

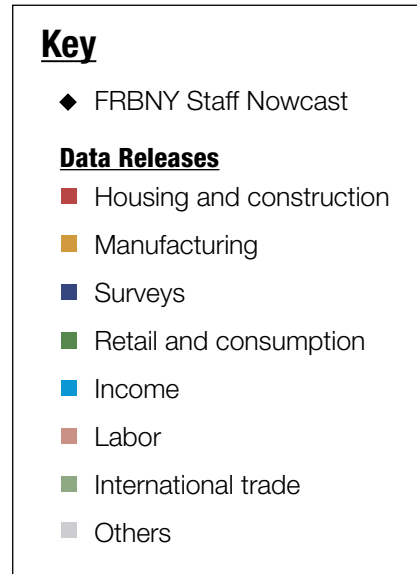
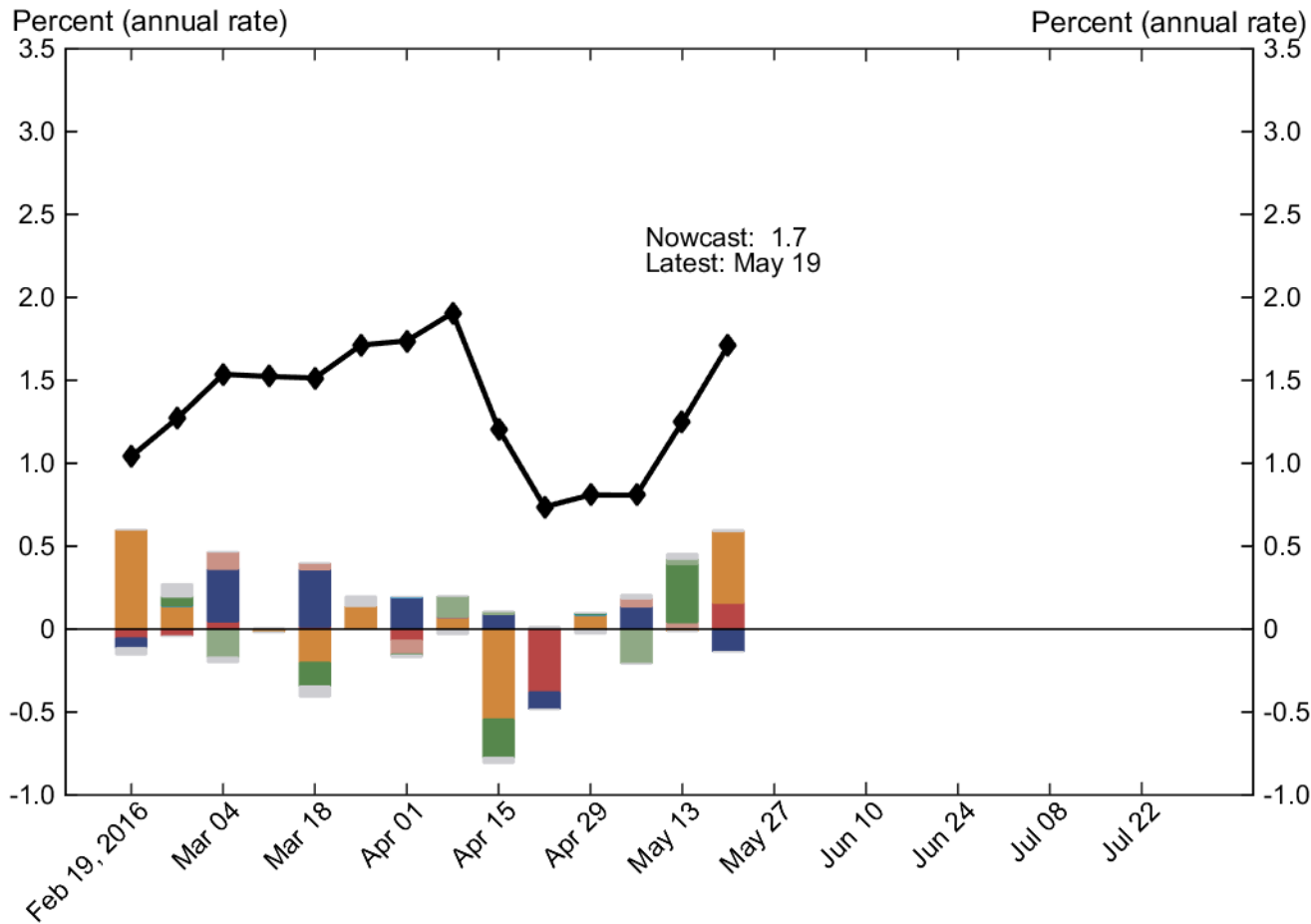
NOWCASTING REPORT

Updated: May 20, 2016

- The FRBNY Staff Nowcast for GDP growth in 2016:Q2 is 1.7%, half a percentage point higher than last week.
- Positive news came from manufacturing and housing data and were only slightly offset by negative news from survey data.

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.

1 | 2016:Q2 GDP Growth



Source: Authors' calculations.

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

1.1 | Nowcast Detail

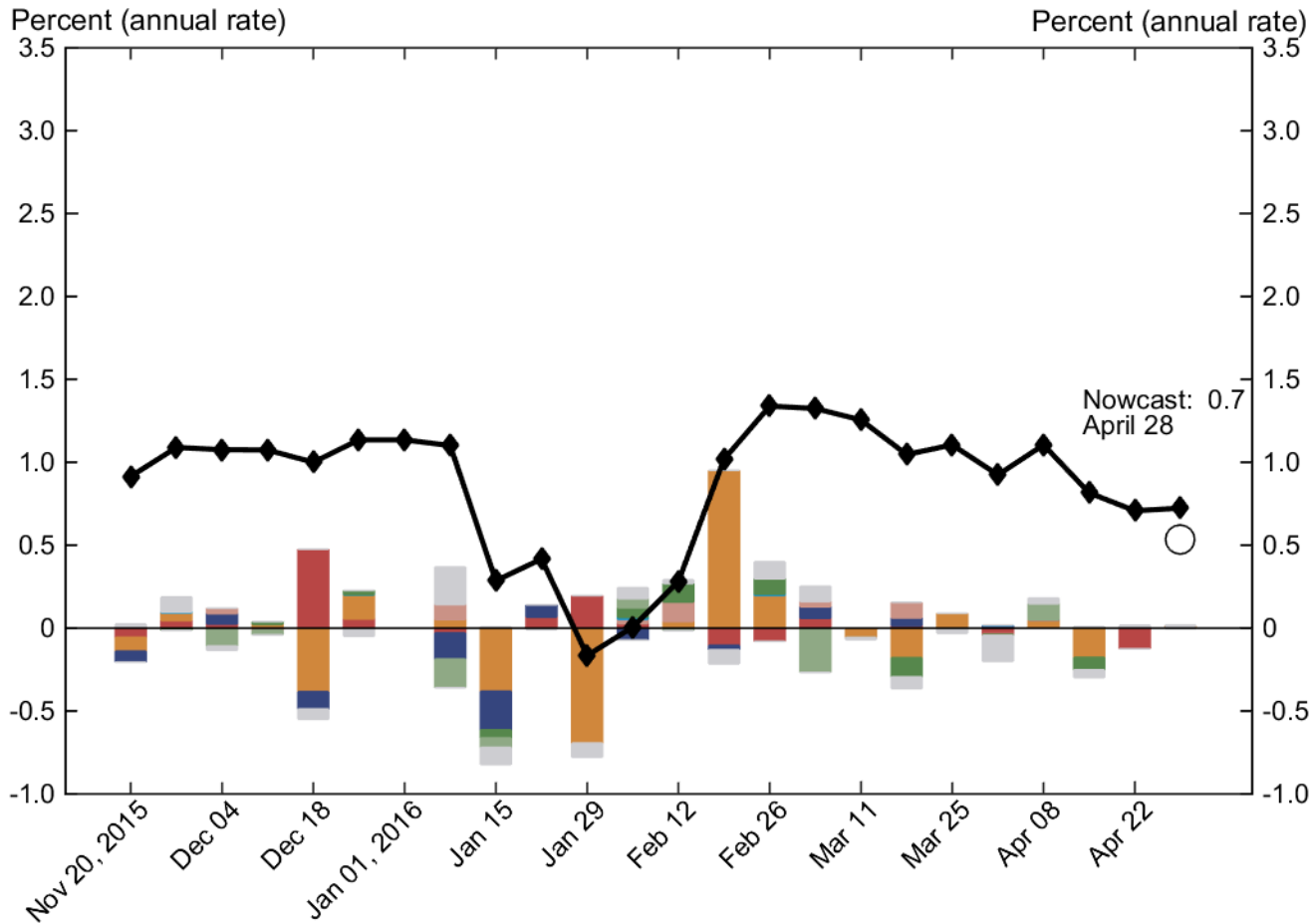
■ Housing and construction
 ■ Manufacturing
 ■ Surveys
 ■ Retail and consumption
 ■ Income
 ■ Labor
 ■ International trade
 ■ Others

Update	Release Date	Data Series	Reference Period	Units	Forecast	Actual	Weight	Impact	Nowcast GDP Growth		
					[a]	[b]	[c]	[c(b - a)]			
Apr 21	10:00 AM Apr 25	■ New single family houses sold	Mar	MoM % chg.	-1.05	-1.54	0.016	-0.008	0.74		
	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	10:00 AM May 02	■ ISM mfg.: Pmi composite index	Apr	Index	51.3	50.8	0.089	-0.040	0.81		
	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	-0.002	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	10:00 AM May 10	■ JOLTS: Job openings: Total	Mar	Level chg. (thousands)	-41.8	149.0	0.209*		0.040	0.81
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		8:30 AM May 16	■ Empire State Mfg. Survey: General business conditions	May	Index	8.10	-9.02	0.008	-0.143	1.25	
		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		

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.

2 | 2016:Q1 GDP Growth



Key

- ◆ FRBNY Nowcast
- Advance GDP 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

■ Housing and construction
 ■ Manufacturing
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Update	Release Date	Data Series	Reference Period	Units	Forecast	Actual	Weight	Impact	Nowcast GDP Growth	
					[a]	[b]	[c]	[c(b - a)]		
Apr 01	8:30 AM Apr 05	Imports: Goods and services	Feb	MoM % chg.	0.048	1.33	0.042	0.054	0.92	
	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		
Apr 08		Data revisions						0.034	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		
	8:30 AM Apr 13	Retail sales and food services	Mar	MoM % chg.	0.416	-0.303	0.105	-0.076		
	8:30 AM Apr 13	PPI: Final demand	Mar	MoM % chg.	0.033	-0.091	0.016	-0.002		
	10:00 AM Apr 13	Inventories: Total business	Feb	MoM % chg.	-0.068	-0.093	-0.081	0.002		
	8:30 AM Apr 14	CPI-U: All items	Mar	MoM % chg.	0.038	0.090	0.029	0.002		
	8:30 AM Apr 14	CPI-U: All items less food and energy	Mar	MoM % chg.	0.195	0.069	0.010	-0.001		
	8:30 AM Apr 15	Empire State Mfg. Survey: General business conditions	Apr	Index	3.32	9.56	0.001	0.003		
	9:10 AM Apr 15	Industrial production index	Mar	MoM % chg.	0.098	-0.577	0.146	-0.099		
	9:10 AM Apr 15	Capacity utilization	Mar	Ppt. chg.	-0.013	-0.460	0.179	-0.080		
			Data revisions							-0.044
	Apr 15	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	10:00 AM Apr 25	New single family houses sold	Mar	MoM % chg.	-1.05	-1.54	0.005	-0.003	0.71	
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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	8:30 AM Apr 28	Real gross domestic product (advance)	Q1	QoQ % chg. AR	0.723	0.54	We have concluded our updates of the Q1 nowcast		0.72	

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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