

# Interactive Chart Guide for Survey of Consumer Expectations

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## Inflation

### Chart 1

- Title: Inflation expectations
  - Subtitle: Median one- and three-year ahead expected inflation rate
    - Variable 1: Median one-year ahead expected inflation rate  
*Respondents are asked for the percent chance that, over the next 12 months, the rate of inflation (deflation) will be 12% or higher; between 8% and 12%; between 4% and 8%; between 2% and 4%; between 0 and 2%. A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected inflation rate". Variable 1 is the median across all respondents of their expected inflation rates.*
    - Variable 2: Median three-year ahead expected inflation rate  
*Same as above except that respondents are asked about inflation three-years ahead (over the twelve-month period between [current date + 2 years] and [current date + 3 years]).*

### ***Toggle 1: 1-year detail***

- Title: Inflation Expectations
  - Subtitle: One-year ahead
    - Variable 1: Median expected inflation rate  
*Respondents are asked for the percent chance that, over the next 12 months, the rate of inflation (deflation) will be 12% or higher; between 8% and 12%; between 4% and 8%; between 2% and 4%; between 0 and 2%. A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected inflation rate". Variable 1 is the median across all respondents of their expected inflation rates.*
    - Variable 2: Dispersion  
*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected inflation rates. This interquartile range represents a measure of disagreement between individual respondents.*

- Variable 3: Median point prediction

*Respondents are asked what they think the rate of inflation will be over the next 12 months. This is a point prediction (a single-value forecast). Variable 3 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

## ***Toggle 2: 3-year detail***

- Title: Inflation Expectations

- Subtitle: Three-year ahead

- Variable 1: Median expected inflation rate

*Respondents are asked for the percent chance that, three years from now (over the twelve-month period between [current date + 2 years] and [current date + 3 years], the rate of inflation (deflation) will be 12% or higher; between 8% and 12%; between 4% and 8%; between 2% and 4%; between 0 and 2%. A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. **We call this mean the respondent's "expected inflation rate".** Variable 1 is the median across all respondents of their expected inflation rates.*

- Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected inflation rates. This interquartile range represents a measure of disagreement between individual respondents.*

- Variable 3: Median point prediction

*Respondents are asked what they think the rate of inflation will be three years from now (over the twelve-month period between [current date + 2 years] and [current date + 3 years]). This is a point prediction (a single-value forecast). Variable 3 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

## Chart 2

- Title: Inflation uncertainty
  - Variable 1: Median one-year ahead uncertainty

*Respondents are asked for the percent chance that, over the next 12 months, the rate of inflation (deflation) will be 12% or higher; between 8% and 12%; between 4% and 8%; between 2% and 4%; between 0 and 2%. A generalized beta distribution is fitted to the responses of each survey participant and the 25<sup>th</sup> and 75<sup>th</sup> percentiles of this distribution are calculated. We call the difference between a respondent's 75<sup>th</sup> and 25<sup>th</sup> percentiles his/her "uncertainty". Variable 1 is the median across all respondents of their uncertainties.*
  - Variable 2: Median three-year ahead uncertainty

*Same as above except that respondents are asked about inflation three-years ahead (over the twelve-month period between [current date + 2 years] and [current date + 3 years]).*

## Chart 3

- Title: Home price change expectations
  - Subtitle: One-year ahead
    - Variable 1: Median expected home price change

*Repeat respondents are asked for the percent chance that, over the next 12 months, the average home price nationwide will increase (decrease) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2%. A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected home price change". Variable 1 is the median across all respondents of their expected home price changes.*

### ***Toggle 1: 1-Year Detail***

- Title: Home price change expectations
  - Subtitle: One-year ahead
    - Variable 1: Median expected home price change

*Repeat respondents are asked for the percent chance that, over the next 12 months, the average home price nationwide will increase (decrease) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2%. A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected home price change". Variable 1 is the median across all respondents of their expected home price changes.*

- Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected home price changes. This interquartile range represents a measure of disagreement between individual respondents.*

- Variable 3: Median point prediction

*Respondents are asked by how much the average home price will change nationwide over the next 12 months. This is a point prediction (a single-value forecast). Variable 3 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

### ***Toggle 2: 1- and 3-Year point predictions***

- Title: Home price change expectations

- Subtitle: Median one- and three-year ahead point prediction

- Variable 1: Median one-year ahead point prediction

*Respondents are asked by how much the average home price will change nationwide over the next 12 months. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

- Variable 2: Median three-year ahead point prediction

*Respondents are asked by how much the average home price will change nationwide three-years ahead (over the twelve-month period between [current date + 2 years] and [current date + 3 years]). This is a point prediction (a single-value forecast). Variable 2 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

### **Chart 4**

- Title: One-year ahead home price change uncertainty

- Variable 1: Median uncertainty

*Repeat respondents are asked for the percent chance that, over the next 12 months, the average home price nationwide will increase (decrease) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2%. A generalized beta distribution is fitted to the responses of each survey participant and the 25<sup>th</sup> and 75<sup>th</sup> percentiles of this distribution are calculated. We call the difference between a respondent's 75<sup>th</sup> and 25<sup>th</sup> percentiles his/her "uncertainty". Variable 1 is the median across all respondents of their uncertainties.*

## Chart 5

- Title: One-year ahead commodity price change expectations
  - Subtitle: Median point predictions
  - Variables:
    - Gas
    - Food
    - Medical care
    - College education
    - Rent
    - Gold

*For each of the items above, respondents are asked by how much its price will change over the next 12 months. This is a point prediction (a single-value forecast). The variable is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

## Labor Market

### Chart 6

- Title: One-year ahead earnings growth expectations
  - Variable 1: Median expected earnings growth

*Respondents who report working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that 12 months from now their earnings, before taxes and deductions, will have increased (decreased) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2% (assuming that 12 months from now they are working in the exact same job at the same place they currently work, and working the exact same number of hours). A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected earnings growth". Variable 1 is the median across all respondents of their expected earnings growth rates.*

### ***Toggle: 1-year detail***

- Title: One-year ahead earnings growth expectations
  - Variable 1: Median expected earnings growth

*Respondents who report working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that 12 months from now their earnings, before taxes and deductions, will have increased (decreased) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2% (assuming that 12 months from now they are working in the exact same job at the same place they currently work, and working the exact same number of hours). A generalized beta distribution is fitted to the responses of each survey participant and the mean of this distribution is calculated. We call this mean the respondent's "expected earnings growth". Variable 1 is the median across all respondents of their expected earnings growth rates.*

- Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected earnings growth rates.*

- Variable 3: Median point prediction

*Respondents who report working full time, part time, being temporarily laid off or on sick leave are asked by how much they expect their earnings to have increased/decreased 12 months from now (assuming that 12 months from now they are working in the exact same job at the same place they currently work, and working the exact same number of hours). This is a point prediction (a single-value forecast). Variable 3 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

## Chart 7

- Title: One-year ahead earnings growth uncertainty

- Variable 1: Median uncertainty

*Respondents who report working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that 12 months from now their earnings, before taxes and deductions, will have increased (decreased) by 12% or more; by 8% to 12%; by 4% to 8%; by 2% to 4%; by 0% to 2% (assuming that 12 months from now they are working in the exact same job at the same place they currently work, and working the exact same number of hours". A generalized beta distribution is fitted to the responses of each survey participant and the 25<sup>th</sup> and 75<sup>th</sup> percentiles of this distribution are calculated. We call the difference between a respondent's 75<sup>th</sup> and 25<sup>th</sup> percentiles his/her "uncertainty". Variable 1 is the median across all respondents of their uncertainties.*

## Chart 8

- Title: Job separation expectations

- Subtitle: Mean probability of losing or leaving job

- Variable 1: Mean probability of losing job

*Respondents who report not being self-employed but working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that they will lose their job during the next 12 months. This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

- Variable 2: Mean probability of leaving job voluntarily  
*Respondents who report not being self-employed but working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that they leave their job voluntarily during the next 12 months. This is a point prediction (a single-value forecast). Variable 2 is the mean across all respondents of their point predictions.*

## Chart 9

- Title: Job finding expectations
  - Subtitle: Mean probability of finding job in next three months if lose job today
    - Variable 1: Mean probability of finding and accepting job  
*Respondents who report not being self-employed but working full time, part time, being temporarily laid off or on sick leave are asked for the percent chance that within the following 3 months they will find a new job they will accept (considering the pay and type of work), if they were to lose their job this month. This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Chart 10

- Title: Moving expectations
  - Subtitle: Mean probability of changing primary residence over the next 12 months
    - Variable 1: Mean probability of changing primary residence  
*Respondents are asked for the percent chance that within the next 12 months they will move to a different primary residence (that is, the place they usually live). This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Chart 11

- Title: Expectations of higher U.S. unemployment
  - Subtitle: Mean probability that U.S. unemployment rate will be higher one year from now
    - Variable 1: Mean probability that U.S. unemployment rate will be higher one year from now  
*Respondents are asked for the percent chance that within the next 12 months the U.S. unemployment rate will be higher than it is now. This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Household Finance

### Chart 12

- Title: One-year ahead household income growth expectations
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total income of all members of their household (including themselves), from all sources before taxes and deductions, to increase/decrease over the next 12 months. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

### ***Toggle: Dispersion***

- Title: One-year ahead household income growth expectations
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total income of all members of their household (including themselves), from all sources before taxes and deductions, to increase/decrease over the next 12 months. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*
  - Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected changes in household total income.*

### Chart 13

- Title: One-year ahead household spending growth expectations
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total spending of all members of their household (including themselves) to increase/decrease over the next 12 months. They are asked to consider their total household spending, including groceries, clothing, personal care, housing (such as rent, mortgage payments, utilities, maintenance, home improvements), medical expenses (including health insurance), transportation, recreation and entertainment, education, and any large items (such as home appliances, electronics, furniture, or car payments). This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*



### ***Toggle: 1-year detail***

- Title: One-year ahead household spending growth expectations
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total spending of all members of their household (including themselves) to increase/decrease over the next 12 months. They are asked to consider their total household spending, including groceries, clothing, personal care, housing (such as rent, mortgage payments, utilities, maintenance, home improvements), medical expenses (including health insurance), transportation, recreation and entertainment, education, and any large items (such as home appliances, electronics, furniture, or car payments). This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*
  - Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected changes in household total spending.*

### **Chart 14**

- Title: One-year ahead change in taxes
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total taxes they will have to pay 12 months from now (including federal, state and local income, property and sales taxes) to have increased/decreased, if their total household income were to stay the same as now. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*

### ***Toggle: 1-year detail***

- Title: One-year ahead change in taxes
  - Variable 1: Median point prediction

*Respondents are asked by how many percent they expect the total taxes they will have to pay 12 months from now (including federal, state and local income, property and sales taxes) to have increased/decreased, if their total household income were to stay the same as now. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions. Given that almost all respondents, while asked about continuous variables, provide integer responses, throughout in computing medians based on point predictions we treat the responses as rounded grouped data and compute linearly interpolated medians.*
  - Variable 2: Dispersion

*The shaded area represents the middle 50% (the range between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile) of the distribution of expected changes in total taxes.*

## Chart 15

- Title: Change in credit availability
    - Subtitle: Harder or easier to obtain credit one year from now
      - Variables: See labels on chart
- Respondents are asked whether, 12 months from now, they think it generally will be harder or easier for people to obtain credit or loans (including credit and retail cards, auto loans, student loans, and mortgages) than it is these days. The possible responses are “much harder”, “somewhat harder”, “equally easy/hard”, “somewhat easier”, and “much easier”. The figure shows the proportion of each response.*

### ***Toggle: Year Ago***

- Title: Change in credit availability
    - Subtitle: Harder or easier to obtain credit than year ago
      - Variables: See labels on chart
- Respondents are asked whether, compared to 12 months ago, they think it is generally harder or easier these days for people to obtain credit or loans (including credit and retail cards, auto loans, student loans, and mortgages). The possible responses are “much harder”, “somewhat harder”, “equally easy/hard”, “somewhat easier”, and “much easier”. The figure shows the proportion of each response.*

## Chart 16

- Title: Debt delinquency expectations
    - Subtitle: Mean probability of not being able to make minimum debt payment over the next three months
      - Variable 1: Mean probability of not being able to make minimum debt payment
- Respondents are asked for the percent chance that, over the next 3 months, they will not be able to make one of their debt payments (that is, the minimum required payments on credit and retail cards, auto loans, student loans, mortgages, or any other debt you may have). This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Chart 17

- Title: Expectations of higher interest rates on savings accounts
    - Subtitle: Mean probability of higher average interest rate on savings accounts one year from now
      - Variable 1: Mean probability of higher average rate
- Respondents are asked for the percent chance that, 12 months from now, the average interest rate on savings accounts will be higher than it is now. This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Chart 18

- Title: Household financial situation
    - Subtitle: Financially worse or better off one year from now
      - Variables: See labels on chart
- Respondents are asked whether they think they will be financially better or worse off 12 months from now compared to these days. The possible responses are “much worse off”, “somewhat worse off”, “about the same”, “somewhat better off”, and “much better off”. The figure shows the proportion of each response.*

## Toggle: Year Ago

- Title: Household financial situation
    - Subtitle: Financially worse or better off than year ago
      - Variables: See labels on chart
- Respondents are asked whether they think they are financially better or worse off these days than they were 12 months ago. The possible responses are “much worse off”, “somewhat worse off”, “about the same”, “somewhat better off”, and “much better off”. The figure shows the proportion of each response.*

## Chart 19

- Title: Expectations of higher stock prices
    - Subtitle: Mean probability that U.S. stock prices will be higher one year from now
      - Variable 1: Mean probability that U.S. stock prices will be higher one year from now
- Respondents are asked for the percent chance that, 12 months from now, stock prices in the U.S. stock market will be higher than they are now. This is a point prediction (a single-value forecast). Variable 1 is the mean across all respondents of their point predictions.*

## Chart 20

- Title: One-year ahead government debt growth expectations
    - Subtitle: Median point prediction
      - Variable 1: Median point prediction
- Respondents are asked by what percent they expect the level of U.S. government debt to increase or decrease over the next 12 months. This is a point prediction (a single-value forecast). Variable 1 is the median across all respondents of their point predictions.*

## Demographic Views

- All

*This includes all respondents.*

- Age

*The respondents are partitioned into 3 categories depending on their reported age: 1) less than 40 years old, 2) between 40 and 59 years old, 3) 60 years old or more. In December 2013, categories 1, 2 and 3 respectively included around 30%, 40% and 30% of the sample. These (weighted) proportions, however, are only indicative as they may vary slightly over time.*

- Income

*The respondents are partitioned into 3 categories depending on their reported total household income during the past 12 months: 1) less than \$50,000, 2) between \$50,000 and \$100,000, 3) more than \$100,000. In December 2013, categories 1, 2 and 3 respectively included around 50%, 30% and 20% of the sample. These (weighted) proportions, however, are only indicative as they may vary slightly over time.*

- Education

*The respondents are partitioned into 3 categories depending on the highest degree they report having received: 1) high school or less, 2) some college, i.e. more than high school but less than a BA (this category includes Associate Degrees), 3) BA or more (e.g. Master, PhD). In December 2013, categories 1, 2 and 3 respectively included around 40%, 30% and 30% of the sample. These (weighted) proportions, however, are only indicative as they may vary slightly over time.*

- Location

*The respondents are partitioned into 4 categories depending on which Census region they report living in: 1) Midwest, 2) Northeast, 3) South, 4) West. In December 2013, categories 1, 2, 3 and 4 respectively included around 20%, 20%, 40 and 20% of the sample. These (weighted) proportions, however, are only indicative as they may vary slightly over time.*

- Numeracy

*To gauge the respondents' numeracy, they are asked the following 5 questions:*

Question 1: *"In a sale, a shop is selling all items at half price. Before the sale, a sofa costs \$300. How much will it cost in the sale?"*

Question 2: *"Let's say you have \$200 in a savings account. The account earns ten per cent interest per year. Interest accrues at each anniversary of the account. If you never withdraw money or interest payments, how much will you have in the account at the end of two years?"*

Question 3: *"In the BIG BUCKS LOTTERY, the chances of winning a \$10.00 prize are 1%. What is your best guess about how many people would win a \$10.00 prize if 1,000 people each buy a single ticket from BIG BUCKS?"*

Question 4: *"If the chance of getting a disease is 10 percent, how many people*

*out of 1,000 would be expected to get the disease?”*

*Question 5: “The chance of getting a viral infection is 0.0005. Out of 10,000 people, about how many of them are expected to get infected?”*

*The respondents are partitioned into 2 categories depending on the number of numeracy questions they answer correctly: 1) High numeracy (4 or 5 correct answers), 2) low numeracy (3 or fewer correct answers). In December 2013, categories 1 and 2 respectively included around 60% and 40% of the sample. These (weighted) proportions, however, are only indicative as they may vary slightly over time.*