

# Internet Appendix for

## “Disagreement about Inflation and the Yield Curve”

December 2016

This Internet Appendix serves as a companion to our paper “Disagreement about Inflation and the Yield Curve.” It provides additional theoretical and empirical results not reported in the main text due to space constraints. We present the results in the order they appear in the main paper.

### **1. Theoretical Results**

In this section, we provide closed-form solutions for the disagreement measure, the expected cross-sectional consumption growth variance, the real short rate, the real price of a real bond, the expected real value of one dollar, the nominal short rate, and the nominal price of a nominal bond in the GBM and Poisson examples. If risk aversion  $\gamma$  is not an integer, then the closed form solutions for the real and nominal bond price in both examples involve infinite sums. We approximate the infinite sums with a finite sum and choose the number of summands sufficiently large to obtain basis point accuracy for real and nominal yields. The subjective discount factor in both examples is set to zero and aggregate consumption and the preference shock are normalized to one.

## 1.1. Geometric Brownian Motion Example

Consider a continuous-time economy in which the price level  $\Pi_t$  follows a geometric Brownian motion and two investors disagree on the expected inflation rate. The dynamics of the price level are

$$d\Pi_t = x^i \Pi_t dt + \sigma_{\Pi} \Pi_t dz_t^i,$$

where  $x^i$  denotes the expected inflation rate and  $z_t^i$  denotes the perceived nominal shock of investor  $i$ . The dynamics of the likelihood ratio  $\lambda_t$  are

$$d\lambda_t = \Delta \lambda_t dz_t^1, \quad \Delta = \frac{x^2 - x^1}{\sigma_{\Pi}}.$$

The disagreement measure for the period  $t$  to  $T$  is

$$\mathcal{D}_{t,T} = \frac{1}{2} \Delta^2.$$

The expected cross-sectional consumption growth variance from time  $t$  to  $T$  is

$$\mathbb{E}^1 [\sigma_{CS}^2(t, T)] = \frac{1}{4\gamma^2} \left( \Delta^2(T-t) + \frac{1}{4} \Delta^4(T-t)^2 \right).$$

The real short rate at time  $t$  is

$$r_t = \frac{\gamma - 1}{2\gamma} \Delta^2 f_t (1 - f_t).$$

The real price of a real discount bond at time  $t$  that matures at  $T$  is

$$B_{t,T} = f_t^\gamma \Phi \left( \gamma, \frac{1}{\gamma}, \frac{1-f_t}{f_t}, -\frac{1}{2} \Delta^2 (T-t), \Delta^2 (T-t) \right),$$

where  $\Phi(\cdot, \cdot, \cdot, \cdot, \cdot)$  is given in Proposition IA.1.

The expected real value of a time  $T$  dollar at  $t$  is

$$\mathbb{E}_t^i \left[ \frac{1}{\Pi_T} \right] = \frac{1}{\Pi_t} e^{-(x^i - \sigma_{\Pi}^2)(T-t)}.$$

The nominal short rate at time  $t$  is

$$r_{P,t} = r_t + f_t x^1 + (1 - f_t) x^2 - \sigma_{\Pi}^2.$$

The nominal price of a nominal discount bond at time  $t$  that matures at  $T$  is

$$P_{t,T} = e^{-(x^1 - \sigma_{\Pi}^2)(T-t)} f_t^\gamma \Phi \left( \gamma, \frac{1}{\gamma}, \frac{1-f_t}{f_t}, (x^1 - x^2)(T-t) - \frac{1}{2}\Delta^2(T-t), \Delta^2(T-t) \right),$$

where  $\Phi(\cdot, \cdot, \cdot, \cdot, \cdot)$  is given in Proposition IA.1.

**Proposition IA.1** (GBM Example). *Suppose  $x$  is normally distributed with mean  $M$  and variance  $V$ . Let  $A$ ,  $B$ , and  $C$  denote positive real numbers. Then*

$$\Phi(A, B, C, M, V) \equiv \mathbb{E} \left[ (1 + Ce^{Bx})^A \right] = \begin{cases} \sum_{n=0}^A \binom{A}{n} C^n e^{nBM + \frac{1}{2}n^2B^2V} & \text{if } A = 1, 2, \dots, \\ \Phi_1(\cdot) + \Phi_2(\cdot) & \text{otherwise,} \end{cases}$$

where

$$\begin{aligned} \Phi_1(A, B, C, M, V) &= \frac{1}{2} e^{-\frac{1}{2} \frac{(MB + \log C)^2}{B^2V}} \sum_{n=0}^{\infty} \binom{A}{n} \operatorname{erfcx} \left( \frac{MB + \log C + nB^2V}{B\sqrt{2V}} \right), \\ \Phi_2(A, B, C, M, V) &= \frac{1}{2} e^{-\frac{1}{2} \frac{(MB + \log C)^2}{B^2V}} \sum_{n=0}^{\infty} \binom{A}{n} \operatorname{erfcx} \left( \frac{(n-A)B^2V - (MB + \log C)}{B\sqrt{2V}} \right), \end{aligned}$$

and where  $\binom{A}{k}$  denotes the generalized binomial coefficient and  $\operatorname{erfcx}(\cdot)$  the scaled complementary error function.

## 1.2. Poisson Example

Consider a continuous-time economy in which the dynamics of the price level are

$$d\Pi_t = x\Pi_{t-} dt + \theta\Pi_{t-} dN_{t-}^i,$$

where  $x$  denotes a constant and  $\theta$  denotes the constant jump size with  $\theta \neq 0$  and  $\theta > -1$ . The two investors agree on the jump times of the Poisson process, but disagree on the jump intensity  $l^i$ . Hence, they disagree on the expected inflation rate  $x + \theta l^i$ . The dynamics of the likelihood ratio  $\lambda_t$  are

$$d\lambda_t = \Delta\lambda_{t-} (dN_{t-}^1 - l^1 dt), \quad \Delta = \frac{l^2 - l^1}{l^1}.$$

The disagreement measure for the period  $t$  to  $T$  is

$$\mathcal{D}_{t,T} = -l^1(\log(1 + \Delta) - \Delta).$$

The expected cross sectional consumption growth variance from time  $t$  to  $T$  is

$$\mathbb{E}^1 [\sigma_{CS}^2(t, T)] = \frac{1}{4\gamma^2} \left( (l^1(T-t))^2 (\log(1+\Delta) - \Delta)^2 + l^1(T-t) (\log(1+\Delta))^2 \right).$$

The real short rate at time  $t$  is

$$r_t = (1 - f_t)\Delta l^1 - \left( \left( f_t + (1 - f_t)(1 + \Delta)^{\frac{1}{\gamma}} \right)^\gamma - 1 \right) l^1.$$

The real price of a real discount bond at time  $t$  that matures at  $T$  is

$$B_{t,T} = f_t^\gamma \Phi \left( \gamma, \frac{1}{\gamma} \log(1 + \Delta), \frac{1 - f_t}{f_t} e^{-\frac{l^2 - l^1}{\gamma}(T-t)}, l^1(T-t) \right),$$

where  $\Phi(\cdot, \cdot, \cdot, \cdot)$  is given in Proposition IA.2.

The expected real value of a time  $T$  dollar at  $t$  is

$$\mathbb{E}_t^i \left[ \frac{1}{\Pi_T} \right] = \frac{1}{\Pi_t} e^{-(x + \frac{\theta}{1+\theta} l^i)(T-t)}.$$

The nominal short rate at time  $t$  is

$$r_{P,t} = r_t + x + \left( f_t + (1 - f_t)(1 + \Delta)^{\frac{1}{\gamma}} \right)^\gamma \frac{\theta}{1 + \theta} l^1.$$

The nominal price of a nominal discount bond at time  $t$  that matures at  $T$  is

$$P_{t,T} = e^{-(x + \frac{\theta l^1}{1+\theta})(T-t)} f_t^\gamma \Phi \left( \gamma, \frac{1}{\gamma} \log(1 + \Delta), \frac{1 - f_t}{f_t} e^{-\frac{l^2 - l^1}{\gamma}(T-t)}, \frac{l^1(T-t)}{1 + \theta} \right),$$

where  $\Phi(\cdot, \cdot, \cdot, \cdot)$  is given in Proposition IA.2.

**Proposition IA.2** (Poisson Example). *Suppose  $x$  is Poisson distributed with parameter  $L$  and define the functions*

$$\begin{aligned} \Psi_1(x, y, z) &= e^{z(e^y - 1)} - \Psi_2(x, y, z) - \Psi_3(x, y, z), \\ \Psi_2(x, y, z) &= \begin{cases} 0 & \text{if } x \leq 0, \\ \sum_{\xi=0}^{\lfloor -x \rfloor} \frac{z^\xi}{\xi!} e^{y\xi - z} & \text{otherwise,} \end{cases} \\ \Psi_3(x, y, z) &= \begin{cases} \frac{z^x}{x!} e^{xy - z} & \text{if } x = 0, 1, 2, \dots, \\ 0 & \text{otherwise,} \end{cases} \end{aligned}$$

where  $x!$  denotes the factorial of  $x$  and  $\lfloor x \rfloor$  denotes the floor of  $x$ , that is, the largest integer

not greater than  $x$ . Let  $A$ ,  $B$ , and  $C$  denote real numbers with  $A$  and  $C$  positive. Then

$$\Phi(A, B, C, L) = \mathbb{E} \left[ (1 + Ce^{Bx})^A \right] = \begin{cases} \Phi_1^+(\cdot) + \Phi_2^+(\cdot) + \Phi_3(\cdot) & \text{if } B > 0, \\ (1 + C)^A & \text{if } B = 0, \\ \Phi_1^-(\cdot) + \Phi_2^-(\cdot) + \Phi_3(\cdot), & \text{if } B < 0, \end{cases} \quad (\text{IA.1})$$

where

$$\begin{aligned} \Phi_1^+(A, B, C, L) &= \sum_{n=0}^{\infty} \binom{A}{n} C^n \cdot \Psi_2 \left( -\frac{\log(C)}{B}, nB, L \right), \\ \Phi_2^+(A, B, C, L) &= \sum_{n=0}^{\infty} \binom{A}{n} C^{A-n} \cdot \Psi_1 \left( -\frac{\log(C)}{B}, (A-n)B, L \right), \\ \Phi_3(A, B, C, L) &= 2^A \Psi_3 \left( -\frac{\log(C)}{B}, 0, L \right), \\ \Phi_1^-(A, B, C, L) &= \sum_{n=0}^{\infty} \binom{A}{n} C^n \cdot \Psi_1 \left( -\frac{\log(C)}{B}, nB, L \right), \\ \Phi_2^-(A, B, C, L) &= \sum_{n=0}^{\infty} \binom{A}{n} C^{A-n} \cdot \Psi_2 \left( -\frac{\log(C)}{B}, (A-n)B, L \right). \end{aligned}$$

If  $A$  is a positive integer, then equation (IA.1) simplifies to

$$\Phi(A, B, C, L) = \sum_{n=0}^A \binom{A}{n} C^n e^{L(e^{nB}-1)}.$$

### 1.3. Second-Order Stochastic Dominance

*Proof of Remark 2 in the main paper: Second Order Stochastic Dominance.*

We split the proof into three parts:

1. It follows from the definition of equality in distribution, mean independence, and Jensen's inequality that

$$\begin{aligned} \mathbb{E}^y [g(\tilde{y})] &= \mathbb{E}^y [g(\tilde{x}\tilde{\varepsilon})] = \mathbb{E}^x [\mathbb{E}^\varepsilon [g(\tilde{x}\tilde{\varepsilon}) \mid \tilde{x}]] \leq \mathbb{E}^x [g(\mathbb{E}^\varepsilon [\tilde{x}\tilde{\varepsilon} \mid \tilde{x}])] = \mathbb{E}^x [g(\tilde{x}\mathbb{E}^x [\tilde{\varepsilon} \mid \tilde{x}])] \\ &= \mathbb{E}^x [g(\tilde{x})]. \end{aligned}$$

2. It follows from the definition of equality in distribution, mean independence, and

Jensen's inequality that

$$\begin{aligned}
\mathbb{V}^y [\tilde{y}] &= \mathbb{V}^y [\tilde{x} \tilde{\varepsilon}] = \mathbb{E}^y [\tilde{x}^2 \tilde{\varepsilon}^2] - (\mathbb{E}^y [\tilde{x} \tilde{\varepsilon}])^2 = \mathbb{E}^x [\mathbb{E}^\varepsilon [\tilde{x}^2 \tilde{\varepsilon}^2 | \tilde{x}]] - (\mathbb{E}^x [\mathbb{E}^\varepsilon [\tilde{x} \tilde{\varepsilon} | \tilde{x}]])^2 \\
&= \mathbb{E}^x [\tilde{x}^2 \mathbb{E}^\varepsilon [\tilde{\varepsilon}^2 | \tilde{x}]] - (\mathbb{E}^x [\tilde{x} \mathbb{E}^\varepsilon [\tilde{\varepsilon} | \tilde{x}]])^2 \geq \mathbb{E}^x [\tilde{x}^2 (\mathbb{E}^\varepsilon [\tilde{\varepsilon} | \tilde{x}])^2] - (\mathbb{E}^x [\tilde{x}])^2 \\
&= \mathbb{E}^x [\tilde{x}^2] - (\mathbb{E}^x [\tilde{x}])^2 = \mathbb{V}^x [\tilde{x}].
\end{aligned}$$

3. Since  $g(x) = \log(x)^2$  is convex for  $0 < x < 1$  and concave for  $x > 1$ , we cannot apply the first result to show the third result. However, if  $\tilde{x}$  and  $\tilde{\varepsilon}$  are independent, then

$$\begin{aligned}
\mathbb{E}^y [(\log(\tilde{y}))^2] &= \mathbb{E}^y [(\log(\tilde{x} \tilde{\varepsilon}))^2] = \mathbb{E}^y [(\log(\tilde{x}) + \log(\tilde{\varepsilon}))^2] \\
&= \mathbb{E}^x [(\log(\tilde{x}))^2] + 2\mathbb{E}^y [\log(\tilde{x}) \log(\tilde{\varepsilon})] + \mathbb{E}^\varepsilon [(\log(\tilde{\varepsilon}))^2] \\
&= \mathbb{E}^x [(\log(\tilde{x}))^2] + 2\mathbb{E}^x [\log(\tilde{x})] \mathbb{E}^\varepsilon [\log(\tilde{\varepsilon})] + \mathbb{E}^\varepsilon [(\log(\tilde{\varepsilon}))^2].
\end{aligned}$$

The first and third terms are non-negative and, thus, it remains to be shown that the second term is nonnegative. We know that  $\tilde{x}$  and  $\tilde{\varepsilon}$  have unit mean and, thus, the average of the log of both variables is nonpositive because by Jensen's inequality

$$\mathbb{E}^x [\log(\tilde{x})] \leq \log(\mathbb{E}^x [\tilde{x}]) = 0.$$

Hence,

$$\mathbb{E}^x [\log(\tilde{x})] \mathbb{E}^\varepsilon [\log(\tilde{\varepsilon})] \geq 0,$$

which concludes the proof of the third statement.  $\square$

## 1.4. Counterexample for Effects on Break Even Inflation Rate

Figure IA.1 shows the difference between the break-even inflation rate in an economy with and without inflation disagreement as a function of risk aversion. The price level today is normalized to one. In the high inflation state, it is 1.25. In the low inflation state, it is 0.9. The second investor thinks that both inflation states are equally likely. Suppose the first investor thinks that the probability of a high inflation state is less likely than the second investor thinks. The red area shows that the break-even inflation rate is lower with disagreement if  $\gamma > 1$  and higher if  $\gamma < 1$ . Suppose the first investor thinks that the probability of a high inflation state is more likely than the second investor thinks. The blue area shows that the break-even inflation rate is higher with disagreement if  $\gamma > 1$  and lower if  $\gamma < 1$ .

## 1.5. Inflation Risk Premium

In this subsection, we study whether disagreement drives a wedge between real and nominal yields. Let  $\text{BEIR}_{t,T}$  denote the break-even inflation rate defined as the difference between the nominal and real yield of a  $T$ -year bond, that is,  $\text{BEIR}_{t,T} = y_{t,T}^P - y_{t,T}^B$ . In contrast to the break-even inflation rate, which is a statement about prices, the inflation risk premium is sensitive to the belief chosen to determine inflation expectations. Specifically, let  $\hat{\mathbb{P}}$  denote the belief of an econometrician. Then the nominal yield can be decomposed into:

$$y_{t,T}^P = y_{t,T}^B + \widehat{\text{EINFL}}_{t,T} + \widehat{\text{IRP}}_{t,T} = y_{t,T}^B + \text{EINFL}_{t,T}^i + \text{IRP}_{t,T}^i, \quad \forall i = 0, 1, 2. \quad (\text{IA.2})$$

Investors and econometricians agree on prices, so they agree on the break-even inflation rate  $\text{BEIR}_{t,T} = y_{t,T}^P - y_{t,T}^B$ . However, they may have different beliefs about inflation. If they disagree about expected inflation, then by equation (IA.2) they have to disagree on the inflation risk premium. For example, consider the case when the first investor predicts lower inflation than the second investor, that is,  $\text{EINFL}_{t,T}^1 < \text{EINFL}_{t,T}^2$ . Subtracting the expected inflation rate from the agreed upon break-even inflation rate leads to a higher perceived compensation for inflation risk for the first investor, that is,  $\text{IRP}_{t,T}^1 > \text{IRP}_{t,T}^2$ .

Figure IA.2 shows the inflation risk premium in an economy with disagreement perceived by an econometrician for different beliefs  $\hat{\mathbb{P}}$ . In all three examples, the first investor thinks expected inflation is 1% and the second investor thinks expected inflation is 3%, that is,  $\text{EINFL}_{t,T}^1 = 1\% < \text{EINFL}_{t,T}^2 = 3\%$ . Both investors consume the same fraction of consumption today, so the consumption-share weighted average belief about expected inflation is 2%. When the belief of the econometrician coincides with the consumption-share weighted average belief, then the inflation risk premium is slightly negative in the Edgeworth box example because the break-even inflation rate is smaller with than without disagreement. In the other two examples, the risk premium is positive. The plot of the inflation risk premium perceived by an econometrician in an economy without disagreement is very similar. In this case, the inflation risk premium is zero when we impose rational expectations, that is, if we impose that the belief of the econometrician coincides with the belief of the representative investor ( $\mathbb{P}^0 = \hat{\mathbb{P}}$ ). If the econometrician underestimates expected inflation ( $\widehat{\text{EINFL}}_{t,T} < \text{EINFL}_{t,T}^0$ ), then she perceives a positive inflation risk premium.

We characterize the inflation risk premium perceived by both investors in the following proposition.

**Proposition IA.3.** *The difference in investors' perceived inflation risk premiums is inde-*

pendent of preferences and consumption allocations. Specifically,

$$IRP_{t,T}^2 - IRP_{t,T}^1 = EINF L_{t,T}^1 - EINF L_{t,T}^2 = \Delta EINF L_{t,T}.$$

Moreover, we have the following limits

$$\begin{aligned} \lim_{f_t \rightarrow 1} IRP_{t,T}^1 &= IRP_{t,T}^{H,1}, & \lim_{f_t \rightarrow 0} IRP_{t,T}^1 &= IRP_{t,T}^{H,2} - \Delta EINF L_{t,T}, \\ \lim_{f_t \rightarrow 0} IRP_{t,T}^2 &= IRP_{t,T}^{H,2}, & \lim_{f_t \rightarrow 1} IRP_{t,T}^2 &= IRP_{t,T}^{H,1} + \Delta EINF L_{t,T}, \end{aligned}$$

where  $IRP_{t,T}^{H,i}$  is the inflation risk premium in an economy populated by investor  $i$  only.

*Proof of Proposition IA.3.* Straightforward. □

While the difference in inflation risk premiums is independent of preferences and consumption shares, the investor who actually perceives the largest (absolute) inflation risk premium is not. Consider the case when investor one has a consumption share that is close to one. Then, bond prices reflect the view of investor one. Therefore, the speculative component, as captured by  $\Delta EINF L_{t,T}$ , is negligible from that investor's point of view. The entire speculative component is captured by the second investor. As the consumption shares become similar across investors, bond prices reflect both views and the perceived inflation risk premiums for both investors reflect the disagreement in the economy.

The perceived inflation risk premiums are not bounded between the risk premiums in the homogeneous investor economies; that is,  $\min \{IRP_{t,T}^1, IRP_{t,T}^2\} \leq \min \{IRP_{t,T}^{H,1}, IRP_{t,T}^{H,2}\}$  or  $\max \{IRP_{t,T}^1, IRP_{t,T}^2\} \geq \max \{IRP_{t,T}^{H,1}, IRP_{t,T}^{H,2}\}$  can occur. The next example shows that investors can disagree about the distribution of inflation, but agree on the inflation risk premium. Consider a two date economy with two investors and three states, where the time discount factor is zero and aggregate consumption and habit are normalized to one. We choose probabilities perceived by the investors in such a way that they agree on expected inflation,  $EINF L_{t,T}^1 = EINF L_{t,T}^2$ , but disagree about the distribution of inflation. In this case, the nominal yield in a homogeneous investor economy with beliefs given by investor one would be equal to that of a homogeneous investor economy with beliefs given by investor two and the inflation risk premium would be zero under both beliefs. However, once both investors are present in the same economy and  $\gamma \neq 1$ , then the inflation risk premium is non-zero due to changes in the investment opportunity set caused by speculative trade. Figure IA.3 shows the real and nominal yields, the break-even inflation, and the inflation risk premium as a function of disagreement. Both real and nominal yields are increasing



in disagreement. In addition, both investors agree on the inflation risk premium. Yet, the inflation risk premium differs from that of a homogeneous investor economy. Here, disagreement about the distribution of inflation creates a positive inflation risk premium that increases in disagreement.

## 2. Additional Empirical Results Including Robustness Checks

### 2.1. Disagreement about the Variance and Skewness of Inflation

In the paper, we illustrate that disagreement about expected inflation increases the nominal and real yields. Our theory in Section 1 is more general because real and nominal yields also increase when there is disagreement about other moments of inflation, not just the mean. To empirically test this prediction, we use the SPF to compute disagreement about the mean (DisInfMean), which serves as a robustness check for the results in the main paper, disagreement about the variance (DisInfVar), and disagreement about the skewness (DisInfSkew) of the one year inflation rate based on the probability forecasts for the GDP deflator. We consider the GDP deflator instead of the CPI because probability forecasts based on the CPI are only available since the first quarter of 2007 whereas probability forecasts based on the GDP deflator are available since the third quarter of 1981. The two measures of inflation are very similar, that is, the correlation between the cross-sectional average inflation rate based on CPI and the GDP deflator is 96.21%. The survey respondents provide probability forecasters for the current and next calendar year which implies that the forecast horizon shrinks within both years. To keep the forecast horizon constant, we interpolate between the two probability forecasts. The time series for the second probability forecast starts in the third quarter of 1981. Specifically, the survey asks professional forecasters each quarter to assign probabilities to a set of fixed bins for GDP deflator growth until the end of this year and the end of next year. To determine a probability distribution for one year inflation rates, we interpolate between both forecasts. Specifically, for forecaster  $j$  we approximate the fixed horizon forecast in the following way:

$$x^j = w_{quarter}x_{current}^j + (1 - w_{quarter})x_{next}^j,$$

where  $x_{current}^j$  is the forecast for the current year,  $x_{next}^j$  is the forecast for the next year, and  $w_{quarter} \in \{1, 2/3, 1/3, 0\}$  are the weights. For each forecaster, we construct the implied

mean, variance, and skewness based on the histograms. Specifically, we assume that for a specific bin all the probability mass is concentrated at the mid-point. Let there be  $N$  bins with  $x_n$  the mid-point of bin  $n$ . For forecaster  $j = 1, \dots, J$  the mean, variance, and skewness are

$$\begin{aligned} m_j &= \sum_{n=1}^N p_n^j x_n, \\ v_j &= \sum_{n=1}^N p_n^j x_n^2 - m_j^2, \\ sk_j &= \frac{\sum_{n=1}^N p_n^j x_n^3 - 3m_j v_j - m_j^3}{v_j^{\frac{2}{3}}}, \end{aligned}$$

where  $p_n^j$  is the probability mass assigned to bin  $n$  by forecaster  $j$  and  $m_j$ ,  $v_j$ , and  $sk_j$  are the mean, variance, and skewness of the inflation distribution for forecaster  $j$ , respectively. Given a cross section of  $J$  forecasters at time  $t$ , we calculate disagreement about the mean, variance, and skewness of inflation as the cross-sectional standard deviation of the individual mean, variance, and skewness forecasts. Table IA.1 provides summary statistics for all three disagreement measures. Disagreement about expected inflation derived from the probability forecasts for the GDP deflator is slightly lower and less volatile than disagreement about expected inflation based on the CPI.<sup>1</sup> The three disagreement measures are positively correlated.

Table IA.2 shows regression results of real and nominal yields on inflation disagreement. Panels 1, 2, and 3 of Table IA.2 show in univariate regressions that the coefficient of inflation disagreement about the mean, variance, and skewness is positive as well as economically and statistically significant. Disagreement about skewness shows the weakest relation and has the lowest explanatory power. This is not surprising given there is more noise in estimating skewness.<sup>2</sup> From Panel 4 in Table IA.2, we see that disagreement about skewness is no longer significant when including all three disagreement measures as independent variables. Importantly, the economic and statistical significance of DisInfMean and DisInfVar is very similar. This remains the case, even when we control for expected inflation and the volatility of inflation, as shown in Panel 5, although the economic magnitudes are slightly lower.

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<sup>1</sup>There is less variation in the probability forecasts than in the mean forecasts for inflation. The cross-sectional mean, median, and standard deviation of one year inflation forecasts based on the GDP deflator are 0.6570%, 0.5943%, and 0.3126%, respectively, which is nevertheless very similar to the ones based on the CPI.

<sup>2</sup>A significant fraction of forecasters cluster their probability estimates in a few bins. The average number of bins is 4.004 with a standard deviation of 1.842. The median number of buckets is 4.

## 2.2. Empirical Robustness Checks

We conduct several robustness checks of our empirical results. The tables with these checks are attached to the end of this Internet Appendix.

1. Estimation results and summary statistics.
  - (a) Table IA.3 and IA.4 reports summary statistics of the most important variables.
  - (b) Table IA.5 reports estimation results of different models for expected consumption growth.
2. Inflation disagreement and Fama-Bliss nominal yields.
  - (a) Table IA.6 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). ExpInf and SigInf are estimators from a time series model with an ARMA(1,1) mean equation and a GARCH(1,1) variance equation for the mean and volatility of inflation over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.
  - (b) Table IA.7 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC). ExpC is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of consumption growth over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.
  - (c) Table IA.8 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected industrial production growth (ExpIP). ExpIP is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of industrial production growth over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield and MSC inflation disagreement are already reported in Table 2 of the draft.
  - (d) Table IA.9 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected GDP growth (ExpGDP). ExpGDP

is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of GDP growth over the corresponding yield maturity horizon.

- (e) Table IA.10 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>II</sub>). ExpC<sub>II</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const) and current quarterly consumption growth ( $gc_t$ ).
- (f) Table IA.11 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>III</sub>). ExpC<sub>III</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), and inflation disagreement (DisInf<sub>t</sub>).
- (g) Table IA.12 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>IV</sub>). ExpC<sub>IV</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), inflation disagreement (DisInf<sub>t</sub>), and current quarterly inflation rate (Inf<sub>t</sub>).
- (h) Table IA.13 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>V</sub>). ExpC<sub>V</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), inflation disagreement (DisInf<sub>t</sub>), and the instrumented real interest rate (rYld<sub>t</sub>).

### 3. Inflation disagreement and real yields based on Chernov and Mueller (2012) and TIPS data.

- (a) Table IA.14 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). ExpInf and SigInf are estimators from a time series model with an ARMA(1,1) mean equation and a GARCH(1,1) variance equation for the mean and volatility of inflation over the corresponding

yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.

- (b) Table IA.15 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC). ExpC is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of consumption growth over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.
- (c) Table IA.16 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected GDP growth (ExpGDP). ExpGDP is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of GDP growth over the corresponding yield maturity horizon.
- (d) Table IA.17 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>II</sub>). ExpC<sub>II</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const) and current quarterly consumption growth ( $gc_t$ ).
- (e) Table IA.18 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>III</sub>). ExpC<sub>III</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), and inflation disagreement (DisInf<sub>t</sub>).
- (f) Table IA.19 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>IV</sub>). ExpC<sub>IV</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), inflation disagreement (DisInf<sub>t</sub>), and current quarterly inflation rate (Inf<sub>t</sub>).
- (g) Table IA.20 reports results from OLS regressions of the two, three, five, seven,

and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>V</sub>). ExpC<sub>V</sub> denotes the projection from a regression of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), inflation disagreement (DisInf<sub>t</sub>), and the instrumented real interest rate (rYld<sub>t</sub>).

4. Inflation disagreement and Fama-Bliss nominal yield volatility.

- (a) Table IA.21 reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). ExpInf and SigInf are estimators from a time series model with an ARMA(1,1) mean equation and a GARCH(1,1) variance equation for the mean and volatility of inflation over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.
- (b) Table IA.22 reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of consumption growth (SigC). SigC is the annualized predictor of the volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. The results for the two- and five-year nominal yield volatility for SPF are already reported in Table 2 of the draft.
- (c) Table IA.23 reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected industrial production growth (ExpIP). ExpIP is an estimator from a time series model with an ARMA(1,1) mean equation for the mean of industrial production growth over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield and MSC inflation disagreement are already reported in Table 2 of the draft.
- (d) Table IA.24 reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of consumption growth (SigGDP). SigGDP is the annualized predictor of the volatility of GDP growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. The results for the two- and five-year nominal yield volatility for SPF are already reported in Table 2 of the draft.

- (e) Table IA.25 reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), expected consumption growth (ExpC), and the volatility of consumption growth (SigC). ExpC and SigC is the annualized predictor of the mean and volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation.
  - (f) Table IA.26 reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation, and the CME Volatility Index VXO.
5. Inflation disagreement and real yield volatilities based on Chernov and Mueller (2012) and TIPS data.
- (a) Table IA.27 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). ExpInf and SigInf are estimators from a time series model with an ARMA(1,1) mean equation and a GARCH(1,1) variance equation for the mean and volatility of inflation over the corresponding yield maturity horizon. The results for the two- and five-year real yield volatility are already reported in Table 2 of the draft.
  - (b) Table IA.28 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of consumption growth (SigC). SigC is an estimator from a time series model with an ARMA(1,1) mean equation and GARCH(1,1) variance equation for the volatility of consumption growth over the corresponding yield maturity horizon. The results for the two- and five-year nominal yield are already reported in Table 2 of the draft.
  - (c) Table IA.29 reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of GDP growth (SigGDP). SigGDP is an estimator from a time series model with an ARMA(1,1) mean equation and GARCH(1,1) variance equation for the volatility of GDP growth over the corresponding yield maturity horizon.
  - (d) Table IA.30 reports results from OLS regressions of the one-, to five-year real yield

volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), expected consumption growth (ExpC), and the volatility of consumption growth (SigC). ExpC and SigC is the annualized predictor of the mean and volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation.

- (e) Table IA.31 reports results from OLS regressions of the one-, to five-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the CME Volatility Index VIX.
6. We consider zero-coupon bond yields ranging from 1 year to 15 years extracted from U.S. Treasury security prices by the method of Gürkaynak, Sack, and Wright (2007).
- (a) In Table IA.32, we report regression results for disagreement based on the SPF.
  - (b) In Table IA.33, we report regression results for disagreement based on the MSC.
7. We consider two alternative proxies for real yields:
- (a) In Table IA.34, we subtract an ARMA(1,1) predictor of expected inflation from nominal yields.
  - (b) In Table IA.35, we subtract from each nominal yield expected inflation, which is predicted by regressing future inflation over the horizon of each bond on current inflation and yields with maturities ranging from one to five years.
8. We consider three alternative proxies for inflation disagreement:
- (a) In Table IA.36, we report regression results when inflation disagreement is measured as the cross-sectional variance of inflation forecasts based on MSC and SPF.
  - (b) In Table IA.37, we report regression results when inflation disagreement is measured as the cross-sectional interquartile range of inflation forecasts based on MSC and SPF.
  - (c) We compute inflation disagreement for professionals and households as the cross-sectional standard deviation divided by inflation volatility. Tables IA.38, IA.39, and IA.40 show the nominal yield, real yield, and nominal and real yield volatility results, respectively.
  - (d) In Table IA.41, we report regression results when inflation disagreement is measured as the first PC of the cross-sectional standard deviation of inflation forecasts based on SPF and MSC.



9. We control for two different measures of disagreement about real quantities:
  - (a) We control for disagreement about GDP growth. Table IA.42 shows regression results for nominal yields and their volatilities and Table IA.43 shows results for real yields and their volatilities.
  - (b) Table IA.44 shows regression results for real and nominal yields when controlling for earnings disagreement.
  
10. We control for five different measures of economic uncertainty:
  - (a) Table IA.45 shows regression results when we control for the volatility of real consumption growth estimated by a GARCH(1,1) model.
  - (b) Table IA.46 shows regression results when we control for the volatility of real GDP growth estimated by a GARCH(1,1) model.
  - (c) Table IA.47 shows regression results when we control for the volatility of industrial production estimated by a GARCH(1,1) model.
  - (d) Table IA.48 shows regression results when we control for the Jurado, Ludvigson, and Ng (2015) Uncertainty Measure.
  - (e) Table IA.49 shows regression results when we control for the Baker, Bloom, and Davis (2015) Uncertainty Measure.
  
11. We control for the output gap and the NBER business cycle indicator.
  - (a) Table IA.50 shows regression results when we control for the output gap computed as in Cooper and Priestley (2009).
  - (b) Table IA.51 shows regression results when we control for the Chicago Fed National Activity Index (CFNAI) developed in Stock and Watson (1999).

### **3. Additional Details on Section 4 - Model-Based Quantitative Evidence**

In this section, we report details on the model in Section 4 of the main paper. We have included the model description from the paper, and hence this section can be read independently.

The exogenous real aggregate output process  $C_t$  follows a geometric Brownian motion with dynamics given by

$$dC_t = \mu_C C_t dt + \sigma_C C_t dz_{C,t}, \quad C_0 > 0,$$

where  $z_C$  represents a real shock. The dynamics of the price level  $\Pi_t$  and the unobservable expected inflation rate  $x_t$  are

$$d\Pi_t = x_t \Pi_t dt + \sigma_\Pi \Pi_t dz_{\Pi,t}, \quad dx_t = \kappa (\bar{x} - x_t) dt + \sigma_x dz_{x,t}, \quad \Pi_0 = 1,$$

where  $z_{\Pi,t}$  represents a nominal shock. The three Brownian motions  $z_{C,t}$ ,  $z_{\Pi,t}$ , and  $z_{x,t}$  are uncorrelated.

To obtain zero disagreement in the steady-state and a tractable stochastic disagreement process, we assume that investors agree on the long run mean  $\bar{x}$  and the speed of mean reversion  $\kappa$ , but differ in their beliefs about the volatility of expected inflation,  $\sigma_x$ .<sup>3</sup> The dynamics of the price level and the best estimator for expected inflation as perceived by investor  $i$  are given by (Liptser and Shiryaev (1974a,b)):

$$d\Pi_t = x_t^i \Pi_t dt + \sigma_\Pi \Pi_t dz_{\Pi,t}^i, \quad dx_t^i = \kappa (\bar{x} - x_t^i) dt + \hat{\sigma}_x^i dz_{\Pi,t}^i, \quad x_0^i \sim N\left(\mu_{\bar{x},0}^i, \sigma_{x_0^i}^2\right).$$

The volatility  $\hat{\sigma}_x^i$  is a function of  $\kappa$  and  $\sigma_x^i$ . Investors observe the price level for a sufficiently long time so that the perceived volatility,  $\hat{\sigma}_x^i$ , has reached its steady state level.<sup>4</sup>

Investors' nominal innovation processes are linked through the disagreement process  $\Delta_t$ , which summarizes current disagreement about expected inflation. Specifically,

$$dz_{\Pi,t}^2 = dz_{\Pi,t}^1 - \Delta_t dt, \quad \Delta_t = \frac{x_t^2 - x_t^1}{\sigma_\Pi}.$$

The disagreement process  $\Delta_t$  follows an Ornstein-Uhlenbeck process

$$d\Delta_t = -\beta \Delta_t dt + \sigma_\Delta dz_{\Pi,t}^1, \quad \beta = \frac{\kappa \sigma_\Pi + \hat{\sigma}_x^2}{\sigma_\Pi}, \quad \sigma_\Delta = \frac{\hat{\sigma}_x^2 - \hat{\sigma}_x^1}{\sigma_\Pi},$$

---

<sup>3</sup>The disagreement process is deterministic if there is only disagreement about the long run mean and it is not Markov if there is disagreement about the speed of mean reversion.

<sup>4</sup>The steady state level is  $\hat{\sigma}_x^i = \sigma_\Pi \left( \sqrt{\kappa^2 + \left(\frac{\sigma_x^i}{\sigma_\Pi}\right)^2} - \kappa \right)$ . Note that the perceived volatility of expected inflation  $\hat{\sigma}_x^i$  is lower than  $\sigma_x^i$ , due to updating.

and the dynamics of the likelihood ratio  $\lambda_t$  are

$$d\lambda_t = \Delta_t \lambda_t dz_{\Pi,t}^1.$$

We determine the disagreement measure over the horizon  $T - t$  in the next Proposition.

**Proposition IA.4.** *The disagreement measure is*

$$\mathcal{D}_{t,T} \equiv \mathcal{D}(\Delta_t^2, T - t) = \frac{\sigma_\Delta^2}{4\beta} + \frac{1}{4\beta(T-t)} \left( \Delta_t^2 - \frac{\sigma_\Delta^2}{2\beta} \right) (1 - e^{-2\beta(T-t)}).$$

*Proof of Proposition IA.4.* The disagreement measure is

$$\mathcal{D}_{t,T} = \frac{1}{2(T-t)} \mathbb{E}^1 \left[ \int_t^T \Delta_s^2 ds \right] = \frac{1}{2(T-t)} \int_t^T \mathbb{E}^1 [\Delta_s^2] ds$$

To evaluate the above we need to know  $E^1[\Delta_s^2]$ . To this end, note that by Ito's lemma

$$d\Delta_t^2 = 2\beta \left( \frac{\sigma_\Delta^2}{2\beta} - \Delta_t^2 \right) dt - 2\beta \Delta_t dz_{\Pi,t}^1.$$

Using the dynamics of  $\Delta_t^2$ , we have  $\mathbb{E}^1[\Delta_s^2] = \frac{\sigma_\Delta^2}{2\beta} + e^{-2\beta(s-t)} \left( \Delta_t^2 - \frac{\sigma_\Delta^2}{2\beta} \right)$ . Inserting this back into the expression for the disagreement measure and integrating yields the result.  $\square$

Disagreement is strictly increasing in  $\Delta_t^2$  and converges to  $\frac{1}{2}\Delta_t^2$  and  $\frac{\sigma_\Delta^2}{4\beta}$  as  $T$  goes to  $t$  and infinity, respectively. Hence, the instantaneous disagreement measure is given by  $\frac{1}{2}\Delta_t^2$  and the long-run disagreement measure equals  $\frac{\sigma_\Delta^2}{4\beta}$ . In the empirical analysis in the main paper, we measure disagreement as the standard deviation of expected inflation across investors, which in the model is  $\frac{1}{2}\sigma_\Pi \frac{1}{\kappa} (1 - e^{-\kappa}) |\Delta_t|$ . Therefore, the empirical disagreement measure is strictly increasing in  $\mathcal{D}(\Delta(t)^2, T - t)$  for any maturity  $T - t$ .

Each investor solves the consumption-savings problem given by

$$\mathbb{E}^i \left[ \int_{t=0}^{T'} e^{-\rho t} u \left( \frac{C_t^i}{H_t} \right) dt \right] \quad \text{s.t.} \quad \mathbb{E}^i \left[ \int_{t=0}^{T'} \xi_t^i C_t^i dt \right] \leq w_0^i, \quad (\text{IA.3})$$

where  $w_0^i$  denotes initial wealth of investor  $i$ .

We conclude the description of the model by specifying an external habit process which

helps match asset pricing moments.<sup>5</sup> Specifically,

$$\log(H_t) = \log(H_0)e^{-\delta t} + \delta \int_0^t e^{-\delta(t-a)} \log(C_a) da, \quad \delta > 0,$$

where  $\delta$  describes the dependence of  $H_t$  on the history of aggregate output. Relative log output  $\omega_t = \log(C_t/H_t)$ , a state variable in the model, follows a mean reverting process

$$d\omega_t = \delta(\bar{\omega} - \omega_t) dt + \sigma_C dz_{C,t}, \quad \bar{\omega} = (\mu_C - \sigma_C^2/2)/\delta.$$

Equilibrium consumption allocations and state price densities are given in Proposition IA.5.

**Proposition IA.5** (Consumption Allocations and State Price Densities). *Optimal consumption allocations are  $C_t^1 = f(\lambda_t)C_t$  and  $C_t^2 = (1 - f(\lambda_t))C_t$  with*

$$f(\lambda_t) = \frac{1}{1 + (y\lambda_t)^{\frac{1}{\gamma}}},$$

where  $y = \frac{y^2}{y^1}$  and  $y^i$  is the constant Lagrange multiplier from the static budget constraint given in equation (IA.3). The state price densities are

$$\xi_t^1 = (y^1)^{-1} e^{-\rho t} C_t^{-\gamma} H_t^{\gamma-1} f(\lambda_t)^{-\gamma}, \quad \xi_t^2 = (y^2)^{-1} e^{-\rho t} C_t^{-\gamma} H_t^{\gamma-1} (1 - f(\lambda_t))^{-\gamma}.$$

### 3.1. Real Yields

We provide closed-form solutions of real bond prices in the next proposition.<sup>6</sup>

**Proposition IA.6.** *The real bond price, when  $\gamma$  is an integer is*

$$B_{t,T} = \sum_{k=0}^{\gamma} w_t^k B_{t,T}^k. \tag{IA.4}$$

The stochastic weights  $w_t^k$  sum up to one and are given by

$$w_t^k = \binom{\gamma}{k} \frac{\lambda_t^{\frac{k}{\gamma}}}{\left(1 + \lambda_t^{\frac{1}{\gamma}}\right)^\gamma} = \binom{\gamma}{k} f(\lambda_t)^{\gamma-k} (1 - f(\lambda_t))^k. \tag{IA.5}$$

<sup>5</sup>See Abel (1990), Abel (1999), Chan and Kogan (2002), and Ehling and Heyerdahl-Larsen (2016).

<sup>6</sup>Our solution method relies on a binomial expansion similar to the approach in Yan (2008), Dumas, Kurshev, and Uppal (2009), and Bhamra and Uppal (2014). Alternatively, the model can be solved by the generalized transform analysis proposed in Chen and Joslin (2012).

$B_{t,T}^k$  is an exponential quadratic function of the state vector  $Y_{1,t} = (\Delta_t, \omega_t)$ :

$$B_{t,T}^k = \exp(\mathcal{A}_B^k(T-t) + \mathcal{B}_B^k(T-t)'Y_{1,t} + Y_{1,t}'\mathcal{C}_B^k(T-t)Y_{1,t}),$$

where the coefficients  $\mathcal{A}_B^k(\cdot), \mathcal{B}_B^k(\cdot), \mathcal{C}_B^k(\cdot)$  are solutions to ordinary differential equations summarized in Section 3.3 of the Internet Appendix.

*Proof of Proposition IA.6.* Assume  $\gamma$  is integer. The real bond price is  $B_{t,T} = \mathbb{E}_t^1 \left[ \frac{\xi_T^1}{\xi_t^1} \right]$ . From Proposition IA.5, we have that the SDF is

$$\begin{aligned} \xi_t^1 &= (y^1)^{-1} e^{-\rho t} C_t^{-\gamma} H_t^{\gamma-1} f(\lambda_t)^{-\gamma} = (y^1)^{-1} e^{-\rho t} C_t^{-\gamma} H_t^{\gamma-1} \left(1 + (y\lambda_t)^{\frac{1}{\gamma}}\right)^\gamma \\ &= \sum_{k=0}^{\gamma} \binom{\gamma}{k} (y^1)^{-1} e^{-\rho t} C_t^{-\gamma} H_t^{\gamma-1} (y\lambda_t)^{\frac{k}{\gamma}}. \end{aligned}$$

Inserting the above into the expression for the bond price we have

$$\sum_{k=0}^{\gamma} w_t^k \mathbb{E}_t^1 \left[ \left( \frac{C_T}{C_t} \right)^{-\gamma} \left( \frac{H_T}{H_t} \right)^{\gamma-1} \left( \frac{\lambda_T}{\lambda_t} \right)^{\frac{k}{\gamma}} \right], \quad \text{where} \quad w_t^k = \binom{\gamma}{k} \frac{\lambda_t^{\frac{k}{\gamma}}}{\left(1 + \lambda_t^{\frac{1}{\gamma}}\right)^\gamma}.$$

Define  $\frac{\xi_T^k}{\xi_t^k} = \left( \frac{C_T}{C_t} \right)^{-\gamma} \left( \frac{H_T}{H_t} \right)^{\gamma-1} \left( \frac{\lambda_T}{\lambda_t} \right)^{\frac{k}{\gamma}}$ . We can think of this as a stochastic discount factor in an artificial economy. Applying Ito's lemma we have

$$\frac{d\xi_t^k}{\xi_t^k} = -r_t^k dt - \theta_t^k dz, \quad \text{where} \quad dz = (dz_{C,t}, dz_{\Pi,t}^1)$$

and

$$\theta_t^k = \left( \gamma \sigma_C, \frac{k}{\gamma} \Delta_t \right), \quad \text{and} \quad r_t^k = \rho + \gamma \mu_C - \frac{1}{2} \gamma (\gamma + 1) \sigma_C^2 - \delta (\gamma - 1) \omega_t + \frac{1}{2} \frac{k}{\gamma} \left( 1 - \frac{k}{\gamma} \right) \Delta_t^2.$$

Define the state vector  $Y_{1,t} = (\Delta_t, \omega)$ . We have that  $Y_{1,t}$  follows a multidimensional Ornstein-Uhlenbeck process. Moreover, the real short rate in the artificial economies are quadratic in the state vector and the market prices of risk are linear in the state vector. Hence, the artificial state price densities are in the class of quadratic Gaussian term structure (QGTS) models and the solution to  $\mathbb{E}_t^1 \left[ \left( \frac{C_T}{C_t} \right)^{-\gamma} \left( \frac{H_T}{H_t} \right)^{\gamma-1} \left( \frac{\lambda_T}{\lambda_t} \right)^{\frac{k}{\gamma}} \right] = \mathbb{E}_t^1 \left[ \frac{\xi_T^k}{\xi_t^k} \right]$  is an exponential quadratic function of the state vector with time dependent coefficients that are solutions to ordinary differential equations.<sup>7</sup>

<sup>7</sup>We derive solutions to bond prices that belong to the class of QGTS models in Section 3.3 in this Internet

□

The bond price in equation (IA.4) is a weighted average of artificial bond prices that belong to the class of quadratic Gaussian term structure models. To gain intuition, we inspect the real short rate  $r_t$  which is the limit of the bond yield as maturity  $T$  approaches  $t$ :

$$r_t = \underbrace{\rho + \gamma\mu_C - \frac{1}{2}\gamma(\gamma+1)\sigma_C^2}_{CRRA} - \underbrace{\delta(\gamma-1)\omega_t}_{Habit} + \underbrace{\left(1 - \frac{1}{\gamma}\right) f(\lambda_t)(1 - f(\lambda_t))\frac{1}{2}\Delta_t^2}_{Disagreement}. \quad (\text{IA.6})$$

We see from equation (IA.6) that the real short rate is the real short rate in a CRRA preferences representative investor economy plus two additional terms. The additional terms account for habit preferences and inflation disagreement. The impact from inflation disagreement on the real yield curve depends on the consumption share  $f(\lambda_t)$ , risk aversion  $\gamma$ , and the instantaneous disagreement measure  $\frac{1}{2}\Delta_t^2$ . The real short rate does not depend on disagreement if  $\gamma = 1$  and is increasing in disagreement when  $\gamma > 1$  (the opposite is true when  $\gamma < 1$ ).

### 3.2. Nominal Yields

We provide closed-form solutions of the nominal price of a nominal bond in the next proposition.

**Proposition IA.7.** *The nominal bond price, when  $\gamma$  is an integer, is*

$$P_{t,T} = \sum_{k=0}^{\gamma} w_t^k P_{t,T}^k,$$

where  $w_t^k$  is given in equation (IA.5).  $P_{t,T}^k$  is an exponential quadratic function of the state vector  $Y_t = (x_t^1, \Delta_t, \omega_t)$ :

$$P_{t,T}^k = \exp\left(\mathcal{A}_P^k(T-t) + \mathcal{B}_P^k(T-t)'Y_t + Y_t' \mathcal{C}_P^k(T-t)Y_t\right),$$

where the coefficients  $\mathcal{A}_P^k(\cdot)$ ,  $\mathcal{B}_P^k(\cdot)$ ,  $\mathcal{C}_P^k(\cdot)$  are solutions to ordinary differential equations summarized in Section 3.3 of the Internet Appendix.

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Appendix.

*Proof of Proposition IA.7.* The proof follows similar steps as in the proof of Proposition IA.6. In particular, the bond price can be written as

$$\sum_{k=0}^{\gamma} w_t^k \mathbb{E}_t^1 \left[ \left( \frac{C_T}{C_t} \right)^{-\gamma} \left( \frac{H_T}{H_t} \right)^{\gamma-1} \left( \frac{\lambda_T}{\lambda_t} \right)^{\frac{k}{\gamma}} \frac{\Pi_t}{\Pi_T} \right],$$

and we can define a set of artificial nominal stochastic discount factors

$$\frac{\xi_{\Pi,T}^k}{\xi_{\Pi,t}^k} = \left( \frac{C_T}{C_t} \right)^{-\gamma} \left( \frac{H_T}{H_t} \right)^{\gamma-1} \left( \frac{\lambda_T}{\lambda_t} \right)^{\frac{k}{\gamma}} \frac{\Pi_t}{\Pi_T}.$$

Applying Ito's lemma, we have

$$\frac{d\xi_{\Pi,t}^k}{\xi_{\Pi,t}^k} = -r_{\Pi,t}^k dt - \theta_{\Pi,t}^k dz, \quad \text{where} \quad \theta_{\Pi,t}^k = \theta_t^k + \sigma_{\Pi}, \quad r_{\Pi,t}^k = r_{\Pi,t}^k + x_t^1 + \frac{k}{\gamma} \Delta_t - \sigma_{\Pi}^2.$$

Define the state vector  $Y_t = (x_t^1, \Delta_t, \omega)$ . We have that  $Y_t$  follows a multidimensional Ornstein-Uhlenbeck process. Moreover, the real short rate in the artificial economies are quadratic in the state vector and the market prices of risk are linear in the state vector. Hence, the artificial state price densities are in the class of QGTS models and, thus, we can solve for the bond price in closed form up to the solution of ordinary differential equations.  $\square$

Similarly to the real bond price, the nominal bond price can be expressed as a weighed average of artificial bond prices that belong to the class of quadratic Gaussian term structure models. Taking the limit of the nominal bond yield as the maturity  $T$  approaches  $t$ , we obtain the nominal short rate

$$r_{P,t} = r_t + f_t x_t^1 + (1 - f_t) x_t^2 - \sigma_{\Pi}^2. \quad (\text{IA.7})$$

We see from equation (IA.7) that the nominal short rate is the sum of the real short rate, the market view about expected inflation, and a Jensen's inequality term. The intuition for this is straightforward; when an investor has a larger consumption share, her view is more important in determining the price of the nominal bond. Hence, the market view replaces expected inflation in a standard economy with homogeneous beliefs.

The main channel through which inflation disagreement affects nominally interest rates becomes transparent through equation (IA.7) of the nominal short rate. There is no inflation risk premium without disagreement and from the perspective of an outsider whose view coincides with the market view there is also no inflation risk premium with disagreement. Therefore, an increase in inflation disagreement raises the real short rate and, consequently,

also the nominal short rate.<sup>8</sup>

### 3.3. Quadratic Gaussian Term Structure Models

In this section, we summarize results from the quadratic Gaussian term structure literature which we use to solve for closed-form real and nominal bond prices. Here we use the same notation as Ahn, Dittmar, and Gallant (2002).<sup>9</sup> Let  $Y(t)$  denote a  $N$ -dimensional vector of state variables and  $Z_M(t)$  a  $M$ -dimensional vector of independent Brownian motions.

**Assumption 1.** *The dynamics of the stochastic discount factor  $SDF(t)$  are<sup>10</sup>*

$$\frac{dSDF(t)}{SDF(t)} = -r(t) dt + 1'_M \text{diag}[\eta_{0m} + \eta'_{Ym} Y(t)]_M dZ_M(t),$$

with

$$\eta_0 = (\eta_{01}, \dots, \eta_{0M})' \in \mathcal{R}^M, \quad \eta_Y = (\eta_{Y1}, \dots, \eta_{YM})' \in \mathcal{R}^{M \times N}.$$

Hence, the market price of risk is an affine function of the state vector  $Y(t)$ .

**Assumption 2.** *The short rate is a quadratic function of the state variables:*

$$r(t) = \alpha + \beta' Y(t) + Y(t)' \Psi Y(t),$$

where  $\alpha$  is a constant,  $\beta$  is an  $N$ -dimensional vector of constants, and  $\Psi$  is an  $N \times N$  dimensional positive semidefinite matrix of constants.<sup>11</sup>

If the matrix  $\Psi$  is non singular, then  $r(t) \geq \alpha - \frac{1}{2} \beta' \Psi^{-1} \beta \forall t$ .

**Assumption 3.** *The state vector  $Y(t)$  follows a multidimensional OU-process:*

$$dY(t) = (\mu + \xi Y(t)) dt + \Sigma dZ_M(t),$$

where  $\mu$  is an  $N$ -dimensional vector of constants,  $\xi$  is an  $N$ -dimensional square matrix of constants, and  $\Sigma$  is a  $N \times M$ -dimensional matrix of constants. We assume that  $\xi$  is

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<sup>8</sup>Both investors' inflation views differ from the market view and, thus, they perceive positive inflation risk premiums on their investments.

<sup>9</sup>In contrast to Ahn, Dittmar, and Gallant (2002): (i) we assume that the vector of Brownian motions driving the discount factor is identical to the vector of Brownian motions driving the state variables and, thus,  $\Upsilon$  is the identify matrix, and (ii) we allow the vector of Brownian motions to have a dimension that is different from the number of state variables.

<sup>10</sup>An apostrophe denotes the transpose of a vector or matrix,  $1'_M$  denotes a vector of ones, and  $\text{diag}[Y'_m]_M$  denotes a  $M$ -dimensional matrix with diagonal elements  $(Y_1, \dots, Y_m)$ .

<sup>11</sup>We do not impose an additional parameter restriction that guarantees non-negativity of the short rate.



diagonalizable and has negative real components of eigenvalues. Specifically,  $\xi = U\Lambda U^{-1}$  in which  $U$  is the matrix of  $N$  eigenvectors and  $\Lambda$  is the diagonal matrix of eigenvalues.

Let  $V(t, \tau)$  denote the price of a zero-coupon bond and  $y(t, \tau)$  the corresponding yield. Specifically,

$$V(t, \tau) = \mathbb{E}_t \left[ \frac{\text{SDF}(t + \tau)}{\text{SDF}(t)} \right], \quad \text{and} \quad y(t, \tau) = -\frac{1}{\tau} \ln(V(t, \tau)).$$

The bond price and corresponding yield are given in the next proposition.

**Proposition IA.8** (Quadratic Gaussian Term Structure Model). *Let  $\delta_0 = -\Sigma\Upsilon\eta_0 = -\Sigma\eta_0$  and  $\delta_Y = -\Sigma\Upsilon\eta_Y = -\Sigma\eta_Y$ . The bond price is an exponential quadratic function of the state vector*

$$V(t, \tau) = \exp \{A(\tau) + B(\tau)'Y(t) + Y(t)'C(\tau)Y(t)\},$$

where  $A(\tau)$ ,  $B(\tau)$ , and  $C(\tau)$  satisfy the ordinary differential equations,

$$\begin{aligned} \frac{dA(\tau)}{d\tau} &= \text{trace}[\Sigma\Sigma'C(\tau)] + \frac{1}{2}B(\tau)'\Sigma\Sigma'B(\tau) + B(\tau)'(\mu - \delta_0) - \alpha, \quad \text{with} \quad A(0) = 0, \\ \frac{dB(\tau)}{d\tau} &= 2C(\tau)\Sigma\Sigma'B(\tau) + (\xi - \delta_Y)'B(\tau) + 2C(\tau)(\mu - \delta_0) - \beta, \quad \text{with} \quad B(0) = 0, \\ \frac{dC(\tau)}{d\tau} &= 2C(\tau)\Sigma\Sigma'C(\tau) + (C(\tau)(\xi - \delta_Y) + (\xi - \delta_Y)'C(\tau)) - \Psi, \quad \text{with} \quad C(0) = 0_{N \times N}. \end{aligned}$$

Moreover, the yield is a quadratic function of the state vector  $Y(t)$ :

$$y(t, \tau) = A_y(\tau) + B_y(\tau)'Y(t) + Y(t)'C_y(\tau)Y(t),$$

with  $A_y(\tau) = -A(\tau)/\tau$ ,  $B_y(\tau) = -B(\tau)/\tau$ , and  $C_y(\tau) = -C(\tau)/\tau$ .

*Proof.* See Ahn, Dittmar, and Gallant (2002). □

If the short rate is an affine function of the state vector  $Y(t)$ , then the bond price is an exponential affine function of the state vector  $Y(t)$  because  $\Psi = 0_{N \times N}$  implies  $C(\tau) = 0_{N \times N}$  for all  $\tau$ . The bond price in this case belongs to the class of essential affine term structure models (see Duffee (2002)) and is given in the next proposition.

**Proposition IA.9** (Essential Affine Term Structure Model). *Let  $\Psi = 0_{N \times N}$ ,  $\delta_0 = -\Sigma\Upsilon\eta_0 = -\Sigma\eta_0$ , and  $\delta_Y = -\Sigma\Upsilon\eta_Y = -\Sigma\eta_Y$  and assume that  $(\xi - \delta_Y)$  is invertible. The bond price is*

an exponential affine function of the state vector

$$V(t, \tau) = \exp\{A(\tau) + B(\tau)'Y(t)\},$$

where  $A(\tau)$  and  $B(\tau)$  satisfy the ordinary differential equations,

$$\begin{aligned} \frac{dA(\tau)}{d\tau} &= \frac{1}{2}B(\tau)'\Sigma\Sigma'B(\tau) + B(\tau)'(\mu - \delta_0) - \alpha, \quad \text{with } A(0) = 0, \\ \frac{dB(\tau)}{d\tau} &= (\xi - \delta_Y)'B(\tau) - \beta, \quad \text{with } B(0) = 0. \end{aligned}$$

Moreover, the yield is an affine function of the state vector  $Y(t)$ :

$$y(t, \tau) = A_y(\tau) + B_y(\tau)'Y(t) \quad \text{with} \quad A_y(\tau) = -A(\tau)/\tau, \quad B_y(\tau) = -B(\tau)/\tau.$$

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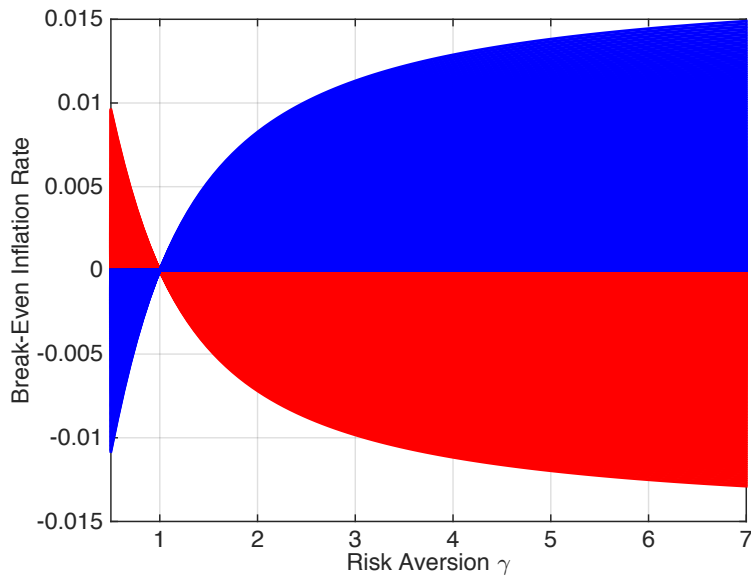


Figure IA.1: Break-Even Inflation Rate in Edgeworth Box

This plot shows the difference between the break-even inflation rate in an economy with and without inflation disagreement as a function of risk aversion. The price level today is normalized to one and it is 1.25 in the high and 0.9 in the low inflation state tomorrow. The second investor thinks that both inflation states are equally likely.

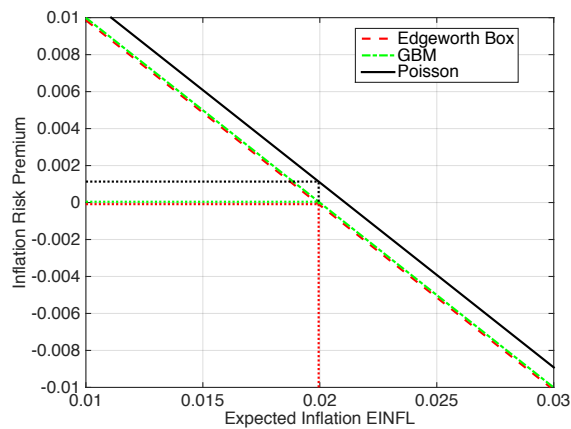


Figure IA.2: Inflation Risk Premium

This plot shows the inflation risk premium when there is a disagreement as a function of perceived expected inflation of an econometrician. The inflation risk premium is sensitive to the belief of the econometrician.

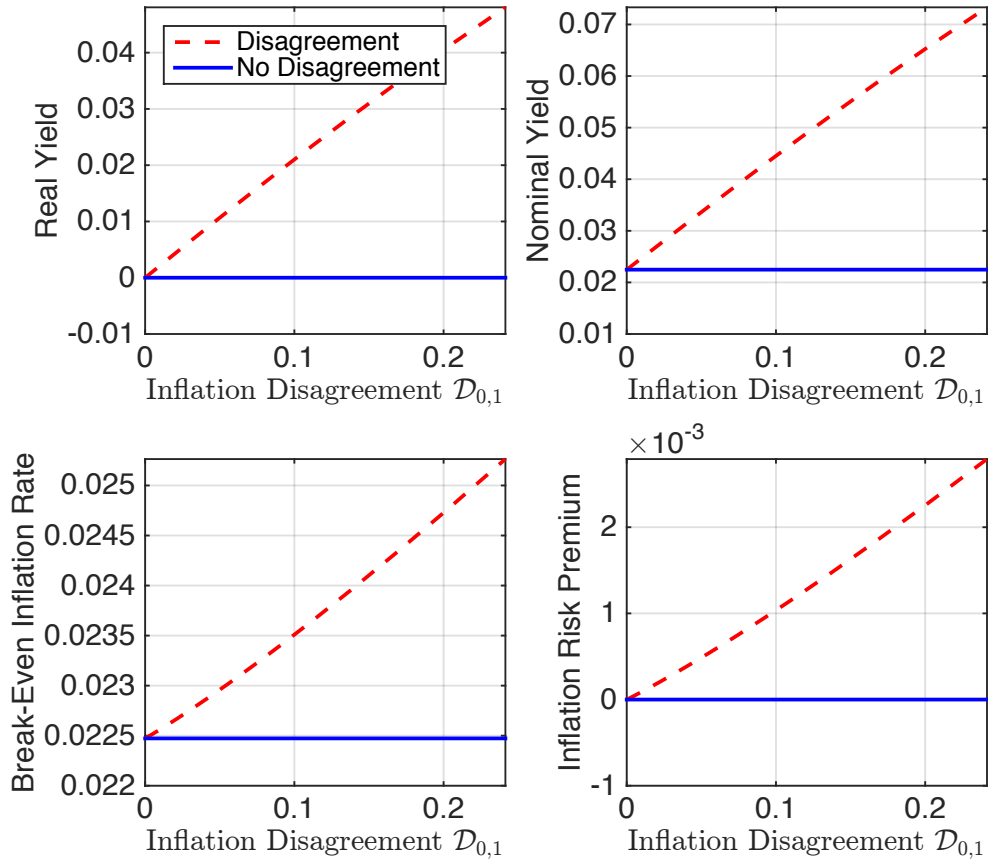


Figure IA.3: Inflation Risk Premium

The figure shows the real yield (top-left), nominal yield (top-right), break-even inflation (bottom-left), and inflation risk premium (bottom-right) as an increasing function of inflation disagreement  $\mathcal{D}_{0,1}$  when  $\gamma = 2$ . There are three states with inflation given by (0.9, 1, 1.125) in state one, two, and three, respectively. The probability as perceived by investor one over the three states are given by (0.2, 0.4, 0.4). For the second investor, we vary the probability of the first state from 0.2 to 0.05 and then solve for the probability of the two other states such that  $\mathbb{E}^1 \left[ \frac{1}{\Pi_1} \right] = \mathbb{E}^2 \left[ \frac{1}{\Pi_1} \right]$ . There is a positive break even inflation rate and inflation risk premium even though investors agree on the expected real value of one dollar.

Table IA.1: **Summary Statistics - Disagreement about the Mean, Variance, and Skewness of Inflation.** The table reports summary statistics for disagreement about the mean (DisInfMean), disagreement about the variance (DisInfVar), and disagreement about the skewness (DisInfSkew) of inflation in percent. The three disagreement measures are calculated as the cross-sectional standard deviation of the individual mean, variance, and skewness of one-year inflation rates based on the probability forecasts for the GDP deflator provided by the Survey of Professional Forecasters. Samples: *Q3-1981 to Q2-2014*.

	Mean	Median	STD	Correlation		
				DisInfMean	DisInfVar	DisInfSkew
DisInfMean	0.5546	0.5174	0.1711	100	51.63	18.59
DisInfVar	0.0082	0.0071	0.0041		100	49.15
DisInfSkew	0.0034	0.0007	0.0075			100

Table IA.2: **Real and Nominal Yield Levels and Disagreement about the Mean, Variance, and Skewness of Inflation.** The table reports results from OLS regressions of real and nominal yields on disagreement about the mean (DisInfMean), disagreement about the variance (DisInfVar), and disagreement about the skewness (DisInfSkew) of inflation. The three disagreement measures are calculated as the cross-sectional standard deviation of the individual mean, variance, and skewness of one year inflation rates based on the probability forecasts for the GDP deflator provided by the Survey of Professional Forecasters. The first three panels show univariate regression results of real and nominal yields onto each disagreement measure. In Panel 4, all three disagreements are included. Panel 5 also controls for expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Samples: Q3-1981 to Q2-2014.

Maturity	Real Yields					Nominal Yields				
	2y	3y	5y	7y	10y	1y	2y	3y	4y	5y
DisInfMean	0.44	0.44	0.45	0.46	0.46	0.47	0.47	0.48	0.49	0.50
t-stat	2.88	2.86	2.83	2.83	2.85	3.19	3.23	3.31	3.41	3.50
adj. R <sup>2</sup>	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.23	0.23	0.24
DisInfVar	0.45	0.45	0.46	0.45	0.45	0.53	0.53	0.53	0.53	0.53
t-stat	3.06	3.04	2.96	2.93	2.91	4.29	4.19	4.16	4.17	4.18
adj. R <sup>2</sup>	0.19	0.20	0.20	0.20	0.20	0.28	0.27	0.27	0.27	0.28
DisInfSkew	0.18	0.19	0.20	0.21	0.21	0.24	0.24	0.24	0.24	0.24
t-stat	2.31	2.33	2.31	2.31	2.32	3.07	3.08	3.05	3.03	3.06
adj. R <sup>2</sup>	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.05
DisInfMean	0.28	0.29	0.30	0.31	0.31	0.26	0.27	0.29	0.30	0.30
t-stat	2.44	2.43	2.45	2.49	2.53	2.20	2.31	2.45	2.55	2.66
DisInfVar	0.32	0.31	0.30	0.29	0.29	0.40	0.39	0.38	0.37	0.38
t-stat	2.56	2.56	2.46	2.39	2.33	3.70	3.52	3.45	3.44	3.39
DisInfSkew	-0.03	-0.02	-0.00	0.01	0.01	-0.01	-0.00	-0.00	-0.00	-0.00
t-stat	-0.29	-0.21	-0.01	0.06	0.13	-0.09	-0.03	-0.00	-0.00	-0.02
adj. R <sup>2</sup>	0.24	0.25	0.26	0.26	0.26	0.32	0.32	0.32	0.33	0.34
DisInfMean	0.22	0.22	0.24	0.25	0.26	0.19	0.20	0.22	0.23	0.24
t-stat	2.27	2.28	2.34	2.40	2.46	2.19	2.33	2.49	2.58	2.71
DisInfVar	0.24	0.24	0.23	0.23	0.23	0.32	0.31	0.31	0.30	0.31
t-stat	2.18	2.21	2.17	2.14	2.11	3.37	3.27	3.24	3.26	3.23
DisInfSkew	-0.03	-0.02	-0.01	-0.00	0.00	-0.03	-0.03	-0.03	-0.03	-0.03
t-stat	-0.27	-0.24	-0.08	-0.03	0.02	-0.37	-0.31	-0.28	-0.28	-0.28
ExpInf	0.28	0.28	0.28	0.26	0.25	0.39	0.37	0.36	0.35	0.33
t-stat	2.04	2.08	2.00	1.93	1.84	2.70	2.59	2.46	2.37	2.33
SigInf	0.12	0.09	0.07	0.06	0.04	0.02	0.00	-0.00	-0.01	-0.01
t-stat	1.13	0.94	0.80	0.65	0.46	0.17	0.00	-0.05	-0.13	-0.16
adj. R <sup>2</sup>	0.29	0.29	0.30	0.30	0.30	0.44	0.43	0.43	0.43	0.43

Table IA.3: **Descriptive Statistics of Real and Nominal Yields and their Volatilities.** The table reports mean, median, standard deviation (Std), and number of observations (N) of percentage real and nominal yields and real and nominal yield volatilities. Quarterly real yields are from Chernov and Mueller (2012) merged with TIPS yields from Gürkaynak, Sack, and Wright (2010). Nominal yields at monthly and quarterly frequency are from Fama-Bliss. Yield volatilities are computed by estimating a GARCH(1, 1) model with an AR(1) mean equation. Real yield sample: Q3-1981 to Q2-2014. Nominal yield sample: January 1978 to June 2014.

Maturity	2y	3y	5y	7y	10y	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
	Quarterly Real Yields					Quarterly Nominal Yields					Monthly Nominal Yields				
Mean	1.927	2.027	2.255	2.415	2.586	4.851	5.160	5.421	5.647	5.809	5.412	5.672	5.884	6.080	6.220
Median	2.370	2.395	2.430	2.533	2.628	5.012	5.080	5.332	5.615	5.585	5.370	5.560	5.788	5.922	5.972
STD	1.976	1.836	1.594	1.433	1.247	3.390	3.424	3.380	3.311	3.219	3.690	3.631	3.528	3.432	3.328
N	132	132	132	132	132	132	132	132	132	132	438	438	438	438	438
	Quarterly Real Yield Volatilities					Quarterly Nominal Yield Volatilities					Monthly Nominal Yield Volatilities				
Mean	0.733	0.620	0.511	0.452	0.389	0.319	0.352	0.357	0.368	0.357	0.374	0.388	0.386	0.388	0.371
Median	0.639	0.555	0.468	0.423	0.368	0.258	0.313	0.335	0.339	0.329	0.278	0.322	0.340	0.342	0.326
STD	0.298	0.212	0.134	0.096	0.070	0.256	0.196	0.154	0.152	0.140	0.352	0.263	0.216	0.188	0.167



Table IA.4: **Descriptive Statistics of the Mean, Volatility, and Disagreement of Inflation, CEX and Trading Data.** The table reports mean, median, standard deviation (Std), and number of observations (N) of monthly and quarterly expected inflation, monthly and quarterly inflation volatility, MSC and SPF based measures of inflation disagreements (DisInf), CEX cross-sectional consumption growth volatility (Cons Vol) and income growth volatility (Income Vol), volatility of treasury volume (Vol Volume), open interest ratio in interest rate futures (Open Interest Ratio), and the notional of inflation swaps (Inf Swaps). The reported statistics of one year forecasts of expected inflation (ExpInf) and inflation volatility (SigInf) are estimated using a GARCH(1,1) model with an ARMA(1,1) mean equation.

Forecast	1y	2y	3y	4y	5y	7y	10y	1y	2y	3y	4y	5y
	Quarterly Expected Inflation						Monthly Expected Inflation					
Mean	3.106	3.192	3.259	3.313	3.355	3.417	3.475	3.628	3.603	3.584	3.568	3.555
Median	3.100	3.186	3.254	3.308	3.351	3.414	3.473	3.197	3.239	3.272	3.299	3.320
STD	1.133	0.948	0.803	0.688	0.597	0.464	0.339	2.047	1.730	1.479	1.277	1.115
N	132	132	132	132	132	132	132	438	438	438	438	438
	Quarterly Inflation Volatility						Monthly Inflation Volatility					
Mean	1.746	1.483	1.359	1.286	1.237	1.175	1.124	0.973	0.722	0.608	0.538	0.489
Median	1.446	1.271	1.191	1.145	1.115	1.079	1.050	0.874	0.661	0.565	0.505	0.463
STD	0.942	0.668	0.533	0.450	0.392	0.316	0.249	0.363	0.217	0.153	0.115	0.091
N	132	132	132	132	132	132	132	438	438	438	438	438
	Quarterly			Monthly			CEX			Open		
DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf	DisInf
SPF	MSC	MSC	MSC	MSC	Vol	Vol	Volume	Vol	Volume	Interest	Ratio	Swaps
Mean	0.660	5.192	5.537	0.367	0.898	0.036	0.688	0.000	0.000	0.000	0.000	0.000
Median	0.564	4.900	5.200	0.366	0.902	0.023	0.712	0.020	0.020	0.020	0.020	0.020
STD	0.339	1.584	1.947	0.022	0.178	0.023	0.103	0.496	0.496	0.496	0.496	0.496
N	132	132	438	345	330	152	333	70	70	70	70	70

Table IA.5: **Expected Consumption Growth.** The table reports estimation results of different models for expected consumption growth. Panel A shows estimation results from OLS regressions of one quarter ahead consumption growth ( $gc_{t+1}$ ) on a constant (Const), current quarterly consumption growth ( $gc_t$ ), inflation disagreement ( $DisInf_t$ ), current quarterly inflation rate ( $Inf_t$ ), and the instrumented real interest rate ( $rYld_t$ ). Each column corresponds to a different regression model and  $ExpC_i$ , with  $i \in \{II, III, IV, V, VI\}$ , is its annualized predictor. The t-statistics (t-stat) are Newey-West corrected with 12 lags.  $rYld_t$  is the date t-1 projector from a regression of the real interest rate at time t on the real interest rate at time  $t - 1$  with estimation results shown in Panel B. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Panel A:	Survey of Professional Forecasters				Surveys of Consumers		
	$ExpC_{II}$	$ExpC_{III}$	$ExpC_{IV}$	$ExpC_V$	$ExpC_{III}$	$ExpC_{IV}$	$ExpC_V$
Const.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
t-stat	2.87	2.56	2.57	2.63	0.82	0.91	1.34
$gc_t$	0.38	0.38	0.39	0.36	0.38	0.39	0.36
t-stat	2.89	2.90	2.72	2.63	2.92	2.74	2.57
$DIS_t$	-	0.00	0.01	-0.12	0.03	0.03	-0.01
t-stat	-	0.00	0.07	-0.93	0.79	1.04	-0.19
$Inf_t$	-	-	-0.09	-	-	-0.11	-
t-stat	-	-	-1.25	-	-	-1.54	-
$rYld_t$	-	-	-	0.05	-	-	0.04
t-stat	-	-	-	1.85	-	-	1.62
$R^2$	0.15	0.15	0.16	0.18	0.16	0.17	0.18
N	131	131	131	130	131	131	130

Panel B:	Instrumented Real Yield $rYld_t$			
	$y_{r,t-1}^\tau$	t-stat	$R^2$	Nobs
$y_{r,t}^\tau$	0.95	52.60	0.86	131

Table IA.6: **Inflation Disagreement and Nominal Yields I.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. The survey of professional forecasters (SPF) is available at the quarterly frequency from Q3-1981 to Q2-2014 and the Michigan survey of consumers (MSC) is available at the monthly frequency from January 1978 to June 2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.354	0.356	0.363	0.364	0.377	0.470	0.513	0.548	0.571	0.594
t-stat	3.63	3.60	3.65	3.74	3.88	4.11	4.39	4.61	4.80	5.05
ExpInf	0.459	0.449	0.437	0.435	0.424	0.356	0.298	0.249	0.219	0.196
t-stat	4.36	4.37	4.26	4.26	4.19	3.49	2.73	2.16	1.81	1.62
adj. R <sup>2</sup>	0.41	0.40	0.39	0.39	0.39	0.58	0.56	0.55	0.54	0.55
N	132	132	132	132	132	438	438	438	438	438
DisInf	0.364	0.374	0.381	0.384	0.397	0.488	0.542	0.582	0.613	0.636
t-stat	3.51	3.50	3.51	3.58	3.63	4.16	4.55	4.86	5.17	5.42
ExpInf	0.448	0.430	0.416	0.411	0.399	0.334	0.264	0.207	0.169	0.144
t-stat	3.21	3.07	2.94	2.89	2.83	3.15	2.41	1.84	1.46	1.24
SigInf	-0.024	-0.041	-0.044	-0.049	-0.050	-0.061	-0.091	-0.107	-0.126	-0.126
t-stat	-0.24	-0.40	-0.42	-0.46	-0.47	-0.86	-1.31	-1.55	-1.88	-1.97
adj. R <sup>2</sup>	0.40	0.39	0.39	0.39	0.39	0.58	0.57	0.56	0.56	0.56
N	132	132	132	132	132	438	438	438	438	438

Table IA.7: **Inflation Disagreement and Nominal Yields II.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC is the annualized predictor of the mean of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.33	0.34	0.35	0.35	0.37	0.50	0.53	0.56	0.58	0.59
t-stat	3.41	3.54	3.62	3.74	3.95	4.72	5.35	5.76	6.14	6.43
ExpC	0.36	0.37	0.37	0.37	0.38	0.41	0.42	0.42	0.41	0.42
t-stat	2.35	2.38	2.34	2.27	2.30	5.07	5.35	5.33	5.21	5.43
ExpInf	0.50	0.49	0.47	0.47	0.46	0.44	0.41	0.39	0.37	0.36
t-stat	3.40	3.29	3.17	3.12	3.07	4.77	4.61	4.34	4.21	3.96
SigInf	0.18	0.17	0.17	0.17	0.17	0.18	0.16	0.15	0.13	0.13
t-stat	0.98	0.92	0.90	0.85	0.87	2.10	1.86	1.71	1.48	1.45
adj. R <sup>2</sup>	0.49	0.49	0.49	0.48	0.49	0.69	0.71	0.72	0.73	0.74
N	132	132	132	132	132	132	132	132	132	132

Table IA.8: **Inflation Disagreement and Nominal Yields III.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected industrial production growth (ExpIP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpIP is the annualized predictor of the mean of industrial production growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the monthly frequency from January 1978 to June 2014.

Maturity	1y	2y	3y	4y	5y
DisInf	0.50	0.55	0.59	0.62	0.65
t-stat	4.34	4.75	5.03	5.33	5.57
ExpIP	0.09	0.10	0.09	0.09	0.09
t-stat	1.18	1.24	1.10	1.10	1.12
ExpInf	0.34	0.27	0.21	0.17	0.15
t-stat	3.29	2.53	1.94	1.56	1.34
SigInf	-0.01	-0.04	-0.06	-0.07	-0.07
t-stat	-0.13	-0.49	-0.77	-1.07	-1.09
adj. R <sup>2</sup>	0.58	0.57	0.56	0.56	0.57
N	438	438	438	438	438

Table IA.9: **Inflation Disagreement and Nominal Yields IV**. The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected GDP growth (ExpGDP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpGDP is the annualized predictor of the mean of GDP growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.38	0.39	0.40	0.40	0.42	0.48	0.52	0.54	0.57	0.58
t-stat	3.94	4.00	4.02	4.13	4.25	3.55	3.94	4.21	4.48	4.66
ExpGDP	0.19	0.22	0.23	0.23	0.25	0.23	0.25	0.25	0.24	0.25
t-stat	1.83	2.03	2.04	2.05	2.18	2.99	3.17	3.12	3.07	3.22
ExpInf	0.46	0.44	0.43	0.42	0.41	0.43	0.40	0.37	0.36	0.35
t-stat	3.22	3.09	2.97	2.92	2.87	4.20	3.99	3.72	3.58	3.36
SigInf	0.08	0.08	0.08	0.08	0.08	0.11	0.09	0.08	0.06	0.06
t-stat	0.55	0.52	0.51	0.49	0.53	1.26	1.08	0.94	0.73	0.74
adj. R <sup>2</sup>	0.42	0.42	0.42	0.42	0.43	0.59	0.61	0.62	0.63	0.64
N	132	132	132	132	132	132	132	132	132	132

Table IA.10: **Inflation Disagreement and Nominal Yields V**. The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>II</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>II</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant and current quarterly consumption growth. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.32	0.33	0.34	0.34	0.35	0.52	0.55	0.58	0.60	0.61
t-stat	3.20	3.26	3.32	3.41	3.57	3.86	4.30	4.63	4.95	5.16
ExpC <sub>II</sub>	0.21	0.23	0.23	0.23	0.24	0.25	0.26	0.26	0.26	0.27
t-stat	1.95	2.01	1.98	1.94	1.99	3.37	3.47	3.46	3.47	3.52
ExpInf	0.49	0.48	0.47	0.46	0.45	0.38	0.36	0.34	0.32	0.31
t-stat	3.28	3.18	3.05	2.99	2.93	3.51	3.41	3.26	3.19	3.09
SigInf	0.08	0.07	0.07	0.06	0.07	0.10	0.09	0.08	0.06	0.06
t-stat	0.54	0.48	0.45	0.40	0.40	1.10	0.97	0.88	0.74	0.75
adj. R <sup>2</sup>	0.43	0.43	0.43	0.42	0.43	0.58	0.60	0.61	0.62	0.64
N	131	131	131	131	131	131	131	131	131	131

Table IA.11: **Inflation Disagreement and Nominal Yields VI.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>III</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>III</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, and current inflation disagreement. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.32	0.33	0.34	0.34	0.35	0.47	0.50	0.52	0.55	0.56
t-stat	3.20	3.26	3.32	3.41	3.57	3.52	3.97	4.32	4.66	4.91
ExpC <sub>III</sub>	0.21	0.23	0.23	0.23	0.24	0.25	0.26	0.26	0.26	0.27
t-stat	1.95	2.01	1.98	1.94	1.99	3.37	3.47	3.46	3.47	3.52
ExpInf	0.49	0.48	0.47	0.46	0.45	0.38	0.36	0.34	0.32	0.31
t-stat	3.28	3.18	3.05	2.99	2.93	3.51	3.41	3.26	3.19	3.09
SigInf	0.08	0.07	0.07	0.06	0.07	0.10	0.09	0.08	0.06	0.06
t-stat	0.54	0.48	0.45	0.40	0.40	1.10	0.97	0.88	0.74	0.75
adj. R <sup>2</sup>	0.43	0.43	0.43	0.42	0.43	0.58	0.60	0.61	0.62	0.64
N	131	131	131	131	131	131	131	131	131	131



Table IA.12: **Inflation Disagreement and Nominal Yields VII.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>IV</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>IV</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, current inflation disagreement, and current quarterly inflation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.30	0.30	0.31	0.32	0.33	0.43	0.46	0.49	0.51	0.52
t-stat	2.88	2.95	3.01	3.11	3.27	3.34	3.82	4.20	4.56	4.84
ExpC <sub>IV</sub>	0.27	0.28	0.29	0.28	0.29	0.29	0.30	0.30	0.30	0.31
t-stat	2.28	2.32	2.28	2.24	2.28	3.70	3.75	3.72	3.72	3.76
ExpInf	0.57	0.56	0.55	0.54	0.53	0.47	0.45	0.42	0.41	0.40
t-stat	3.53	3.44	3.29	3.23	3.17	4.30	4.26	4.11	4.04	3.93
SigInf	0.11	0.10	0.10	0.09	0.09	0.12	0.10	0.09	0.08	0.08
t-stat	0.68	0.62	0.58	0.53	0.53	1.22	1.08	0.99	0.86	0.86
adj. R <sup>2</sup>	0.45	0.45	0.45	0.44	0.45	0.59	0.61	0.63	0.64	0.65
N	131	131	131	131	131	131	131	131	131	131

Table IA.13: **Inflation Disagreement and Nominal Yields VIII.** The table reports results from OLS regressions of the one-, to five-year nominal yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>V</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>V</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, current inflation disagreement, and the instrumented two year real yield. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.31	0.32	0.33	0.33	0.34	0.44	0.47	0.50	0.52	0.54
t-stat	4.07	4.18	4.24	4.34	4.56	4.36	5.09	5.63	6.17	6.49
ExpC <sub>V</sub>	0.48	0.49	0.49	0.48	0.48	0.43	0.43	0.43	0.42	0.42
t-stat	4.31	4.24	4.11	4.02	3.97	5.55	5.60	5.56	5.54	5.56
ExpInf	0.43	0.42	0.41	0.40	0.39	0.35	0.32	0.30	0.29	0.28
t-stat	3.42	3.34	3.21	3.15	3.08	3.49	3.40	3.25	3.19	3.08
SigInf	0.15	0.14	0.13	0.12	0.12	0.14	0.12	0.11	0.09	0.09
t-stat	1.16	1.05	0.99	0.91	0.89	1.61	1.44	1.33	1.15	1.15
adj. R <sup>2</sup>	0.56	0.56	0.56	0.55	0.55	0.65	0.67	0.68	0.69	0.70
N	130	130	130	130	130	130	130	130	130	130

Table IA.14: **Inflation Disagreement and Real Yields I.** The table reports results from OLS regressions of real yields on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.407	0.397	0.388	0.382	0.376	0.560	0.575	0.583	0.589	0.595
t-stat	3.48	3.33	3.23	3.18	3.12	3.04	3.18	3.29	3.39	3.50
adj. R <sup>2</sup>	0.16	0.15	0.14	0.14	0.13	0.31	0.33	0.33	0.34	0.35
N	132	132	132	132	132	132	132	132	132	132
DisInf	0.290	0.285	0.281	0.280	0.280	0.452	0.472	0.487	0.501	0.515
t-stat	2.27	2.20	2.12	2.12	2.12	2.55	2.75	3.00	3.17	3.34
ExpInf	0.350	0.359	0.358	0.352	0.344	0.251	0.246	0.236	0.221	0.206
t-stat	2.19	2.17	2.03	1.95	1.88	1.98	1.98	1.87	1.77	1.64
SigInf	0.099	0.080	0.068	0.057	0.042	0.106	0.077	0.056	0.038	0.018
t-stat	0.71	0.57	0.48	0.39	0.29	1.04	0.80	0.62	0.43	0.20
adj. R <sup>2</sup>	0.24	0.24	0.24	0.23	0.22	0.34	0.36	0.36	0.37	0.37
N	132	132	132	132	132	132	132	132	132	132

Table IA.15: **Inflation Disagreement and Real Yields II.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC is the annualized predictor of the mean of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.25	0.24	0.24	0.24	0.24	0.46	0.48	0.49	0.51	0.52
t-stat	2.21	2.18	2.18	2.22	2.27	3.25	3.60	4.23	4.59	4.92
ExpC	0.41	0.42	0.45	0.46	0.46	0.44	0.45	0.48	0.49	0.49
t-stat	2.46	2.49	2.67	2.66	2.64	3.56	3.64	3.97	4.01	4.01
ExpInf	0.41	0.42	0.43	0.42	0.42	0.29	0.29	0.29	0.28	0.26
t-stat	2.43	2.42	2.29	2.22	2.15	2.21	2.26	2.21	2.13	2.03
SigInf	0.34	0.33	0.33	0.32	0.31	0.34	0.32	0.32	0.30	0.28
t-stat	1.42	1.36	1.37	1.33	1.26	2.04	1.97	2.01	1.93	1.80
adj. R <sup>2</sup>	0.36	0.37	0.39	0.38	0.38	0.49	0.51	0.54	0.55	0.55
N	132	132	132	132	132	132	132	132	132	132

Table IA.16: **Inflation Disagreement and Real Yields III.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected GDP growth (ExpGDP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpGDP is the annualized predictor of the mean of GDP growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.31	0.30	0.30	0.30	0.31	0.46	0.48	0.49	0.50	0.52
t-stat	2.75	2.70	2.67	2.70	2.73	2.70	2.94	3.29	3.51	3.72
ExpGDP	0.25	0.27	0.31	0.32	0.32	0.24	0.25	0.29	0.30	0.30
t-stat	2.01	2.10	2.49	2.57	2.61	2.05	2.18	2.63	2.73	2.80
ExpInf	0.36	0.37	0.38	0.37	0.36	0.27	0.27	0.26	0.25	0.23
t-stat	2.22	2.21	2.08	2.01	1.95	2.03	2.06	1.99	1.90	1.80
SigInf	0.23	0.22	0.23	0.23	0.22	0.24	0.22	0.22	0.21	0.19
t-stat	1.19	1.12	1.14	1.10	1.03	1.59	1.49	1.55	1.47	1.34
adj. R <sup>2</sup>	0.28	0.29	0.30	0.30	0.29	0.38	0.40	0.42	0.43	0.43
N	132	132	132	132	132	132	132	132	132	132

Table IA.17: **Inflation Disagreement and Real Yields IV.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>II</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>II</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant and current quarterly consumption growth. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.24	0.23	0.22	0.22	0.22	0.43	0.45	0.46	0.47	0.49
t-stat	1.86	1.81	1.76	1.78	1.80	2.65	2.92	3.35	3.62	3.87
ExpC <sub>II</sub>	0.26	0.27	0.31	0.31	0.32	0.28	0.29	0.32	0.32	0.32
t-stat	1.96	2.01	2.23	2.26	2.26	2.77	2.84	3.17	3.21	3.23
ExpInf	0.41	0.42	0.43	0.43	0.42	0.30	0.30	0.30	0.29	0.28
t-stat	2.35	2.33	2.21	2.14	2.07	2.24	2.28	2.23	2.15	2.04
SigInf	0.24	0.23	0.23	0.22	0.21	0.23	0.21	0.20	0.19	0.17
t-stat	1.16	1.08	1.08	1.03	0.96	1.71	1.59	1.59	1.49	1.33
adj. R <sup>2</sup>	0.29	0.30	0.31	0.30	0.30	0.40	0.42	0.44	0.45	0.45
N	131	131	131	131	131	131	131	131	131	131

Table IA.18: **Inflation Disagreement and Real Yields V.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>III</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>III</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, and current inflation disagreement. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.24	0.23	0.22	0.22	0.22	0.37	0.39	0.40	0.41	0.42
t-stat	1.86	1.81	1.76	1.78	1.80	2.26	2.51	2.93	3.21	3.47
ExpC <sub>III</sub>	0.26	0.27	0.31	0.31	0.32	0.28	0.29	0.32	0.32	0.33
t-stat	1.96	2.01	2.23	2.26	2.26	2.77	2.84	3.17	3.21	3.23
ExpInf	0.41	0.42	0.43	0.43	0.42	0.30	0.30	0.30	0.29	0.28
t-stat	2.35	2.33	2.21	2.14	2.07	2.24	2.28	2.23	2.15	2.04
SigInf	0.24	0.23	0.23	0.22	0.21	0.23	0.21	0.20	0.19	0.17
t-stat	1.16	1.08	1.08	1.03	0.96	1.71	1.59	1.59	1.49	1.33
adj. R <sup>2</sup>	0.29	0.30	0.31	0.30	0.30	0.40	0.42	0.44	0.45	0.45
N	131	131	131	131	131	131	131	131	131	131

Table IA.19: **Inflation Disagreement and Real Yields VI.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>IV</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>IV</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, current inflation disagreement, and current quarterly inflation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.21	0.21	0.19	0.19	0.19	0.34	0.36	0.36	0.37	0.38
t-stat	1.64	1.59	1.52	1.53	1.55	2.05	2.29	2.70	2.98	3.25
ExpC <sub>IV</sub>	0.29	0.31	0.34	0.35	0.36	0.30	0.31	0.34	0.35	0.35
t-stat	2.10	2.17	2.38	2.41	2.43	2.84	2.93	3.28	3.33	3.34
ExpInf	0.48	0.50	0.52	0.52	0.52	0.39	0.39	0.40	0.39	0.38
t-stat	2.52	2.50	2.39	2.32	2.26	2.66	2.71	2.69	2.61	2.50
SigInf	0.25	0.24	0.25	0.24	0.23	0.24	0.21	0.21	0.19	0.18
t-stat	1.20	1.13	1.13	1.09	1.02	1.71	1.59	1.60	1.50	1.34
adj. R <sup>2</sup>	0.30	0.31	0.32	0.32	0.31	0.40	0.43	0.45	0.46	0.46
N	131	131	131	131	131	131	131	131	131	131



Table IA.20: **Inflation Disagreement and Real Yields VII.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and expected consumption growth (ExpC<sub>V</sub>). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC<sub>V</sub> is the annualized estimator from a regression of future quarterly consumption growth on a constant, current quarterly consumption growth, current inflation disagreement, and the instrumented two year real yield. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.22	0.21	0.21	0.21	0.21	0.34	0.36	0.37	0.39	0.40
t-stat	2.39	2.35	2.32	2.35	2.39	2.64	3.02	3.74	4.19	4.59
ExpC <sub>V</sub>	0.54	0.55	0.57	0.57	0.56	0.48	0.49	0.50	0.50	0.49
t-stat	4.24	4.14	3.98	3.88	3.80	4.62	4.55	4.54	4.46	4.38
ExpInf	0.35	0.36	0.37	0.36	0.36	0.27	0.27	0.27	0.26	0.24
t-stat	2.51	2.53	2.39	2.31	2.23	2.25	2.32	2.26	2.18	2.07
SigInf	0.32	0.30	0.30	0.29	0.28	0.28	0.26	0.25	0.23	0.21
t-stat	1.78	1.69	1.63	1.55	1.45	2.17	2.05	2.00	1.87	1.68
adj. R <sup>2</sup>	0.46	0.47	0.48	0.48	0.47	0.51	0.53	0.55	0.56	0.55
N	130	130	130	130	130	130	130	130	130	130

Table IA.21: **Inflation Disagreement and Nominal Yield Volatilities I.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.597	0.606	0.567	0.656	0.644	0.474	0.464	0.442	0.501	0.511
t-stat	5.24	5.20	5.94	6.92	8.13	4.40	4.03	4.01	3.67	3.65
ExpInf	0.287	0.265	0.260	0.204	0.205	0.287	0.261	0.283	0.170	0.126
t-stat	2.90	2.74	2.44	2.25	2.31	1.60	1.44	1.50	0.96	0.68
SigInf	0.129	0.116	0.113	0.088	0.063	0.174	0.174	0.150	0.153	0.114
t-stat	1.37	1.21	1.15	1.09	0.81	2.45	2.26	2.08	1.99	1.45
adj. R <sup>2</sup>	0.55	0.54	0.48	0.56	0.53	0.52	0.47	0.46	0.42	0.38
N	132	132	132	132	132	438	438	438	438	438

Table IA.22: **Inflation Disagreement and Nominal Yield Volatilities II.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of consumption growth (SigC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. SigC is the annualized predictor of the volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.47	0.49	0.45	0.56	0.53	0.41	0.39	0.35	0.39	0.38
t-stat	4.20	4.16	4.49	5.32	6.02	2.92	2.70	2.69	2.38	2.32
SigC	0.37	0.33	0.35	0.29	0.32	0.27	0.26	0.29	0.25	0.28
t-stat	2.82	2.40	2.28	2.10	2.23	2.15	1.88	1.95	1.69	1.83
ExpInf	0.25	0.23	0.22	0.17	0.17	0.25	0.23	0.22	0.16	0.15
t-stat	3.80	3.60	3.18	2.78	2.95	3.04	2.95	2.72	1.84	1.70
SigInf	0.01	0.00	-0.01	-0.02	-0.06	0.12	0.11	0.07	0.11	0.06
t-stat	0.14	0.06	-0.20	-0.28	-0.92	1.22	0.96	0.63	0.85	0.47
adj. R <sup>2</sup>	0.65	0.61	0.56	0.61	0.60	0.57	0.51	0.48	0.44	0.44
N	132	132	132	132	132	132	132	132	132	132

Table IA.23: **Inflation Disagreement and Nominal Yield Volatilities III.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on MSC disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of industrial production growth (SigIP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. SigIP is the annualized predictor of the volatility of industrial production growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the monthly frequency from January 1978 to June 2014.

Maturity	1y	2y	3y	4y	5y
DisInf	0.45	0.44	0.41	0.48	0.49
t-stat	4.45	4.10	4.03	3.73	3.70
SigIP	0.16	0.18	0.18	0.18	0.15
t-stat	1.73	1.73	1.74	1.45	1.30
ExpInf	0.28	0.25	0.27	0.15	0.11
t-stat	1.60	1.43	1.49	0.90	0.62
SigInf	0.09	0.08	0.06	0.06	0.03
t-stat	1.43	1.16	0.86	0.84	0.45
adj. R <sup>2</sup>	0.54	0.49	0.48	0.44	0.39
N	438	438	438	438	438

Table IA.24: **Inflation Disagreement and Nominal Yield Volatilities IV.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the volatility of GDP growth (SigGDP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. SigGDP is the annualized predictor of the volatility of GDP growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.33	0.36	0.36	0.45	0.45	0.33	0.34	0.36	0.32	0.33
t-stat	3.95	3.95	3.73	4.56	3.93	3.23	2.96	2.67	2.30	2.23
SigGDP	0.45	0.41	0.36	0.34	0.33	0.51	0.49	0.44	0.50	0.48
t-stat	3.22	2.51	2.01	2.03	1.76	3.45	3.17	2.83	3.10	2.93
ExpInf	0.27	0.26	0.25	0.20	0.19	0.23	0.22	0.21	0.19	0.17
t-stat	3.71	3.30	2.87	2.65	2.67	4.28	4.17	3.65	3.31	2.93
SigInf	-0.02	-0.00	0.01	-0.02	-0.04	0.00	0.02	0.03	0.00	-0.02
t-stat	-0.36	-0.05	0.09	-0.28	-0.57	0.10	0.36	0.40	0.04	-0.28
adj. R <sup>2</sup>	0.63	0.62	0.56	0.62	0.57	0.65	0.63	0.58	0.59	0.55
N	132	132	132	132	132	132	132	132	132	132

Table IA.25: **Inflation Disagreement and Nominal Yield Volatilities V.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), expected consumption growth (ExpC), and the volatility of consumption growth (SigC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC and SigC are annualized predictors of the mean and volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.44	0.47	0.42	0.53	0.50	0.40	0.38	0.34	0.38	0.36
t-stat	4.10	3.98	4.28	5.09	5.61	3.40	3.02	3.00	2.66	2.58
ExpC	0.21	0.20	0.23	0.23	0.26	0.24	0.22	0.25	0.27	0.29
t-stat	2.42	2.29	2.44	3.19	3.53	2.79	2.51	2.49	3.10	3.32
SigC	0.39	0.35	0.37	0.32	0.35	0.30	0.29	0.32	0.29	0.32
t-stat	2.95	2.43	2.49	2.29	2.51	1.53	1.66	1.65	1.49	1.26
ExpInf	0.28	0.26	0.26	0.21	0.21	0.28	0.26	0.26	0.20	0.20
t-stat	3.94	3.61	3.34	3.08	3.32	3.31	3.05	2.91	2.10	2.04
SigInf	0.12	0.11	0.11	0.11	0.09	0.22	0.21	0.17	0.22	0.19
t-stat	1.18	1.01	1.04	1.11	0.90	1.79	1.42	1.23	1.42	1.20
adj. R <sup>2</sup>	0.68	0.64	0.60	0.65	0.64	0.61	0.54	0.52	0.50	0.51
N	132	132	132	132	132	132	132	132	132	132

Table IA.26: **Inflation Disagreement and Nominal Yield Volatilities VI.** The table reports results from OLS regressions of the one-, to five-year nominal yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), the volatility of consumption growth (SigC), and the CME Volatility Index VXO. The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. The VXO volatility index is based on trading of S&P 100 (OEX) options. Data are available at the quarterly frequency from Q2-1986 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.11	0.15	0.15	0.27	0.30	0.39	0.36	0.31	0.28	0.27
t-stat	0.65	0.94	1.04	2.19	2.45	3.72	3.12	2.20	1.88	1.74
VXO	0.33	0.34	0.30	0.32	0.31	0.34	0.35	0.31	0.33	0.31
t-stat	2.15	2.21	1.87	2.17	2.09	3.24	3.36	2.59	2.75	2.53
ExpInf	0.42	0.41	0.37	0.31	0.29	0.31	0.33	0.30	0.27	0.26
t-stat	3.00	2.69	2.39	2.27	2.33	2.96	2.96	2.72	2.58	2.57
SigInf	0.16	0.16	0.15	0.10	0.03	0.14	0.17	0.17	0.18	0.13
t-stat	0.77	0.82	0.88	0.74	0.23	1.23	1.55	1.75	1.90	1.31
adj. R <sup>2</sup>	0.21	0.24	0.19	0.23	0.22	0.35	0.33	0.26	0.24	0.20
N	113	113	113	113	113	113	113	113	113	113

Table IA.27: **Inflation Disagreement and Real Yield Volatilities I.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.523	0.560	0.624	0.700	0.749	0.332	0.387	0.420	0.447	0.471
t-stat	8.13	8.76	8.61	9.32	9.52	1.97	2.16	2.15	2.04	1.97
ExpInf	0.018	0.065	0.081	0.055	0.025	0.074	0.110	0.137	0.129	0.108
t-stat	0.20	0.75	0.94	0.60	0.25	0.61	0.96	1.20	1.02	0.80
SigInf	0.238	0.228	0.183	0.114	0.016	0.391	0.380	0.351	0.305	0.219
t-stat	2.17	2.08	1.84	1.40	0.22	2.87	2.87	2.66	2.19	1.51
adj. R <sup>2</sup>	0.40	0.44	0.50	0.56	0.57	0.28	0.32	0.34	0.33	0.31
N	132	132	132	132	132	132	132	132	132	132



Table IA.28: **Inflation Disagreement and Real Yield Volatilities II.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and consumption growth volatility (SigC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. SigC is the annualized predictor of the volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.45	0.47	0.54	0.63	0.69	0.17	0.22	0.26	0.31	0.36
t-stat	6.24	7.14	8.02	9.75	10.17	1.45	1.84	2.05	2.02	1.97
SigC	0.23	0.27	0.25	0.21	0.17	0.27	0.29	0.28	0.24	0.19
t-stat	1.56	1.72	1.70	1.55	1.36	1.54	1.64	1.60	1.42	1.16
ExpInf	0.00	0.04	0.06	0.03	0.01	0.09	0.12	0.15	0.14	0.11
t-stat	-0.04	0.53	0.76	0.40	0.07	0.82	1.24	1.46	1.18	0.88
SigInf	0.16	0.14	0.10	0.04	-0.04	0.30	0.28	0.26	0.22	0.15
t-stat	1.63	1.47	1.13	0.50	-0.62	2.14	2.05	1.86	1.54	1.06
adj. R <sup>2</sup>	0.43	0.49	0.54	0.58	0.58	0.31	0.36	0.38	0.36	0.32
N	132	132	132	132	132	132	132	132	132	132

Table IA.29: **Inflation Disagreement and Real Yield Volatilities III.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and GDP growth volatility (SigGDP). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. SigGDP is the annualized predictor of the volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.15	0.18	0.25	0.29	0.36	0.04	0.10	0.12	0.11	0.14
t-stat	1.05	1.36	2.03	2.52	3.22	0.42	0.96	1.19	1.02	1.08
SigGDP	0.62	0.64	0.63	0.63	0.61	0.70	0.72	0.74	0.77	0.80
t-stat	3.69	3.97	4.13	4.13	3.74	5.34	6.28	6.68	6.30	5.53
ExpInf	0.00	0.04	0.05	0.03	0.01	0.02	0.05	0.06	0.06	0.04
t-stat	0.05	0.78	1.19	0.68	0.14	0.31	0.68	1.08	0.98	0.51
SigInf	0.04	0.02	-0.02	-0.07	-0.17	0.05	0.03	-0.01	-0.06	-0.16
t-stat	0.61	0.30	-0.38	-1.13	-1.97	0.66	0.41	-0.12	-0.71	-1.41
adj. R <sup>2</sup>	0.57	0.62	0.67	0.69	0.72	0.56	0.61	0.65	0.66	0.67
N	132	132	132	132	132	132	132	132	132	132

Table IA.30: **Inflation Disagreement and Real Yield Volatilities IV.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), expected consumption growth (ExpC), and consumption growth volatility (SigC). The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. ExpC and SigC are annualized predictors of the mean and volatility of consumption growth over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. Data are available at the quarterly frequency from Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.47	0.49	0.55	0.63	0.68	0.18	0.22	0.26	0.31	0.36
t-stat	6.81	7.71	8.43	9.86	9.90	1.48	1.85	2.07	2.08	2.07
ExpC	-0.21	-0.14	-0.07	-0.01	0.08	-0.16	-0.08	-0.01	0.06	0.14
t-stat	-1.28	-0.96	-0.59	-0.06	0.86	-0.77	-0.45	-0.07	0.36	0.94
SigC	0.21	0.25	0.24	0.21	0.17	0.26	0.29	0.28	0.24	0.20
t-stat	1.40	1.62	1.66	1.55	1.39	1.53	1.66	1.65	1.49	1.26
ExpInf	-0.03	0.02	0.05	0.03	0.02	0.07	0.11	0.15	0.14	0.13
t-stat	-0.5	0.31	0.67	0.38	0.18	0.74	1.21	1.42	1.15	0.92
SigInf	0.04	0.06	0.06	0.04	-0	0.22	0.24	0.25	0.25	0.22
t-stat	0.35	0.52	0.54	0.35	-0	1.1	1.22	1.3	1.26	1.17
adj. R <sup>2</sup>	0.46	0.5	0.54	0.58	0.59	0.33	0.36	0.37	0.36	0.33
N	132	132	132	132	132	132	132	132	132	132

Table IA.31: **Inflation Disagreement and Real Yield Volatilities V.** The table reports results from OLS regressions of the two, three, five, seven, and ten-year real yield volatility on disagreement about inflation (DisInf), expected inflation (ExpInf), the volatility of inflation (SigInf), and the CME Volatility Index VXO. The t-statistics (t-stat) are Newey-West corrected with 12 lags and regression coefficients are standardized. ExpInf and SigInf are annualized predictors of the mean and volatility of inflation over the corresponding yield maturity horizon using a GARCH(1,1) model with an ARMA(1,1) mean equation. The VXO volatility index is based on trading of S&P 100 (OEX) options. Data are available at the quarterly frequency from Q2-1986 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.35	0.33	0.32	0.31	0.33	0.07	0.09	0.09	0.05	0.02
t-stat	2.26	2.26	2.45	2.77	3.02	0.74	1.05	1.00	0.52	0.15
VXO	0.10	0.09	0.07	0.02	-0.10	0.08	0.08	0.06	0.00	-0.11
t-stat	0.79	0.67	0.45	0.10	-0.57	0.67	0.62	0.40	0.03	-0.63
ExpInf	-0.07	-0.04	-0.04	-0.10	-0.18	-0.02	-0.00	-0.01	-0.05	-0.11
t-stat	-0.75	-0.43	-0.46	-0.89	-1.26	-0.13	-0.00	-0.05	-0.36	-0.76
SigInf	0.19	0.22	0.21	0.17	0.07	0.36	0.37	0.35	0.31	0.22
t-stat	1.63	1.64	1.56	1.36	0.60	2.23	2.14	2.06	1.81	1.32
adj. R <sup>2</sup>	0.24	0.23	0.21	0.17	0.14	0.14	0.15	0.13	0.09	0.05
N	113	113	113	113	113	113	113	113	113	113

Table IA.32: **SPF Inflation Disagreement and Gürkaynak, Sack, and Wright (2010) Nominal Yields.** The table reports results from OLS regressions of nominal yields and their volatilities on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). Monthly nominal discount bond yields are from Gürkaynak, Sack, and Wright (2010). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	11y	12y	13y	14y	15y
Nominal Yields															
DisInf	0.35	0.36	0.36	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.40	0.40	0.41	0.41	0.41
t-stat	3.20	3.20	3.25	3.32	3.39	3.47	3.53	3.60	3.65	3.69	3.73	3.76	3.78	3.80	3.81
ExpInf	0.46	0.45	0.44	0.43	0.42	0.41	0.41	0.41	0.40	0.40	0.40	0.40	0.40	0.39	0.39
t-stat	3.52	3.40	3.30	3.22	3.16	3.11	3.08	3.06	3.05	3.04	3.03	3.03	3.03	3.02	3.02
SigInf	0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
t-stat	0.14	0.03	-0.05	-0.10	-0.12	-0.12	-0.12	-0.11	-0.10	-0.09	-0.09	-0.09	-0.10	-0.11	-0.13
adj. R <sup>2</sup>	0.40	0.39	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.39
N	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132
Nominal Yield Volatilities															
DisInf	0.60	0.59	0.59	0.60	0.62	0.64	0.65	0.69	0.69	0.69	0.69	0.68	0.68	0.67	0.66
t-stat	5.01	5.26	5.59	6.11	6.79	7.44	7.75	10.66	11.19	11.60	12.21	12.32	12.31	12.17	11.87
ExpInf	0.28	0.27	0.24	0.20	0.16	0.12	0.07	0.06	0.03	0.01	0.00	-0.01	-0.02	-0.02	-0.03
t-stat	3.10	2.88	2.53	2.19	1.84	1.41	0.91	0.76	0.37	0.09	-0.06	-0.17	-0.23	-0.28	-0.31
SigInf	0.14	0.13	0.12	0.09	0.07	0.05	0.03	-0.01	-0.02	-0.03	-0.04	-0.04	-0.05	-0.05	-0.05
t-stat	1.58	1.49	1.33	1.12	0.89	0.63	0.40	-0.08	-0.23	-0.35	-0.49	-0.57	-0.62	-0.63	-0.58
adj. R <sup>2</sup>	0.55	0.53	0.50	0.48	0.47	0.46	0.44	0.49	0.47	0.46	0.45	0.44	0.43	0.41	0.40
N	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132

Table IA.33: **MSC Inflation Disagreement and Gürkaynak, Sack, and Wright (2010) Nominal Yields.** The table reports results from OLS regressions of nominal yields and their volatilities on disagreement about inflation (DisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). Monthly nominal discount bond yields are from Gürkaynak, Sack, and Wright (2010). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Sample: January 1978 to June 2014.

	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	11y	12y	13y	14y	15y
Nominal Yields															
DisInf	0.49	0.54	0.58	0.61	0.64	0.66	0.68	0.69	0.70	0.71	0.71	0.72	0.72	0.73	0.73
t-stat	4.15	4.53	4.88	5.20	5.47	5.71	5.91	6.09	6.23	6.35	6.45	6.53	6.60	6.65	6.68
ExpInf	0.33	0.26	0.21	0.17	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05	0.05	0.04
t-stat	3.13	2.36	1.85	1.49	1.23	1.04	0.89	0.77	0.68	0.60	0.54	0.49	0.44	0.40	0.37
SigInf	-0.06	-0.09	-0.11	-0.12	-0.13	-0.13	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.15	-0.15
t-stat	-0.90	-1.30	-1.60	-1.84	-2.04	-2.19	-2.31	-2.40	-2.47	-2.53	-2.59	-2.64	-2.70	-2.76	-2.82
adj. R <sup>2</sup>	0.58	0.56	0.56	0.56	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59
N	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438
Nominal Yield Volatilities															
DisInf	0.47	0.45	0.45	0.46	0.48	0.49	0.51	0.54	0.55	0.55	0.56	0.57	0.57	0.57	0.56
t-stat	4.37	4.18	3.92	3.73	3.61	3.56	3.59	3.52	3.58	3.65	3.71	3.77	3.84	3.90	3.95
ExpInf	0.29	0.28	0.24	0.19	0.14	0.08	0.03	-0.03	-0.06	-0.08	-0.10	-0.11	-0.11	-0.11	-0.10
t-stat	1.68	1.51	1.28	1.01	0.72	0.43	0.18	-0.14	-0.31	-0.44	-0.55	-0.60	-0.63	-0.62	-0.58
SigInf	0.18	0.17	0.15	0.14	0.13	0.14	0.15	0.15	0.16	0.17	0.17	0.17	0.17	0.17	0.18
t-stat	2.47	2.24	2.02	1.81	1.66	1.62	1.69	1.47	1.53	1.57	1.53	1.53	1.52	1.53	1.57
adj. R <sup>2</sup>	0.52	0.47	0.43	0.38	0.35	0.32	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29	0.29
N	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438

Table IA.34: **Real Yields = Nominal Yields - Expected Inflation from ARMA(1,1)**. The table reports results from OLS regressions of real yields on disagreement about inflation (DisInf). Real yields are computed from nominal yields by subtracting expected inflation predicted by an ARMA(1,1). ExpInf is predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

	SPF					MSC				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.45	0.46	0.46	0.47	0.48	0.45	0.50	0.53	0.56	0.59
t-stat	3.59	3.59	3.66	3.74	3.89	2.82	3.25	3.50	3.79	4.12
adj. R <sup>2</sup>	0.20	0.20	0.21	0.21	0.22	0.20	0.25	0.28	0.32	0.35
N	132	132	132	132	132	438	438	438	438	438
DisInf	0.41	0.42	0.41	0.41	0.42	0.66	0.70	0.72	0.74	0.76
t-stat	3.51	3.50	3.51	3.58	3.63	4.16	4.55	4.86	5.17	5.42
ExpInf	0.19	0.22	0.26	0.29	0.31	-0.30	-0.27	-0.26	-0.25	-0.23
t-stat	1.21	1.40	1.69	1.90	2.08	-2.08	-1.94	-1.88	-1.77	-1.64
SigInf	-0.03	-0.05	-0.05	-0.05	-0.05	-0.08	-0.12	-0.13	-0.15	-0.15
t-stat	-0.24	-0.40	-0.42	-0.46	-0.47	-0.86	-1.31	-1.55	-1.88	-1.97
adj. R <sup>2</sup>	0.23	0.25	0.28	0.30	0.32	0.24	0.29	0.32	0.35	0.38
N	132	132	132	132	132	438	438	438	438	438

Table IA.35: **Real Yields = Nominal Yields - Expected Inflation from VAR.** The table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) in the top panel and disagreement about inflation (DisInf), expected inflation (ExpInf) and the volatility of inflation (SigInf). Real yields are computed from nominal yields by subtracting expected inflation (ExpInf). ExpInf is predicted by regressing realized inflation over the bond maturity horizon on lagged monthly inflation and yields with maturity 1-5 years. The volatility of inflation is calculated by regressing the squared residuals from the first regression onto lagged squared residuals and yields with maturity 1-5 years. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

	SPF					MSC				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.38	0.40	0.45	0.49	0.52	0.51	0.55	0.57	0.58	0.59
t-stat	2.79	2.98	3.74	4.58	5.68	3.49	3.93	4.13	4.22	4.23
adj. R <sup>2</sup>	0.14	0.15	0.19	0.23	0.27	0.26	0.30	0.32	0.33	0.35
N	128	124	120	116	112	426	414	402	390	378
DisInf	0.21	0.22	0.25	0.33	0.39	0.46	0.46	0.46	0.47	0.51
t-stat	1.37	1.52	1.86	2.75	3.90	3.59	3.65	3.54	3.51	3.85
ExpInf	0.37	0.37	0.36	0.32	0.27	0.13	0.17	0.19	0.16	0.09
t-stat	2.78	2.76	2.82	2.91	2.77	1.13	1.48	1.66	1.41	0.83
SigInf	0.03	0.09	0.12	0.04	0.01	-0.10	-0.09	-0.07	-0.01	0.06
t-stat	0.32	1.01	1.40	0.58	0.18	-1.05	-1.19	-0.95	-0.07	0.60
adj. R <sup>2</sup>	0.24	0.28	0.31	0.31	0.32	0.27	0.31	0.34	0.34	0.35
N	128	124	120	116	112	426	414	402	390	378



Table IA.36: **Cross-Sectional Variance as a Measure of Inflation Disagreement.** The table reports results from OLS regressions of real and nominal yields and their volatilities on disagreement about inflation (DisInf) and expected inflation (ExpInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Disagreement about inflation is the cross-sectional variance of one year ahead inflation forecasts (DisInf). ExpInf is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

	VARIANCE SPF					VARIANCE MSC				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
Real Yields										
DisInf	0.40	0.39	0.38	0.38	0.37	0.57	0.58	0.59	0.59	0.60
t-stat	4.70	4.63	4.58	4.51	4.44	3.50	3.64	3.75	3.84	3.93
adj. R <sup>2</sup>	0.15	0.15	0.14	0.14	0.13	0.31	0.33	0.34	0.35	0.35
N	132	132	132	132	132	132	132	132	132	132
Real Yield Volatilities										
DisInf	0.52	0.58	0.66	0.71	0.73	0.42	0.49	0.54	0.57	0.57
t-stat	7.30	9.48	13.14	14.92	13.83	2.15	2.36	2.33	2.21	2.15
adj. R <sup>2</sup>	0.27	0.33	0.43	0.50	0.52	0.17	0.24	0.29	0.31	0.33
N	132	132	132	132	132	132	132	132	132	132
Nominal Yields										
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.36	0.36	0.36	0.36	0.37	0.46	0.50	0.53	0.55	0.57
t-stat	5.95	5.79	5.86	5.89	5.63	3.89	4.12	4.23	4.37	4.59
ExpInf	0.46	0.45	0.44	0.44	0.43	0.34	0.28	0.23	0.20	0.18
t-stat	3.86	3.86	3.77	3.76	3.69	3.40	2.65	2.08	1.74	1.54
adj. R <sup>2</sup>	0.41	0.40	0.39	0.39	0.39	0.56	0.54	0.52	0.51	0.51
N	132	132	132	132	132	438	438	438	438	438
Nominal Yield Volatilities										
DisInf	0.65	0.66	0.60	0.68	0.64	0.59	0.58	0.56	0.62	0.60
t-stat	13.88	14.02	13.10	14.73	12.73	4.57	4.35	4.54	4.16	4.06
ExpInf	0.23	0.21	0.21	0.17	0.18	0.16	0.12	0.15	0.03	0.01
t-stat	2.38	2.39	2.16	1.87	2.08	0.95	0.75	0.89	0.20	0.07
adj. R <sup>2</sup>	0.54	0.54	0.46	0.54	0.50	0.50	0.46	0.46	0.41	0.37
N	132	132	132	132	132	438	438	438	438	438

Table IA.37: **Interquartile Range as a Measure of Inflation Disagreement.** The table reports results from OLS regressions of real and nominal yields and their volatilities on disagreement about inflation (DisInf) and expected inflation (ExpInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Disagreement about inflation is the interquartile range (IQR) of one year ahead inflation forecasts (DisInf) computed from the 75th percentile minus the 25th percentile of inflation forecasts. ExpInf is predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

	IQR — SPF					IQR — MSC				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
Real Yields										
DisInf	0.30	0.30	0.32	0.33	0.33	0.40	0.41	0.43	0.44	0.45
t-stat	1.63	1.60	1.69	1.72	1.76	2.53	2.66	2.90	3.05	3.17
adj. R <sup>2</sup>	0.08	0.08	0.10	0.10	0.10	0.15	0.16	0.18	0.19	0.19
N	132	132	132	132	132	129	129	129	129	129
Real Yield Volatilities										
DisInf	0.51	0.53	0.55	0.58	0.59	0.65	0.71	0.76	0.81	0.82
t-stat	4.18	3.71	3.29	3.10	2.84	9.40	10.31	9.46	8.74	7.22
adj. R <sup>2</sup>	0.25	0.27	0.30	0.33	0.35	0.42	0.50	0.57	0.65	0.67
N	132	132	132	132	132	129	129	129	129	129
Nominal Yields										
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.24	0.26	0.28	0.28	0.31	0.46	0.50	0.53	0.55	0.57
t-stat	1.54	1.60	1.68	1.75	1.85	3.89	4.12	4.23	4.37	4.59
ExpInf	0.51	0.50	0.49	0.48	0.47	0.34	0.28	0.23	0.20	0.18
t-stat	4.04	4.11	4.06	4.05	4.09	3.40	2.65	2.08	1.74	1.54
adj. R <sup>2</sup>	0.35	0.34	0.34	0.34	0.35	0.56	0.54	0.52	0.51	0.51
N	132	132	132	132	132	438	438	438	438	438
Nominal Yield Volatilities										
DisInf	0.50	0.52	0.53	0.58	0.58	0.59	0.58	0.56	0.62	0.60
t-stat	2.68	2.90	3.47	3.64	3.89	4.57	4.35	4.54	4.16	4.06
ExpInf	0.31	0.29	0.28	0.24	0.25	0.16	0.12	0.15	0.03	0.01
t-stat	2.30	2.32	2.27	2.01	2.20	0.95	0.75	0.89	0.20	0.07
adj. R <sup>2</sup>	0.38	0.39	0.39	0.43	0.43	0.50	0.46	0.46	0.41	0.37
N	132	132	132	132	132	438	438	438	438	438

Table IA.38: **Normalized Inflation Disagreement and Nominal Yields.** The table reports results from OLS regressions of nominal yields on disagreement about inflation scaled by the volatility of inflation (NormDisInf), and expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
NormDisInf	0.309	0.326	0.337	0.346	0.366	0.309	0.355	0.383	0.409	0.421
t-stat	2.759	2.839	2.915	3.047	3.164	3.296	3.763	4.089	4.390	4.530
ExpInf	0.430	0.414	0.399	0.394	0.379	0.511	0.457	0.417	0.389	0.375
t-stat	2.876	2.820	2.716	2.680	2.592	4.853	4.251	3.748	3.429	3.271
adj. R <sup>2</sup>	0.370	0.369	0.364	0.367	0.371	0.527	0.511	0.493	0.491	0.489
N	132	132	132	132	132	438	438	438	438	438
NormDisInf	0.320	0.336	0.347	0.355	0.375	0.421	0.457	0.482	0.502	0.516
t-stat	2.973	3.036	3.120	3.252	3.389	3.737	4.079	4.354	4.588	4.784
ExpInf	0.488	0.469	0.456	0.450	0.438	0.477	0.430	0.393	0.368	0.355
t-stat	3.425	3.298	3.176	3.112	3.091	4.701	4.074	3.574	3.257	3.114
SigInf	0.170	0.157	0.156	0.152	0.156	0.192	0.183	0.182	0.174	0.181
t-stat	1.534	1.450	1.455	1.431	1.527	1.935	1.802	1.760	1.687	1.802
adj. R <sup>2</sup>	0.390	0.386	0.380	0.381	0.387	0.554	0.535	0.518	0.513	0.514
N	132	132	132	132	132	438	438	438	438	438

Table IA.39: **Normalized Inflation Disagreement and Real Yields.** The table reports results from OLS regressions of real yields on disagreement about inflation scaled by the volatility of inflation (NormDisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

Maturity	Survey of Professional Forecasters					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
NormDisInf	0.369	0.376	0.378	0.383	0.389	0.384	0.416	0.436	0.454	0.473
t-stat	2.655	2.771	2.814	2.917	3.056	2.139	2.371	2.565	2.701	2.852
adj. R <sup>2</sup>	0.130	0.135	0.136	0.140	0.144	0.141	0.166	0.184	0.200	0.218
N	132	132	132	132	132	132	132	132	132	132
NormDisInf	0.278	0.279	0.280	0.285	0.292	0.433	0.453	0.464	0.478	0.492
t-stat	2.039	2.034	2.017	2.083	2.167	2.084	2.257	2.438	2.570	2.699
ExpInf	0.373	0.380	0.379	0.371	0.362	0.362	0.364	0.360	0.350	0.340
t-stat	2.407	2.384	2.241	2.160	2.081	2.636	2.664	2.563	2.486	2.392
SigInf	0.254	0.233	0.217	0.205	0.189	0.402	0.384	0.368	0.356	0.341
t-stat	2.077	1.926	1.816	1.722	1.585	2.599	2.523	2.429	2.386	2.315
adj. R <sup>2</sup>	0.245	0.247	0.244	0.240	0.236	0.316	0.332	0.337	0.341	0.347
N	132	132	132	132	132	132	132	132	132	132

Table IA.40: **Normalized Inflation Disagreement and Real and Nominal Yield Volatilities.** The table reports results from OLS regressions of real and nominal yield volatilities on disagreement about inflation scaled by the volatility of inflation (NormDisInf), expected inflation (ExpInf), and the volatility of inflation (SigInf). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf and SigInf are predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Samples: Q3-1981 to Q2-2014 and January 1978 to June 2014.

	Survey of Professional Forecasters					Surveys of Consumers				
	Real Yield Volatilities									
Maturity	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
NormDisInf	0.384	0.412	0.469	0.521	0.564	0.093	0.139	0.169	0.164	0.161
t-stat	4.326	3.980	3.861	4.177	4.474	0.556	0.883	1.089	1.000	0.924
ExpInf	0.104	0.158	0.180	0.163	0.140	0.215	0.267	0.301	0.303	0.295
t-stat	0.850	1.256	1.295	1.091	0.894	1.308	1.528	1.476	1.332	1.215
SigInf	0.522	0.530	0.518	0.476	0.399	0.534	0.556	0.549	0.500	0.418
t-stat	4.052	3.878	3.445	2.961	2.362	3.032	2.973	2.655	2.217	1.752
adj. R <sup>2</sup>	0.329	0.363	0.401	0.414	0.405	0.206	0.228	0.230	0.196	0.146
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yield Volatilities									
Maturity	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
NormDisInf	0.458	0.471	0.476	0.538	0.537	0.312	0.278	0.275	0.292	0.290
t-stat	3.842	4.001	4.655	5.090	5.737	3.842	3.326	3.133	2.838	2.695
ExpInf	0.379	0.366	0.351	0.309	0.306	0.470	0.456	0.470	0.384	0.342
t-stat	2.728	2.661	2.579	2.460	2.520	2.550	2.470	2.428	2.169	1.863
SigInf	0.443	0.441	0.419	0.422	0.391	0.379	0.367	0.338	0.349	0.311
t-stat	2.732	2.705	2.937	2.964	2.912	3.538	3.268	3.382	2.971	2.613
adj. R <sup>2</sup>	0.467	0.465	0.445	0.481	0.463	0.453	0.406	0.408	0.331	0.281
N	132	132	132	132	132	438	438	438	438	438

Table IA.41: **First Principal Component.** The table reports results from OLS regressions of real and nominal yields and their volatilities on the first principal component of the SPF and MSC based disagreement about inflation (DisInf). ExpInf is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Sample: Q3-1981 to Q2-2014.

	Real Yields					Nominal Yields				
	2y	3y	5y	7y	10y	1y	2y	3y	4y	5y
DisInf	0.39	0.40	0.41	0.41	0.42	0.48	0.50	0.52	0.53	0.54
t-stat	3.25	3.42	3.67	3.83	3.98	5.61	6.05	6.42	6.82	6.95
ExpInf	0.22	0.22	0.21	0.20	0.19	0.30	0.27	0.24	0.23	0.21
t-stat	1.67	1.64	1.51	1.40	1.30	2.84	2.56	2.33	2.23	2.08
SigInf	0.02	0.00	-0.02	-0.03	-0.05	-0.11	-0.13	-0.14	-0.15	-0.16
t-stat	0.23	-0.01	-0.18	-0.33	-0.50	-1.58	-1.99	-2.13	-2.28	-2.32
adj. R <sup>2</sup>	0.34	0.35	0.35	0.35	0.35	0.54	0.55	0.56	0.57	0.57
N	132	132	132	132	132	132	132	132	132	132
	Real Yield Volatilities					Nominal Yield Volatilities				
	2y	3y	5y	7y	10y	1y	2y	3y	4y	5y
DisInf	0.46	0.50	0.56	0.60	0.63	0.61	0.61	0.59	0.63	0.62
t-stat	5.71	5.50	4.94	4.68	4.53	5.63	5.24	5.64	5.55	5.99
ExpInf	-0.05	-0.02	-0.02	-0.05	-0.08	0.15	0.14	0.14	0.09	0.08
t-stat	-0.56	-0.23	-0.22	-0.56	-0.84	2.37	2.40	2.10	1.50	1.48
SigInf	0.25	0.23	0.19	0.12	0.03	0.08	0.08	0.07	0.05	0.02
t-stat	2.53	2.54	2.35	1.68	0.33	1.60	1.53	1.36	0.90	0.42
adj. R <sup>2</sup>	0.42	0.48	0.54	0.56	0.55	0.68	0.66	0.61	0.65	0.62
N	132	132	132	132	132	132	132	132	132	132

Table IA.42: **Disagreement about GDP Growth and Nominal Yields.** The table reports results from OLS regressions of nominal yields and nominal yield volatilities on disagreement about inflation (DisInf), disagreement about GDP growth (DisGDP), expected inflation (ExpInf), expected GDP growth (muGDPgr), and the volatility of GDP growth (SigGDPgr). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Sample: Q3-1981 to Q2-2014.

Nominal Yields										
Maturity	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.308	0.299	0.298	0.295	0.301	0.572	0.590	0.603	0.617	0.621
t-stat	2.16	2.09	2.08	2.08	2.16	3.75	4.06	4.32	4.58	4.79
DisGDP	0.300	0.317	0.326	0.332	0.341	0.223	0.228	0.231	0.230	0.240
t-stat	3.26	3.28	3.26	3.20	3.21	3.37	3.57	3.63	3.63	3.69
adj. R2	0.27	0.28	0.29	0.29	0.30	0.48	0.50	0.53	0.54	0.56
N	132	132	132	132	132	132	132	132	132	132
DisInf	0.327	0.321	0.319	0.317	0.323	0.537	0.562	0.582	0.599	0.607
t-stat	3.92	3.76	3.63	3.56	3.61	4.03	4.46	4.79	5.13	5.35
ExpInf	0.345	0.331	0.318	0.315	0.303	0.218	0.195	0.176	0.167	0.153
t-stat	2.89	2.84	2.75	2.73	2.68	2.87	2.86	2.74	2.76	2.64
DisGDP	0.200	0.220	0.233	0.240	0.251	0.186	0.194	0.200	0.200	0.212
t-stat	2.67	2.57	2.51	2.42	2.45	2.51	2.57	2.59	2.56	2.62
muGDPgr	0.296	0.299	0.293	0.292	0.289	0.321	0.329	0.326	0.329	0.326
t-stat	2.58	2.60	2.55	2.55	2.53	3.38	3.62	3.70	3.90	3.98
adj. R2	0.51	0.51	0.50	0.50	0.51	0.65	0.67	0.68	0.70	0.71
N	132	132	132	132	132	132	132	132	132	132
Nominal Yield Volatilities										
DisInf	0.584	0.583	0.528	0.585	0.549	0.562	0.522	0.494	0.456	0.451
t-stat	4.30	4.20	4.27	5.03	5.14	3.06	2.89	2.76	2.61	2.62
DisGDP	0.238	0.237	0.260	0.280	0.310	0.310	0.325	0.331	0.397	0.411
t-stat	2.21	1.95	2.04	2.08	2.23	2.19	2.15	2.45	2.43	2.63
adj. R2	0.54	0.53	0.48	0.59	0.57	0.55	0.51	0.48	0.51	0.52
N	132	132	132	132	132	132	132	132	132	132
DisInf	0.316	0.349	0.321	0.376	0.356	0.353	0.319	0.318	0.259	0.271
t-stat	3.19	3.08	2.82	3.51	3.40	2.95	2.66	2.43	2.13	2.18
ExpInf	0.266	0.239	0.223	0.175	0.177	0.203	0.194	0.173	0.156	0.151
t-stat	4.53	4.12	3.19	3.05	3.14	4.65	4.16	3.69	3.39	3.34
DisGDP	0.212	0.213	0.236	0.268	0.295	0.237	0.255	0.270	0.331	0.350
t-stat	2.53	2.11	2.13	2.32	2.39	3.42	2.99	3.20	3.30	3.44
SigGDPgr	0.329	0.286	0.251	0.263	0.239	0.373	0.363	0.312	0.379	0.339
t-stat	2.32	2.11	1.81	2.20	1.86	2.61	2.53	2.40	2.92	2.70
adj. R2	0.62	0.60	0.53	0.63	0.61	0.66	0.61	0.55	0.61	0.60
N	132	132	132	132	132	132	132	132	132	132

Table IA.43: **Disagreement about GDP Growth and Real Yields.** The table reports results from OLS regressions of real yields and real yield volatilities on disagreement about inflation (DisInf), disagreement about GDP growth (DisGDP), expected GDP growth (expGDP), and the volatility of GDP growth (SigGDP). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Sample: Q3-1981 to Q2-2014.

Real Yields										
Maturity	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.287	0.268	0.245	0.234	0.221	0.486	0.500	0.503	0.508	0.513
t-stat	2.42	2.21	1.96	1.86	1.75	2.79	2.97	3.14	3.27	3.40
DisGDP	0.229	0.246	0.273	0.284	0.295	0.177	0.179	0.192	0.195	0.197
t-stat	2.32	2.38	2.39	2.38	2.38	2.15	2.29	2.58	2.64	2.68
adj. R2	0.19	0.19	0.19	0.19	0.19	0.33	0.35	0.36	0.37	0.38
N	132	132	132	132	132	132	132	132	132	132
DisInf	0.358	0.341	0.320	0.308	0.296	0.521	0.536	0.540	0.546	0.551
t-stat	4.24	3.91	3.48	3.27	3.06	3.26	3.50	3.76	3.93	4.10
DisGDP	0.203	0.220	0.246	0.256	0.268	0.173	0.175	0.189	0.191	0.194
t-stat	2.12	2.17	2.17	2.15	2.14	1.81	1.90	2.07	2.10	2.12
expGDP	0.341	0.348	0.357	0.356	0.356	0.331	0.343	0.355	0.356	0.358
t-stat	3.23	3.30	3.34	3.30	3.29	3.09	3.30	3.50	3.57	3.68
adj. R2	0.30	0.30	0.31	0.31	0.31	0.43	0.46	0.48	0.49	0.50
N	132	132	132	132	132	132	132	132	132	132
Real Yield Volatilities										
DisInf	0.612	0.641	0.689	0.733	0.736	0.334	0.392	0.423	0.431	0.428
t-stat	6.60	6.89	6.63	6.72	6.55	1.92	2.14	2.15	2.03	1.94
DisGDP	-0.014	0.013	0.020	0.025	0.045	0.168	0.186	0.206	0.231	0.253
t-stat	-0.15	0.12	0.16	0.17	0.28	1.19	1.24	1.21	1.18	1.22
adj. R2	0.36	0.41	0.48	0.55	0.57	0.17	0.24	0.28	0.31	0.33
N	132	132	132	132	132	132	132	132	132	132
DisInf	0.140	0.208	0.316	0.398	0.471	0.052	0.127	0.173	0.186	0.209
t-stat	1.04	1.75	2.93	3.96	4.64	0.64	1.53	1.82	1.71	1.62
DisGDP	0.054	0.075	0.074	0.073	0.083	0.089	0.112	0.136	0.162	0.191
t-stat	1.01	1.17	0.85	0.67	0.63	2.48	2.94	2.30	1.89	1.71
SigGDP	0.662	0.608	0.524	0.470	0.373	0.722	0.679	0.639	0.628	0.563
t-stat	4.40	4.95	5.20	4.08	2.32	7.89	9.63	7.54	4.77	2.99
adj. R2	0.60	0.62	0.63	0.67	0.65	0.59	0.61	0.61	0.63	0.58
N	132	132	132	132	132	132	132	132	132	132



Table IA.44: **Earnings Disagreement.** The table reports results from OLS regressions of real and nominal yields on disagreement about inflation (DisInf) and market capitalization weighted disagreement about corporate earnings growth (DisEar). The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. Sample: Q1-1983 to Q4-2013.

	Real Yields					Nominal Yields				
	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisEar	-0.136	-0.130	-0.091	-0.075	-0.065	-0.072	-0.054	-0.040	-0.020	0.003
t-stat	-0.68	-0.65	-0.46	-0.39	-0.34	-0.50	-0.37	-0.27	-0.14	0.02
adj. R2	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	124	124	124	124	124	371	371	371	371	371
DisInf	0.459	0.439	0.395	0.378	0.364	0.551	0.579	0.600	0.618	0.632
t-stat	4.08	3.66	3.05	2.82	2.64	4.28	4.63	4.94	5.21	5.39
DisEar	-0.386	-0.369	-0.306	-0.281	-0.264	-0.136	-0.122	-0.110	-0.092	-0.071
t-stat	-2.47	-2.38	-2.10	-1.95	-1.85	-1.17	-1.07	-1.00	-0.86	-0.68
adj. R2	0.15	0.14	0.10	0.09	0.08	0.30	0.33	0.35	0.37	0.39
N	124	124	124	124	124	371	371	371	371	371

Table IA.45: **Real Consumption.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and real consumption growth volatility (SigC). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInf), and real consumption growth volatility. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). SigC is also predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation. Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	Real Yields									
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.28	0.26	0.24	0.22	0.20	0.50	0.51	0.50	0.50	0.50
t-stat	2.19	2.00	1.76	1.65	1.54	2.78	2.93	3.05	3.13	3.19
SigC	0.26	0.29	0.33	0.35	0.37	0.10	0.11	0.14	0.15	0.17
t-stat	1.53	1.60	1.68	1.75	1.83	0.80	0.84	0.98	1.06	1.11
R <sup>2</sup>	0.21	0.21	0.22	0.23	0.23	0.31	0.33	0.34	0.35	0.36
N	132	132	132	132	132	132	132	132	132	132

	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.23	0.21	0.21	0.20	0.21	0.45	0.47	0.48	0.49	0.50
t-stat	2.08	1.97	1.91	1.87	1.95	2.81	3.02	3.17	3.33	3.43
ExpInf	0.48	0.47	0.46	0.46	0.45	0.40	0.38	0.36	0.35	0.33
t-stat	5.77	5.96	5.95	6.06	6.04	5.18	5.28	5.13	5.12	4.94
SigC	0.26	0.29	0.32	0.34	0.35	0.04	0.06	0.08	0.09	0.11
t-stat	2.14	2.40	2.60	2.80	2.90	0.37	0.51	0.66	0.77	0.87
R <sup>2</sup>	0.46	0.46	0.47	0.48	0.48	0.55	0.57	0.58	0.59	0.60
N	132	132	132	132	132	132	132	132	132	132

Table IA.46: **Real GDP.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and real GDP growth volatility (SigGDP). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInfl), and real GDP growth volatility. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInfl is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). SigGDP is also predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation. Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.41	0.40	0.39	0.38	0.37	0.55	0.57	0.58	0.59	0.60
t-stat	3.67	3.58	3.41	3.28	3.10	2.79	2.96	3.08	3.19	3.30
SigGDP	0.00	-0.01	0.00	0.01	0.01	0.03	0.01	0.00	0.00	-0.01
t-stat	0.02	-0.03	-0.01	0.04	0.07	0.23	0.08	0.01	-0.01	-0.04
R <sup>2</sup>	0.15	0.14	0.14	0.13	0.13	0.30	0.32	0.33	0.34	0.34
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.27	0.26	0.26	0.25	0.25	0.49	0.53	0.55	0.56	0.57
t-stat	2.41	2.32	2.23	2.09	2.11	2.83	3.14	3.35	3.59	3.74
ExpInfl	0.52	0.51	0.50	0.51	0.50	0.39	0.36	0.34	0.33	0.32
t-stat	4.57	4.69	4.67	4.78	4.76	4.00	4.07	4.01	4.10	4.05
SigGDP	0.00	0.02	0.04	0.05	0.07	-0.03	-0.03	-0.02	-0.02	-0.01
t-stat	-0.01	0.11	0.22	0.32	0.40	-0.20	-0.20	-0.16	-0.14	-0.05
R <sup>2</sup>	0.44	0.43	0.42	0.42	0.42	0.55	0.57	0.57	0.59	0.59
N	132	132	132	132	132	132	132	132	132	132

Table IA.47: **Industrial Production.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and the volatility of industrial production (SigIP). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInfl), and the volatility of IP. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInfl is predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	Real Yields					Real Yields				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.40	0.39	0.39	0.38	0.38	0.55	0.57	0.58	0.59	0.60
t-stat	3.14	3.09	3.06	3.06	3.05	2.98	3.14	3.27	3.38	3.49
SigIP	0.03	0.02	0.00	-0.01	-0.02	0.06	0.04	0.02	0.01	-0.01
t-stat	0.49	0.24	0.00	-0.09	-0.21	0.99	0.65	0.30	0.12	-0.11
adj. R <sup>2</sup>	0.15	0.15	0.14	0.13	0.13	0.31	0.32	0.33	0.34	0.34
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yields					Nominal Yields				
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.29	0.30	0.31	0.31	0.33	0.48	0.53	0.57	0.59	0.61
t-stat	2.50	2.54	2.60	2.67	2.77	4.15	4.51	4.77	5.04	5.27
ExpInfl	0.51	0.50	0.49	0.48	0.47	0.35	0.29	0.24	0.21	0.19
t-stat	4.39	4.23	4.05	4.00	3.90	3.45	2.73	2.17	1.82	1.62
SigIP	0.13	0.12	0.11	0.11	0.10	-0.03	-0.05	-0.05	-0.06	-0.06
t-stat	1.40	1.24	1.18	1.14	1.06	-0.58	-0.83	-0.87	-1.00	-0.97
adj. R <sup>2</sup>	0.41	0.40	0.39	0.39	0.39	0.58	0.56	0.55	0.55	0.55
N	132	132	132	132	132	438	438	438	438	438

Table IA.48: **Jurado, Ludvigson, and Ng (2015) Uncertainty Measure.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and the Jurado, Ludvigson, and Ng (2015) uncertainty measure (U-JLN). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInfl), and the Jurado, Ludvigson, and Ng (2015) uncertainty measure. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInfl is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.33	0.34	0.34	0.34	0.34	0.51	0.53	0.55	0.56	0.57
t-stat	2.12	2.11	2.09	2.10	2.13	2.89	3.05	3.21	3.34	3.45
U-JLN	0.13	0.11	0.09	0.07	0.05	0.16	0.14	0.11	0.09	0.07
t-stat	0.70	0.55	0.40	0.33	0.25	1.18	0.96	0.76	0.66	0.53
adj. R <sup>2</sup>	0.16	0.15	0.14	0.14	0.13	0.33	0.34	0.34	0.34	0.35
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.32	0.34	0.35	0.35	0.37	0.45	0.51	0.54	0.57	0.59
t-stat	2.41	2.49	2.53	2.59	2.69	3.94	4.29	4.57	4.83	5.03
ExpInfl	0.47	0.45	0.44	0.44	0.42	0.35	0.29	0.25	0.22	0.20
t-stat	3.87	3.71	3.58	3.53	3.43	3.22	2.55	2.01	1.71	1.52
U-JLN	0.06	0.03	0.03	0.02	0.01	0.04	0.02	0.01	0.00	0.00
t-stat	0.36	0.20	0.15	0.10	0.03	0.37	0.14	0.09	0.00	0.02
adj. R <sup>2</sup>	0.40	0.39	0.39	0.38	0.39	0.58	0.56	0.55	0.54	0.55
N	132	132	132	132	132	438	438	438	438	438

Table IA.49: **Baker, Bloom, and Davis (2015) Uncertainty Measure.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and the Baker, Bloom, and Davis (2015) uncertainty measure (U-BBD). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInf), and the Baker, Bloom, and Davis (2015) uncertainty measure. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
DisInf	0.14	0.12	0.10	0.09	0.08	0.44	0.47	0.49	0.50	0.51
t-stat	1.18	1.04	0.87	0.78	0.65	2.65	2.90	3.16	3.30	3.41
U-BBD	-0.47	-0.49	-0.51	-0.50	-0.49	-0.49	-0.51	-0.54	-0.54	-0.53
t-stat	-3.32	-3.10	-2.68	-2.45	-2.22	-5.36	-5.22	-4.46	-4.05	-3.72
adj. R <sup>2</sup>	0.18	0.20	0.22	0.22	0.20	0.36	0.41	0.45	0.46	0.46
N	118	118	118	118	118	118	118	118	118	118
	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	-0.10	-0.13	-0.14	-0.15	-0.14	0.47	0.51	0.54	0.56	0.58
t-stat	-0.69	-0.87	-0.98	-1.06	-1.06	4.48	5.06	5.44	5.74	5.98
ExpInf	0.44	0.43	0.42	0.41	0.41	0.26	0.25	0.23	0.23	0.23
t-stat	2.58	2.54	2.45	2.46	2.40	2.62	2.66	2.57	2.69	2.60
U-BBD	0.16	0.21	0.24	0.27	0.29	-0.44	-0.44	-0.43	-0.41	-0.40
t-stat	1.36	1.98	2.51	3.04	3.55	-6.65	-6.67	-6.30	-5.88	-5.51
adj. R <sup>2</sup>	0.21	0.22	0.23	0.24	0.24	0.52	0.54	0.55	0.56	0.56
N	118	118	118	118	118	354	354	354	354	354

Table IA.50: **Output Gap.** The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and the output gap (OG). The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInf), and OG. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInf is predicted by a GARCH(1, 1) model with an ARMA(1, 1) mean equation over multiple horizons (T). Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
	Real Yields									
DisInf	0.45	0.43	0.42	0.41	0.39	0.83	0.84	0.84	0.84	0.83
t-stat	4.25	3.93	3.61	3.45	3.29	5.91	5.64	5.11	4.89	4.73
ExpInf	0.16	0.14	0.12	0.10	0.08	0.50	0.49	0.48	0.46	0.43
t-stat	0.96	0.83	0.73	0.59	0.45	3.79	3.52	3.12	2.88	2.68
adj. R <sup>2</sup>	0.18	0.16	0.15	0.14	0.13	0.48	0.49	0.49	0.49	0.48
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.29	0.28	0.28	0.27	0.28	0.66	0.67	0.69	0.69	0.69
t-stat	3.50	3.29	3.23	3.19	3.27	3.88	3.77	3.74	3.69	3.69
ExpInf	0.51	0.51	0.50	0.50	0.49	0.16	0.13	0.10	0.09	0.09
t-stat	5.66	5.92	5.88	6.00	5.91	1.25	0.98	0.71	0.66	0.66
OG	0.04	0.00	-0.03	-0.06	-0.08	0.21	0.17	0.15	0.12	0.09
t-stat	0.30	-0.03	-0.24	-0.45	-0.64	1.48	1.16	0.99	0.81	0.63
adj. R <sup>2</sup>	0.44	0.43	0.42	0.42	0.42	0.61	0.59	0.57	0.56	0.56
N	132	132	132	132	132	146	146	146	146	146

Table IA.51: **Chicago Fed National Activity Index (CFNAI)**. The top table reports results from OLS regressions of real yields on disagreement about inflation (DisInf) and the CFNAI. The bottom table reports results from OLS regressions of nominal yields on disagreement about inflation, expected inflation (ExpInfl), and the CFNAI. The t-statistics (t-stat) are Newey-West corrected with 12 lags. Regression coefficients are standardized. ExpInfl is predicted by a GARCH(1,1) model with an ARMA(1,1) mean equation over multiple horizons (T). The CFNAI is the index of economic activity developed in Stock and Watson (1999). Sample: Q3-1981 to Q2-2014.

	Survey of Professionals					Surveys of Consumers				
	2y	3y	5y	7y	10y	2y	3y	5y	7y	10y
	Real Yields									
DisInf	0.42	0.41	0.41	0.41	0.40	0.56	0.58	0.60	0.60	0.61
t-stat	3.46	3.41	3.38	3.38	3.37	3.04	3.20	3.35	3.46	3.59
CFNAI	0.05	0.08	0.11	0.12	0.13	0.04	0.07	0.10	0.12	0.13
t-stat	0.63	0.98	1.37	1.57	1.74	0.54	1.01	1.57	1.91	2.24
adj. R <sup>2</sup>	0.16	0.15	0.15	0.15	0.15	0.30	0.32	0.34	0.35	0.36
N	132	132	132	132	132	132	132	132	132	132
	Nominal Yields									
	1y	2y	3y	4y	5y	1y	2y	3y	4y	5y
DisInf	0.29	0.30	0.31	0.31	0.33	0.38	0.42	0.46	0.48	0.50
t-stat	2.84	2.92	2.98	3.08	3.22	3.24	3.76	4.16	4.53	4.83
ExpInfl	0.51	0.50	0.48	0.48	0.47	0.36	0.34	0.32	0.31	0.30
t-stat	4.89	4.78	4.64	4.63	4.46	3.06	3.05	2.98	3.07	2.94
CFNAI	0.07	0.10	0.10	0.11	0.13	0.16	0.18	0.19	0.20	0.19
t-stat	0.98	1.35	1.42	1.54	1.64	2.50	3.03	3.16	3.38	3.39
adj. R <sup>2</sup>	0.44	0.44	0.43	0.43	0.43	0.38	0.41	0.42	0.45	0.46
N	132	132	132	132	132	354	354	354	354	354