



24TH ANNUAL

**AUTOMOTIVE OUTLOOK
SYMPOSIUM**

THURSDAY, JUNE 1 – FRIDAY, JUNE 2, 2017

Consensus Forecast for 2017 & 2018

William A. Strauss

Senior Economist and Economic Advisor
Federal Reserve Bank of Chicago

Thomas Haasl

Associate Economist
Federal Reserve Bank of Chicago

2016 Automotive Outlook Symposium

Forecast Winners

Overall	Lawrence Nelson - Macroeconomic Advisers	
GDP, current dollars	Lawrence Nelson - Macroeconomic Advisers	
GDP price index, chain-type	Todd Tomalak - John Burns Real Estate Consulting	
Real GDP, chained dollars	Rajeev Dhawan - Georgia State University	
Personal consumption expenditures	Todd Tomalak - John Burns Real Estate Consulting	
Business fixed investment	Jack Kleinhenz - Kleinhenz & Associates	
Residential investment	John Silvia - Wells Fargo Securities	
Change in private inventories	Todd Tomalak - John Burns Real Estate Consulting	
Net exports	Todd Tomalak - John Burns Real Estate Consulting	
Government consumption expenditures and gross investment	Bernard J. Paniak - BJP Economics	
Industrial production	Todd Tomalak - John Burns Real Estate Consulting	
Car & light truck sales	Ken Mayland - ClearView Economics, LLC	
Housing starts	William Hickey - DTE Energy	Thomas J. Portz - Sterling Capital Management, Inc.
Oil Price	Romina Soria - Wisconsin DOR	
Unemployment rate	Arun Raha and Maira Trimble - Eaton	Ken Mayland - ClearView Economics, LLC
Inflation rate (CPI)	Sue Yingzi Su - General Motors	Lawrence Nelson - Macroeconomic Advisers
Treasury constant maturity one-year rate	William Shearin - Center Punch Economics	
Treasury constant maturity ten-year rate	William Hickey - DTE Energy	
J.P. Morgan broad nominal effective exchange rate	Todd Tomalak - John Burns Real Estate Consulting	

Table 1 - Median Forecast of GDP and Related Items

	2016	2017	2018	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
GDP, current dollars*	3.5%	3.9%	4.3%	3.0%	4.6%	4.1%	4.2%	4.2%	4.3%	4.4%	4.4%
GDP price index, chain-type*	1.6%	2.0%	2.1%	2.3%	1.6%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%
Real GDP, chained dollars*	2.0%	2.1%	2.3%	0.7%	3.1%	2.3%	2.3%	2.1%	2.2%	2.2%	2.2%
Personal consumption expenditures*	3.1%	2.1%	2.3%	0.3%	2.8%	2.5%	2.3%	2.4%	2.3%	2.4%	2.4%
Business fixed investment*	-0.1%	5.2%	4.0%	9.4%	3.9%	4.1%	4.2%	4.1%	4.0%	3.7%	3.8%
Residential investment*	1.1%	6.3%	3.4%	13.7%	4.8%	4.3%	3.6%	4.3%	5.1%	4.9%	4.0%
Change in private inventories (billions of constant dollars)**	\$49.6	\$42.5	\$40.0	\$10.3	\$33.3	\$38.6	\$42.5	\$44.0	\$43.9	\$42.5	\$40.0
Net exports of goods and services (billions of constant dollars)**	-\$605.0	-\$635.0	-\$682.7	-\$602.7	-\$611.8	-\$627.1	-\$635.0	-\$649.5	-\$663.5	-\$676.2	-\$682.7
Government consumption expenditures and gross investment*	0.2%	0.2%	0.9%	-1.7%	0.9%	1.1%	0.9%	0.8%	1.1%	1.2%	1.2%
Industrial production*	-0.1%	1.6%	1.7%	1.4%	3.1%	1.7%	1.7%	1.9%	1.8%	1.8%	1.9%
Car & light truck sales (millions - calendar year including imports)***	17.5	17.1	16.9	17.2	17.1	17.2	17.1	17.0	16.9	16.9	16.9
Housing starts (millions)***	1.18	1.26	1.32	1.25	1.25	1.26	1.28	1.30	1.32	1.33	1.34
Oil price (dollars per barrel of West Texas Intermediate)**	\$49.20	\$51.59	\$54.00	\$51.83	\$50.08	\$51.60	\$51.59	\$51.00	\$52.00	\$53.00	\$54.00
Unemployment rate**	4.7%	4.4%	4.4%	4.7%	4.5%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
Inflation rate (consumer price index)*	1.8%	2.3%	2.3%	3.1%	2.5%	2.3%	2.3%	2.4%	2.4%	2.3%	2.3%
Treasury constant maturity 1-year rate**	0.76%	1.42%	1.89%	0.89%	1.10%	1.25%	1.42%	1.55%	1.66%	1.80%	1.89%
Treasury constant maturity 10-year rate**	2.13%	2.70%	3.11%	2.44%	2.42%	2.55%	2.70%	2.81%	2.95%	3.05%	3.11%
J.P. Morgan trade weighted OECD dollar*	3.7%	3.3%	3.5%	0.8%	0.9%	0.9%	0.7%	0.9%	0.9%	0.9%	0.5%

*Annual: Q4 over Q4 Quarterly: Quarter to Quarter change, annual rate

**Annuals are Q4 value

***Annuals are yearly average

Table 2 - Mean Forecast of GDP and Related Items

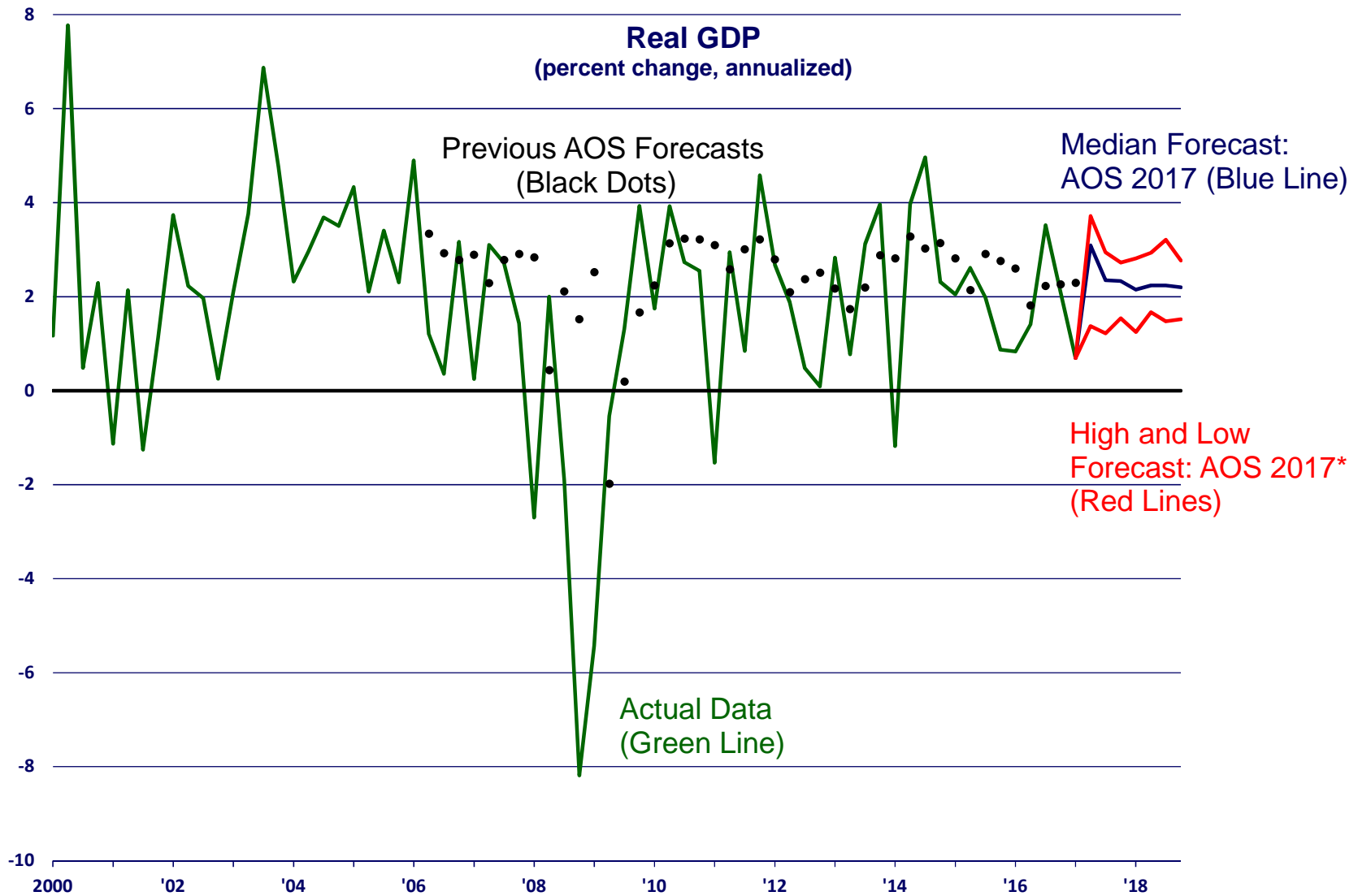
	2016	2017	2018	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
GDP, current dollars*	3.5%	3.6%	4.0%	3.0%	4.0%	3.8%	3.8%	4.0%	3.9%	4.1%	4.0%
GDP price index, chain-type*	1.6%	1.8%	2.0%	2.3%	1.4%	1.9%	1.9%	1.9%	1.9%	2.1%	2.1%
Real GDP, chained dollars*	2.0%	2.0%	2.2%	0.7%	2.8%	2.2%	2.2%	2.2%	2.5%	2.5%	2.2%
Personal consumption expenditures*	3.1%	1.9%	2.4%	0.3%	2.6%	2.4%	2.3%	2.4%	2.3%	2.4%	2.3%
Business fixed investment*	-0.1%	5.0%	3.6%	9.4%	3.3%	4.1%	3.8%	3.7%	3.7%	3.6%	3.6%
Residential investment*	1.1%	6.2%	4.2%	13.7%	3.8%	5.0%	3.3%	4.4%	4.6%	4.5%	3.4%
Change in private inventories (billions of constant dollars)**	\$49.6	\$37.8	\$39.8	\$10.3	\$31.8	\$32.7	\$37.8	\$37.6	\$38.3	\$38.7	\$39.8
Net exports of goods and services (billions of constant dollars)**	-\$605.0	-\$627.5	-\$669.2	-\$602.7	-\$607.3	-\$616.3	-\$627.5	-\$637.7	-\$649.6	-\$660.4	-\$669.2
Government consumption expenditures and gross investment*	0.2%	0.4%	1.1%	-1.7%	1.7%	1.3%	0.9%	0.9%	1.2%	1.1%	1.2%
Industrial production*	-0.1%	2.0%	1.5%	1.4%	3.6%	1.6%	1.6%	1.5%	1.6%	1.6%	1.4%
Car & light truck sales (millions - calendar year including imports)***	17.5	17.3	17.2	17.2	17.2	17.3	17.3	17.2	17.2	17.2	17.2
Housing starts (millions)***	1.18	1.26	1.33	1.25	1.25	1.27	1.29	1.31	1.33	1.34	1.35
Oil price (dollars per barrel of West Texas Intermediate)**	\$49.20	\$51.26	\$53.83	\$51.83	\$50.51	\$51.56	\$51.26	\$51.51	\$52.96	\$53.49	\$53.83
Unemployment rate**	4.7%	4.5%	4.5%	4.7%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Inflation rate (consumer price index)*	1.8%	2.4%	2.3%	3.1%	2.1%	2.3%	2.2%	2.3%	2.4%	2.3%	2.3%
Treasury constant maturity 1-year rate**	0.76%	1.33%	1.77%	0.89%	1.03%	1.20%	1.33%	1.43%	1.58%	1.69%	1.77%
Treasury constant maturity 10-year rate**	2.13%	2.72%	3.11%	2.44%	2.44%	2.59%	2.72%	2.83%	2.93%	3.03%	3.11%
J.P. Morgan trade weighted OECD dollar*	3.7%	2.6%	2.5%	0.8%	0.1%	1.2%	0.5%	0.6%	0.7%	0.6%	0.6%

*Annual: Q4 over Q4 Quarterly: Quarter to Quarter change, annual rate

**Annuals are Q4 value

***Annuals are yearly average

Figure 1 - Forecast of GDP and Related Items



* Excludes the two highest and lowest forecasts.

Figure 2 - Forecast of GDP and Related Items

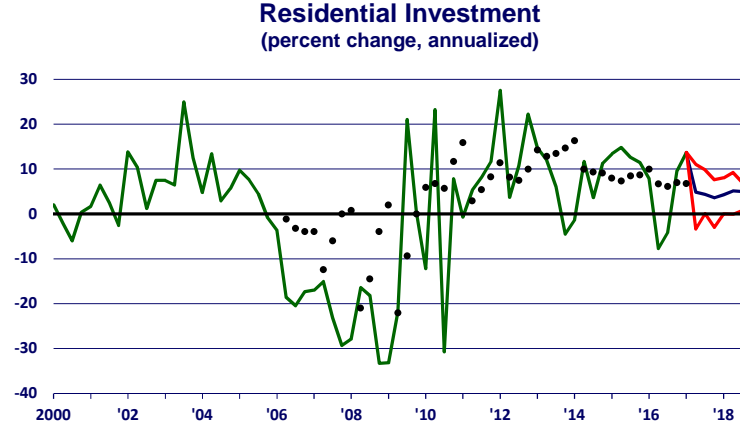
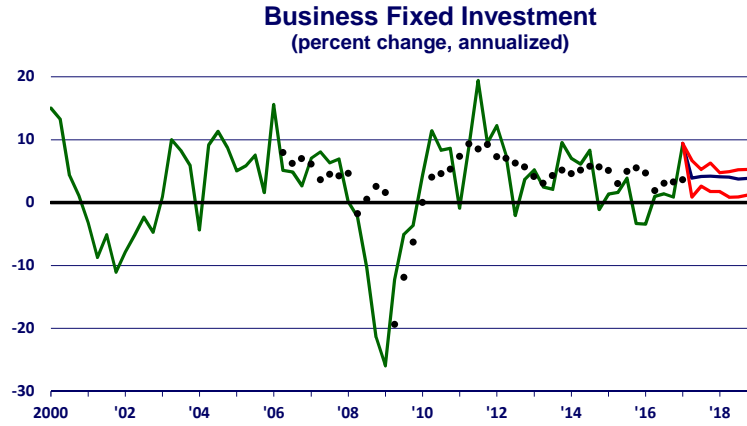
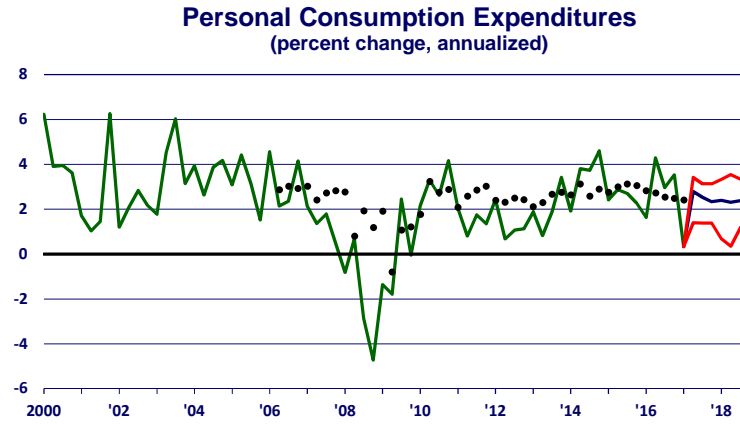
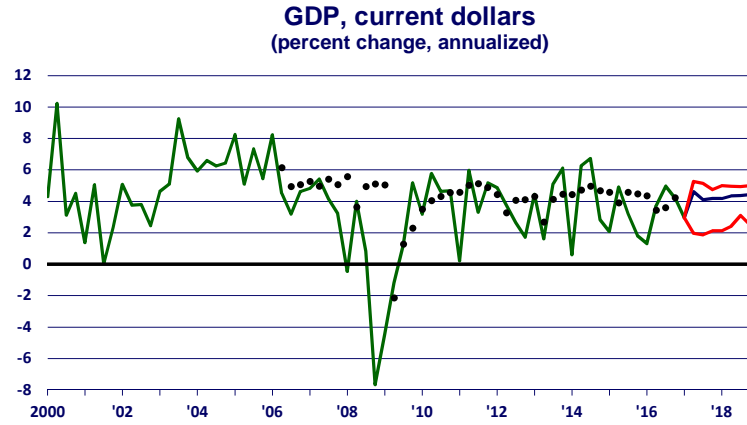


Figure 3 - Forecast of GDP and Related Items

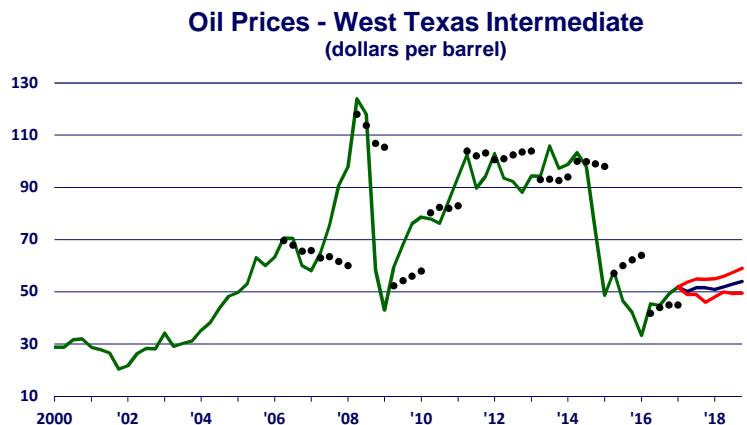
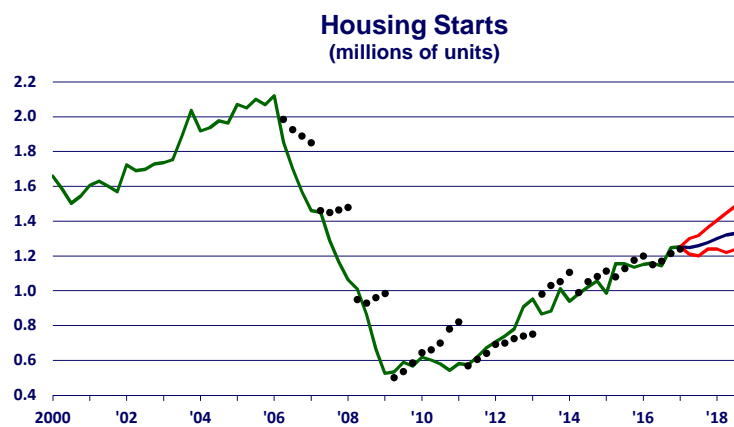
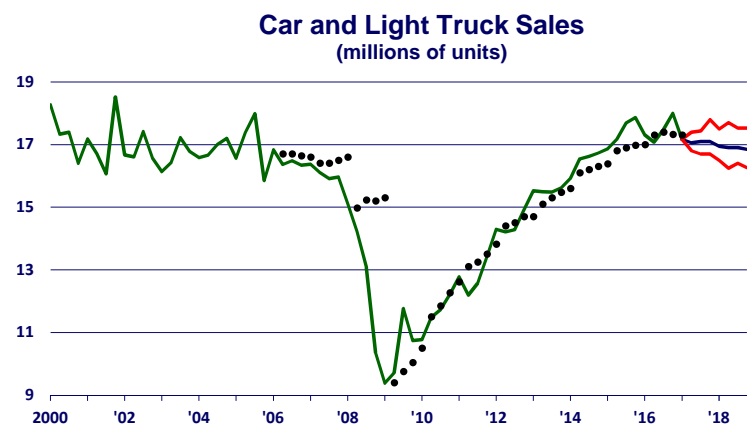
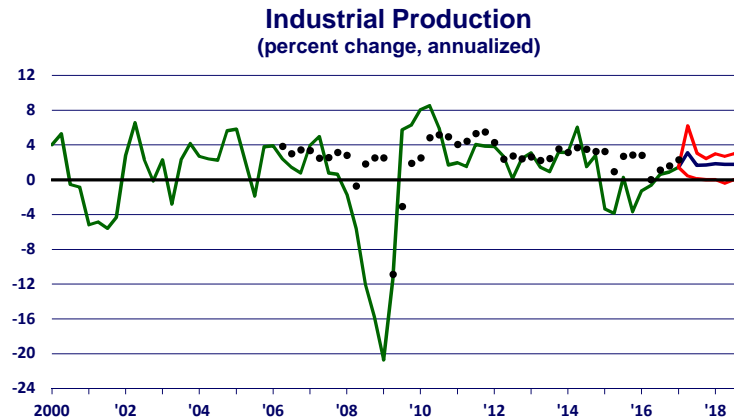
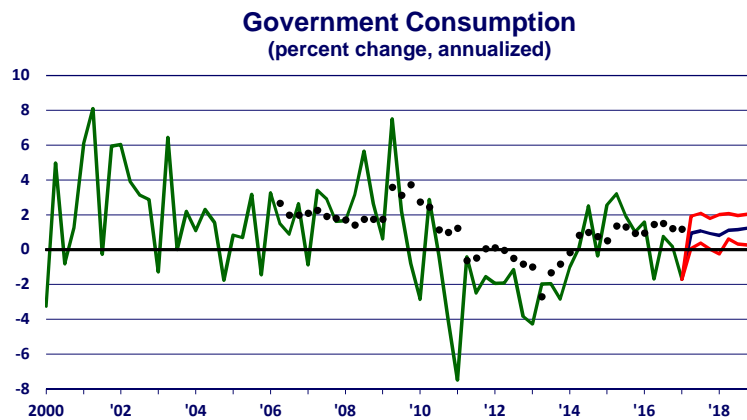


Figure 4 - Forecast of GDP and Related Items

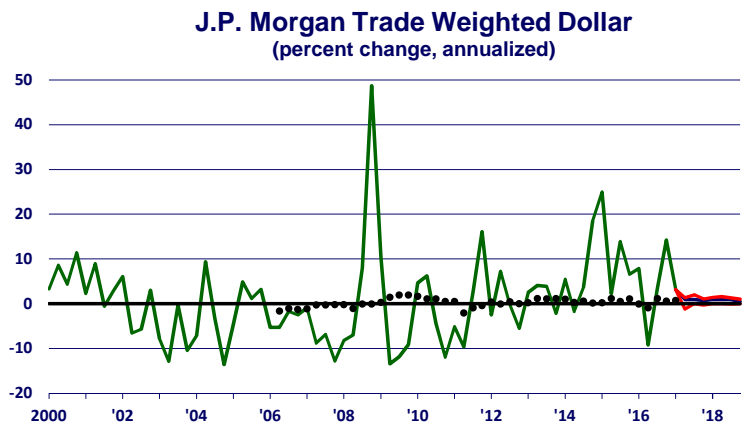
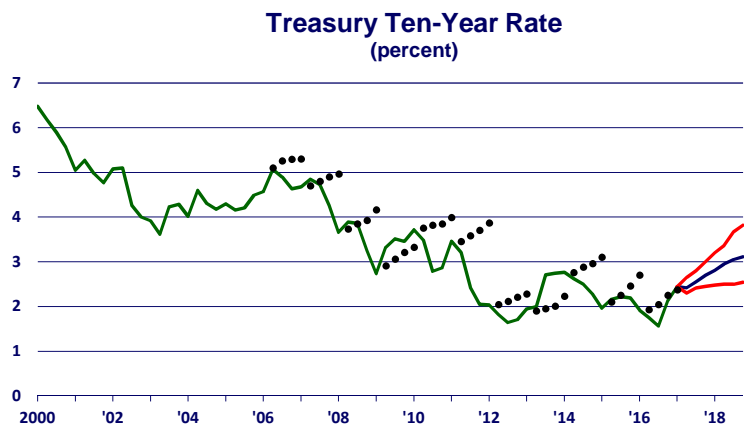
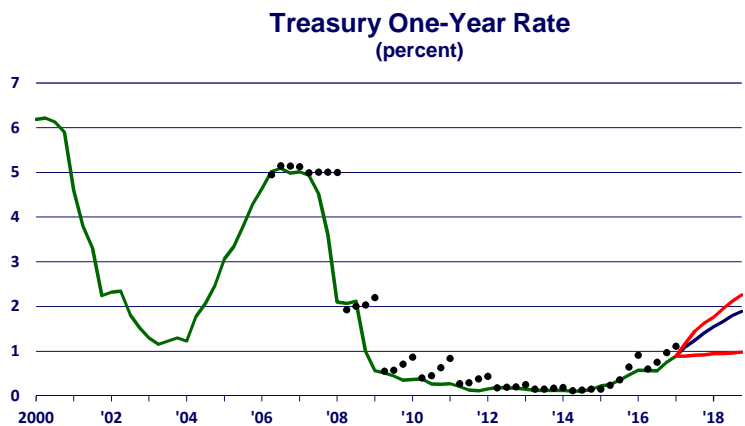
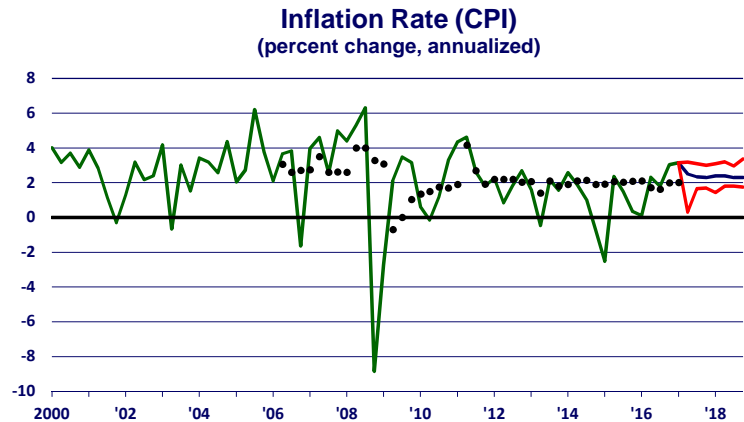
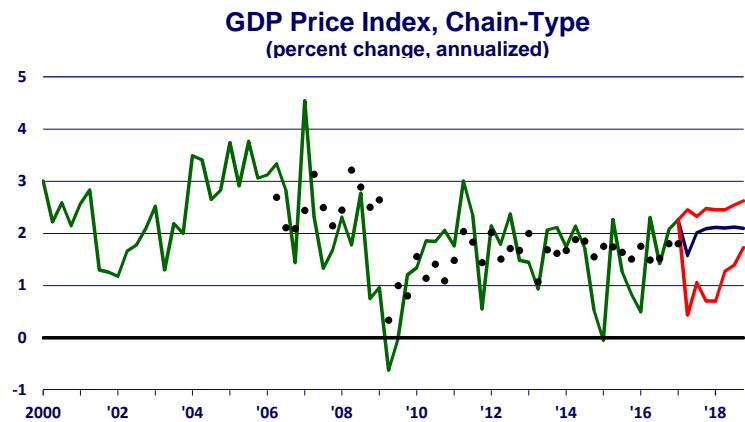


Table 3 - GDP, Current Dollars

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	3.5%			3.0%							
4		4.6%	4.8%		5.3%	5.3%	4.7%	5.0%	4.9%	4.9%	4.6%
3		4.5%	4.5%		5.4%	5.2%	4.5%	4.9%	4.3%	4.4%	4.4%
5		4.4%	4.5%		5.1%	5.1%	4.6%	4.4%	4.4%	4.3%	4.6%
9		4.3%	4.8%		4.9%	4.7%	4.8%	4.5%	5.1%	4.8%	5.0%
12		4.3%	4.7%		5.3%	4.4%	4.4%	4.5%	5.0%	4.7%	4.5%
7		4.3%	4.5%		4.8%	4.7%	4.5%	4.6%	4.4%	4.4%	4.4%
19		4.2%	2.8%		4.9%	3.7%	5.4%	2.6%	2.4%	3.6%	2.6%
2		4.2%	5.0%		5.9%	4.6%	3.4%	4.8%	4.1%	6.1%	5.0%
22		4.1%	4.1%		4.8%	4.4%	4.3%	4.2%	4.1%	4.1%	3.9%
20		4.1%	4.2%		5.0%	4.1%	4.1%	4.1%	3.9%	4.3%	4.3%
11		4.0%	5.0%		4.0%	4.6%	4.6%	4.8%	4.9%	4.9%	5.2%
21		4.0%	4.1%		4.7%	3.9%	4.5%	4.1%	4.7%	3.9%	3.7%
8		3.9%	4.5%		4.7%	3.9%	4.2%	4.4%	4.5%	4.5%	4.6%
13		3.9%	4.3%		4.1%	4.2%	4.4%	3.9%	4.5%	4.5%	4.4%
10		3.9%	4.4%		4.7%	3.8%	4.2%	3.7%	4.5%	4.4%	4.9%
17		3.9%	3.9%		4.5%	4.1%	4.1%	3.2%	4.1%	4.0%	4.2%
15		3.8%	4.7%		3.1%	4.9%	4.3%	5.4%	4.4%	4.3%	4.8%
14		3.8%	4.4%		4.3%	3.6%	4.2%	4.2%	4.5%	4.4%	4.5%
23		3.7%	4.3%		3.6%	4.7%	3.4%	3.6%	4.3%	4.8%	4.7%
24		3.7%	3.8%		4.1%	3.5%	4.1%	3.8%	3.4%	3.9%	4.0%
25		2.5%	3.1%		2.0%	2.6%	2.6%	3.1%	3.1%	3.1%	3.1%
18		2.5%	4.4%		2.8%	1.9%	2.5%	7.4%	4.5%	3.3%	2.5%
1		2.5%	3.5%		0.1%	3.0%	4.0%	2.0%	3.3%	5.8%	2.8%
26		2.3%	2.8%		2.0%	2.1%	2.1%	3.1%	3.1%	3.1%	2.0%
27		2.3%	0.3%		4.6%	1.7%	0.0%	1.0%	0.0%	0.0%	0.0%
16		2.1%	2.3%								
6		1.2%	3.1%		-1.2%	1.1%	2.1%	2.1%	2.1%	3.1%	5.2%
MEDIAN		3.9%	4.3%		4.6%	4.1%	4.2%	4.2%	4.3%	4.4%	4.4%
MEAN		3.6%	4.0%		4.0%	3.8%	3.8%	4.0%	3.9%	4.1%	4.0%
STD DEV		0.9%	1.0%		1.6%	1.1%	1.1%	1.2%	1.1%	1.1%	1.2%
HIGH		4.6%	5.0%		5.9%	5.3%	5.4%	7.4%	5.1%	6.1%	5.2%
LOW		1.2%	0.3%		-1.2%	1.1%	0.0%	1.0%	0.0%	0.0%	0.0%

Table 4 - GDP Price Index, Chain-type

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	1.6%			2.3%							
15		2.5%	2.5%		2.9%	2.5%	2.5%	2.5%	2.3%	2.3%	2.8%
22		2.3%	2.0%		2.5%	2.3%	2.2%	2.1%	2.1%	2.0%	1.8%
19		2.3%	1.9%		2.3%	2.1%	2.5%	2.1%	1.7%	2.1%	1.7%
24		2.2%	2.2%		2.3%	1.8%	2.5%	2.1%	1.7%	2.4%	2.4%
21		2.2%	1.9%		2.5%	1.8%	2.1%	1.8%	2.5%	1.7%	1.7%
20		2.1%	2.1%		2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
13		2.1%	2.2%		1.7%	2.1%	2.3%	2.1%	2.1%	2.4%	2.1%
25		2.1%	2.1%		1.9%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
23		2.1%	1.6%		0.4%	3.3%	2.3%	1.1%	1.3%	2.0%	2.1%
5		2.1%	2.2%		1.7%	2.1%	2.2%	2.3%	2.2%	2.1%	2.4%
9		2.0%	2.0%		1.8%	2.0%	2.1%	1.7%	2.3%	1.9%	2.1%
12		2.0%	2.1%		2.1%	1.8%	1.9%	2.0%	2.1%	2.0%	2.1%
18		2.0%	2.6%		1.0%	2.3%	2.5%	2.7%	2.5%	2.5%	2.6%
4		2.0%	2.2%		1.5%	2.0%	2.1%	2.2%	2.2%	2.2%	2.3%
3		2.0%	2.2%		1.5%	2.1%	2.0%	2.2%	2.1%	2.2%	2.2%
6		1.9%	1.9%		1.2%	2.1%	2.1%	2.1%	2.1%	1.4%	2.1%
7		1.9%	2.2%		1.5%	1.9%	2.0%	2.2%	2.1%	2.1%	2.2%
17		1.9%	1.9%		1.6%	2.0%	1.5%	1.7%	1.8%	1.9%	2.0%
11		1.7%	2.3%		0.8%	2.1%	1.8%	2.1%	2.5%	2.1%	2.4%
8		1.6%	2.3%		0.9%	1.4%	2.0%	2.3%	2.2%	2.4%	2.5%
10		1.6%	2.3%		0.9%	1.4%	2.0%	2.3%	2.2%	2.3%	2.4%
14		1.6%	2.3%		0.9%	1.4%	2.0%	2.3%	2.2%	2.3%	2.4%
2		1.6%	2.5%		2.3%	1.1%	0.7%	3.6%	0.7%	2.8%	2.8%
26		1.4%	1.8%		0.5%	1.8%	1.1%	0.7%	1.8%	2.8%	2.1%
27		0.8%	0.3%		0.1%	0.4%	0.4%	0.0%	0.4%	0.4%	0.4%
16		0.1%	2.1%								
1		-0.3%	0.9%		-3.6%	0.2%	0.2%	0.2%	1.4%	1.1%	1.1%
MEDIAN		2.0%	2.1%		1.6%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%
MEAN		1.8%	2.0%		1.4%	1.9%	1.9%	1.9%	1.9%	2.1%	2.1%
STD DEV		0.6%	0.5%		1.2%	0.6%	0.6%	0.7%	0.5%	0.5%	0.5%
HIGH		2.5%	2.6%		2.9%	3.3%	2.5%	3.6%	2.5%	2.8%	2.8%
LOW		-0.3%	0.3%		-3.6%	0.2%	0.2%	0.0%	0.4%	0.4%	0.4%

Table 5 - Real GDP, Chained Dollars

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	2.0%			0.7%							
1		2.8%	2.5%		3.8%	2.9%	3.8%	1.9%	1.9%	4.7%	1.7%
2		2.6%	2.5%		3.5%	3.5%	2.7%	1.2%	3.4%	3.2%	2.1%
3		2.5%	2.3%		3.7%	3.1%	2.5%	2.7%	2.2%	2.2%	2.2%
4		2.4%	2.6%		3.4%	2.9%	2.4%	2.7%	2.6%	2.6%	2.6%
5		2.3%	2.2%		3.3%	2.9%	2.3%	2.1%	2.2%	2.1%	2.2%
6		2.3%	6.1%		3.8%	2.4%	2.4%	4.7%	9.5%	6.9%	3.4%
7		2.3%	2.3%		3.2%	2.8%	2.5%	2.4%	2.2%	2.2%	2.2%
8		2.3%	2.1%		3.7%	2.5%	2.1%	2.0%	2.2%	2.1%	2.0%
9		2.2%	2.8%		3.0%	2.6%	2.6%	2.7%	2.7%	2.8%	2.8%
10		2.2%	2.0%		3.7%	2.4%	2.1%	1.4%	2.3%	2.0%	2.4%
11		2.2%	2.7%		3.0%	2.6%	2.6%	2.7%	2.7%	2.8%	2.7%
12		2.2%	2.6%		3.0%	2.6%	2.4%	2.5%	2.8%	2.6%	2.4%
13		2.1%	2.9%		2.3%	2.6%	2.7%	2.7%	2.8%	3.1%	2.8%
14		2.1%	2.0%		3.3%	2.2%	2.1%	1.9%	2.2%	2.0%	2.0%
15		2.1%	2.3%		3.6%	2.3%	1.7%	2.8%	2.0%	2.0%	2.5%
16		2.0%	0.2%								
17		2.0%	2.0%		2.8%	2.1%	2.4%	1.4%	2.3%	2.1%	2.1%
18		1.9%	2.3%		3.1%	2.3%	1.6%	2.2%	2.3%	2.3%	2.5%
19		1.9%	0.9%		2.6%	1.5%	2.9%	0.5%	0.7%	1.5%	0.9%
20		1.9%	2.0%		2.8%	2.0%	2.0%	2.0%	1.8%	2.2%	2.2%
21		1.8%	2.5%		2.1%	2.1%	2.3%	2.3%	2.7%	2.6%	2.5%
22		1.8%	2.0%		2.2%	2.0%	2.1%	2.1%	1.9%	2.1%	2.1%
23		1.5%	2.7%		3.2%	1.3%	1.0%	2.5%	2.9%	2.7%	2.6%
24		1.4%	1.6%		1.9%	1.7%	1.5%	1.7%	1.7%	1.4%	1.5%
25		1.3%	1.8%		1.4%	1.2%	1.8%	1.8%	1.8%	1.8%	1.8%
26		1.0%	2.5%		0.2%	1.2%	1.9%	2.9%	2.4%	2.3%	2.3%
27		0.4%	0.1%		0.4%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%
MEDIAN		2.1%	2.3%		3.1%	2.3%	2.3%	2.1%	2.2%	2.2%	2.2%
MEAN		2.0%	2.2%		2.8%	2.2%	2.2%	2.2%	2.5%	2.5%	2.2%
STD DEV		0.5%	1.0%		1.0%	0.7%	0.7%	0.8%	1.6%	1.2%	0.6%
HIGH		2.8%	6.1%		3.8%	3.5%	3.8%	4.7%	9.5%	6.9%	3.4%
LOW		0.4%	0.1%		0.2%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%

Table 6 - Personal Consumption Expenditures

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	3.1%			0.3%							
16		2.5%	2.6%								
21		2.4%	2.9%		2.8%	3.4%	3.1%	3.1%	2.9%	2.9%	2.9%
6		2.4%	4.8%		2.4%	3.4%	3.4%	6.9%	5.0%	3.3%	4.1%
3		2.4%	2.6%		3.8%	2.8%	2.6%	3.3%	2.3%	2.4%	2.4%
2		2.3%	2.7%		3.4%	2.5%	3.1%	3.0%	2.7%	2.5%	2.5%
13		2.3%	3.1%		3.2%	2.7%	3.0%	2.7%	3.6%	3.4%	2.6%
8		2.3%	2.2%		3.2%	3.1%	2.5%	2.4%	2.3%	2.1%	2.2%
18		2.3%	3.2%		3.7%	2.8%	2.2%	3.1%	3.2%	3.3%	3.4%
1		2.2%	2.3%		1.4%	2.8%	4.5%	0.7%	1.7%	5.1%	1.7%
10		2.2%	2.0%		3.2%	3.0%	2.3%	1.2%	2.2%	2.1%	2.5%
4		2.2%	3.4%		3.4%	2.7%	2.4%	3.6%	3.5%	3.3%	3.3%
7		2.2%	2.4%		3.1%	2.8%	2.6%	2.5%	2.2%	2.3%	2.4%
14		2.1%	2.1%		2.6%	2.8%	2.5%	2.1%	2.2%	2.1%	2.1%
11		2.0%	2.9%		3.0%	2.5%	2.3%	2.7%	2.9%	3.0%	2.9%
9		2.0%	2.7%		2.9%	2.5%	2.3%	2.7%	2.7%	2.7%	2.7%
12		2.0%	2.6%		2.7%	2.5%	2.3%	2.7%	2.7%	2.5%	2.5%
17		1.9%	2.1%		2.6%	1.9%	2.9%	1.4%	2.2%	2.3%	2.6%
22		1.9%	2.2%		2.8%	2.3%	2.3%	2.3%	2.3%	2.2%	2.2%
20		1.8%	2.1%		2.6%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
15		1.7%	1.7%		3.4%	1.8%	1.4%	2.2%	1.4%	1.4%	1.9%
23		1.7%	3.2%		2.5%	2.0%	1.8%	3.2%	3.3%	3.3%	3.1%
5		1.7%	2.3%		2.1%	2.1%	2.2%	2.1%	2.3%	2.3%	2.4%
19		1.5%	1.0%		1.9%	2.1%	1.9%	2.4%	0.2%	1.2%	0.3%
26		1.0%	2.2%		1.0%	1.4%	1.4%	2.1%	2.4%	2.4%	2.0%
27		0.9%	-0.3%		1.7%	1.4%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%
25		0.3%	0.3%		0.2%	0.2%	0.4%	0.3%	0.3%	0.2%	0.2%
MEDIAN		2.1%	2.3%		2.8%	2.5%	2.3%	2.4%	2.3%	2.4%	2.4%
MEAN		1.9%	2.4%		2.6%	2.4%	2.3%	2.4%	2.3%	2.4%	2.3%
STD DEV		0.5%	1.0%		0.8%	0.7%	0.9%	1.3%	1.1%	1.1%	1.0%
HIGH		2.5%	4.8%		3.8%	3.4%	4.5%	6.9%	5.0%	5.1%	4.1%
LOW		0.3%	-0.3%		0.2%	0.2%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%

Table 7 - Business Fixed Investment

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	-0.1%			9.4%							
5		7.0%	4.1%		6.7%	6.1%	5.7%	4.7%	4.0%	3.8%	3.8%
4		6.2%	3.9%		4.3%	4.5%	6.8%	3.7%	4.0%	3.5%	4.4%
12		6.2%	7.5%		6.9%	4.7%	4.0%	7.3%	9.2%	6.7%	6.8%
11		6.0%	4.7%		5.4%	4.4%	4.7%	4.7%	4.9%	4.8%	4.6%
8		5.9%	4.7%		4.1%	5.3%	4.8%	4.7%	4.8%	4.7%	4.6%
6		5.8%	2.2%		-3.9%	10.3%	8.1%	4.4%	0.9%	0.9%	2.6%
10		5.8%	4.5%		4.1%	5.2%	4.7%	3.8%	4.6%	4.6%	5.0%
9		5.7%	4.5%		4.1%	4.5%	4.8%	4.6%	4.5%	4.5%	4.6%
23		5.6%	4.7%		6.7%	4.1%	2.4%	3.7%	4.7%	5.2%	5.2%
20		5.6%	4.6%		4.6%	4.2%	4.2%	4.2%	4.2%	5.0%	5.0%
14		5.5%	4.5%		3.5%	4.7%	4.6%	4.4%	4.6%	4.6%	4.4%
13		5.5%	5.2%		4.1%	4.1%	4.4%	4.7%	5.2%	5.3%	5.4%
17		5.2%	3.3%		3.9%	3.8%	3.7%	2.8%	4.9%	2.7%	2.9%
3		5.2%	4.2%		4.6%	4.1%	2.7%	7.1%	3.5%	3.2%	3.1%
1		5.1%	2.2%		2.3%	2.7%	6.3%	1.7%	1.7%	3.5%	1.7%
25		4.9%	2.0%		5.1%	2.7%	2.6%	2.6%	2.3%	2.1%	1.2%
21		4.7%	3.7%		1.0%	3.9%	4.8%	3.7%	3.5%	3.7%	3.8%
2		4.7%	4.1%		0.9%	4.3%	4.3%	4.2%	4.4%	4.0%	3.8%
18		4.5%	4.5%		0.5%	4.6%	3.7%	4.3%	4.3%	4.6%	4.8%
15		4.3%	3.9%		1.1%	3.2%	3.7%	4.1%	3.8%	3.7%	4.1%
22		4.2%	3.0%		2.3%	2.6%	2.9%	3.4%	2.2%	2.9%	3.6%
26		4.2%	2.6%		2.3%	3.6%	1.8%	1.8%	3.5%	3.5%	1.7%
7		4.2%	3.2%		2.2%	2.9%	2.5%	2.9%	3.4%	3.2%	3.3%
27		2.8%	-0.2%		1.4%	0.5%	0.2%	0.0%	-0.4%	-0.4%	0.0%
19		2.4%	0.3%		3.2%	1.1%	-3.8%	-1.2%	0.5%	0.9%	0.9%
16		2.3%	2.5%								
MEDIAN		5.2%	4.0%		3.9%	4.1%	4.2%	4.1%	4.0%	3.7%	3.8%
MEAN		5.0%	3.6%		3.3%	4.1%	3.8%	3.7%	3.7%	3.6%	3.6%
STD DEV		1.1%	1.5%		2.3%	1.7%	2.2%	1.8%	1.8%	1.5%	1.6%
HIGH		7.0%	7.5%		6.9%	10.3%	8.1%	7.3%	9.2%	6.7%	6.8%
LOW		2.3%	-0.2%		-3.9%	0.5%	-3.8%	-1.2%	-0.4%	-0.4%	0.0%

Table 8 - Residential Investment

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	1.1%			13.7%							
19		11.6%	5.7%		13.4%	11.1%	8.2%	3.0%	9.3%	6.0%	4.7%
5		10.3%	4.7%		11.1%	9.1%	7.6%	6.2%	5.1%	4.2%	3.4%
21		10.0%	8.1%		8.7%	9.4%	8.4%	7.5%	12.1%	7.1%	5.8%
2		9.1%	10.8%		6.4%	10.0%	6.4%	12.9%	12.5%	12.1%	5.8%
25		9.1%	6.2%		9.8%	6.5%	6.4%	4.4%	8.2%	6.1%	6.0%
12		8.9%	6.7%		7.0%	8.0%	7.0%	5.0%	7.0%	7.0%	8.0%
11		8.5%	5.5%		7.5%	6.5%	6.3%	5.8%	5.6%	5.4%	5.4%
9		8.3%	5.2%		6.7%	6.7%	6.5%	5.5%	5.1%	5.1%	5.1%
1		8.2%	-0.8%		13.4%	9.8%	-3.0%	9.6%	-3.0%	-3.0%	-6.0%
7		7.1%	5.3%		4.2%	4.8%	6.2%	6.7%	5.4%	4.9%	4.2%
8		6.5%	6.5%		4.9%	4.3%	3.6%	6.8%	7.5%	6.5%	5.1%
13		6.4%	3.5%		4.0%	4.2%	3.9%	3.8%	3.7%	3.3%	3.3%
4		6.3%	3.3%		3.2%	5.1%	3.7%	2.8%	3.1%	4.4%	3.0%
14		6.3%	6.7%		4.7%	3.8%	3.5%	7.0%	7.6%	6.7%	5.4%
10		6.1%	6.4%		4.9%	3.4%	2.9%	8.0%	6.9%	5.8%	5.1%
3		6.1%	3.1%		4.2%	2.6%	4.4%	2.9%	1.7%	3.9%	4.0%
26		5.7%	3.2%		3.0%	3.3%	3.2%	3.2%	3.2%	3.2%	3.1%
22		5.6%	3.0%		3.1%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
17		3.9%	2.1%		5.7%	5.2%	-8.0%	1.3%	6.3%	3.5%	-2.5%
18		3.8%	1.9%		-3.4%	4.3%	1.5%	4.3%	1.7%	0.7%	0.8%
27		3.3%	-0.1%		0.1%	0.1%	0.1%	0.0%	-0.1%	-0.1%	-0.1%
20		3.3%	2.5%		0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%
16		2.5%	2.7%								
23		2.4%	0.8%		4.8%	-2.1%	-5.6%	-4.2%	-0.7%	5.7%	2.7%
15		0.6%	3.1%		-14.9%	3.4%	2.3%	3.4%	3.0%	3.0%	3.0%
6		0.2%	1.8%		-17.2%	3.5%	3.4%	2.0%	0.0%	3.4%	2.0%
MEDIAN		6.3%	3.4%		4.8%	4.3%	3.6%	4.3%	5.1%	4.9%	4.0%
MEAN		6.2%	4.2%		3.8%	5.0%	3.3%	4.4%	4.6%	4.5%	3.4%
STD DEV		2.9%	2.6%		7.0%	3.2%	4.0%	3.4%	3.8%	2.8%	2.9%
HIGH		11.6%	10.8%		13.4%	11.1%	8.4%	12.9%	12.5%	12.1%	8.0%
LOW		0.2%	-0.8%		-17.2%	-2.1%	-8.0%	-4.2%	-3.0%	-3.0%	-6.0%

Table 9 - Change in Private Inventories

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	\$49.6			\$10.3							
19		\$65.0	\$10.0		\$15.0	-\$25.0	\$65.0	\$15.0	\$10.0	\$0.0	\$10.0
5		\$60.1	\$61.3		\$34.5	\$59.8	\$60.1	\$60.4	\$60.7	\$61.0	\$61.3
2		\$58.1	\$64.7		\$40.9	\$64.2	\$58.1	\$53.6	\$60.2	\$63.3	\$64.7
12		\$55.1	\$54.6		\$42.6	\$46.7	\$55.1	\$48.3	\$48.4	\$56.0	\$54.6
1		\$55.0	\$35.0		\$45.0	\$50.0	\$55.0	\$50.0	\$45.0	\$40.0	\$35.0
18		\$54.2	\$58.2		\$50.2	\$49.5	\$54.2	\$53.0	\$54.7	\$55.6	\$58.2
11		\$50.0	\$50.0		\$40.0	\$45.0	\$50.0	\$50.0	\$50.0	\$50.0	\$50.0
13		\$50.0	\$40.0		\$37.5	\$47.5	\$50.0	\$50.0	\$45.0	\$45.0	\$40.0
3		\$48.5	\$39.5		\$26.7	\$40.7	\$48.5	\$43.0	\$42.9	\$40.7	\$39.5
8		\$48.1	\$56.9		\$49.6	\$41.1	\$48.1	\$50.6	\$53.5	\$55.1	\$56.9
10		\$47.7	\$54.5		\$49.6	\$41.1	\$47.7	\$49.9	\$49.7	\$49.9	\$54.5
14		\$43.5	\$54.4		\$49.8	\$39.2	\$43.5	\$46.8	\$50.5	\$52.0	\$54.4
7		\$42.5	\$51.3		\$29.8	\$35.3	\$42.5	\$49.0	\$49.6	\$50.3	\$51.3
9		\$42.0	\$40.0		\$35.0	\$38.0	\$42.0	\$45.0	\$48.0	\$45.0	\$40.0
20		\$40.0	\$30.0		\$40.0	\$40.0	\$40.0	\$40.0	\$30.0	\$30.0	\$30.0
22		\$34.0	\$32.0		\$32.0	\$34.0	\$34.0	\$32.0	\$32.0	\$32.0	\$32.0
16		\$30.2	\$45.6				\$30.2				\$45.6
15		\$25.0	\$25.0		\$22.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0
6		\$21.0	\$20.0		\$13.0	\$19.0	\$21.0	\$22.0	\$21.0	\$20.5	\$20.0
23		\$20.1	\$38.1		\$32.1	\$24.1	\$20.1	\$29.0	\$40.0	\$36.0	\$38.1
4		\$18.2	\$51.3		\$7.4	\$10.8	\$18.2	\$21.5	\$34.6	\$44.3	\$51.3
17		\$18.0	\$31.0		\$30.0	\$32.0	\$18.0	\$30.0	\$28.0	\$33.0	\$31.0
27		\$12.0	\$10.0		\$15.5	\$13.0	\$12.0	\$12.0	\$10.0	\$10.0	\$10.0
21		\$5.2	\$1.3		\$18.7	\$8.5	\$5.2	\$0.5	\$0.5	-\$0.3	\$1.3
26		\$2.0	\$40.0		\$5.5	\$5.0	\$2.0	\$25.0	\$30.0	\$35.0	\$40.0
MEDIAN		\$42.5	\$40.0		\$33.3	\$38.6	\$42.5	\$44.0	\$43.9	\$42.5	\$40.0
MEAN		\$37.8	\$39.8		\$31.8	\$32.7	\$37.8	\$37.6	\$38.3	\$38.7	\$39.8
STD DEV		\$17.7	\$16.6		\$13.5	\$19.5	\$17.7	\$15.5	\$16.0	\$17.3	\$16.6
HIGH		\$65.0	\$64.7		\$50.2	\$64.2	\$65.0	\$60.4	\$60.7	\$63.3	\$64.7
LOW		\$2.0	\$1.3		\$5.5	-\$25.0	\$2.0	\$0.5	\$0.5	-\$0.3	\$1.3

Table 10 - Net Exports of Goods and Services

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	-\$605.0			-\$602.7							
15		-\$548.9	-\$504.6		-\$556.8	-\$546.4	-\$548.9	-\$532.2	-\$525.3	-\$517.4	-\$504.6
13		-\$559.0	-\$560.0		-\$576.0	-\$563.0	-\$559.0	-\$560.0	-\$560.0	-\$560.0	-\$560.0
6		-\$580.0	-\$560.0		-\$565.0	-\$575.0	-\$580.0	-\$575.0	-\$570.0	-\$565.0	-\$560.0
27		-\$580.0	-\$530.0		-\$600.0	-\$600.0	-\$580.0	-\$570.0	-\$560.0	-\$550.0	-\$530.0
26		-\$590.0	-\$570.0		-\$600.0	-\$595.0	-\$590.0	-\$585.0	-\$580.0	-\$575.0	-\$570.0
19		-\$602.0	-\$585.0		-\$600.0	-\$590.0	-\$602.0	-\$598.0	-\$595.0	-\$585.0	-\$585.0
1		-\$610.0	-\$540.0		-\$590.0	-\$600.0	-\$610.0	-\$580.0	-\$570.0	-\$550.0	-\$540.0
7		-\$619.9	-\$663.2		-\$605.3	-\$609.4	-\$619.9	-\$630.5	-\$638.7	-\$648.5	-\$663.2
3		-\$620.9	-\$654.7		-\$604.9	-\$610.4	-\$620.9	-\$629.9	-\$635.4	-\$642.8	-\$654.7
17		-\$621.0	-\$682.0		-\$623.0	-\$631.0	-\$621.0	-\$639.0	-\$659.0	-\$675.5	-\$682.0
4		-\$624.9	-\$760.3		-\$589.5	-\$594.5	-\$624.9	-\$651.1	-\$696.0	-\$729.8	-\$760.3
11		-\$633.2	-\$701.2		-\$608.8	-\$621.6	-\$633.2	-\$649.0	-\$666.5	-\$686.0	-\$701.2
9		-\$635.0	-\$650.0		-\$613.0	-\$629.0	-\$635.0	-\$650.0	-\$650.0	-\$650.0	-\$650.0
16		-\$635.7	-\$612.8				-\$635.7				-\$612.8
20		-\$636.9	-\$693.1		-\$614.0	-\$625.4	-\$636.9	-\$648.6	-\$660.4	-\$676.6	-\$693.1
22		-\$641.5	-\$682.7		-\$622.0	-\$631.4	-\$641.5	-\$655.1	-\$668.9	-\$675.7	-\$682.7
23		-\$644.6	-\$737.5		-\$610.7	-\$628.8	-\$644.6	-\$663.5	-\$687.0	-\$710.7	-\$737.5
21		-\$645.8	-\$702.3		-\$617.5	-\$631.7	-\$645.8	-\$659.9	-\$674.1	-\$688.2	-\$702.3
5		-\$647.0	-\$696.5		-\$613.8	-\$630.9	-\$647.0	-\$662.0	-\$675.2	-\$686.8	-\$696.5
14		-\$653.3	-\$747.1		-\$616.7	-\$630.9	-\$653.3	-\$678.0	-\$698.3	-\$719.8	-\$747.1
10		-\$654.0	-\$725.0		-\$619.7	-\$635.2	-\$654.0	-\$668.4	-\$680.7	-\$699.4	-\$725.0
8		-\$662.4	-\$757.9		-\$619.3	-\$638.3	-\$662.4	-\$688.0	-\$709.4	-\$731.0	-\$757.9
12		-\$669.9	-\$779.5		-\$645.7	-\$662.2	-\$669.9	-\$691.6	-\$721.0	-\$750.8	-\$779.5
18		-\$681.5	-\$814.4		-\$633.7	-\$654.3	-\$681.5	-\$711.2	-\$743.4	-\$777.0	-\$814.4
2		-\$689.9	-\$820.4		-\$630.0	-\$657.3	-\$689.9	-\$728.6	-\$766.3	-\$799.7	-\$820.4
MEDIAN		-\$635.0	-\$682.7		-\$611.8	-\$627.1	-\$635.0	-\$649.5	-\$663.5	-\$676.2	-\$682.7
MEAN		-\$627.5	-\$669.2		-\$607.3	-\$616.3	-\$627.5	-\$637.7	-\$649.6	-\$660.4	-\$669.2
STD DEV		\$35.0	\$88.9		\$20.3	\$28.3	\$35.0	\$49.1	\$62.1	\$76.1	\$88.9
HIGH		-\$548.9	-\$504.6		-\$556.8	-\$546.4	-\$548.9	-\$532.2	-\$525.3	-\$517.4	-\$504.6
LOW		-\$689.9	-\$820.4		-\$645.7	-\$662.2	-\$689.9	-\$728.6	-\$766.3	-\$799.7	-\$820.4

Table 11 - Government Consumption Expenditures and Gross Investment

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	0.2%			-1.7%							
6		5.8%	1.3%		19.2%	6.8%	0.0%	0.0%	1.3%	2.0%	1.9%
1		1.5%	2.4%		4.9%	2.1%	0.7%	1.4%	2.7%	2.7%	2.7%
27		1.1%	1.7%		0.7%	4.2%	1.4%	1.4%	1.4%	1.4%	2.7%
25		0.8%	2.0%		0.7%	2.1%	2.1%	2.1%	2.1%	2.0%	2.0%
7		0.7%	1.1%		1.6%	1.5%	1.2%	0.8%	1.1%	1.2%	1.2%
4		0.6%	0.7%		1.3%	1.5%	1.4%	0.9%	1.1%	0.8%	0.1%
20		0.6%	1.4%		1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
17		0.6%	1.5%		1.2%	1.1%	1.8%	1.0%	2.1%	1.4%	1.6%
9		0.4%	1.4%		0.9%	1.1%	1.4%	1.3%	1.4%	1.5%	1.5%
15		0.4%	1.3%		1.0%	1.0%	1.3%	1.4%	1.5%	1.2%	1.2%
5		0.4%	0.8%		1.3%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%
3		0.3%	0.4%		0.2%	1.6%	1.2%	-1.8%	1.2%	1.2%	1.2%
11		0.2%	1.6%		0.0%	1.2%	1.3%	1.8%	1.7%	1.5%	1.4%
18		0.2%	0.4%		1.9%	0.4%	0.0%	-0.3%	0.3%	0.3%	1.1%
26		0.1%	0.8%		0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%
10		0.1%	0.7%		1.2%	0.7%	0.2%	0.0%	0.6%	0.6%	1.4%
14		0.1%	0.7%		1.2%	0.7%	0.2%	0.0%	0.6%	0.6%	1.4%
8		0.1%	0.7%		1.2%	0.7%	0.2%	0.0%	0.6%	0.6%	1.4%
2		0.1%	2.5%		0.3%	-0.2%	1.9%	5.1%	3.0%	0.3%	1.8%
19		0.0%	0.8%		0.7%	1.4%	-0.4%	-0.3%	1.0%	1.8%	0.7%
22		0.0%	0.2%		0.6%	0.4%	0.5%	0.4%	0.4%	0.1%	0.0%
13		0.0%	0.8%		0.5%	0.6%	0.5%	0.6%	0.8%	0.8%	0.9%
12		-0.1%	0.9%		0.1%	1.2%	0.2%	0.8%	0.9%	1.2%	0.7%
23		-0.1%	1.2%		0.6%	0.4%	0.5%	1.2%	1.8%	0.9%	1.0%
21		-0.2%	1.0%		-0.9%	0.4%	1.7%	2.0%	0.6%	1.1%	0.3%
16		-3.8%	0.6%								
MEDIAN		0.2%	0.9%		0.9%	1.1%	0.9%	0.8%	1.1%	1.2%	1.2%
MEAN		0.4%	1.1%		1.7%	1.3%	0.9%	0.9%	1.2%	1.1%	1.2%
STD DEV		1.4%	0.6%		3.7%	1.4%	0.7%	1.2%	0.7%	0.6%	0.7%
HIGH		5.8%	2.5%		19.2%	6.8%	2.1%	5.1%	3.0%	2.7%	2.7%
LOW		-3.8%	0.2%		-0.9%	-0.2%	-0.4%	-1.8%	0.3%	0.1%	0.0%

Table 12 - Industrial Production

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	-0.1%			1.4%							
6		8.4%	3.6%		26.6%	3.7%	3.7%	3.6%	3.6%	3.6%	3.5%
20		3.1%	-1.2%		6.3%	3.1%	1.5%	0.0%	-1.1%	-1.5%	-2.2%
12		3.0%	2.6%		6.2%	2.3%	2.3%	2.3%	2.4%	2.8%	2.8%
4		2.8%	2.9%		4.4%	2.9%	2.4%	3.0%	2.7%	3.0%	2.8%
5		2.6%	1.7%		3.4%	3.3%	2.5%	2.0%	1.7%	1.6%	1.5%
8		2.4%	2.5%		4.1%	1.8%	2.2%	2.4%	2.6%	2.6%	2.4%
10		2.4%	2.5%		4.1%	1.8%	2.2%	2.0%	2.7%	2.5%	2.7%
9		2.3%	2.1%		3.1%	2.3%	2.3%	1.9%	2.3%	2.3%	1.9%
11		2.3%	2.3%		3.1%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
14		2.2%	2.4%		3.7%	1.5%	2.1%	2.2%	2.6%	2.5%	2.3%
23		2.0%	2.9%		3.4%	2.0%	1.3%	3.0%	3.0%	3.2%	2.5%
2		1.9%	1.5%		2.1%	2.3%	1.7%	1.7%	1.8%	1.2%	1.3%
15		1.7%	0.9%		5.1%	-0.8%	1.1%	0.8%	0.0%	1.5%	1.1%
21		1.6%	1.8%		1.4%	1.7%	1.8%	1.9%	1.9%	1.8%	1.6%
3		1.6%	2.0%		1.6%	1.7%	1.7%	2.2%	1.7%	1.9%	2.1%
17		1.4%	1.1%		1.2%	0.8%	2.3%	1.5%	1.1%	1.1%	0.8%
25		1.4%	0.8%		0.8%	2.3%	1.2%	1.1%	1.1%	0.4%	0.4%
7		1.4%	2.0%		1.6%	1.2%	1.4%	1.9%	1.7%	2.0%	2.3%
1		1.2%	-0.3%		3.1%	0.0%	0.4%	0.8%	-0.8%	-0.4%	-0.8%
26		1.1%	1.9%		0.4%	0.4%	2.3%	1.5%	1.5%	2.3%	2.3%
22		1.0%	0.6%		0.5%	1.1%	0.9%	0.2%	-0.4%	0.8%	2.0%
16		0.8%	1.5%								
18		0.8%	0.9%		0.4%	1.0%	0.5%	0.9%	1.8%	0.6%	0.3%
13		0.7%	1.2%		1.2%	0.4%	0.0%	0.8%	2.7%	0.8%	0.8%
19		0.7%	-0.4%		1.6%	0.8%	-0.8%	-2.3%	0.4%	0.8%	-0.4%
27		0.4%	0.0%		0.3%	0.1%	-0.4%	0.0%	0.0%	0.0%	0.0%
MEDIAN		1.6%	1.7%		3.1%	1.7%	1.7%	1.9%	1.8%	1.8%	1.9%
MEAN		2.0%	1.5%		3.6%	1.6%	1.6%	1.5%	1.6%	1.6%	1.4%
STD DEV		1.5%	1.1%		5.0%	1.1%	1.0%	1.2%	1.2%	1.2%	1.3%
HIGH		8.4%	3.6%		26.6%	3.7%	3.7%	3.6%	3.6%	3.6%	3.5%
LOW		0.4%	-1.2%		0.3%	-0.8%	-0.8%	-2.3%	-1.1%	-1.5%	-2.2%

Table 13 - Car and Light Truck Sales (millions)

Individual	2016	2017	2018	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	17.5			17.2							
6		20.8	24.3		21.0	22.0	23.0	24.0	24.2	24.4	24.7
26		17.5	17.7		17.5	17.6	17.8	17.5	17.7	17.7	17.8
17		17.4	17.0		17.3	17.4	17.6	16.7	16.8	17.0	17.4
4		17.3	17.5		17.3	17.4	17.5	17.5	17.5	17.5	17.5
24		17.3	16.9		17.4	17.4	17.1	16.8	16.5	17.0	17.2
2		17.2	16.8		17.2	17.3	17.2	17.0	16.9	16.7	16.7
1		17.2	16.9		17.0	16.9	17.8	17.4	17.0	16.8	16.5
21		17.2	17.1		17.4	17.2	17.0	17.0	17.0	17.1	17.1
8		17.2	17.0		17.1	17.3	17.2	17.1	17.1	17.0	16.9
7		17.2	17.1		17.1	17.2	17.2	17.2	17.1	17.1	17.1
18		17.1	17.0		16.8	17.3	17.3	17.1	17.0	16.9	16.9
3		17.1	17.2		17.0	17.2	17.1	17.2	17.2	17.2	17.2
5		17.1	17.0		17.1	17.0	17.0	17.0	17.0	17.0	17.0
13		17.1	16.5		17.1	16.9	17.1	16.7	16.7	16.5	16.2
9		17.0	16.9		17.0	17.0	16.9	16.9	16.9	16.9	16.9
11		17.0	16.9		17.0	17.0	16.9	16.9	16.9	16.9	16.8
19		17.0	16.3		16.9	17.2	16.8	16.5	16.2	16.2	16.1
20		17.0	16.5		17.1	17.0	16.8	16.7	16.5	16.4	16.3
25		17.0	16.8		17.0	17.0	16.8	16.8	16.8	16.8	16.8
15		16.9	16.9		16.8	16.9	16.8	17.0	17.1	16.8	16.6
22		16.8	16.7		16.7	16.7	16.7	16.7	16.7	16.7	16.7
12		16.7	16.2		16.7	16.6	16.4	16.0	16.2	16.3	16.3
23		16.6	16.3		16.8	16.6	16.0	16.2	16.2	16.4	16.3
MEDIAN		17.1	16.9		17.1	17.2	17.1	17.0	16.9	16.9	16.9
MEAN		17.3	17.2		17.2	17.3	17.3	17.2	17.2	17.2	17.2
STD DEV		0.8	1.6		0.8	1.0	1.3	1.5	1.5	1.6	1.7
HIGH		20.8	24.3		21.0	22.0	23.0	24.0	24.2	24.4	24.7
LOW		16.6	16.2		16.7	16.6	16.0	16.0	16.2	16.2	16.1

Table 14 - Housing Starts (millions)

Individual	2016	2017	2018	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	1.18			1.25							
12		1.33	1.42		1.36	1.32	1.39	1.37	1.45	1.41	1.45
8		1.31	1.47		1.29	1.32	1.36	1.41	1.45	1.49	1.53
14		1.30	1.47		1.29	1.32	1.36	1.40	1.45	1.49	1.53
10		1.30	1.46		1.29	1.31	1.35	1.41	1.44	1.48	1.52
2		1.30	1.49		1.25	1.30	1.40	1.45	1.48	1.52	1.50
17		1.30	1.29		1.33	1.35	1.26	1.24	1.34	1.31	1.26
13		1.29	1.33		1.27	1.30	1.32	1.35	1.35	1.33	1.30
7		1.27	1.34		1.25	1.28	1.31	1.32	1.33	1.34	1.35
4		1.27	1.35		1.25	1.28	1.30	1.32	1.34	1.36	1.38
3		1.26	1.33		1.23	1.27	1.30	1.31	1.32	1.33	1.34
21		1.26	1.32		1.25	1.27	1.28	1.30	1.32	1.33	1.35
25		1.26	1.30		1.25	1.30	1.25	1.30	1.30	1.30	1.30
1		1.26	1.21		1.22	1.26	1.30	1.25	1.22	1.15	1.20
5		1.26	1.27		1.25	1.26	1.26	1.27	1.27	1.27	1.27
11		1.26	1.34		1.24	1.26	1.27	1.30	1.34	1.35	1.36
18		1.25	1.30		1.25	1.25	1.27	1.29	1.29	1.30	1.32
9		1.25	1.33		1.24	1.25	1.27	1.30	1.33	1.34	1.35
22		1.25	1.29		1.25	1.25	1.25	1.29	1.29	1.29	1.29
20		1.24	1.25		1.24	1.24	1.24	1.24	1.24	1.26	1.27
26		1.24	1.38		1.21	1.22	1.26	1.30	1.35	1.40	1.45
19		1.23	1.24		1.24	1.20	1.25	1.27	1.24	1.21	1.25
15		1.22	1.28		1.19	1.21	1.24	1.26	1.29	1.28	1.29
6		1.21	1.32		1.10	1.20	1.30	1.30	1.30	1.32	1.35
23		1.21	1.21		1.23	1.19	1.15	1.17	1.20	1.24	1.23
MEDIAN		1.26	1.32		1.25	1.26	1.28	1.30	1.32	1.33	1.34
MEAN		1.26	1.33		1.25	1.27	1.29	1.31	1.33	1.34	1.35
STD DEV		0.03	0.08		0.05	0.04	0.05	0.06	0.07	0.09	0.10
HIGH		1.33	1.49		1.36	1.35	1.40	1.45	1.48	1.52	1.53
LOW		1.21	1.21		1.10	1.19	1.15	1.17	1.20	1.15	1.20

Table 15 - Oil Price (West Texas Intermediate, Dollars Per Barrel)

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	\$49.20			\$51.83							
18		\$55.04	\$54.30		\$54.37	\$54.95	\$55.04	\$54.96	\$54.80	\$54.54	\$54.30
26		\$55.00	\$55.00		\$51.00	\$53.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00
2		\$54.79	\$58.30		\$50.00	\$53.87	\$54.79	\$55.72	\$56.55	\$57.34	\$58.30
9		\$54.00	\$55.00		\$49.75	\$52.00	\$54.00	\$55.00	\$56.00	\$57.00	\$55.00
17		\$53.34	\$54.85		\$49.76	\$51.02	\$53.34	\$54.49	\$54.97	\$55.03	\$54.85
13		\$53.30	\$59.00		\$49.00	\$51.60	\$53.30	\$54.00	\$54.40	\$57.50	\$59.00
11		\$53.00	\$54.00		\$52.00	\$56.00	\$53.00	\$54.00	\$56.00	\$57.00	\$54.00
14		\$53.00	\$56.00		\$52.00	\$53.00	\$53.00	\$54.00	\$55.00	\$55.00	\$56.00
16		\$52.47	\$50.05				\$52.47				\$50.05
21		\$52.30	\$54.10		\$53.70	\$54.80	\$52.30	\$48.40	\$51.90	\$55.10	\$54.10
3		\$52.25	\$53.19		\$50.75	\$52.75	\$52.25	\$50.37	\$50.37	\$52.25	\$53.19
25		\$52.00	\$47.00		\$53.00	\$55.00	\$52.00	\$49.00	\$52.00	\$49.00	\$47.00
27		\$52.00	\$63.00		\$50.00	\$50.00	\$52.00	\$54.00	\$56.00	\$58.00	\$63.00
10		\$51.17	\$51.89		\$50.67	\$50.56	\$51.17	\$51.48	\$51.71	\$51.89	\$51.89
5		\$51.00	\$54.00		\$51.00	\$51.00	\$51.00	\$51.00	\$51.00	\$51.00	\$54.00
6		\$51.00	\$52.70		\$50.50	\$50.75	\$51.00	\$51.00	\$51.50	\$52.00	\$52.70
12		\$51.00	\$55.00		\$49.00	\$50.00	\$51.00	\$51.00	\$53.00	\$53.00	\$55.00
8		\$50.29	\$50.20		\$49.80	\$49.68	\$50.29	\$50.62	\$50.61	\$50.34	\$50.20
22		\$50.25	\$52.00		\$49.86	\$50.00	\$50.25	\$50.50	\$51.00	\$51.50	\$52.00
15		\$50.00	\$45.00		\$50.00	\$50.00	\$50.00	\$48.00	\$48.00	\$45.00	\$45.00
20		\$49.93	\$53.47		\$50.08	\$53.88	\$49.93	\$51.22	\$57.62	\$56.10	\$53.47
7		\$49.75	\$52.75		\$48.87	\$49.00	\$49.75	\$50.50	\$51.25	\$52.00	\$52.75
4		\$49.14	\$49.50		\$50.10	\$48.43	\$49.14	\$49.61	\$49.57	\$49.40	\$49.50
1		\$46.00	\$54.00		\$44.00	\$42.00	\$46.00	\$48.00	\$50.00	\$52.00	\$54.00
23		\$45.40	\$64.39		\$53.80	\$52.50	\$45.40	\$48.90	\$55.70	\$60.30	\$64.39
19		\$45.25	\$51.00		\$49.78	\$53.25	\$45.25	\$47.00	\$50.00	\$50.00	\$51.00
MEDIAN		\$51.59	\$54.00		\$50.08	\$51.60	\$51.59	\$51.00	\$52.00	\$53.00	\$54.00
MEAN		\$51.26	\$53.83		\$50.51	\$51.56	\$51.26	\$51.51	\$52.96	\$53.49	\$53.83
STD DEV		\$2.62	\$4.12		\$2.00	\$2.81	\$2.62	\$2.56	\$2.61	\$3.42	\$4.12
HIGH		\$55.04	\$64.39		\$54.37	\$56.00	\$55.04	\$55.72	\$57.62	\$60.30	\$64.39
LOW		\$45.25	\$45.00		\$44.00	\$42.00	\$45.25	\$47.00	\$48.00	\$45.00	\$45.00

Table 16 - Unemployment Rate

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	4.7%			4.7%							
23		5.0%	5.0%		4.8%	5.0%	5.0%	5.1%	5.0%	5.0%	5.0%
27		4.9%	5.4%		4.7%	4.8%	4.9%	5.2%	5.3%	5.4%	5.4%
25		4.8%	5.0%		4.5%	4.7%	4.8%	4.9%	5.0%	5.0%	5.0%
13		4.7%	4.6%		4.7%	4.7%	4.7%	4.7%	4.7%	4.6%	4.6%
16		4.7%	4.9%				4.7%				4.9%
21		4.6%	4.7%		4.6%	4.6%	4.6%	4.6%	4.6%	4.7%	4.7%
18		4.5%	4.5%		4.7%	4.6%	4.5%	4.5%	4.5%	4.5%	4.5%
6		4.5%	4.5%		4.5%	4.3%	4.5%	4.7%	4.7%	4.5%	4.5%
20		4.5%	5.2%		4.5%	4.5%	4.5%	4.5%	4.8%	5.0%	5.2%
22		4.5%	4.5%		4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
3		4.4%	4.2%		4.6%	4.5%	4.4%	4.3%	4.3%	4.2%	4.2%
5		4.4%	4.3%		4.5%	4.4%	4.4%	4.4%	4.4%	4.3%	4.3%
9		4.4%	4.2%		4.5%	4.4%	4.4%	4.3%	4.3%	4.3%	4.2%
11		4.4%	4.2%		4.4%	4.4%	4.4%	4.3%	4.3%	4.2%	4.2%
17		4.4%	4.4%		4.5%	4.5%	4.4%	4.4%	4.4%	4.5%	4.4%
19		4.4%	4.6%		4.5%	4.3%	4.4%	4.5%	4.6%	4.6%	4.6%
26		4.4%	4.4%		4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
4		4.4%	4.0%		4.5%	4.4%	4.4%	4.3%	4.2%	4.1%	4.0%
14		4.4%	4.2%		4.5%	4.4%	4.4%	4.3%	4.3%	4.2%	4.2%
7		4.3%	4.2%		4.4%	4.4%	4.3%	4.3%	4.3%	4.2%	4.2%
1		4.3%	4.7%		4.4%	4.4%	4.3%	4.4%	4.5%	4.6%	4.7%
12		4.3%	4.4%		4.4%	4.4%	4.3%	4.2%	4.3%	4.4%	4.4%
2		4.3%	4.3%		4.5%	4.4%	4.3%	4.3%	4.3%	4.3%	4.3%
10		4.3%	4.1%		4.5%	4.4%	4.3%	4.3%	4.2%	4.2%	4.1%
8		4.3%	4.0%		4.5%	4.4%	4.3%	4.2%	4.2%	4.1%	4.0%
15		4.2%	3.6%		4.5%	4.4%	4.2%	4.1%	3.9%	3.7%	3.6%
MEDIAN		4.4%	4.4%		4.5%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
MEAN		4.5%	4.5%		4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
STD DEV		0.2%	0.4%		0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%
HIGH		5.0%	5.4%		4.8%	5.0%	5.0%	5.2%	5.3%	5.4%	5.4%
LOW		4.2%	3.6%		4.4%	4.3%	4.2%	4.1%	3.9%	3.7%	3.6%

Table 17 - Consumer Price Index Inflation Rate

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	1.8%			3.1%							
21		3.3%	3.8%		3.2%	3.4%	3.6%	3.7%	3.8%	3.8%	3.8%
27		3.1%	3.2%		3.1%	3.1%	3.1%	3.1%	3.2%	3.3%	3.4%
1		3.1%	2.9%		3.2%	3.1%	3.0%	3.1%	3.0%	2.9%	2.8%
17		3.0%	2.5%		2.9%	3.2%	2.7%	2.6%	2.4%	2.5%	2.5%
26		3.0%	2.9%		2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
13		2.9%	2.7%		2.7%	2.8%	2.8%	2.7%	2.7%	2.7%	2.8%
19		2.8%	2.3%		2.7%	2.5%	2.9%	2.5%	2.2%	2.5%	2.2%
5		2.8%	3.0%		2.5%	2.8%	2.8%	2.8%	2.9%	2.9%	3.4%
15		2.7%	2.4%		2.7%	2.7%	2.4%	2.4%	2.4%	2.5%	2.5%
25		2.7%	2.5%		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
20		2.6%	2.3%		2.6%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
2		2.5%	2.7%		2.4%	2.2%	2.2%	2.4%	2.6%	2.8%	3.0%
23		2.3%	2.3%		1.9%	2.5%	1.9%	1.4%	2.5%	3.0%	2.5%
9		2.3%	2.3%		1.6%	2.2%	2.3%	2.4%	2.2%	2.2%	2.3%
12		2.3%	2.0%		3.1%	1.3%	1.7%	1.9%	2.1%	1.9%	2.0%
18		2.3%	2.0%		1.3%	2.3%	2.2%	2.1%	1.9%	1.9%	2.0%
22		2.2%	2.1%		1.6%	2.1%	2.1%	2.5%	2.3%	2.0%	1.8%
11		2.2%	2.3%		0.9%	2.1%	2.5%	2.4%	2.4%	2.2%	2.2%
3		2.1%	1.9%		4.2%	1.7%	-0.5%	1.6%	4.5%	1.8%	-0.1%
4		2.1%	1.8%		0.7%	2.8%	1.9%	1.3%	1.6%	2.1%	2.0%
7		2.1%	2.0%		1.6%	1.8%	1.8%	1.9%	2.0%	2.0%	2.1%
8		1.9%	1.9%		0.3%	1.8%	2.3%	2.1%	1.9%	1.8%	2.0%
14		1.9%	1.9%		0.3%	1.8%	2.3%	2.1%	1.8%	1.8%	1.9%
10		1.9%	1.9%		0.3%	1.8%	2.3%	2.1%	1.8%	1.8%	1.9%
6		0.9%	0.2%		0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
MEDIAN		2.3%	2.3%		2.5%	2.3%	2.3%	2.4%	2.4%	2.3%	2.3%
MEAN		2.4%	2.3%		2.1%	2.3%	2.2%	2.3%	2.4%	2.3%	2.3%
STD DEV		0.5%	0.6%		1.1%	0.7%	0.8%	0.7%	0.8%	0.7%	0.8%
HIGH		3.3%	3.8%		4.2%	3.4%	3.6%	3.7%	4.5%	3.8%	3.8%
LOW		0.9%	0.2%		0.2%	0.2%	-0.5%	0.2%	0.2%	0.2%	-0.1%

Table 18 - Treasury Constant Maturity - One-year Rate

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	0.76%			0.89%							
9		1.70%	2.00%		1.14%	1.45%	1.70%	1.75%	1.80%	1.95%	2.00%
8		1.70%	2.69%		1.13%	1.40%	1.70%	1.93%	2.21%	2.46%	2.69%
12		1.63%	2.09%		1.17%	1.46%	1.63%	1.69%	1.93%	2.04%	2.09%
19		1.59%	1.85%		0.95%	1.21%	1.59%	1.65%	1.70%	1.75%	1.85%
11		1.56%	2.18%		1.19%	1.45%	1.56%	1.60%	1.66%	1.92%	2.18%
22		1.56%	2.26%		1.21%	1.48%	1.56%	1.76%	1.82%	2.00%	2.26%
5		1.55%	2.25%		1.10%	1.30%	1.55%	1.80%	1.95%	2.10%	2.25%
14		1.53%	2.39%		1.12%	1.31%	1.53%	1.73%	1.96%	2.19%	2.39%
15		1.50%	1.60%		1.11%	1.25%	1.50%	1.55%	1.60%	1.60%	1.60%
4		1.49%	1.89%		1.14%	1.37%	1.49%	1.53%	1.57%	1.73%	1.89%
17		1.44%	2.14%		1.10%	1.29%	1.44%	1.60%	1.78%	1.95%	2.14%
25		1.39%	1.89%		0.89%	1.14%	1.39%	1.39%	1.64%	1.64%	1.89%
23		1.37%	2.12%		1.18%	1.38%	1.37%	1.45%	1.87%	2.12%	2.12%
13		1.37%	1.85%		1.13%	1.22%	1.37%	1.61%	1.92%	1.89%	1.85%
1		1.25%	1.60%		1.00%	1.00%	1.25%	1.25%	1.50%	1.55%	1.60%
21		1.17%	1.68%		0.95%	1.06%	1.17%	1.29%	1.41%	1.54%	1.68%
2		1.12%	2.00%		1.00%	1.01%	1.12%	1.25%	1.55%	1.80%	2.00%
20		1.11%	1.45%		0.94%	1.02%	1.11%	1.19%	1.28%	1.36%	1.45%
16		0.95%	1.01%				0.95%				1.01%
27		0.92%	0.98%		0.89%	0.91%	0.92%	0.93%	0.94%	0.96%	0.98%
26		0.90%	0.95%		0.90%	0.90%	0.90%	0.95%	0.95%	0.95%	0.95%
6		0.50%	0.09%		0.46%	0.48%	0.50%	0.06%	0.07%	0.08%	0.09%
MEDIAN		1.42%	1.89%		1.10%	1.25%	1.42%	1.55%	1.66%	1.80%	1.89%
MEAN		1.33%	1.77%		1.03%	1.20%	1.33%	1.43%	1.58%	1.69%	1.77%
STD DEV		0.30%	0.57%		0.16%	0.24%	0.30%	0.40%	0.46%	0.51%	0.57%
HIGH		1.70%	2.69%		1.21%	1.48%	1.70%	1.93%	2.21%	2.46%	2.69%
LOW		0.50%	0.09%		0.46%	0.48%	0.50%	0.06%	0.07%	0.08%	0.09%

Table 19 - Treasury Constant Maturity - Ten-year Rate

Individual	Q4 value			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	2.13%			2.44%							
23		3.65%	3.82%		2.82%	3.17%	3.65%	3.29%	3.51%	3.70%	3.82%
2		3.00%	3.95%		2.49%	2.79%	3.00%	3.21%	3.51%	3.74%	3.95%
22		3.00%	3.50%		2.40%	2.80%	3.00%	3.20%	3.30%	3.40%	3.50%
25		3.00%	3.50%		2.44%	2.75%	3.00%	3.00%	3.25%	3.25%	3.50%
21		2.90%	3.93%		2.58%	2.71%	2.90%	3.16%	3.36%	3.67%	3.93%
17		2.88%	3.19%		2.68%	2.79%	2.88%	2.93%	2.98%	3.05%	3.19%
5		2.87%	3.75%		2.42%	2.62%	2.87%	3.14%	3.34%	3.55%	3.75%
18		2.85%	3.40%		2.65%	2.80%	2.85%	3.10%	3.20%	3.30%	3.40%
9		2.75%	2.90%		2.40%	2.55%	2.75%	2.77%	2.80%	2.85%	2.90%
11		2.75%	2.94%		2.55%	2.72%	2.75%	2.76%	2.78%	2.86%	2.94%
4		2.73%	3.38%		2.35%	2.56%	2.73%	2.95%	3.04%	3.24%	3.38%
19		2.71%	2.90%		2.56%	2.62%	2.71%	2.75%	2.80%	2.85%	2.90%
3		2.70%	3.25%		2.36%	2.52%	2.70%	2.90%	3.03%	3.14%	3.25%
1		2.70%	2.40%		2.30%	2.60%	2.70%	2.60%	2.50%	2.45%	2.40%
8		2.64%	3.21%		2.34%	2.45%	2.64%	2.81%	2.95%	3.09%	3.21%
12		2.61%	2.54%		2.37%	2.49%	2.61%	2.44%	2.53%	2.49%	2.54%
7		2.60%	3.22%		2.36%	2.41%	2.60%	2.81%	2.98%	3.12%	3.22%
10		2.60%	3.00%		2.50%	2.55%	2.60%	2.70%	2.80%	2.90%	3.00%
13		2.60%	3.10%		2.35%	2.43%	2.60%	2.88%	2.95%	3.10%	3.10%
14		2.59%	3.13%		2.34%	2.42%	2.59%	2.75%	2.89%	3.02%	3.13%
16		2.53%	2.60%				2.53%				2.60%
6		2.50%	3.00%		2.42%	2.49%	2.50%	2.60%	2.65%	2.75%	3.00%
27		2.46%	2.55%		2.44%	2.45%	2.46%	2.48%	2.49%	2.50%	2.55%
26		2.45%	2.50%		2.45%	2.45%	2.45%	2.50%	2.50%	2.50%	2.50%
20		2.37%	2.71%		2.20%	2.28%	2.37%	2.45%	2.54%	2.62%	2.71%
15		2.35%	2.60%		2.25%	2.35%	2.35%	2.50%	2.50%	2.60%	2.60%
MEDIAN		2.70%	3.11%		2.42%	2.55%	2.70%	2.81%	2.95%	3.05%	3.11%
MEAN		2.72%	3.11%		2.44%	2.59%	2.72%	2.83%	2.93%	3.03%	3.11%
STD DEV		0.26%	0.44%		0.14%	0.19%	0.26%	0.25%	0.32%	0.38%	0.44%
HIGH		3.65%	3.95%		2.82%	3.17%	3.65%	3.29%	3.51%	3.74%	3.95%
LOW		2.35%	2.40%		2.20%	2.28%	2.35%	2.44%	2.49%	2.45%	2.40%

Table 20 - J.P. Morgan Trade Weighted OECD Dollar

Individual	Q4 over Q4			Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418
	2016	2017	2018								
	3.7%			0.8%							
23		8.5%	-6.6%		1.3%	5.1%	1.1%	-2.4%	-1.9%	-1.4%	-1.0%
21		6.5%	6.9%		2.0%	2.0%	1.6%	1.4%	1.6%	1.6%	2.1%
17		4.7%	4.8%		3.0%	1.2%	-0.3%	0.7%	2.4%	1.3%	0.3%
2		4.3%	8.8%		1.0%	2.0%	0.5%	2.0%	2.5%	2.0%	2.0%
19		4.0%	4.9%		1.2%	2.5%	-0.5%	2.1%	0.7%	1.0%	1.0%
26		3.5%	3.6%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
27		3.3%	4.1%		0.9%	0.6%	1.0%	1.0%	1.0%	1.0%	1.0%
13		3.1%	3.5%		0.9%	0.7%	0.7%	0.9%	0.9%	0.9%	0.8%
15		2.4%	3.0%		0.4%	0.5%	0.7%	0.9%	1.1%	0.5%	0.5%
4		2.1%	0.0%		-1.1%	1.2%	1.3%	0.8%	0.0%	-0.5%	-0.3%
3		-0.9%	0.2%		-1.5%	-0.2%	0.0%	0.0%	0.1%	0.0%	0.0%
22		-1.4%	-0.6%		-1.2%	-0.5%	-0.5%	-0.4%	-0.2%	-0.1%	0.0%
5		-6.1%	0.0%		-6.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MEDIAN		3.3%	3.5%		0.9%	0.9%	0.7%	0.9%	0.9%	0.9%	0.5%
MEAN		2.6%	2.5%		0.1%	1.2%	0.5%	0.6%	0.7%	0.6%	0.6%
STD DEV		3.6%	3.8%		2.3%	1.4%	0.7%	1.1%	1.1%	0.9%	0.8%
HIGH		8.5%	8.8%		3.0%	5.1%	1.6%	2.1%	2.5%	2.0%	2.1%
LOW		-6.1%	-6.6%		-6.9%	-0.5%	-0.5%	-2.4%	-1.9%	-1.4%	-1.0%

Table 21a - Individual Forecasts for 2017

Individual	GDP current dollars	GDP price index, Chain-type	Real GDP, chained dollars	Personal consumption expenditures	Business fixed investment	Residential investment	Change in private inventories	Net exports	Government consumption expenditures and gross investment
1	2.5%	-0.3%	2.8%	2.2%	5.1%	8.2%	\$55.0	-\$610.0	1.5%
2	4.2%	1.6%	2.6%	2.3%	4.7%	9.1%	\$58.1	-\$689.9	0.1%
3	4.5%	2.0%	2.5%	2.4%	5.2%	6.1%	\$48.5	-\$620.9	0.3%
4	4.6%	2.0%	2.4%	2.2%	6.2%	6.3%	\$18.2	-\$624.9	0.6%
5	4.4%	2.1%	2.3%	1.7%	7.0%	10.3%	\$60.1	-\$647.0	0.4%
6	1.2%	1.9%	2.3%	2.4%	5.8%	0.2%	\$21.0	-\$580.0	5.8%
7	4.3%	1.9%	2.3%	2.2%	4.2%	7.1%	\$42.5	-\$619.9	0.7%
8	3.9%	1.6%	2.3%	2.3%	5.9%	6.5%	\$48.1	-\$662.4	0.1%
9	4.3%	2.0%	2.2%	2.0%	5.7%	8.3%	\$42.0	-\$635.0	0.4%
10	3.9%	1.6%	2.2%	2.2%	5.8%	6.1%	\$47.7	-\$654.0	0.1%
11	4.0%	1.7%	2.2%	2.0%	6.0%	8.5%	\$50.0	-\$633.2	0.2%
12	4.3%	2.0%	2.2%	2.0%	6.2%	8.9%	\$55.1	-\$669.9	-0.1%
13	3.9%	2.1%	2.1%	2.3%	5.5%	6.4%	\$50.0	-\$559.0	0.0%
14	3.8%	1.6%	2.1%	2.1%	5.5%	6.3%	\$43.5	-\$653.3	0.1%
15	3.8%	2.5%	2.1%	1.7%	4.3%	0.6%	\$25.0	-\$548.9	0.4%
16	2.1%	0.1%	2.0%	2.5%	2.3%	2.5%	\$30.2	-\$635.7	-3.8%
17	3.9%	1.9%	2.0%	1.9%	5.2%	3.9%	\$18.0	-\$621.0	0.6%
18	2.5%	2.0%	1.9%	2.3%	4.5%	3.8%	\$54.2	-\$681.5	0.2%
19	4.2%	2.3%	1.9%	1.5%	2.4%	11.6%	\$65.0	-\$602.0	0.0%
20	4.1%	2.1%	1.9%	1.8%	5.6%	3.3%	\$40.0	-\$636.9	0.6%
21	4.0%	2.2%	1.8%	2.4%	4.7%	10.0%	\$5.2	-\$645.8	-0.2%
22	4.1%	2.3%	1.8%	1.9%	4.2%	5.6%	\$34.0	-\$641.5	0.0%
23	3.7%	2.1%	1.5%	1.7%	5.6%	2.4%	\$20.1	-\$644.6	-0.1%
24	3.7%	2.2%	1.4%						
25	2.5%	2.1%	1.3%	0.3%	4.9%	9.1%			0.8%
26	2.3%	1.4%	1.0%	1.0%	4.2%	5.7%	\$2.0	-\$590.0	0.1%
27	2.3%	0.8%	0.4%	0.9%	2.8%	3.3%	\$12.0	-\$580.0	1.1%
X1									
MEDIAN	3.9%	2.0%	2.1%	2.1%	5.2%	6.3%	\$42.5	-\$635.0	0.2%
MEAN	3.6%	1.8%	2.0%	1.9%	5.0%	6.2%	\$37.8	-\$627.5	0.4%
STD DEV	0.9%	0.6%	0.5%	0.5%	1.1%	2.9%	\$17.7	\$35.0	1.4%
HIGH	4.6%	2.5%	2.8%	2.5%	7.0%	11.6%	\$65.0	-\$548.9	5.8%
LOW	1.2%	-0.3%	0.4%	0.3%	2.3%	0.2%	\$2.0	-\$689.9	-3.8%

Table 21b - Individual Forecasts for 2017

Individual	Industrial production	Car & light truck sales	Housing starts	Oil Price	Unemployment rate	Inflation rate (CPI)	Treasury constant maturity one-year rate	Treasury constant maturity ten-year rate	J.P. Morgan trade weighted OECD dollar
1	1.2%	17.8	1.30	\$46.00	4.3%	3.1%	1.25%	2.70%	
2	1.9%	17.2	1.40	\$54.79	4.3%	2.5%	1.12%	3.00%	4.3%
3	1.6%	17.1	1.30	\$52.25	4.4%	2.1%		2.70%	-0.9%
4	2.8%	17.5	1.30	\$49.14	4.4%	2.1%	1.49%	2.73%	2.1%
5	2.6%	17.0	1.26	\$51.00	4.4%	2.8%	1.55%	2.87%	-6.1%
6	8.4%	23.0	1.30	\$51.00	4.5%	0.9%	0.50%	2.50%	
7	1.4%	17.2	1.31	\$49.75	4.3%	2.1%		2.60%	
8	2.4%	17.2	1.36	\$50.29	4.3%	1.9%	1.70%	2.64%	
9	2.3%	16.9	1.27	\$54.00	4.4%	2.3%	1.70%	2.75%	
10	2.4%		1.35	\$51.17	4.3%	1.9%		2.60%	
11	2.3%	16.9	1.27	\$53.00	4.4%	2.2%	1.56%	2.75%	
12	3.0%	16.4	1.39	\$51.00	4.3%	2.3%	1.63%	2.61%	
13	0.7%	17.1	1.32	\$53.30	4.7%	2.9%	1.37%	2.60%	3.1%
14	2.2%		1.36	\$53.00	4.4%	1.9%	1.53%	2.59%	
15	1.7%	16.8	1.24	\$50.00	4.2%	2.7%	1.50%	2.35%	2.4%
16	0.8%	17.5	1.31	\$52.47	4.7%		0.95%	2.53%	
17	1.4%	17.6	1.26	\$53.34	4.4%	3.0%	1.44%	2.88%	4.7%
18	0.8%	17.3	1.27	\$55.04	4.5%	2.3%		2.85%	
19	0.7%	16.8	1.25	\$45.25	4.4%	2.8%	1.59%	2.71%	4.0%
20	3.1%	16.8	1.24	\$49.93	4.5%	2.6%	1.11%	2.37%	
21	1.6%	17.0	1.28	\$52.30	4.6%	3.3%	1.17%	2.90%	6.5%
22	1.0%	16.7	1.25	\$50.25	4.5%	2.2%	1.56%	3.00%	-1.4%
23	2.0%	16.0	1.15	\$45.40	5.0%	2.3%	1.37%	3.65%	8.5%
24		17.1							
25	1.4%	16.8	1.25	\$52.00	4.8%	2.7%	1.39%	3.00%	
26	1.1%	17.8	1.26	\$55.00	4.4%	3.0%	0.90%	2.45%	3.5%
27	0.4%	17.2	1.10	\$52.00	4.9%	3.1%	0.92%	2.46%	3.3%
X1		17.4							
MEDIAN	1.6%	17.1	1.28	\$51.59	4.4%	2.3%	1.42%	2.70%	3.3%
MEAN	2.0%	17.3	1.28	\$51.26	4.5%	2.4%	1.33%	2.72%	2.6%
STD DEV	1.5%	1.2	0.06	\$2.62	0.2%	0.5%	0.30%	0.26%	3.6%
HIGH	8.4%	23.0	1.40	\$55.04	5.0%	3.3%	1.70%	3.65%	8.5%
LOW	0.4%	16.0	1.10	\$45.25	4.2%	0.9%	0.50%	2.35%	-6.1%

Contributors

Bryan Bezold	Ford Motor Company
Yen Chen	Center for Automotive Research
Rajeev Dhawan	Georgia State University
Robert Dicianni	ArcelorMittal USA LLC
Bill Hickey and Frank Sirwaitis	DTE Energy
Jack Kleinhenz	Kleinhenz & Associates
Dave Lauer	Bureau of Labor Statistics
Kenneth Mac	GM
Daniil Manaenkov	RSQE
Lawrence Nelson	Macroeconomic Advisers
Bernard J. Paniak	BJP Economics
Thomas J. Portz	Sterling Capital Management, Inc.
Arun Raha and Maira Trimble	Eaton
Jim Robey	Upjohn Institute
Brian E. Schwadron	U. S. Steel
William Shearin	Center Punch Economics
John Silvia	Wells Fargo
Laura Spingola	TRADE RESOURCES Ltd.
Jim Stansell	House Fiscal Agency
Haig Stoddard	WardsAuto
Sue Yingzi Su	General Motors
Carl Tannenbaum	Northern Trust
Todd Tomalak	John Burns Real Estate Consulting
Evert Van Der Heide	Calvin College
Kenny Vieth and Sam Kahan	ACT RESEARCH
Bill Witte	FTR/Witte Econometrics
Richard Yamarone	Bloomberg
Mark Zhang	Navistar Inc.