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WEDNESDAY'S
News You Can Use

Lies, Damned Lies & Economic Forecasts

Presented by: **Kevin Webb, CFA**

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Today's Presenter

Kevin Webb, Principal at Piper Sandler & Co., is constantly seeking sleep-adjusted returns in a sleepless world. Kevin holds the Chartered Financial Analyst designation and is a member of both the CFA Institute and Global Association of Risk Professionals.

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Learning Objectives

At the end of this session, you should be able to:

- Discuss how to visualize and use economic forecasts

- Identify a framework for thinking about forecaster claims to accuracy

- Recall why a public funds portfolio manager should love losses

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Lies, Damned Lies & Economic Forecasts

1   What's the big deal?

2   Experts kNOw better than the rest of us, right?

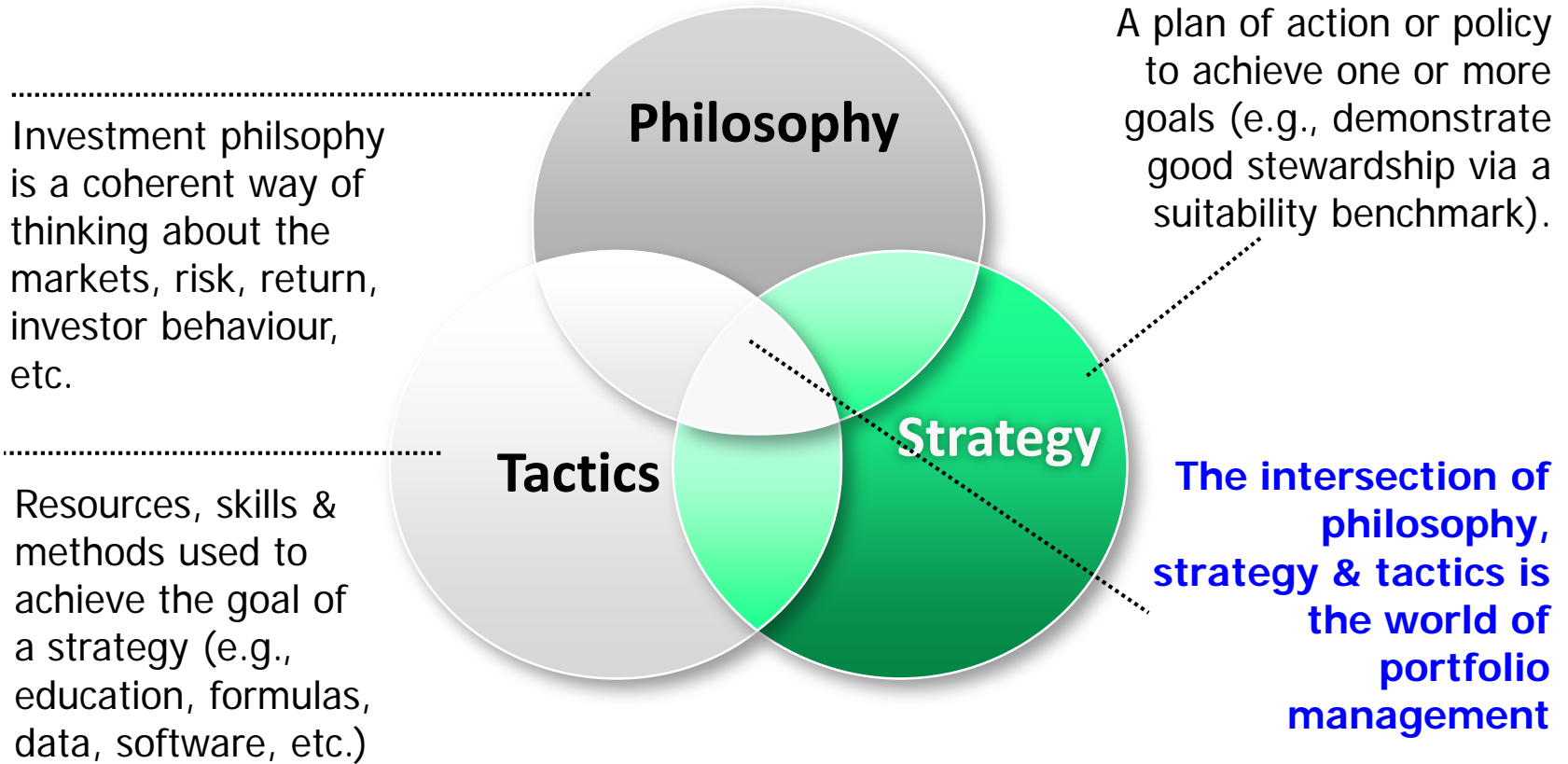**3**   Financial/Economic experts kNOw better, right?

4   A framework for thinking about economic forecasts

5   Updated economic forecasts

Philosophy, Strategy & Tactics

Sleep-Adusted returns via Suitability Benchmark using evidence based methods.

Investment philsophy is a coherent way of thinking about the markets, risk, return, investor behaviour, etc.

Philosophy

A plan of action or policy to achieve one or more goals (e.g., demonstrate good stewardship via a suitability benchmark).

Strategy

Tactics

Resources, skills & methods used to achieve the goal of a strategy (e.g., education, formulas, data, software, etc.)

The intersection of philosophy, strategy & tactics is the world of portfolio management

The difference between strategy and tactics: Strategy is done above the shoulders, Tactics are done below the shoulders.

What Should I Benchmark?

Prudent Person

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Prudent Investor

A U.S. law that sets the standard of fiduciary duty for those entrusted with the responsibility of managing others' money, such as trustees and estate administrators. It requires that a trustee weigh risk versus reward when making investment decisions, taking into account the income that may be generated by the investment as well as the probable safety of the invested capital.

Prudent Investor vs Prudent Man/Person
1. Trust accounts are judged on their entire portfolio, rather than whether the investment was prudent at the time of purchase.
2. Diversification is explicitly required under the Prudent Investor Act
3. Suitability is deemed more important than individual investments
4. Fiduciaries are allowed to delegate investment management to qualified third parties

https://www.investopedia.com/terms/p/prudent-investor-rule.asp & https://www.investopedia.com/terms/p/prudentmanrule.asp

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What Should I Benchmark?

General Objectives
"The primary objectives, in priority order...

1. Safety
Safety of principal is the foremost objective... *The goal will be to mitigate credit risk and interest rate risk.*

2. Liquidity
The investment portfolio shall *remain sufficiently liquid* to meet all operating requirements that may be reasonably anticipated.
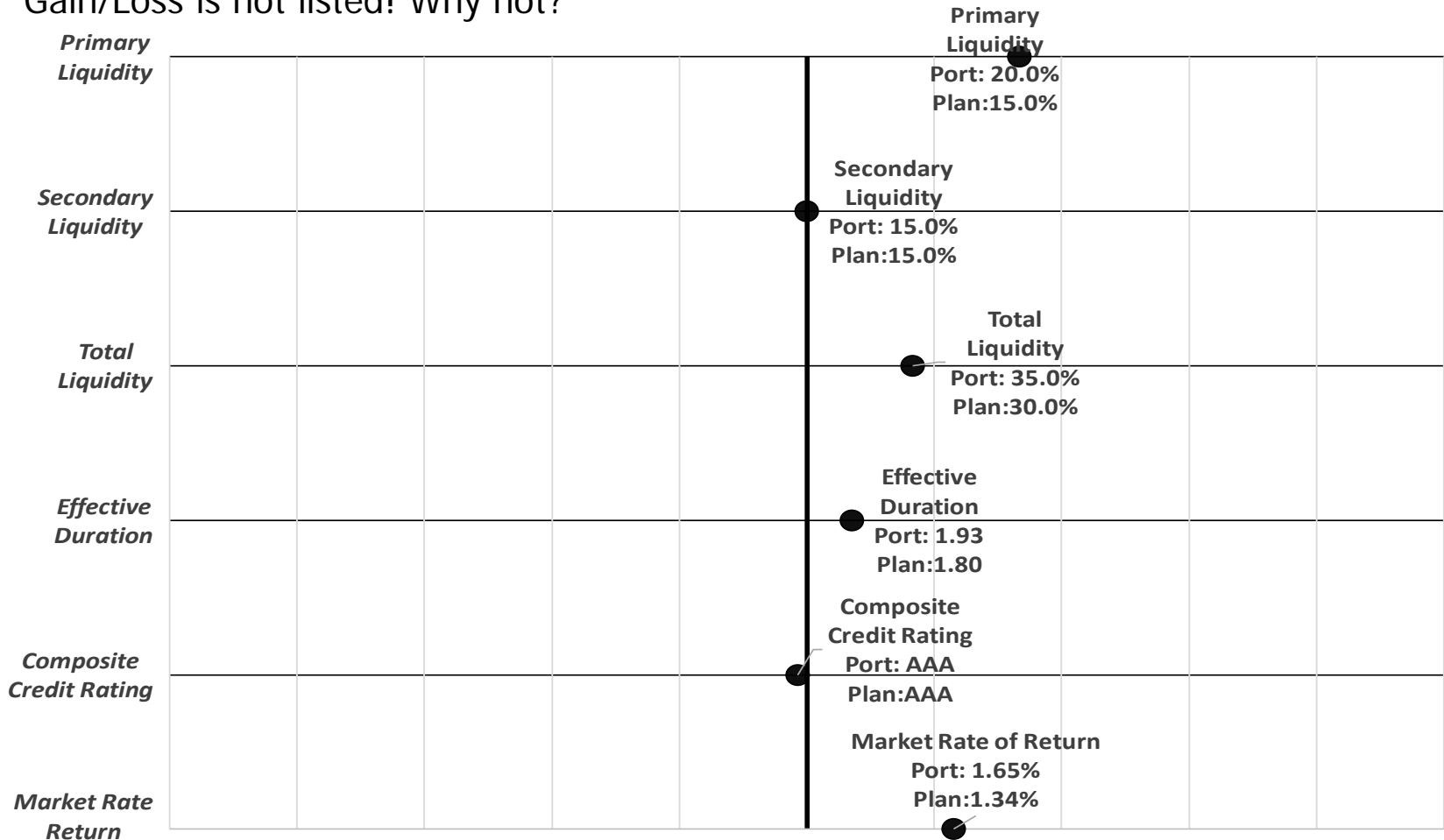
3. Return
The investment portfolio shall be designed with the objective of attaining a *market rate of return throughout budgetary and economic cycles*, taking into account the investment risk constraints of safety and liquidity needs."

GFOA Sample Investment Policy, accessed 12/31/16, pages 1-2. Emphasis added.

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Benchmark Suitability

Gain/Loss is not listed! Why not?

Primary Liquidity

Secondary Liquidity

Total Liquidity

Effective Duration

Composite Credit Rating

Market Rate Return

Primary Liquidity
Port: 20.0%
Plan:15.0%

Secondary Liquidity
Port: 15.0%
Plan:15.0%

Total Liquidity
Port: 35.0%
Plan:30.0%

Effective Duration
Port: 1.93
Plan:1.80

Composite Credit Rating
Port: AAA
Plan:AAA

Market Rate of Return
Port: 1.65%
Plan:1.34%

For the background and concepts behind this visualization see the presentation "Understanding Benchmarks: Concepts" by Kevin Webb, CFA

The Cost of Gains to Stakeholders

Source: Bloomberg
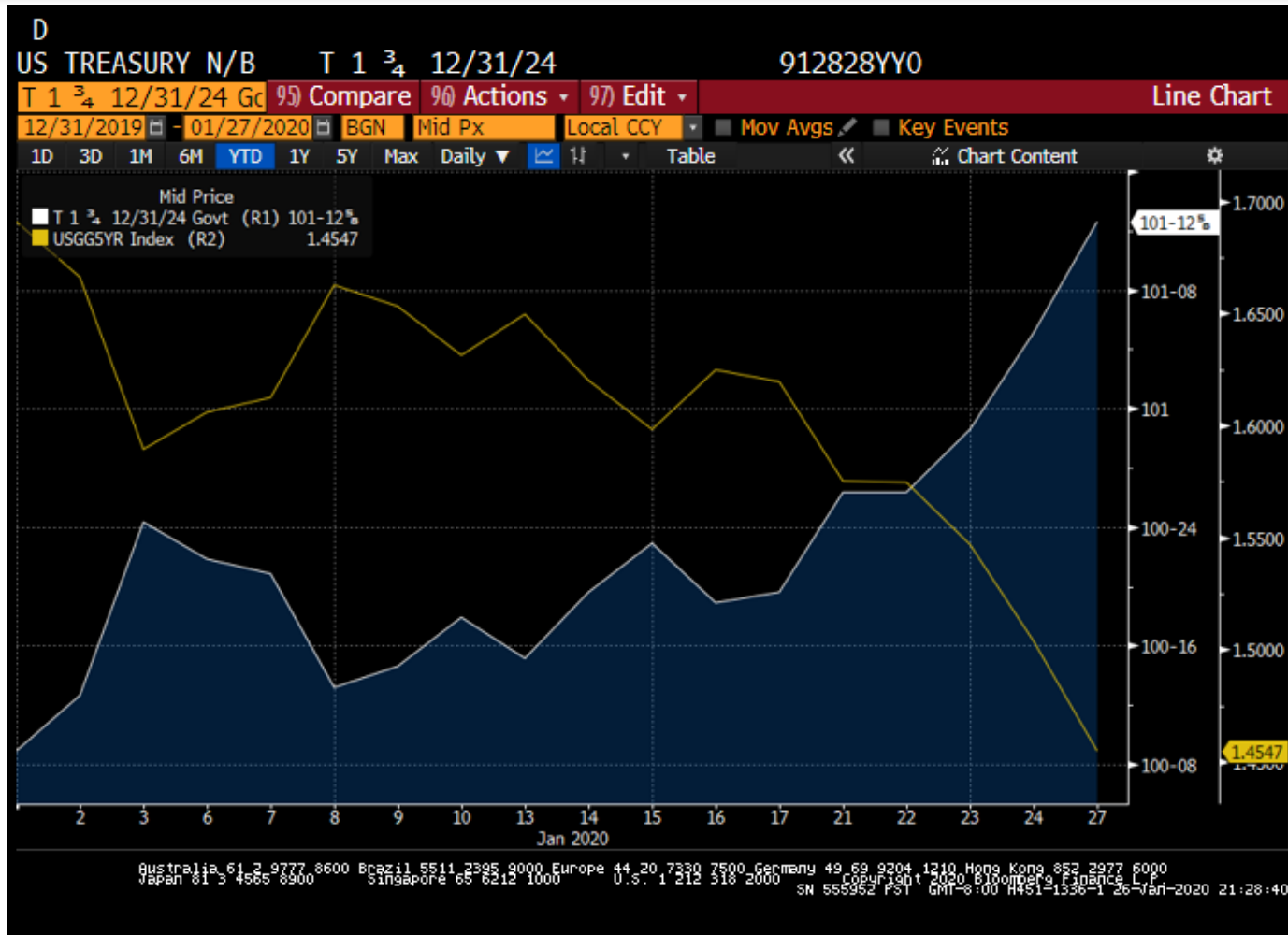
Prediction ⟷ Forecast

noun
a thing predicted; a forecast: a prediction that the Greeks would destroy the Persian empire.

• the action of predicting something: the prediction of future behavior.
ORIGIN
mid 16th cent.: from Latin praedictio(n-), from praedicere 'make known beforehand' (see predict) .

Prediction   Forecast
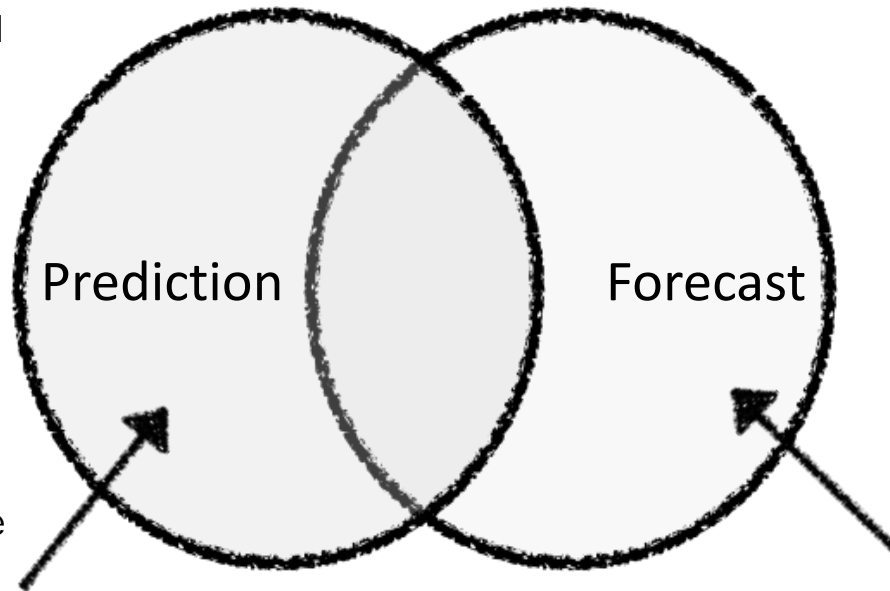
Verb
(past and past participle **forecast** or **forecasted**) [with obj.]
predict or estimate (a future event or trend): *rain is forecast for eastern Ohio* | [*with obj. and infinitive*] : *coal consumption is forecast to increase.*

noun
a prediction or estimate of future events, especially coming weather or a financial trend.

forecaster |ˈfôrˌkastər| noun: a person who predicts or estimates a future event or trend: economic forecasters are predicting a downturn.

Experts kNOw better, right?

Rock n' roll? It will be gone by June

Variety magazine, 1955.

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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Experts kNOw better, right?

The Beatles have no future in show business

A Decca Records executive to the band's manager, Brian Epstein, following an audition in 1962. He continued: "We don't like your boys' sound. Groups are out. Four-piece groups with guitars, particularly, are finished."

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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Experts kNOw better, right?
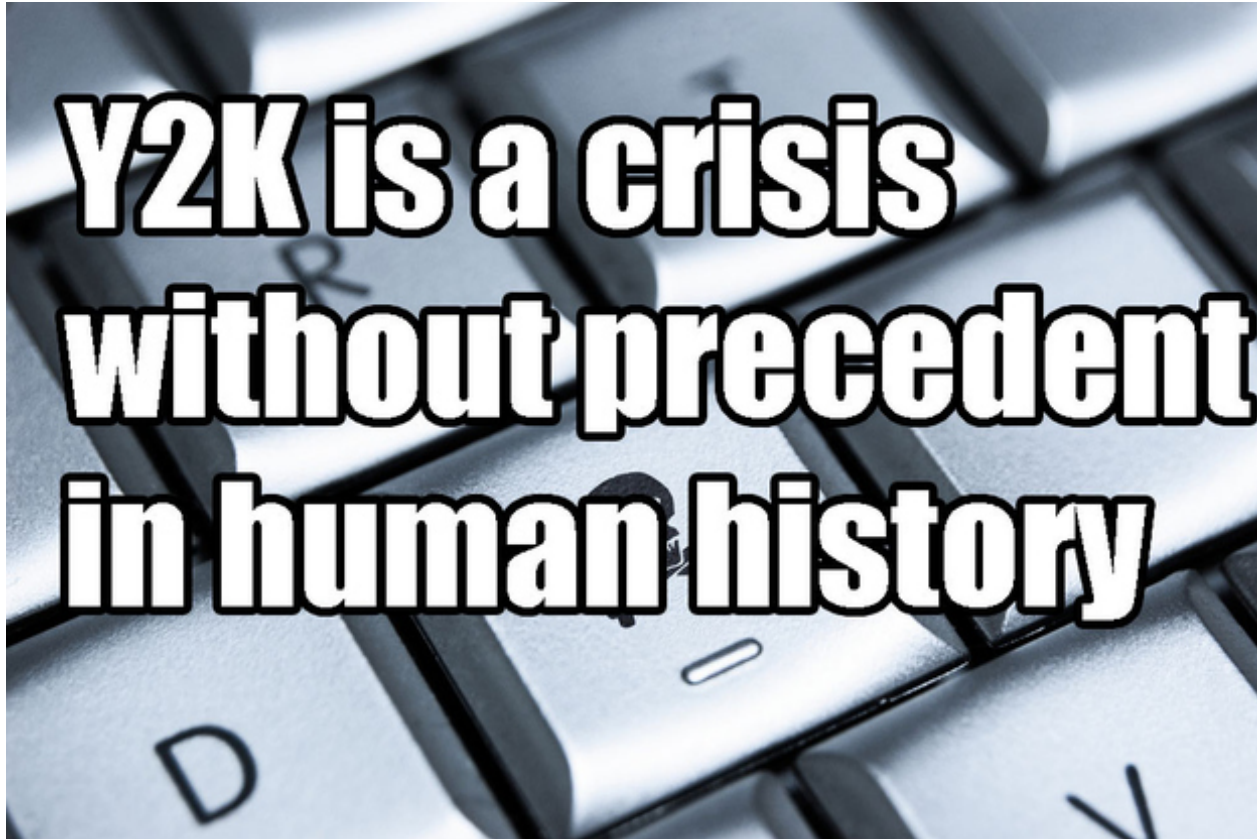
Byte magazine editor Edmund DeJesus, 1998.

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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Experts kNOw better, right?

Next Christmas the iPod will be dead, finished, gone, kaput

Alan Sugar, 2005.

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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Experts kNOw better, right?

There's no chance that the iPhone is going to get any significant market share. No chance

Microsoft CEO Steve Ballmer, 2007.

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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"The only function of economic forecasting is to make astrology look respectable." - John Kenneth Galbraith

Financial experts kNOw better, right?

Stock prices have reached what looks like a permanently high plateau
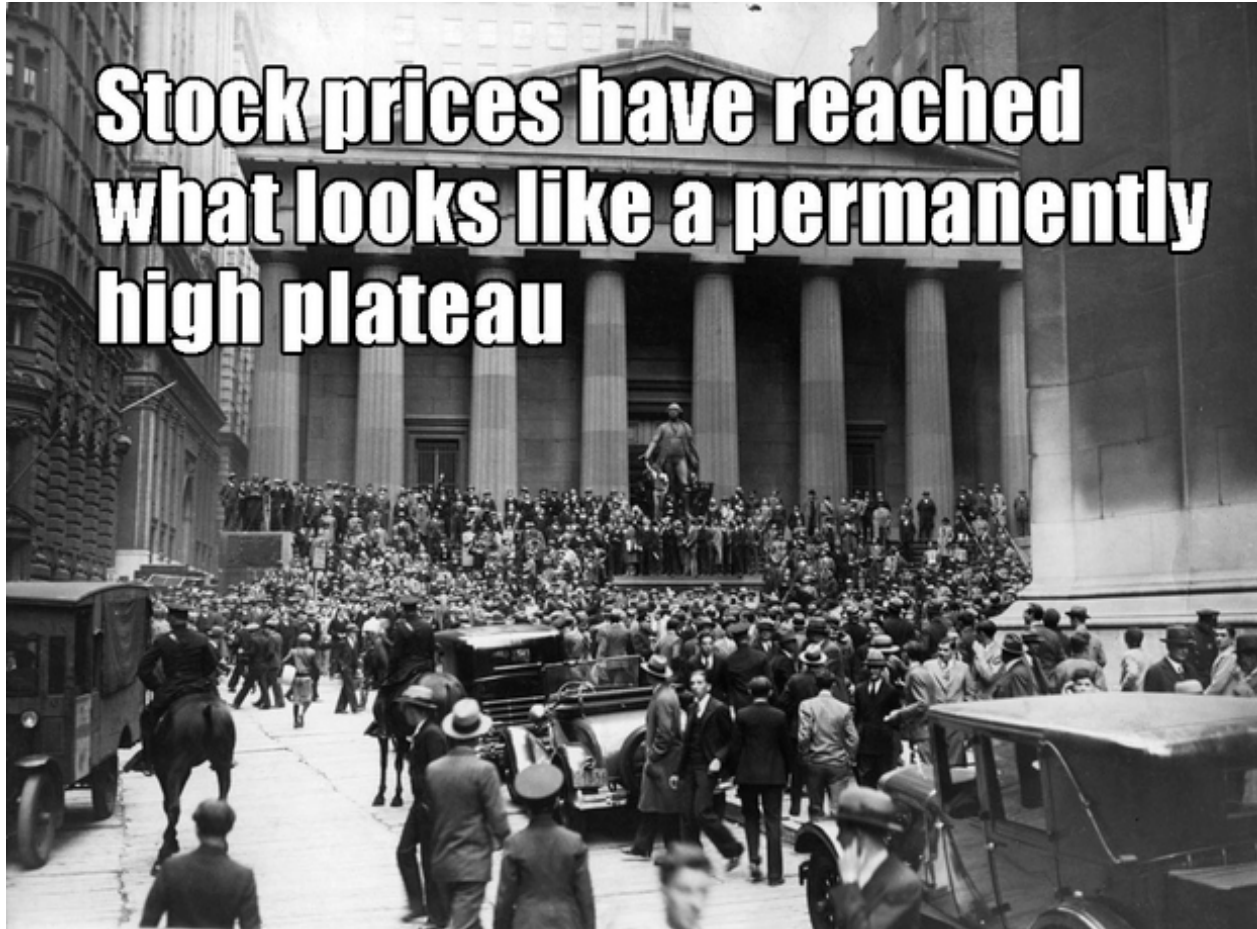
Economist Irving Fisher in October 1929, three days before the stock market crash that triggered the Great Depression.

http://www.buzzfeed.com/lukelewis/26-shockingly-bad-predictions#.fanwK6eXE

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Financial experts kNOw better, right?
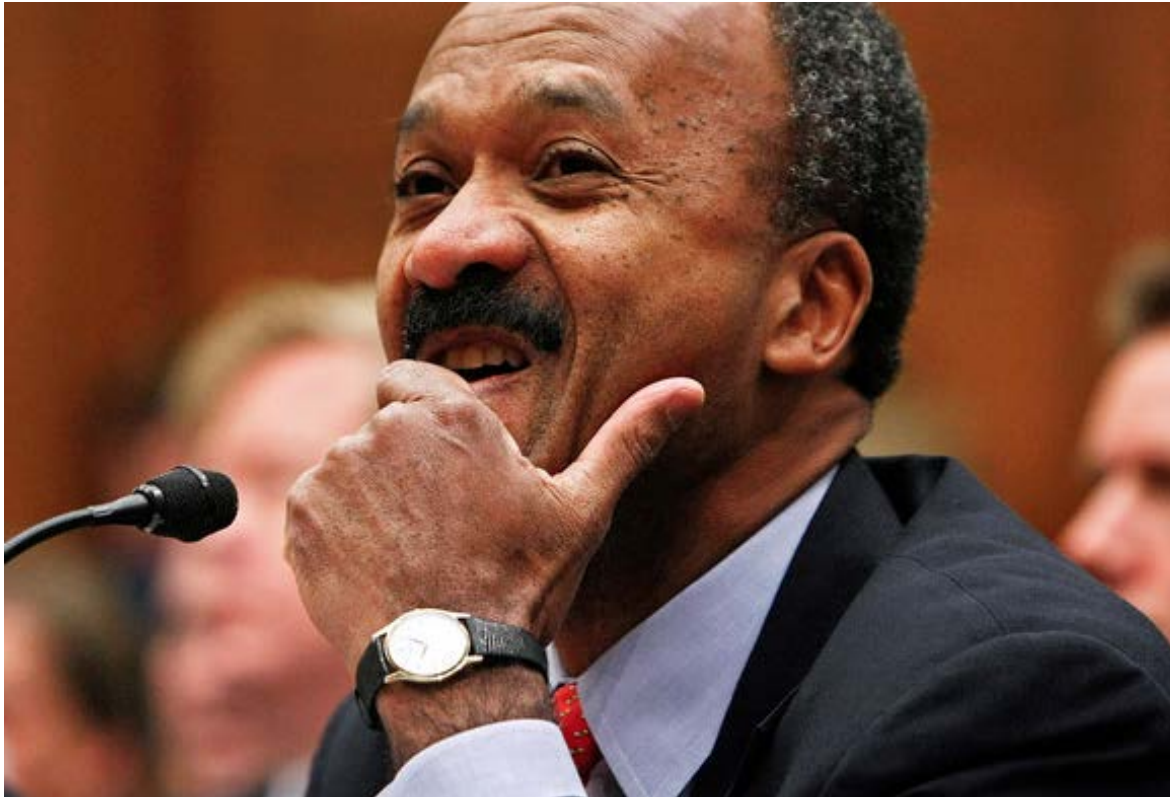
Franklin Raines (CEO of Fannie Mae), 10th June 2004: "These subprime assets are so riskless that their capital for holding them should be under 2 percent."

http://www.zerohedge.com/news/2013-12-09/10-worst-economic-predictions-ever

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Financial experts kNOw better, right?

Joseph Cassano (Head of Financial Products at AIG), 2007: "It is hard for us, without being flippant, to even see a scenario within any kind of realm of reason that would see us losing one dollar in any of these Credit Default Swap transactions."

http://www.zerohedge.com/news/2013-12-09/10-worst-economic-predictions-ever

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Financial experts kNOw better, right?

Bloomberg — ABBY JOSEPH COHEN
GOLDMAN SACHS GLOBAL MARKETS INSTITUTE PRESIDENT

In December 2007, Goldman Sachs chief investment strategist, Abby Joseph Cohen, made a Fisher-like prediction of her own. She suggested the S&P 500 would hit 1,675 by the end of 2008, a climb of 14% — it actually ended below 900.

http://www.businessinsider.com/12-of-the-worst-predictions-about-the-global-economy-that-intelligent-people-have-ever-made-2015-5?op=1

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Financial experts kNOw better, right?
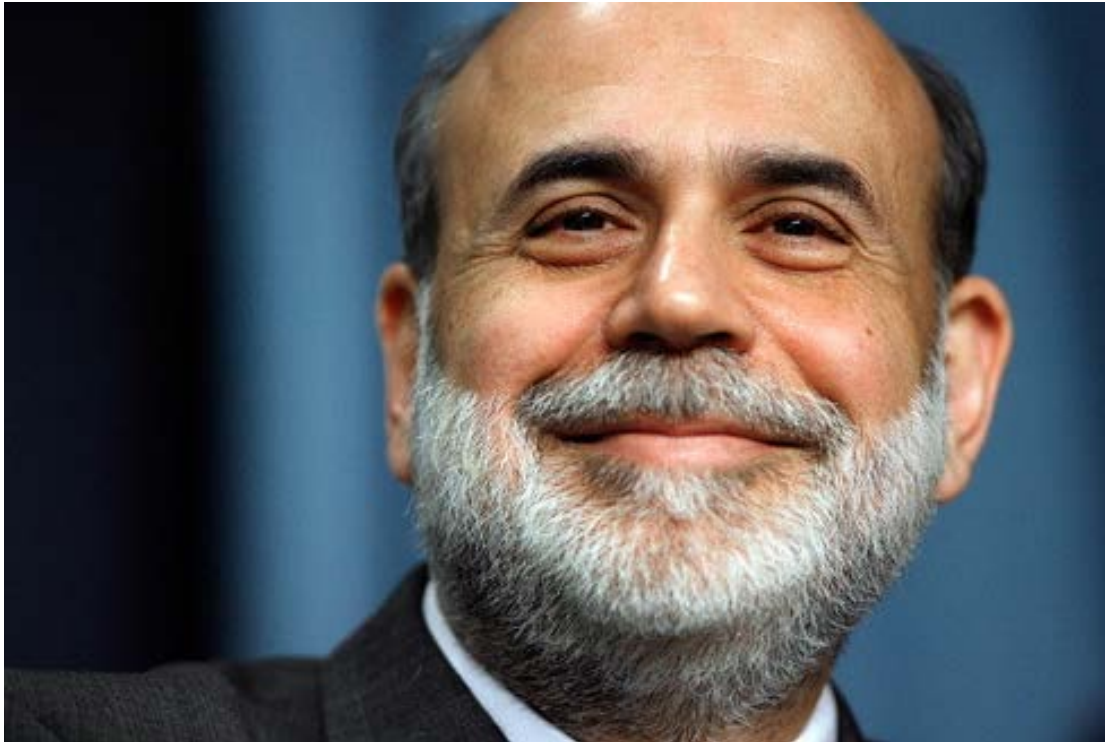
Ben Bernanke, 10th January 2008 - "The Federal Reserve is currently not forecasting a recession."

http://www.zerohedge.com/news/2013-12-09/10-worst-economic-predictions-ever

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Financial experts kNOw better, right?

Donald Luskin (US investment guru), 14th September 2008: "Anyone who says we're in a recession, or heading into one—especially the worst one since the Great Depression—is making up his own private definition of 'recession'."

http://www.zerohedge.com/news/2013-12-09/10-worst-economic-predictions-ever

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Coin Flipping as Insight

Are Coin Flips Really Random?
Adler, David E. "A Reliable Randomizer, Turned on Its Head." The Washington Post, August 2, 2009. http://www.washingtonpost.com/wp-dyn/content/article/2009/07/31/AR2009073104170.html

Knowledge Check

In general, what has to happen to interest rates for a portfolio of existing positions (bonds) to have a gain?

A. Rates have to rise

B. Rates have to fall

C. Rates have to remain unchanged

"Generate a long series of coin flips producing heads and tails with 50% odds each and fill up sheets of paper. If the series is long enough you may get eight heads or eight tails in a row, perhaps even ten of each. Yet you know that in spite of these wins the conditional odds of getting a head or a tail is still 50%."

ONE OF THE SMARTEST BOOKS OF ALL TIME

FOOLED BY RANDOMNESS

The Hidden Role of Chance in Life and in the Markets

NASSIM NICHOLAS TALEB

SECOND EDITION, UPDATED BY THE AUTHOR
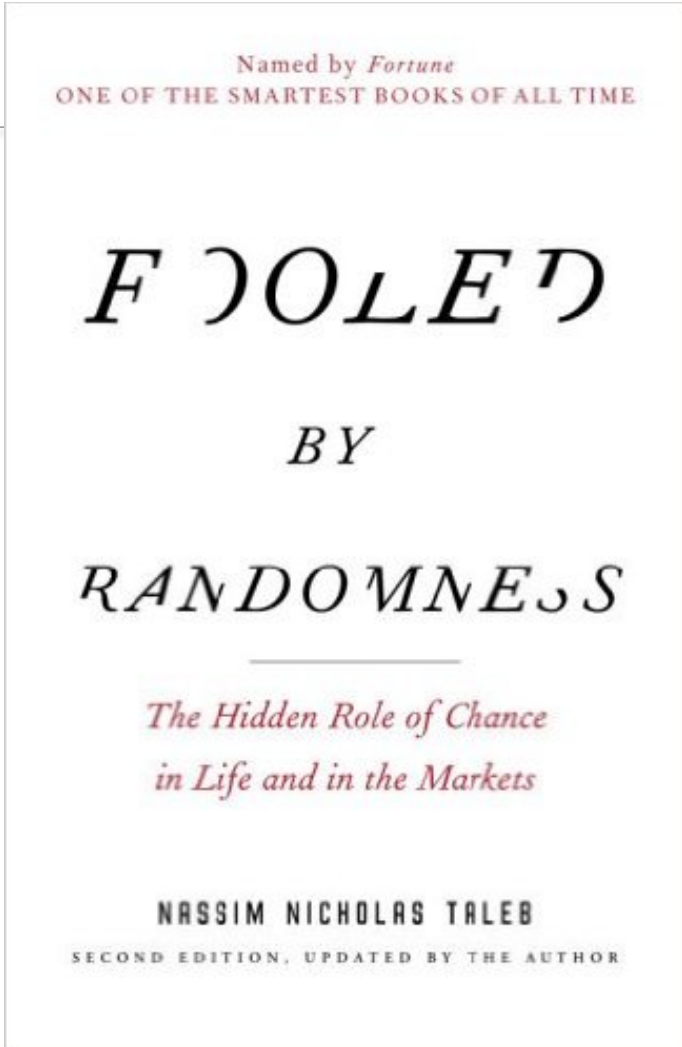
Taleb, Nassim Nicholas (2008-10-06). Fooled by Randomness: The Hidden Role of Chance in Life and in the Markets (Incerto) (Kindle Locations 2813-2815). Random House Publishing Group. Kindle Edition.

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Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

The Flip Side of the Coin

"DR. THEODORE P. HILL asks his mathematics students at the Georgia Institute of Technology to go home and either flip a coin 200 times and record the results, or merely pretend to flip a coin and fake 200 results. The following day he runs his eye over the homework data, and to the students' amazement, he easily fingers nearly all those who faked their tosses."

Browne, Malcom W. "Following Benford's Law, or Looking Out for No. 1." New York Times, August 4, 1998.
http://www.nytimes.com/1998/08/04/science/following-benford-s-law-or-looking-out-for-no-1.html

Odds of 6 Heads in a row on 200 flips?

http://www.wolframalpha.com/input/?i=probability+of+6+heads+in+a+row+200+coin+flips

Hurricanes & The Iliad

Technically the Trojan Horse is not mentioned in The Iliad
Trojan Horse. (2016, January 6). In Wikipedia, The Free Encyclopedia. Retrieved 19:02, January 10, 2016, from
https://en.wikipedia.org/w/index.php?title=Trojan_Horse&oldid=698496365

Hurricane Rita 9/19/05

Hurricane Rita 9/22/05

Hurricane Rita Final

Hurricane Ike 9/6/08

Hurricane Ike 9/10/08

Chalcas the wise

"...Chalcas the wise, the Grecian priest and guide,
That sacred seer, whose comprehensive view,
The past, the present, and the future knew..."

Homer (2008-01-02). The Iliad, Pope's Verse translation, Samizdat Edition (Annotated) (Kindle Locations 912-913). B&R Samizdat Express. Kindle Edition.

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Wall Street Journal Economic Forecast Survey
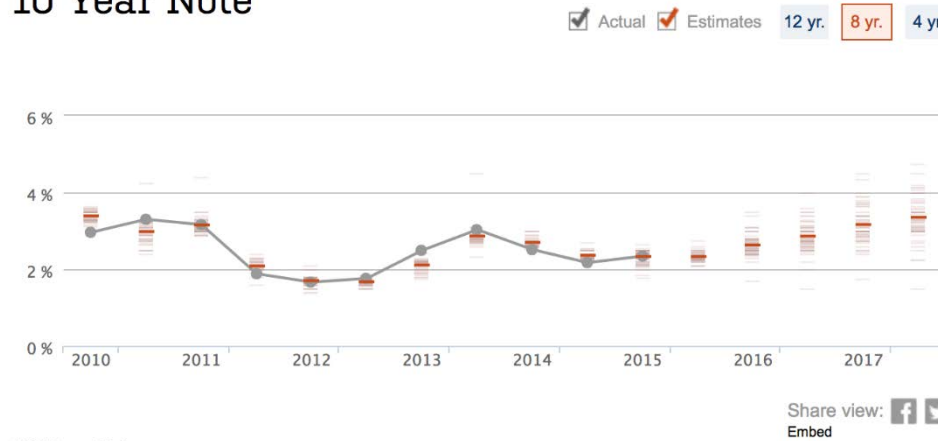
- Updated Monthly
- Includes Identities
- Spreadsheet Data

http://projects.wsj.com/econforecast/#ind=tenyear&r=16

History Alone

10Yr Treasury Yield: 12/31/03 - 12/31/08
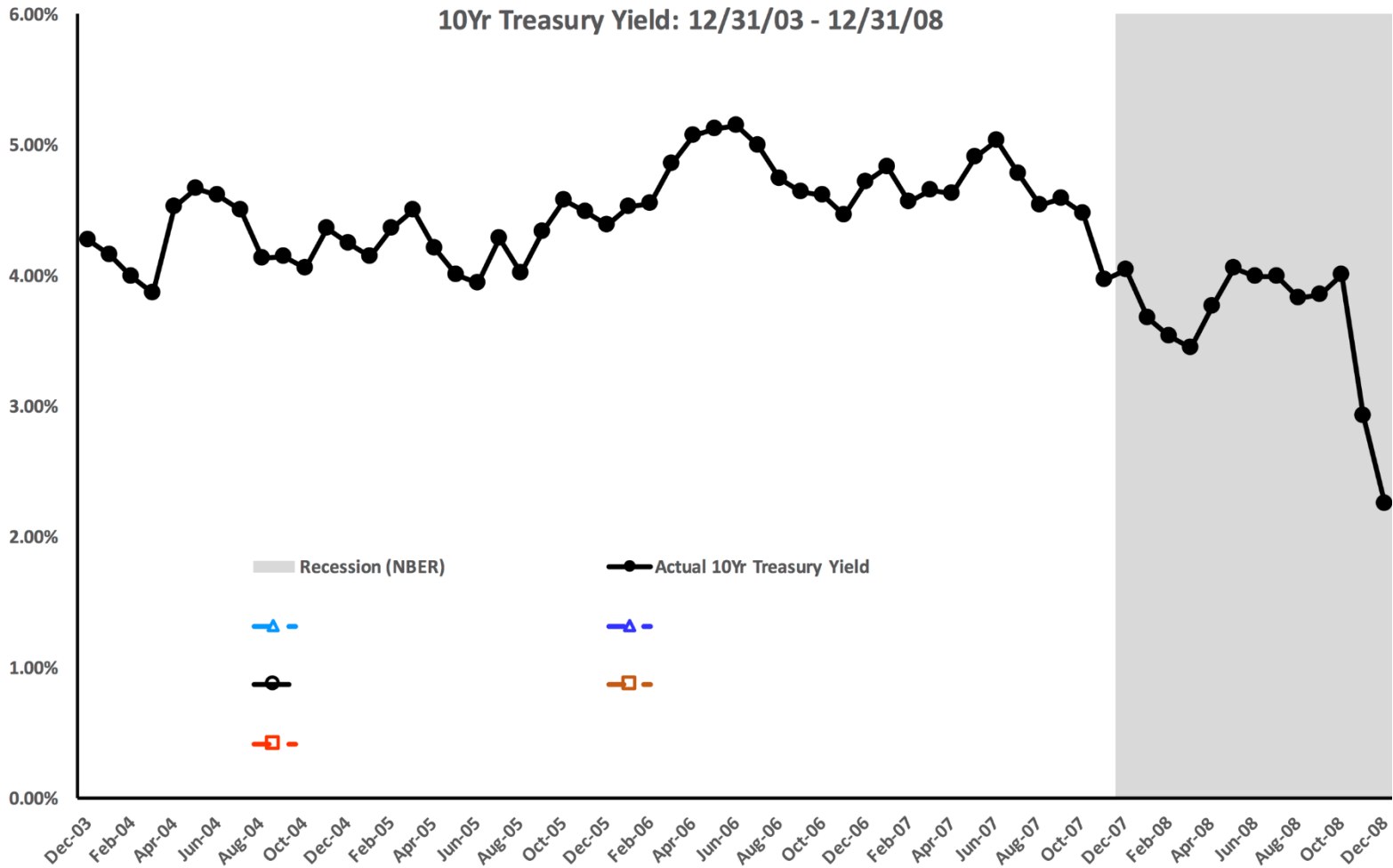
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Forecast Alone

10Yr Treasury Yield: 12/31/03 - 12/31/08

Legend:
- Recession (NBER)
- Actual 10Yr Treasury Yield
- Wall Street Journal Survey Median Forecast: 12-2007
- Wall Street Journal Survey Median Forecast: 12-2006
- Wall Street Journal Survey Median Forecast: 12-2005
- Wall Street Journal Survey Median Forecast: 12-2004
- Wall Street Journal Survey Median Forecast: 12-2003

Data labels: 4.70%, 5.14%, 4.78%, 5.10%, 4.90%, 5.00%, 4.70%, 4.88%, 4.10%, 4.30%
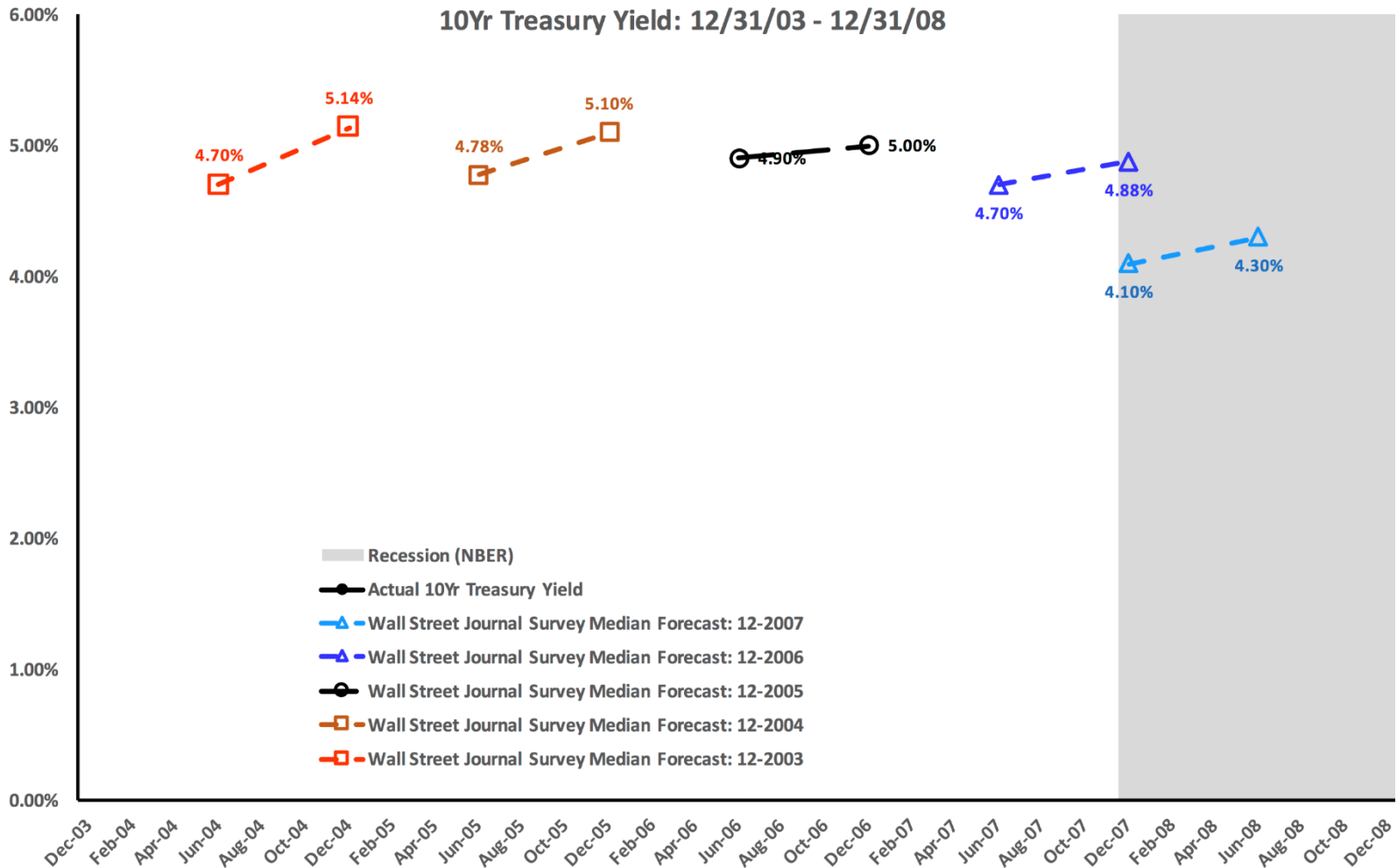
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

All Together
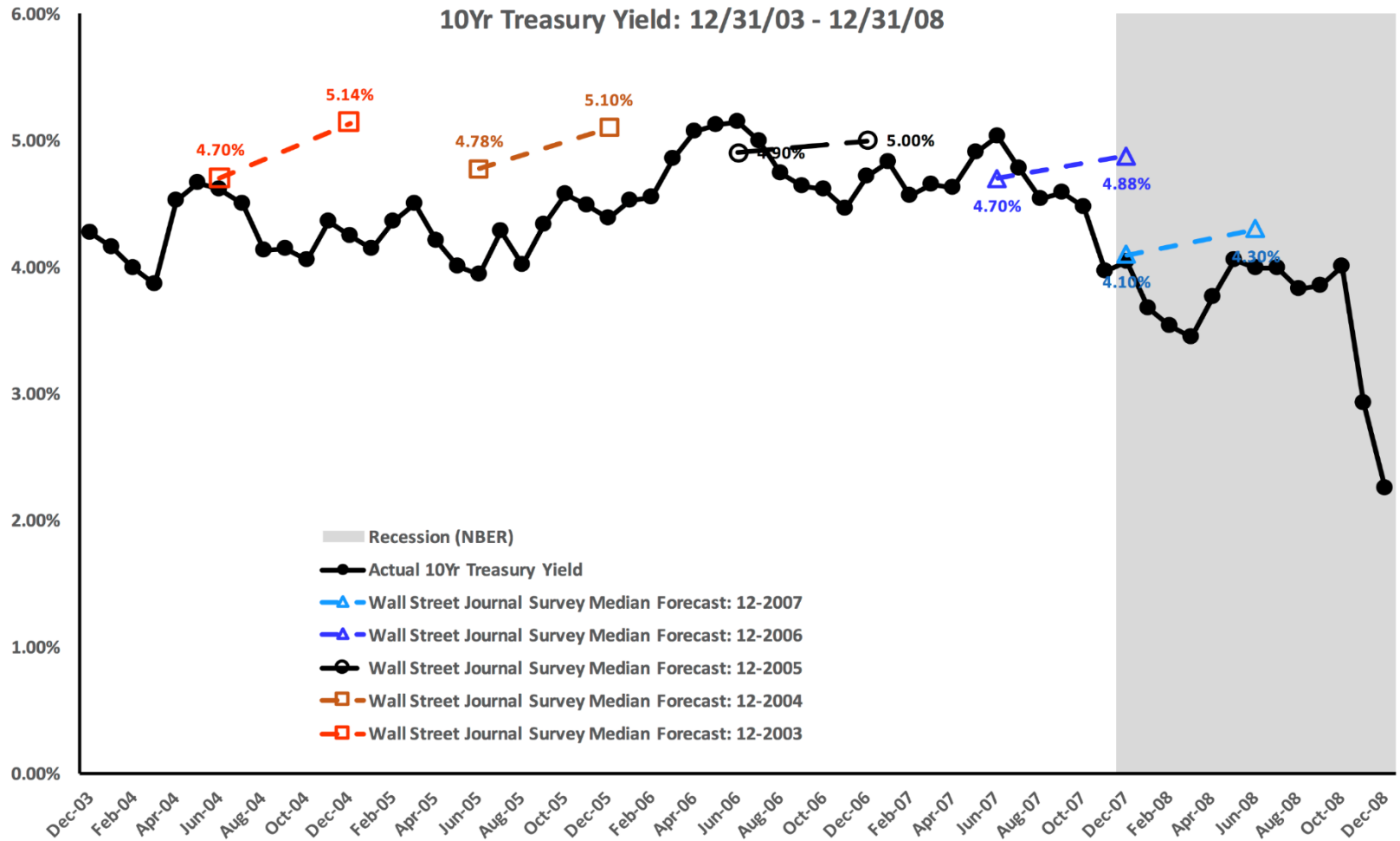
10Yr Treasury Yield: 12/31/03 - 12/31/08

Legend:
- Recession (NBER)
- Actual 10Yr Treasury Yield
- Wall Street Journal Survey Median Forecast: 12-2007
- Wall Street Journal Survey Median Forecast: 12-2006
- Wall Street Journal Survey Median Forecast: 12-2005
- Wall Street Journal Survey Median Forecast: 12-2004
- Wall Street Journal Survey Median Forecast: 12-2003

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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Chalcas Chart: Dec-08 to Dec-13 on Dec-11
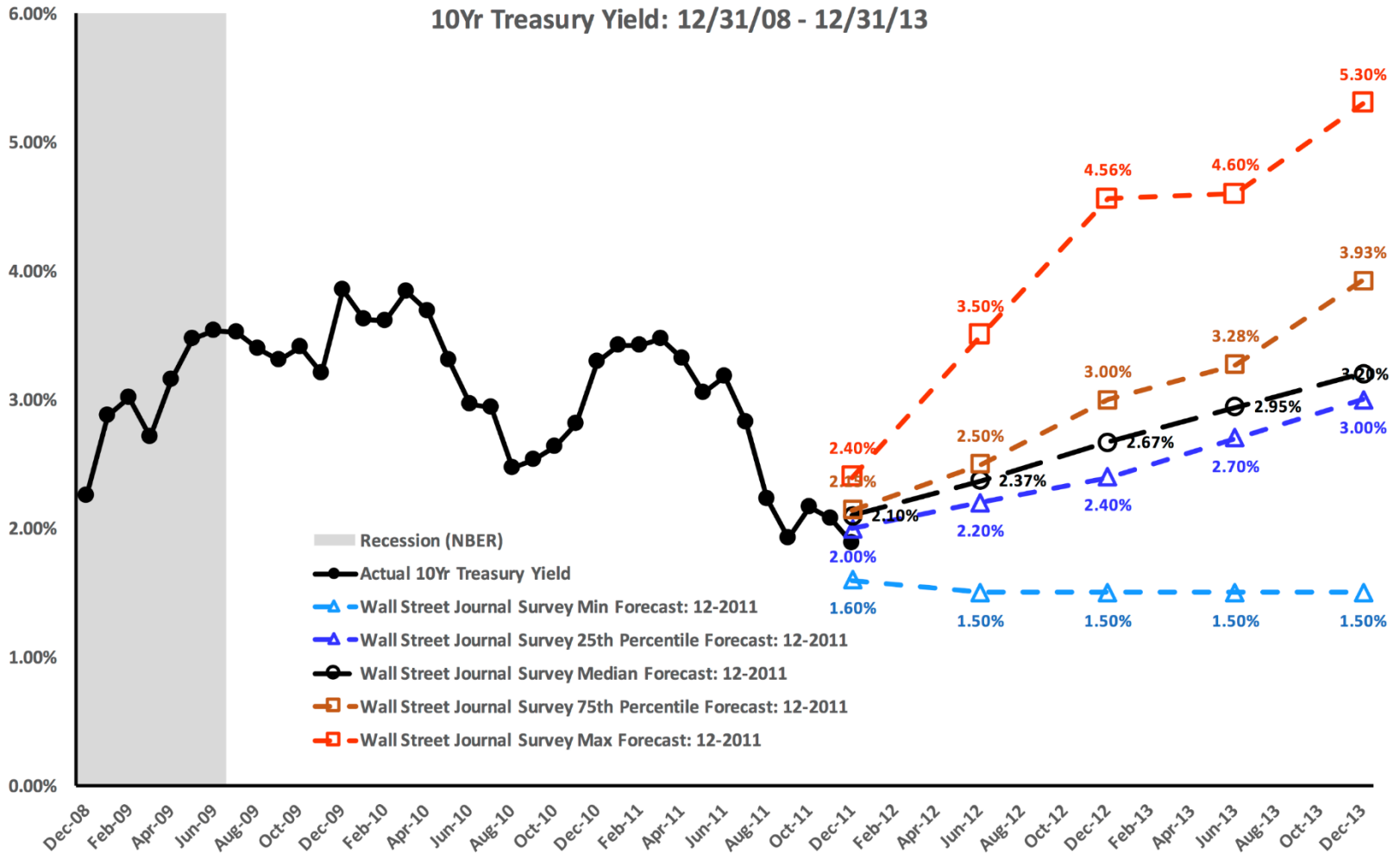
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.
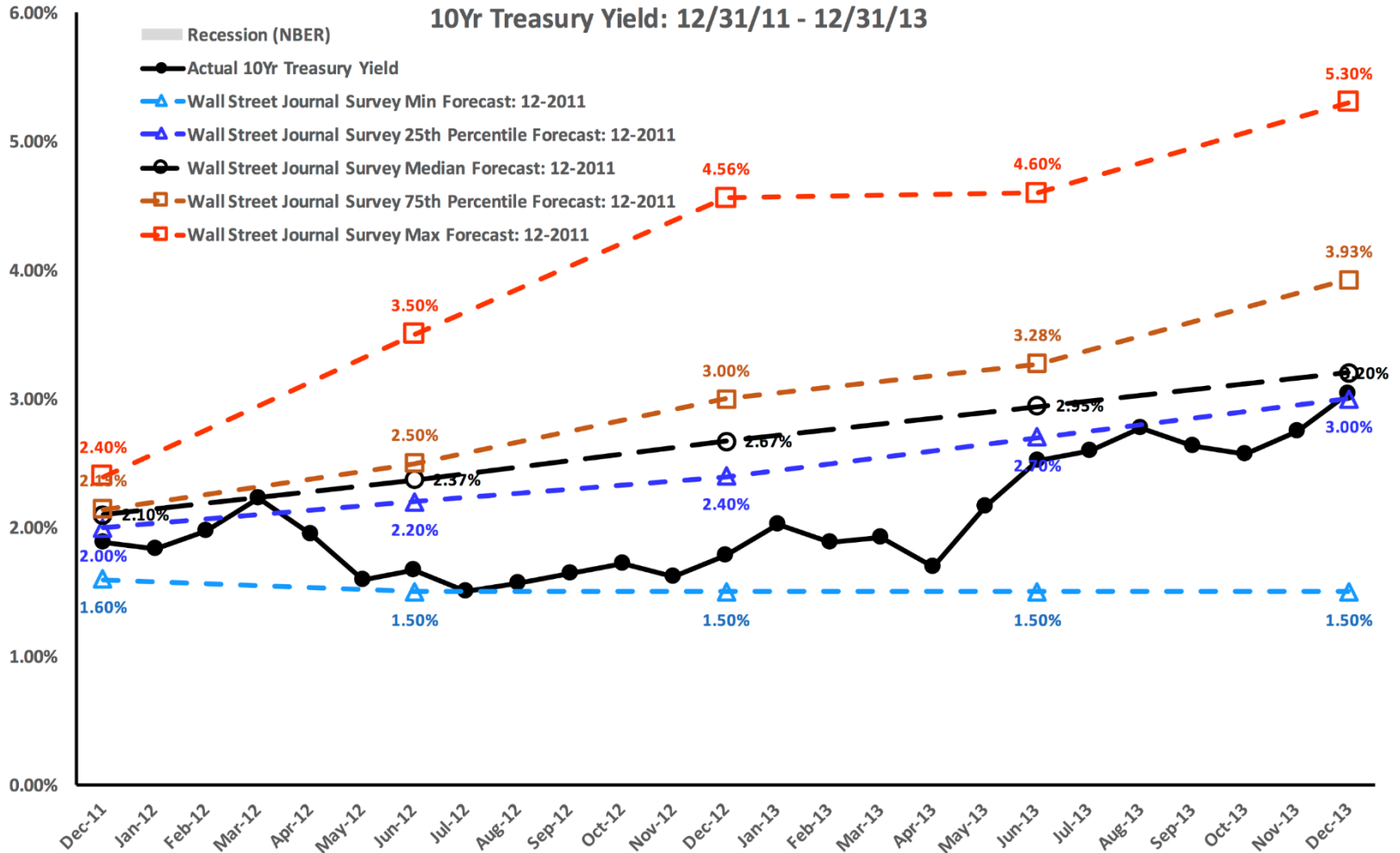
Let's Focus. How did they do? Your Guess?
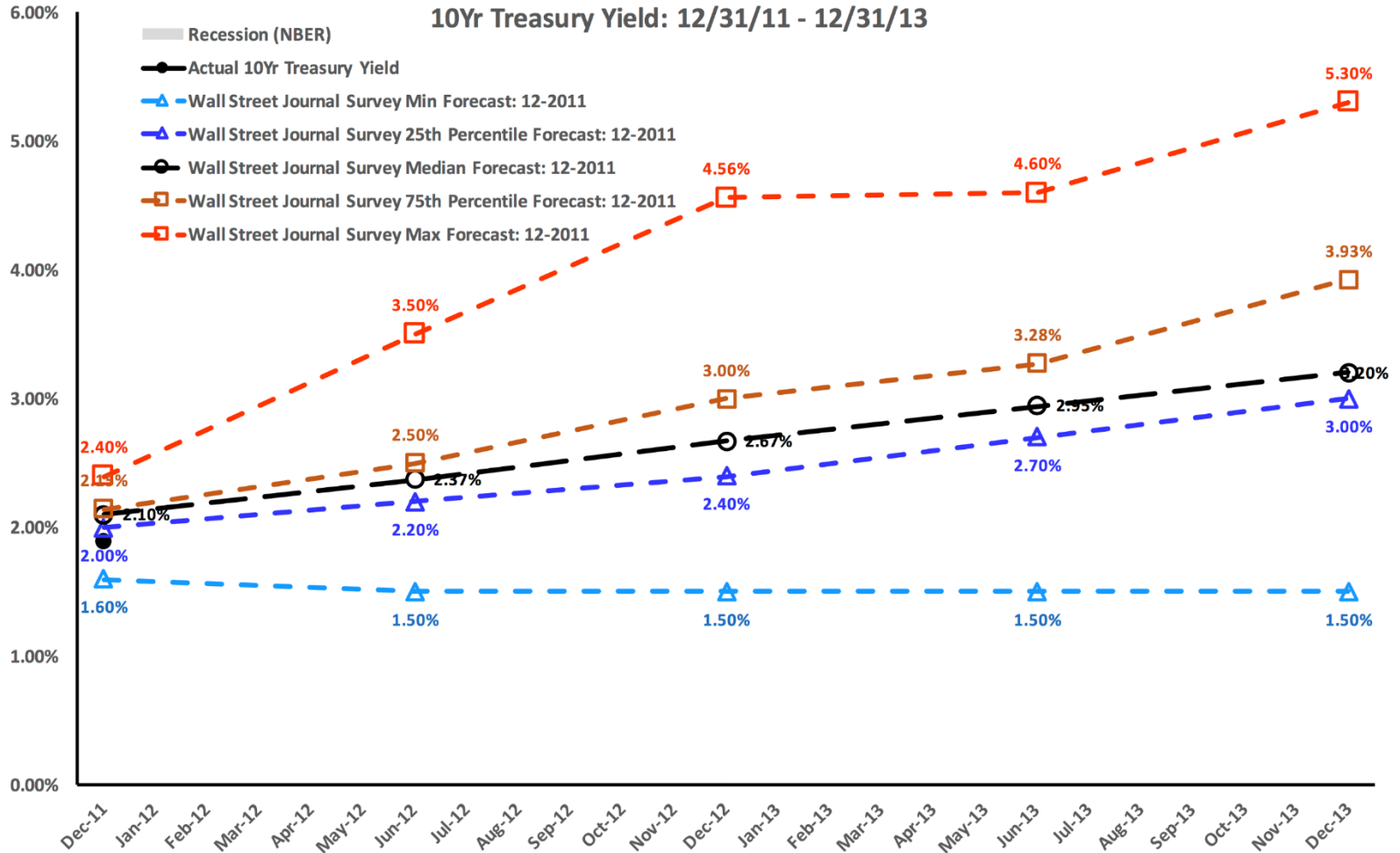
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

How did "they" do? Did you Remember?

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Who did the best?

Overall Rank for Wall Street Journal 12-2011 Survey Forecasts for 06/30/12						
Overall Rank	**Forecaster**	**Fed Funds Rate**	**10Yr Treasury Yield**	**Unemployment Rate**	**CPI YoY**	**GDP**
1	Moody's Investors Service	9	11	21	12	9
2	Univ of Central FL	9	24	25	4	3
3	IHS Global Insight	9	24	30	4	6
4	NEMA Business Information Services	*1*	9	25	27	15
5	Capital Economics	24	*1*	41	4	9
6	The Conference Board	9	6	41	19	7
7	Mesirow Financial	*1*	11	21	8	43
8	Credit Suisse	24	3	30	8	25
9	Goldman Sachs & Co.	9	18	30	27	9
10	PNC Financial Services Group	*1*	17	21	21	34
11	Comerica Bank	9	32	6	16	32
12	*Morgan Stanley*	*8*	*6*	*37*	*13*	*32*
12	*UCLA Anderson Forecast*	*9*	*22*	*52*	*10*	*3*
14	*Bank of America Securities-Merrill*	*24*	*3*	*41*	*14*	*15*
14	*JPM*	*24*	*32*	*30*	*2*	*9*
16	Societe Generale	45	3	48	3	*1*
17	California State University	*1*	18	14	32	38
18	The Northern Trust	20	8	21	27	30
19	*Macroeconomic Advisers*	*24*	*31*	*30*	*10*	*15*
19	*Parsec Financial*	*24*	*27*	*4*	*1*	*54*
21	Fannie Mae	42	11	41	14	3
22	Decision Economics Inc.	*1*	32	6	35	38
23	Barclays	9	45	6	19	34
24	Vanderbilt University	24	11	41	16	25
25	Nomura Securities International Inc.	24	28	25	16	25

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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Who did the best the next time?
Not the same firms.

Overall Rank for Wall Street Journal 12-2011 Survey Forecasts for 12/31/12						
Overall Rank	**Forecaster**	**Fed Funds Rate**	**10Yr Treasury Yield**	**Unemployment Rate**	**CPI YoY**	**GDP**
1	NEMA Business Information Services	1	6	30	12	2
2	Mesirow Financial	1	17	20	2	28
3	Capital Economics	24	1	43	2	3
4	Univ of Central FL	9	24	30	6	5
5	IHS Global Insight	9	23	34	2	9
6	The Conference Board	9	4	30	32	5
7	Bank of America Securities-Merrill	24	9	43	10	1
8	Morgan Stanley	8	3	34	26	19
9	Credit Suisse	24	6	34	11	18
10	California State University	1	17	20	20	36
11	JPM	24	17	34	6	22
12	Nationwide Insurance	9	16	24	46	9
13	PNC Financial Services Group	1	26	24	32	22
14	Economic Analysis	7	33	3	44	19
15	Vanderbilt University	24	5	43	20	16
16	*Goldman Sachs & Co.*	9	17	43	18	22
16	*Economic and Revenue Forecast*	24	28	17	12	28
18	*UCLA Anderson Forecast*	9	33	52	2	16
18	*Decision Economics Inc.*	1	30	7	27	47
20	Fannie Mae	42	9	43	15	4
21	Nomura Securities International Inc.	24	30	24	8	28
22	Perna Associates	1	41	17	27	31
23	*Comerica Bank*	9	33	10	27	39
23	*Moody's Investors Service*	9	28	20	20	41
25	International Council of Shopping	52	9	10	40	9

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.
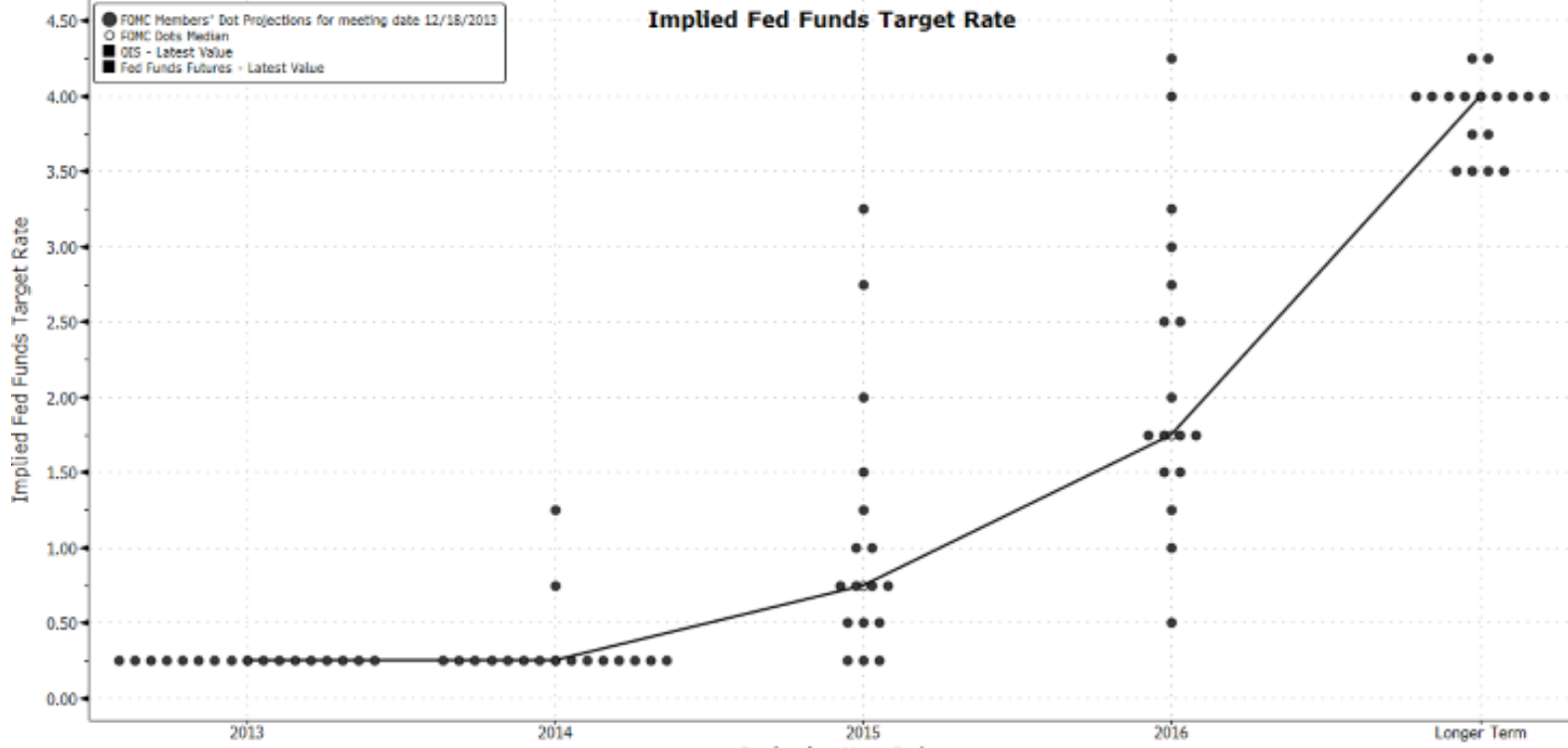
What about the FED? 12/18/13 Forecasts

What about the FED? 12/14/16 Forecasts
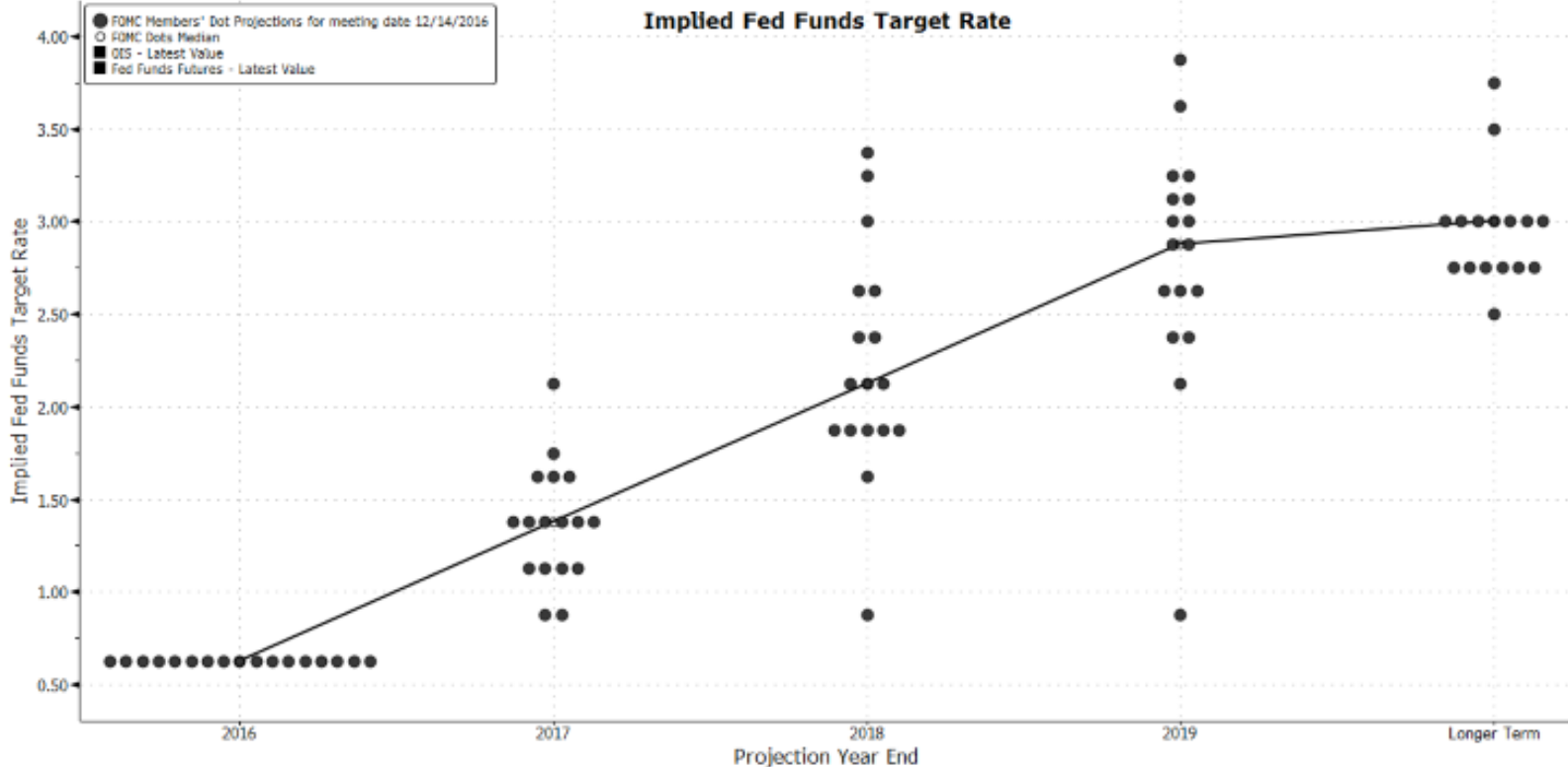
Which forecaster should you follow?

The average/median forecast

"**If you're looking for an economic forecast, the best place to turn is the average or aggregate prediction rather than that of any one economist. … This property— group forecasts beat individual ones— has been found to be true in almost every field in which it has been studied.**"

Silver, Nate (2012-09-27). The Signal and the Noise: Why So Many Predictions Fail-but Some Don't (p. 197-198). Penguin Group US. Kindle Edition.

"The group mean forecasts from a series of surveys are on the average over time more accurate than most of the corresponding sets of individual predictions. This is a strong conclusion, which applies to all variables and predictive horizons covered and is consistent with evidence for different periods and from other studies." - Zarnowitz, Victor (January 1992). Business Cycles: Theory, History, Indicators, and Forecasting (p. 457). University of Chicago Press. Downloadable from http://www.nber.org/books/zarn92-1

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Required for planning purposes…

"Nobel laureate Kenneth Arrow has warned, '[O]ur knowledge of the way things work, in society or in nature, comes trailing clouds of vagueness. Vast ills have followed a belief in certainty.'"

"… The young statisticians in the Weather Division … finding that prevailing techniques were not significantly more reliable than the null … sent a memo to the General of the Air Corps suggesting that the group be disbanded. Six months later … 'The general is well aware that your forecasts are no good. However, they are required for planning purposes.' The group remained intact."

Peter L. Bernstein. Against the Gods: The Remarkable Story of Risk (Kindle Location 126). Kindle Edition.
UC San Diego Kenneth Arrow Article: http://econweb.ucsd.edu/~rstarr/ARTICLEwnotes.pdf

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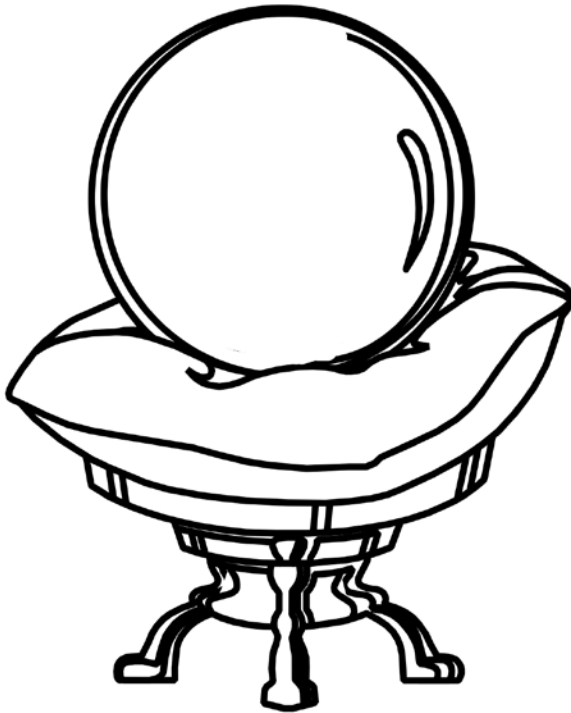UNIVERSITY OF GEORGIA

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Knowledge Check

Is it possible to know with certainty what the level of interest rates will be, what the price of a stock will be or who will win the super bowl a year from now?

A. Yes

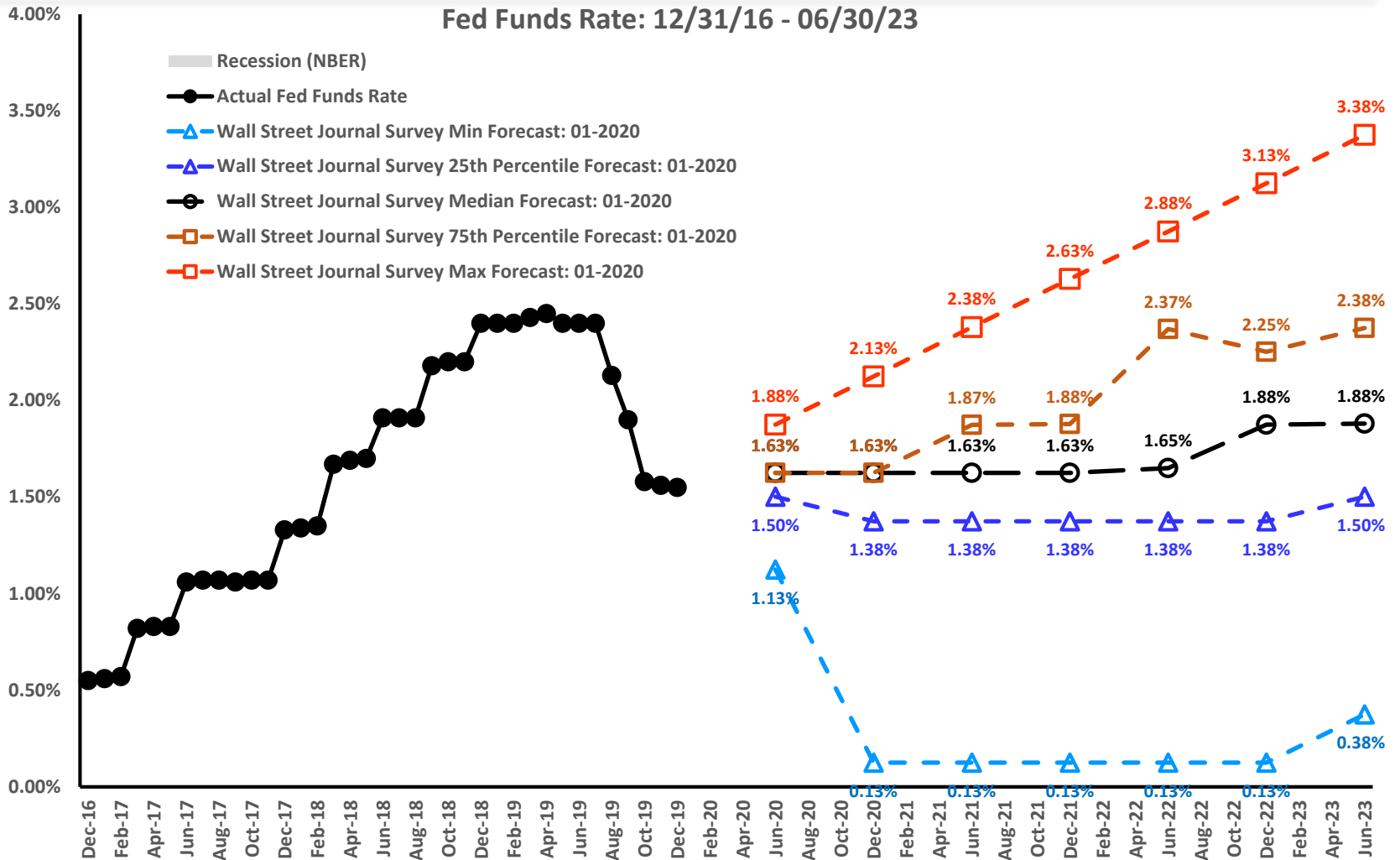B. No

C. Maybe

For fools rush in where angels fear to tread

"He who lives by the crystal ball soon learns to eat ground glass."

C.C. Gaither;Alma E Cavazos-Gaither. Statistically Speaking: A Dictionary of Quotations (Kindle Locations 960-961). Kindle Edition.
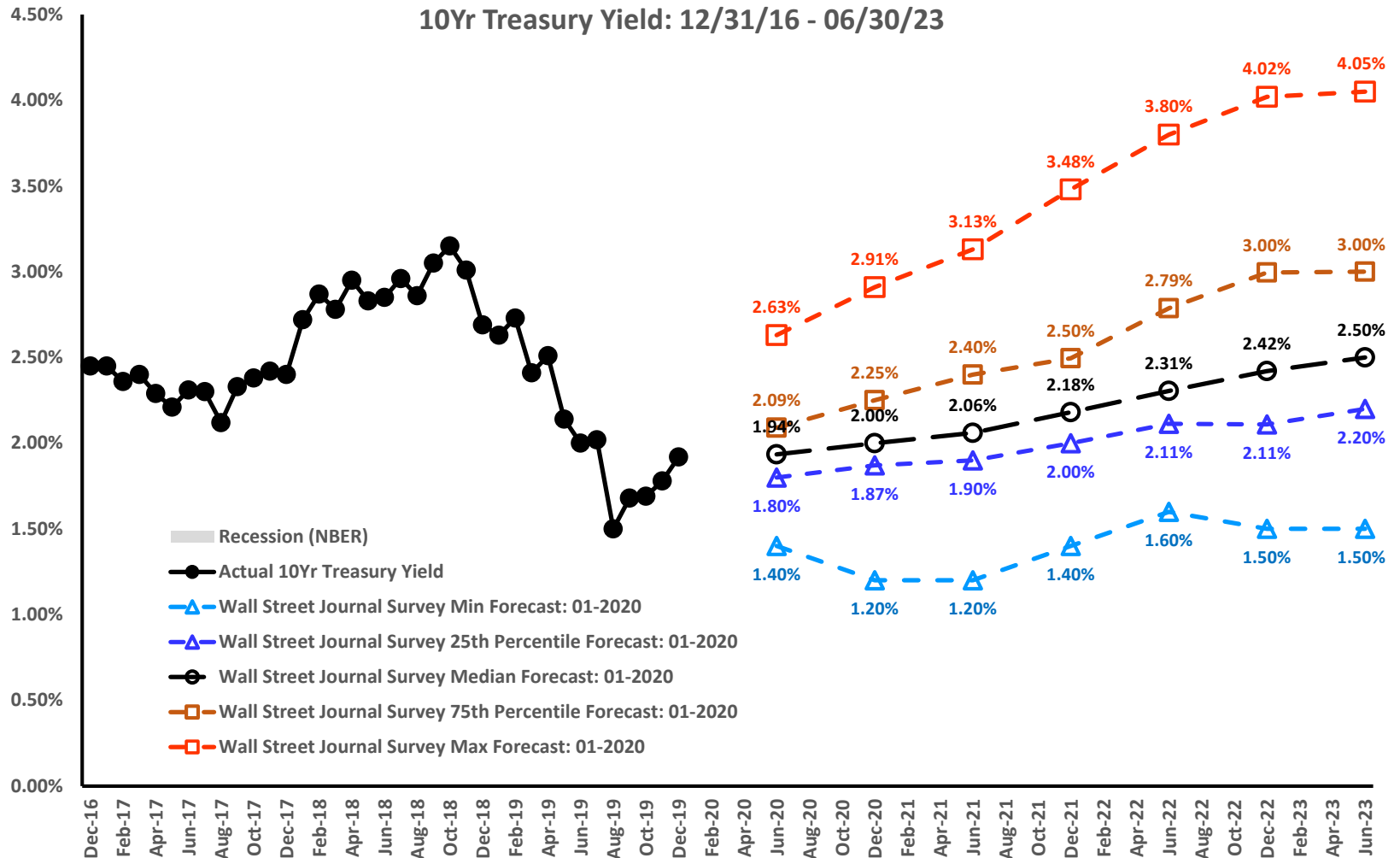
Pope, Alexander (2011-12-01). An Essay on Criticism (Classic Series) with New Illustrated (Kindle Location 317). . Kindle Edition.
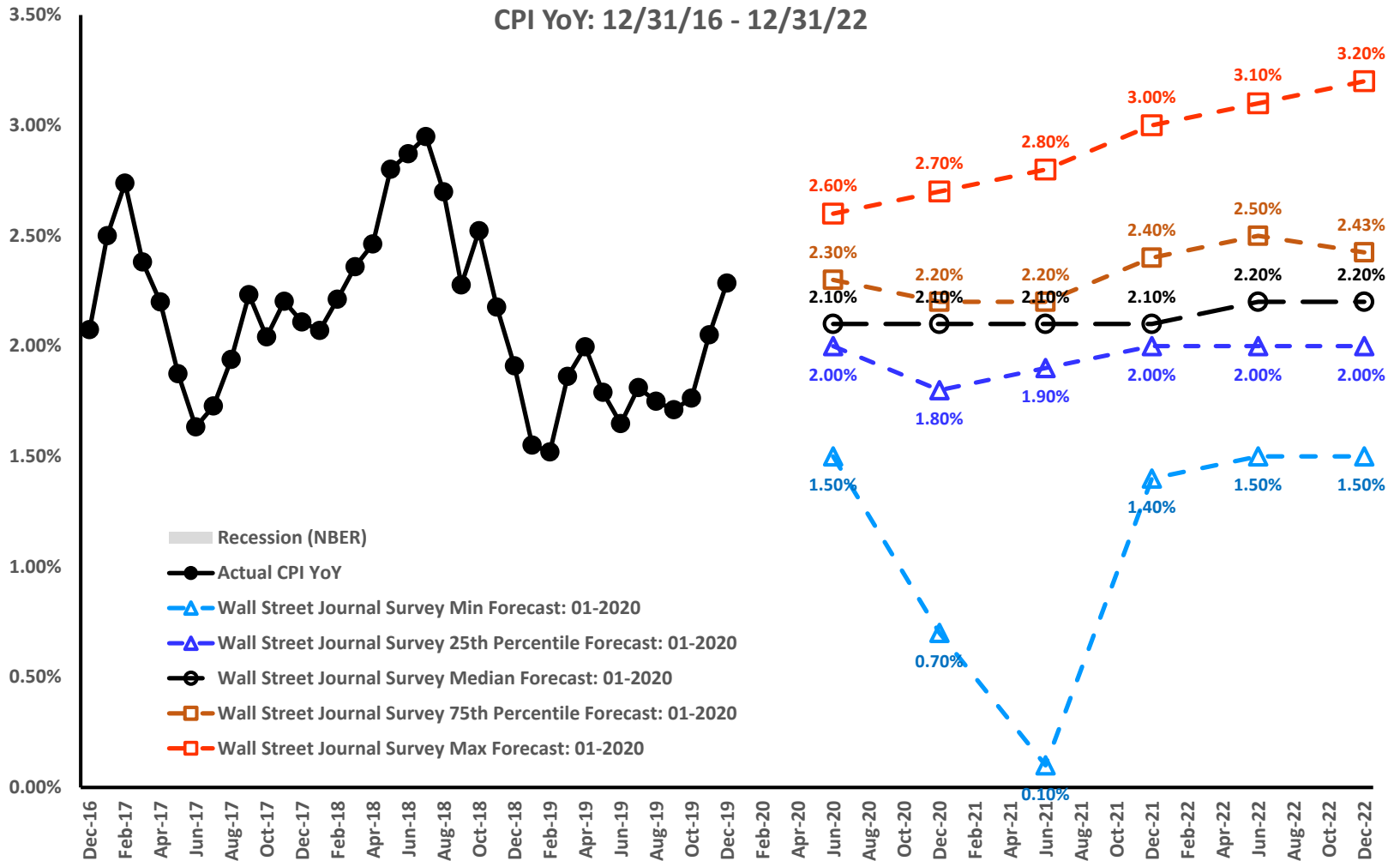
Chalcas Chart: Dec-16 to Jun-23 on Jan-20

Fed Funds Rate: 12/31/16 - 06/30/23

Legend:
- Recession (NBER)
- Actual Fed Funds Rate
- Wall Street Journal Survey Min Forecast: 01-2020
- Wall Street Journal Survey 25th Percentile Forecast: 01-2020
- Wall Street Journal Survey Median Forecast: 01-2020
- Wall Street Journal Survey 75th Percentile Forecast: 01-2020
- Wall Street Journal Survey Max Forecast: 01-2020

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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Chalcas Chart: Dec-16 to Jun-23 on Jan-20

10Yr Treasury Yield: 12/31/16 - 06/30/23

Legend:
- Recession (NBER)
- Actual 10Yr Treasury Yield
- Wall Street Journal Survey Min Forecast: 01-2020
- Wall Street Journal Survey 25th Percentile Forecast: 01-2020
- Wall Street Journal Survey Median Forecast: 01-2020
- Wall Street Journal Survey 75th Percentile Forecast: 01-2020
- Wall Street Journal Survey Max Forecast: 01-2020

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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Chalcas Chart: Dec-16 to Dec-22 on Jan-20

CPI YoY: 12/31/16 - 12/31/22

Recession (NBER)
Actual CPI YoY
Wall Street Journal Survey Min Forecast: 01-2020
Wall Street Journal Survey 25th Percentile Forecast: 01-2020
Wall Street Journal Survey Median Forecast: 01-2020
Wall Street Journal Survey 75th Percentile Forecast: 01-2020
Wall Street Journal Survey Max Forecast: 01-2020

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Chalcas Chart: Dec-16 to Dec-22 on Jan-20

Unemployment Rate: 12/31/16 - 12/31/22

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Chalcas Chart: Dec-16 to Dec-22 on Jan-20

Crude Oil: 12/31/16 - 12/31/22

Legend:
- Recession (NBER)
- Actual Crude Oil
- Wall Street Journal Survey Min Forecast: 01-2020
- Wall Street Journal Survey 25th Percentile Forecast: 01-2020
- Wall Street Journal Survey Median Forecast: 01-2020
- Wall Street Journal Survey 75th Percentile Forecast: 01-2020
- Wall Street Journal Survey Max Forecast: 01-2020

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Chalcas Chart: Dec-16 to Dec-20 on Jan-20
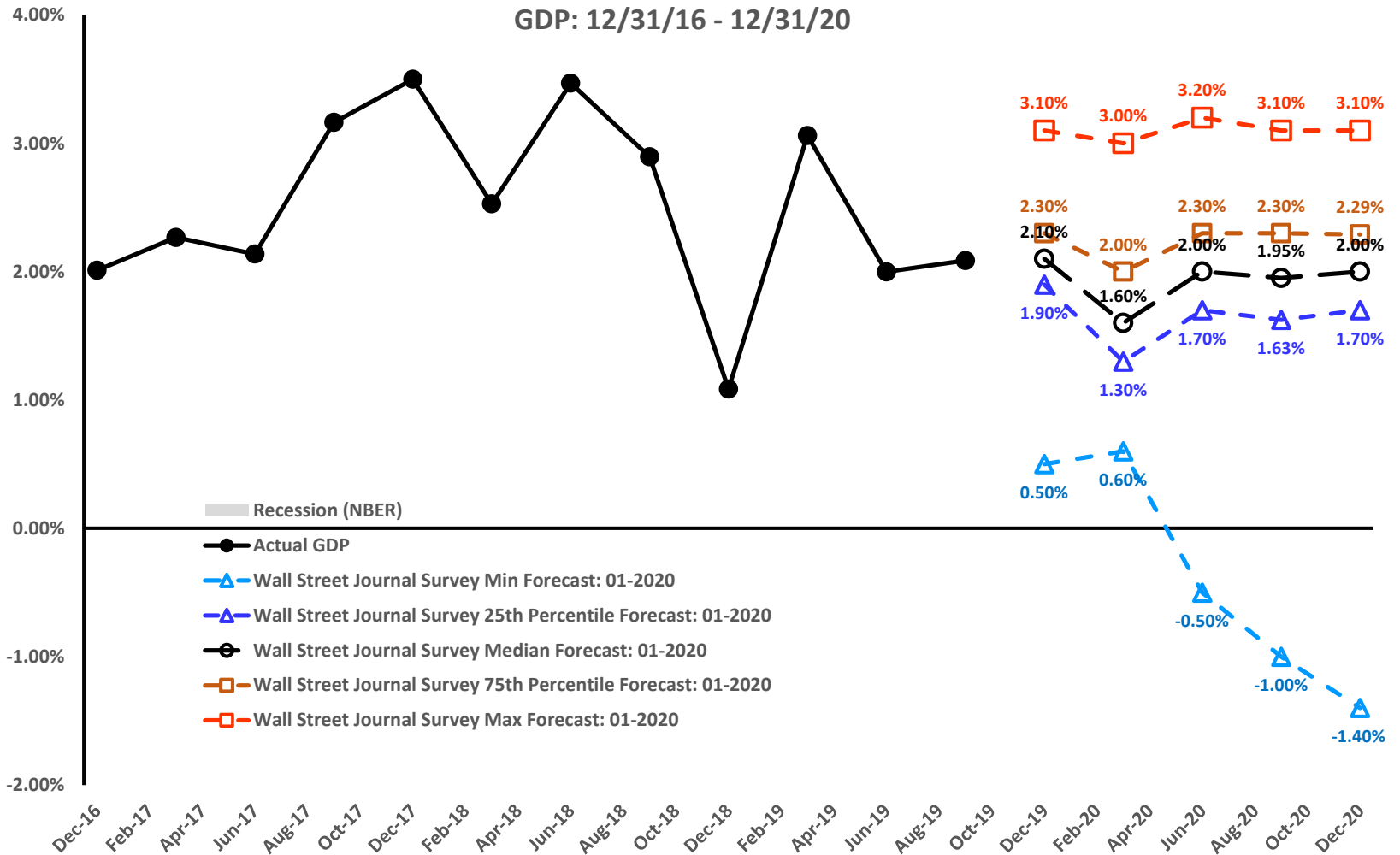
GDP: 12/31/16 - 12/31/20

Recession (NBER)
Actual GDP
Wall Street Journal Survey Min Forecast: 01-2020
Wall Street Journal Survey 25th Percentile Forecast: 01-2020
Wall Street Journal Survey Median Forecast: 01-2020
Wall Street Journal Survey 75th Percentile Forecast: 01-2020
Wall Street Journal Survey Max Forecast: 01-2020

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.
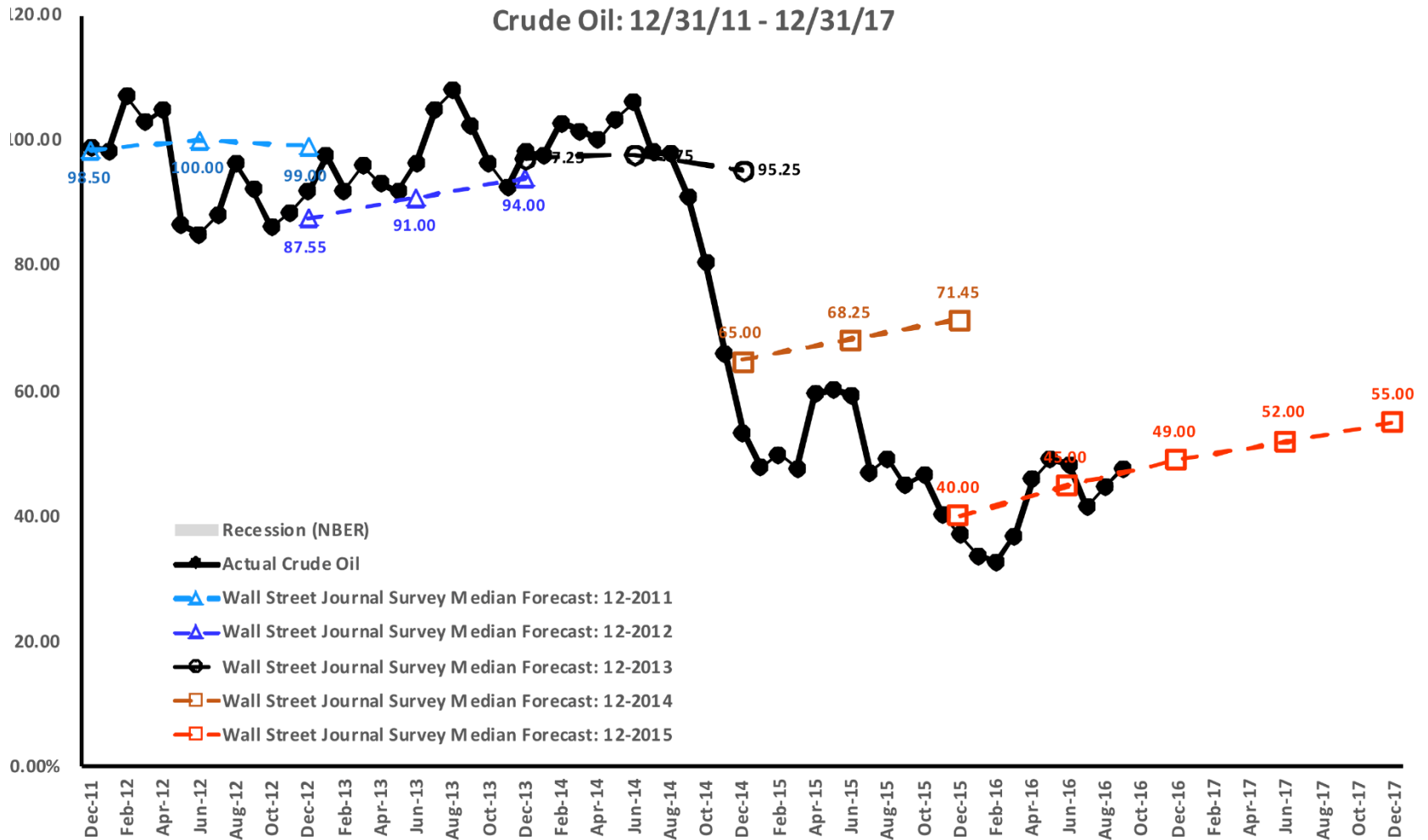
FED Funds Visual Accuracy Test
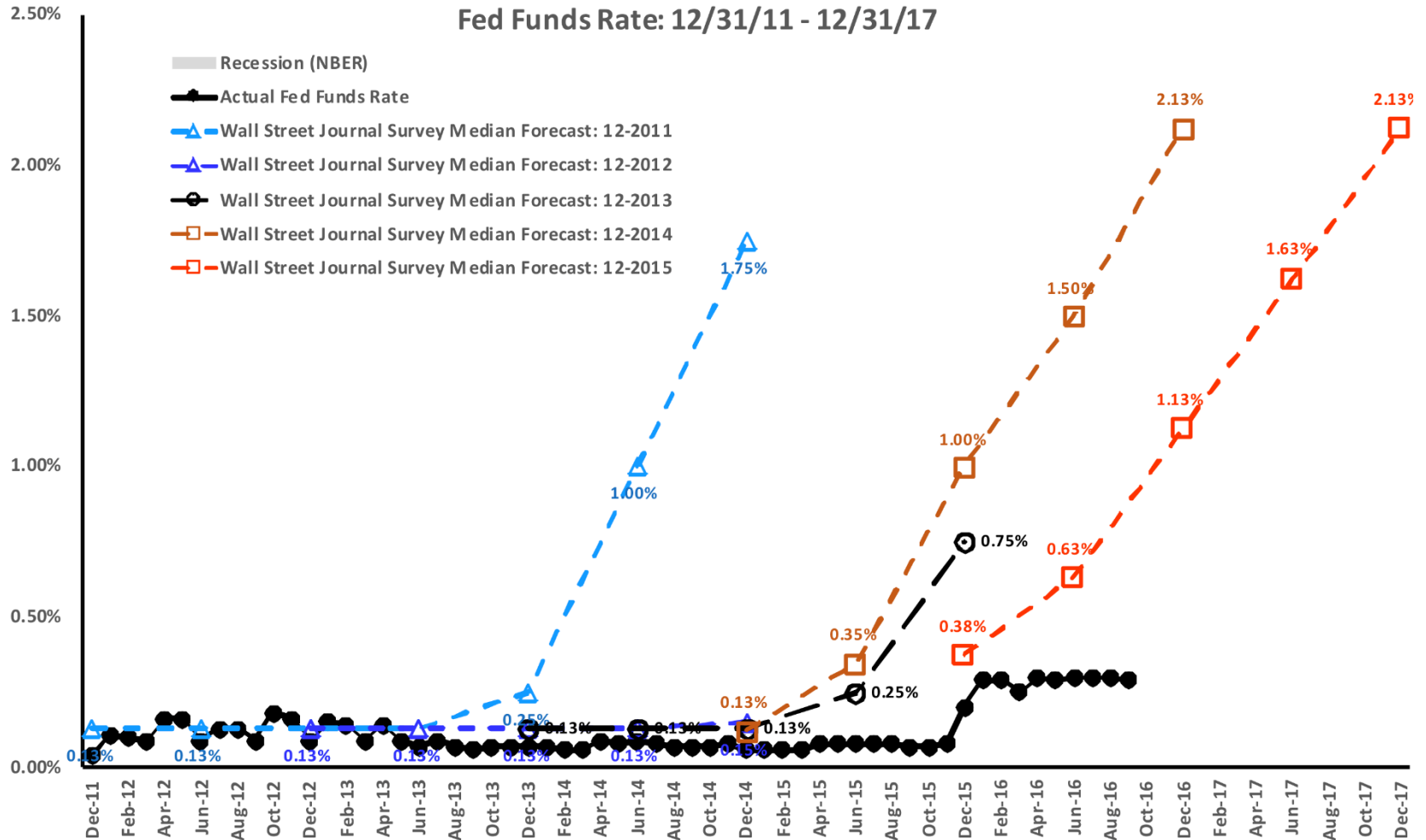
Fed Funds Rate: 12/31/11 - 12/31/17

Legend:
- Recession (NBER)
- Actual Fed Funds Rate
- Wall Street Journal Survey Median Forecast: 12-2011
- Wall Street Journal Survey Median Forecast: 12-2012
- Wall Street Journal Survey Median Forecast: 12-2013
- Wall Street Journal Survey Median Forecast: 12-2014
- Wall Street Journal Survey Median Forecast: 12-2015

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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10Yr Treasury Yield Visual Accuracy Test
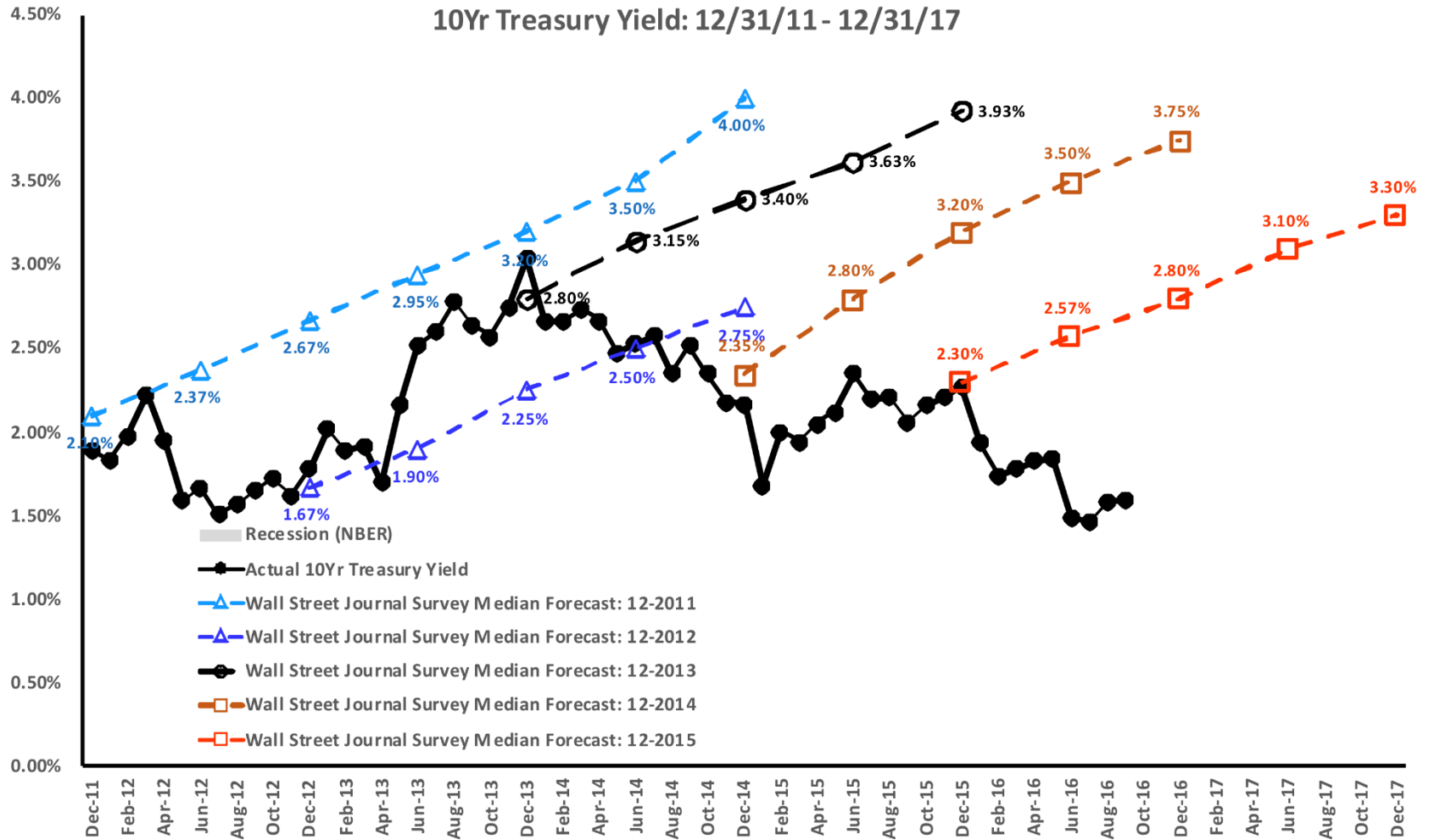
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

CPI YoY Visual Accuracy Test
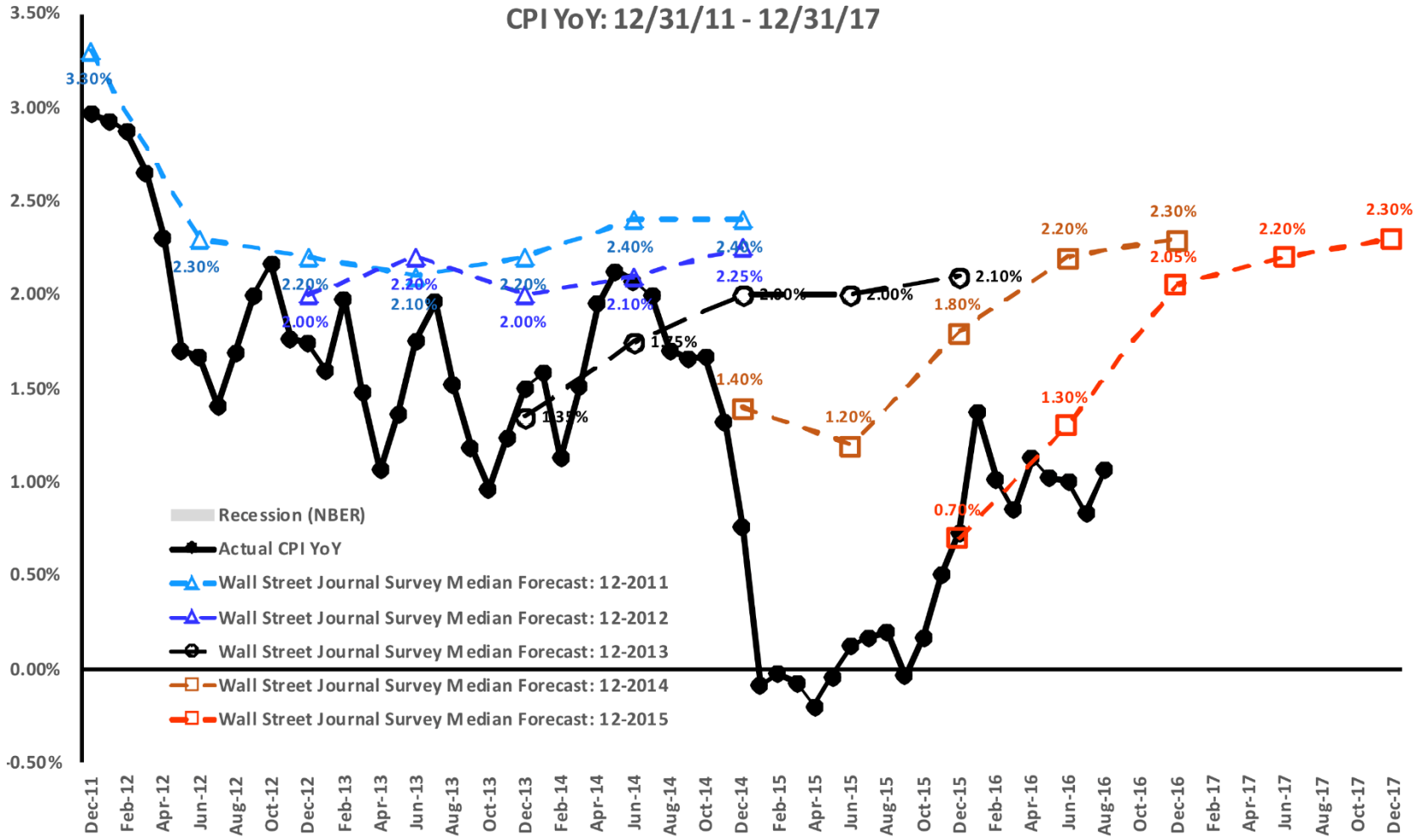
Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Unemployment Rate Visual Accuracy Test

Unemployment Rate: 12/31/11 - 12/31/17

Legend:
- Recession (NBER)
- Actual Unemployment Rate
- Wall Street Journal Survey Median Forecast: 12-2011
- Wall Street Journal Survey Median Forecast: 12-2012
- Wall Street Journal Survey Median Forecast: 12-2013
- Wall Street Journal Survey Median Forecast: 12-2014
- Wall Street Journal Survey Median Forecast: 12-2015

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

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GDP Visual Accuracy Test

GDP: 12/31/11 - 12/31/16

Legend:
- Recession (NBER)
- Actual GDP
- Wall Street Journal Survey Median Forecast: 12-2011
- Wall Street Journal Survey Median Forecast: 12-2012
- Wall Street Journal Survey Median Forecast: 12-2013
- Wall Street Journal Survey Median Forecast: 12-2014
- Wall Street Journal Survey Median Forecast: 12-2015

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Crude Oil Visual Accuracy Test

Crude Oil: 12/31/11 - 12/31/17

Legend:
- Recession (NBER)
- Actual Crude Oil
- Wall Street Journal Survey Median Forecast: 12-2011
- Wall Street Journal Survey Median Forecast: 12-2012
- Wall Street Journal Survey Median Forecast: 12-2013
- Wall Street Journal Survey Median Forecast: 12-2014
- Wall Street Journal Survey Median Forecast: 12-2015

Data labels: 98.50, 100.00, 99.00, 87.55, 91.00, 94.00, 7.25, 95.25, 65.00, 68.25, 71.45, 40.00, 45.00, 49.00, 52.00, 55.00

Analysis by Kevin Webb, CFA. WSJ and Bloomberg forecasts as published. Econ data from FRED.

Federal Reserve

https://www.federalreserve.gov/monetarypolicy.htm

Congressional Budget Office

Budget and Economic Data

CBO regularly publishes data to accompany some of its key reports. These data have been published in the Budget and Economic Outlook and Updates and in their associated supplemental material, except for that from the Long-Term Budget Outlook.

BUDGET

- 10-Year Budget Projections
- Long-Term Budget Projections
- Historical Budget Data
- 10-Year Trust Fund Projections
- Detailed Revenue Projections
- Spending Projections, by Budget Account
- Estimates of Automatic Stabilizers

ECONOMIC

- 10-Year Economic Projections
- Potential GDP and Underlying Inputs

10-Year Economic Projections

Projections of output, prices, labor market measures, interest rates, and income.

Jun 2017	Jan 2017	Aug 2016	Jan 2016	Aug 2015	Jan 2015	Aug 2014
Feb 2014	Feb 2013					

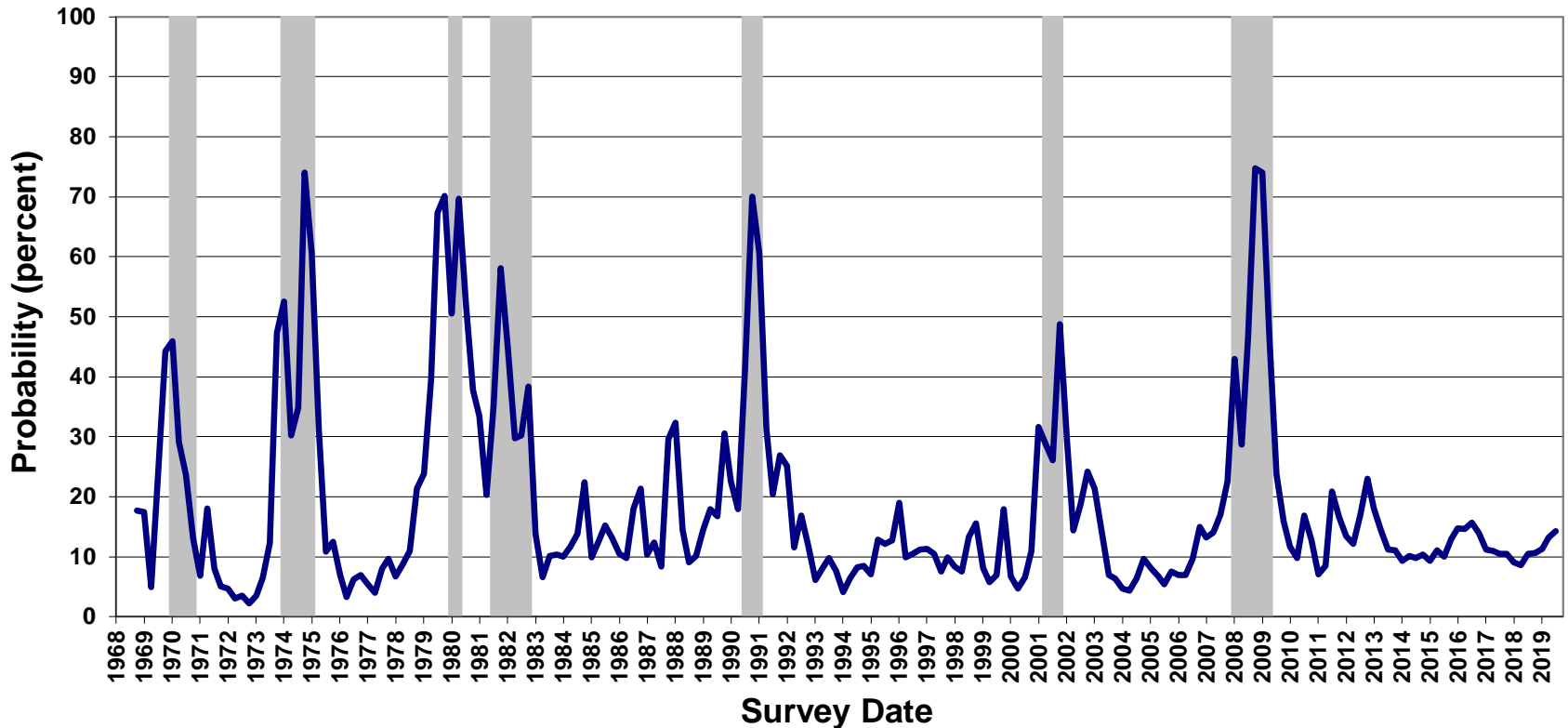https://www.cbo.gov/about/products/budget-economic-data

Survey of Professional Forecasters

The Anxious Index
Probability of Decline in Real GDP in the Following Quarter
Quarterly, 1968:Q4 to 2019:Q3

https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/anxious-index

Knowledge Check

When looking at forecasts which forecast(er) should you follow?

A. Piper Sandler John Daniel Forecast

B. Goldman Sachs Forecast

C. Congressional Budget Forecast

D. Median/Average Forecast

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QUESTIONS?

Kevin Webb, CFA
Kevin.Webb@psc.com

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