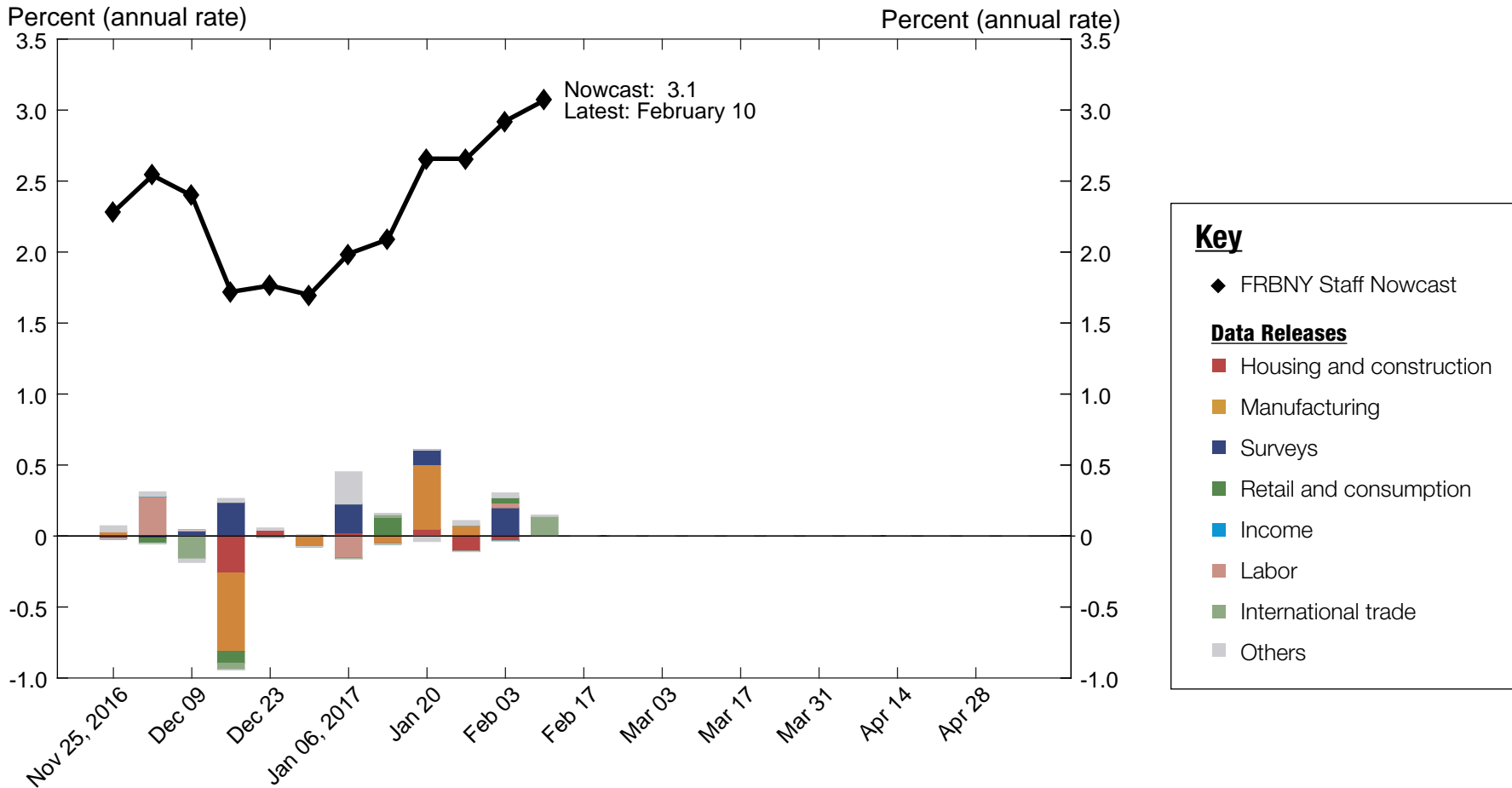# NOWCASTING REPORT

Updated: February 10, 2017

- The FRBNY Staff Nowcast stands at 3.1% for 2017:Q1.

- Positive news from imports and exports moved the nowcast up by 0.2 percentage point over the past week.

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)

Percent (annual rate)

Nowcast: 3.1
Latest: February 10

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.
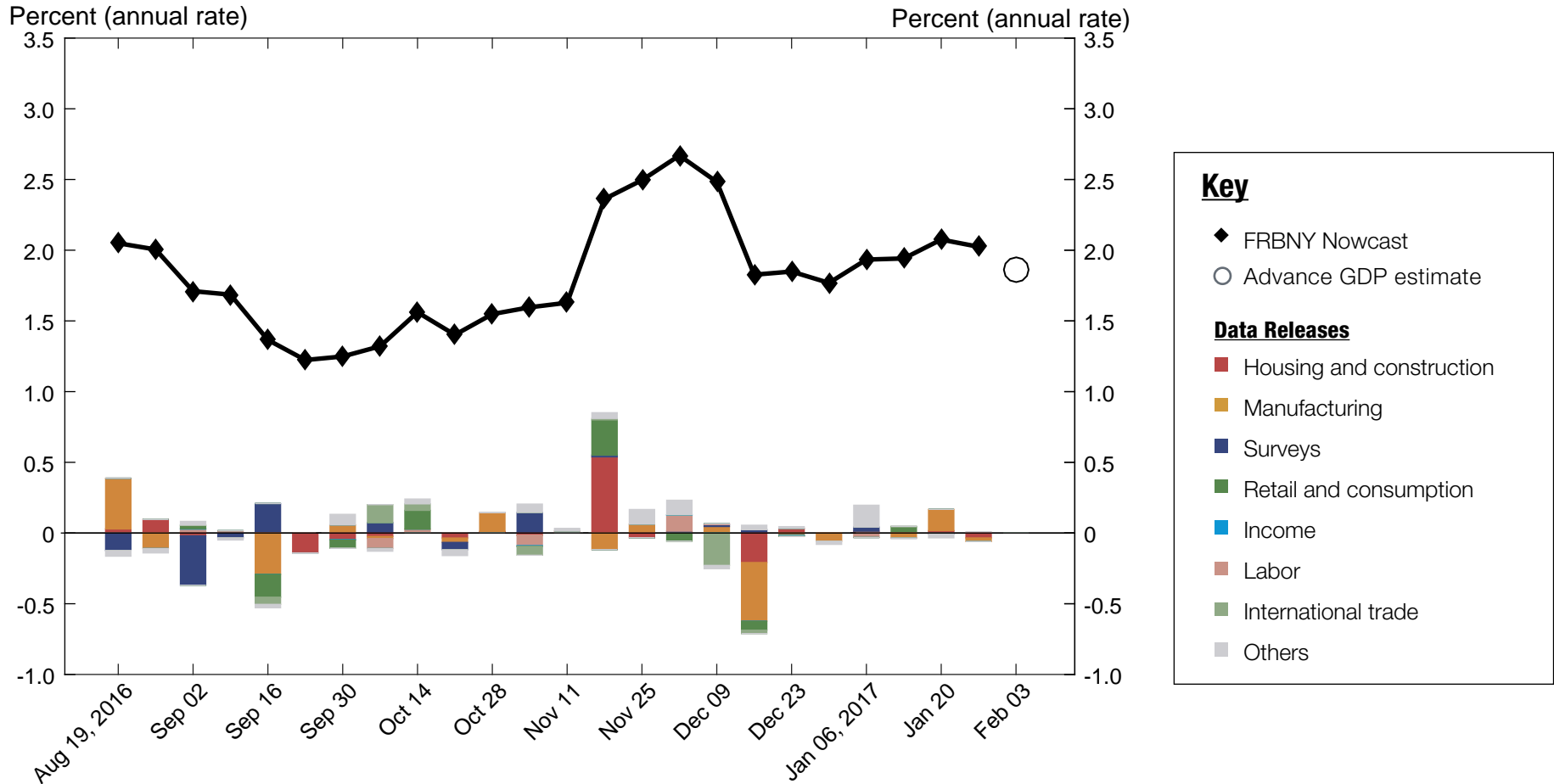
1.1 | Nowcast Detail

■ 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)]	
Jan 13									**2.09**
	8:30 AM Jan 17	■ Empire State Mfg. Survey: General business conditions	Jan	Index	10.2	6.50	0.015	-0.056	
	8:30 AM Jan 18	■ CPI-U: All items	Dec	MoM % chg.	0.222	0.282	0.070	0.004	
	8:30 AM Jan 18	■ CPI-U: All items less food and energy	Dec	MoM % chg.	0.158	0.230	0.085	0.006	
	9:10 AM Jan 18	■ Industrial production index	Dec	MoM % chg.	0.252	0.830	0.398	0.230	
	9:10 AM Jan 18	■ Capacity utilization	Dec	Ppt. chg.	0.126	0.566	0.512	0.225	
	8:30 AM Jan 19	■ Housing starts	Dec	MoM % chg.	7.41	11.3	0.024	0.091	
	8:30 AM Jan 19	■ Building permits	Dec	Level chg. (thousands)	14.9	-2.00	0.003	-0.043	
	8:30 AM Jan 19	■ Philly Fed Mfg. business outlook: Current activity	Jan	Index	12.7	23.6	0.015	0.160	
		■ Data revisions						-0.049	
Jan 19									**2.66**
	8:30 AM Jan 26	■ Merchant wholesalers: Inventories: Total	Dec	MoM % chg.	0.433	0.996	-0.274	-0.154	
	10:00 AM Jan 26	■ New single family houses sold	Dec	MoM % chg.	-1.10	-10.4	0.012	-0.109	
	8:30 AM Jan 27	■ Manufacturers' new orders: Durable goods	Dec	MoM % chg.	2.52	-0.425	0.021	-0.062	
	8:30 AM Jan 27	■ Manufacturers' shipments: Durable goods	Dec	MoM % chg.	0.273	1.41	0.107	0.121	
	8:30 AM Jan 27	■ Mfrs.' unfilled orders: All manufacturing industries	Dec	MoM % chg.	0.380	-0.635	-0.033	0.033	
	8:30 AM Jan 27	■ Manufacturers' inventories: Durable goods	Dec	MoM % chg.	0.378	0.001	-0.364	0.138	
	8:30 AM Jan 27	■ Real gross domestic product	Q4	QoQ % chg. AR	2.04	1.86	-0.000	0.000	
		■ Data revisions						0.033	
Jan 27									**2.66**
	8:30 AM Jan 30	■ Real disposable personal income	Dec	MoM % chg.	0.240	0.148	0.042	-0.004	
	8:30 AM Jan 30	■ PCE less food and energy: Chain price index	Dec	MoM % chg.	0.124	0.112	0.253	-0.003	
	8:30 AM Jan 30	■ PCE: Chain price index	Dec	MoM % chg.	0.144	0.158	0.135	0.002	
	8:40 AM Jan 30	■ Real personal consumption expenditures	Dec	MoM % chg.	0.221	0.328	0.341	0.037	
	8:20 AM Feb 01	■ ADP nonfarm private payroll employment	Jan	Level chg. (thousands)	175.8	246.0	1.110*	0.078	
	10:00 AM Feb 01	■ Value of construction put in place	Dec	MoM % chg.	0.622	-0.246	0.037	-0.033	
	10:00 AM Feb 01	■ ISM mfg.: Pmi composite index	Jan	Index	55.2	56.0	0.084	0.065	
	10:00 AM Feb 01	■ ISM mfg.: Prices index	Jan	Index	64.9	69.0	0.013	0.052	
	10:00 AM Feb 01	■ ISM mfg.: Employment index	Jan	Index	53.6	56.1	0.034	0.084	
	8:30 AM Feb 02	■ Nonfarm business sector: Unit labor cost	Q4	QoQ % chg. AR	2.33	1.68	0.001	-0.001	
	8:30 AM Feb 03	■ All employees: Total nonfarm	Jan	Level chg. (thousands)	223.1	227.0	0.413*	0.002	
	8:30 AM Feb 03	■ Civilian unemployment rate	Jan	Ppt. chg.	-0.071	0.100	-0.261	-0.045	
	10:00 AM Feb 03	■ ISM nonmanufacturing: NMI composite index	Jan	Index	57.6	56.5	0.009	-0.010	
	10:00 AM Feb 03	■ Inventories: Total business	Dec	MoM % chg.	0.394	0.354	-0.202	0.008	
		■ Data revisions						0.033	
Feb 03									**2.92**
	8:30 AM Feb 07	■ Exports: Goods and services	Dec	MoM % chg.	0.992	2.71	0.070	0.120	
	8:30 AM Feb 07	■ Imports: Goods and services	Dec	MoM % chg.	0.712	1.54	0.049	0.041	
	10:00 AM Feb 07	■ JOLTS: Job openings: Total	Dec	Level chg. (thousands)	-16.5	-4.00	0.056*	0.001	
	8:30 AM Feb 10	■ Import price index	Jan	MoM % chg.	0.692	0.411	0.025	-0.007	
	8:30 AM Feb 10	■ Export price index	Jan	MoM % chg.	0.418	0.082	0.048	-0.016	
		■ Data revisions						0.008	
Feb 10									**3.07**

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.

Key

♦ FRBNY Nowcast
○ Advance GDP estimate

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.

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)]	
Dec 29									**1.77**
	11:00 AM Jan 03	■ ISM mfg.: Pmi composite index	Dec	Index	54.5	54.7	0.023	0.006	
	11:00 AM Jan 03	■ ISM mfg.: Prices index	Dec	Index	55.4	65.5	0.003	0.027	
	11:00 AM Jan 03	■ Value of construction put in place	Nov	MoM % chg.	0.243	0.910	0.019	0.013	
	11:00 AM Jan 03	■ ISM mfg.: Employment index	Dec	Index	53.5	53.1	0.008	-0.003	
	9:20 AM Jan 05	■ ADP nonfarm private payroll employment	Dec	Level chg. (thousands)	240.2	152.0	0.197*	-0.017	
	11:00 AM Jan 05	■ ISM nonmanufacturing: NMI composite index	Dec	Index	57.7	57.2	0.001	-0.000	
	9:30 AM Jan 06	■ All employees: Total nonfarm	Dec	Level chg. (thousands)	168.5	156.0	0.127*	-0.002	
	9:30 AM Jan 06	■ Civilian unemployment rate	Dec	Ppt. chg.	-0.007	0.100	-0.118	-0.013	
	9:30 AM Jan 06	■ Exports: Goods and services	Nov	MoM % chg.	0.574	-0.240	0.046	-0.038	
	9:30 AM Jan 06	■ Imports: Goods and services	Nov	MoM % chg.	0.011	1.06	0.036	0.037	
		■ Data revisions						-0.005	
		■ Parameter revisions						0.160	
Jan 06									**1.93**
	10:00 AM Jan 10	■ JOLTS: Job openings: Total	Nov	Level chg. (thousands)	130.5	71.0	0.035*	-0.002	
	10:00 AM Jan 10	■ Inventories: Total business	Nov	MoM % chg.	0.306	0.741	-0.077	-0.034	
	8:30 AM Jan 12	■ Import price index	Dec	MoM % chg.	0.152	0.414	0.008	0.002	
	8:30 AM Jan 12	■ Export price index	Dec	MoM % chg.	0.135	0.331	0.019	0.004	
	8:30 AM Jan 13	■ Retail sales and food services	Dec	MoM % chg.	0.240	0.627	0.110	0.043	
	8:30 AM Jan 13	■ PPI: Final demand	Dec	MoM % chg.	0.192	0.270	0.015	0.001	
		■ Data revisions						-0.006	
Jan 13									**1.94**
	8:30 AM Jan 17	■ Empire State Mfg. Survey: General business conditions	Jan	Index	10.2	6.50	0.001	-0.002	
	8:30 AM Jan 18	■ CPI-U: All items	Dec	MoM % chg.	0.222	0.282	0.024	0.001	
	8:30 AM Jan 18	■ CPI-U: All items less food and energy	Dec	MoM % chg.	0.158	0.230	0.034	0.002	
	9:10 AM Jan 18	■ Industrial production index	Dec	MoM % chg.	0.252	0.830	0.134	0.077	
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	8:30 AM Jan 19	■ Housing starts	Dec	MoM % chg.	7.41	11.3	0.008	0.030	
	8:30 AM Jan 19	■ Building permits	Dec	Level chg. (thousands)	14.9	-2.00	0.001	-0.013	
	8:30 AM Jan 19	■ Philly Fed Mfg. business outlook: Current activity	Jan	Index	12.7	23.6	-0.000	-0.005	
		■ Data revisions						-0.032	
Jan 19									**2.08**
	8:30 AM Jan 26	■ Merchant wholesalers: Inventories: Total	Dec	MoM % chg.	0.433	0.996	-0.046	-0.026	
	10:00 AM Jan 26	■ New single family houses sold	Dec	MoM % chg.	-1.10	-10.4	0.004	-0.034	
		■ Data revisions						0.009	
Jan 27									**2.02**
	8:30 AM Jan 27	■ Real gross domestic product (advance)	Q4	QoQ % chg. AR	2.02	**1.86**		We have concluded our updates of the Q4 nowcast	

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 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

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