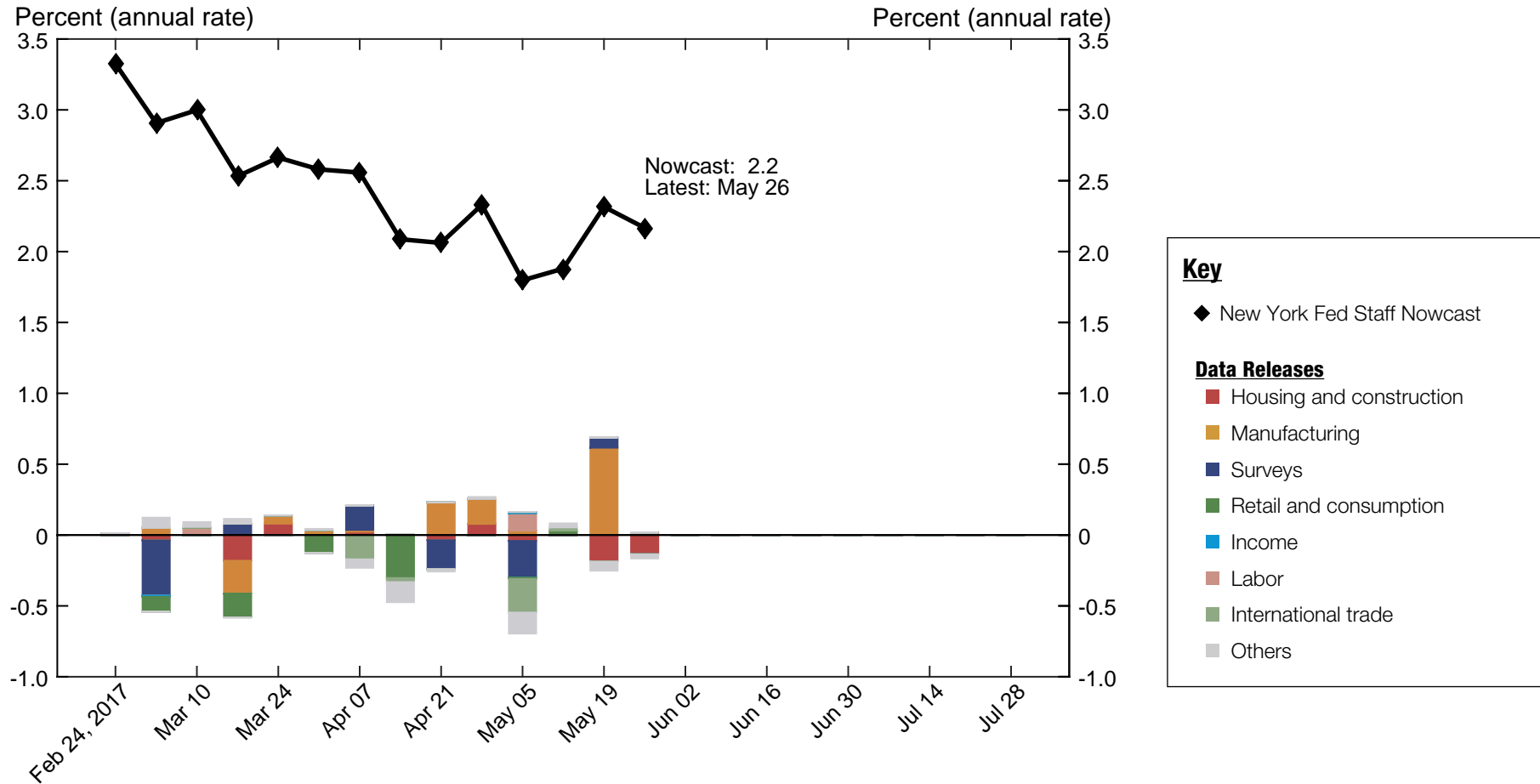# NOWCASTING REPORT

Updated: May 26, 2017

- The New York Fed Staff Nowcast stands at 2.2% for 2017:Q2.

- News from this week's data releases reduced the nowcast for 2017:Q2 by 0.1 percentage point as the positive impact from wholesale inventories data was more than offset by the negative impact from the advance durable goods report and new home sales data.

Percent (annual rate)

Percent (annual rate)

Nowcast: 2.2
Latest: May 26

Key

◆ New York Fed Staff Nowcast

Data Releases

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

Source: Authors' calculations.
Note: Colored bars reflect the impact of each data release on the nowcast.
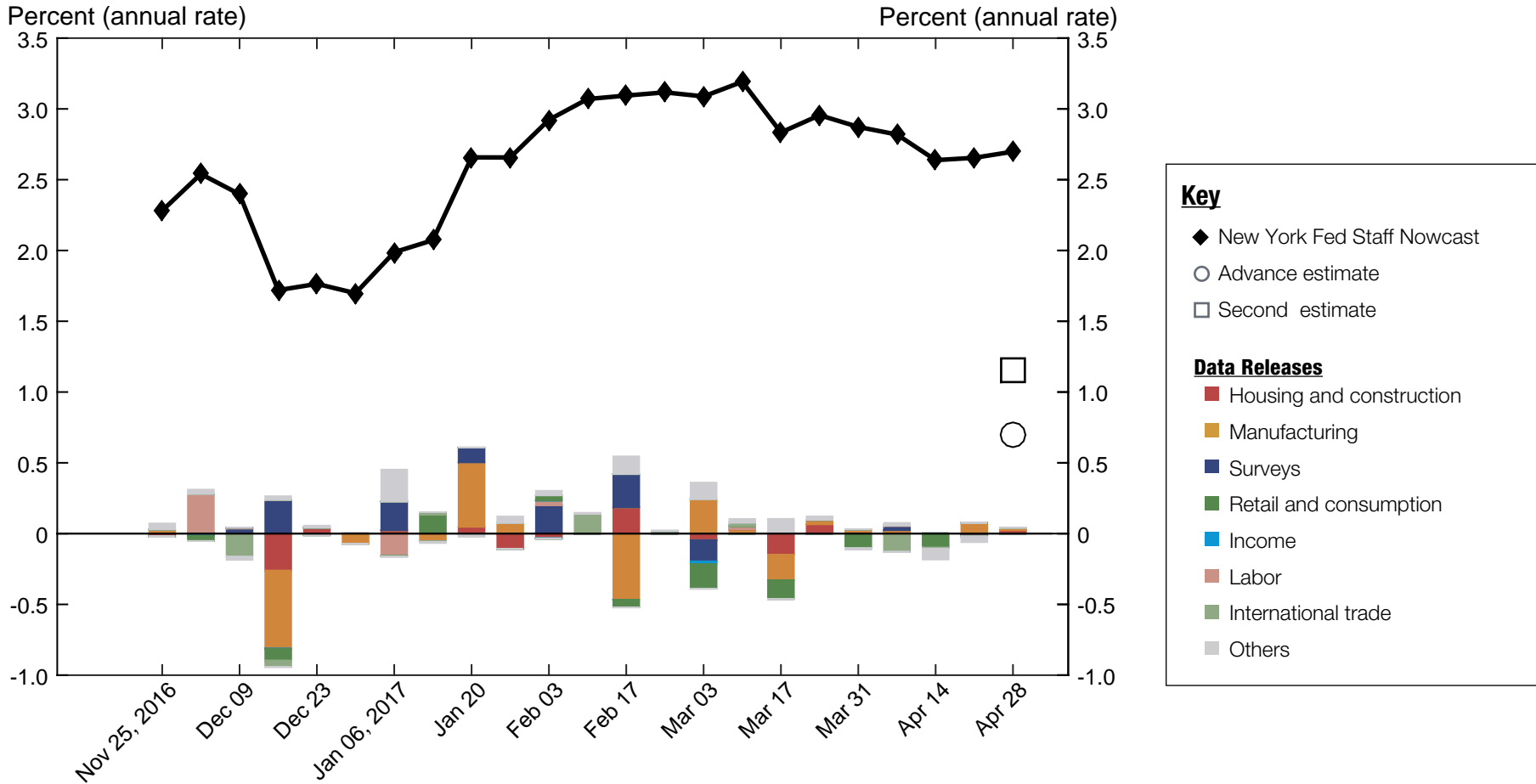
1.1 | Nowcast Detail

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

Update	Release Date	Data Series	Reference Period	Units	Forecast [a]	Actual [b]	Weight [c]	Impact [c(b − a)]	Nowcast GDP Growth
Apr 28									**2.33**
	8:30 AM May 01	▢ PCE less food and energy: Chain price index	Mar	MoM % chg.	0.156	-0.138	0.257	-0.076	
	8:30 AM May 01	▢ PCE: Chain price index	Mar	MoM % chg.	0.161	-0.231	0.135	-0.053	
	8:40 AM May 01	■ Real personal consumption expenditures	Mar	MoM % chg.	0.307	0.275	0.319	-0.010	
	8:50 AM May 01	■ Real disposable personal income	Mar	MoM % chg.	0.221	0.475	0.039	0.010	
	10:00 AM May 01	■ ISM mfg.: Pmi composite index	Apr	Index	55.8	54.8	0.098	-0.102	
	10:00 AM May 01	■ ISM mfg.: Prices index	Apr	Index	68.6	68.5	0.016	-0.002	
	10:00 AM May 01	■ Value of construction put in place	Mar	MoM % chg.	0.917	-0.201	0.037	-0.041	
	10:00 AM May 01	■ ISM mfg.: Employment index	Apr	Index	56.7	52.0	0.040	-0.191	
	8:05 AM May 03	■ ADP nonfarm private payroll employment	Apr	Level chg. (thousands)	164.3	177.0	0.848*	0.011	
	10:00 AM May 03	■ ISM nonmanufacturing: NMI composite index	Apr	Index	54.1	57.5	0.011	0.037	
	8:30 AM May 04	■ Exports: Goods and services	Mar	MoM % chg.	0.861	-0.866	0.072	-0.124	
	8:30 AM May 04	■ Imports: Goods and services	Mar	MoM % chg.	1.52	-0.728	0.050	-0.113	
	8:30 AM May 04	■ Nonfarm business sector: Unit labor cost	Q1	QoQ % chg. AR	1.06	2.92	0.001	0.002	
	10:00 AM May 04	■ Inventories: Total business	Mar	MoM % chg.	0.302	0.112	-0.165	0.031	
	8:30 AM May 05	■ All employees: Total nonfarm	Apr	Level chg. (thousands)	20.1	211.0	0.408*	0.078	
	8:30 AM May 05	■ Civilian unemployment rate	Apr	Ppt. chg.	0.033	-0.100	-0.236	0.031	
		▢ Data revisions						-0.020	
May 05									**1.80**
	10:00 AM May 09	■ JOLTS: Job openings: Total	Mar	Level chg. (thousands)	15.3	61.0	0.033*	0.001	
	8:30 AM May 10	■ Export price index	Apr	MoM % chg.	0.027	0.164	0.052	0.007	
	8:30 AM May 10	■ Import price index	Apr	MoM % chg.	-0.074	0.489	0.027	0.015	
	8:30 AM May 11	▢ PPI: Final demand	Apr	MoM % chg.	0.069	0.535	0.044	0.021	
	8:30 AM May 12	■ Retail sales and food services	Apr	MoM % chg.	0.306	0.390	0.353	0.030	
	8:40 AM May 12	▢ CPI-U: All items	Apr	MoM % chg.	-0.033	0.167	0.084	0.017	
	8:40 AM May 12	▢ CPI-U: All items less food and energy	Apr	MoM % chg.	0.074	0.071	0.109	-0.000	
		▢ Data revisions						-0.009	
May 12									**1.88**
	8:30 AM May 15	■ Empire State Mfg. Survey: General business conditions	May	Index	9.64	-1.00	0.008	-0.089	
	8:30 AM May 16	■ Housing starts	Apr	MoM % chg.	3.27	-2.58	0.026	-0.150	
	8:30 AM May 16	■ Building permits	Apr	Level chg. (thousands)	-16.3	-31.0	0.003	-0.038	
	9:20 AM May 16	■ Industrial production index	Apr	MoM % chg.	-0.034	0.982	0.313	0.318	
	9:20 AM May 16	■ Capacity utilization	Apr	Ppt. chg.	-0.059	0.672	0.407	0.298	
	8:30 AM May 18	■ Philly Fed Mfg. business outlook: Current activity	May	Index	16.6	38.8	0.007	0.161	
		▢ Data revisions						-0.064	
May 18									**2.32**
	10:00 AM May 23	■ New single family houses sold	Apr	MoM % chg.	-0.907	-11.4	0.013	-0.136	
	8:30 AM May 25	■ Merchant wholesalers: Inventories: Total	Apr	MoM % chg.	0.352	-0.348	-0.258	0.181	
	8:30 AM May 26	■ Manufacturers' new orders: Durable goods	Apr	MoM % chg.	0.030	-0.673	0.021	-0.014	
	8:30 AM May 26	■ Manufacturers' shipments: Durable goods	Apr	MoM % chg.	0.616	-0.298	0.110	-0.101	
	8:30 AM May 26	■ Mfrs.' unfilled orders: All manufacturing industries	Apr	MoM % chg.	0.179	0.215	-0.031	-0.001	
	8:30 AM May 26	■ Manufacturers' inventories: Durable goods	Apr	MoM % chg.	0.003	0.140	-0.346	-0.048	
	8:30 AM May 26	▢ Real gross domestic income	Q1	QoQ % chg. AR	2.42	0.848	0.016	-0.025	
		▢ Data revisions						-0.005	
May 26									**2.17**

Source: Authors' calculations.

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)

Percent (annual rate)

Key

◆ New York Fed Staff Nowcast

○ Advance estimate

☐ Second estimate

Data Releases

■ Housing and construction

■ Manufacturing

■ Surveys

■ Retail and consumption

■ Income

■ Labor

■ International trade

■ Others

Source: Authors' calculations.
Note: Colored bars reflect the impact of each data release on the nowcast.

2.1 | 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)]	
Mar 31									**2.87**
	10:00 AM Apr 03	ISM mfg.: Pmi composite index	Mar	Index	57.7	57.2	0.023	-0.012	
	10:00 AM Apr 03	ISM mfg.: Prices index	Mar	Index	67.1	70.5	0.003	0.010	
	10:00 AM Apr 03	Value of construction put in place	Feb	MoM % chg.	0.093	0.759	0.018	0.012	
	10:00 AM Apr 03	ISM mfg.: Employment index	Mar	Index	54.8	58.9	0.008	0.034	
	8:30 AM Apr 04	Exports: Goods and services	Feb	MoM % chg.	1.02	0.187	0.047	-0.039	
	8:30 AM Apr 04	Imports: Goods and services	Feb	MoM % chg.	0.733	-1.77	0.036	-0.090	
	10:00 AM Apr 04	Inventories: Total business	Feb	MoM % chg.	0.487	0.320	-0.072	0.012	
	8:05 AM Apr 05	ADP nonfarm private payroll employment	Mar	Level chg. (thousands)	252.7	264.0	0.191*	0.002	
	10:00 AM Apr 05	ISM nonmanufacturing: NMI composite index	Mar	Index	58.3	55.2	0.001	-0.003	
	8:30 AM Apr 07	All employees: Total nonfarm	Mar	Level chg. (thousands)	224.6	98.0	0.129*	-0.016	
	8:30 AM Apr 07	Civilian unemployment rate	Mar	Ppt. chg.	-0.049	-0.200	-0.119	0.018	
		Data revisions						0.058	
		Parameter revisions						-0.039	
Apr 07									**2.82**
	10:00 AM Apr 11	JOLTS: Job openings: Total	Feb	Level chg. (thousands)	22.2	118.0	0.019*	0.002	
	8:30 AM Apr 12	Import price index	Mar	MoM % chg.	0.540	-0.163	0.009	-0.006	
	8:30 AM Apr 12	Export price index	Mar	MoM % chg.	0.344	0.246	0.020	-0.002	
	8:30 AM Apr 13	PPI: Final demand	Mar	MoM % chg.	0.184	-0.089	0.018	-0.005	
	8:30 AM Apr 14	Retail sales and food services	Mar	MoM % chg.	0.630	-0.216	0.115	-0.098	
	8:40 AM Apr 14	CPI-U: All items	Mar	MoM % chg.	0.207	-0.288	0.033	-0.016	
	8:40 AM Apr 14	CPI-U: All items less food and energy	Mar	MoM % chg.	0.177	-0.122	0.045	-0.013	
		Data revisions						-0.043	
Apr 14									**2.64**
	8:30 AM Apr 17	Empire State Mfg. Survey: General business conditions	Apr	Index	18.0	5.20	0.000	-0.006	
	8:30 AM Apr 18	Housing starts	Mar	MoM % chg.	-2.57	-6.75	0.008	-0.035	
	8:30 AM Apr 18	Building permits	Mar	Level chg. (thousands)	17.1	44.0	0.001	0.022	
	9:20 AM Apr 18	Industrial production index	Mar	MoM % chg.	0.168	0.549	0.108	0.041	
	9:20 AM Apr 18	Capacity utilization	Mar	Ppt. chg.	0.082	0.342	0.137	0.036	
	8:30 AM Apr 20	Philly Fed Mfg. business outlook: Current activity	Apr	Index	22.4	22.0	-0.000	0.000	
		Data revisions						-0.041	
Apr 20									**2.65**
	10:00 AM Apr 25	New single family houses sold	Mar	MoM % chg.	-0.280	5.79	0.004	0.024	
	8:30 AM Apr 27	Manufacturers' new orders: Durable goods	Mar	MoM % chg.	0.025	0.687	0.008	0.005	
	8:30 AM Apr 27	Merchant wholesalers: Inventories: Total	Mar	MoM % chg.	0.619	-0.079	-0.022	0.016	
	8:30 AM Apr 27	Manufacturers' shipments: Durable goods	Mar	MoM % chg.	0.590	0.246	0.044	-0.015	
	8:30 AM Apr 27	Mfrs.' unfilled orders: All manufacturing industries	Mar	MoM % chg.	0.489	0.221	0.001	-0.000	
	8:30 AM Apr 27	Manufacturers' inventories: Durable goods	Mar	MoM % chg.	0.367	0.119	-0.045	0.011	
		Data revisions						0.003	
Apr 28									**2.70**
	8:30 AM Apr 28	Real gross domestic product (advance)	Q1	QoQ % chg. AR	2.70	**0.69**		We have concluded our updates of the Q1 nowcast	
	8:30 AM May 26	Real gross domestic product (second)	Q1	QoQ % chg. AR		**1.15**		Nowcast stopped with the second GDP release	

Source: Authors' calculations.
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 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 quarters ("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

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