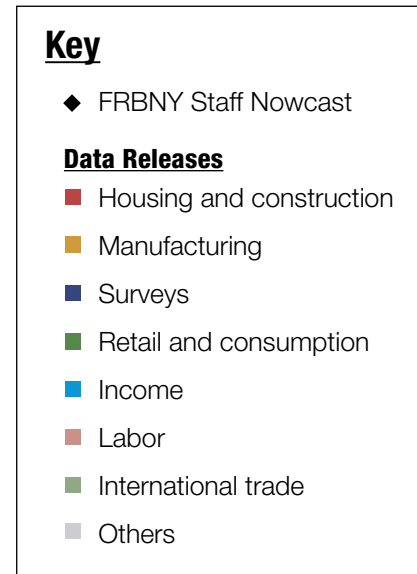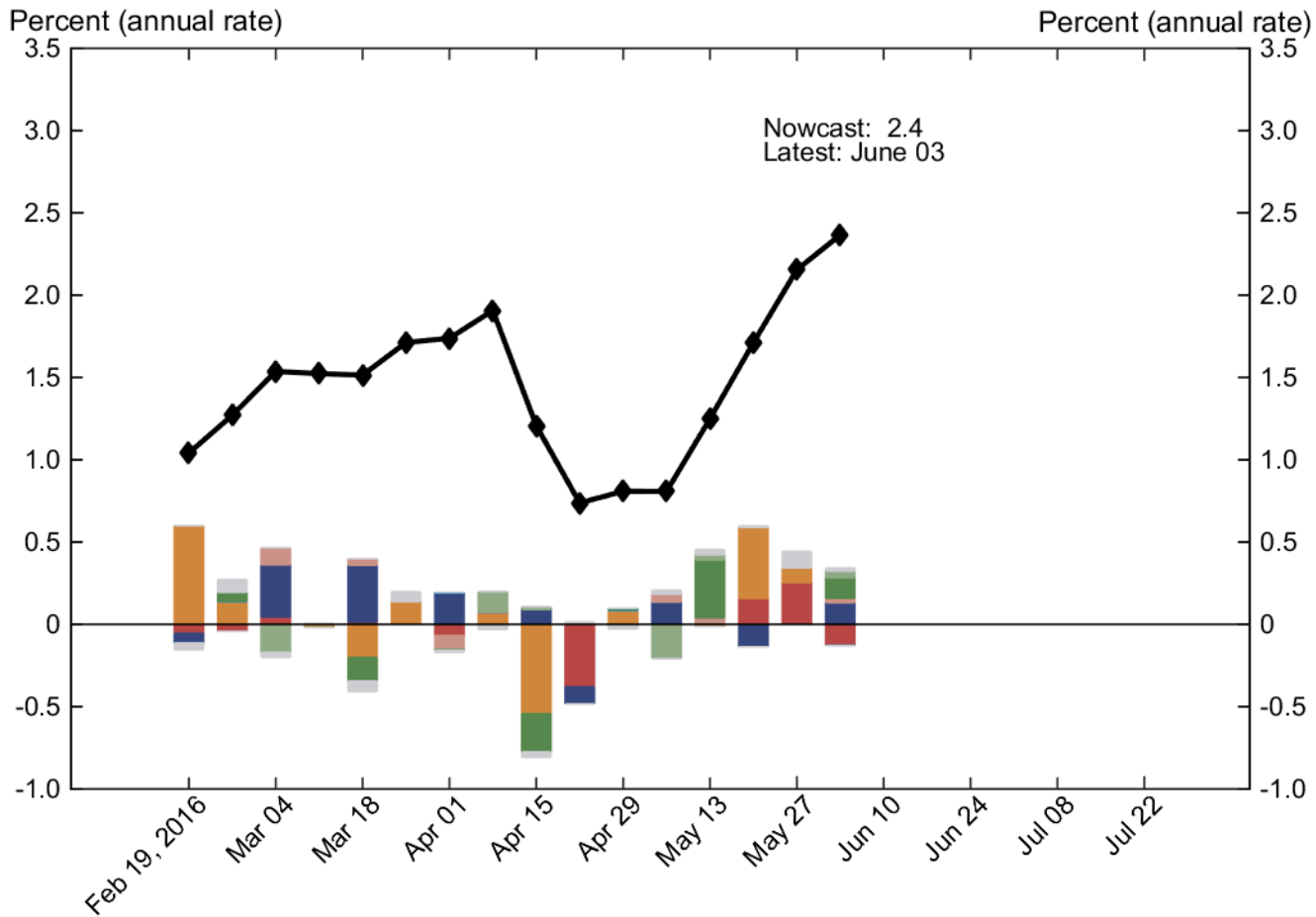# NOWCASTING REPORT

Updated: June 3, 2016

- The FRBNY Staff Nowcast is above 2% for both 2016:Q2 and 2016:Q3.

- Conflicting news over the week had on net a slightly positive effect on the nowcast.

- The largest positive contributions came from real personal consumption expenditures and the ISM manufacturing release.

The FRBNY 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). While we are precluded from publishing our estimates during blackouts surrounding FOMC meetings, we continue to update our model internally and share the analysis in the next Nowcasting Report.

Percent (annual rate)

Nowcast: 2.4
Latest: June 03

Key

◆ FRBNY Staff Nowcast

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

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

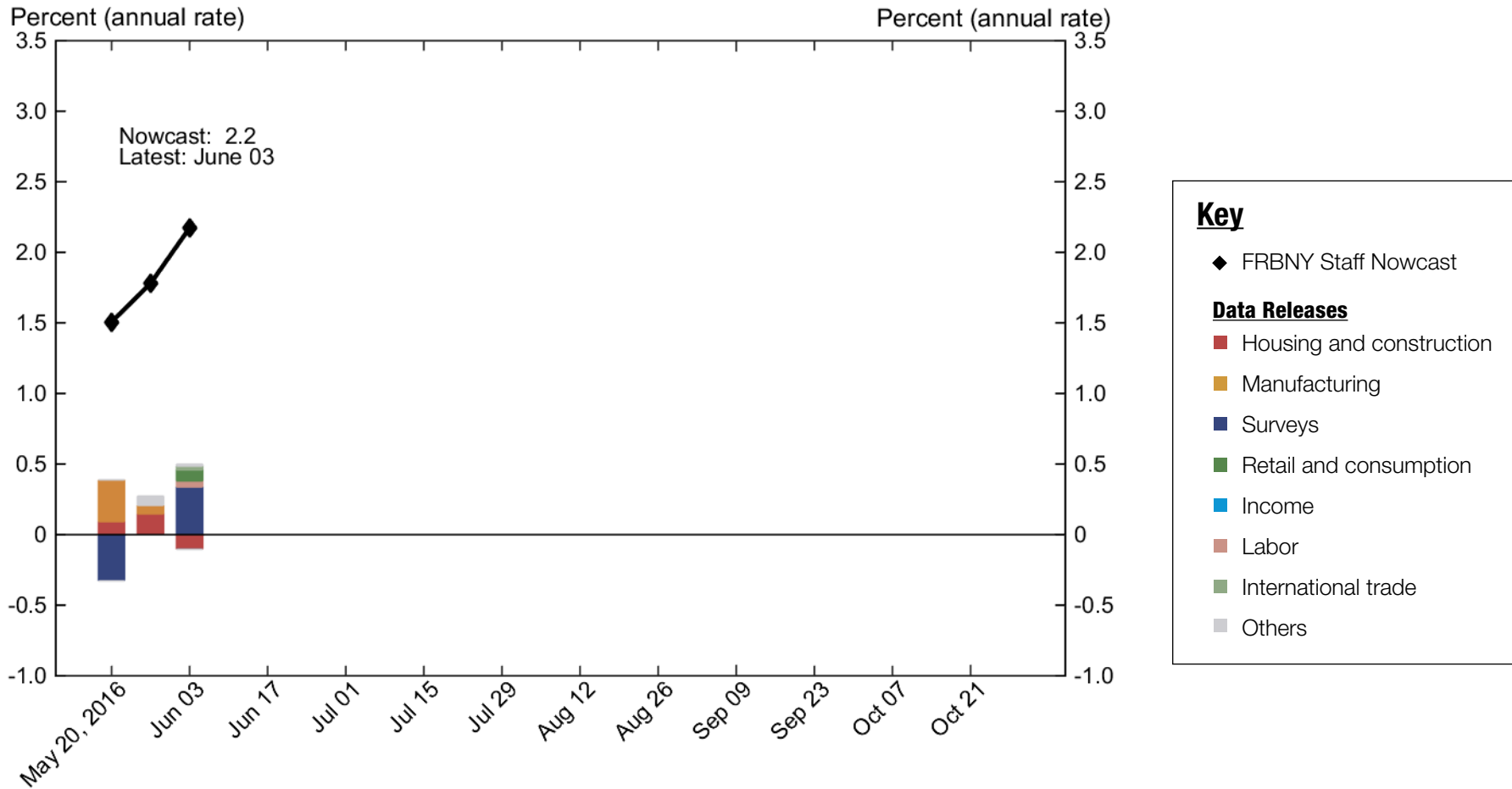# 1.1 | Nowcast Detail

■ 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)]	
May 06									0.81
	10:00 AM May 10	■ JOLTS: Job openings: Total	Mar	Level chg. (thousands)	-41.8	149.0	0.209*	0.040	
	10:00 AM May 10	■ Merchant wholesalers: Inventories: Total	Mar	MoM % chg.	0.344	0.119	-0.160	0.036	
	8:30 AM May 12	■ Import price index	Apr	MoM % chg.	0.193	0.340	0.030	0.004	
	8:30 AM May 12	■ Export price index	Apr	MoM % chg.	0.014	0.508	0.055	0.027	
	8:30 AM May 13	■ Retail sales and food services	Apr	MoM % chg.	0.128	1.26	0.311	0.351	
	8:30 AM May 13	■ PPI: Final demand	Apr	MoM % chg.	0.053	0.183	0.043	0.006	
	10:00 AM May 13	■ Inventories: Total business	Mar	MoM % chg.	0.158	0.443	-0.174	-0.050	
		■ Data revisions						0.026	
May 13									1.25
	8:30 AM May 16	■ Empire State Mfg. Survey: General business conditions	May	Index	8.10	-9.02	0.008	-0.143	
	8:30 AM May 17	■ CPI-U: All items	Apr	MoM % chg.	0.129	0.408	0.058	0.016	
	8:30 AM May 17	■ Housing starts	Apr	MoM % chg.	2.87	6.64	0.027	0.104	
	8:30 AM May 17	■ CPI-U: All items less food and energy	Apr	MoM % chg.	0.136	0.195	0.018	0.001	
	8:30 AM May 17	■ Building permits	Apr	Level chg. (thousands)	18.4	39.0	0.003	0.054	
	9:10 AM May 17	■ Industrial production index	Apr	MoM % chg.	0.104	0.655	0.369	0.203	
	9:10 AM May 17	■ Capacity utilization	Apr	Ppt. chg.	-0.017	0.479	0.460	0.228	
	8:30 AM May 19	■ Philly Fed Mfg. business outlook: Current activity	May	Index	-2.78	-1.80	0.006	0.006	
		■ Data revisions						-0.008	
May 19									1.71
	10:00 AM May 24	■ New single family houses sold	Apr	MoM % chg.	0.728	16.6	0.016	0.254	
	8:30 AM May 26	■ Manufacturers' new orders: Durable goods	Apr	MoM % chg.	-0.103	3.36	0.029	0.099	
	8:30 AM May 26	■ Manufacturers' shipments: Durable goods	Apr	MoM % chg.	0.671	0.639	0.126	-0.004	
	8:30 AM May 26	■ Mfrs.' unfilled orders: All manufacturing industries	Apr	MoM % chg.	0.132	0.559	-0.026	-0.011	
	8:30 AM May 26	■ Manufacturers' inventories: Durable goods	Apr	MoM % chg.	-0.166	-0.179	-0.454	0.006	
	8:30 AM May 27	■ Real gross domestic income	Q1	QoQ % chg. AR	0.917	2.21	0.020	0.026	
		■ Data revisions						0.074	
May 27									2.15
	8:30 AM May 31	■ Real disposable personal income	Apr	MoM % chg.	0.227	0.153	0.034	-0.003	
	8:30 AM May 31	■ PCE less food and energy: Chain price index	Apr	MoM % chg.	0.148	0.171	0.107	0.002	
	8:30 AM May 31	■ PCE: Chain price index	Apr	MoM % chg.	0.117	0.307	0.099	0.019	
	8:40 AM May 31	■ Real personal consumption expenditures	Apr	MoM % chg.	0.321	0.643	0.386	0.124	
	10:00 AM Jun 01	■ ISM mfg.: Pmi composite index	May	Index	49.8	51.3	0.049	0.076	
	10:00 AM Jun 01	■ ISM mfg.: Prices index	May	Index	57.8	63.5	0.008	0.046	
	10:00 AM Jun 01	■ Value of construction put in place	Apr	MoM % chg.	0.889	-1.83	0.047	-0.128	
	10:00 AM Jun 01	■ ISM mfg.: Employment index	May	Index	47.9	49.2	0.018	0.024	
	8:05 AM Jun 02	■ ADP nonfarm private payroll employment	May	Level chg. (thousands)	162.9	173.0	-0.782*	-0.008	
	8:30 AM Jun 03	■ All employees: Total nonfarm	May	Level chg. (thousands)	103.4	38.0	0.156*	-0.010	
	8:30 AM Jun 03	■ Civilian unemployment rate	May	Ppt. chg.	0.010	-0.300	-0.150	0.047	
	8:30 AM Jun 03	■ Exports: Goods and services	Apr	MoM % chg.	0.944	1.46	0.081	0.042	
	8:30 AM Jun 03	■ Imports: Goods and services	Apr	MoM % chg.	2.12	2.10	0.059	-0.002	
	10:00 AM Jun 03	■ ISM nonmanufacturing: NMI composite index	May	Index	54.8	52.9	0.007	-0.014	
		■ Data revisions						-0.004	
Jun 03									2.37

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)

Nowcast: 2.2
Latest: June 03

Key

◆ FRBNY 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.

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)]	
May 13									**1.45**
	8:30 AM May 16	■ Empire State Mfg. Survey: General business conditions	May	Index	8.10	-9.02	0.020	-0.345	
	8:30 AM May 17	■ CPI-U: All items	Apr	MoM % chg.	0.129	0.408	0.071	0.020	
	8:30 AM May 17	■ Housing starts	Apr	MoM % chg.	2.87	6.64	0.016	0.060	
	8:30 AM May 17	■ CPI-U: All items less food and energy	Apr	MoM % chg.	0.136	0.195	0.022	0.001	
	8:30 AM May 17	■ Building permits	Apr	Level chg. (thousands)	18.4	39.0	0.002	0.032	
	9:10 AM May 17	■ Industrial production index	Apr	MoM % chg.	0.104	0.655	0.252	0.139	
	9:10 AM May 17	■ Capacity utilization	Apr	Ppt. chg.	-0.017	0.479	0.315	0.157	
	8:30 AM May 19	■ Philly Fed Mfg. business outlook: Current activity	May	Index	-2.78	-1.80	0.018	0.017	
		■ Data revisions						-0.020	
May 19									**1.51**
	10:00 AM May 24	■ New single family houses sold	Apr	MoM % chg.	0.728	16.6	0.009	0.147	
	8:30 AM May 26	■ Manufacturers' new orders: Durable goods	Apr	MoM % chg.	-0.103	3.36	0.018	0.063	
	8:30 AM May 26	■ Manufacturers' shipments: Durable goods	Apr	MoM % chg.	0.671	0.639	0.082	-0.003	
	8:30 AM May 26	■ Mfrs.' unfilled orders: All manufacturing industries	Apr	MoM % chg.	0.132	0.559	-0.005	-0.002	
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May 27									**1.78**
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	8:30 AM May 31	■ PCE less food and energy: Chain price index	Apr	MoM % chg.	0.148	0.171	0.113	0.003	
	8:30 AM May 31	■ PCE: Chain price index	Apr	MoM % chg.	0.117	0.307	0.115	0.022	
	8:40 AM May 31	■ Real personal consumption expenditures	Apr	MoM % chg.	0.321	0.643	0.239	0.077	
	10:00 AM Jun 01	■ ISM mfg.: Pmi composite index	May	Index	49.8	51.3	0.120	0.185	
	10:00 AM Jun 01	■ ISM mfg.: Prices index	May	Index	57.8	63.5	0.022	0.128	
	10:00 AM Jun 01	■ Value of construction put in place	Apr	MoM % chg.	0.889	-1.83	0.038	-0.104	
	10:00 AM Jun 01	■ ISM mfg.: Employment index	May	Index	47.9	49.2	0.049	0.063	
	8:05 AM Jun 02	■ ADP nonfarm private payroll employment	May	Level chg. (thousands)	162.9	173.0	-1.148*	-0.012	
	8:30 AM Jun 03	■ All employees: Total nonfarm	May	Level chg. (thousands)	103.4	38.0	0.377*	-0.025	
	8:30 AM Jun 03	■ Civilian unemployment rate	May	Ppt. chg.	0.010	-0.300	-0.256	0.079	
	8:30 AM Jun 03	■ Exports: Goods and services	Apr	MoM % chg.	0.944	1.46	0.056	0.029	
	8:30 AM Jun 03	■ Imports: Goods and services	Apr	MoM % chg.	2.12	2.10	0.040	-0.001	
	10:00 AM Jun 03	■ ISM nonmanufacturing: NMI composite index	May	Index	54.8	52.9	0.020	-0.038	
		■ Data revisions						-0.011	
Jun 03									**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.

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 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 2016: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 FRBNY Staff Nowcast and the Atlanta Fed's Nowcast?

The FRBNY 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 FRBNY 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 FRBNY 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 GDP, not the four quarters ("y/y") growth rate.

Authors

FRBNY Time-Series Analysis Team