

מטריצות ריביות להיוון בישראל ליום 9.4.2021 (סוף יום)

פרטי המערך

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השכלה: תואר ראשון בכלכלה (בהצטיינות) מאוניברסיטת Ben-Gurion University of the Negev (2006).
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דיפלומה בניהול סיכונים פיננסיים במתכונת FRM® מאוניברסיטת Ariel University in Samaria (2012).
דיפלומה ב- Data Science, Data Analysis, Machine Learning and Deep Learning with Python ממכללת ג'ון ברייס (2020).
Professional Data Scientist of Professional Data Scientists' Israel Association (PDS).
(FILAVFA) Fellow of Israel Association of Valuators and Financial Actuaries
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מבוא

חוות דעת זו מציגה 4 מטריצות ריביות להיוון בישראל (שקלית, צמודה, דולרית ויורו) לתקופות ביניים שונות בין שלושה חודשים ועד 25 שנה ולדירוגי אשראי בין ilAAA ועד ל- ilD בתקופה הרשומה לעיל.

הנחות

- 1.1. החישוב נעשה על פי כללים אקטואריים מקובלים על ידי שימוש באלגוריתמים מתמטיים (Cubic Spline) ובהליכי אופטימיזציה.
- 1.2. מטריצת מרווחי סיכון האשראי הצמודה בישראל נגזרה מנתוני השוק של איגרות החוב הקונצרניות צמודות המדד בישראל ועקום הריבית הצמוד חסר הסיכון אשר חושב על ידי לאותו מועד.
- 1.3. מטריצת הריביות השקלית בישראל נגזרה מעקום הריבית השקלי חסר הסיכון בישראל אשר חושב על ידי לאותו מועד בתוספת מטריצת מרווחי סיכון האשראי הצמודה בישראל האמורה.
- 1.4. מטריצת הריביות הצמודה בישראל נגזרה מעקום הריבית הצמוד חסר הסיכון בישראל אשר חושב על ידי לאותו מועד בתוספת מטריצת מרווחי סיכון האשראי הצמודה בישראל האמורה.
- 1.5. מטריצת הריביות הדולרית בישראל נגזרה מעקום הריבית הדולרי חסר הסיכון בישראל אשר חושב על ידי לאותו מועד בתוספת מטריצת מרווחי סיכון האשראי הצמודה בישראל האמורה.
- 1.6. מטריצת הריביות ביורו בישראל נגזרה מעקום הריבית ביורו חסר הסיכון בישראל אשר חושב על ידי לאותו מועד בתוספת מטריצת מרווחי סיכון האשראי הצמודה בישראל האמורה.

Roi Polanitzer

רועי פולניצר, FRM, F.I.L.A.V.F.A.
אקטואר

מח"מ												
ilBB	ilBB+	ilBBB-	ilBBB	ilBBB+	ilA-	ilA	ilA+	ilAA-	ilAA	ilAA+	ilAAA	
מטריצת ריביות שקלית בישראל												
48.27%	38.65%	29.03%	16.74%	4.46%	2.77%	2.27%	1.67%	1.90%	1.83%	1.83%	1.24%	0.25
28.16%	22.91%	17.66%	11.16%	4.65%	2.74%	2.07%	1.36%	1.55%	1.46%	1.43%	1.02%	0.50
21.65%	17.88%	14.11%	9.56%	5.02%	2.90%	2.04%	1.25%	1.37%	1.24%	1.17%	0.88%	0.75
18.59%	15.57%	12.56%	9.02%	5.48%	3.20%	2.19%	1.34%	1.37%	1.21%	1.11%	0.85%	1
14.11%	12.36%	10.62%	8.74%	6.86%	4.40%	3.09%	2.11%	1.92%	1.65%	1.45%	1.10%	2
12.69%	11.39%	10.09%	8.74%	7.39%	4.92%	3.56%	2.51%	2.28%	1.93%	1.69%	1.30%	3
11.07%	10.18%	9.29%	8.34%	7.38%	5.16%	4.01%	2.95%	2.75%	2.24%	1.98%	1.57%	5
9.81%	9.18%	8.54%	7.78%	7.03%	5.14%	4.28%	3.29%	3.16%	2.43%	2.12%	1.74%	7
8.40%	8.02%	7.64%	7.08%	6.52%	5.24%	4.73%	3.96%	3.90%	2.73%	2.29%	1.93%	10
7.73%	7.54%	7.35%	6.95%	6.55%	5.96%	5.79%	5.30%	5.32%	3.59%	2.93%	2.59%	15
7.21%	7.08%	6.96%	6.63%	6.30%	6.10%	6.13%	5.80%	5.87%	3.86%	3.07%	2.70%	20
7.11%	7.01%	6.91%	6.57%	6.22%	6.27%	6.39%	6.16%	6.24%	4.08%	3.25%	2.89%	25

מח"מ												
ilD	ilSD	ilRD	ilC	ilCC	ilCCC-	ilCCC	ilCCC+	ilB-	ilB	ilB+	ilBB-	
מטריצת ריביות שקלית בישראל - המשך												
168.63%	158.40%	148.16%	137.93%	127.69%	117.46%	107.23%	96.99%	86.76%	77.14%	67.51%	57.89%	0.25
99.92%	93.58%	87.23%	80.88%	74.54%	68.19%	61.84%	55.50%	49.15%	43.90%	38.66%	33.41%	0.50
77.67%	72.55%	67.43%	62.31%	57.20%	52.08%	46.96%	41.84%	36.73%	32.96%	29.19%	25.42%	0.75
66.17%	61.73%	57.29%	52.85%	48.41%	43.97%	39.53%	35.09%	30.65%	27.63%	24.62%	21.60%	1
45.10%	42.10%	39.09%	36.09%	33.09%	30.08%	27.08%	24.08%	21.07%	19.33%	17.59%	15.85%	2
35.98%	33.72%	31.46%	29.20%	26.94%	24.68%	22.42%	20.16%	17.90%	16.60%	15.29%	13.99%	3
25.02%	23.72%	22.43%	21.13%	19.83%	18.54%	17.24%	15.94%	14.65%	13.75%	12.86%	11.97%	5
18.23%	17.50%	16.77%	16.03%	15.30%	14.57%	13.84%	13.10%	12.37%	11.73%	11.09%	10.45%	7
12.32%	12.02%	11.72%	11.42%	11.13%	10.83%	10.53%	10.23%	9.93%	9.55%	9.17%	8.79%	10
9.19%	9.11%	9.02%	8.93%	8.84%	8.76%	8.67%	8.58%	8.50%	8.31%	8.11%	7.92%	15
8.10%	8.05%	8.00%	7.95%	7.90%	7.85%	7.81%	7.76%	7.71%	7.58%	7.46%	7.33%	20
7.75%	7.72%	7.69%	7.66%	7.63%	7.60%	7.57%	7.54%	7.51%	7.41%	7.31%	7.21%	25

מח"מ												
ilBB	ilBB+	ilBBB-	ilBBB	ilBBB+	ilA-	ilA	ilA+	ilAA-	ilAA	ilAA+	ilAAA	
מטריצת ריביות צמודה בישראל												
44.97%	35.35%	25.72%	13.44%	1.15%	-0.54%	-1.03%	-1.63%	-1.41%	-1.47%	-1.47%	-2.06%	0.25
25.26%	20.01%	14.76%	8.26%	1.75%	-0.16%	-0.83%	-1.54%	-1.35%	-1.44%	-1.47%	-1.88%	0.50
19.11%	15.34%	11.57%	7.03%	2.49%	0.36%	-0.50%	-1.29%	-1.17%	-1.30%	-1.36%	-1.66%	0.75
16.34%	13.33%	10.31%	6.77%	3.23%	0.95%	-0.06%	-0.91%	-0.88%	-1.04%	-1.14%	-1.40%	1
12.26%	10.52%	8.78%	6.90%	5.02%	2.56%	1.24%	0.27%	0.08%	-0.19%	-0.39%	-0.74%	2
10.95%	9.64%	8.34%	7.00%	5.65%	3.18%	1.82%	0.77%	0.54%	0.18%	-0.05%	-0.45%	3
9.31%	8.41%	7.52%	6.57%	5.62%	3.39%	2.24%	1.18%	0.99%	0.47%	0.21%	-0.20%	5
8.02%	7.38%	6.75%	5.99%	5.23%	3.35%	2.48%	1.50%	1.37%	0.64%	0.32%	-0.05%	7
6.74%	6.36%	5.97%	5.42%	4.86%	3.57%	3.06%	2.30%	2.24%	1.07%	0.62%	0.27%	10
5.73%	5.54%	5.35%	4.95%	4.54%	3.96%	3.79%	3.30%	3.32%	1.59%	0.93%	0.58%	15
5.20%	5.08%	4.96%	4.63%	4.30%	4.09%	4.13%	3.79%	3.86%	1.86%	1.07%	0.70%	20
5.11%	5.01%	4.91%	4.56%	4.22%	4.26%	4.39%	4.15%	4.24%	2.08%	1.25%	0.89%	25
מח"מ												
ilD	ilSD	ilRD	ilC	ilCC	ilCCC-	ilCCC	ilCCC+	ilB-	ilB	ilB+	ilBB-	
מטריצת ריביות צמודה בישראל - המשך												
165.33%	155.09%	144.86%	134.62%	124.39%	114.16%	103.92%	93.69%	83.45%	73.83%	64.21%	54.59%	0.25
97.02%	90.68%	84.33%	77.98%	71.64%	65.29%	58.94%	52.60%	46.25%	41.00%	35.76%	30.51%	0.50
75.13%	70.01%	64.89%	59.78%	54.66%	49.54%	44.42%	39.31%	34.19%	30.42%	26.65%	22.88%	0.75
63.92%	59.48%	55.04%	50.60%	46.16%	41.72%	37.28%	32.84%	28.40%	25.38%	22.37%	19.35%	1
43.25%	40.25%	37.25%	34.24%	31.24%	28.24%	25.24%	22.23%	19.23%	17.49%	15.75%	14.00%	2
34.24%	31.98%	29.72%	27.46%	25.20%	22.94%	20.68%	18.41%	16.15%	14.85%	13.55%	12.25%	3
23.25%	21.96%	20.66%	19.36%	18.07%	16.77%	15.47%	14.18%	12.88%	11.99%	11.09%	10.20%	5
16.44%	15.71%	14.98%	14.24%	13.51%	12.78%	12.04%	11.31%	10.58%	9.94%	9.30%	8.66%	7
10.66%	10.36%	10.06%	9.76%	9.46%	9.16%	8.86%	8.56%	8.27%	7.88%	7.50%	7.12%	10
7.19%	7.10%	7.02%	6.93%	6.84%	6.75%	6.67%	6.58%	6.49%	6.30%	6.11%	5.92%	15
6.09%	6.04%	6.00%	5.95%	5.90%	5.85%	5.80%	5.75%	5.70%	5.58%	5.45%	5.33%	20
5.75%	5.72%	5.69%	5.66%	5.63%	5.59%	5.56%	5.53%	5.50%	5.40%	5.30%	5.21%	25

מח"מ												
ilBB	ilBB+	ilBBB-	ilBBB	ilBBB+	ilA-	ilA	ilA+	ilAA-	ilAA	ilAA+	ilAAA	
מטריצת ריביות דולרית בישראל												
49.13%	39.51%	29.88%	17.60%	5.31%	3.62%	3.13%	2.53%	2.75%	2.69%	2.69%	2.10%	0.25
29.10%	23.85%	18.60%	12.09%	5.59%	3.68%	3.01%	2.30%	2.49%	2.40%	2.37%	1.96%	0.50
22.63%	18.86%	15.09%	10.55%	6.01%	3.88%	3.03%	2.23%	2.35%	2.22%	2.16%	1.87%	0.75
19.58%	16.57%	13.55%	10.01%	6.47%	4.19%	3.18%	2.33%	2.36%	2.20%	2.10%	1.84%	1
15.03%	13.28%	11.54%	9.66%	7.78%	5.33%	4.01%	3.03%	2.84%	2.57%	2.37%	2.02%	2
13.69%	12.39%	11.08%	9.74%	8.39%	5.92%	4.56%	3.51%	3.28%	2.92%	2.69%	2.30%	3
12.24%	11.35%	10.46%	9.51%	8.56%	6.33%	5.18%	4.12%	3.92%	3.41%	3.15%	2.74%	5
11.07%	10.43%	9.79%	9.04%	8.28%	6.40%	5.53%	4.54%	4.41%	3.68%	3.37%	2.99%	7
9.67%	9.29%	8.91%	8.35%	7.79%	6.50%	6.00%	5.23%	5.17%	4.00%	3.55%	3.20%	10
8.50%	8.31%	8.12%	7.71%	7.31%	6.73%	6.56%	6.07%	6.09%	4.36%	3.70%	3.35%	15
7.88%	7.76%	7.63%	7.30%	6.97%	6.77%	6.80%	6.47%	6.54%	4.53%	3.74%	3.37%	20
7.59%	7.49%	7.39%	7.05%	6.71%	6.75%	6.87%	6.64%	6.73%	4.57%	3.73%	3.37%	25
מח"מ												
ilD	ilSD	ilRD	ilC	ilCC	ilCCC-	ilCCC	ilCCC+	ilB-	ilB	ilB+	ilBB-	
מטריצת ריביות דולרית בישראל - המשך												
169.49%	159.25%	149.02%	138.78%	128.55%	118.31%	108.08%	97.85%	87.61%	77.99%	68.37%	58.75%	0.25
100.86%	94.51%	88.17%	81.82%	75.48%	69.13%	62.78%	56.44%	50.09%	44.84%	39.59%	34.35%	0.50
78.65%	73.54%	68.42%	63.30%	58.18%	53.07%	47.95%	42.83%	37.71%	33.94%	30.17%	26.40%	0.75
67.16%	62.72%	58.28%	53.84%	49.40%	44.96%	40.52%	36.08%	31.64%	28.62%	25.61%	22.60%	1
46.02%	43.02%	40.01%	37.01%	34.01%	31.00%	28.00%	25.00%	22.00%	20.25%	18.51%	16.77%	2
36.98%	34.72%	32.46%	30.20%	27.94%	25.68%	23.42%	21.16%	18.90%	17.59%	16.29%	14.99%	3
26.19%	24.90%	23.60%	22.30%	21.01%	19.71%	18.41%	17.12%	15.82%	14.93%	14.03%	13.14%	5
19.49%	18.75%	18.02%	17.29%	16.56%	15.82%	15.09%	14.36%	13.63%	12.99%	12.35%	11.71%	7
13.59%	13.29%	12.99%	12.69%	12.39%	12.09%	11.79%	11.50%	11.20%	10.82%	10.43%	10.05%	10
9.96%	9.87%	9.78%	9.70%	9.61%	9.52%	9.44%	9.35%	9.26%	9.07%	8.88%	8.69%	15
8.77%	8.72%	8.67%	8.62%	8.58%	8.53%	8.48%	8.43%	8.38%	8.26%	8.13%	8.01%	20
8.23%	8.20%	8.17%	8.14%	8.11%	8.08%	8.05%	8.02%	7.99%	7.89%	7.79%	7.69%	25

מח"מ	ilAAA	ilAA+	ilAA	ilAA-	ilA+	ilA	ilA-	ilBBB+	ilBBB	ilBBB-	ilBB+	ilBB
מטריצת ריביות ביורו בישראל												
0.25	1.37%	1.97%	1.96%	2.03%	1.80%	2.41%	2.90%	4.59%	16.88%	29.16%	38.78%	48.40%
0.50	1.22%	1.64%	1.66%	1.75%	1.57%	2.27%	2.94%	4.85%	11.36%	17.87%	23.11%	28.36%
0.75	1.12%	1.42%	1.48%	1.61%	1.49%	2.28%	3.14%	5.27%	9.81%	14.35%	18.12%	21.89%
1	1.09%	1.35%	1.45%	1.61%	1.58%	2.43%	3.44%	5.72%	9.26%	12.80%	15.82%	18.83%
2	1.22%	1.57%	1.77%	2.04%	2.23%	3.21%	4.53%	6.98%	8.86%	10.74%	12.48%	14.23%
3	1.34%	1.73%	1.96%	2.32%	2.55%	3.60%	4.96%	7.43%	8.78%	10.12%	11.43%	12.73%
5	1.44%	1.85%	2.11%	2.62%	2.82%	3.88%	5.03%	7.26%	8.21%	9.16%	10.05%	10.94%
7	1.47%	1.85%	2.16%	2.89%	3.02%	4.01%	4.88%	6.76%	7.52%	8.27%	8.91%	9.55%
10	1.57%	1.92%	2.37%	3.54%	3.60%	4.37%	4.87%	6.16%	6.72%	7.28%	7.66%	8.04%
15	1.72%	2.07%	2.73%	4.46%	4.44%	4.93%	5.10%	5.68%	6.08%	6.49%	6.68%	6.87%
20	1.75%	2.12%	2.91%	4.92%	4.85%	5.18%	5.15%	5.35%	5.68%	6.01%	6.14%	6.26%
25	1.74%	2.10%	2.94%	5.10%	5.01%	5.24%	5.12%	5.08%	5.42%	5.77%	5.86%	5.96%

מח"מ	ilBB-	ilB+	ilB	ilB-	ilCCC+	ilCCC	ilCCC-	ilCC	ilC	ilRD	ilSD	ilD
מטריצת ריביות ביורו בישראל - המשך												
0.25	58.03%	67.65%	77.27%	86.89%	97.12%	107.36%	117.59%	127.83%	138.06%	148.30%	158.53%	168.77%
0.50	33.61%	38.86%	44.11%	49.35%	55.70%	62.05%	68.39%	74.74%	81.09%	87.43%	93.78%	100.13%
0.75	25.66%	29.43%	33.20%	36.97%	42.09%	47.20%	52.32%	57.44%	62.56%	67.67%	72.79%	77.91%
1	21.85%	24.86%	27.87%	30.89%	35.33%	39.77%	44.21%	48.65%	53.09%	57.53%	61.97%	66.41%
2	15.97%	17.71%	19.45%	21.20%	24.20%	27.20%	30.20%	33.21%	36.21%	39.21%	42.22%	45.22%
3	14.03%	15.33%	16.63%	17.94%	20.20%	22.46%	24.72%	26.98%	29.24%	31.50%	33.76%	36.02%
5	11.84%	12.73%	13.63%	14.52%	15.82%	17.11%	18.41%	19.71%	21.00%	22.30%	23.60%	24.89%
7	10.19%	10.83%	11.47%	12.11%	12.84%	13.57%	14.30%	15.04%	15.77%	16.50%	17.23%	17.97%
10	8.42%	8.80%	9.19%	9.57%	9.87%	10.16%	10.46%	10.76%	11.06%	11.36%	11.66%	11.96%
15	7.06%	7.25%	7.44%	7.63%	7.72%	7.81%	7.89%	7.98%	8.07%	8.15%	8.24%	8.33%
20	6.39%	6.51%	6.64%	6.76%	6.81%	6.86%	6.91%	6.96%	7.00%	7.05%	7.10%	7.15%
25	6.06%	6.16%	6.26%	6.36%	6.39%	6.42%	6.45%	6.48%	6.51%	6.54%	6.57%	6.61%