Ipsos Poll Conducted for Reuters

The Federal Reserve 02.24.15

These are findings from an Ipsos poll conducted for Thomson Reuters from February 20-24, 2015. For the survey, a sample of 1,388 Americans 18+ were interviewed online. The precision of the Reuters/Ipsos online polls is measured using a credibility interval. In this case, the poll has a credibility interval of plus or minus 3.0 percentage points. For more information about credibility intervals, please see the appendix.

The data were weighted to the U.S. current population data by gender, age, education, and ethnicity. Statistical margins of error are not applicable to online polls. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Figures marked by an asterisk (*) indicate a percentage value of greater than zero but less than one half of one per cent. Where figures do not sum to 100, this is due to the effects of rounding.

THE FEDERAL RESERVE

Q1. How familiar are you, if at all, with how interest rates are set in the U.S. economy?

Very familiar	12%
Somewhat familiar	30%
Have heard of it, but know very little	47%
Have never heard of it	11%
Total Aware	*89%*
Total Familiar	*42%*

Q2. As far as you know, which of the following has the most influence over the interest rates you might pay for a home mortgage or other loan?

The Federal Reserve	38%
Large banks and lenders	21%
President Obama	6%
Congress	6%
Bond traders on Wall Street	4%
Not sure	24%

Q3. For each of the policies/issues below, please indicate whether you believe that they should be the responsibility of independent experts or elected officials?

	Elected officials	Independent experts
Managing the Federal budget	57%	43%
Printing money	57%	43%
Managing trade agreements	53%	47%
Overseeing the banking system	37%	63%
Setting interest rates	34%	66%

Q4. How familiar are you, if at all, with the U.S. Federal Reserve, also sometimes referred to as “the Fed”.

Very familiar	13%
Somewhat familiar	39%
Have heard of it, but know very little	38%
Have never heard of it	10%
Total Aware	*90%*
Total Familiar	*52%*

Q5. Which of the following is the current Chair of the Federal Reserve?

Janet Yellen	23%
Ben Bernanke	9%
Alan Greenspan	7%
Christine Lagarde	3%
Timothy Geithner	3%
Stewart Lewis	2%
Not sure	54%

Q6. Some people feel important decisions about the nation's interest rates should be made without political influence. Others believe that Congress should be allowed to have detailed oversight of the Federal Reserve. Which comes closer to your opinion?

Important decisions about the nation's money supply should be made without political influence	49%
Congress should be allowed to have detailed oversight of the Federal Reserve	24%
Not sure	26%

Q7. Thinking about the financial crisis, to what extent do you think each of the following is to blame?

	A great deal	A fair amount	Only a little	Not at all	*A great deal/ Fair amount*
Congress	41%	41%	12%	6%	*82%*
Wall Street	34%	37%	19%	10%	*71%*
President Obama	32%	26%	22%	20%	*58%*
The Federal Reserve	20%	47%	23%	10%	*67%*

How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter θ\, i.e., Y|θ~Bin(n,θ), where n is the size of our sample. In this setting, Y counts the number of "yes", or "1", observed in the sample, so that the sample mean ($\bar{y}$) is a natural estimate of the true population proportion θ. This model is often called the likelihood function, and it is a standard concept in both the Bayesian and the Classical framework. The Bayesian [1] statistics combines both the prior distribution and the likelihood function to create a posterior distribution. The posterior distribution represents our opinion about which are the plausible values for θ adjusted after observing the sample data. In reality, the posterior distribution is one's knowledge base updated using the latest survey information. For the prior and likelihood functions specified here, the posterior distribution is also a beta distribution (π(θ/y)~β(y+a,n-y+b)), but with updated hyper-parameters.

Our credibility interval for ϑ is based on this posterior distribution. As mentioned above, these intervals represent our belief about which are the most plausible values for ϑ given our updated knowledge base. There are different ways to calculate these intervals based on π(θ/y). Since we want only one measure of precision for all variables in the survey, analogous to what is done within the Classical framework, we will compute the largest possible credibility interval for any observed sample. The worst case occurs when we assume that *a*=1 and *b*=1 and y=*n/2*. Using a simple approximation of the posterior by the normal distribution, the 95% credibility interval is given by, approximately:

$$\bar{y} \mp \frac{1}{\sqrt{n}}$$

For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect 1+L=1.3 to account for complex weighting[2]

Examples of credibility intervals for different base sizes are below. Ipsos does not publish data for base sizes (sample sizes) below 100.

Sample size	Credibility intervals
2,000	2.5
1,500	2.9
1,000	3.5
750	4.1
500	5.0
350	6.0
200	7.9
100	11.2

[1] *Bayesian Data Analysis, Second Edition, Andrew Gelman, John B. Carlin, Hal S. Stern, Donald B. Rubin, Chapman & Hall/CRC | ISBN: 158488388X | 2003*

[2] *Kish, L. (1992). Weighting for unequal Pi . Journal of Official, Statistics, 8, 2, 183200.*