estimate for two quarters prior. For example, we began reporting the nowcast for 2017:Q2 on Friday, March 10, 2017, following the government's second estimate of 2016:Q4 GDP on Tuesday, February 28, 2017. We continue to update the nowcast for a reference quarter until the release of the advance GDP estimate, roughly one month after the end of the quarter. For 2017:Q2, this occurred on July 28, 2017, at which point we stopped updating the nowcast for this quarter. We retain the reference quarter's progression plot and detail table in the Nowcasting Report until the publication of the second GDP estimate, roughly two months after the end of the quarter. Following the second estimate of 2017:Q2 GDP on August 30, 2017, we removed 2017:Q2 from the Nowcasting Report and began reporting the nowcast for 2017:Q4.

2. What are the major conceptual differences between the New York Fed Staff Nowcast and the Atlanta Fed's Nowcast?

The New York Fed Staff Nowcast and the Atlanta Fed's GDPNow are both based on statistical filtering techniques applied to a dynamic factor model. These techniques are very common in big data analytics since they effectively summarize the information contained in large data sets through a small number of common factors. The general framework for macroeconomic nowcasting has been developed in the academic literature over the past ten years, as discussed in the Q&A included in this report. The New York Fed Staff Nowcast is a straightforward application of the most advanced techniques developed in this academic literature. GDPNow adapts these techniques to mimic the methods used by the BEA to estimate real GDP growth, as well explained by GDPNow's own FAQs.

Because GDPNow and the New York Fed Staff Nowcast are different models, they can generate different forecasts of real GDP growth. Our policy is not to comment on or interpret any differences between the forecasts of these two models.

3. Is the "annual rate" the y/y growth rate?

No. We track the annualized quarterly ("q/q") growth rate of real GDP, not the four-quarter ("y/y") growth rate.

4. Can we obtain the data underlying this analysis?

To make it easier for nowcast followers to better understand and replicate our results, we share the MATLAB code for our model and a snapshot of data sets from the past year on Github at https://github.com/FRBNY-TimeSeriesAnalysis/Nowcasting. The newest releases for all data series are publicly available from source websites; real-time historical data for most series can be retrieved from the St. Louis Fed's ALFRED database. Unfortunately, we cannot provide the complete data set used in our model because the historical data for a handful of series (including the ISM manufacturing and nonmanufacturing indexes) are proprietary. As a consequence, the replication files do not exactly reproduce the published version of the New York Fed Staff Nowcast.

Authors

New York Fed Time-Series Analysis Team