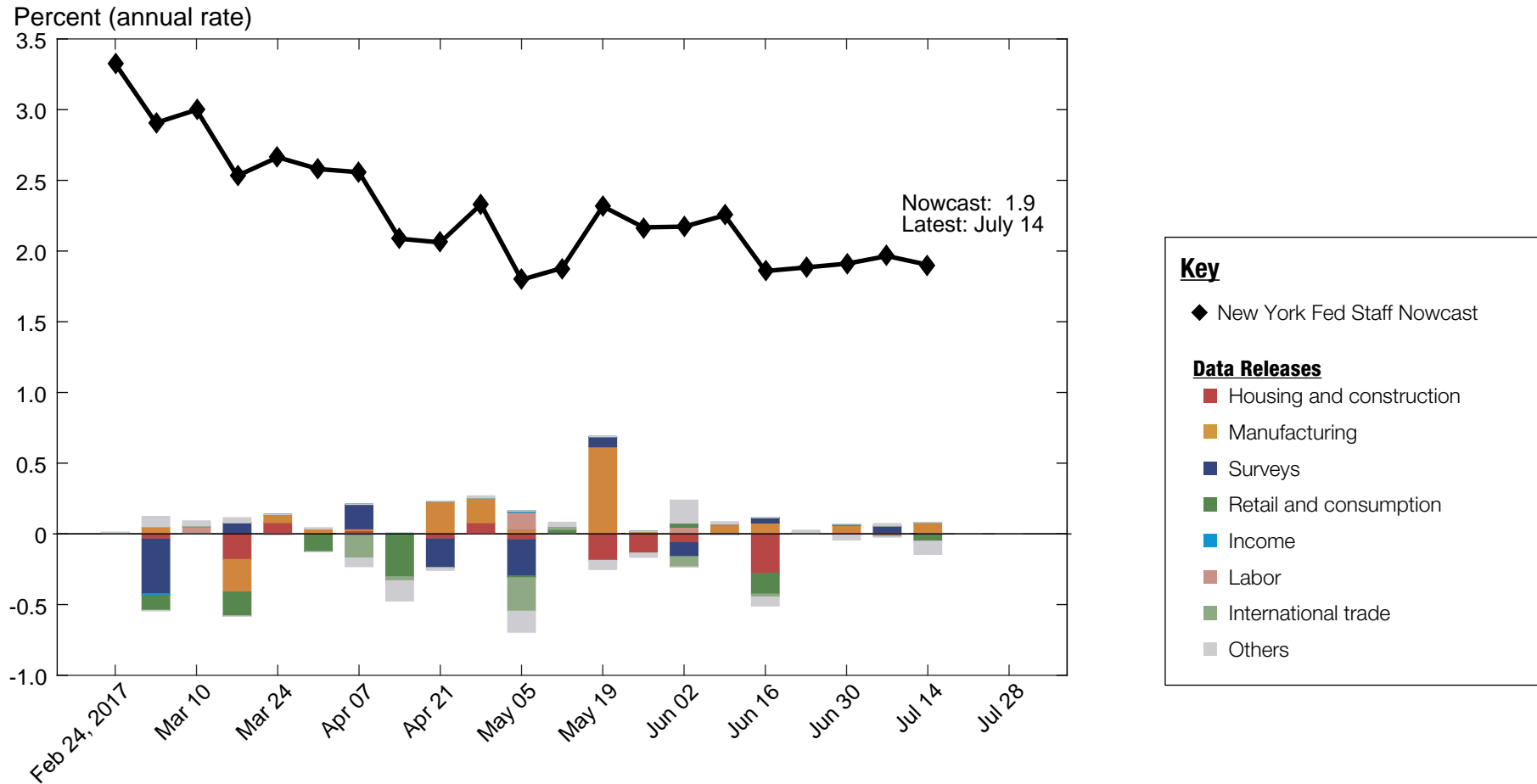# NOWCASTING REPORT

Updated: July 14, 2017

- The New York Fed Staff Nowcast stands at 1.9% for 2017:Q2 and 1.8% for 2017:Q3.

- The effect of news from this week's data releases was small, leaving the nowcast for both quarters broadly unchanged.

- Positive surprises from industrial production and capacity utilization were offset by a negative surprise from retail sales and from data revisions.

Percent (annual rate)

Nowcast: 1.9
Latest: July 14

Key

◆ New York Fed Staff Nowcast

Data Releases

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

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

Legend: ■ 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)]	
Jun 16									1.86
	10:00 AM Jun 23	■ New single family houses sold	May	MoM % chg.	1.93	2.87	0.009	0.008	
		■ Data revisions						0.018	
Jun 23									1.88
	8:30 AM Jun 26	■ Manufacturers' new orders: Durable goods	May	MoM % chg.	0.408	-1.08	0.015	-0.023	
	8:30 AM Jun 26	■ Manufacturers' shipments: Durable goods	May	MoM % chg.	0.137	0.779	0.082	0.052	
	8:30 AM Jun 26	■ Mfrs.' unfilled orders: All manufacturing industries	May	MoM % chg.	0.370	-0.204	-0.014	0.008	
	8:30 AM Jun 26	■ Manufacturers' inventories: Durable goods	May	MoM % chg.	0.233	0.165	-0.201	0.014	
	8:30 AM Jun 28	■ Merchant wholesalers: Inventories: Total	May	MoM % chg.	0.375	0.289	-0.090	0.008	
	8:30 AM Jun 30	■ Real disposable personal income	May	MoM % chg.	0.187	0.561	0.026	0.010	
	8:30 AM Jun 30	■ PCE less food and energy: Chain price index	May	MoM % chg.	0.136	0.067	0.161	-0.011	
	8:30 AM Jun 30	■ PCE: Chain price index	May	MoM % chg.	0.146	-0.063	0.077	-0.016	
	8:40 AM Jun 30	■ Real personal consumption expenditures	May	MoM % chg.	0.150	0.119	0.219	-0.007	
		■ Data revisions						-0.009	
Jun 30									1.91
	10:00 AM Jul 03	■ ISM mfg.: Pmi composite index	Jun	Index	55.8	57.8	0.023	0.046	
	10:00 AM Jul 03	■ ISM mfg.: Prices index	Jun	Index	60.7	55.0	0.003	-0.016	
	10:00 AM Jul 03	■ ISM mfg.: Employment index	Jun	Index	54.4	57.2	0.009	0.024	
	10:10 AM Jul 03	■ Value of construction put in place	May	MoM % chg.	-0.281	-0.023	0.018	0.005	
	10:00 AM Jul 05	■ Inventories: Total business	May	MoM % chg.	0.182	0.265	-0.079	-0.006	
	8:05 AM Jul 06	■ ADP nonfarm private payroll employment	Jun	Level chg. (thousands)	232.3	158.0	0.180*	-0.013	
	8:30 AM Jul 06	■ Exports: Goods and services	May	MoM % chg.	0.327	0.447	0.047	0.006	
	8:30 AM Jul 06	■ Imports: Goods and services	May	MoM % chg.	0.003	-0.093	0.034	-0.003	
	10:00 AM Jul 06	■ ISM nonmanufacturing: NMI composite index	Jun	Index	58.6	57.4	0.002	-0.002	
	8:30 AM Jul 07	■ All employees: Total nonfarm	Jun	Level chg. (thousands)	123.9	222.0	0.132*	0.013	
	8:30 AM Jul 07	■ Civilian unemployment rate	Jun	Ppt. chg.	0.002	0.100	-0.125	-0.012	
		■ Data revisions						0.032	
		■ Parameter revisions						-0.018	
Jul 07									1.96
	10:00 AM Jul 11	■ JOLTS: Job openings: Total	May	Level chg. (thousands)	-23.4	-301.0	0.035*	-0.010	
	8:30 AM Jul 13	■ PPI: Final demand	Jun	MoM % chg.	0.110	0.089	0.020	-0.000	
	8:30 AM Jul 14	■ Retail sales and food services	Jun	MoM % chg.	0.326	-0.155	0.089	-0.043	
	8:40 AM Jul 14	■ CPI-U: All items	Jun	MoM % chg.	0.074	-0.023	0.025	-0.002	
	8:40 AM Jul 14	■ CPI-U: All items less food and energy	Jun	MoM % chg.	0.130	0.119	0.032	-0.000	
	9:30 AM Jul 14	■ Industrial production index	Jun	MoM % chg.	0.049	0.387	0.132	0.045	
	9:30 AM Jul 14	■ Capacity utilization	Jun	Ppt. chg.	0.001	0.216	0.171	0.037	
		■ Data revisions						-0.088	
Jul 14									1.90

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.

Percent (annual rate)

Nowcast: 1.8
Latest: July 14

Key
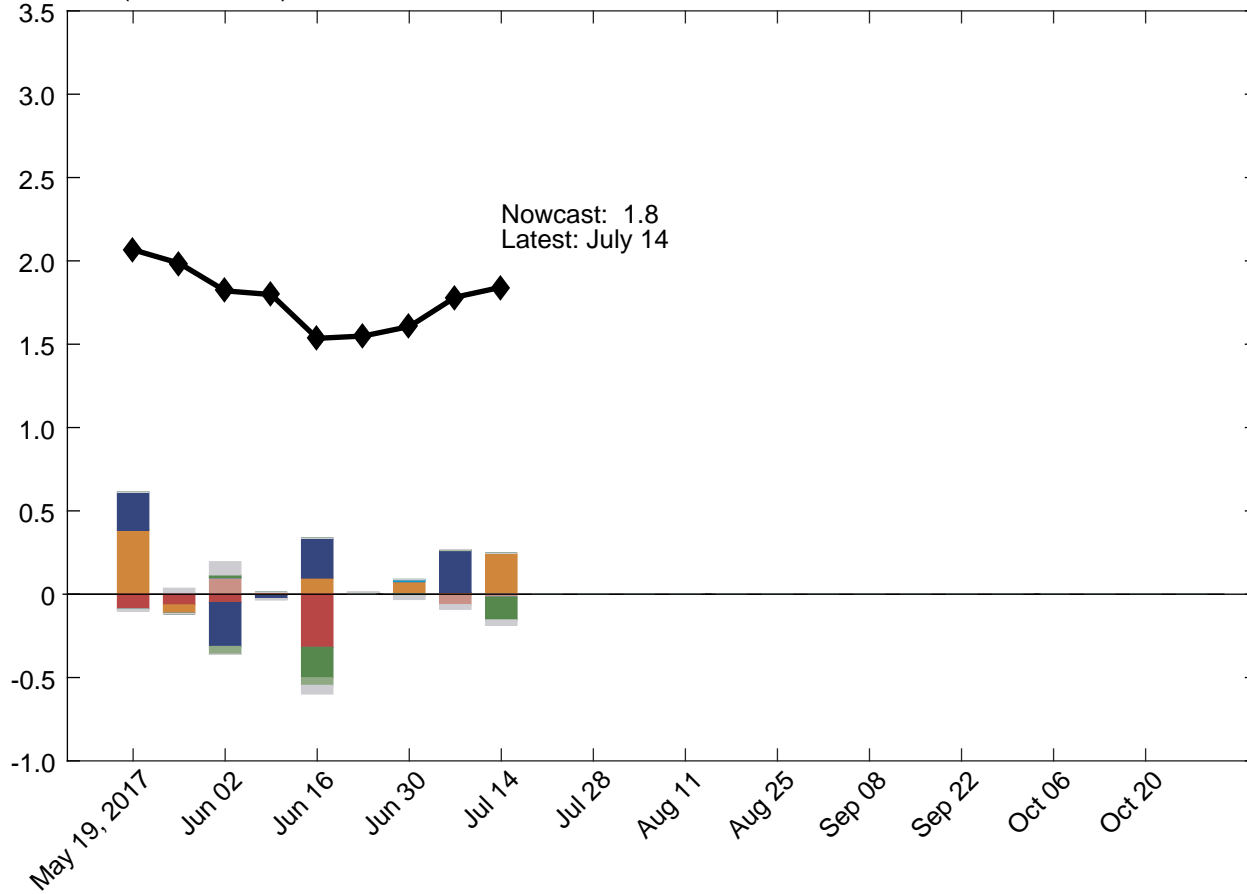
◆ New York Fed Staff Nowcast

Data Releases
- ■ Housing and construction
- ■ Manufacturing
- ■ Surveys
- ■ Retail and consumption
- ■ Income
- ■ Labor
- ■ International trade
- ■ Others

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

2.1 | 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)]	
Jun 16									1.54
	10:00 AM Jun 23	■ New single family houses sold	May	MoM % chg.	1.93	2.87	0.010	0.009	
		■ Data revisions						0.004	
Jun 23									1.55
	8:30 AM Jun 26	■ Manufacturers' new orders: Durable goods	May	MoM % chg.	0.408	-1.08	0.017	-0.026	
	8:30 AM Jun 26	■ Manufacturers' shipments: Durable goods	May	MoM % chg.	0.137	0.779	0.095	0.061	
	8:30 AM Jun 26	■ Mfrs.' unfilled orders: All manufacturing industries	May	MoM % chg.	0.370	-0.204	-0.025	0.014	
	8:30 AM Jun 26	■ Manufacturers' inventories: Durable goods	May	MoM % chg.	0.233	0.165	-0.283	0.019	
	8:30 AM Jun 28	■ Merchant wholesalers: Inventories: Total	May	MoM % chg.	0.375	0.289	-0.093	0.008	
	8:30 AM Jun 30	■ Real disposable personal income	May	MoM % chg.	0.187	0.561	0.031	0.012	
	8:30 AM Jun 30	■ PCE less food and energy: Chain price index	May	MoM % chg.	0.136	0.067	0.282	-0.019	
	8:30 AM Jun 30	■ PCE: Chain price index	May	MoM % chg.	0.146	-0.063	0.150	-0.031	
	8:40 AM Jun 30	■ Real personal consumption expenditures	May	MoM % chg.	0.150	0.119	0.271	-0.009	
		■ Data revisions						0.028	
Jun 30									1.61
	10:00 AM Jul 03	■ ISM mfg.: Pmi composite index	Jun	Index	55.8	57.8	0.126	0.247	
	10:00 AM Jul 03	■ ISM mfg.: Prices index	Jun	Index	60.7	55.0	0.020	-0.115	
	10:00 AM Jul 03	■ ISM mfg.: Employment index	Jun	Index	54.4	57.2	0.050	0.140	
	10:10 AM Jul 03	■ Value of construction put in place	May	MoM % chg.	-0.281	-0.023	0.035	0.009	
	10:00 AM Jul 05	■ Inventories: Total business	May	MoM % chg.	0.182	0.265	-0.081	-0.007	
	8:05 AM Jul 06	■ ADP nonfarm private payroll employment	Jun	Level chg. (thousands)	232.3	158.0	1.090*	-0.081	
	8:30 AM Jul 06	■ Exports: Goods and services	May	MoM % chg.	0.327	0.447	0.062	0.007	
	8:30 AM Jul 06	■ Imports: Goods and services	May	MoM % chg.	0.003	-0.093	0.041	-0.004	
	10:00 AM Jul 06	■ ISM nonmanufacturing: NMI composite index	Jun	Index	58.6	57.4	0.015	-0.019	
	8:30 AM Jul 07	■ All employees: Total nonfarm	Jun	Level chg. (thousands)	123.9	222.0	0.535*	0.052	
	8:30 AM Jul 07	■ Civilian unemployment rate	Jun	Ppt. chg.	0.002	0.100	-0.283	-0.028	
		■ Data revisions						0.029	
		■ Parameter revisions						-0.056	
Jul 07									1.78
	10:00 AM Jul 11	■ JOLTS: Job openings: Total	May	Level chg. (thousands)	-23.4	-301.0	0.067*	-0.019	
	8:30 AM Jul 13	■ PPI: Final demand	Jun	MoM % chg.	0.110	0.089	0.056	-0.001	
	8:30 AM Jul 14	■ Retail sales and food services	Jun	MoM % chg.	0.326	-0.155	0.284	-0.137	
	8:40 AM Jul 14	■ CPI-U: All items	Jun	MoM % chg.	0.074	-0.023	0.080	-0.008	
	8:40 AM Jul 14	■ CPI-U: All items less food and energy	Jun	MoM % chg.	0.130	0.119	0.090	-0.001	
	9:30 AM Jul 14	■ Industrial production index	Jun	MoM % chg.	0.049	0.387	0.397	0.134	
	9:30 AM Jul 14	■ Capacity utilization	Jun	Ppt. chg.	0.001	0.216	0.520	0.112	
		■ Data revisions						-0.020	
Jul 14									1.84

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.

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.

- *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. For how long do you report a quarter?

We start reporting the nowcast of GDP growth for a reference quarter about one month before the quarter begins; we stop updating it about one month after the quarter closes.

Precise dates are related to the Commerce Department's schedule for the release of official GDP estimates. For example, we began reporting the nowcast for 2016:Q1 on November 20, 2015, just after the government released the second GDP estimate for 2015:Q3. We stopped updating the nowcast for 2016:Q1 on April 28, 2016, with the release of the advance GDP estimate for the reference quarter. We continued reporting 2016:Q1 until the second GDP estimate for the quarter became available. At that point, we started computing the nowcasts for 2016:Q3.

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?

We are not making the underlying data available at this time. The tables list the data series employed in calculating our estimates. Sources include the U.S. Bureau of Labor Statistics, Institute for Supply Management, U.S. Census Bureau, U.S. Bureau of Economic Analysis, the New York and Philadelphia Feds, the Fed Board of Governors, and the ADP (Automatic Data Processing, Inc.).

Authors

New York Fed Time-Series Analysis Team