NOWCASTING REPORT

Updated: March 16, 2018

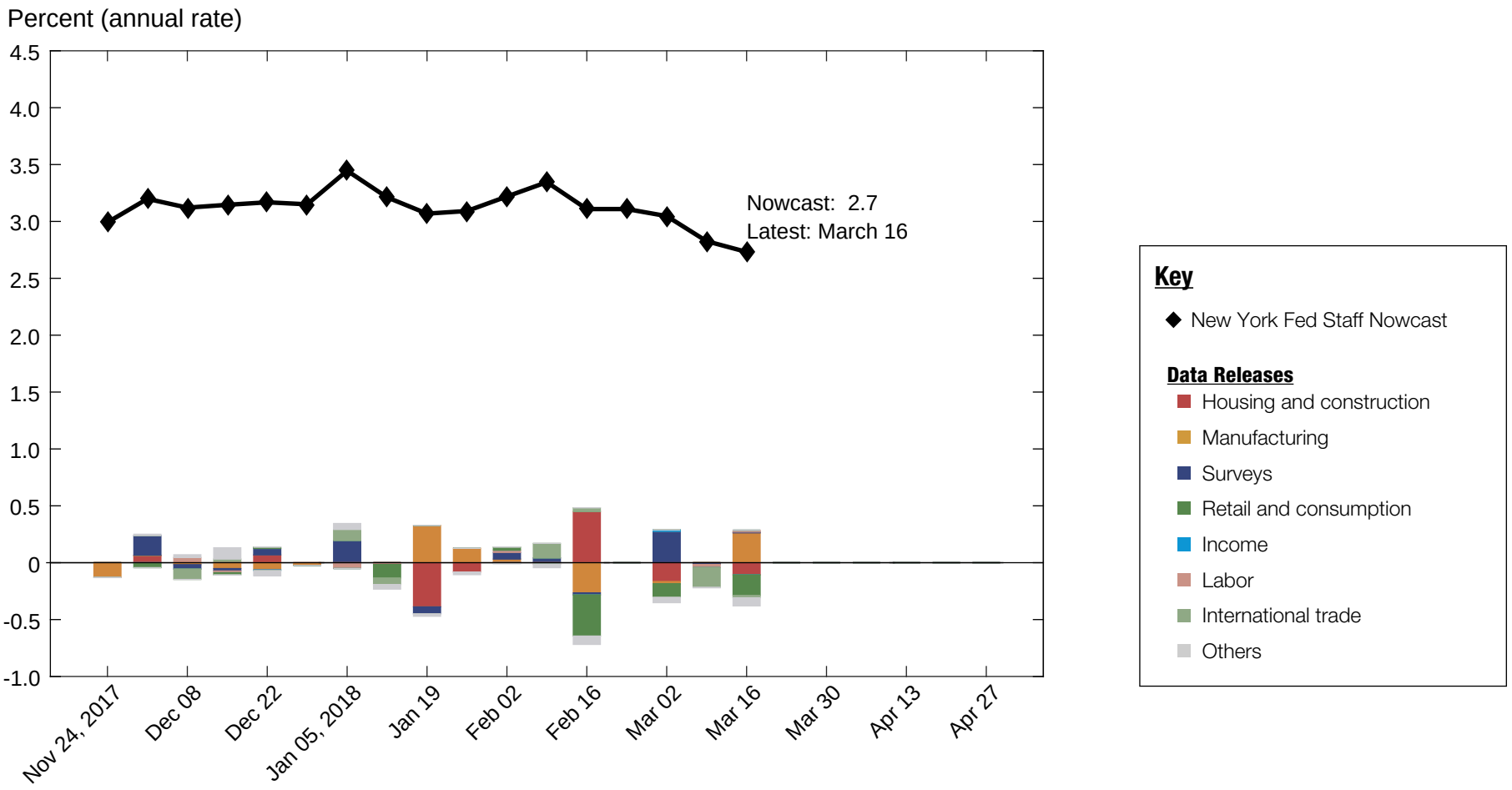
- The New York Fed Staff Nowcast stands at 2.7% for 2018:Q1 and 2.8% for 2018:Q2.

- News from this week's data releases decreased the nowcast for 2018:Q1 by 0.1 percentage point and decreased the nowcast for 2018:Q2 by 0.2 percentage point.

- Positive surprises from industrial production and capacity utilization were roughly offset by negative surprises from retail sales and new residential construction data.

The New York Fed 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 | 2018:Q1 GDP Growth



Source: Authors' calculations, based on data accessed through Haver Analytics.
Note: Colored bars reflect the impact of each data release on the nowcast.

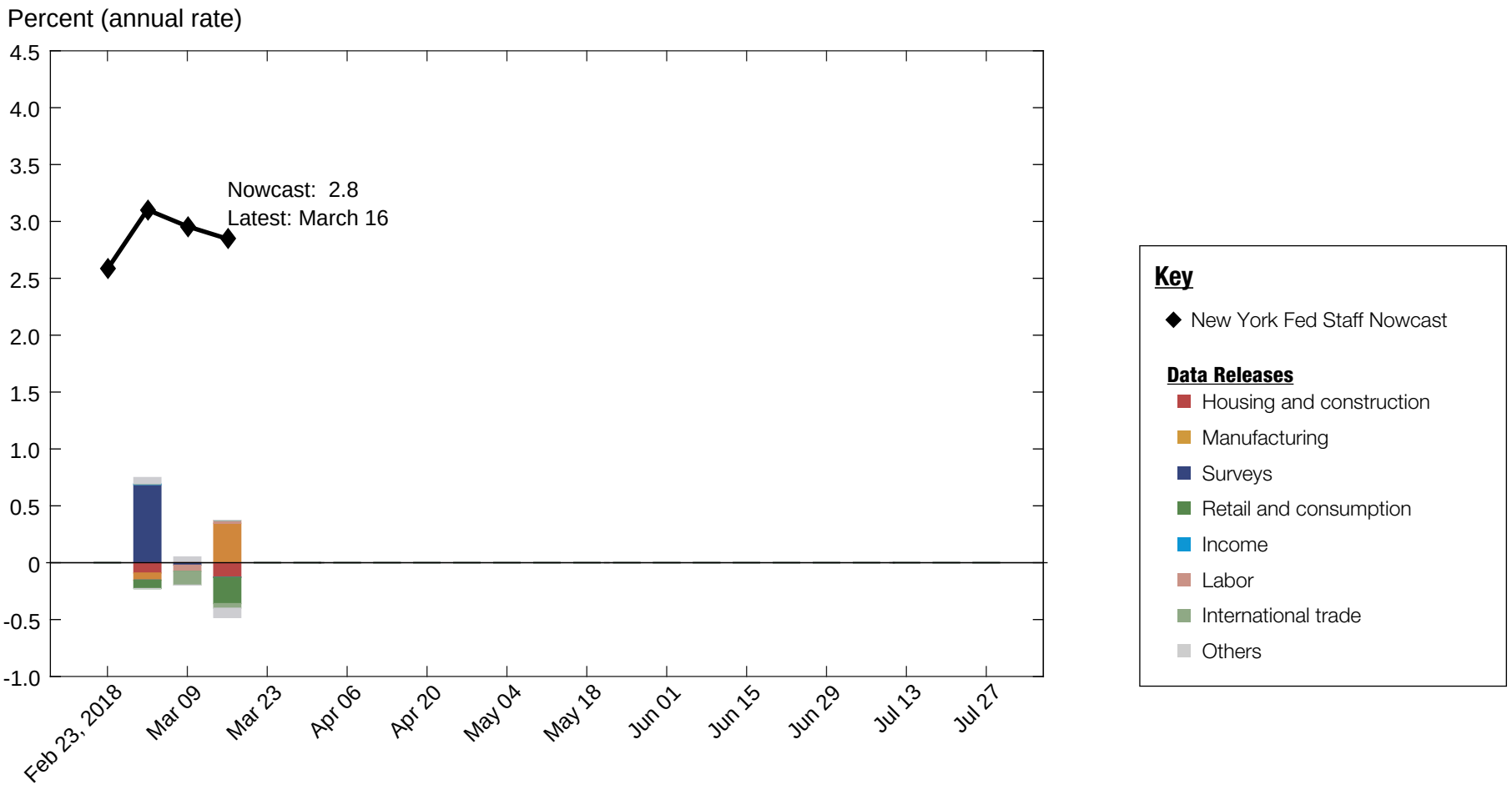
1.1 | Nowcast Detail

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)]	
Feb 16									**3.11**
		No tracked data releases this week							
Feb 23									**3.11**
	10:00 AM Feb 26	New single family houses sold	Jan	MoM % chg.	2.85	-7.78	0.014	-0.145	
	8:30 AM Feb 27	Manufacturers' new orders: Durable goods	Jan	MoM % chg.	0.173	-3.68	0.021	-0.080	
	8:30 AM Feb 27	Merchant wholesalers: Inventories: Total	Jan	MoM % chg.	0.730	0.693	-0.161	0.006	
	8:30 AM Feb 27	Manufacturers' shipments: Durable goods	Jan	MoM % chg.	0.721	0.238	0.115	-0.056	
	8:30 AM Feb 27	Mfrs.' unfilled orders: All manufacturing industries	Jan	MoM % chg.	0.783	-0.272	-0.028	0.030	
	8:30 AM Feb 27	Manufacturers' inventories: Durable goods	Jan	MoM % chg.	0.545	0.307	-0.336	0.080	
	8:30 AM Mar 01	Real disposable personal income	Jan	MoM % chg.	0.162	0.553	0.036	0.014	
	8:30 AM Mar 01	PCE less food and energy: Chain price index	Jan	MoM % chg.	0.154	0.271	0.210	0.025	
	8:30 AM Mar 01	PCE: Chain price index	Jan	MoM % chg.	0.183	0.368	0.121	0.022	
	8:30 AM Mar 01	Real personal consumption expenditures	Jan	MoM % chg.	0.218	-0.141	0.330	-0.118	
	10:00 AM Mar 01	Value of construction put in place	Jan	MoM % chg.	0.581	0.007	0.035	-0.020	
	10:00 AM Mar 01	ISM mfg.: Pmi composite index	Feb	Index	58.3	60.8	0.056	0.141	
	10:00 AM Mar 01	ISM mfg.: Prices index	Feb	Index	71.2	74.2	0.008	0.024	
	10:00 AM Mar 01	ISM mfg.: Employment index	Feb	Index	54.4	59.7	0.021	0.110	
		Data revisions						-0.094	
Mar 01									**3.05**
	10:00 AM Mar 05	ISM nonmanufacturing: NMI composite index	Feb	Index	60.6	59.5	0.007	-0.008	
	10:00 AM Mar 06	Inventories: Total business	Jan	MoM % chg.	0.561	0.599	-0.190	-0.007	
	8:05 AM Mar 07	ADP nonfarm private payroll employment	Feb	Level chg. (thousands)	282.8	235.0	0.534*	-0.026	
	8:30 AM Mar 07	Exports: Goods and services	Jan	MoM % chg.	0.862	-1.32	0.066	-0.145	
	8:30 AM Mar 07	Imports: Goods and services	Jan	MoM % chg.	0.576	-0.002	0.047	-0.027	
	8:30 AM Mar 09	All employees: Total nonfarm	Feb	Level chg. (thousands)	259.3	313.0	0.298*	0.016	
	8:30 AM Mar 09	Civilian unemployment rate	Feb	Ppt. chg.	-0.086	0.000	-0.218	-0.019	
		Data revisions						-0.005	
Mar 09									**2.83**
	8:40 AM Mar 13	CPI-U: All items	Feb	MoM % chg.	0.413	0.150	0.074	-0.019	
	8:40 AM Mar 13	CPI-U: All items less food and energy	Feb	MoM % chg.	0.222	0.182	0.084	-0.003	
	8:30 AM Mar 14	Retail sales and food services	Feb	MoM % chg.	0.672	-0.068	0.243	-0.180	
	8:30 AM Mar 14	PPI: Final demand	Feb	MoM % chg.	0.244	0.174	0.036	-0.002	
	8:30 AM Mar 15	Import price index	Feb	MoM % chg.	0.923	0.395	0.016	-0.009	
	8:30 AM Mar 15	Export price index	Feb	MoM % chg.	0.609	0.239	0.033	-0.012	
	8:30 AM Mar 15	Empire State Mfg. Survey: General business conditions	Mar	Index	17.2	22.5	0.003	0.014	
	8:30 AM Mar 15	Philly Fed Mfg. business outlook: Current activity	Mar	Index	26.8	22.3	0.001	-0.007	
	8:30 AM Mar 16	Housing starts	Feb	MoM % chg.	-5.20	-7.00	0.017	-0.031	
	8:30 AM Mar 16	Building permits	Feb	Level chg. (thousands)	-37.0	-79.0	0.002	-0.076	
	9:10 AM Mar 16	Industrial production index	Feb	MoM % chg.	0.372	1.06	0.205	0.142	
	9:10 AM Mar 16	Capacity utilization	Feb	Ppt. chg.	0.243	0.699	0.264	0.121	
	10:00 AM Mar 16	JOLTS: Job openings: Total	Jan	Level chg. (thousands)	173.2	645.0	0.033*	0.016	
		Data revisions						-0.047	
Mar 16									**2.73**

Source: Authors' calculations, based on data accessed through Haver Analytics.
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 | 2018:Q2 GDP Growth



Source: Authors' calculations, based on data accessed through Haver Analytics.
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)]	
Feb 16									**2.58**
		No tracked data releases this week							
Feb 23									**2.58**
	10:00 AM Feb 26	New single family houses sold	Jan	MoM % chg.	2.85	-7.78	0.007	-0.073	
	8:30 AM Feb 27	Manufacturers' new orders: Durable goods	Jan	MoM % chg.	0.173	-3.68	0.013	-0.052	
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	10:00 AM Mar 01	ISM mfg.: Prices index	Feb	Index	71.2	74.2	0.022	0.066	
	10:00 AM Mar 01	ISM mfg.: Employment index	Feb	Index	54.4	59.7	0.053	0.278	
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	8:30 AM Mar 09	Civilian unemployment rate	Feb	Ppt. chg.	-0.086	0.000	-0.308	-0.027	
		Data revisions						0.050	
Mar 09									**2.96**
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	9:10 AM Mar 16	Capacity utilization	Feb	Ppt. chg.	0.243	0.699	0.350	0.160	
	10:00 AM Mar 16	JOLTS: Job openings: Total	Jan	Level chg. (thousands)	173.2	645.0	0.054*	0.025	
		Data revisions						-0.037	
Mar 16									**2.85**

Source: Authors' calculations, based on data accessed through Haver Analytics.
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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 the nowcast for 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 New York Fed Staff Nowcast and the Atlanta Fed's Nowcast?

The New York Fed 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 New York Fed 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 New York Fed 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 real GDP, not the four-quarter ("y/y") growth rate.

4. Can we obtain the data underlying this analysis?

We are not making the underlying data available at this time. The tables list the data series employed in calculating our estimates. Sources include the U.S. Bureau of Labor Statistics, Institute for Supply Management, U.S. Census Bureau, U.S. Bureau of Economic Analysis, the New York and Philadelphia Feds, the Fed Board of Governors, and the ADP (Automatic Data Processing, Inc.).

Authors

New York Fed Time-Series Analysis Team