# NOWCASTING REPORT

Updated: May 6, 2016

- The FRBNY Staff Nowcast for GDP growth in 2016:Q2 is 0.8%, an estimate roughly in line with those of the past two weeks.

- News from this week's data releases had a minimal net effect on the Q2 nowcast.

- Import data had the largest negative effect on the nowcast, which was offset by positive news from the ISM surveys.

- With the release last week of the Commerce Department's advance GDP estimate for 2016:Q1, we have concluded our updates of the Q1 nowcast. Research shows that GDP revisions between successive official releases are hard to forecast using statistical methods, making the advance release the best available estimate of GDP growth for the moment. However, we will retain the 2016:Q1 chart in the Nowcasting Report until the second GDP estimate is released on May 27. At that point, we will start nowcasting GDP growth for 2016:Q3 and archive the 2016:Q1 chart.

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.

1 | 2016:Q2 GDP Growth
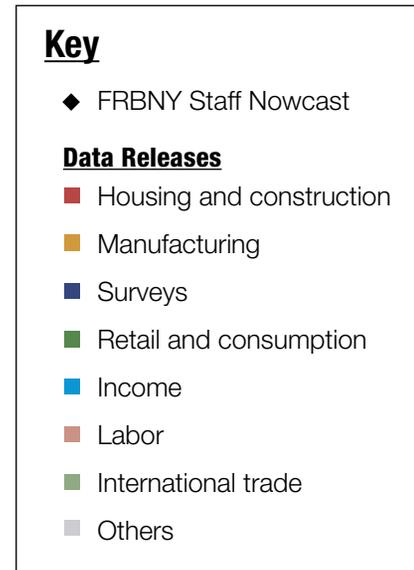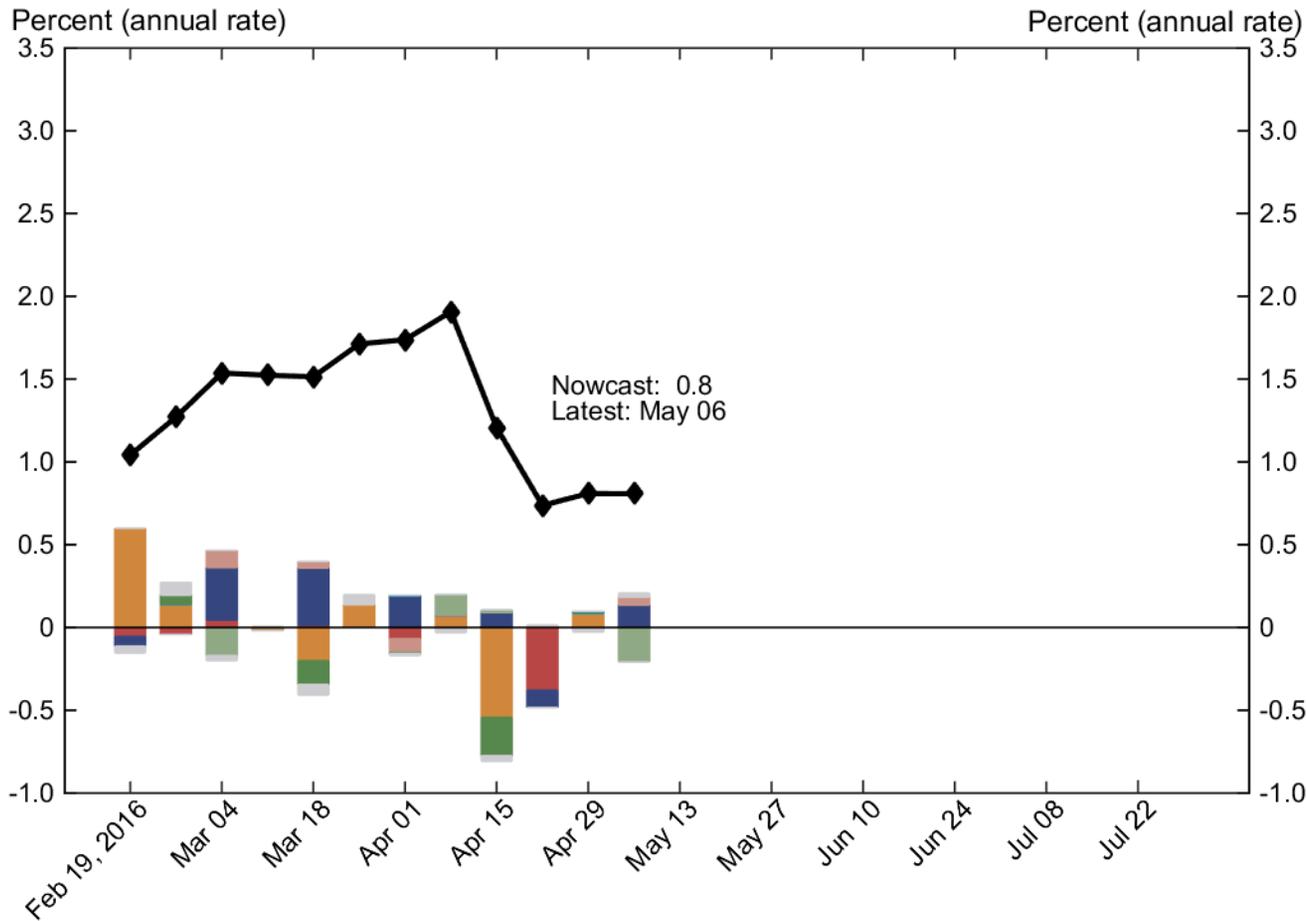
Percent (annual rate)

Nowcast: 0.8
Latest: May 06

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.
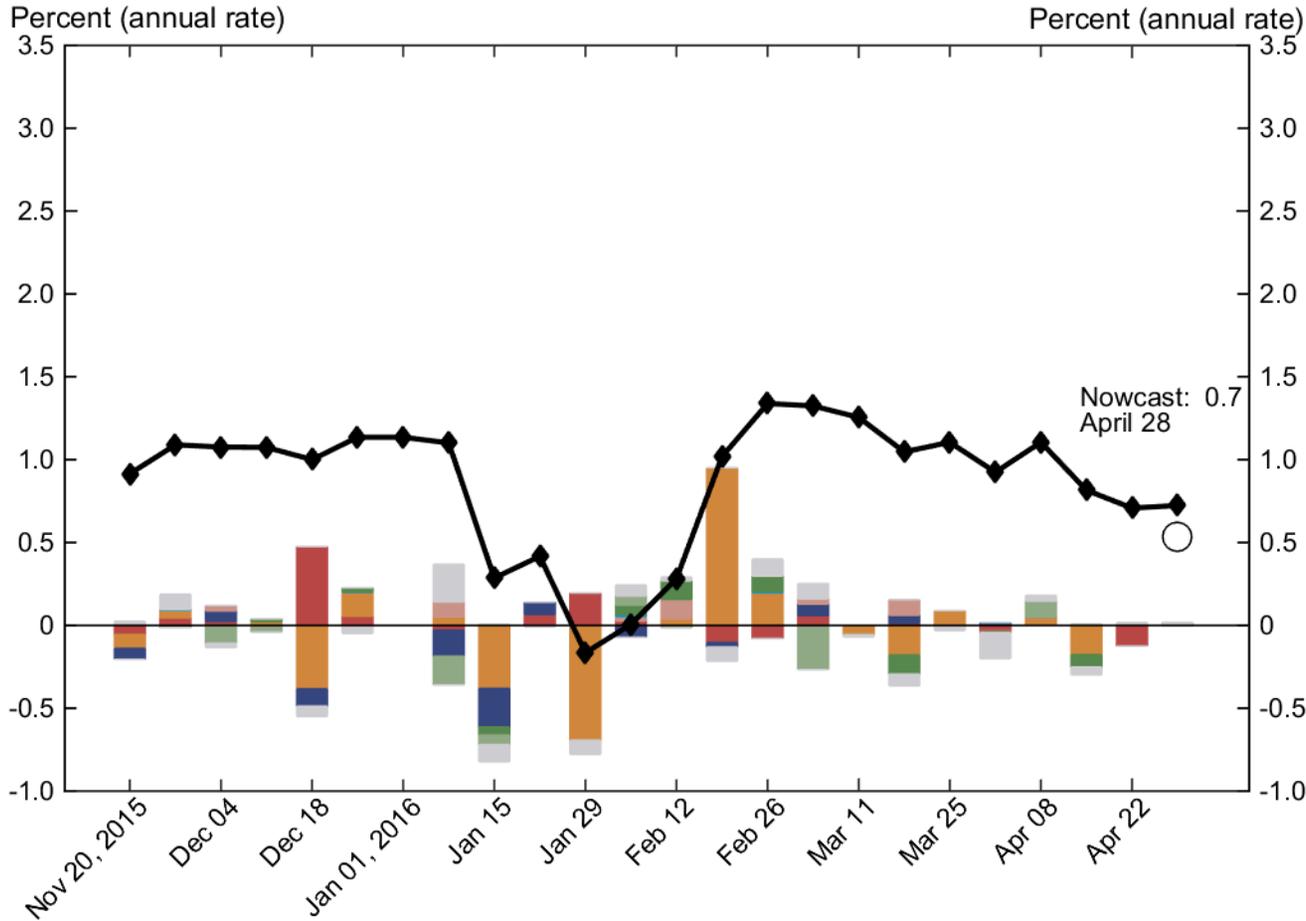
1.1 | Nowcast Detail

■ 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)]	
Apr 08									**1.91**
	8:30 AM Apr 12	■ Import price index	Mar	MoM % chg.	-0.114	0.171	0.035	0.010	
	8:30 AM Apr 12	■ Export price index	Mar	MoM % chg.	-0.126	0.000	0.063	0.008	
	8:30 AM Apr 13	■ Retail sales and food services	Mar	MoM % chg.	0.416	-0.303	0.321	-0.231	
	8:30 AM Apr 13	■ PPI: Final demand	Mar	MoM % chg.	0.033	-0.091	0.049	-0.006	
	10:00 AM Apr 13	■ Inventories: Total business	Feb	MoM % chg.	-0.068	-0.093	-0.117	0.003	
	8:30 AM Apr 14	■ CPI-U: All items	Mar	MoM % chg.	0.038	0.090	0.098	0.005	
	8:30 AM Apr 14	■ CPI-U: All items less food and energy	Mar	MoM % chg.	0.195	0.069	0.030	-0.004	
	8:30 AM Apr 15	■ Empire State Mfg. Survey: General business conditions	Apr	Index	3.32	9.56	0.014	0.090	
	9:10 AM Apr 15	■ Industrial production index	Mar	MoM % chg.	0.098	-0.577	0.442	-0.299	
	9:10 AM Apr 15	■ Capacity utilization	Mar	Ppt. chg.	-0.013	-0.460	0.553	-0.247	
		■ Data revisions						-0.029	
Apr 15									**1.21**
	8:30 AM Apr 19	■ Housing starts	Mar	MoM % chg.	-3.82	-8.79	0.028	-0.138	
	8:30 AM Apr 19	■ Building permits	Mar	Level chg. (thousands)	-0.765	-91.0	0.003	-0.241	
	8:30 AM Apr 21	■ Philly Fed Mfg. business outlook: Current activity	Apr	Index	6.73	-1.60	0.012	-0.104	
		■ Data revisions						0.015	
Apr 21									**0.74**
	10:00 AM Apr 25	■ New single family houses sold	Mar	MoM % chg.	-1.05	-1.54	0.016	-0.008	
	8:30 AM Apr 26	■ Manufacturers' new orders: Durable goods	Mar	MoM % chg.	0.177	0.781	0.029	0.018	
	8:30 AM Apr 26	■ Manufacturers' shipments: Durable goods	Mar	MoM % chg.	-0.257	-0.452	0.128	-0.025	
	8:30 AM Apr 26	■ Mfrs.' unfilled orders: All manufacturing industries	Mar	MoM % chg.	0.221	-0.108	-0.027	0.009	
	8:30 AM Apr 26	■ Manufacturers' inventories: Durable goods	Mar	MoM % chg.	0.177	0.001	-0.479	0.084	
	8:30 AM Apr 28	■ Real gross domestic product	Q1	QoQ % chg. AR	0.723	0.537	-0.019	0.004	
	8:30 AM Apr 29	■ Real disposable personal income	Mar	MoM % chg.	0.129	0.315	0.036	0.007	
	8:30 AM Apr 29	■ PCE less food and energy: Chain price index	Mar	MoM % chg.	0.132	0.052	0.121	-0.010	
	8:30 AM Apr 29	■ PCE: Chain price index	Mar	MoM % chg.	0.048	0.054	0.119	0.001	
	8:40 AM Apr 29	■ Real personal consumption expenditures	Mar	MoM % chg.	0.034	0.048	0.396	0.006	
		■ Data revisions						-0.014	
Apr 29									**0.81**
	10:00 AM May 02	■ ISM mfg.: Pmi composite index	Apr	Index	51.3	50.8	0.089	-0.040	
	10:00 AM May 02	■ ISM mfg.: Prices index	Apr	Index	52.4	59.0	0.016	0.105	
	10:00 AM May 02	■ Value of construction put in place	Mar	MoM % chg.	0.369	0.341	0.054	-0.002	
	10:00 AM May 02	■ ISM mfg.: Employment index	Apr	Index	48.0	49.2	0.035	0.042	
	8:05 AM May 04	■ Adp nonfarm private payroll employment	Apr	Level chg. (thousands)	186.1	155.0	-1.552*	0.048	
	8:30 AM May 04	■ Exports: Goods and services	Mar	MoM % chg.	-0.422	-0.867	0.086	-0.038	
	8:30 AM May 04	■ Imports: Goods and services	Mar	MoM % chg.	-0.846	-3.58	0.062	-0.169	
	10:00 AM May 04	■ ISM nonmanufacturing: NMI composite index	Apr	Index	53.9	55.7	0.016	0.029	
	10:00 AM May 04	■ Nonfarm business sector: Unit labor cost	Q1	QoQ % chg. AR	-0.179	4.00	-0.002	-0.009	
	8:30 AM May 06	■ All employees: Total nonfarm	Apr	Level chg. (thousands)	144.1	160.0	0.250*	0.004	
	8:30 AM May 06	■ Civilian unemployment rate	Apr	Ppt. chg.	0.026	0.000	-0.205	0.005	
		■ Data revisions						0.024	
May 06									**0.81**

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)

Key

◆ FRBNY Nowcast
○ Advance GDP estimate

Data Releases

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

Nowcast: 0.7
April 28

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)]	
Apr 01									**0.92**
	8:30 AM Apr 05	■ Imports: Goods and services	Feb	MoM % chg.	0.048	1.33	0.042	0.054	
	8:30 AM Apr 05	■ Exports: Goods and services	Feb	MoM % chg.	0.229	1.01	0.054	0.042	
	10:00 AM Apr 05	■ ISM nonmanufacturing: NMI composite index	Mar	Index	54.4	54.5	0.002	0.000	
	10:00 AM Apr 05	■ JOLTS: Job openings: Total	Feb	Level chg. (thousands)	-178.2	-159.0	0.153*	0.003	
	10:00 AM Apr 08	■ Merchant wholesalers: Inventories: Total	Feb	MoM % chg.	0.082	-0.480	-0.085	0.048	
		■ Data revisions						0.034	
Apr 08									**1.11**
	8:30 AM Apr 12	■ Import price index	Mar	MoM % chg.	-0.114	0.171	0.009	0.002	
	8:30 AM Apr 12	■ Export price index	Mar	MoM % chg.	-0.126	0.000	0.019	0.002	
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	9:10 AM Apr 15	■ Capacity utilization	Mar	Ppt. chg.	-0.013	-0.460	0.179	-0.080	
		■ Data revisions						-0.044	
Apr 15									**0.82**
	8:30 AM Apr 19	■ Housing starts	Mar	MoM % chg.	-3.82	-8.79	0.009	-0.047	
	8:30 AM Apr 19	■ Building permits	Mar	Level chg. (thousands)	-0.765	-91.0	0.001	-0.078	
	8:30 AM Apr 21	■ Philly Fed Mfg. business outlook: Current activity	Apr	Index	6.73	-1.60	-0.000	0.003	
		■ Data revisions						0.014	
Apr 21									**0.71**
	10:00 AM Apr 25	■ New single family houses sold	Mar	MoM % chg.	-1.05	-1.54	0.005	-0.003	
	8:30 AM Apr 26	■ Manufacturers' new orders: Durable goods	Mar	MoM % chg.	0.177	0.781	0.011	0.007	
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	8:30 AM Apr 26	■ Manufacturers' inventories: Durable goods	Mar	MoM % chg.	0.177	0.001	-0.083	0.015	
		■ Data revisions						0.006	
Apr 28									**0.72**
		Nowcast stopped with the advance GDP release							**0.54**

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.

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