

## Online Appendix

# Strategic Uncertainty in Financial Markets: Evidence from a Consensus Pricing Service\*

Lerby M. Ergun<sup>1,2</sup> and Andreas Uthemann<sup>1,2</sup>

<sup>1</sup>*Bank of Canada*

<sup>2</sup>*London School of Economics*

February 2021

---

\*Uthemann (corresponding author): Financial Markets Department, Bank of Canada, 234 Wellington St W, Ottawa, ON K1A 0G9 ([authemann@bank-banque-canada.ca](mailto:authemann@bank-banque-canada.ca)). Ergun: Financial Markets Department, Bank of Canada ([lergun@bank-banque-canada.ca](mailto:lergun@bank-banque-canada.ca)).

# 1 Tables for robustness analysis

Table 1: Matching cross-sectional dispersion and consensus price volatility

	60	80	90	95	100	105	110	120	150	200
6	1.021 (0.012)	1.043 (0.011)	1.045 (0.011)	1.050 (0.011)	1.052 (0.011)	1.058 (0.011)	1.115 (0.012)	1.125 (0.012)	0.961 (0.014)	.
12	1.026 (0.012)	1.050 (0.011)	1.039 (0.011)	1.047 (0.011)	1.056 (0.011)	1.049 (0.011)	1.058 (0.011)	1.103 (0.012)	0.988 (0.013)	.
24	1.079 (0.012)	1.052 (0.011)	1.047 (0.011)	1.053 (0.011)	1.064 (0.011)	1.063 (0.011)	1.164 (0.012)	1.082 (0.011)	0.999 (0.012)	0.909 (0.016)
36	1.058 (0.012)	1.040 (0.011)	1.043 (0.011)	1.048 (0.011)	1.052 (0.011)	1.059 (0.011)	1.060 (0.011)	1.061 (0.011)	1.013 (0.012)	0.928 (0.014)
48	1.036 (0.012)	1.033 (0.011)	1.038 (0.011)	1.038 (0.011)	1.033 (0.011)	1.034 (0.011)	1.035 (0.011)	1.041 (0.011)	1.019 (0.012)	0.960 (0.014)
60	0.992 (0.012)	1.028 (0.011)	1.041 (0.011)	1.039 (0.011)	1.038 (0.011)	1.037 (0.011)	1.040 (0.011)	1.043 (0.011)	1.014 (0.012)	1.003 (0.015)
84	0.986 (0.012)	1.026 (0.012)	1.021 (0.012)	1.019 (0.012)	1.015 (0.012)	1.012 (0.021)	1.015 (0.012)	1.023 (0.012)	1.005 (0.012)	0.913 (0.014)

(a) Matching cross-sectional dispersion

	60	80	90	95	100	105	110	120	150	200
6	1.437 (0.271)	1.058 (0.243)	1.138 (0.294)	1.053 (0.224)	1.045 (0.277)	1.401 (0.780)	1.155 (0.315)	1.242 (0.213)	2.595 (0.629)	.
12	1.110 (0.264)	1.028 (0.201)	1.117 (0.313)	1.320 (0.553)	1.104 (0.252)	0.990 (0.219)	1.120 (0.263)	1.014 (0.228)	2.573 (0.755)	.
24	1.086 (0.286)	1.030 (0.203)	1.050 (0.214)	1.413 (0.733)	1.213 (0.484)	1.033 (0.290)	1.095 (0.324)	1.183 (0.394)	1.483 (0.476)	3.635 (2.366)
36	1.019 (0.214)	1.158 (0.593)	1.049 (0.336)	2.062 (1.594)	1.199 (0.365)	0.931 (0.158)	1.383 (0.644)	1.017 (0.254)	1.061 (0.347)	1.761 (0.379)
48	0.987 (0.203)	1.203 (0.561)	1.090 (0.327)	0.985 (0.203)	1.086 (0.339)	1.027 (0.229)	1.346 (0.838)	1.011 (0.244)	0.968 (0.246)	1.490 (0.420)
60	1.296 (0.418)	1.373 (0.642)	1.157 (0.409)	1.009 (0.247)	1.106 (0.338)	1.043 (0.299)	1.070 (0.306)	1.300 (0.579)	0.980 (0.254)	1.324 (0.433)
84	0.942 (0.179)	1.149 (0.526)	1.142 (0.379)	1.098 (0.341)	0.968 (0.181)	1.029 (0.222)	0.989 (0.209)	1.054 (0.265)	1.045 (0.265)	1.055 (0.234)

(b) Matching volatility consensus price

These two tables present the mean and standard deviation of the ratio of the raw moments of the data versus the model implied moments for each contract. The upper table displays the ratio of the model-implied cross-sectional dispersion versus the average cross-sectional standard deviation in the data. The lower table displays the ratio of the model-implied volatility of the consensus price to the empirical counterpart from the data. The model-implied volatility is given by the unconditional volatility of the average first-order belief plus  $\sigma_\epsilon$ . The unconditional variance of  $\bar{\theta}_t$  is the solution to a Lyapunov equation that defines the unconditional variance of the state. The first row and first column of each table denote the moneyness and time-to-expiration, respectively, of the options under consideration. The standard deviation of the posterior distribution of the ratios is given in parentheses below its mean (0.000 signifies standard deviations below 0.0005). The sample period of the data is January 2002 to December 2015.

Table 2: Model parameter estimates  $\phi = \{\rho, \sigma_u, \sigma_\varepsilon, \sigma_\eta\}$  (sub-sample 2006-2011)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.941 (0.026)	0.901 (0.045)	0.913 (0.047)	0.954 (0.058)	0.903 (0.037)	0.901 (0.039)	0.911 (0.045)	0.952 (0.018)	0.952 (0.027)	.	6	0.085 (0.002)	0.110 (0.009)	0.117 (0.010)	0.125 (0.011)	0.131 (0.011)	0.140 (0.012)	0.148 (0.012)	0.107 (0.002)	0.162 (0.006)	.
12	0.964 (0.020)	0.909 (0.038)	0.916 (0.036)	0.909 (0.041)	0.916 (0.041)	0.909 (0.038)	0.913 (0.031)	0.963 (0.022)	0.957 (0.025)	.	12	0.051 (0.001)	0.091 (0.008)	0.097 (0.008)	0.101 (0.009)	0.106 (0.009)	0.111 (0.010)	0.116 (0.010)	0.073 (0.003)	0.131 (0.004)	.
24	0.960 (0.018)	0.919 (0.032)	0.916 (0.038)	0.919 (0.037)	0.921 (0.034)	0.925 (0.036)	0.922 (0.034)	0.916 (0.021)	0.949 (0.025)	0.948	24	0.044 (0.001)	0.080 (0.007)	0.084 (0.007)	0.087 (0.007)	0.090 (0.008)	0.093 (0.008)	0.097 (0.008)	0.103 (0.008)	0.079 (0.002)	0.137 (0.005)
36	0.968 (0.021)	0.926 (0.038)	0.928 (0.036)	0.932 (0.035)	0.916 (0.036)	0.916 (0.027)	0.929 (0.033)	0.911 (0.021)	0.956 (0.027)	0.949	36	0.040 (0.001)	0.072 (0.006)	0.075 (0.006)	0.077 (0.006)	0.079 (0.007)	0.082 (0.007)	0.084 (0.007)	0.089 (0.007)	0.063 (0.002)	0.100 (0.003)
48	0.961 (0.018)	0.920 (0.032)	0.916 (0.035)	0.923 (0.037)	0.911 (0.038)	0.909 (0.039)	0.947 (0.045)	0.917 (0.033)	0.932 (0.039)	0.946 (0.026)	48	0.038 (0.001)	0.067 (0.005)	0.070 (0.006)	0.072 (0.006)	0.073 (0.006)	0.076 (0.007)	0.078 (0.007)	0.081 (0.007)	0.080 (0.016)	0.084 (0.002)
60	0.978 (0.016)	0.930 (0.040)	0.922 (0.036)	0.921 (0.033)	0.917 (0.036)	0.924 (0.036)	0.917 (0.035)	0.913 (0.037)	0.917 (0.036)	0.945 (0.021)	60	0.036 (0.001)	0.063 (0.005)	0.065 (0.006)	0.066 (0.006)	0.067 (0.006)	0.069 (0.006)	0.070 (0.006)	0.073 (0.006)	0.082 (0.006)	0.069 (0.002)
84	0.964 (0.018)	0.915 (0.033)	0.916 (0.031)	0.921 (0.036)	0.916 (0.034)	0.916 (0.037)	0.933 (0.033)	0.915 (0.033)	0.913 (0.034)	0.948 (0.027)	84	0.034 (0.001)	0.056 (0.004)	0.057 (0.005)	0.058 (0.005)	0.059 (0.005)	0.060 (0.005)	0.061 (0.005)	0.063 (0.005)	0.070 (0.005)	0.056 (0.001)

(a) Mean and standard deviation  $\rho$

(b) Mean and standard deviation  $\sigma_u$

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.104 (0.011)	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)	0.002 (0.000)	0.003 (0.001)	0.152 (0.015)	0.325 (0.029)	.	6	0.091 (0.003)	0.021 (0.000)	0.015 (0.000)	0.013 (0.000)	0.013 (0.000)	0.017 (0.000)	0.026 (0.000)	0.109 (0.003)	0.321 (0.020)	.	
12	0.059 (0.006)	0.001 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.000)	0.055 (0.006)	0.252 (0.024)	.	12	0.039 (0.001)	0.015 (0.000)	0.011 (0.000)	0.010 (0.000)	0.009 (0.000)	0.011 (0.000)	0.015 (0.000)	0.036 (0.001)	0.220 (0.010)	.		
24	0.037 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.001)	0.098 (0.009)	0.226 (0.021)	24	0.026 (0.001)	0.013 (0.000)	0.010 (0.000)	0.009 (0.000)	0.008 (0.000)	0.010 (0.000)	0.011 (0.000)	0.018 (0.000)	0.074 (0.002)	0.283 (0.018)		
36	0.029 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.050 (0.005)	0.158 (0.015)	36	0.022 (0.001)	0.012 (0.000)	0.009 (0.000)	0.008 (0.000)	0.008 (0.000)	0.009 (0.000)	0.010 (0.000)	0.015 (0.000)	0.039 (0.001)	0.159 (0.008)		
48	0.032 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.012 (0.015)	0.116 (0.012)	48	0.024 (0.001)	0.012 (0.000)	0.009 (0.000)	0.009 (0.000)	0.008 (0.000)	0.009 (0.000)	0.010 (0.000)	0.014 (0.000)	0.028 (0.001)	0.111 (0.005)		
60	0.032 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.002 (0.001)	0.091 (0.009)	60	0.024 (0.001)	0.012 (0.000)	0.010 (0.000)	0.009 (0.000)	0.009 (0.000)	0.010 (0.000)	0.013 (0.000)	0.022 (0.000)	0.080 (0.003)	.		
84	0.035 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.001)	0.066 (0.007)	84	0.027 (0.001)	0.013 (0.000)	0.011 (0.000)	0.010 (0.000)	0.010 (0.000)	0.011 (0.000)	0.014 (0.000)	0.022 (0.000)	0.058 (0.002)	.		

(c) Mean and standard deviation  $\sigma_\varepsilon$

(d) Mean and standard deviation  $\sigma_\eta$

The panels in this table present the means and standard deviations (in parentheses) of the model parameter estimates. Panel (a) displays estimates of the persistence  $\rho$  of the AR1 process for the fundamental value. Panel (b) displays estimates of the standard deviation  $\sigma_u$  of the shock to the fundamental. Panel (c) displays the estimates of the standard deviation  $\sigma_\varepsilon$  of the noise in the consensus price. Panel (d) displays the estimates of the standard deviation of the noise  $\sigma_\eta$  in private signal. Estimates are obtained using MCMC methods assuming diffuse priors for all parameters. The first row and first column of each panel give moneyness and time-to-expiration, respectively, of the option contracts under consideration. The standard deviation of the posterior distribution of the parameter is given in parenthesis below its mean (0.000 signifies standard deviations below 0.0005). The sample period of the data is December 2006 to December 2011.

Table 3: Counterfactual experiments (sub-sample 2006-2011)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	1.44 (0.26)	0.06 (0.02)	0.01 (0.01)	0.01 (0.01)	0.00* (0.01)	0.01 (0.01)	0.04 (0.01)	1.02 (0.19)	2.35 (0.41)	.	6	9.97 (1.57)	0.34 (0.13)	0.08 (0.06)	0.04 (0.05)	0.02 (0.05)	0.05 (0.05)	0.23 (0.12)	7.34 (1.18)	15.61 (2.24)	.
12	0.67 (0.12)	0.03 (0.01)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.01 (0.01)	0.28 (0.06)	1.91 (0.37)	.	12	4.96 (0.84)	0.19 (0.08)	0.04 (0.07)	0.02 (0.05)	0.02 (0.06)	0.03 (0.04)	0.07 (0.04)	2.22 (0.42)	12.86 (2.06)	.
24	0.50 (0.10)	0.03 (0.01)	0.01 (0.01)	0.00* (0.01)	0.00* (0.00)	0.00* (0.01)	0.01 (0.02)	0.04 (0.18)	1.03 (0.53)	3.20	24	3.77 (0.68)	0.17 (0.07)	0.04 (0.05)	0.03 (0.04)	0.02 (0.05)	0.03 (0.04)	0.05 (0.07)	0.25 (0.10)	7.40 (1.13)	20.56 (2.72)
36	0.51 (0.10)	0.03 (0.01)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.01 (0.01)	0.03 (0.11)	0.59 (0.38)	2.24	36	3.81 (0.69)	0.17 (0.07)	0.05 (0.06)	0.04 (0.06)	0.03 (0.04)	0.04 (0.06)	0.06 (0.07)	0.19 (0.10)	4.39 (0.74)	14.80 (2.11)
48	0.58 (0.12)	0.04 (0.02)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.03 (0.13)	0.33 (0.34)	1.91	48	4.34 (0.77)	0.25 (0.10)	0.08 (0.06)	0.05 (0.06)	0.04 (0.05)	0.05 (0.05)	0.08 (0.05)	0.20 (0.08)	2.19 (1.06)	12.79 (1.92)
60	0.67 (0.13)	0.06 (0.02)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.04 (0.01)	0.19 (0.06)	1.54 (0.27)	.	60	4.98 (0.86)	0.33 (0.12)	0.13 (0.06)	0.09 (0.06)	0.07 (0.06)	0.08 (0.05)	0.11 (0.06)	0.25 (0.10)	1.08 (0.38)	10.57 (1.60)
84	0.93 (0.17)	0.11 (0.04)	0.05 (0.02)	0.04 (0.01)	0.03 (0.01)	0.04 (0.01)	0.05 (0.02)	0.10 (0.03)	0.32 (0.11)	1.41 (0.25)	84	6.67 (1.09)	0.65 (0.23)	0.29 (0.12)	0.22 (0.09)	0.20 (0.08)	0.23 (0.09)	0.31 (0.12)	0.59 (0.20)	1.84 (0.71)	9.72 (1.49)

(a) Decrease in valuation uncertainty:  $\Delta_1^p$ (b) Decrease in strategic uncertainty:  $\Delta_2^p$ 

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	8.82 (7.19)	-0.03 (2.23)	-0.02 (2.12)	0.00* (2.12)	-0.02 (2.11)	0.00* (2.10)	-0.01 (2.41)	8.27 (7.94)	22.75 (20.23)	.	6	32.59 (4.44)	-0.05 (2.25)	-0.03 (2.07)	-0.01 (2.05)	-0.03 (2.05)	-0.02 (2.08)	-0.05 (2.74)	32.26 (5.16)	60.78 (5.64)	.
12	4.48 (2.98)	-0.04 (2.16)	0.01 (2.26)	0.00* (2.26)	0.03 (2.29)	0.00* (2.15)	-0.01 (2.14)	1.17 (3.06)	19.12 (15.08)	.	12	19.27 (2.73)	-0.04 (2.04)	0.00* (2.09)	-0.01 (2.13)	0.02 (2.16)	-0.01 (2.07)	-0.02 (2.12)	5.83 (3.26)	56.21 (5.31)	.
24	2.19 (2.67)	-0.02 (2.20)	0.02 (2.20)	-0.01 (2.25)	0.01 (2.30)	0.00* (2.21)	0.02 (2.20)	-0.03 (2.21)	6.86 (5.65)	23.10 (15.83)	24	10.04 (2.58)	-0.03 (2.07)	0.01 (2.09)	-0.02 (2.12)	0.01 (2.16)	-0.01 (2.10)	0.00* (2.07)	-0.05 (2.17)	27.36 (4.14)	57.33 (4.23)
36	1.87 (2.59)	0.00* (2.22)	0.01 (2.32)	0.04 (2.40)	0.02 (2.29)	0.03 (2.37)	0.01 (2.27)	-0.02 (2.21)	2.24 (3.40)	17.22 (10.00)	36	8.30 (2.57)	-0.01 (2.07)	0.00* (2.17)	0.03 (2.23)	0.01 (2.15)	0.02 (2.21)	0.00* (2.11)	-0.04 (2.11)	10.08 (3.29)	50.99 (3.99)
48	2.58 (2.66)	0.01 (2.27)	0.01 (2.36)	0.01 (2.35)	0.01 (2.30)	0.01 (2.35)	0.01 (2.23)	-0.01 (2.23)	0.36 (3.68)	12.93 (7.73)	48	11.48 (2.62)	0.00* (2.08)	0.01 (2.19)	0.00* (2.20)	0.00* (2.16)	0.00* (2.18)	0.01 (2.11)	-0.02 (2.10)	1.48 (5.92)	42.73 (4.35)
60	3.19 (2.64)	0.03 (2.29)	0.02 (2.29)	0.02 (2.30)	0.04 (2.32)	0.00* (2.41)	-0.01 (2.35)	-0.02 (2.27)	-0.02 (2.28)	10.27 (2.68)	60	13.68 (2.59)	0.00* (2.09)	0.00* (2.14)	0.01 (2.16)	0.03 (2.23)	0.00* (2.19)	-0.02 (2.13)	-0.03 (2.12)	-0.07 (2.55)	36.63 (3.74)
84	4.92 (2.75)	0.01 (2.48)	-0.01 (2.46)	0.01 (2.44)	0.00* (2.42)	-0.01 (2.46)	0.00* (2.47)	0.00* (2.94)	0.10 (4.19)	8.21	84	20.26 (2.61)	-0.01 (2.21)	-0.02 (2.24)	0.00* (2.25)	-0.01 (2.24)	-0.02 (2.26)	-0.01 (2.25)	-0.02 (2.22)	-0.19 (2.62)	30.58 (3.28)

(c) Reduction in valuation Uncertainty:  $\Delta_1^\theta$ (d) Reduction in Strategic Uncertainty:  $\Delta_2^\theta$ 

The panels in this table present the counterfactual percentage decreases in valuation and strategic uncertainty. The two top panels display the reductions in uncertainties when comparing a setting without consensus price to a setting with consensus price. Panel (a) presents the results for the percentage decrease in **valuation uncertainty**,  $\Delta_1^p$ . Panel (b) shows the percentage increase in **strategic uncertainty**,  $\Delta_2^p$ . The lower panels shows the counterfactual percentage reductions in valuation and strategic uncertainty when comparing the current information structure to an information structure with a consensus price that perfectly reveals last period's state. Panel (c) shows percentage reduction in **valuation uncertainty**,  $\Delta_1^\theta$ . Panel (d) shows the percentage reduction in **strategic uncertainty**,  $\Delta_2^\theta$ . The first row and first column of each table give moneyness and time-to-expiration, respectively, of the options under consideration. The standard deviations of the posterior distribution of the parameter is given in parentheses below the means (0.00 signifies standard deviations below 0.005). The sample period is from December 2006 to December 2011.

Table 4: Model parameter estimates  $\phi = \{\rho, \sigma_u, \sigma_\varepsilon, \sigma_\eta\}$  (sub-sample 2010-2015)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.910 (0.044)	0.801 (0.071)	0.805 (0.062)	0.811 (0.063)	0.838 (0.081)	0.827 (0.066)	0.829 (0.068)	0.898 (0.037)	0.900 (0.050)	.	6	0.066 (0.002)	0.099 (0.008)	0.108 (0.010)	0.120 (0.011)	0.135 (0.012)	0.150 (0.014)	0.153 (0.013)	0.130 (0.003)	0.183 (0.009)	.
12	0.893 (0.057)	0.895 (0.062)	0.861 (0.046)	0.878 (0.064)	0.861 (0.053)	0.899 (0.071)	0.883 (0.062)	0.853 (0.063)	0.938 (0.029)	.	12	0.070 (0.006)	0.081 (0.007)	0.089 (0.008)	0.095 (0.009)	0.101 (0.009)	0.109 (0.010)	0.115 (0.010)	0.121 (0.010)	0.130 (0.005)	.
24	0.908 (0.058)	0.917 (0.061)	0.880 (0.049)	0.858 (0.052)	0.909 (0.062)	0.875 (0.051)	0.870 (0.065)	0.862 (0.057)	0.916 (0.036)	0.972 (0.019)	24	0.061 (0.005)	0.070 (0.006)	0.075 (0.007)	0.079 (0.008)	0.083 (0.008)	0.087 (0.008)	0.091 (0.008)	0.097 (0.009)	0.083 (0.002)	0.118 (0.006)
36	0.890 (0.046)	0.892 (0.051)	0.896 (0.055)	0.880 (0.053)	0.873 (0.061)	0.872 (0.045)	0.859 (0.058)	0.856 (0.066)	0.936 (0.037)	0.943 (0.027)	36	0.056 (0.005)	0.062 (0.006)	0.067 (0.006)	0.069 (0.006)	0.072 (0.006)	0.074 (0.006)	0.077 (0.007)	0.082 (0.007)	0.061 (0.002)	0.109 (0.005)
48	0.916 (0.044)	0.888 (0.048)	0.884 (0.055)	0.867 (0.049)	0.887 (0.058)	0.865 (0.054)	0.881 (0.058)	0.860 (0.063)	0.888 (0.036)	0.924 (0.034)	48	0.054 (0.004)	0.059 (0.005)	0.062 (0.005)	0.064 (0.006)	0.066 (0.006)	0.068 (0.006)	0.071 (0.007)	0.075 (0.007)	0.057 (0.002)	0.093 (0.004)
60	0.927 (0.054)	0.909 (0.057)	0.894 (0.046)	0.882 (0.049)	0.896 (0.054)	0.874 (0.049)	0.873 (0.061)	0.836 (0.056)	0.915 (0.047)	0.934 (0.040)	60	0.051 (0.004)	0.055 (0.005)	0.057 (0.005)	0.058 (0.005)	0.060 (0.005)	0.062 (0.005)	0.064 (0.005)	0.066 (0.006)	0.050 (0.002)	0.072 (0.003)
84	0.909 (0.048)	0.888 (0.044)	0.898 (0.044)	0.880 (0.047)	0.893 (0.041)	0.892 (0.049)	0.862 (0.044)	0.890 (0.065)	0.813 (0.063)	0.919 (0.033)	84	0.046 (0.003)	0.048 (0.004)	0.050 (0.004)	0.051 (0.004)	0.052 (0.004)	0.053 (0.004)	0.054 (0.005)	0.056 (0.005)	0.062 (0.005)	0.053 (0.002)

 (a) Mean and standard deviation  $\rho$ 

 (b) Mean and standard deviation  $\sigma_u$ 

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.064 (0.008)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.000)	0.002 (0.001)	0.173 (0.019)	0.325 (0.034)	.	6	0.049 (0.002)	0.019 (0.000)	0.012 (0.000)	0.010 (0.000)	0.008 (0.000)	0.015 (0.000)	0.031 (0.001)	0.159 (0.008)	0.328 (0.030)	.	
12	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.001)	0.299 (0.031)	.	12	0.016 (0.000)	0.010 (0.000)	0.008 (0.000)	0.007 (0.000)	0.006 (0.000)	0.008 (0.000)	0.012 (0.000)	0.029 (0.001)	0.269 (0.018)	.		
24	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.128 (0.014)	0.348 (0.032)	.	24	0.012 (0.000)	0.008 (0.000)	0.006 (0.000)	0.006 (0.000)	0.005 (0.000)	0.007 (0.000)	0.008 (0.000)	0.014 (0.000)	0.101 (0.005)	0.423 (0.037)	
36	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.067 (0.007)	0.246 (0.024)	.	36	0.012 (0.000)	0.008 (0.000)	0.007 (0.000)	0.006 (0.000)	0.006 (0.000)	0.007 (0.000)	0.008 (0.000)	0.012 (0.000)	0.049 (0.002)	0.270 (0.021)	
48	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.050 (0.018)	0.177 (0.018)	.	48	0.015 (0.000)	0.010 (0.000)	0.009 (0.000)	0.008 (0.000)	0.008 (0.000)	0.009 (0.000)	0.010 (0.000)	0.013 (0.000)	0.039 (0.001)	0.175 (0.012)	
60	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.036 (0.005)	0.129 (0.013)	.	60	0.015 (0.000)	0.011 (0.000)	0.009 (0.000)	0.009 (0.000)	0.009 (0.000)	0.010 (0.000)	0.012 (0.000)	0.030 (0.001)	0.111 (0.007)	.	
84	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.010)	0.088 (0.010)	.	84	0.015 (0.000)	0.010 (0.000)	0.010 (0.000)	0.010 (0.000)	0.010 (0.000)	0.010 (0.000)	0.012 (0.000)	0.020 (0.001)	0.071 (0.004)	.	

 (c) Mean and standard deviation  $\sigma_\varepsilon$ 

 (d) Mean and standard deviation  $\sigma_\eta$ 

The panels in this table present the means and standard deviations (in parentheses) of the model parameter estimates. Panel (a) displays estimates of the persistence  $\rho$  of the AR1 process for the fundamental value. Panel (b) displays estimates of the standard deviation  $\sigma_u$  of the shock to the fundamental. Panel (c) displays the estimates of the standard deviation  $\sigma_\varepsilon$  of the noise in the consensus price. Panel (d) displays the estimates of the standard deviation of the noise  $\sigma_\eta$  in private signal. Estimates are obtained using MCMC methods assuming diffuse priors for all parameters. The first row and first column of each panel give moneyness and time-to-expiration, respectively, of the option contracts under consideration. The standard deviation of the posterior distribution of the parameter is given in parenthesis below its mean (0.000 signifies standard deviations below 0.0005). The sample period of the data is December 2010 to February 2015.

Table 5: Counterfactual experiments (sub-sample 2010-2015)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.71 (0.15)	0.04 (0.02)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.05 (0.01)	1.51 (0.2)	1.91 (0.31)	. (0.47)	6	5.31 (0.96)	0.25 (0.13)	0.03 (0.05)	0.01 (0.05)	0.00* (0.05)	0.02 (0.06)	0.33 (0.15)	10.63 (1.79)	13.43 (2.39)	.
12	0.10 (0.04)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.11 (0.04)	1.94 (0.43)	. (.43)	12	0.57 (0.21)	0.07 (0.06)	0.01 (0.05)	0.01 (0.08)	0.00* (0.04)	0.01 (0.05)	0.03 (0.07)	0.64 (0.24)	13.43 (2.36)	.	
24	0.06 (0.02)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.02 (0.01)	1.25 (0.25)	3.49 (0.63)	.	24	0.35 (0.14)	0.06 (0.06)	0.01 (0.04)	0.01 (0.06)	0.01 (0.04)	0.01 (0.04)	0.02 (0.06)	0.11 (0.07)	8.96 (1.56)	22.99 (3.26)
36	0.07 (0.03)	0.01 (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.00* (0.01)	0.02 (0.01)	0.77 (0.15)	2.63 (0.50)	.	36	0.43 (0.17)	0.07 (0.05)	0.03 (0.08)	0.02 (0.05)	0.01 (0.04)	0.02 (0.04)	0.03 (0.06)	0.09 (0.07)	5.70 (0.98)	17.87 (2.70)
48	0.22 (0.08)	0.04 (0.02)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.03 (0.02)	0.63 (0.13)	2.08 (0.41)	.	48	1.26 (0.49)	0.23 (0.09)	0.09 (0.05)	0.07 (0.05)	0.06 (0.05)	0.06 (0.06)	0.08 (0.06)	0.20 (0.10)	4.74 (0.86)	14.35 (2.28)
60	0.27 (0.10)	0.06 (0.02)	0.03 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.04 (0.02)	0.58 (0.13)	1.69 (0.32)	.	60	1.55 (0.56)	0.36 (0.15)	0.17 (0.08)	0.14 (0.08)	0.13 (0.07)	0.12 (0.07)	0.14 (0.07)	0.26 (0.11)	4.32 (0.84)	11.70 (1.86)
84	0.37 (0.13)	0.09 (0.03)	0.06 (0.02)	0.05 (0.02)	0.05 (0.02)	0.05 (0.02)	0.07 (0.03)	0.29 (0.10)	1.36 (0.27)	.	84	2.09 (0.78)	0.51 (0.20)	0.34 (0.13)	0.30 (0.12)	0.31 (0.12)	0.29 (0.12)	0.42 (0.12)	1.64 (0.16)	9.65 (0.60)	14.61 (1.68)

 (a) Decrease in valuation uncertainty:  $\Delta_1^p$ 

 (b) Decrease in strategic uncertainty:  $\Delta_2^p$ 

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200	
6	3.53 (4.19)	-0.02 (2.40)	-0.03 (2.35)	0.00* (2.43)	0.02 (2.53)	-0.02 (2.29)	-0.09 (3.16)	10.06 (12.87)	18.17 (19.41)	.	6	15.81 (3.71)	-0.03 (2.30)	-0.04 (2.27)	-0.01 (2.32)	0.01 (2.41)	-0.03 (2.29)	-0.11 (3.59)	37.29 (7.03)	55.41 (6.35)	.	
12	-0.04 (2.60)	-0.02 (2.47)	0.00* (2.46)	0.04 (2.90)	0.03 (2.73)	0.00* (2.46)	-0.01 (2.46)	-0.08 (3.10)	23.95 (17.00)	.	12	-0.04 (2.36)	-0.02 (2.32)	-0.01 (2.35)	0.03 (2.70)	0.02 (2.63)	-0.02 (2.36)	-0.02 (2.33)	-0.11 (3.48)	64.19 (4.62)	.	
24	-0.01 (2.59)	0.00* (2.56)	0.02 (2.68)	0.02 (2.69)	0.03 (2.82)	0.01 (2.61)	0.02 (2.55)	0.00* (2.40)	11.11 (6.41)	39.20 (16.19)	.	24	-0.02 (2.38)	-0.01 (2.38)	0.01 (2.54)	0.01 (2.55)	0.02 (2.70)	0.01 (2.49)	0.01 (2.40)	-0.01 (2.29)	39.91 (3.72)	70.15 (3.28)
36	0.00* (2.66)	-0.01 (2.61)	0.03 (2.73)	0.01 (2.68)	0.02 (2.70)	0.01 (2.67)	0.01 (2.66)	0.01 (2.51)	4.56 (4.19)	28.43 (12.86)	.	36	-0.01 (2.41)	-0.02 (2.44)	0.02 (2.55)	0.00* (2.52)	0.02 (2.59)	0.01 (2.53)	0.00* (2.51)	0.00* (2.36)	19.48 (3.52)	66.18 (3.34)
48	0.01 (2.86)	-0.02 (2.55)	0.00* (2.56)	-0.02 (2.57)	-0.01 (2.63)	0.01 (2.59)	-0.02 (2.57)	0.00* (2.55)	2.66 (3.45)	21.00 (10.18)	.	48	-0.12 (2.54)	-0.03 (2.36)	0.00* (2.40)	-0.02 (2.43)	-0.01 (2.48)	0.01 (2.43)	-0.03 (2.41)	-0.02 (2.37)	12.10 (3.24)	58.56 (3.57)
60	0.03 (2.93)	-0.01 (2.70)	0.01 (2.68)	0.00* (2.66)	-0.01 (2.64)	0.01 (2.65)	-0.04 (2.61)	0.01 (2.62)	1.80 (3.27)	16.60 (7.50)	.	60	-0.06 (2.54)	-0.02 (2.42)	0.00* (2.46)	-0.01 (2.46)	-0.01 (2.47)	0.00* (2.46)	-0.04 (2.44)	0.00* (2.41)	8.41 (3.20)	51.76 (3.37)
84	0.02 (3.18)	-0.03 (2.86)	-0.01 (2.81)	-0.02 (2.82)	0.00* (2.80)	-0.01 (2.83)	-0.02 (2.84)	-0.04 (2.77)	-0.06 (3.19)	12.95 (4.66)	.	84	-0.18 (2.77)	-0.03 (2.56)	-0.02 (2.56)	-0.03 (2.55)	-0.02 (2.57)	-0.02 (2.58)	-0.03 (2.52)	-0.04 (2.75)	-0.07 (3.07)	44.61

 (c) Reduction in valuation Uncertainty:  $\Delta_1^\theta$ 

 (d) Reduction in Strategic Uncertainty:  $\Delta_2^\theta$ 

The panels in this table present the counterfactual percentage decreases in valuation and strategic uncertainty. The two top panels display the reductions in uncertainties when comparing a setting without consensus price to a setting with consensus price. Panel (a) presents the results for the percentage decrease in **valuation uncertainty**,  $\Delta_1^p$ . Panel (b) shows the percentage increase in **strategic uncertainty**,  $\Delta_2^p$ . The lower panels shows the counterfactual percentage reductions in valuation and strategic uncertainty when comparing the current information structure to an information structure with a consensus price that perfectly reveals last period's state. Panel (c) shows percentage reduction in **valuation uncertainty**,  $\Delta_1^\theta$ . Panel (d) shows the percentage reduction in **strategic uncertainty**,  $\Delta_2^\theta$ . The first row and first column of each table give moneyness and time-to-expiration, respectively, of the options under consideration. The standard deviations of the posterior distribution of the parameter is given in parentheses below the means (0.00 signifies standard deviations below 0.005). The sample period is from December 2010 to February 2015.

Table 6: Model parameter estimates  $\phi = \{\rho, \sigma_u, \sigma_\varepsilon, \sigma_\eta\}$  (Dealers banks submitted >40% of sample period)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.951 (0.021)	0.906 (0.028)	0.923 (0.039)	0.912 (0.028)	0.912 (0.031)	0.913 (0.033)	0.916 (0.032)	0.946 (0.024)	0.945 (0.021)	.	6	0.080 (0.001)	0.093 (0.005)	0.101 (0.006)	0.109 (0.006)	0.119 (0.007)	0.130 (0.008)	0.133 (0.007)	0.113 (0.002)	0.168 (0.006)	.
12	0.963 (0.017)	0.938 (0.036)	0.949 (0.038)	0.930 (0.027)	0.921 (0.026)	0.932 (0.028)	0.929 (0.029)	0.921 (0.025)	0.954 (0.017)	.	12	0.047 (0.001)	0.077 (0.004)	0.084 (0.005)	0.088 (0.005)	0.093 (0.005)	0.099 (0.006)	0.104 (0.006)	0.109 (0.006)	0.140 (0.003)	.
24	0.972 (0.014)	0.934 (0.023)	0.934 (0.026)	0.936 (0.026)	0.939 (0.029)	0.936 (0.027)	0.937 (0.029)	0.916 (0.025)	0.949 (0.019)	0.969 (0.019)	24	0.041 (0.001)	0.068 (0.004)	0.073 (0.004)	0.076 (0.004)	0.079 (0.005)	0.082 (0.005)	0.085 (0.005)	0.091 (0.005)	0.079 (0.001)	0.128 (0.005)
36	0.968 (0.013)	0.939 (0.027)	0.942 (0.027)	0.936 (0.025)	0.932 (0.025)	0.943 (0.029)	0.927 (0.029)	0.941 (0.036)	0.963 (0.017)	0.969 (0.024)	36	0.037 (0.001)	0.062 (0.003)	0.066 (0.004)	0.068 (0.004)	0.070 (0.004)	0.073 (0.004)	0.075 (0.004)	0.080 (0.004)	0.061 (0.001)	0.107 (0.003)
48	0.978 (0.014)	0.948 (0.025)	0.948 (0.024)	0.935 (0.024)	0.933 (0.023)	0.931 (0.024)	0.937 (0.027)	0.933 (0.027)	0.926 (0.024)	0.956 (0.021)	48	0.035 (0.001)	0.059 (0.003)	0.062 (0.004)	0.064 (0.004)	0.066 (0.004)	0.068 (0.004)	0.070 (0.004)	0.074 (0.004)	0.057 (0.001)	0.097 (0.002)
60	0.972 (0.013)	0.938 (0.025)	0.936 (0.025)	0.938 (0.025)	0.930 (0.025)	0.933 (0.024)	0.938 (0.024)	0.927 (0.024)	0.921 (0.025)	0.946 (0.027)	60	0.033 (0.001)	0.056 (0.003)	0.059 (0.003)	0.060 (0.003)	0.061 (0.003)	0.063 (0.004)	0.065 (0.004)	0.068 (0.004)	0.077 (0.004)	0.089 (0.002)
84	0.975 (0.015)	0.943 (0.024)	0.941 (0.023)	0.943 (0.028)	0.938 (0.025)	0.945 (0.027)	0.930 (0.023)	0.941 (0.030)	0.928 (0.026)	0.963 (0.018)	84	0.033 (0.001)	0.052 (0.003)	0.054 (0.003)	0.055 (0.003)	0.056 (0.003)	0.057 (0.003)	0.058 (0.003)	0.060 (0.003)	0.068 (0.003)	0.058 (0.001)

(a) Mean and standard deviation  $\rho$ (b) Mean and standard deviation  $\sigma_u$ 

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200
6	0.113 (0.008)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.002 (0.000)	0.004 (0.001)	0.137 (0.009)	0.338 (0.021)	.	6	0.095 (0.003)	0.019 (0.000)	0.013 (0.000)	0.012 (0.000)	0.012 (0.000)	0.017 (0.000)	0.028 (0.004)	0.131 (0.021)	0.385 (0.021)	.	
12	0.054 (0.004)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.000)	0.004 (0.001)	0.260 (0.016)	.	12	0.041 (0.001)	0.013 (0.000)	0.010 (0.000)	0.009 (0.000)	0.009 (0.000)	0.011 (0.000)	0.014 (0.000)	0.030 (0.013)	0.300 (0.013)	.		
24	0.030 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.000)	0.108 (0.008)	0.226 (0.014)	24	0.026 (0.001)	0.011 (0.000)	0.008 (0.000)	0.008 (0.000)	0.008 (0.000)	0.009 (0.000)	0.010 (0.000)	0.015 (0.000)	0.094 (0.003)	0.343 (0.020)	
36	0.023 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.053 (0.011)	0.166 (0.011)	36	0.022 (0.000)	0.010 (0.000)	0.008 (0.000)	0.008 (0.000)	0.008 (0.000)	0.008 (0.000)	0.010 (0.000)	0.014 (0.001)	0.047 (0.011)	0.213 (0.011)	
48	0.028 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.036 (0.003)	0.112 (0.008)	48	0.024 (0.000)	0.011 (0.000)	0.009 (0.000)	0.008 (0.000)	0.008 (0.000)	0.009 (0.000)	0.010 (0.000)	0.013 (0.001)	0.035 (0.007)	0.152 (0.007)	
60	0.030 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.001)	0.077 (0.005)	60	0.025 (0.001)	0.011 (0.000)	0.009 (0.000)	0.009 (0.000)	0.009 (0.000)	0.010 (0.000)	0.012 (0.000)	0.024 (0.000)	0.112 (0.004)	.	
84	0.032 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001 (0.004)	0.059 (0.004)	84	0.028 (0.001)	0.013 (0.000)	0.011 (0.000)	0.011 (0.000)	0.010 (0.000)	0.011 (0.000)	0.013 (0.000)	0.022 (0.000)	0.063 (0.002)	.	

(c) Mean and standard deviation  $\sigma_\varepsilon$ (d) Mean and standard deviation  $\sigma_\eta$ 

The panels in this table present the means and standard deviations (in parentheses) of the model parameter estimates. Panel (a) displays estimates of the persistence  $\rho$  of the AR1 process for the fundamental value. Panel (b) displays estimates of the standard deviation  $\sigma_u$  of the shock to the fundamental. Panel (c) displays the estimates of the standard deviation  $\sigma_\varepsilon$  of the noise in the consensus price. Panel (d) displays the estimates of the standard deviation of the noise  $\sigma_\eta$  in private signal. Estimates are obtained using MCMC methods assuming diffuse priors for all parameters. The first row and first column of each panel give moneyness and time-to-expiration, respectively, of the option contracts under consideration. The standard deviation of the posterior distribution of the parameter is given in parenthesis below its mean (0.000 signifies standard deviations below 0.0005). The sample period of the data is December 2010 to February 2015. Dealers banks must have submitted to at least 40% of the full sample period to be included.

Table 7: Counterfactual experiments (**Dealers banks submitted >40% of sample period**)

	60	80	90	95	100	105	110	120	150	200		60	80	90	95	100	105	110	120	150	200		
6	1.50 (0.19)	0.07 (0.02)	0.01 (0.01)	0.01 (0.01)	0.00* (0.01)	0.01 (0.01)	0.07 (0.02)	1.75 (0.21)	2.79 (0.35)	.		6 (1.14)	10.34 (0.14)	0.42 (0.04)	0.08 (0.07)	0.04 (0.06)	0.03 (0.06)	0.08 (0.06)	0.44 (0.14)	11.82 (1.22)	18.59 (1.84)	.	
12	0.94 (0.13)	0.03 (0.01)	0.01 (0.01)	0.01 (0.01)	0.00* (0.01)	0.01 (0.01)	0.01 (0.01)	0.19 (0.05)	2.96 (0.36)	.		12 (0.80)	6.81 (0.07)	0.20 (0.05)	0.05 (0.04)	0.03 (0.06)	0.02 (0.05)	0.04 (0.06)	0.04 (0.06)	0.08 (0.06)	1.12 (0.30)	19.23 (1.86)	.
24	0.80 (0.11)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.00* (0.01)	0.01 (0.01)	0.01 (0.01)	0.03 (0.19)	1.54 (0.52)	4.50		24 (0.67)	5.77 (0.05)	0.14 (0.06)	0.05 (0.05)	0.03 (0.04)	0.03 (0.05)	0.03 (0.06)	0.06 (0.06)	0.18 (0.06)	10.57 (1.14)	27.83 (2.46)	
36	0.78 (0.11)	0.03 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.00)	0.01 (0.01)	0.01 (0.13)	0.04 (0.42)	1.00 (0.13)	3.54		36 (0.67)	5.58 (0.07)	0.17 (0.05)	0.06 (0.05)	0.04 (0.04)	0.04 (0.04)	0.05 (0.04)	0.07 (0.04)	0.21 (0.04)	7.09 (0.07)	21.94 (0.82)	
48	0.85 (0.11)	0.05 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.02 (0.01)	0.04 (0.11)	0.78 (0.39)	3.24		48 (0.72)	6.10 (0.09)	0.29 (0.07)	0.11 (0.06)	0.07 (0.04)	0.06 (0.06)	0.07 (0.06)	0.10 (0.07)	0.25 (0.07)	5.65 (0.09)	20.31 (0.68)	
60	0.91 (0.12)	0.06 (0.02)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.04 (0.09)	0.33 (0.37)	3.25		60 (0.75)	6.51 (0.10)	0.36 (0.05)	0.14 (0.05)	0.11 (0.04)	0.10 (0.06)	0.10 (0.06)	0.13 (0.07)	0.23 (0.07)	1.91 (0.53)	19.88 (1.79)	
84	1.20 (0.16)	0.15 (0.03)	0.07 (0.02)	0.06 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.09 (0.09)	0.37 (0.25)	2.00		84 (0.95)	8.39 (0.20)	0.85 (0.10)	0.40 (0.09)	0.33 (0.08)	0.31 (0.09)	0.31 (0.09)	0.34 (0.09)	0.51 (0.13)	2.08 (0.54)	13.13 (1.38)	

 (a) Decrease in valuation uncertainty:  $\Delta_1^p$ 

 (b) Decrease in strategic uncertainty:  $\Delta_2^p$ 

	60	80	90	95	100	105	110	120	150	200	
6	11.23 (7.45)	-0.01 (1.75)	0.00* (1.64)	0.00* (1.71)	0.01 (1.70)	-0.02 (1.69)	-0.04 (2.20)	9.94 (10.24)	26.04 (21.58)	.	
12	5.84 (2.73)	0.01 (1.70)	0.01 (1.80)	0.02 (1.84)	0.02 (1.87)	0.02 (1.79)	0.02 (1.66)	24.67 (2.66)	(17.89)	.	
24	2.65 (2.03)	0.00* (1.77)	0.02 (1.99)	0.02 (1.96)	0.02 (2.00)	0.02 (1.98)	0.02 (1.89)	10.86 (1.71)	30.07 (5.84)	30.07 (16.27)	
36	2.01 (2.01)	0.01 (1.82)	0.01 (1.94)	0.02 (1.93)	0.02 (1.96)	0.01 (1.86)	0.01 (1.74)	4.06 (1.75)	22.95 (3.36)	(11.26)	
48	3.08 (2.00)	0.01 (1.84)	0.01 (1.92)	0.02 (1.97)	0.02 (1.89)	0.01 (1.88)	0.01 (1.83)	2.08 (1.81)	15.59 (2.42)	15.59 (9.23)	
60	4.03 (2.01)	0.00* (1.91)	0.02 (1.88)	-0.02 (1.93)	0.02 (1.92)	0.02 (1.95)	0.02 (1.86)	0.01 (1.81)	10.51 (2.27)	10.51 (7.13)	
84	5.62 (2.14)	-0.01 (1.96)	0.01 (1.95)	0.01 (1.90)	0.01 (1.93)	0.01 (1.94)	0.02 (1.91)	0.02 (1.89)	-0.01 (2.20)	8.93 (4.40)	

 (c) Reduction in valuation Uncertainty:  $\Delta_1^\theta$ 

 (d) Reduction in Strategic Uncertainty:  $\Delta_2^\theta$ 

The panels in this table present the counterfactual percentage decreases in valuation and strategic uncertainty. The two top panels display the reductions in uncertainties when comparing a setting without consensus price to a setting with consensus price. Panel (a) presents the results for the percentage decrease in **valuation uncertainty**,  $\Delta_1^p$ . Panel (b) shows the percentage increase in **strategic uncertainty**,  $\Delta_2^p$ . The lower panels shows the counterfactual percentage reductions in valuation and strategic uncertainty when comparing the current information structure to an information structure with a consensus price that perfectly reveals last period's state. Panel (c) shows percentage reduction in **valuation uncertainty**,  $\Delta_1^\theta$ . Panel (d) shows the percentage reduction in **strategic uncertainty**,  $\Delta_2^\theta$ . The first row and first column of each table give moneyness and time-to-expiration, respectively, of the options under consideration. The standard deviations of the posterior distribution of the parameter is given in parentheses below the means (0.00 signifies standard deviations below 0.005). The sample period is from December 2002 to February 2015. Dealers banks must have submitted to at least 40% of the full sample period to be included.

	60	80	90	95	100	105	110	120	150	200	
6	39.31 (3.77)	-0.02 (1.76)	-0.01 (1.60)	-0.01 (1.59)	-0.01 (1.60)	-0.03 (1.81)	-0.03 (2.59)	-0.07 (5.58)	35.56 (4.54)	63.09 (4.54)	.
12	23.48 (2.27)	0.00* (1.59)	0.01 (1.67)	0.01 (1.69)	0.01 (1.69)	0.00* (1.65)	-0.01 (1.64)	-0.09 (3.19)	60.49 (4.03)	.	
24	11.20 (1.93)	0.00* (1.64)	0.01 (1.80)	0.01 (1.79)	0.02 (1.85)	0.01 (1.79)	0.01 (1.71)	0.01 (1.64)	38.15 (3.30)	59.40 (2.88)	
36	8.52 (1.99)	0.01 (1.64)	0.00* (1.78)	0.01 (1.77)	0.02 (1.81)	0.01 (1.73)	0.00* (1.63)	0.00* (1.61)	16.79 (2.87)	55.51 (3.17)	
48	12.98 (1.92)	0.00* (1.65)	0.00* (1.72)	0.01 (1.78)	0.01 (1.74)	0.01 (1.72)	0.01 (1.67)	-0.02 (1.63)	8.94 (2.30)	44.29 (3.62)	
60	16.58 (1.90)	-0.01 (1.69)	0.00* (1.69)	-0.02 (1.74)	0.01 (1.75)	0.01 (1.76)	0.01 (1.70)	0.01 (1.65)	-0.01 (2.32)	32.53 (3.60)	
84	21.86 (1.95)	-0.02 (1.71)	0.00* (1.73)	0.01 (1.74)	0.00* (1.74)	0.00* (1.73)	0.01 (1.72)	0.01 (1.70)	-0.01 (2.02)	31.21 (2.83)	