

Some New Bond Indexes
Extended and Expanded Results

by

John S. Bildersee*

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Rodney L. White Center for Financial Research
The Wharton School
University of Pennsylvania
Philadelphia, Pennsylvania 19174

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In this paper the results obtained from the development of indexes of holding period returns to bonds of varying maturities in [1] are extended so that there is a continuous set of monthly return indexes from January, 1947 through May, 1973. In addition, the indexes have been recalculated using selected assumptions about the impact of corporate and personal income taxes. Moreover, the paper includes a summary of the returns obtained over selected long term holding periods for two investment strategies.

Construction of the Indexes

The techniques used in construction of the indexes are described in [1].¹ The month-long holding period returns of each Treasury bill, bond, note and certificate of indebtedness in the market place between January, 1947 and May, 1973 are included in the index with the appropriate term to maturity for each month that the security is outstanding.² Therefore, each security changes indexes as it approaches maturity. Moreover, each index maintains approximately the same maturity each period. The indexes used here are listed in Table 1.

The after tax returns to the indexes with terms to maturity in excess of one year are on an accrued basis rather than a realized basis as it is assumed that the investor's horizon is over 6 months and that any capital changes are taxed at the capital gains rate.³ The indexes for maturities with less than one year to maturity are heavily weighted with Treasury bills. Since all returns to Treasury bills are taxed as income, the after tax returns to these indexes can be considered as accrued or realized returns.

Extensions of the Bond Index Results

The two major extensions of the analysis of the bond indexes include the development of indexes including after tax returns to bonds and the calculation of returns over specified periods to investors with specific investment policies. The updated before tax index is in the appendix.

1. Two Tax Assumptions

There are many possible ways to approach the problem of estimating after tax holding period returns. Unfortunately, since most investors face unique and individual tax situations, there is no single approach that adequately represents all investors. Two different tax treatments are chosen. The first treatment uses marginal corporate tax rates for a given period to adjust the before tax coupon and capital change returns for that period. In the second case the chosen tax rates are those facing an investor whose personal taxable income is in the 90th percentile of all incomes at all times during the period under construction.⁴ In each case, all losses are assumed to offset other capital gains. Table 2 contains the average monthly returns and standard deviations of the returns for each index included in the paper. Several interesting results are apparent from this table. In particular, note that the inclusion of the differential tax adjustments do not affect the basic pattern of interrelationships among the average holding period returns. If a return is greater before tax than a second return, any differential tax patterns are unlikely to be sufficiently strong to change this ordering in an after tax situation. The average

returns also suggest that the realized return on long term securities during the sample period is, even after taxes, less than that for the riskless security. It should also be noted that, on a percentage basis, tax burdens fell more heavily on the long term securities during this period. This occurred because of the continually rising interest rates in the economy during the period. This meant falling prices for the long term securities. In this case, returns to investors in long term securities include coupon accrual and capital losses. Since the capital losses decrease taxes at a lower rate than coupon income increases taxes, the net result is a higher effective tax rate.

There is no need to list the other summary statistics for each set of indexes as the statistics, in both the before and after tax situations, are well represented by the results in [1].

2. Returns Over Long Holding Periods

Although the indexes measure monthly returns, many investors have longer horizons. Moreover, there are many investment strategies that can be followed. This section compares the returns from two alternative investment strategies over several selected time periods. The first strategy could be called a "maturity maintenance" strategy as a typical security (index) with a maturity in excess of 1 year is bought at the beginning of the chosen time period and is sold at the end of six months. A security with the original maturity is bought again and is again held for six months. This process is repeated for the full holding period and includes reinvestment of coupons. The second strategy is the "buy and hold" strategy wherein the investor

buys a security, reinvests the coupons as they are paid, and replaces the security when it matures with a new security with the identical term to maturity as the original security. (Any reinvestments of coupons are done at the appropriate market prices.) Whenever a new security is purchased, it is assumed to be purchased at par with a coupon equal to the yield to maturity at that time for securities with the chosen term to maturity. This assumption is for simplicity and effectively assumes that the Treasury is continuously issuing new securities of all maturities. Moreover, it should be noted the presence of only 14 indexes representing all maturities precludes an exacting comparison between marginally different investment policies with respect to original terms to maturity.

Since transactions costs are negotiable, they have not been included explicitly in the analysis. There is a purchase at the beginning of the period and a sale at the end of the period. During each year there are additional transactions, as indicated in Table 3, depending on the initial maturity of the security and the investment strategy.

The securities with initial maturities under 1 year are handled as though they are Treasury bills with discount prices and no coupons. Note that, in several cases, the initial maturity is less than six months. In these cases the maturity maintenance and buy and hold strategies are identical. The results are repeated where appropriate for convenience.

Tables 4 through 9 contain the results, in terms of annual rates of return, for 8 selected holding periods. The 8 holding periods represent the full sample period, the Pre-Accord period, the Treasury-period, the "Post Bills Only" period and 2 periods which coincide with

the holding periods in (2). The long term securities outperformed the short term securities only during the Pre-Accord period when the Federal Reserve System controlled interest rate levels. During the other continuous periods the long term securities performed no better than the short term securities and often performed worse than the short term securities.⁵

In addition to these holding periods, there are average before tax annual rates of return for 7 periods of rising interest rates, 5 periods of falling interest rates and 3 periods of level interest rates, in Tables 4 and 7, as based on movements of the riskless rate. During the periods of level rates it appears that returns to long term bonds are higher than those to short term bonds. If interest rates are expected to be level, then the result is consistent with the feeling that positive risk premiums and higher rates of return are demanded by investors in order to compensate for the additional risk accepted by those investors. However, it should be noted that there are very few periods of level interest rates and that these periods are not long lasting. In periods of rising and falling interest rates, the long term securities underperform and outperform the short term securities respectively. These results, which are consistent with expected results given the expectation of level interest rates, suggest that there is a broader range of probable rates of return to long term securities than to short term securities.⁶

In the absence of taxes and any adjustment for transactions costs the superiority of one investment scheme over the other depends on the particular term to maturity and sample period under consideration. A

comparison after adjustments for taxes yields the same results. However, since the different strategies often yield marginally different returns, the additional transactions associated with the maturity maintenance policy are likely to be greater than any marginal benefits obtained in terms of extra returns. Hence it is likely that the buy and hold policy, on average, is the superior investment strategy.

Conclusion

The results presented here extend the results presented in [1]. Moreover, it has been shown that both before and after tax returns show similar results. In addition, during the period that compares directly to those in [2], it appears that returns to bonds have been less than returns to common stocks. Finally, the results presented here are consistent with the conclusion that the buy and hold strategy has been a superior investment strategy for bonds since World War II as compared with the maturity maintenance strategy.

Footnotes

*Assistant Professor of Finance, University of Pennsylvania. This paper has been supported by a grant from the Rodney L. White Center for Financial Research, University of Pennsylvania.

¹The indexes have been constructed using double precision computer programming. This adjustment plus a minor change in the way realized coupon payments are handled may make selected observations marginally different from those in (1) for the same period and maturity. Moreover, the observations which are estimated by regression analysis are different from those stated in (1) because the full set of 317 observations are used for the estimation whereas only 296 observations were available for the original estimates.

²In the case of Treasury bills, bills without an integer number of months to maturity at the end of a month has been excluded as, for the short term securities, small differences in terms to maturity can have more substantial effects on returns than is likely to be the case for longer term securities.

³All these securities, with the exception of the 1½% notes issued each April and October, are assumed to have been issued at par.

⁴The 90th percentile of all incomes has been estimated for the last several periods as summary data is not yet available.

⁵The actual rates of return for the columns representing rising, falling and level rates are less important than the pattern of the rates of return in relation to each other. The annual rates of returns were calculated for each period included in any one of these groups of returns and then these annual rates were averaged together with rates for other periods included in the same group thereby weighting each period equally despite their differing lengths. Moreover, since the groups are described only by the direction of interest rates, they include many different rate levels.

⁶Since the returns for these periods are averaged over several different interest rate levels, the exact rates of return are less important than are the returns to a security with a given term to maturity relative to returns to another maturity.

Bibliography

1. Bildersee, John S., Some New Bond Indexes, Rodney L. White Center for Financial Research, Paper 7-73, 1973.
2. Fisher, L. and James H. Lorie, "Rates of Return on Investments in Common Stocks", Journal of Business, January 1964.

Table 1
Terms to Maturity of Indexes
Included in the Study¹

Riskless Rate ²	3-4 Years
1 Month	4-5 Years
2 Months	5-6 Years
3-6 Months	6-10 Years
7-12 Months	10-15 Years
1-2 Years	15-20 Years
2-3 Years	Over 20 Years

Composite Index³

¹These terms to maturity are for the end of the holding period.

²The security in the index matures at the end of the period.

³Each index is weighted equally in the composite index.

The entire set of pretax indexes is presented in Appendix 1.

Table 2

Distributions of Returns and Risk Premiums
January, 1947-May, 1973

Index	Mean	No Tax		Corporate Tax		Personal Tax (90th Percentile)			
		Std. Dev. (Returns)	Std. Dev.* (Risk Prem.)	Mean	Std. Dev. (Return)	Std. Dev.* (Risk Prem.)	Mean	Std. Dev. (Return)	Std. Dev.* (Risk Prem.)
Riskless Rate	0.229%/mo.	0.134	---	0.114%/mo.	0.066	---	0.086%/mo.	0.055	----
1 Month	0.250	0.147	0.040	0.125	0.074	0.020	0.094	0.062	0.019
2 Months	0.264	0.161	0.061	0.131	0.084	0.036	0.099	0.066	0.024
3-6 Months	0.261	0.182	0.110	0.126	0.113	0.077	0.092	0.101	0.071
7-12 Months	0.267	0.249	0.201	0.132	0.154	0.131	0.096	0.143	0.122
1-2 Years	0.270	0.405	0.374	0.138	0.274	0.258	0.105	0.261	0.247
2-3 Years	0.273	0.594	0.574	0.139	0.408	0.397	0.105	0.390	0.381
3-4 Years	0.264	0.718	0.703	0.133	0.495	0.487	0.096	0.474	0.467
4-5 Years	0.245	0.858	0.846	0.119	0.584	0.577	0.082	0.556	0.550
5-6 Years	0.255	1.003	0.990	0.123	0.751	0.745	0.085	0.747	0.743
6-10 Years	0.259	1.191	1.180	0.126	0.896	0.890	0.087	0.889	0.885
10-15 Years	0.197	1.605	1.601	0.085	1.204	1.202	0.044	1.202	1.200
15-20 Years	0.195	1.683	1.682	0.080	1.263	1.262	0.037	1.261	1.260
Over 20 Yrs.	0.182	1.703	1.703	0.069	1.278	1.278	0.024	1.276	1.275
Composite	0.244	0.671	0.707	0.118	0.488	0.518	0.081	0.480	0.511

*The mean of the distribution of risk premiums for a given index is the mean of the distribution of returns for that index less the mean riskless rate.

Table 3

The Initial Maturity of a Security and the
Number of Transactions in a Typical Year

Initial Maturity	Transactions/Year*	
	Buy & Hold	Maturity Maintenance
1 month	12	12
2	6	6
3	4	4
6	2	2
9	1.33	2
18	0.67	2
30	0.40	2
42	0.29	2
54	0.22	2
66	0.18	2
96	0.13	2
150	0.08	2
210	0.06	2
300	0.04	2

*There are also two transactions per year for each security with an original maturity of over one year for reinvestment of coupons.

Table 4

Performance Over Selected Periods - No Tax - Annual Rates of Return
Buy and Hold

Initial Term to Maturity	1/47 to 5/73	1/47 to 3/57	3/51 to 3/53	3/53 to 5/73	3/53 to 3/61	1/61 to 5/73	12/50 to 12/60	12/55 to 12/60	Increasing Interest Rates	Decreasing Interest Rates	Level Interest Rates
1 mo.	2.78	0.94	1.56	3.28	1.98	4.11	1.88	2.36	3.24	3.28	2.47
2	2.91	0.97	1.64	3.44	2.18	4.25	2.02	2.54	3.36	3.45	2.61
3	3.00	0.95	1.70	3.61	2.41	4.36	2.24	2.89	3.48	3.75	2.80
6	3.13	0.92	1.71	3.64	2.46	4.53	2.32	2.95	3.56	3.94	2.85
9	3.06	0.93	1.83	3.71	2.55	4.65	2.32	2.97	3.32	5.10	3.30
18	3.15	0.93	1.74	3.70	2.60	4.76	2.25	3.37	3.09	6.53	3.80
30	3.26	0.98	1.21	3.84	2.46	4.55	2.17	2.38	2.59	8.27	3.96
42	3.30	0.98	1.04	4.24	3.50	4.66	2.15	3.90	2.36	9.25	4.30
54	3.37	1.22	0.93	3.85	3.17	4.95	2.74	3.90	2.22	9.52	4.97
66	3.03	1.33	0.70	4.01	2.82	4.27	2.39	3.17	2.06	9.83	5.05
96	2.91	1.11	0.50	4.14	2.89	4.65	2.40	3.07	1.67*	10.52*	5.20*
150	2.99	1.24	-0.17*	3.18	1.97	3.89	2.25	2.38	1.12*	8.97*	4.71*
210	2.51	1.19	-0.77*	3.87	1.95	3.59	1.70	2.26	1.69*	8.63*	5.28*
300	2.56	1.43	-0.93*	3.18	2.23	2.57	2.26	0.97	0.94*	8.63*	4.81*

* These results are the same as those for the alternative investment policy in the no tax case because of insufficient resolution among the long term indexes to make a difference over short sample periods. The results are different in the tax cases due to the differential tax patterns associated with each policy.

Table 5

Performance Over Selected Periods - Corporate Tax - Annual Rates of Return

Buy and Hold

Initial Term to Maturity	1/47 to 5/73	1/47 to 3/51	3/51 to 3/53	3/53 to 5/73	3/53 to 1/61	1/61 to 5/73	12/50 to 12/60	12/50 to 12/55
1 mo.	1.66	0.57	0.78	1.91	1.02	2.33	0.97	1.19
2	1.75	0.58	0.82	2.02	1.15	2.40	1.02	1.22
3	1.85	0.61	0.86	2.17	1.34	2.52	1.24	1.52
6	2.01	0.63	1.00	2.20	1.37	2.70	1.35	1.62
9	1.86	0.63	1.13	2.24	1.39	2.77	1.26	1.54
18	1.46	0.47	0.57	1.53	0.89	2.05	0.82	1.27
30	1.75	0.55	0.40	1.98	1.10	2.32	0.97	0.96
42	1.89	0.54	0.28	2.45	1.81	2.45	1.16	1.98
54	2.02	0.77	-0.03	2.07	1.54	2.72	1.42	2.19
66	1.67	0.83	-0.04	2.15	1.36	2.09	1.25	1.66
96	1.67	0.66	-0.13	2.46	1.54	2.48	1.29	1.64
150	1.71	0.72	-0.98	1.69	0.79	2.00	1.21	1.02
210	1.32	0.59	-1.44	2.33	0.65	1.69	0.58	1.05
300	1.36	0.81	-1.36	1.78	1.11	0.76	1.29	-0.15

Table 6

Performance Over Selected Periods - Personal Tax (90th Percentile) Annual Rates of Return

Initial Term to Maturity	Buy and Hold									
	1/47 to 5/73	1/47 to 3/51	3/51 to 3/53	3/53 to 5/73	3/53 to 1/61	1/61 to 5/73	12/50 to 12/60	12/50 to 12/55		
1 mo.	1.32	0.40	0.54	1.52	0.76	1.86	0.72	0.89		
2	1.39	0.41	0.57	1.62	0.88	1.91	0.74	0.88		
3	1.50	0.45	0.60	1.77	1.06	2.03	0.96	1.17		
6	1.68	0.50	0.78	1.79	1.08	2.23	1.08	1.28		
9	1.49	0.49	0.92	1.82	1.07	2.29	0.97	1.17		
18	0.88	0.25	0.21	0.85	0.41	1.28	0.41	0.72		
30	1.24	0.35	0.15	1.41	0.73	1.69	0.64	0.59		
42	1.43	0.33	0.03	1.89	1.33	1.83	0.89	1.47		
54	1.57	0.55	-0.33	1.52	1.09	2.10	1.04	1.75		
66	1.20	0.58	-0.28	1.58	0.95	1.49	0.94	1.27		
96	1.26	0.42	-0.35	1.95	1.15	1.87	0.97	1.26		
150	1.29	0.42	-1.27	1.25	0.44	1.48	0.90	0.63		
210	0.93	0.21	-1.71	1.85	0.25	1.14	0.21	0.69		
300	0.93	0.39	-1.58	1.32	0.75	0.19	0.92	-0.53		

Table 7

Performance Over Selected Periods - No Tax - Annual Rates of Return

Initial Term to Maturity	Maturity Maintenance										Increasing Interest Rates	Decreasing Interest Rates	Level Interest Rates
	1/47 to 5/73	1/47 to 3/51	3/51 to 3/53	3/53 to 5/73	3/53 to 1/61	1/61 to 5/73	12/50 to 12/60	12/50 to 12/55	12/55 to 12/60	12/60 to 12/60			
1 mo.	2.78	0.94	1.56	3.28	1.98	4.11	1.88	2.36	3.24	3.28	2.47		
2	2.91	0.97	1.64	3.44	2.18	4.25	2.02	2.54	3.36	3.45	2.61		
3	3.00	0.95	1.70	3.61	2.41	4.36	2.24	2.89	3.48	3.75	2.80		
6	3.13	0.92	1.71	3.64	2.46	4.53	2.32	2.95	3.56	3.94	2.85		
9	3.21	1.01	1.80	3.88	2.72	4.66	2.41	3.10	3.35	5.23	3.27		
18	3.29	1.02	1.25	3.90	2.97	4.76	2.46	3.39	2.98	7.06	3.97		
30	3.38	1.01	1.08	3.98	3.15	4.72	2.82	3.80	2.35	8.52	4.47		
42	3.26	1.10	0.95	3.84	3.05	4.35	2.58	3.46	2.15	9.32	4.91		
54	2.96	1.05	0.62	3.52	2.89	4.06	2.44	3.27	1.74	9.48	4.97		
66	3.02	1.23	0.83	3.43	2.14	4.39	2.14	2.32	1.95	9.87	5.25		
96	3.07	1.32	0.25	3.63	2.52	4.23	2.20	2.74	1.67*	10.52*	5.20*		
150	2.23	1.26	-0.17*	2.56	1.76	2.98	1.53	1.68	1.12*	8.97*	4.71*		
210	2.19	1.32	-0.77*	2.55	2.34	2.58	1.89	2.39	1.69*	8.63*	5.28*		
300	2.03	1.42	-0.93*	2.35	2.07	2.40	1.64	1.01	0.94*	8.63*	4.81*		

*These results are the same as those for the alternative investment policy in the no tax case because of insufficient resolution among the long term indexes to make a difference over short sample periods. The results are different in the tax cases due to the differential tax patterns associated with each policy.

Table 8

Performance Over Selected Periods - Corporate Taxes - Annual Rates of Return

		Maturity Maintenance									
Initial Term to Maturity		1/47 to 5/73	1/47 to 3/51	3/51 to 3/53	3/53 to 5/73	3/53 to 1/61	1/61 to 5/73	12/50 to 12/60	12/50 to 12/60	12/55 to 12/60	
1 mo.		1.66	0.57	0.78	1.91	1.02	2.33	0.97	1.19		
2		1.75	0.58	0.82	2.02	1.15	2.40	1.02	1.22		
3		1.85	0.61	0.86	2.17	1.34	2.52	1.24	1.52		
6		2.01	0.63	1.00	2.20	1.37	2.70	1.35	1.62		
9		2.06	0.71	0.95	2.41	1.58	2.82	1.33	1.60		
18		2.05	0.60	0.46	2.28	1.54	2.78	1.29	1.71		
30		2.02	0.62	0.10	2.23	1.52	2.66	1.53	2.00		
42		1.93	0.62	-0.14	2.11	1.43	2.36	1.18	1.68		
54		1.61	0.69	-0.51	1.80	1.34	2.05	1.11	1.59		
66		1.77	0.87	-0.21	1.57	0.91	1.85	1.10	1.06		
96		1.87	0.99	-0.24	2.20	1.35	2.25	1.01	1.08		
150		1.10	0.86	-1.14	1.06	0.73	1.24	0.24	-0.06		
210		1.06	0.87	-1.78	1.07	1.26	0.88	0.59	0.61		
300		0.86	0.80	-1.75	0.93	1.12	0.68	0.60	-0.37		

Table 9

Performance Over Selected Periods - Personal Taxes (90th Percentile) - Annual Rates of Return
Maturity Maintenance

Initial Term to Maturity	1/47 to 5/73	1/47 to 3/51	3/51 to 3/53	3/53 to 5/73	3/53 to 1/61	1/61 to 5/73	12/50 to 12/60	12/55 to 12/60
1	1.32	0.40	0.54	1.52	0.76	1.86	0.72	0.89
2	1.39	0.41	0.57	1.62	0.88	1.91	0.74	0.88
3	1.50	0.45	0.60	1.77	1.06	2.03	0.96	1.17
6	1.68	0.50	0.78	1.79	1.08	2.23	1.08	1.28
9	1.71	0.57	0.69	1.99	1.27	2.34	1.03	1.22
18	1.66	0.40	0.21	1.80	1.15	2.24	0.96	1.27
30	1.58	0.42	-0.21	1.70	1.07	2.09	1.17	1.53
42	1.47	0.38	-0.49	1.57	0.97	1.71	0.77	1.21
54	1.15	0.48	-0.87	1.27	0.89	1.49	0.73	1.13
66	1.27	0.67	-0.55	0.99	0.57	1.10	0.79	0.72
96	1.46	0.80	-0.42	1.76	1.01	1.67	0.66	0.62
150	0.70	0.62	-1.47	0.58	0.41	0.71	-0.17	-0.55
210	0.64	0.60	-2.15	0.59	0.91	0.36	0.13	0.09
300	0.39	0.41	-2.08	0.45	0.80	0.11	0.23	-0.80

Appendix

The following table contains the month-by-month pre-tax holding period returns in percent form for the stated indexes.

The Observations for Each Bond Index

January, 1947 - May, 1973

	1/47	2/47	3/47	4/47	5/47	6/47	7/47	8/47	9/47	10/47	11/47	12/47
RISKLESS RATE	0.02754	0.02937	0.02956	0.02966	0.02947	0.02956	0.02937	0.02975	0.02975	0.02975	0.02975	0.02975
1 MONTH	0.02071	0.02861	0.03052	0.03271	0.03061	0.03201	0.02947	0.03147	0.03564	0.07391	0.06383	0.08820
2 MONTHS	0.02813	0.02813	0.03014	0.03214	0.03014	0.03214	0.02918	0.06075	0.05474	0.07563	0.06561	0.08898
3 - 6 MONTHS	0.08180	0.07929	0.12121	0.03233	0.06876	0.04091	0.05675	0.04129	0.06142	0.04902	0.07219	0.08078
6 MONTHS - 1 YEAR	0.08440	0.07658	0.09403	-0.00007	0.08202	0.06485	0.06975	0.07019	0.05102	0.04338	0.04368	0.10719
1 - 2 YEARS	0.15914	0.07029	0.13475	-0.03676	0.10090	0.07505	0.09069	0.10605	0.04072	-0.07182	0.07153	0.07648
2 - 3 YEARS	0.16575	0.10509	0.16460	-0.11085	0.10204	0.09289	0.06361	0.20247	0.02298	-0.22559	0.02861	0.03777
3 - 4 YEARS	0.29463	0.08078	0.23127	-0.08469	0.09555	0.08364	0.08173	0.23098	0.04930	-0.00699	-0.08702	-0.26655
4 - 5 YEARS	0.29459	0.12655	0.29507	-0.06765	0.11740	0.03901	0.09003	0.38719	-0.00699	-0.47997	-0.16956	-0.39816
5 - 6 YEARS	0.48180	-0.06933	0.36812	-0.02359	0.27180	0.03901	0.23375	0.38519	0.09050	-0.57807	-0.48184	-1.03503
6 - 10 YEARS	0.42152	0.19883	0.28725	-0.14508	0.14486	-0.03600	0.46890	0.41924	-0.07598	-0.60618	-1.03093	-2.17483
10 - 15 YEARS	0.30842	0.28067	0.26550	-0.13757	0.21181	-0.15726	0.47665	0.42429	-0.16203	-0.67946	-0.87837	-1.35839
15 - 20 YEARS	0.16356	0.32816	0.35849	-0.01774	0.29669	-0.27456	0.38652	0.52872	-0.09499	-0.83421	-0.85669	-2.25520
OVER 20 YEARS	0.17633	0.36535	0.48923	-0.00583	0.23413	-0.36999	0.10862	0.55866	0.02155	-0.92447	-0.61460	-0.93580

	1/48	2/48	3/48	4/48	5/48	6/48	7/48	8/48	9/48	10/48	11/48	12/48
RISKLESS RATE	0.07124	0.07687	0.07830	0.07992	0.07825	0.08125	0.08087	0.08106	0.08659	0.08774	0.08821	0.08974
1 MONTH	0.07365	0.07439	0.08793	0.07648	0.07925	0.08221	0.08745	0.07401	0.09561	0.08545	0.08955	0.10433
2 MONTHS	0.07341	0.07448	0.08965	0.07610	0.07877	0.08154	0.08621	0.06695	0.09670	0.08945	0.09346	0.10509
3 - 6 MONTHS	0.08297	0.08237	0.05102	0.05159	0.11349	0.04625	0.10347	0.04129	0.04129	0.11924	0.12622	0.13351
6 MONTHS - 1 YEAR	0.06142	0.09222	0.07191	0.04101	0.13342	0.07153	0.10319	0.07219	0.04110	0.10309	0.11345	0.11215
1 - 2 YEARS	0.14639	0.18373	0.07305	0.09335	0.20981	0.02422	0.09193	0.09184	0.02419	0.06475	0.20237	0.14076
2 - 3 YEARS	0.12675	0.22287	0.12188	0.09165	0.32196	-0.08876	0.05741	0.05413	0.07963	0.02470	0.27361	0.30832
3 - 4 YEARS	0.07256	0.31719	0.28715	0.18873	0.47951	-0.11499	-0.06235	-0.05997	0.09022	0.06638	0.33979	0.35840
4 - 5 YEARS	0.17815	0.21591	0.23127	0.30241	0.61636	-0.34809	-0.26379	-0.10166	-0.00496	-0.03376	0.57211	0.50526
5 - 6 YEARS	0.40617	0.58651	0.58308	0.27981	0.69771	-0.46770	-0.17159	-0.11959	-0.11959	-0.26890	1.04847	0.72032
6 - 10 YEARS	0.41847	0.87471	0.65975	0.41552	1.15852	-0.70826	-0.52935	-0.10366	-0.10977	-0.04561	0.99220	0.69704
10 - 15 YEARS	0.12453	0.57752	0.46520	0.32701	0.98257	-0.43025	0.18721	0.13682	0.18654	0.18616	0.18587	0.34008
15 - 20 YEARS	-0.16737	0.58737	0.81091	0.37146	1.34058	-0.07849	-0.44103	-0.09451	0.12140	0.20752	0.88835	0.42180
OVER 20 YEARS	0.20618	0.24014	0.31290	0.21324	0.83703	-0.48956	0.11377	0.17891	0.19760	0.19035	0.31710	0.44641

	1/49	2/49	3/49	4/49	5/49	6/49	7/49	8/49	9/49	10/49	11/49	12/49
RISKLESS RATE	0.09168	0.09289	0.09165	0.09251	0.09251	0.09203	0.08621	0.08144	0.08297	0.08526	0.08287	0.08526
1 MONTH	0.09098	0.09022	0.10586	0.09394	0.09680	0.11101	0.09331	0.08459	0.09041	0.08707	0.08450	0.10338
2 MONTHS	0.09079	0.08926	0.10424	0.09241	0.09491	0.11425	0.09594	0.08008	0.09117	0.08752	0.08154	0.10500
3 - 6 MONTHS	0.08862	0.11902	0.06110	0.11921	0.10357	0.10672	0.11592	0.08072	0.09513	0.08802	0.13456	0.16337
6 MONTHS - 1 YEAR	0.12064	0.12445	0.05884	0.12817	0.10109	0.14944	0.16450	0.10271	0.03824	0.10786	0.06933	0.14996
1 - 2 YEARS	0.13323	0.14467	0.10738	0.15945	0.11282	0.20103	0.17471	0.13580	0.05836	0.11091	0.06580	0.11501
2 - 3 YEARS	0.24853	0.13227	0.17691	0.14715	0.17223	0.40340	0.23050	0.29764	0.05431	0.06857	0.06247	0.15392
3 - 4 YEARS	0.33169	0.10900	0.29221	0.17950	0.26045	0.41828	0.44428	0.29768	0.02928	0.05856	0.05856	0.16088
4 - 5 YEARS	0.31157	0.01001	0.22039	0.27990	0.12960	0.12960	0.23613	0.23613	0.50068	0.05068	0.05856	0.16088
5 - 6 YEARS	0.59490	0.14782	0.31013	0.31452	0.13342	0.70391	0.10386	0.60996	-0.17810	0.16165	0.16146	0.45886
6 - 10 YEARS	0.64369	0.19588	0.04907	0.41494	0.23031	0.99049	0.20866	0.50190	-0.08414	0.17481	0.22634	0.31947
10 - 15 YEARS	0.46740	0.43421	0.40140	0.12102	0.30718	1.04132	0.44432	0.82369	0.19665	0.22640	0.25606	0.57106
15 - 20 YEARS	0.54989	0.49486	0.41161	0.29278	0.30785	1.27106	0.53596	0.72546	0.36621	0.23289	0.38900	0.59738
OVER 20 YEARS	0.53072	0.48895	0.29821	0.10328	0.17729	1.22433	0.73967	0.79670	0.28019	0.24490	0.34409	0.63429

	1/50	2/50	3/50	4/50	5/50	6/50	7/50	8/50	9/50	10/50	11/50	12/50
RISKLESS RATE	0.08612	0.09012	0.09232	0.09146	0.09413	0.09508	0.09460	0.09413	0.10471	0.10719	0.10500	0.11015
1 MONTH	0.08287	0.08402	0.10233	0.08535	0.09956	0.10624	0.08336	0.09928	0.09842	0.11044	0.11339	0.11292
2 MONTHS	0.08211	0.08602	0.10319	0.08326	0.10118	0.10672	0.09079	0.09136	0.09928	0.11196	0.11387	0.11749
3 - 6 MONTHS	0.09853	0.11399	0.00763	0.06199	0.08519	0.09804	0.07782	0.07782	0.06218	0.11631	0.12726	0.08659
6 MONTHS - 1 YEAR	0.05151	0.07222	0.09317	0.07753	0.10843	0.07067	0.10222	0.01020	0.05760	0.05760	0.08937	0.10109
1 - 2 YEARS	-0.01501	0.06371	0.02127	0.04406	0.12045	0.06609	0.15182	-0.02779	0.00811	0.00496	0.15278	0.10614
2 - 3 YEARS	-0.01384	0.11692	-0.00340	0.08307	0.17967	0.01774	0.30746	-0.02851	-0.15702	-0.13437	0.16346	0.16174
3 - 4 YEARS	-0.16540	0.10033	0.0	0.00849	0.11549	-0.01349	0.43488	-0.05827	-0.31548	-0.09475	0.11578	0.19417
4 - 5 YEARS	-0.14656	-0.00520	0.02756	-0.02254	0.19484	-0.12619	0.56629	-0.01903	-0.37870	-0.12803	0.10509	0.20103
5 - 6 YEARS	-0.42005	0.20380	0.06500	-0.05096	0.25243	-0.12819	0.60758	0.01905	-0.37398	-0.42146	0.21009	0.35808
6 - 10 YEARS	-0.33453	0.23031	0.07353	-0.17627	0.32082	-0.20616	0.71449	0.02060	-0.27728	-0.38505	0.07572	0.11063
10 - 15 YEARS	-0.57406	-0.13676	-0.06089	-0.01526	0.03042	-0.13700	0.20027	0.26140	-0.18411	-0.10762	-0.03080	0.31090
15 - 20 YEARS	-0.48027	-0.00181	-0.10697	-0.19268	0.11048	-0.17378	0.36211	0.17204	-0.19330	-0.17599	0.10834	0.11702
OVER 20 YEARS	-0.56334	-0.05921	-0.19186	-0.08016	0.11702	-0.25160	0.24557	0.28000	-0.32406	-0.03784	0.19541	0.14219

	1/51	2/51	3/51	4/51	5/51	6/51	7/51	8/51	9/51	10/51	11/51	12/51
RISKLESS RATE	0.11072	0.10929	0.10757	0.12207	0.11244	0.11568	0.12197	0.12522	0.12789	0.13256	0.11148	0.11358
1 MONTH	0.11454	0.10719	0.10977	0.13027	0.13380	0.11721	0.13266	0.14620	0.11921	0.15888	0.13418	0.11921
2 MONTHS	0.11330	0.10643	0.10166	0.13199	0.13742	0.11244	0.13151	0.15154	0.12474	0.17882	0.13742	0.11120
3 - 6 MONTHS	0.10319	0.08764	-0.03605	0.16642	0.10832	0.33617	0.29154	0.17763	0.02041	0.20742	0.17595	-0.11851
6 MONTHS - 1 YEAR	0.09384	0.10147	-0.16986	0.29488	-0.00763	0.21114	0.25377	0.18587	0.03605	0.22934	0.19774	-0.40929
1 - 2 YEARS	0.09918	0.12207	-0.33855	0.23956	0.07391	0.25635	0.30403	0.19617	-0.32055	0.14858	0.18738	-0.20317
2 - 3 YEARS	0.40760	-0.20301	-0.58284	0.45748	0.03462	0.20819	0.43449	0.10651	-0.09942	0.27351	0.13218	-0.20261
3 - 4 YEARS	0.26664	-0.07019	-0.84984	0.50640	-0.06444	0.15831	0.47627	0.29879	-0.15965	0.34475	-0.00715	-0.27685
4 - 5 YEARS	0.27676	0.01364	-1.20820	0.35162	0.24052	0.14601	0.47627	0.56295	-0.39363	0.30651	0.03372	-0.53902
5 - 6 YEARS	0.38261	-0.08154	-1.39136	0.55857	-0.36769	0.26016	0.62160	0.65028	-0.34831	0.27825	0.10264	-0.20466
6 - 10 YEARS	0.37327	0.00229	-1.40252	-0.44813	-0.41227	0.35992	0.70835	0.62590	-0.39983	0.23308	0.15402	-0.25012
10 - 15 YEARS	0.69418	-0.29726	-1.75409	-0.67673	-0.60943	0.16146	1.17245	1.29690	-0.65448	0.4234	-0.23394	-0.21890
15 - 20 YEARS	0.37661	-0.11389	-1.59696	-1.53215	-0.23267	0.25317	0.75828	1.63497	-0.89598	-0.14662	-0.47568	0.05217
OVER 20 YEARS	0.28658	-0.05774	-1.42578	-1.19680	-0.30190	-0.10268	0.64383	1.62477	-0.77000	-0.06374	-0.86200	-0.444616

	1/52	2/52	3/52	4/52	5/52	6/52	7/52	8/52	9/52	10/52	11/52	12/52
RISKLESS RATE	0.13952	0.10834	0.10290	0.11721	0.13237	0.13657	0.14496	0.14868	0.13771	0.12608	0.12350	0.14572
1 MONTH	0.18148	0.12894	0.13447	0.11473	0.13800	0.13027	0.15755	0.16127	0.16804	0.16727	0.09390	0.17557
2 MONTHS	0.20456	0.12474	0.14591	0.11330	0.14391	0.13695	0.15764	0.16518	0.17900	0.19331	0.11702	0.18959
3 - 6 MONTHS	0.50062	0.23842	0.28458	0.17139	0.14720	0.01030	0.01040	0.18790	0.15522	0.13282	0.10526	0.110290
6 MONTHS - 1 YEAR	0.73201	0.16623	0.29039	0.22755	0.16319	0.02043	-0.02064	0.19608	0.07210	-0.02059	0.01545	0.27065
1 - 2 YEARS	0.15222	0.07161	0.31147	0.42867	0.06304	-0.03543	-0.06719	0.07372	0.16518	0.13437	-0.02098	0.12054
2 - 3 YEARS	0.32225	0.15020	0.41120	0.26102	-0.06132	-0.12722	-0.21653	0.04311	-0.10488	0.27390	0.03946	0.04654
3 - 4 YEARS	0.42429	0.11854	0.62599	0.43340	-0.00043	-0.24118	-0.22335	0.10567	-0.05274	0.20533	0.19712	0.03379
4 - 5 YEARS	0.61293	0.11120	0.70772	0.47998	-0.01357	-0.25942	-0.40526	-0.12290	-0.44558	0.25768	0.32148	0.19236
5 - 6 YEARS	0.47545	0.05050	0.67768	0.54302	0.20380	-0.27585	-0.28028	-0.15744	-0.02512	0.34962	0.17366	0.12112
6 - 10 YEARS	0.31404	-0.07830	0.66872	0.51851	-0.10357	-0.15540	-0.58956	-0.24643	-0.50340	1.03340	0.30394	0.07629
10 - 15 YEARS	0.51136	-0.11823	1.18141	0.59764	0.16088	-0.18982	-0.41040	-0.32937	-0.85974	0.91124	0.20590	-0.30746
15 - 20 YEARS	0.33207	0.01087	0.75140	1.87798	0.25997	-0.13552	0.02117	-0.63107	-1.19225	1.46456	0.01154	-0.71352
OVER 20 YEARS	0.63715	0.11759	0.67177	1.86596	-0.02073	-0.07324	-0.10476	-0.56453	-1.19403	1.25160	-0.04263	-0.50241

	1/53	2/53	3/53	4/53	5/53	6/53	7/53	8/53	9/53	10/53	11/53	12/53
RISKLESS RATE	0.16041	0.14935	0.16537	0.15327	0.17195	0.15411	0.13800	0.15650	0.14582	0.10853	0.07601	0.09785
1 MONTH	0.16394	0.12941	0.17748	0.15947	0.19369	0.22316	0.16012	0.18282	0.19684	0.22678	0.08335	0.11619
2 MONTHS	0.18425	0.13504	0.15064	0.15841	0.18902	0.25434	0.17465	0.20771	0.26131	0.20151	0.05589	0.11795
3 - 6 MONTHS	0.15732	0.15611	0.17967	0.11560	0.17567	0.33369	0.17687	0.25970	0.33216	0.27084	0.08307	0.18883
6 MONTHS - 1 YEAR	0.11445	0.14515	0.12970	-0.01350	0.08383	0.36097	0.32206	0.18139	0.18539	0.29306	0.19989	0.14668
1 - 2 YEARS	0.22888	0.19608	0.02851	-0.27746	-0.06527	0.53406	0.39854	0.35028	0.33503	0.51451	0.14257	0.22488
2 - 3 YEARS	0.23496	0.09489	-0.13232	0.14973	-0.37425	0.59938	0.34447	0.24805	0.92230	0.77724	0.05741	0.53186
3 - 4 YEARS	0.12789	-0.06639	-0.20421	-0.23044	-0.72455	0.87452	0.39463	0.14296	0.99764	0.80061	0.43859	0.54817
4 - 5 YEARS	0.12789	-0.06639	-0.20421	-0.23044	-0.72455	1.26762	0.58670	-0.01854	1.63641	0.66929	0.10433	0.80842
5 - 6 YEARS	-0.00674	0.14172	-0.06769	-0.48073	-1.20637	1.45330	0.64964	-0.07868	1.84317	0.76237	-0.14615	1.22271
6 - 10 YEARS	-0.33178	-0.24325	-0.22578	-1.09892	-2.02618	2.36816	0.62637	-0.00005	2.75221	0.63772	0.05379	1.78471
10 - 15 YEARS	-0.15030	-0.17271	-0.25315	-0.80676	-1.95422	1.42546	0.80128	0.13037	2.46906	0.59576	-0.18883	1.75142
15 - 20 YEARS	0.09108	-0.94576	-0.61610	-1.06901	-1.61209	2.22950	0.60759	0.07257	3.00674	0.58260	-0.55083	2.18477
OVER 20 YEARS	-0.03666	-0.54827	-0.42867	-0.91957	-0.44267	0.79613	0.69323	0.50211	2.21481	1.83430	0.25730	1.97430

	1/54	2/54	3/54	4/54	5/54	6/54	7/54	8/54	9/54	10/54	11/54	12/54
RISKLESS RATE	0.10376	0.07820	0.06981	0.08001	0.05322	0.04921	0.04816	0.05293	0.08450	0.07000	0.06123	0.07181
1 MONTH	0.13466	0.08421	0.07353	0.11377	0.06571	0.06189	0.05150	0.03452	0.10042	0.09031	0.07124	0.09050
2 MONTHS	0.17204	0.09375	0.06563	0.13380	0.08173	0.07114	0.04129	0.02832	0.10548	0.09928	0.08421	0.09747
3 - 6 MONTHS	0.06199	0.21696	0.0	0.17710	0.10415	0.07687	0.12407	0.0	0.06847	0.04120	0.05684	0.11864
6 MONTHS - 1 YEAR	0.59938	0.17023	0.18635	0.39673	0.13359	0.11778	0.06437	-0.03600	0.04381	0.03035	0.12219	-0.01026
1 - 2 YEARS	0.64953	0.28067	0.19579	0.33617	-0.06571	0.42610	0.14877	0.04091	-0.12782	-0.11714	0.18473	-0.05908
2 - 3 YEARS	0.97828	0.53502	0.14658	0.35677	0.22169	0.48847	0.15059	0.08516	-0.35967	-0.03071	0.18549	0.08488
3 - 4 YEARS	1.15282	0.56715	0.24452	0.35677	0.22169	0.56477	0.18997	-0.05124	-0.12043	-0.10791	-0.04563	-0.13248
4 - 5 YEARS	0.92592	0.78182	0.40426	0.45347	0.457635	0.77906	0.12494	0.00129	-0.16029	-0.10297	-0.04563	0.02729
5 - 9 YEARS	0.65508	1.01700	0.50233	0.74928	-0.82043	0.97257	0.05808	-0.00629	-0.01570	-0.09569	-0.01032	0.02679
9 - 10 YEARS	0.42572	0.90933	0.66919	1.23024	-1.34993	1.35126	-0.07787	0.00866	-0.02651	-0.14937	-0.21505	0.02966
10 - 15 YEARS	0.89741	1.05696	0.49610	1.05267	-1.29830	1.20125	0.48037	-0.35741	0.02728	-0.05124	-0.37072	0.02298
15 - 20 YEARS	1.52426	1.46399	0.72718	0.77438	-1.34737	1.17683	0.73547	-0.45244	3.18587	-0.01041	-0.44627	-0.01665
OVER 20 YEARS	0.90418	2.41566	0.56114	1.04036	-0.85182	1.60494	1.34821	-0.37213	-0.09338	0.07477	-0.26152	0.63667

	1/55	2/55	3/55	4/55	5/55	6/55	7/55	8/55	9/55	10/55	11/55	12/55
RISKLESS RATE	0.07801	0.09041	0.08831	0.10405	0.12140	0.08535	0.10500	0.14067	0.16098	0.17405	0.16632	0.16422
1 MONTH	0.07067	0.08783	0.11730	0.09832	0.16785	0.11501	0.08459	0.12760	0.16937	0.17748	0.11233	0.16366
2 MONTHS	0.06254	0.06008	0.12493	0.069079	0.18721	0.12740	0.07544	0.11282	0.17662	0.18950	0.16755	0.21124
3 - 6 MONTHS	0.03937	0.00778	0.13747	0.09683	0.18952	0.18952	0.05198	0.08316	0.13485	0.20866	0.05198	0.14563
6 MONTHS - 1 YEAR	-0.10351	-0.01037	0.19674	0.03109	0.16603	0.02801	0.12207	0.06914	0.39549	0.18158	-0.11649	0.01650
1 - 2 YEARS	-0.01364	-0.32742	0.16031	-0.06262	0.26636	-0.04608	-0.10879	-0.07600	0.56190	0.27304	-0.19167	0.07487
2 - 3 YEARS	-0.26238	-0.38204	0.13199	0.01516	0.26286	-0.02220	-0.15726	-0.18349	0.47703	0.40550	-0.31719	0.04187
3 - 4 YEARS	-0.21018	-0.47840	0.18452	-0.06811	0.20351	-0.10710	-0.30274	-0.21033	0.57682	0.37746	-0.32549	0.09050
4 - 5 YEARS	-0.18239	-0.80783	0.25740	-0.06469	0.12941	-0.35596	-0.13022	-0.29311	0.58975	0.82073	-0.36224	-0.03586
5 - 6 YEARS	-0.32307	-0.51231	0.24166	0.05236	0.00515	-0.36010	-0.69622	0.00350	0.83723	0.74139	-0.48380	0.01612
6 - 10 YEARS	-0.39816	-0.58050	0.22860	-0.03359	0.03150	-0.03563	-0.93250	0.30050	0.87957	0.75970	-0.49747	-0.08943
10 - 15 YEARS	-1.07586	-0.29227	0.36402	-0.36103	0.57783	-0.74639	-1.05500	0.44394	0.99087	0.96197	-0.51801	-0.23518
15 - 20 YEARS	-1.41352	-0.57900	0.55170	-0.28408	0.71478	-0.81131	-1.52190	0.79756	1.05276	0.92668	-0.89920	0.21725
OVER 20 YEARS	-2.41715	-0.22845	0.62056	0.14906	0.75941	-0.63972	-0.90837	0.07200	0.96540	1.09205	-0.30046	0.43268

	1/59	2/59	3/59	4/59	5/59	6/59	7/59	8/59	9/59	10/59	11/59	12/59
RISKLESS RATE	0.19341	0.19808	0.19007	0.19369	0.22030	0.21896	0.22068	0.18501	0.27914	0.27285	0.24681	0.24376
1 MONTH	0.21839	0.24977	0.21343	0.24796	0.24365	0.26131	0.31719	0.21019	0.34531	0.42849	0.23854	0.35997
2 MONTHS	0.19188	0.23375	0.23117	0.24900	0.22335	0.26038	0.27523	0.11377	0.29583	0.52137	0.28152	0.43335
3 - 6 MONTHS	0.21334	0.26383	0.24977	0.24109	0.25043	0.28210	0.45552	0.06600	0.22240	0.57755	0.12388	0.41904
6 MONTHS - 1 YEAR	-0.03136	0.18816	0.25244	0.44413	0.14420	0.20962	0.28806	0.09442	0.09346	0.80757	0.08640	0.36154
1 - 2 YEARS	-0.17376	0.34914	0.18311	0.17519	0.11177	0.208373	0.23839	-0.10422	-0.11677	1.10426	0.00010	0.15488
2 - 3 YEARS	-0.12419	0.47302	-0.15450	0.03099	0.08593	-0.15391	0.39816	-0.35838	0.07362	1.33696	-0.66807	0.06990
3 - 4 YEARS	-0.37425	0.86842	-0.45862	-0.12388	0.01755	-0.31297	0.44727	-0.46003	-0.16577	1.33108	-0.41435	-0.05255
4 - 5 YEARS	-0.16510	0.81482	-0.46088	-0.40658	-0.09770	-0.65360	0.68045	-0.86539	0.25833	1.65377	-0.94671	0.27109
5 - 6 YEARS	-0.12842	0.63105	-0.23431	-1.24140	0.16985	-0.37307	0.44250	-0.98289	0.10414	2.11620	-0.51128	-0.37073
6 - 10 YEARS	-0.04051	1.11933	-0.53439	-1.20878	-0.05100	-0.40318	-0.13735	-1.16465	0.31748	1.44272	-0.22845	-1.91026
10 - 15 YEARS	-0.06845	1.51720	-1.15676	-1.79961	0.15087	-0.25123	0.33112	-1.64518	0.49028	1.45063	-0.57790	-2.24525
15 - 20 YEARS	-0.92147	0.82550	-0.30057	-1.29945	-0.117905	-0.05382	-0.18306	-1.21935	-0.18566	1.91469	-0.75546	-2.60514
OVER 20 YEARS	-0.80577	0.81911	-0.56568	-1.11704	-0.14281	0.08135	1.08232	-1.36397	0.30909	1.55077	-1.03233	-3.23132

	1/60	2/60	3/60	4/60	5/60	6/60	7/60	8/60	9/60	10/60	11/60	12/60
RISKLESS RATE	0.32054	0.28019	0.31252	0.220676	0.24042	0.19159	0.12846	0.14515	0.13981	0.19593	0.12350	0.12140
1 MONTH	0.39530	0.13466	0.45967	0.23155	0.29907	0.36440	0.15297	0.18129	0.20771	0.25826	0.17442	0.21305
2 MONTHS	0.53844	0.32797	0.58014	0.25005	0.26550	0.49076	0.25020	0.16708	0.25539	0.27838	0.16108	0.24757
3 - 6 MONTHS	0.57457	0.35207	0.75064	0.28315	0.29449	0.58413	0.25568	0.17500	0.21944	0.27905	0.18244	0.35162
6 MONTHS - 1 YEAR	0.66338	0.16332	1.00899	0.10405	0.33789	0.90693	0.36440	0.26217	0.33855	0.28391	0.11396	0.50325
1 - 2 YEARS	0.88062	0.56295	1.47781	-0.23462	0.41676	1.38264	1.08852	0.30041	0.34666	0.12274	-0.02903	1.02682
2 - 3 YEARS	1.05410	0.44308	2.13327	-0.35327	0.35543	1.69983	1.55821	0.04377	0.47674	0.26855	-0.29140	1.37870
3 - 4 YEARS	1.26534	0.49696	2.54196	-0.81504	0.70276	2.06318	1.95236	0.14486	0.23241	0.22755	-0.35387	1.76325
4 - 5 YEARS	1.62857	0.69170	2.81410	-1.05608	0.81034	2.37913	2.33030	-0.09363	0.17481	0.17624	-0.87135	2.03400
5 - 6 YEARS	1.15786	0.88539	2.67572	-0.14594	0.60549	1.09987	0.44785	-0.02737	0.41733	-0.02980	-0.21957	2.02579
6 - 10 YEARS	1.61076	1.09510	3.67756	-0.67425	0.53968	1.86357	3.54671	-0.11851	0.30308	-0.46566	-1.14251	2.94895
10 - 15 YEARS	2.36931	1.35098	3.25336	-1.51457	1.51281	1.85328	3.43370	-0.21397	0.51241	-0.70117	-1.74854	3.39307
15 - 20 YEARS	1.77883	2.03285	2.81258	-1.68350	1.49822	1.72920	3.68186	-0.69972	0.75951	-0.28525	-1.14541	2.81307
OVER 20 YEARS	1.28136	1.20487	4.38032	-1.70431	2.30157	3.02000	3.44272	-1.55016	0.36688	-0.21095	-1.28869	3.23200

	1/61	2/61	3/61	4/61	5/61	6/61	7/61	8/61	9/61	10/61	11/61	12/61
RISKLESS RATE	0.16537	0.16270	0.20056	0.17529	0.15316	0.18625	0.16842	0.13123	0.16432	0.16537	0.16041	0.18177
1 MONTH	0.18902	0.13466	0.25892	0.20399	0.17080	0.24614	0.21801	0.18167	0.18597	0.19636	0.18396	0.20151
2 MONTHS	0.15516	0.13742	0.29097	0.23136	0.17872	0.23651	0.24014	0.20876	0.21181	0.20475	0.17595	0.20037
3 - 6 MONTHS	0.19636	0.10691	0.30584	0.28007	0.19617	0.24729	0.22022	0.15898	0.25949	0.24557	0.18654	0.18978
6 MONTHS - 1 YEAR	0.24929	0.06104	0.37657	0.28315	0.20142	0.25091	0.36964	0.14057	0.34828	0.24166	0.19550	0.16508
1 - 2 YEARS	-0.13978	0.17338	0.37537	0.33045	0.05817	0.21982	0.42896	0.04962	0.37928	0.41990	0.16537	0.14162
2 - 3 YEARS	-0.43622	0.33579	0.63076	0.43850	-0.21235	0.02565	0.35353	0.03872	0.62218	0.51918	0.12712	0.10653
3 - 4 YEARS	-0.059376	0.59681	0.43316	0.74787	-0.16920	0.43350	0.27285	-0.15827	0.77543	0.75731	0.117748	0.17288
4 - 5 YEARS	-0.74186	0.70715	0.22049	0.668521	-0.05648	-0.49946	0.12350	-0.12388	0.71516	0.35033	0.12159	-0.06588
5 - 6 YEARS	-0.68359	0.98912	0.24091	0.53864	-0.23665	-0.45538	0.05665	0.12388	0.97380	0.31843	0.03481	0.16993
6 - 10 YEARS	-0.99518	1.38235	-0.22273	0.77171	-0.16518	-0.62253	-0.33110	0.10862	1.44510	0.18787	-0.38058	-0.24227
10 - 15 YEARS	-0.91717	1.56794	-0.62084	1.25352	-0.19510	-1.00932	-0.64880	-0.15545	1.29070	0.11492	-0.99828	-0.30692
15 - 20 YEARS	-1.12338	1.83220	0.06571	0.94557	0.06790	-1.45965	-0.05579	-0.58217	0.99430	0.69780	-0.40345	-0.26598
OVER 20 YEARS	-1.35450	2.51026	-0.40533	1.20592	-0.00467	-2.01713	0.61054	-1.32732	0.56944	0.64230	-0.23117	-0.75652

RISKLESS RATE	1/62	2/62	3/62	4/62	5/62	6/62	7/62	8/62	9/62	10/62	11/62	12/62
1 MONTH	0.20533	0.20180	0.20418	0.21620	0.22078	0.19360	0.24090	0.21763	0.21725	0.22364	0.220418	0.21000
2 MONTHS	0.22840	0.19507	0.22259	0.22259	0.26913	0.18692	0.26407	0.25845	0.20390	0.25492	0.223022	0.22898
3 - 6 MONTHS	0.30069	0.21620	0.23727	0.23031	0.26197	0.17815	0.22678	0.239354	0.22001	0.26121	0.222011	0.22984
6 MONTHS - 1 YEAR	0.28233	0.25973	0.25883	0.25196	0.25901	0.11940	0.22723	0.30451	0.224891	0.30060	0.119264	0.24900
1 - 2 YEARS	0.27742	0.31738	0.40913	0.23689	0.27065	0.13056	0.20456	0.34142	0.35753	0.26369	0.117128	0.20342
2 - 3 YEARS	0.21067	0.59090	0.53205	0.23212	0.40207	-0.03461	0.16632	0.65508	0.47159	0.23823	0.11482	0.21143
3 - 4 YEARS	0.11024	0.96912	0.57344	0.38395	0.40197	-0.32068	0.22485	0.86918	0.52614	0.42486	0.06046	0.21744
4 - 5 YEARS	0.09298	1.55373	0.85106	0.45519	0.21858	-0.55811	0.22402	1.02260	0.50268	0.61760	0.13428	0.29544
5 - 6 YEARS	0.09298	1.55373	0.85106	0.45519	0.21858	-0.55811	0.22402	1.02260	0.50268	0.61760	0.13428	0.29544
6 - 10 YEARS	-0.19674	1.53599	1.18551	0.61827	0.10443	-0.21791	-0.06270	1.09949	0.39177	0.53492	0.61712	0.46930
10 - 15 YEARS	-0.18965	1.38769	1.62544	1.01500	-0.222340	-0.69015	0.08869	1.23215	0.49763	0.93088	0.36650	0.53940
15 - 20 YEARS	0.07591	1.64747	1.84307	1.40181	-0.41590	-1.05219	0.10347	0.93354	0.67654	1.04685	0.30251	0.69761
OVER 20 YEARS	-0.38059	-0.03805	2.44188	1.30520	-0.18620	-0.51718	-0.18816	0.99258	0.64430	0.63219	0.48141	0.69475
	0.22583	0.50057	2.29263	1.59054	0.02099	-1.06305	-0.80468	2.45180	0.91705	1.11132	0.14133	0.14849

RISKLESS RATE	1/63	2/63	3/63	4/63	5/63	6/63	7/63	8/63	9/63	10/63	11/63	12/63
1 MONTH	0.24166	0.23746	0.23632	0.23327	0.23413	0.23556	0.24548	0.24967	0.26169	0.28076	0.27647	0.25826
2 MONTHS	0.26054	0.22430	0.23108	0.24338	0.26045	0.23155	0.25129	0.26417	0.25034	0.31214	0.28839	0.29182
3 - 6 MONTHS	0.25415	0.23746	0.23251	0.24920	0.25225	0.23804	0.21248	0.29221	0.25959	0.30994	0.28982	0.30479
6 MONTHS - 1 YEAR	0.23754	0.28353	0.18549	0.23241	0.22593	0.24509	0.18635	0.24424	0.26474	0.25978	0.23785	0.30699
1 - 2 YEARS	0.29594	0.27802	0.21591	0.24233	0.15974	0.26846	0.13066	0.20289	0.30508	0.26445	0.24261	0.22691
2 - 3 YEARS	0.41494	0.27533	0.17653	0.24033	0.18578	0.24843	0.16289	0.16289	0.38090	0.10986	0.29373	0.17538
3 - 4 YEARS	0.41723	0.38509	0.16994	0.08345	0.18711	0.20580	-0.08683	0.19121	0.39120	0.09260	0.24500	0.11806
4 - 5 YEARS	0.29779	0.38309	0.25511	0.10395	0.06256	0.14200	-0.03719	0.13628	0.42953	0.03214	0.37336	0.01774
5 - 6 YEARS	0.40283	0.17147	0.12865	0.22554	0.02623	0.06218	-0.02109	0.06580	-0.32597	0.08688	0.31519	-0.01537
6 - 10 YEARS	-0.12554	0.21906	0.17500	0.27781	0.06218	0.06256	-0.02000	0.12264	0.50440	-0.07912	0.53368	0.10128
10 - 15 YEARS	0.31586	0.07563	0.17372	0.22163	0.03252	-0.00250	0.14696	0.03748	0.33894	-0.19812	0.62904	0.09136
15 - 20 YEARS	0.19646	-0.73276	0.19751	0.25940	0.32082	0.26293	0.38815	0.13580	-0.20872	-0.46014	0.95596	0.01059
OVER 20 YEARS	-0.06838	-0.46005	0.15907	0.15430	0.41084	0.17700	0.37546	0.13676	0.02345	-0.54776	0.21407	-0.31707
	-0.01049	0.11425	0.08374	-0.17054	0.28973	0.24452	0.45919	0.23966	-0.33524	-0.43739	0.13704	-0.40915

RISKLESS RATE	1/64	2/64	3/64	4/64	5/64	6/64	7/64	8/64	9/64	10/64	11/64	12/64
1 MONTH	0.28467	0.28248	0.28925	0.28915	0.27103	0.26302	0.27828	0.26245	0.26375	0.28830	0.28076	0.29163
2 MONTHS	0.30928	0.26150	0.34342	0.32511	0.28503	0.28505	0.33121	0.29058	0.28582	0.31509	0.26827	0.37394
3 - 6 MONTHS	0.32415	0.24900	0.30794	0.33674	0.28533	0.28744	0.24548	0.27628	0.27761	0.35340	0.26102	0.36707
6 MONTHS - 1 YEAR	0.34163	0.23336	0.31071	0.35486	0.31271	0.31109	0.30298	0.25778	0.25740	0.31319	0.18511	0.37565
1 - 2 YEARS	0.37153	0.21696	0.29421	0.41437	0.30117	0.33236	0.34924	0.25406	0.28267	0.30699	0.11159	0.44689
2 - 3 YEARS	0.40434	0.13027	0.21858	0.54855	0.34781	0.511279	0.45643	0.15221	0.25949	0.26312	0.04721	0.52633
3 - 4 YEARS	0.38424	0.07448	0.08631	0.54855	0.49283	0.44279	0.60492	0.05178	0.22058	0.30079	-0.00006	0.66013
4 - 5 YEARS	0.54102	0.02508	-0.09522	0.58756	0.54293	0.53549	0.60110	0.07763	0.16203	0.30079	-0.00006	0.73547
5 - 6 YEARS	0.39520	0.04253	0.08621	0.55009	0.01102	0.44863	0.34418	0.21038	0.26073	0.24910	0.00429	0.79498
6 - 10 YEARS	0.16947	0.00639	0.02623	0.58088	0.63057	0.75121	0.37518	0.13731	0.42839	0.35315	0.04305	0.65556
10 - 15 YEARS	0.45624	0.10557	-0.33764	0.51870	0.57926	0.77953	-0.05299	0.13781	0.42839	0.61407	0.48399	0.46065
15 - 20 YEARS	0.50488	0.13924	-0.31306	0.49915	0.99745	0.82331	0.23022	0.09203	0.61407	0.62962	-0.08091	0.45383
OVER 20 YEARS	0.48075	0.10509	-0.32974	0.61741	1.00965	0.80853	-0.00643	0.12598	0.28095	0.63496	0.03929	0.19569

RISKLESS RATE	1/65	2/65	3/65	4/65	5/65	6/65	7/65	8/65	9/65	10/65	11/65	12/65
1 MONTH	0.27704	0.32082	0.31586	0.30994	0.40054	0.30832	0.30832	0.31414	0.30832	0.32501	0.31452	0.31042
2 MONTHS	0.26865	0.33189	0.35930	0.33636	0.31977	0.33674	0.33224	0.31452	0.32930	0.31891	0.33312	0.34723
3 - 6 MONTHS	0.26817	0.28048	0.35553	0.34552	0.33836	0.33412	0.31128	0.30975	0.32387	0.33407	0.33188	0.33188
6 MONTHS - 1 YEAR	0.30632	0.28315	0.35242	0.31481	0.27142	0.36392	0.30766	0.29030	0.24672	0.31261	0.19627	0.30576
1 - 2 YEARS	0.29202	0.22917	0.37050	0.34275	0.37985	0.36519	0.30613	0.22831	0.19560	0.34962	0.27084	0.10576
2 - 3 YEARS	0.32749	0.16003	0.40731	0.35782	0.0	0.45090	0.24166	0.18816	0.08144	0.33203	0.32038	0.31743
3 - 4 YEARS	0.34933	0.00696	0.36879	0.40016	0.0	0.51756	0.21553	0.09394	0.07084	0.31433	0.06018	0.18198
4 - 5 YEARS	0.32852	0.11978	0.33552	0.40102	0.0	0.42200	0.18463	0.00696	0.06551	0.18530	0.31377	0.05294
5 - 6 YEARS	0.32911	-0.00534	0.35382	0.38271	0.0	0.42200	0.23565	-0.04710	-0.06054	0.02775	0.34351	0.126982
7 - 10 YEARS	0.35973	0.05087	0.32721	0.31452	0.22688	0.50821	0.16565	-0.06323	-0.20676	0.16012	0.19560	0.06453
10 - 15 YEARS	0.47183	0.08955	0.49534	0.31548	0.24414	0.50039	0.19979	-0.13217	-0.26229	0.11225	-0.03043	-0.18227
15 - 20 YEARS	0.20528	0.33360	0.27571	0.32864	0.27399	0.58851	-0.04180	-0.22998	-0.17109	-0.29992	-0.27032	-0.07045
OVER 20 YEARS	0.61493	0.27101	0.41599	0.29945	0.19197	0.43087	0.04377	-0.50565	-0.58846	0.09718	-0.03055	-0.01604
	0.53186	0.15612	0.50201	0.32921	0.23642	0.46358	0.10061	-0.61366	-0.76346	0.25606	-0.08569	-0.126219

RISKLESS RATE	1/66	2/66	3/66	4/66	5/66	6/66	7/66	8/66	9/66	10/66	11/66	12/66
1 MONTH	0.35000	0.36459	0.36197	0.35830	0.37498	0.36669	0.36249	0.35869	0.36328	0.40836	0.38328	0.33751
2 MONTHS	0.34370	0.28677	0.44355	0.34342	0.36203	0.42524	0.33694	0.39284	0.41761	0.46387	0.42020	0.48552
3 - 6 MONTHS	0.45967	0.35105	0.43774	0.34981	0.39349	0.43526	0.30279	0.36669	0.39215	0.53759	0.46892	0.52557
6 MONTHS - 1 YEAR	0.38738	0.32539	0.46329	0.35448	0.35915	0.42915	0.32377	0.21010	0.45652	0.47779	0.46015	0.54398
1 - 2 YEARS	0.35629	0.31471	0.47493	0.36659	0.30241	0.44556	0.30737	0.02012	0.46654	0.60682	0.51517	0.71510
2 - 3 YEARS	0.40054	0.33655	0.55958	0.27922	0.15955	0.41285	0.27610	-0.30651	0.67042	0.54321	0.32597	1.31350
3 - 4 YEARS	0.34054	0.13733	0.81254	0.30012	0.16915	0.23813	0.20399	-0.68490	0.90714	0.96989	0.32383	1.78061
4 - 5 YEARS	0.11806	0.00124	1.25675	0.24281	0.36861	0.07505	0.00982	-1.14963	1.12772	1.22881	0.34008	2.57203
5 - 6 YEARS	0.00084	-0.19146	1.42012	0.24710	-0.22658	-0.16463	-0.20409	-1.02887	1.25866	0.98287	0.31306	2.05753
7 - 10 YEARS	0.01822	-1.60603	1.90588	-0.17514	0.00353	-0.33243	-0.40414	-1.00453	2.20308	0.62399	0.35019	2.76356
10 - 15 YEARS	-0.26911	0.60646	2.71187	-0.01712	0.09365	-0.55860	-0.65005	-1.15812	2.71959	0.72174	-0.32963	3.69062
15 - 20 YEARS	0.26236	-2.06647	2.92511	-0.54073	-0.13361	-1.52404	0.38500	-1.47080	1.84479	1.81923	-1.09438	4.21772
OVER 20 YEARS	-0.17392	-2.67417	2.77300	-0.63772	0.13552	-1.06462	0.10490	-1.18996	2.28424	2.22416	-1.20472	3.44925
	-0.53548	-2.81169	3.06921	-0.07409	-0.54430	-0.57399	0.13733	-1.46062	2.38991	2.06795	-1.46677	3.99370

RISKLESS RATE	1/67	2/67	3/67	4/67	5/67	6/67	7/67	8/67	9/67	10/67	11/67	12/67
1 MONTH	0.31079	0.36249	0.35830	0.33331	0.27914	0.22665	0.29583	0.30413	0.31252	0.33751	0.34161	0.35000
2 MONTHS	0.40779	0.34103	0.44505	0.36249	0.32387	0.28372	0.30070	0.30550	0.32167	0.38071	0.36392	0.38119
3 - 6 MONTHS	0.43955	0.34666	0.48857	0.48857	0.37400	0.25797	0.34683	0.33471	0.33474	0.40483	0.41332	0.45996
6 MONTHS - 1 YEAR	0.53530	0.34847	0.56314	0.37766	0.34196	0.13618	0.32244	0.37222	0.332215	0.40674	0.32997	0.43898
1 - 2 YEARS	0.04974	0.12579	0.76227	0.40359	0.34533	-0.24238	0.32806	0.35505	0.31586	0.34056	0.17881	0.47531
2 - 3 YEARS	0.81358	0.03191	1.13173	0.20943	0.25673	-0.52620	0.41513	0.14963	0.37785	0.10166	0.20247	0.17385
3 - 4 YEARS	1.04933	-0.00525	1.54572	-0.04702	-0.01262	-0.81905	0.57383	-0.14123	0.29621	-0.13625	0.18005	0.11385
4 - 5 YEARS	1.24463	0.01507	1.74160	-0.25604	0.07152	-1.28762	0.67587	-0.22232	0.20313	-0.22097	0.10824	0.37660
5 - 6 YEARS	1.38845	-0.69609	1.86323	-0.59330	0.05436	-1.95841	0.98248	-0.24666	0.18826	-0.67860	-0.12523	0.37660
7 - 10 YEARS	1.23806	-0.63376	1.85423	-1.00634	0.59423	-2.39305	1.34659	-0.45411	0.13264	-1.30415	-0.001376	0.87137
10 - 15 YEARS	1.96810	-2.05908	2.11868	-2.61440	-0.402229	-2.42701	0.35505	-0.12522	-0.20625	-2.45790	0.01221	0.45466
15 - 20 YEARS	2.44824	-2.50402	1.97020	-2.43731	-0.40725	-2.19816	1.53246	-0.13746	-0.61913	-3.442709	-0.92186	0.83466
OVER 20 YEARS	2.47383	-2.51656	1.82581	-3.30968	0.20701	-2.70046	1.31016	-0.79836	-0.41274	-3.74638	-0.67792	1.65834

	1/68	2/68	3/68	4/68	5/68	6/68	7/68	8/68	9/68	10/68	11/68	12/68
RISKLESS RATE	0.35419	0.39167	0.37918	0.38328	0.43745	0.44584	0.43745	0.42496	0.39997	0.42496	0.45376	0.39
1 MONTH	0.39024	0.40512	0.39520	0.40293	0.46847	0.44594	0.44555	0.36049	0.33901	0.43268	0.43240	0.399
2 MONTHS	0.47157	0.41571	0.37994	0.35610	0.35703	0.53043	0.62227	0.47112	0.38834	0.47159	0.44889	0.36
3 - 6 MONTHS	0.65079	0.35801	0.40302	0.30031	0.39377	0.54750	0.56944	0.44819	0.36888	0.36583	0.38748	0.16
6 MONTHS - 1 YEAR	0.79412	0.38071	0.31805	0.30413	0.28019	0.28019	0.76513	0.44804	0.41189	0.31309	0.35782	-0.03
1 - 2 YEARS	0.94833	0.40501	0.03557	0.34618	0.26331	0.73109	0.93756	0.51765	0.35543	0.18749	0.31261	-0.64
2 - 3 YEARS	1.19476	0.28915	0.12550	0.14181	0.16184	0.92087	1.45588	0.57821	0.28067	0.23508	0.26274	-1.24
3 - 4 YEARS	1.41306	0.23232	-0.13162	0.12188	0.31462	1.11380	1.57957	0.57821	0.40531	0.13027	0.00772	-1.27
4 - 5 YEARS	1.53027	0.32988	-0.26401	-0.01646	0.33379	1.52930	1.50242	0.65832	0.49124	-0.13285	-0.07980	-1.60
5 - 6 YEARS	1.43719	0.35944	-0.21512	-0.21557	0.56849	1.68219	1.88837	0.27447	0.48704	0.11635	-0.06397	-2.11
6 - 10 YEARS	1.61352	0.09975	-0.30253	-0.00503	0.20247	1.29032	2.07644	0.48199	0.25320	-0.17548	0.02050	-1.85
10 - 15 YEARS	2.06738	0.36306	-1.97353	1.87263	-1.359265	4.12140	2.47536	-0.08434	-0.48498	-0.69043	-1.65870	-2.16
15 - 20 YEARS	3.25050	0.30394	-2.77837	1.19190	-0.47929	3.60794	2.44675	-0.22197	-0.88596	-1.32121	-1.56002	-2.98
OVER 20 YEARS	3.27539	-0.17831	-2.79436	1.77383	0.22297	2.78740	2.35825	-0.15432	-0.98259	-1.39753	-2.20900	-3.79

	1/69	2/69	3/69	4/69	5/69	6/69	7/69	8/69	9/69	10/69	11/69	12/69
RISKLESS RATE	0.49162	0.47913	0.46253	0.42496	0.50001	0.47683	0.50001	0.54169	0.54169	0.58336	0.53329	0.55
1 MONTH	0.55561	0.37193	0.53530	0.48122	0.53272	0.44088	0.51527	0.61150	0.52061	0.70219	0.52080	0.66
2 MONTHS	0.71135	0.48971	0.54932	0.48285	0.53234	0.44928	0.57802	0.60527	0.50087	0.73528	0.51394	0.63
3 - 6 MONTHS	0.56219	0.43259	0.53949	0.36650	0.46883	0.46941	0.50545	0.62103	0.54140	0.58098	0.42734	0.55
6 MONTHS - 1 YEAR	0.57831	0.42877	0.48780	0.62637	0.19741	-0.13363	0.57955	0.53520	0.38614	0.80385	0.18291	0.44
1 - 2 YEARS	0.50037	0.38519	0.70418	0.56486	-0.10409	-0.45899	0.28753	0.28753	0.03443	1.08013	0.07420	0.07
2 - 3 YEARS	0.67177	-0.26644	0.95778	0.95565	0.36975	-0.76720	0.05417	0.23513	-0.03281	1.75152	-0.37822	-0.82
3 - 4 YEARS	0.47102	-0.62977	0.80452	0.88396	-0.72923	-0.91885	-0.21856	-0.32940	-1.07465	1.48430	-0.76098	-0.99
4 - 5 YEARS	0.16441	-0.58119	0.32625	1.07298	-0.63018	-1.06775	0.05207	-0.26029	-2.27064	1.03598	-0.19387	-1.99
5 - 6 YEARS	0.76714	-0.42643	0.66919	0.87080	-0.96918	-0.57751	0.62599	-0.44579	-3.36528	3.83329	0.33255	-3.50
6 - 10 YEARS	0.55704	0.50173	-1.02133	0.16479	-0.22630	0.05341	0.87871	-0.46735	-3.30029	4.36707	-0.55250	-2.00
10 - 15 YEARS	-0.42229	-0.79159	-1.02133	4.10604	-3.42633	0.37661	0.46835	-0.31506	-4.84629	3.54004	-3.15638	-4.50
15 - 20 YEARS	-0.47112	-0.66166	-1.81375	4.55818	-4.18715	2.43130	0.61655	0.20256	-5.97568	3.25718	-2.98481	-1.70
OVER 20 YEARS	-1.48410	0.12550	-1.19696	4.34313	-4.19348	2.22893	0.84887	-0.34592	-5.37521	4.34141	-3.19413	-2.50

	1/70	2/70	3/70	4/70	5/70	6/70	7/70	8/70	9/70	10/70	11/70	12/70
RISKLESS RATE	0.53129	0.62084	0.52500	0.53749	0.53329	0.53749	0.48752	0.49162	0.50001	0.47503	0.43745	0.30
1 MONTH	0.65365	0.65536	0.59891	0.53349	0.48542	0.58298	0.58813	0.63009	0.53806	0.52195	0.52567	0.44
2 MONTHS	0.71352	0.76084	0.65823	0.55009	0.55037	0.65975	0.55704	0.51069	0.55909	0.55389	0.63114	0.44
3 - 6 MONTHS	0.73519	1.02930	0.63190	0.46721	0.57020	0.74034	0.67625	0.56353	0.51136	0.73633	0.89808	0.44
6 MONTHS - 1 YEAR	0.84057	1.29366	0.75998	0.11330	0.57545	0.71869	0.69847	0.69847	0.69504	0.71316	1.49965	0.50
1 - 2 YEARS	0.71173	1.57649	1.07307	-0.16273	-0.25282	1.06592	0.97065	1.00750	1.09444	0.75226	2.48814	0.30
2 - 3 YEARS	0.76866	2.53773	1.46513	-0.49285	0.01745	0.97532	1.26143	1.14708	1.60646	0.63171	3.07263	0.44
3 - 4 YEARS	0.37041	2.86560	1.37749	-0.63288	0.26731	0.76056	1.34592	1.14427	1.91689	0.71163	4.07505	0.44
4 - 5 YEARS	0.41008	3.78294	1.06573	-1.44588	0.35543	0.66080	1.52540	1.11437	1.95837	0.82233	4.85067	0.60
5 - 6 YEARS	0.63524	4.42581	1.37749	-2.70956	1.14708	1.07327	1.63584	1.11735	1.67856	0.99192	4.85325	0.60
6 - 10 YEARS	-0.43300	4.92554	0.51489	-3.49905	0.85506	1.07327	2.00176	0.82703	2.06556	0.95682	6.04086	0.80
10 - 15 YEARS	3.52552	7.43418	-0.80748	-5.42074	-2.43425	4.70991	4.09861	-1.87795	2.03800	-0.24154	7.47318	0.00
15 - 20 YEARS	1.43604	6.75344	-0.94166	-4.44691	6.22721	3.44299	3.44299	-1.74657	3.08657	-0.30553	6.31313	-2.00
OVER 20 YEARS	1.02444	7.07474	-0.60725	-4.37186	5.52912	2.97699	-1.13739	2.82288	-0.51117	7.14309	-0.90	