

Daily Data Analysis and Assessment of the Global Economy

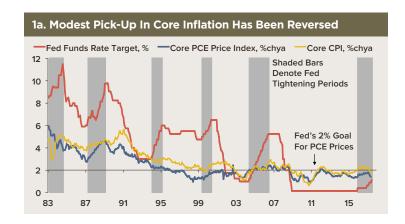
Slack To Keep Shrinking, Fed To Keep Tightening

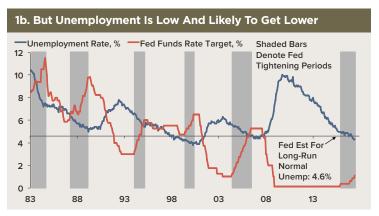


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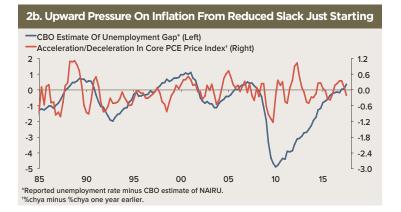
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2a. Upward Pressure On Wages From Reduced Slack Just Starting —CBO Estimate Of Unemployment Gap* (Left) —Acceleration/Deceleration In Private Wage Component Of ECI* (Right) 2.5 0.0 -2.5 *Reported unemployment rate minus CBO estimate of NAIRU. *Schya minus %chya one year earlier.





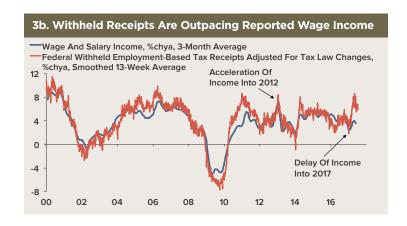
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3a. Hourly Earnings Have Stopped Accelerating—Temporarily? Average of Three Measures, %chya ECI: Private Sector Wages Per Hour, %chya Employment Report: Average Hourly Earnings, %chya Atlanta Fed Per-Hour Wage Tracker, %chya 3.4 2.2 1.0 07 08 09 10 11 12 13 14 15 16 17

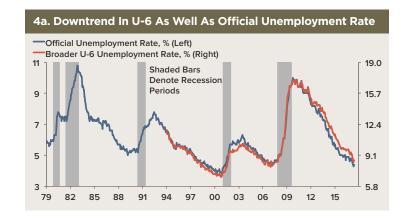




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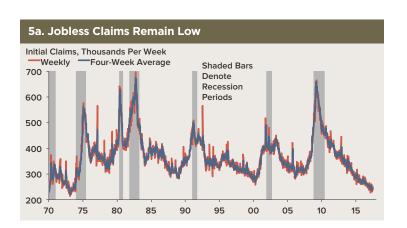


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5b. Payrolls Gains Remain Strong, With Offsets In The Details

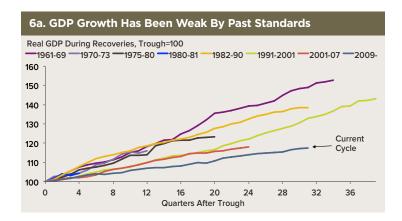
Change, Thousands Per Month	2016	2017 Thru June	Change
Payrolls	187	180	-7
Government	17	9	-8
Private	170	171	1
Manufacturing	-1	9	10
Mining & Logging	-6	8	14
Construction	13	19	6
Wholesale Trade	3	6	3
Retail Trade	17	-6	-23
Trans & Warehousing	8	3	-4
Utilities	0	0	0
Information	0	-7	-7
Financial Activities	15	14	-1
Prof & Business Services	45	48	4
Temporary Help	3	12	9
Education	7	2	-5
Health & Social Assistance	39	36	-3
Leisure & Hospitality	28	30	2
Other Services	4	10	6

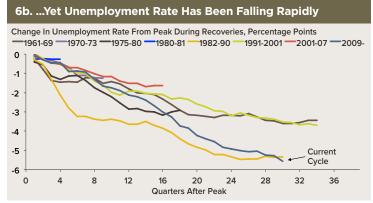


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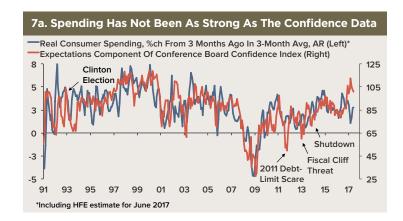


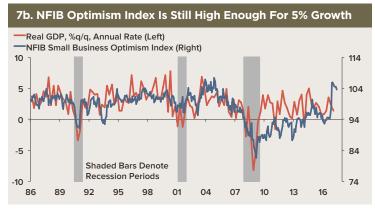


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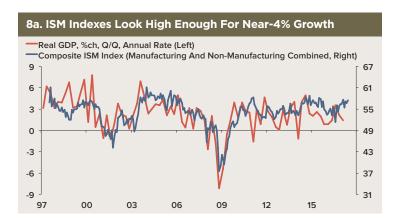


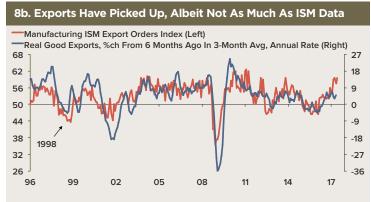


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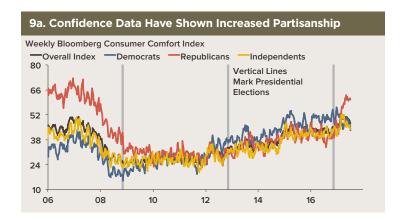




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10a. Fed Tightening Cycles

	Į.	Nominal Fund	s Rate Target (%)	Change In Funds	Rate (Pct Pts)	Core PCE Pri	ces (%chya)	Real Fund	ds Rate*
Start	End	Start	End	First 12 Months	Full Cycle	Start	End	Start	End
Mar 83	Aug 84	8.50	11.50	0.9	3.0	5.9	4.0	2.6	7.5
Apr 87	Feb 89	6.00	9.75	0.8**	3.8	2.8	4.7	3.2	5.1
Feb 94	Feb 95	3.00	6.00	2.5	3.0	2.2	2.3	0.8	3.7
Jun 99	May 00	4.75	6.50	1.8	1.8	1.2	1.7	3.5	4.8
Jun 04	Jun 06	1.00	5.25	2.0	4.3	1.9	2.4	-0.9	2.9
Dec 15		0.13		0.5		1.4		-1.3	

^{*} Deflated with %chya in core PCE prices. **The 1987-89 cycle was temporarily interrupted by the 1987 stock market crash.

10b. Fed Officials' Estimates For Appropriate Fed Funds Rate

% At Year-End, as of Jun 2017 FOMC Meeting								
	Longer							
	2017	2018	2019	Run				
Median Estimate	1.375	2.125	2.938	3.0				
Mean Estimate	1.38	2.23	2.85	2.92				

10c. Fed Officials' Economic Projections

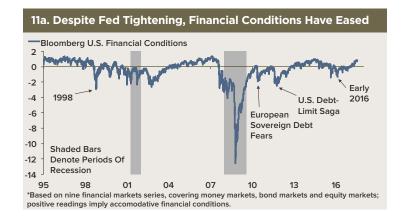
Median, %ch Q4/Q4, Unless Noted, as of Jun 2017 FOMC Meeting Longer 2017 2018 2019 Run Real GDP 2.2 2.1 1.9 1.8 Unemploy. Rate 4.3 4.2 4.2 4.6 **PCE Prices** 1.6 2.0 2.0 2.0 Core PCE Prices 1.7 2.0 2.0 *Q4 Level, %

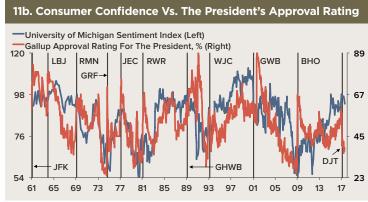


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12. HFE's U.S. Economic & Financial Forecasts														
%ch From Previous Period, Annual Rate, Excep	ot Where N	loted; For	ecasts In	Bold										
		2	016			20	17		Calen	dar Av	erage	(Q4/Q4	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018	2016	2017	2018
Real GDP	0.8	1.4	3.5	2.1	1.4	3.0	2.3	2.3	1.6	2.3	2.5	2.0	2.2	2.4
CPI	0.1	2.3	1.8	3.0	3.1	-0.3	2.0	2.2	1.3	2.0	2.3	1.8	1.8	2.6
Core CPI	2.5	2.1	2.1	2.0	2.5	0.6	2.0	2.3	2.2	1.9	2.3	2.2	1.8	2.6
Core PCE Prices	2.1	1.8	1.7	1.3	2.0	0.7	1.7	1.9	1.7	1.5	2.0	1.7	1.6	2.2
Unemployment (%, level)	4.9	4.9	4.9	4.7	4.7	4.4	4.2	4.1	4.9	4.3	3.9	4.7	4.1	3.8
Federal Budget Balance (\$B, FY)									-586	-675	-800			
% Of GDP									-3.2	-3.5	-4.0			
												En	d Of Ye	ar
Fed Funds Target (%, EOP)	0.38	0.38	0.38	0.63	0.88	1.13	1.13	1.38	0.4	1.0	1.8	0.63	1.38	2.38
10-Year Treasury (%, EOP)	1.8	1.5	1.6	2.4	2.4	2.2	2.6	2.8	1.8	2.5	3.0	2.4	2.8	3.2
30-Year Treasury (%, EOP)	2.6	2.3	2.3	3.1	3.1	2.8	3.2	3.4	2.6	3.1	3.6	3.1	3.4	3.7
S&P 500 (level, EOP)	2060	2099	2150	2239	2363	2423	2300	2250	2113	2327	2200	2239	2250	2150



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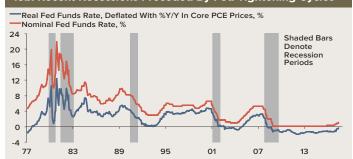
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13a. Long Expansion	. But "Expans	ions Do Not Die	of OldAge"

Recessions	Duration (Months)	Expansions	Duration (Months)
1945	8	1945-48	37
1948-49	11	1949-53	45
1953-54	10	1954-57	39
1957-58	8	1958-60	24
1960-61	10	1961-69	106
1970	11	1970-73	36
1973-75	16	1975-80	58
1980	6	1980-81	12
1981-82	16	1982-90	92
1990-91	8	1991-2001	120
2001	8	2001-07	73
2008-09	18	2009-?	96 So Far
Averages:		Averages:	
1854-1919	21.6	1854-1919	26.6
1919-45	18.2	1919-45	35.0
1945-2009	11.1	1945-2009	58.4

13b. Recent Recessions Preceded By Fed Tightening Cycles



13c. Yield Curve Inversions Generally Precede Recessions





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