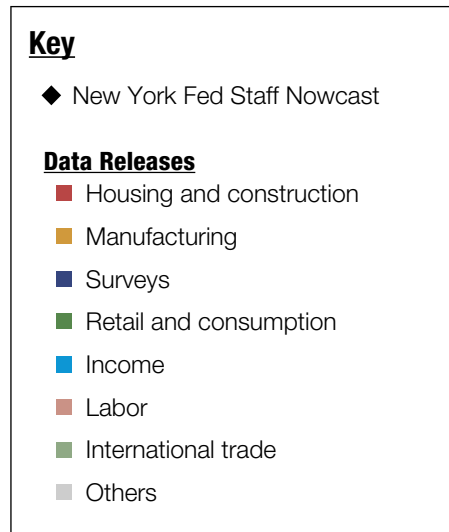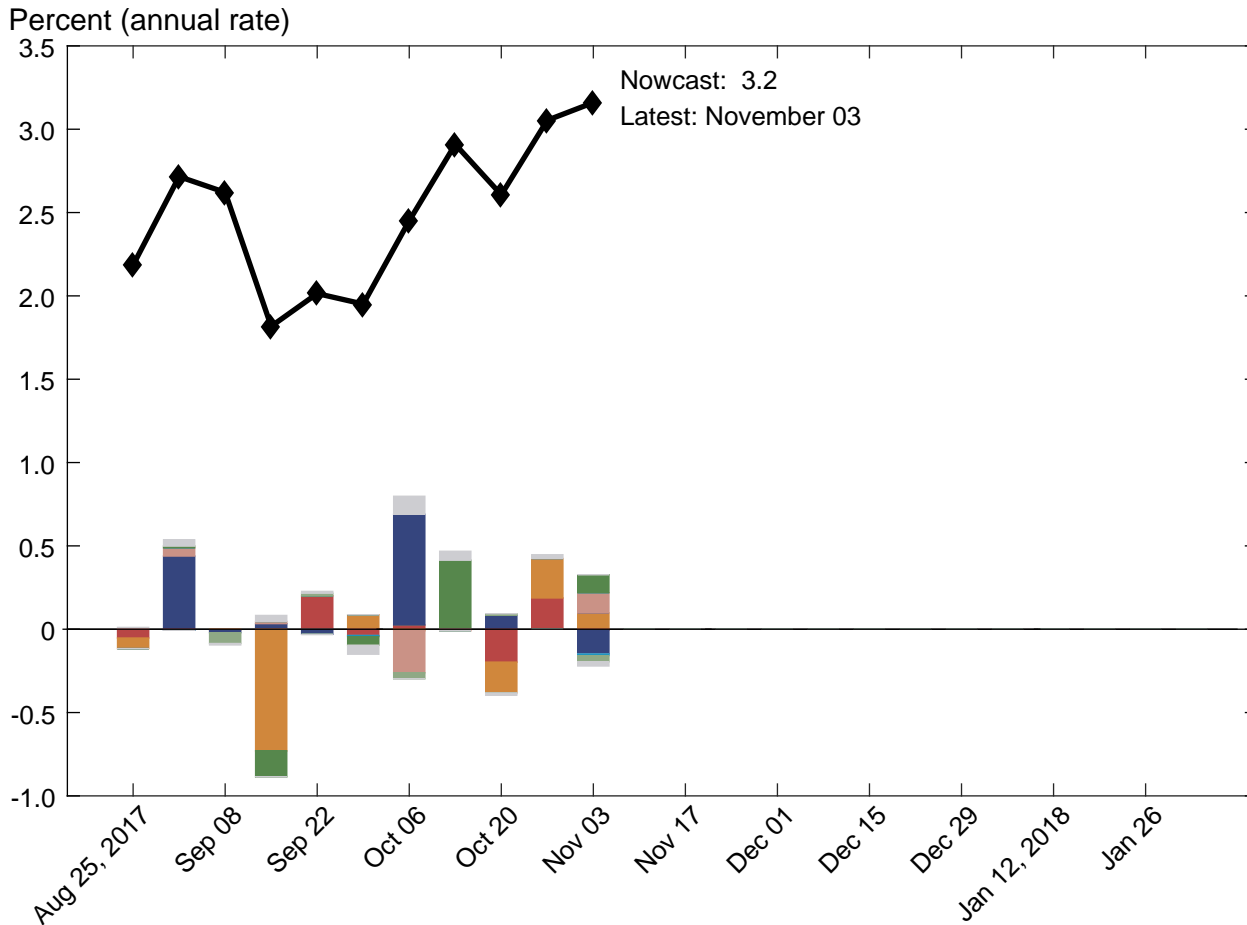# NOWCASTING REPORT

Updated: November 3, 2017

- The New York Fed Staff Nowcast for 2017:Q4 stands at 3.2%.

- News from this week's data releases increased the nowcast for Q4 by 0.1 percentage point.

- Positive surprises from personal consumption expenditures, labor market data, and business inventories outweighed negative surprises from survey 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 | 2017:Q4 GDP Growth

Percent (annual rate)

Nowcast: 3.2
Latest: November 03

Key

◆ New York Fed Staff Nowcast

Data Releases
- 🟥 Housing and construction
- 🟧 Manufacturing
- 🟦 Surveys
- 🟩 Retail and consumption
- 🟦 Income
- 🟧 Labor
- 🟩 International trade
- ⬜ Others

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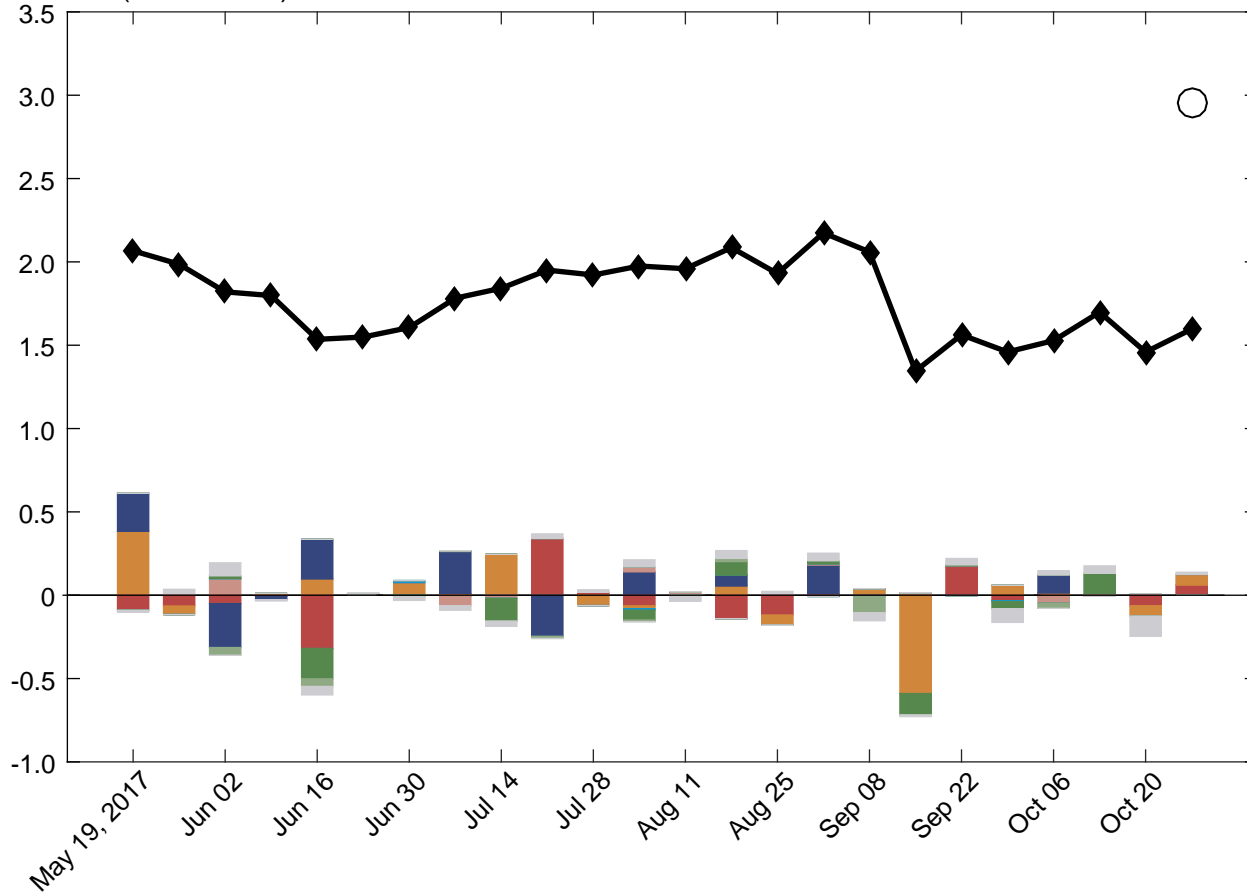Note: Colored bars reflect the impact of each data release on the nowcast.

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]	$[c(b-a)]$	
Oct 06									**2.45**
	10:00 AM Oct 11	■ JOLTS: Job openings: Total	Aug	Level chg. (thousands)	81.1	-58.0	0.071*	-0.010	
	8:30 AM Oct 12	■ PPI: Final demand	Sep	MoM % chg.	0.166	0.443	0.054	0.015	
	8:30 AM Oct 13	■ Retail sales and food services	Sep	MoM % chg.	0.435	1.56	0.369	0.414	
	8:40 AM Oct 13	■ CPI-U: All items	Sep	MoM % chg.	0.338	0.548	0.105	0.022	
	8:40 AM Oct 13	■ CPI-U: All items less food and energy	Sep	MoM % chg.	0.190	0.127	0.121	-0.008	
		■ Data revisions						0.025	
Oct 13									**2.91**
	8:30 AM Oct 16	■ Empire State Mfg. Survey: General business conditions	Oct	Index	23.4	30.2	0.015	0.103	
	8:30 AM Oct 17	■ Import price index	Sep	MoM % chg.	0.767	0.650	0.023	-0.003	
	8:30 AM Oct 17	■ Export price index	Sep	MoM % chg.	0.530	0.813	0.041	0.012	
	9:10 AM Oct 17	■ Industrial production index	Sep	MoM % chg.	0.521	0.284	0.384	-0.091	
	9:10 AM Oct 17	■ Capacity utilization	Sep	Ppt. chg.	0.339	0.151	0.503	-0.094	
	8:30 AM Oct 18	■ Housing starts	Sep	MoM % chg.	-0.528	-4.73	0.026	-0.108	
	8:30 AM Oct 18	■ Building permits	Sep	Level chg. (thousands)	-21.0	-57.0	0.002	-0.089	
	8:30 AM Oct 19	■ Philly Fed Mfg. business outlook: Current activity	Oct	Index	29.4	27.9	0.013	-0.019	
		■ Data revisions						-0.013	
Oct 19									**2.61**
	8:30 AM Oct 25	■ Manufacturers' new orders: Durable goods	Sep	MoM % chg.	-0.238	2.16	0.023	0.054	
	8:30 AM Oct 25	■ Manufacturers' shipments: Durable goods	Sep	MoM % chg.	0.275	1.00	0.118	0.086	
	8:30 AM Oct 25	■ Mfrs.' unfilled orders: All manufacturing industries	Sep	MoM % chg.	0.640	0.244	-0.030	0.012	
	8:30 AM Oct 25	■ Manufacturers' inventories: Durable goods	Sep	MoM % chg.	0.644	0.596	-0.373	0.018	
	10:00 AM Oct 25	■ New single family houses sold	Sep	MoM % chg.	-0.034	18.9	0.010	0.187	
	8:30 AM Oct 26	■ Merchant wholesalers: Inventories: Total	Sep	MoM % chg.	0.741	0.283	-0.146	0.067	
	8:30 AM Oct 27	■ Real gross domestic product	Q3	QoQ % chg. AR	1.60	2.95	0.005	0.007	
		■ Data revisions						0.016	
Oct 27									**3.05**
	8:30 AM Oct 30	■ Real disposable personal income	Sep	MoM % chg.	0.248	-0.007	0.038	-0.010	
	8:30 AM Oct 30	■ PCE less food and energy: Chain price index	Sep	MoM % chg.	0.147	0.129	0.243	-0.004	
	8:30 AM Oct 30	■ PCE: Chain price index	Sep	MoM % chg.	0.227	0.375	0.143	0.021	
	8:40 AM Oct 30	■ Real personal consumption expenditures	Sep	MoM % chg.	0.313	0.638	0.332	0.108	
	8:05 AM Nov 01	■ ADP nonfarm private payroll employment	Oct	Level chg. (thousands)	171.9	235.0	0.911*	0.057	
	10:00 AM Nov 01	■ Value of construction put in place	Sep	MoM % chg.	0.462	0.292	0.037	-0.006	
	10:00 AM Nov 01	■ ISM mfg.: Pmi composite index	Oct	Index	60.1	58.7	0.088	-0.125	
	10:00 AM Nov 01	■ ISM mfg.: Prices index	Oct	Index	70.8	68.5	0.014	-0.032	
	10:00 AM Nov 01	■ ISM mfg.: Employment index	Oct	Index	59.7	59.8	0.036	0.004	
	8:30 AM Nov 02	■ Nonfarm business sector: Unit labor cost	Q3	QoQ % chg. AR	2.54	0.481	0.001	-0.002	
	8:30 AM Nov 03	■ All employees: Total nonfarm	Oct	Level chg. (thousands)	133.9	261.0	0.453*	0.058	
	8:30 AM Nov 03	■ Civilian unemployment rate	Oct	Ppt. chg.	-0.069	-0.100	-0.262	0.008	
	8:30 AM Nov 03	■ Exports: Goods and services	Sep	MoM % chg.	1.31	1.06	0.071	-0.017	
	8:30 AM Nov 03	■ Imports: Goods and services	Sep	MoM % chg.	1.61	1.18	0.047	-0.020	
	10:00 AM Nov 03	■ Inventories: Total business	Sep	MoM % chg.	0.557	-0.011	-0.172	0.098	
	10:00 AM Nov 03	■ ISM nonmanufacturing: NMI composite index	Oct	Index	59.2	60.1	0.012	0.011	
		■ Data revisions						-0.042	
Nov 03									**3.16**

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.

Percent (annual rate)

Key

◆ New York Fed Staff Nowcast

○ Advance estimate

Data Releases

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

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

Update	Release Date	Data Series	Reference Period	Units	Forecast	Actual	Weight	Impact	Nowcast GDP Growth
					[a]	[b]	[c]	[c(b − a)]	
Sep 29									**1.46**
	10:00 AM Oct 02	🟥 Value of construction put in place	Aug	MoM % chg.	-0.238	0.498	0.018	0.013	
	10:00 AM Oct 02	🟦 ISM mfg.: Pmi composite index	Sep	Index	58.1	60.8	0.023	0.063	
	10:00 AM Oct 02	🟦 ISM mfg.: Prices index	Sep	Index	61.9	71.5	0.003	0.026	
	10:00 AM Oct 02	🟦 ISM mfg.: Employment index	Sep	Index	58.7	60.3	0.009	0.014	
	8:05 AM Oct 04	🟥 ADP nonfarm private payroll employment	Sep	Level chg. (thousands)	286.8	136.0	0.188*	-0.028	
	10:00 AM Oct 04	🟦 ISM nonmanufacturing: NMI composite index	Sep	Index	57.0	59.8	0.002	0.006	
	8:30 AM Oct 05	🟩 Exports: Goods and services	Aug	MoM % chg.	0.495	0.415	0.047	-0.004	
	8:30 AM Oct 05	🟩 Imports: Goods and services	Aug	MoM % chg.	0.620	-0.149	0.034	-0.026	
	10:00 AM Oct 05	🟨 Inventories: Total business	Aug	MoM % chg.	0.596	0.713	-0.073	-0.009	
	8:30 AM Oct 06	🟥 All employees: Total nonfarm	Sep	Level chg. (thousands)	187.6	-33.0	0.131*	-0.029	
	8:30 AM Oct 06	🟥 Civilian unemployment rate	Sep	Ppt. chg.	-0.065	-0.200	-0.127	0.017	
		⬜ Data revisions						0.005	
		⬜ Parameter revisions						0.019	
Oct 06									**1.53**
	10:00 AM Oct 11	🟥 JOLTS: Job openings: Total	Aug	Level chg. (thousands)	81.1	-58.0	0.038*	-0.005	
	8:30 AM Oct 12	⬜ PPI: Final demand	Sep	MoM % chg.	0.166	0.443	0.020	0.005	
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		⬜ Data revisions						0.035	
Oct 13									**1.70**
	8:30 AM Oct 16	🟦 Empire State Mfg. Survey: General business conditions	Oct	Index	23.4	30.2	0.000	0.003	
	8:30 AM Oct 17	🟩 Import price index	Sep	MoM % chg.	0.767	0.650	0.005	-0.001	
	8:30 AM Oct 17	🟩 Export price index	Sep	MoM % chg.	0.530	0.813	0.014	0.004	
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	8:30 AM Oct 26	🟨 Merchant wholesalers: Inventories: Total	Sep	MoM % chg.	0.741	0.283	-0.020	0.009	
		⬜ Data revisions						0.013	
Oct 27									**1.60**
	8:30 AM Oct 27	⬜ Real gross domestic product (advance)	Q3	QoQ % chg. AR	1.60	**2.95**			
		We have concluded our updates of the Q3 nowcast							

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.

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

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