NOWCASTING REPORT

Updated: April 14, 2017

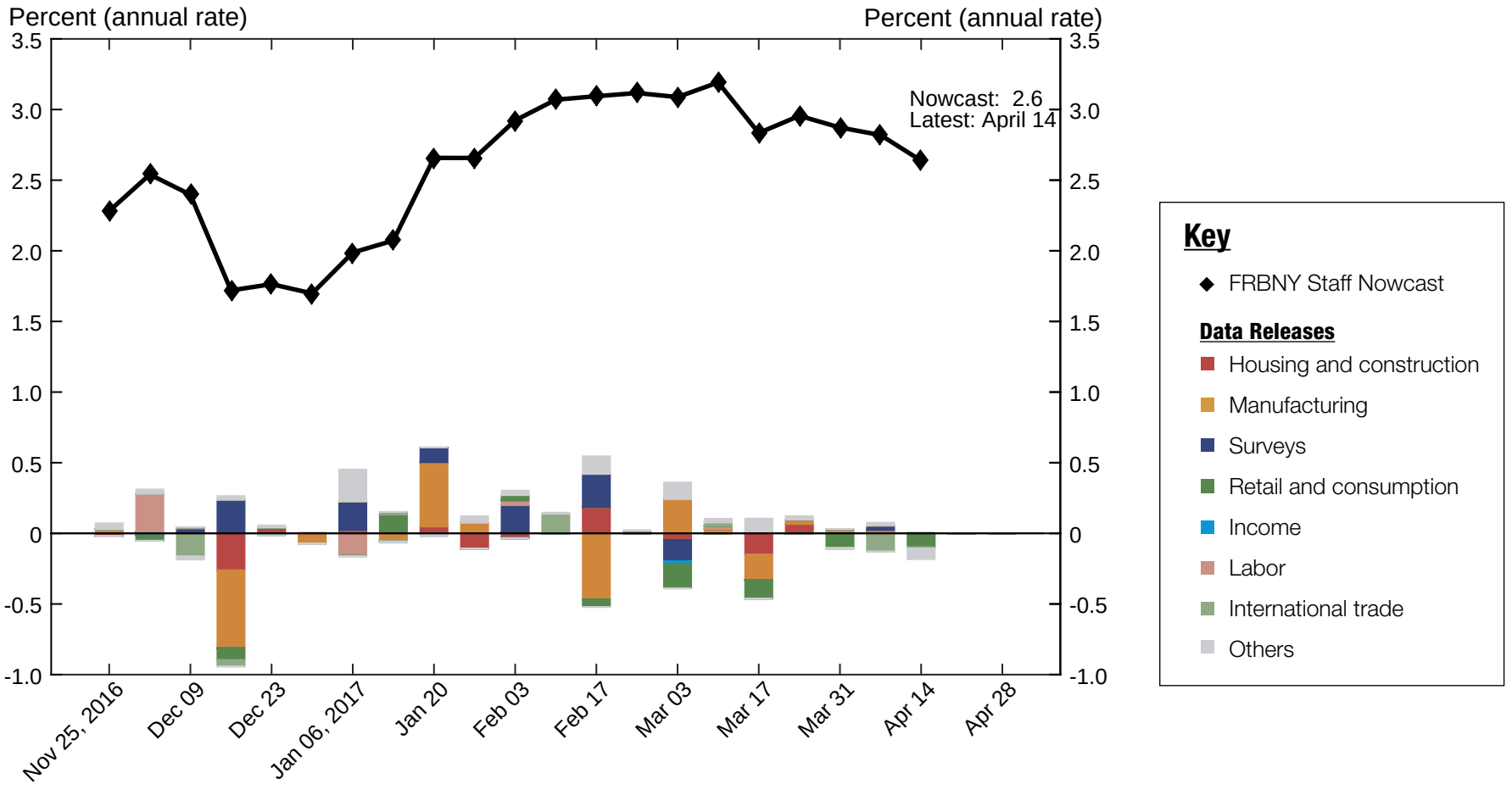
- The FRBNY Staff Nowcast stands at 2.6% for 2017:Q1 and 2.1% for 2017:Q2.

- Incoming data during the week lead to a reduction of the nowcast by 0.2 and 0.5 percentage point for 2017:Q1 and 2017:Q2, respectively.

- The changes in the nowcast were mainly driven by a negative surprise from retail sales.

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).

1 | 2017:Q1 GDP Growth



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

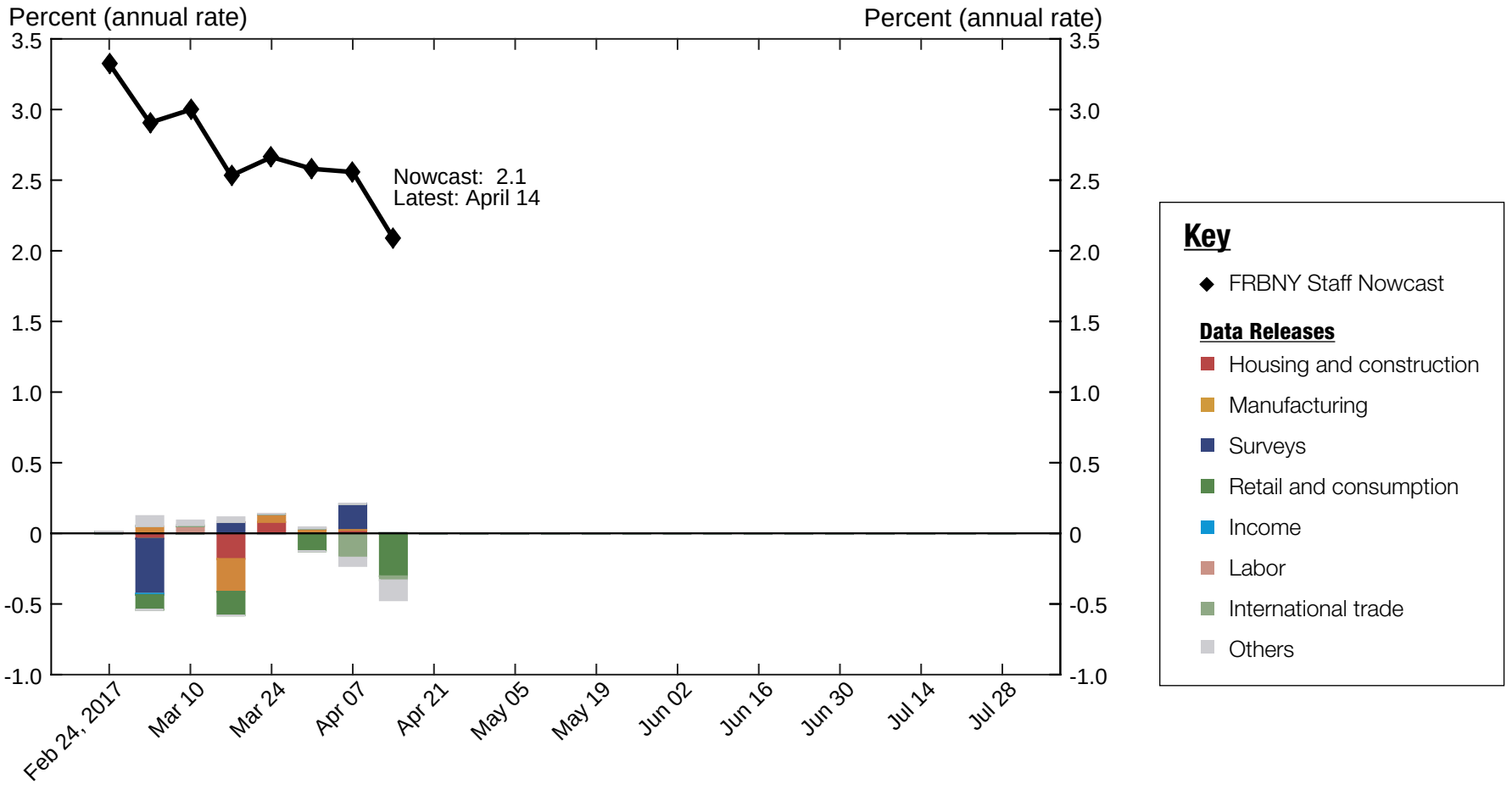
1.1 | Nowcast Detail

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
					$[a]$	$[b]$	$[c]$	$[c(b-a)]$	
Mar 17									**2.83**
	10:00 AM Mar 23	New single family houses sold	Feb	MoM % chg.	-1.60	6.09	0.008	0.065	
	8:30 AM Mar 24	Manufacturers' new orders: Durable goods	Feb	MoM % chg.	0.327	1.67	0.016	0.021	
	8:30 AM Mar 24	Manufacturers' shipments: Durable goods	Feb	MoM % chg.	0.928	0.265	0.079	-0.052	
	8:30 AM Mar 24	Mfrs.' unfilled orders: All manufacturing industries	Feb	MoM % chg.	0.516	-0.020	-0.015	0.008	
	8:30 AM Mar 24	Manufacturers' inventories: Durable goods	Feb	MoM % chg.	0.481	0.220	-0.210	0.055	
		Data revisions						0.025	
Mar 24									**2.96**
	8:30 AM Mar 28	Merchant wholesalers: Inventories: Total	Feb	MoM % chg.	0.694	0.387	-0.099	0.030	
	8:30 AM Mar 30	Real gross domestic income	Q4	QoQ % chg. AR	2.38	0.995	0.014	-0.019	
	8:30 AM Mar 31	PCE less food and energy: Chain price index	Feb	MoM % chg.	0.179	0.191	0.153	0.002	
	8:30 AM Mar 31	PCE: Chain price index	Feb	MoM % chg.	0.294	0.130	0.073	-0.012	
	8:30 AM Mar 31	Real disposable personal income	Feb	MoM % chg.	0.278	0.180	0.028	-0.003	
	8:50 AM Mar 31	Real personal consumption expenditures	Feb	MoM % chg.	0.354	-0.074	0.231	-0.099	
		Data revisions						0.018	
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**

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 | 2017:Q2 GDP Growth



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
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	10:00 AM Mar 23	New single family houses sold	Feb	MoM % chg.	-1.60	6.09	0.010	0.080	
	8:30 AM Mar 24	Manufacturers' new orders: Durable goods	Feb	MoM % chg.	0.327	1.67	0.018	0.024	
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	8:40 AM Apr 14	CPI-U: All items less food and energy	Mar	MoM % chg.	0.177	-0.122	0.127	-0.038	
		Data revisions						-0.041	
Apr 14									**2.09**

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

FRBNY Time-Series Analysis Team