

The Effect of Higher Interest Rates on the Market Value of Bonds

Current Bond Value = \$ 100
 Current Interest Rate = 4.0%
 Years to Maturity = 15
 Increments of Delta = 1.0%

years to maturity	Market value of bond if interest rates rise immediately to:										
	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%	13.0%	14.0%
1	100.00	99.05	98.11	97.20	96.30	95.41	94.55	93.69	92.86	92.04	91.23
2	100.00	98.14	96.33	94.58	92.87	91.20	89.59	88.01	86.48	84.99	83.53
3	100.00	97.28	94.65	92.13	89.69	87.34	85.08	82.89	80.79	78.75	76.78
4	100.00	96.45	93.07	89.84	86.75	83.80	80.98	78.28	75.70	73.23	70.86
5	100.00	95.67	91.58	87.70	84.03	80.55	77.26	74.13	71.16	68.34	65.67
6	100.00	94.92	90.17	85.70	81.51	77.57	73.87	70.39	67.11	64.02	61.11
7	100.00	94.21	88.84	83.83	79.17	74.84	70.79	67.01	63.49	60.20	57.12
8	100.00	93.54	87.58	82.09	77.01	72.33	67.99	63.98	60.26	56.81	53.61
9	100.00	92.89	86.40	80.45	75.01	70.02	65.45	61.24	57.37	53.82	50.54
10	100.00	92.28	85.28	78.93	73.16	67.91	63.13	58.78	54.80	51.16	47.84
11	100.00	91.69	84.23	77.50	71.44	65.97	61.03	56.55	52.50	48.82	45.47
12	100.00	91.14	83.23	76.17	69.86	64.20	59.12	54.55	50.45	46.74	43.40
13	100.00	90.61	82.29	74.93	68.38	62.57	57.38	52.75	48.61	44.90	41.58
14	100.00	90.10	81.41	73.76	67.02	61.07	55.80	51.13	46.97	43.28	39.98
15	100.00	89.62	80.58	72.68	65.76	59.70	54.36	49.66	45.51	41.84	38.58
16	100.00	89.16	79.79	71.66	64.59	58.44	53.06	48.35	44.21	40.57	37.35
17	100.00	88.73	79.05	70.71	63.51	57.28	51.87	47.16	43.04	39.44	36.27
18	100.00	88.31	78.34	69.82	62.51	56.22	50.79	46.09	42.00	38.44	35.33
19	100.00	87.91	77.68	68.99	61.59	55.25	49.81	45.12	41.07	37.56	34.50
20	100.00	87.54	77.06	68.22	60.73	54.36	48.92	44.26	40.24	36.78	33.77

We assume that the yield curve is always flat (i.e., the market interest rate is the same for all maturities).
 We compute the bond's value on each anniversary of its issuance, at such higher market interest rates.

15-year Bond Value

