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Volume Title: The Cyclical Behavior of the Term Structure of Interest Rates

Volume Author/Editor: Reuben A. Kessel

Volume Publisher: UMI

Volume ISBN: 0-87014-405-7

Volume URL: <http://www.nber.org/books/kess65-1>

Publication Date: 1965

Chapter Title: APPENDICES

Chapter Author: Reuben A. Kessel

Chapter URL: <http://www.nber.org/chapters/c1668>

Chapter pages in book: (p. 103 - 113)

APPENDIX A

THREE TESTS of the expectations hypothesis are presented in Hickman's paper. One consists of a comparison of projections of the preceding year's structure of interest rates with theoretical forecasts based on the expectations hypothesis. These results are reproduced in Table A-1.

A second test consists of a comparison between the signs of predicted and actual changes of one-year spot rates. The results of this investigation are contained in Table A-2.

Hickman found ten cases of definite disagreement with the theory. He implies that he found sixteen cases of definite agreement. On balance, this evidence does more to support than deny the validity of the Meiselman version of the expectations hypothesis.

Hickman's third test follows from the assumption that the market can forecast accurately. Hence, changes from year to year in the long-term rate should only reflect the effects of dropping last year's one-year spot rate and adding the estimate of the market for the one-year forward rate which, for the maturity observed, is the rate expected on one-year money fifty-nine years in the future.

Hickman makes the completely *ad hoc* assumption that, at most, such changes in the inputs that determine the long-term rate, according to the expectations hypothesis, will change that rate by a maximum of one basis point. How one basis point was obtained is not explained to the reader. There are no calculations showing the effect of dropping the one-year spot rate of the previous year and adding the expected one-year rate fifty-nine years into the future upon the sixty-year rate of interest. Using plus or minus five basis points as the range that defines no change in the long-term rate (this is what Durand regarded as his measurement error), Hickman found only eighteen of the forty-two years consistent with the assumption that the expectations hypothesis could predict.

Hickman does not observe that the long-term rate, for coupon bonds, is a weighted average of expected short-term rates. These weights decline monotonically as a function of time, with the current short-term rate assigned the highest weight. For a sixty-year bond with a 5 per cent coupon that yields 5 per cent to maturity, the one-year rate relevant for the sixtieth year has about one-twentieth the weight of the current one-year rate. Hence, if the one-year rate that is dropped from the average is relatively high or low compared with the other rates, yields to maturity could easily change by more than five basis points. Such a change would be completely consistent with perfect foresight.

TABLE A-1
 COMPARISON OF ACTUAL AND FORECAST TERM STRUCTURES
 OF INTEREST RATES, MEASURED BY AREAS UNDER CURVES^a

Year	Type of Curve	Area Under Curve	Difference in Area Between Actual and Forecast Curves
1935	Actual	56.47	
1936	Actual	48.45	
	Projection of 1935	56.47	8.02
	Theoretical forecast from: 1935	62.92	14.47
1937	Actual	45.14	
	Projection of 1936	48.45	3.31
	Theoretical forecast from: 1936	55.00	9.86
	1935	67.30	22.16
1938	Actual	48.42	
	Projection of 1937	45.14	-3.28
	Theoretical forecast from: 1937	50.85	2.43
	1936	60.20	11.78
	1935	70.00	21.58
1939	Actual	41.29	
	Projection of 1938	48.42	7.13
	Theoretical forecast from: 1938	54.08	12.79
	1937	55.39	14.10
	1936	64.07	22.78
	1935	71.97	30.68
1940	Actual	37.42	
	Projection of 1939	41.29	3.87
	Theoretical forecast from: 1939	46.73	9.31
	1938	58.19	20.77
	1937	59.01	21.59
	1936	66.74	29.32
	1935	73.20	35.78
1941	Actual	36.25	
	Projection of 1940	37.42	1.17
	Theoretical forecast from: 1940	42.76	6.51
	1939	51.02	14.77
	1938	61.10	24.85
	1937	61.83	25.58
	1936	68.21	31.96
	1935	74.01	37.76
1942	Actual	41.28	
	Projection of 1941	36.25	-5.03
	Theoretical forecast from: 1941	41.38	.10
	1940	47.13	5.85
	1939	54.31	13.03
	1938	62.98	21.70
	1937	64.13	22.85
	1936	68.88	27.60
	1935	74.28	33.00

TABLE A-2

TYPES OF TERM STRUCTURES, THIRTY-SEVEN SELECTED YEARS (1900-42),
AND ACTUAL CHANGES IN ONE-YEAR RATES.

Type of Term Structure at Beginning of Year	Number of Years in Which Prevailing	Number of Years in Which Change in Short-Term Rate to Next Year Was		
		Plus	Minus	Zero
Increasing	12	7 ^b	4 ^a	1 ^b
Horizontal	10	6 ^b	4 ^b	
Decreasing	15	6 ^a	9	
Total	37	19	17	1

Source: Hickman, "Term Structure of Interest Rates," Table I,
p. III-5.

^aDefinite disagreement of historical pattern with theory.

^bPartial disagreement of historical pattern with theory.

NOTES TO TABLE A-1

^aThe curves represent three types of structure: the actual structure of interest rates; the structure of rates in the preceding year projected forward one year without change; and theoretical forecasts of structures implied by structures of earlier years. The areas under the curves are computed for the portion covering maturities of from one to twenty-one years. For 1937, for example, the first area in the third column is that under the curve representing the actual term structure in 1937. The second is that under the projected curve (the actual curve in 1936). The third and fourth areas are those under the curves representing theoretical forecasts of the 1937 structure implied by the actual structures in 1936 and 1935, respectively. The term structures of interest rates are represented by curves showing the relationship between interest rates and term to maturity.

Appendix B

YIELDS TO MATURITY OF U.S. GOVERNMENT SECURITIES, BASED ON TREASURY YIELD CURVES

The yields shown in these tables were read from the fixed maturity yield curves published monthly in the *Treasury Bulletin*. The yields in Tables B-1 and B-2 were compiled independently by two different observers. Hence, many of the corresponding figures in the two tables differ by a few basis points. The implied forward rates shown in Tables B-1 and B-3 also differ, for the same reason.

TABLE 8-1
SPOT AND FORWARD ONE-YEAR RATES

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Forward One-Year Rate, One Year Hence	One-Year Rate, Observed One Year Later	Difference Between Spot and Forward One-Year Rates	Observed Change in One-Year Rate
3/58	1/58	2.20	2.50	2.83	3.53	+0.63	+1.33
4/58	2/58	1.74	2.09	2.48	3.41	+0.74	+1.67
5/58	3/58	1.75	2.09	2.47	3.53	+0.72	+1.78
6/58	4/58	1.48	1.80	2.16	3.82	+0.68	+2.34
7/58	5/58	1.14	1.66	2.31	3.88	+1.17	+2.74
8/58	6/58	1.41	1.87	2.42	4.08	+1.01	+2.67
9/58	7/58	1.65	2.07	2.56	4.30	+0.91	+2.65
10/58	8/58	2.94	3.42	3.96	4.67	+1.02	+1.73
11/58	9/58	3.35	3.53	3.72	4.89	+0.37	+1.54
12/58	10/58	3.07	3.36	3.67	4.48	+0.60	+1.41
1/59	11/58	3.27	3.48	3.70	4.93	+0.43	+1.66
2/59	12/58	3.17	3.52	3.90	4.97	+0.73	+1.80
3/59	1/59	3.53	3.80	4.09	4.62	+0.56	+1.09
4/59	2/59	3.41	3.69	3.99	4.53	+0.58	+1.12
5/59	3/59	3.53	3.87	4.24	3.73	+0.71	+0.20
6/59	4/59	3.82	4.02	4.23	4.05	+0.41	+0.23
7/59	5/59	3.88	4.21	4.56	4.04	+0.68	+0.16
8/59	6/59	4.08	4.43	4.80	3.27	+0.72	-0.81
9/59	7/59	4.30	4.53	4.77	2.89	+0.47	-1.41
10/59	8/59	4.67	4.87	5.08	2.97	+0.41	-1.70
11/59	9/59	4.89	4.95	5.01	2.93	+0.12	-1.96
12/59	10/59	4.48	4.63	4.78	2.82	+0.30	-1.66
1/60	11/59	4.93	4.97	5.01	3.03	+0.08	-1.90
2/60	12/59	4.97	5.04	5.11	2.65	+0.14	-2.32
3/60	1/60	4.62	4.76	4.90	2.78	+0.28	-1.84
4/60	2/60	4.53	4.68	4.83	3.01	+0.30	-1.52
5/60	3/60	3.73	3.89	4.06	2.91	+0.33	-0.82
6/60	4/60	4.05	4.28	4.52	2.97	+0.45	-1.18
7/60	5/60	4.04	4.26	4.49	2.91	+0.47	-1.13
8/60	6/60	3.27	3.71	4.20	3.04	+0.93	-0.23

(continued)

TABLE B-2
 YIELDS OF FIXED-MATURITY TREASURY SECURITIES

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Three-Year Rate	Four-Year Rate	Five-Year Rate	Six-Year Rate	Seven-Year Rate	Eight-Year Rate	Nine-Year Rate	Ten-Year Rate
3/54	1/54	1.23	1.50	1.75	1.97	2.10	2.22	2.34			
4/54	2/54	0.93	1.30	1.50	1.69	1.88	2.04	2.20			
5/54	3/54	1.00	1.30	1.50	1.68	1.84	1.99	2.13			
6/54	4/54	0.80	1.19	1.42	1.62	1.77	1.89	2.02			
7/54	5/54	0.86	1.29	1.56	1.79	1.98	2.11	2.22			
8/54	6/54	0.76	1.21	1.47	1.66	1.81	1.98	2.10			
9/54	7/54	0.70	1.16	1.46	1.67	1.85	2.01	2.11			
10/54	8/54	0.94	1.28	1.50	1.70	1.88	2.04	2.18			
11/54	9/54	1.13	1.47	1.67	1.82	1.97	2.09	2.21			
12/54	10/54	1.23	1.56	1.74	1.89	2.02	2.14	2.28			
1/55	11/54	1.22	1.54	1.75	1.94	2.09	2.22	2.35	2.44		
2/55	12/54	1.22	1.58	1.81	2.01	2.16	2.28	2.38	2.43		
3/55	1/55	1.45	1.81	2.02	2.18	2.29	2.39	2.46	2.52		
4/55	2/55	1.70	2.09	2.29	2.39	2.47	2.53	2.60	2.64		
5/55	3/55	1.67	2.04	2.27	2.39	2.48	2.55	2.60	2.64		
6/55	4/55	1.79	2.10	2.32	2.44	2.54	2.60	2.65	2.69		
7/55	5/55	1.82	2.16	2.34	2.44	2.51	2.59	2.63	2.69		
8/55	6/55	1.92	2.23	2.43	2.54	2.62	2.70	2.77	2.82		
9/55	7/55	2.13	2.43	2.61	2.72	2.82	2.88	2.91	2.92		
10/55	8/55	2.39	2.60	2.74	2.83	2.89	2.91	2.94	2.96		
11/55	9/55	2.30	2.47	2.60	2.69	2.76	2.82	2.85			
12/55	10/55	2.35	2.49	2.59	2.65	2.70	2.73	2.77			
1/56	11/55	2.61	2.74	2.81	2.83	2.84	2.86	2.88			
2/56	12/55	2.70	2.79	2.83	2.85	2.88	2.90	2.92			
3/56	1/56	2.45	2.45	2.64	2.70	2.73	2.77	2.81			
4/56	2/56	2.50	2.62	2.70	2.75	2.78	2.81	2.82			
5/56	3/56	2.59	2.88	2.97	3.00	3.02	3.03	3.05			

(continued)

TABLE B-1 (concluded)

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Forward One Year Rate, One Year Hence	One-Year Rate, Observed One Year Later	Difference between Spot and Forward One-Year Rates	Observed Change in One-Year Rate
9/60	7/60	2.89	3.11	3.34	2.96	+0.45	+0.07
10/60	8/60	2.97	3.21	3.46	3.04	+0.49	+0.07
11/60	9/60	2.93	3.21	3.51	2.99	+0.58	+0.06
12/60	10/60	2.82	3.18	3.57	2.93	+0.75	+0.11
1/61	11/60	3.03	3.33	3.65	2.99	+0.62	-0.04
2/61	12/60	2.65	2.81	2.98	3.19	+0.33	+0.54
3/61	1/61	2.78	3.15	3.56	3.22	+0.78	+0.44
4/61	2/61	3.01	3.24	3.48	3.14	+0.47	+0.13
5/61	3/61	2.91	3.16	3.43	3.00	+0.52	+0.09
6/61	4/61	2.87	3.10	3.34	3.03	+0.47	+0.16
7/61	5/61	2.91	3.24	3.60	2.99	+0.69	+0.08
8/61	6/61	3.04	3.36	3.71	3.22	+0.67	+0.18
9/61	7/61	2.96	3.33	3.73	3.36	+0.77	+0.40
10/61	8/61	3.04	3.38	3.75	3.13	+0.71	+0.09
11/61	9/61	2.99	3.37	3.79	3.01	+0.80	+0.02
12/61	10/61	2.93	3.32	3.75	2.98	+0.82	+0.05
1/62	11/61	2.99	3.36	3.76	3.09	+0.77	+0.10
1/62	12/61	3.19	3.50	3.83	3.13	+0.64	-0.06
2/62	1/62	3.22	3.58				
3/62	2/62	3.14	3.37				
4/62	3/62	3.00	3.22				
5/62	4/62	3.03	3.30				
6/62	5/62	2.99	3.20				
7/62	6/62	3.22	3.40				
8/62	7/62	3.36	3.49				
9/62	8/62	3.13	3.26				
10/62	9/62	3.01	3.19				
11/62	10/62	2.98	3.18				
12/62	11/62	3.09	3.25				
1/63	12/62	3.13	3.28				

TABLE B-2 (continued)

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Three-Year Rate	Four-Year Rate	Five-Year Rate	Six-Year Rate	Seven-Year Rate	Eight-Year Rate	Nine-Year Rate	Ten-Year Rate
6/56	4/56	3.01	3.18	3.18	3.17	3.16	3.15	3.13			
7/56	5/56	2.78	2.94	2.94	2.94	2.94	2.94	2.94			
8/56	6/56	2.62	2.83	2.90	2.93	2.94	2.96				
9/56	7/56	2.84	3.15	3.21	3.23	3.23	3.23	3.23			
10/56	8/56	3.21	3.45	3.50	3.49	3.48	3.47	3.45			
11/56	9/56	3.32	3.45	3.43	3.40	3.39	3.36	3.34			
12/56	10/56	3.21	3.40	3.46	3.49	3.49	3.49				
1/57	11/56	3.57	3.74	3.69	3.63	3.63	3.60				
2/57	12/56	3.61	3.71	3.70	3.67	3.64	3.62				
3/57	1/57	3.27	3.38	3.38	3.34	3.33	3.30				
4/57	2/57	3.44	3.49	3.47	3.44	3.41	3.38				
5/57	3/57	3.37	3.47	3.48	3.47	3.44	3.41				
6/57	4/57	3.48	3.57	3.58	3.57	3.55	3.53				
7/57	5/57	3.60	3.68	3.72	3.73	3.73	3.72				
8/57	6/57	3.74	3.88	3.90	3.97	3.97	3.96				
9/57	7/57	3.82	3.93	3.98	4.01	4.02	4.01				
10/57	8/57	4.02	4.02	3.97	3.94	3.90	3.86	4.02	4.02	4.01	4.01
11/57	9/57	4.09	4.09	4.07	4.06	4.04	4.03	4.01	3.99	3.98	3.97
12/57	10/57	3.98	4.05	4.06	4.06	4.05	4.03	4.01	3.96	3.98	3.97
1/58	11/57	3.44	3.43	3.40	3.38	3.37	3.35	3.35	3.36	3.40	3.43
2/58	12/57	2.88	2.87	2.85	2.84	2.84	2.87	2.92	2.96	3.01	3.04
3/58	1/58	2.19	2.48	2.68	2.78	2.84	2.92	2.98	3.06	3.12	3.17
4/58	2/58	1.73	2.07	2.31	2.50	2.64	2.75	2.85	2.94	3.00	3.05
5/58	3/58	1.71	2.09	2.33	2.48	2.59	2.70	2.78	2.86	2.92	2.98
6/58	4/58	1.46	1.78	2.07	2.26	2.42	2.57	2.69	2.78	2.86	2.91
7/58	5/58	1.09	1.60	1.98	2.18	2.36	2.50	2.60	2.71	2.79	2.88
8/58	6/58	1.47	1.90	2.25	2.48	2.60	2.71	2.81	2.88	2.95	3.20

(continued)

TABLE B-2 (continued)

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Three-Year Rate	Four-Year Rate	Five-Year Rate	Six-Year Rate	Seven-Year Rate	Eight-Year Rate	Nine-Year Rate	Ten-Year Rate
9/58	7/58	1.68	2.09	2.45	2.70	2.86	2.96	3.05	3.11	3.18	3.21
10/58	8/58	3.01	3.42	3.54	3.59	3.63	3.67	3.70	3.74	3.75	3.77
11/58	9/58	3.38	3.53	3.62	3.70	3.74	3.76	3.78	3.79	3.81	3.82
12/58	10/58	3.09	3.35	3.55	3.70	3.76	3.80	3.81	3.82	3.82	3.82
1/59	11/58	3.29	3.48	3.68	3.64	3.66	3.67	3.68	3.69	3.70	3.71
2/59	12/58	3.20	3.53	3.70	3.80	3.85	3.85	3.85	3.84	3.84	3.84
3/59	1/59	3.52	3.80	3.91	3.97	3.98	3.98	3.98	3.97	3.97	3.96
4/59	2/59	3.42	3.70	3.79	3.83	3.85	3.87	3.88	3.89	3.90	3.90
5/59	3/59	3.52	3.86	3.96	4.02	4.02	4.02	4.02	4.02	4.02	4.02
6/59	4/59	3.81	4.02	4.12	4.18	4.23	4.23	4.23	4.22	4.21	4.20
7/59	5/59	3.92	4.20	4.29	4.28	4.27	4.25	4.25	4.23	4.21	4.20
8/59	6/59	4.08	4.45	4.49	4.47	4.45	4.42	4.38	4.34	4.32	4.29
9/59	7/59	4.28	4.55	4.57	4.54	4.48	4.45	4.42	4.39	4.36	4.33
10/59	8/59	4.67	4.88	4.90	4.84	4.74	4.67	4.60	4.55	4.50	4.47
11/59	9/59	4.90	4.95	4.92	4.84	4.77	4.73	4.68	4.64	4.60	4.57
12/59	10/59	4.47	4.64	4.70	4.67	4.60	4.55	4.60	4.45	4.41	4.37
1/60	11/59	4.94	4.97	4.93	4.84	4.76	4.69	4.62	4.57	4.51	4.47
2/60	12/59	4.97	5.04	5.06	5.05	5.01	4.96	4.90	4.84	4.79	4.73
3/60	1/60	4.60	4.75	4.80	4.79	4.75	4.70	4.66	4.62	4.57	4.55
4/60	2/60	4.52	4.68	4.74	4.74	4.67	4.61	4.55	4.49	4.46	4.44
5/60	3/60	3.67	3.89	3.97	4.03	4.08	4.10	4.10	4.10	4.10	4.10
6/60	4/60	4.04	4.29	4.37	4.40	4.39	4.36	4.33	4.31	4.29	4.28
7/60	5/60	3.98	4.25	4.33	4.37	4.36	4.31	4.25	4.25	4.22	4.20
8/60	6/60	3.21	3.70	3.89	3.97	4.00	4.02	4.02	4.02	4.02	4.02
9/60	7/60	2.86	3.12	3.29	3.41	3.52	3.60	3.66	3.70	3.73	3.77
10/60	8/60	2.93	3.19	3.37	3.50	3.61	3.68	3.72	3.76	3.79	3.80
11/60	9/60	2.92	3.22	3.39	3.54	3.63	3.69	3.71	3.75	3.78	3.80
12/60	10/60	2.86	3.21	3.42	3.58	3.69	3.76	3.80	3.82	3.86	3.88

(continued)

TABLE B-2 (concluded)

Date of Treasury Bulletin	Date of Yield Curve	One-Year Rate	Two-Year Rate	Three-Year Rate	Four-Year Rate	Five-Year Rate	Six-Year Rate	Seven-Year Rate	Eight-Year Rate	Nine-Year Rate	Ten-Year Rate
1/61	11/60	3.02	3.37	3.58	3.70	3.79	3.87	3.90	3.95	3.98	3.99
2/61	12/60	2.65	2.93	3.18	3.35	3.48	3.57	3.61	3.65	3.68	3.70
3/61	1/61	2.78	3.13	3.46	3.61	3.68	3.72	3.75	3.78	3.80	3.82
4/61	2/61	2.99	3.23	3.40	3.52	3.58	3.61	3.63	3.66	3.69	3.70
5/61	3/61	2.90	3.12	3.31	3.48	3.59	3.65	3.70	3.75	3.78	3.80
6/61	4/61	2.86	3.08	3.25	3.38	3.48	3.56	3.62	3.68	3.70	3.71
7/61	5/61	2.99	3.26	3.42	3.53	3.64	3.70	3.75	3.79	3.80	3.80
8/61	6/61	2.99	3.34	3.56	3.67	3.75	3.80	3.82	3.87	3.88	3.89
9/61	7/61	2.92	3.32	3.61	3.78	3.88	3.90	3.92	3.92	3.92	3.92
10/61	8/61	3.00	3.40	3.72	3.88	3.94	3.97	3.99	4.00	4.01	4.01
11/61	9/61	2.97	3.38	3.61	3.70	3.74	3.77	3.80	3.82	3.85	3.88
12/61	10/61	2.82	3.29	3.56	3.65	3.72	3.78	3.80	3.82	3.85	3.87
1/62	11/61	2.96	3.37	3.61	3.72	3.82	3.89	3.93	3.96	3.98	3.99
1/62	12/61	3.21	3.50	3.68	3.80	3.86	3.90	3.93	3.96	3.99	4.01
2/62	1/62	3.22	3.59	3.79	3.91	3.97	4.02	4.05	4.08	4.10	4.12
3/62	2/62	3.18	3.38	3.52	3.66	3.77	3.84	3.90	3.96	4.01	4.03
4/62	3/62	3.00	3.22	3.38	3.51	3.61	3.69	3.77	3.82	3.86	3.88
5/62	4/62	3.03	3.27	3.44	3.57	3.65	3.72	3.78	3.82	3.85	3.88
6/62	5/62	3.00	3.22	3.38	3.54	3.64	3.74	3.82	3.88	3.90	3.91
7/62	6/62	3.22	3.40	3.54	3.66	3.77	3.83	3.90	3.96	3.99	4.00
8/62	7/62	3.31	3.48	3.61	3.71	3.82	3.91	3.98	4.01	4.02	4.03
9/62	8/62	3.11	3.25	3.38	3.51	3.65	3.78	3.88	3.92	3.95	3.95
10/62	9/62	2.98	3.18	3.32	3.48	3.65	3.75	3.83	3.90	3.92	3.95
11/62	10/62	2.96	3.16	3.32	3.49	3.63	3.73	3.82	3.88	3.91	3.92
12/62	11/62	3.08	3.24	3.38	3.50	3.59	3.67	3.75	3.82	3.88	3.92

TABLE B-3

SPOT AND FORWARD ONE-YEAR RATES ADJUSTED FOR LIQUIDITY PREMIUMS

Date of Yield Curve	One-Year Rate	Forward One-Year Rate One Year Hence	Estimated Liquidity Premium	Forward Rate Minus Liquidity Premium	One-Year Rate Observed One Year Later
4/58	1.46	2.17	-0.34	2.51	3.81
5/58	1.09	2.34	-0.53	2.87	3.92
6/58	1.47	2.45	-0.34	2.79	4.08
7/58	1.68	2.60	-0.23	2.83	4.28
8/58	3.01	3.88	+0.43	3.45	4.68
9/58	3.38	3.68	+0.62	3.06	4.90
10/58	3.09	3.63	+0.74	2.89	4.47
11/58	3.29	3.68	+0.77	2.91	4.94
12/58	3.20	3.89	+0.87	3.02	4.97
1/59	3.52	4.10	+0.98	3.12	4.60
2/59	3.42	4.00	+0.93	3.07	4.52
3/59	3.52	4.23	+1.04	3.19	3.67
4/59	3.81	4.24	+1.05	3.19	4.04
5/59	3.92	4.50	+1.18	3.32	3.98
6/59	4.08	4.85	+1.35	3.50	3.21
7/59	4.28	4.83	+1.34	3.49	2.86
8/59	4.67	5.09	+1.47	3.62	2.93
9/59	4.90	5.00	+1.43	3.57	2.92
10/59	4.47	4.81	+1.33	3.48	2.86
11/59	4.94	5.00	+1.43	3.57	3.02
12/59	4.97	5.11	+1.48	3.63	2.65
1/60	4.60	4.90	+1.38	3.52	2.78
2/60	4.52	4.84	+1.35	3.49	2.99
3/60	3.67	4.12	+0.99	3.13	2.90
4/60	4.04	4.55	+1.20	3.35	2.86
5/60	3.98	4.53	+1.19	3.34	2.99
6/60	3.21	4.26	+1.06	3.20	2.99
7/60	2.86	3.40	+0.63	2.77	2.92
8/60	2.93	3.47	+0.66	2.81	3.00
9/60	2.92	3.55	+0.70	2.85	2.97
10/60	2.86	3.60	+0.73	2.87	2.82
11/60	3.02	3.76	+0.81	2.95	2.96
12/60	2.65	3.23	+0.54	2.69	3.21
1/61	2.78	3.52	+0.69	2.83	3.22
2/61	2.99	3.48	+0.67	2.81	3.18