

## 8 Appendix A: Investor Profiles

In order to specify his risk adversity, an investor has to define numeric values for four parameters. The Correlation parameter specified the emphasis NELION should place on the correlation between the stocks when identifying the optimal portfolio. The Error and Volatility parameters determined if stocks where the model error or the volatility was low were favored. Lastly, the Volume parameter performed the same function based on the trading volume of the previous trading day.

Chapter 6 explains the details of how the experiments were conducted. The results were a collection of conservative and high-risk investor profiles for 1998 and 1999. For each of these four categories, I created cross tab queries, which compare two of the four parameters, resulting in the six tables shown in this appendix.

By selecting the combination that occurred the most frequently in the six tables, it was possible to identify the first two parameters for each category. It is highlighted with a dark grey background.

Given these two parameters, I highlighted the four columns and/or rows of the remaining five tables that contained either of the two parameters with a light grey background. From these, I chose the combination with the highest occurrence, thereby defining the third parameter.

Lastly, the fourth parameter was selected in the same manner from remaining three tables. The rows and columns were defined by the first three parameters and highlighted with a medium grey background, or a medium grey strip on the left side of the column or bottom of the row, if it had been identified with a light grey background already.

## 8.1 Conservative Investors

### 8.1.1 January 1, 1998 – December 31, 1998

		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125				4	3	4	8	1	
	0.250	4	4	2		1		10	2	
	0.375	4	7	1	3	10		5	4	1
	0.500	3	9	3		4	2	3	4	1
	0.625	1	6		5	4		4	1	1
	0.750	2	2	3		2		7		1
	0.875	6	2		9	2	1		3	
	1.000		4	3	2	5	2	5	10	

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125				4	3		3	10	
	0.250			2	2			2	13	4
	0.375		2	1	4		11	2	14	1
	0.500	1	5		1	1	6	5	10	
	0.625	1	1	4		4	4	4	4	
	0.750		2			2	5		7	1
	0.875			3	6	2	4	5	3	
	1.000		1	2	2	1	9	8	2	6



		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000					1		1	4	1
	0.125		4	1	3	3	1	3	3	
	0.250		4		4	1	1	6	3	1
	0.375	2		1	1	3	3	1	2	2
	0.500		5	5	2	1			2	
	0.625	2	3	1	2		1	4		
	0.750	6	6	2	9	11	3	17		
	0.875	6	12	2	2	11		10	11	
	1.000	4								

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000		1					2	4	
	0.125		1	2	2	1	2	4	4	2
	0.250		1	1	2		5	2	8	1
	0.375	2		1	2		3	4	2	1
	0.500		2		1		4	3	2	3
	0.625				3	1	3	1	4	1
	0.750		2	8	3	7	10	4	18	2
	0.875		4		2	4	12	9	21	2
	1.000				4					

**8.1.2 January 1, 1999 – December 31, 1999**

		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125	3	4	4	2	4	4	2	2	2
	0.250	1	1	3	8	4	3	1	2	3
	0.375	2		5	3	5	4	2	1	2
	0.500	2	7	3	4	6	4	3	1	2
	0.625	2	4	4	3	5	4	1	2	1
	0.750	1	2	3	3	6	2	3	3	3
	0.875	2	5	3	2	4	5	3	3	1
	1.000	1	3	4	6	4	6	3	5	2

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125	13	1	1	1	2	2	2	5	
	0.250	10	1			1	3	6	5	
	0.375	14	1	1			5	3	4	
	0.500	8		1		6	5	6	6	
	0.625	11	1			4	3	2	5	
	0.750	13	2		1		1	4	5	
	0.875	12		3		1	5	3	4	
	1.000	12	2			5	4	5	6	

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Error	0.000	10	1	2	1					
	0.125	9		2		5	2	2	6	
	0.250	8				3	5	6	7	
	0.375	5	2			2	9	7	6	
	0.500	6	4	1		5	5	9	8	
	0.625	17				2	2	4	7	
	0.750	9		1		2	3		3	
	0.875	13			1		1	2	2	
	1.000	12	1				1	1	1	

		Correlation								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000		2		2	1			3	2
	0.125		2	3	4	1	1	4	4	5
	0.250		2	6		4	6	7	2	4
	0.375		4	3	4	4	2	2	3	8
	0.500		2	4	2	8	2	4	1	3
	0.625		4	4	6	2	3	1	4	1
	0.750		3	2	1	4	7	2	4	6
	0.875		4	2	1	3	1	3	3	3
	1.000		4	2	4	5	4	3	4	2

		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000		1	2		1	1	1	3	1
	0.125		1	7	5	4	1	3	1	2
	0.250		3	6	6	8	2	1	4	1
	0.375	1	4	5	5	7	4	2	1	1
	0.500	1	2	3	5	5	5	1	2	2
	0.625		3	1	6	6	2	4	1	2
	0.750	1	4	5	2	4	9	3		1
	0.875	1	3		2	2	1	2	6	3
	1.000	10	5			1	7	1	1	3

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000	1		1			3	1	4	
	0.125	7	2			4	3	2	6	
	0.250	8	2			4	1	7	9	
	0.375	11	1			3	5	3	7	
	0.500	12			1	1	2	7	3	
	0.625	11	1	1			6	2	4	
	0.750	10	1	2		2	5	5	4	
	0.875	10	1			3	1	2	3	
	1.000	19		2	1	2	2	2		





		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Error	0.000	6								
	0.125									
	0.250	4								
	0.375	2								
	0.500	2								
	0.625									
	0.750	2								1
	0.875	4								
	1.000	1								

		Correlation								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000		1	2	1	1		1		1
	0.125									
	0.250			1					1	
	0.375									
	0.500		1					1		
	0.625									
	0.750					1				
	0.875				1				6	1
	1.000					2				



January 1, 1999 – December 31, 1999

		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125	9	8	10	11	10	10	10	6	8
	0.250	10	10	9	9	13	8	9	6	10
	0.375	9	9	10	9	12	9	8	8	8
	0.500	9	6	8	8	10	8	8	8	11
	0.625	7	7	9	9	8	8	8	8	8
	0.750	8	8	9	9	9	10	8	8	7
	0.875	7	9	9	7	12	7	10	7	10
	1.000	9	6	8	10	11	7	8	8	9

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Correlation	0.000									
	0.125	65	2		3		3	6	3	
	0.250	69	1		3	3	2	3	3	
	0.375	67	2	2			1	4	6	
	0.500	67		1		1		3	4	
	0.625	67						2	3	
	0.750	64		1	1	1	2	4	3	
	0.875	65	1					3	9	
	1.000	65		1	2	2	1		5	

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Error	0.000	62	3	2	1					
	0.125	57			1		1		4	
	0.250	59	1				2	5	5	
	0.375	60		1	2	1	1	3	4	
	0.500	65	2	2	2	2	1	4	7	
	0.625	55					2	4	6	
	0.750	61			1		2	3	2	
	0.875	50			2			2	5	
	1.000	60				4		4	3	

		Correlation								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000		10	11	11	9	8	8	9	7
	0.125		7	9	7	9	7	6	7	7
	0.250		8	6	9	10	8	7	9	8
	0.375		8	10	5	7	10	8	9	8
	0.500		11	8	7	7	7	8	9	9
	0.625		7	6	9	6	8	10	10	9
	0.750		9	10	10	10	7	10	8	8
	0.875		11	12	13	8	9	8	9	9
	1.000		11	12	11	10	8	11	8	11

		Error								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000	9	8	8	6	11	8	6	8	9
	0.125	10	4	5	8	6	7	7	6	6
	0.250	8	8	8	7	9	7	7	3	8
	0.375	7	7	6	10	7	6	9	6	7
	0.500	7	7	9	8	9	6	7	7	6
	0.625	8	7	8	7	8	8	4	8	7
	0.750	8	8	6	7	10	6	7	11	9
	0.875	9	8	11	8	12	11	11	1	8
	1.000	2	6	11	11	13	8	11	9	11

		Volume								
		0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
Volatility	0.000	67	1				1	2	2	
	0.125	56	1	1	1					
	0.250	63	1					1		
	0.375	59			2	1		1	2	
	0.500	59			1	1	1	2	2	
	0.625	59						1	5	
	0.750	57			2	1	1	6	5	
	0.875	57	2	1			6	4	9	
	1.000	52	1	3	3	4		8	11	