# NOWCASTING REPORT

Updated: June 30, 2017

■ The New York Fed Staff Nowcast stands at 1.9% for 2017:Q2 and 1.6% for 2017:Q3.

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

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).
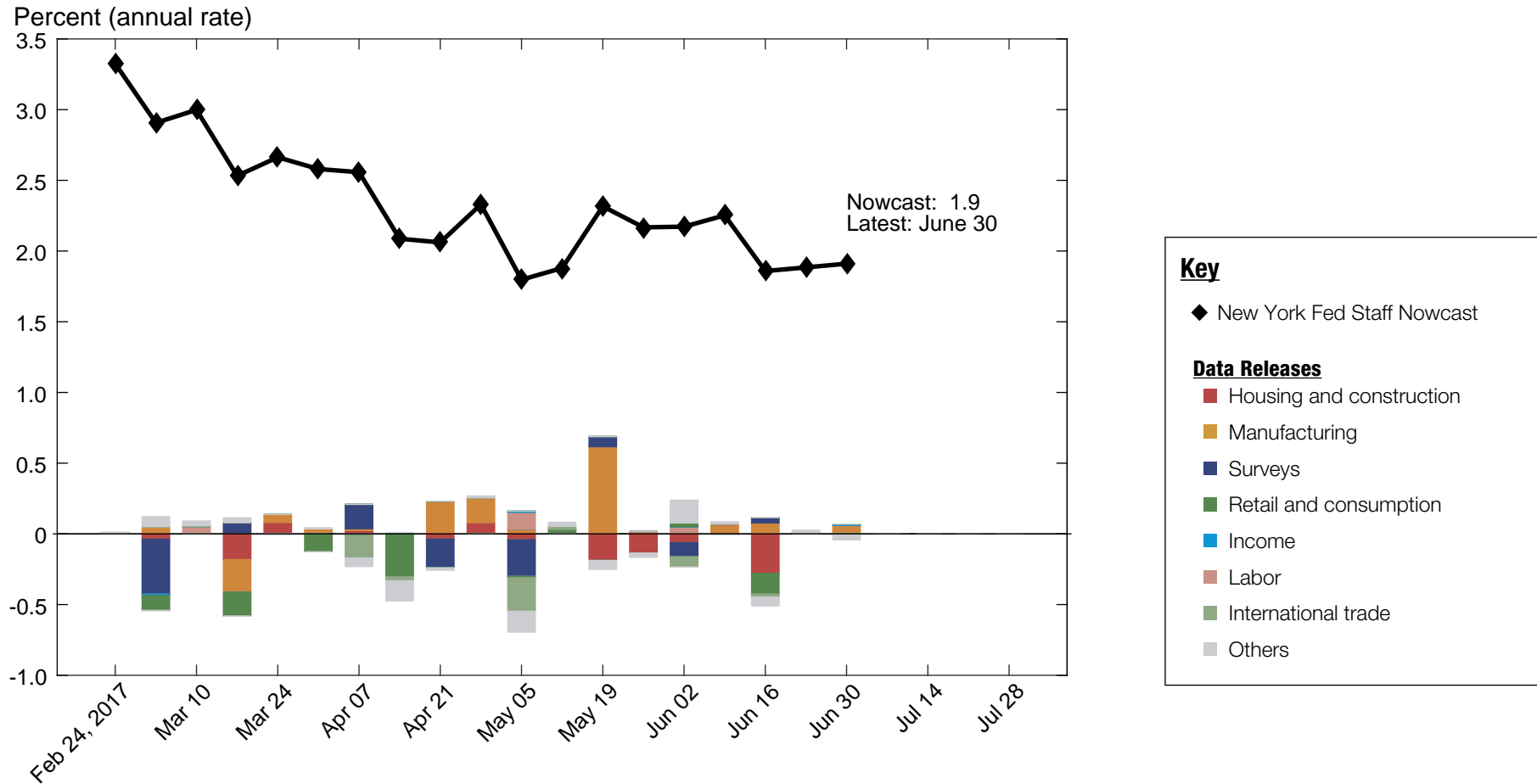
Percent (annual rate)

Nowcast: 1.9
Latest: June 30

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.
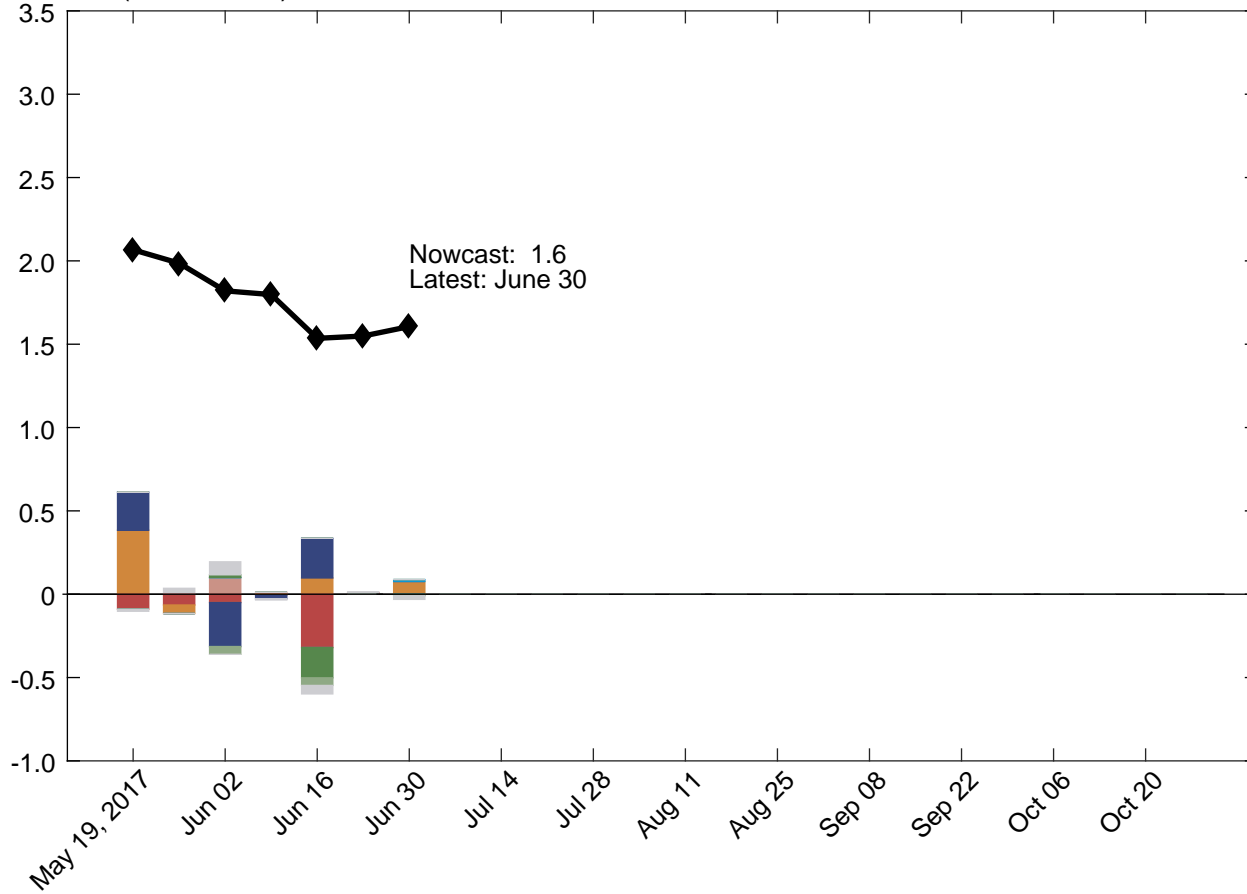Note: Colored bars reflect the impact of each data release on the nowcast.

1.1 | Nowcast Detail

		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 02									**2.17**
	10:00 AM Jun 05	Inventories: Total business	Apr	MoM % chg.	0.185	-0.173	-0.180	0.064	
	10:00 AM Jun 05	ISM nonmanufacturing: NMI composite index	May	Index	58.2	56.9	0.004	-0.005	
	10:00 AM Jun 06	JOLTS: Job openings: Total	Apr	Level chg. (thousands)	-23.8	259.0	0.023*	0.006	
		Data revisions						0.015	
Jun 09									**2.25**
	8:30 AM Jun 13	PPI: Final demand	May	MoM % chg.	0.221	0.000	0.032	-0.007	
	8:30 AM Jun 14	Retail sales and food services	May	MoM % chg.	0.360	-0.253	0.238	-0.146	
	8:50 AM Jun 14	CPI-U: All items	May	MoM % chg.	0.163	-0.128	0.059	-0.017	
	8:50 AM Jun 14	CPI-U: All items less food and energy	May	MoM % chg.	0.132	0.063	0.078	-0.005	
	8:30 AM Jun 15	Import price index	May	MoM % chg.	0.158	-0.326	0.010	-0.005	
	8:30 AM Jun 15	Export price index	May	MoM % chg.	0.127	-0.653	0.022	-0.017	
	8:30 AM Jun 15	Empire State Mfg. Survey: General business conditions	Jun	Index	7.19	19.8	0.002	0.031	
	8:30 AM Jun 15	Philadelphia Fed Mfg. business outlook: Current activity	Jun	Index	24.4	27.6	0.002	0.007	
	9:20 AM Jun 15	Industrial production index	May	MoM % chg.	-0.192	-0.004	0.258	0.048	
	9:20 AM Jun 15	Capacity utilization	May	Ppt. chg.	-0.164	-0.076	0.333	0.029	
	8:30 AM Jun 16	Housing starts	May	MoM % chg.	3.00	-5.54	0.018	-0.150	
	8:30 AM Jun 16	Building permits	May	Level chg. (thousands)	14.6	-60.0	0.002	-0.130	
		Data revisions						-0.033	
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**

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: 1.6
Latest: June 30

Key

◆ New York Fed Staff Nowcast

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- ■ Housing and construction
- ■ Manufacturing
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- ■ Income
- ■ Labor
- ■ International trade
- ■ Others

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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)]	
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	10:00 AM Jun 05	■ Inventories: Total business	Apr	MoM % chg.	0.185	-0.173	0.020	-0.007	
	10:00 AM Jun 05	■ ISM nonmanufacturing: NMI composite index	May	Index	58.2	56.9	0.016	-0.020	
	10:00 AM Jun 06	■ JOLTS: Job openings: Total	Apr	Level chg. (thousands)	-23.8	259.0	0.043*	0.012	
		■ Data revisions						-0.007	
Jun 09									**1.80**
	8:30 AM Jun 13	■ PPI: Final demand	May	MoM % chg.	0.221	0.000	0.053	-0.012	
	8:30 AM Jun 14	■ Retail sales and food services	May	MoM % chg.	0.360	-0.253	0.296	-0.181	
	8:50 AM Jun 14	■ CPI-U: All items	May	MoM % chg.	0.163	-0.128	0.108	-0.031	
	8:50 AM Jun 14	■ CPI-U: All items less food and energy	May	MoM % chg.	0.132	0.063	0.136	-0.009	
	8:30 AM Jun 15	■ Import price index	May	MoM % chg.	0.158	-0.326	0.024	-0.012	
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	9:20 AM Jun 15	■ Capacity utilization	May	Ppt. chg.	-0.164	-0.076	0.420	0.037	
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	8:30 AM Jun 16	■ Building permits	May	Level chg. (thousands)	14.6	-60.0	0.002	-0.152	
		■ Data revisions						0.002	
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	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**

Source: Authors' calculations, based on data accessed through Haver Analytics.

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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.

■ *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