
Investment Risk and Return Guide

**How to use FinaMetrica
to educate clients about risk and return,
and manage their expectations.**

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Risk and Return Charts

These seven charts, one per Risk Group, can be found on un-numbered pages at the end of this document.

Introduction

One of life's most unpleasant surprises is to discover you have suffered a significant loss because you under-estimated the risks involved. Similarly, it can be almost as disappointing to find you have not made the most of your opportunities because you over-estimated the risks involved.

The FinaMetrica system provides advisers with resources that enable best practice in educating clients about risk and return, and in managing their risk and return expectations. In particular, we provide a unique illustration of downside volatility through analysis of historical falls in portfolio values.

This guide links the plain-English of the client's FinaMetrica Risk Profile to the risk and return characteristics of investment portfolios.

It combines the results of two separate pieces of research:

- analysis of 20,000 completed risk profiles (Risk Profile Research), and
- historical back-testing of a representative set of investment portfolios on a month-by-month basis (Portfolio Performance Research).

The Risk Profiles Research provides information about what client expectations are and the Portfolio Performance Research allows these expectations to be tested against what has happened in the past.

It is true that the past is no guarantee of the future. But an examination of the past provides clients with a comfortable starting point for understanding the likely pattern of future returns.

Investor Expectations

The Risk Profiles Research focused on three investment-related aspects of the client's risk profile: Preferred Portfolio, Return Expectations and Sensitivity to Volatility.

Preferred Portfolio

The risk tolerance questionnaire presents seven portfolios from which to choose (Q16). The portfolios are described in terms of a mix of investments, where an investment is classified as low, medium or high risk/return.

Portfolio	Risk/Return Mix		
	Low	Medium	High
1	100%	0%	0%
2	70%	30%	0%
3	50%	40%	10%
4	30%	40%	30%
5	10%	40%	50%
6	0%	30%	70%
7	0%	0%	100%

Fig 1

Cash and Certificates of Deposit are given as examples of low risk/return and Stocks and Real Estate are given as examples of high risk/return.

Note: During the development of the FinaMetrica system, all questions were tested for Useability, i.e. whether respondents found them easy to understand and answer. Testing showed that questions involving portfolios described in the financial services terminology of asset classes had low Useability. Very few respondents felt that they understood or could answer such questions. However, the Low, Medium and High Risk/Return format of Q16 scored highly for Useability. The methodology used to translate these descriptions into the parameters of portfolio construction is explained in the Study Methods appendix.

Return Expectations

The risk tolerance questionnaire asks about 10-year return expectations expressed as a multiple of the rate of return from Certificates of Deposit (Q21).

Note: Useability testing showed poor results for questions involving rates of return expressed as percentages, whether absolute or inflation-adjusted, over one year or ten. However, respondents were very comfortable answering in terms of comparisons to a familiar benchmark, such as CDs.

Sensitivity to Volatility

The risk tolerance questionnaire asks about sensitivity to volatility in terms of the level to which the total value of all investments could fall before the person would begin to feel uncomfortable (Q14).

Fig 2 shows the answers typically given by each of the Risk Groups.

	Risk Group						
	1	2	3	4	5	6	7
Preferred Portfolio	1 or 2	2	3	4	5	6	7
Return Expectations	1 – 1.5 x CDs	1 – 1.5 x CDs	1.5 – 2 x CDs	1.5 – 2 x CDs	2 - 2.5 x CDs	At least 3 x CDs	More than 3 x CDs
Sensitivity to Volatility	Any fall	Any fall	10% fall	20% fall	20% fall	33% fall	50% fall

Fig 2

These answers are part of the Investment section of the group description found in a client's Risk Profile report.

There is a clear progression as risk tolerance increases:

- Preferred Portfolios become more weighted to high risk/return,
- Return Expectations increase, and
- Sensitivity to Volatility decreases.

Portfolio Performance

But what are the consequences of applying a particular Risk Group's characteristics to an investment strategy? And are the characteristics internally consistent, i.e. can the Preferred Portfolios provide the Expected Returns and/or satisfy the Sensitivities to Volatility?

To help answer these questions, the Portfolio Performance Research study analysed the previous thirty two plus years of investment market performance, testing how each of the seven portfolios would have performed in terms of 10-year return expectations and sensitivity to volatility.

Each portfolio was converted from a Low/Medium/High mix to a Defensive/Growth split and then to an indicative asset allocation for modelling purposes.

Taking Portfolio 4 as an example, the Defensive/Growth split is 50/50 and the indicative asset allocation is 10% Cash, 25% Bonds, 15% International Bonds, 25% CAN Stocks, 15% US Stocks, and 10% International Stocks.

The performance of an investment portfolio with this asset allocation was then analyzed for the period January 1, 1973 to December 31, 2007 (the Study Period). The details of the methodology used are explained in the Study Methods appendix.

10-year Returns

In order to test Portfolio 4's actual performance against the return expectations revealed by the Risk Profiles Research, the performance needs to be expressed as a multiple of the rate for Certificates of Deposit.

There are 301 120-month rolling periods in the Study Period, the first being January 1, 1973 to December 31, 1982, the second being February 1, 1973 to January 31, 1983 and so on.

For each of these rolling periods, the annualized rate of return for Portfolio 4 was expressed as a multiple of the annualized rate of return for an investment in CDs over the same 120-month period.

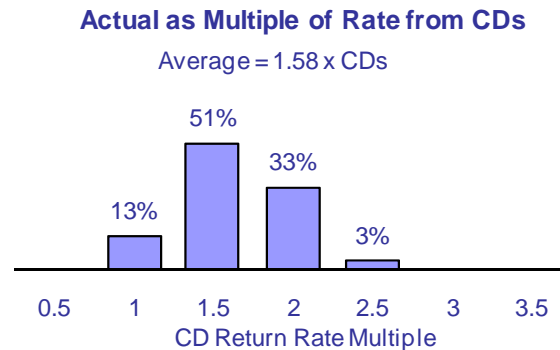


Fig 3

Fig 3 shows the frequency of occurrence of particular multiples. For example, 33% of the rolling 120-month periods produced a return that was twice the rate earned from CDs over the same period.

Volatility

To test volatility it is not sufficient to consider just fixed time periods, even rolling periods. A fall can start at any time and has no fixed length. Investors experience falls as they happen, not on any fixed schedule.

To emulate reality as experienced by investors, the value of the portfolio was tracked month-by-month with each month being categorized as Falling, Recovering or Rising. The chart in Fig 4 shows the frequency of each over the Study Period.

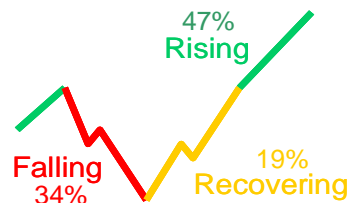


Fig 4

The 'Top Ten' Rises by Height are shown in Fig 5, along with the month in which the Rise began, the duration of the Rise and the month in which the Rise ended.

Height of Rise	Started Rising	Months in Rise	End of Rise
39.7%	Aug-82	11	Jun-83
29.8%	Aug-84	13	Aug-85
23.8%	Oct-85	9	Jun-86
20.2%	Nov-92	10	Aug-93
16.5%	May-80	7	Nov-80
16.1%	Mar-78	7	Sep-78
12.2%	Dec-97	7	Jun-98
11.8%	Nov-86	6	Apr-87
11.6%	Aug-96	4	Nov-96
11.4%	Feb-95	6	Jul-95

Fig 5

More importantly, in terms of managing clients' expectations, the historical data can illustrate patterns of Falls. Analyzing changes in portfolio value over successive months showed that there were 57 periods of one month or longer during which the portfolio was falling. The table in Fig 6 categorizes these by Length of Fall and Depth of Fall. For example, there were two falls of 10%-19% - one occurred over 3 months and one over more than 24 months.

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	=> 50%	
1	37					37
2	6					6
3	4	1				5
4-6	6					6
7-12	1		1			2
13-24						
>24		1				1
Total	54	2	1			57

Fig 6

The 'Top Ten' Falls by Depth are shown in Fig 7, along with the month in which the Fall began, the duration of the Fall, the duration of the Recovery and the month in which Recovery occurred.

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-20.3%	Nov-73	11	8	May-75
-16.2%	Sep-00	31	10	Jan-04
-13.3%	Sep-87	3	13	Dec-88
-9.9%	Apr-81	6	1	Oct-81
-8.1%	Jan-90	4	8	Dec-90
-7.4%	Jul-98	2	2	Oct-98
-6.8%	Mar-80	1	1	Apr-80
-5.7%	Jul-75	3	3	Dec-75
-5.6%	Feb-94	5	7	Jan-95
-5.6%	Dec-81	7	1	Jul-82

Fig 7

Working with Clients

Let's begin with an example. Suppose we take a Risk Group 4 client whose answers to the investment questions were typical of their group, i.e. there were no differences reported in the risk tolerance test report.

Our client will have,

- a risk tolerance score between 45 and 54,
- Portfolio 4 as their Preferred Portfolio,
- 10-year return expectations of between one and a half to twice CDs, and
- a downside 'comfort' zone of minus 20%.

Given that our client chose Portfolio 4, how realistic are the return and volatility expectations?

Return Expectations

If our client had invested in Portfolio 4, over the Study Period they would have experienced the pattern of returns seen in Fig 3 above. These can be categorized in terms of meeting our client's return expectations as follows.

Actual vs. Expectations

■ Fell short ■ Met ■ Exceeded

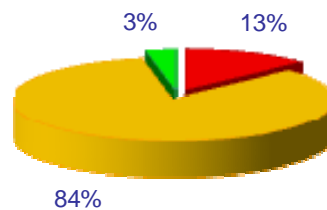


Fig 8

Most of the time (84%) our client would have been satisfied with their returns but there was a significant proportion of the 120-month periods (13%) when returns were less than expectations and only a small number (3%) where they were greater.

Sensitivity to Volatility

As can be seen from Fig 6 and Fig 7, the fall that began in November 73 (-20.3%) was the only occasion where our client would have been taken outside their minus 20% downside 'comfort' zone.

All in all, our client's expectations appear reasonable from a historical perspective. If anything, return expectations appear marginally optimistic and volatility expectations appear marginally pessimistic.

But let us suppose that our client's downside 'comfort' zone was minus 10% (which would have been reported as a difference in their Risk Profile report.) Then there would have been three falls, starting November 1973 (-20.3%), September 2000 (-16.2%) and September 1987 (-13.3%), which would have caused 'discomfort'. Whether the possibility of experiencing such falls would cause our client to choose a portfolio with lower risk/return is a matter for discussion between adviser and client.

Alternatively, let us suppose that our client's return expectations were for two and a half times the rate from CDs (which, again, would have been reported as a difference in their Risk Profile report.) Education about risk and return is clearly called for here. Even the most growth-oriented portfolio, Portfolio 7, would only have achieved this level of return 13% of the time.

More generally, the Risk and Return Charts at the end of this document provide a detailed summary of expectations and actual historical performance for each of the seven Risk Groups and the seven Portfolios. They can be used in conjunction with any client's Risk Profile report to make the same expectations-versus-historical-performance comparisons as have been made above for our sample client.

As can be seen from the Risk and Return Charts, there is a clear progression in expectations as risk tolerance increases.

Typically,

- Risk Group 1 and 2 clients have quite realistic expectations with regard to returns but their desire for no falls is simply not achievable. However, if they do not check the value of their portfolio too regularly they may never be 'discomforted' as the falls are both small and short-lived.
- Risk Group 3 and 4 clients have quite realistic expectations with regard to volatility. But, by way of contrast, their return expectations are overly optimistic, more so for Risk Group 3 than 4.
- Risk Group 5, 6 and 7 clients have very optimistic return expectations, wildly so in the case of Risk Groups 6 and 7. On the other hand, their ability to weather downturns is high. Risk Group 5 would have been discomforted two times, Risk Group 6 once and Risk Group 7 not at all.

Where, an adviser is intending to recommend an asset allocation different to that of any of the seven FinaMetrica portfolios, a guide to its historical performance can be obtained by considering the closest FinaMetrica portfolio(s).

Conclusion

This guide and the accompanying charts enable FinaMetrica users to build on their clients' risk profiling experience by educating them about risk and return so as to manage their expectations and explain the risks of the investment strategy being recommended ... and it does so with simple illustrations and in the plain-English framework of the FinaMetrica Risk Profile questionnaire and report.

Appendix: Study Methods

Objectives

The aim of the study was to link the results of two separate studies, Risk Profile Research and Portfolio Performance Research, so as to enable what is known about people from their Risk Profile reports to be compared, individually and collectively, with the risk and return realities of investment portfolios.

In particular, the study aimed to provide both a general test of how realistic people's risk and return expectations are and also a process for testing an individual's expectations. As a by-product of the study, the test results provide a valuable resource for educating investors about risk and return.

Risk Profile Research

This study is, in effect, the latest in a series that started with the 1997 "Norms Trial" analysis (n=250) done in developing the FinaMetrica risk tolerance test. More recently, in 1999, the sample size had grown to 4100. In the current study, the sample size was 20,700.

The study has many applications. For example, it is the basis for the algorithms that link risk tolerance scores to asset allocations – see "Linking Spreadsheet" at www.riskprofiling.com.

In the present instance, it was used to confirm the answers typically given by each of the seven Risk Groups with regard to,

- the Preferred Portfolio (Q16),
- 10-year return expectations (Q21), and
- sensitivity to volatility (Q14).

These answers provide the pattern of risk and return expectations for the seven Risk Groups. For example, Risk Group 4 typically chooses Portfolio 4, expects 10-year returns of one and a half to twice those from CDs and is 'comfortable' with falls in investment value of up to 20%.

Portfolio Performance Research

This study involved back-testing the performance of a representative set of seven portfolios on a month-by-month basis from January 1, 1973 to December 31, 2007 inclusive (the Study Period).

Portfolio performance was calculated by using asset-class total-return indices as proxies for sector performance. No allowance was made for fees and taxes. Portfolios were rebalanced annually.

The objective was to develop a clear understanding of the broad historical risk and return patterns for a representative set of portfolios.

While recognising that the future will not be an unvarying repetition of the past, the patterns evident in the past are the best guide we have to the patterns we will experience in the future. And it is a feel for, and understanding of, patterns and relationships that is the goal.

The asset allocations chosen were:

Defensive/Growth Split			Asset Allocations					
Portfolio	Defensive	Growth	Cash	Bonds	International Bonds	CAN Stocks	US Stocks	International Stocks
1	100%	0%	30%	45%	25%	0%	0%	0%
2	85%	15%	25%	40%	20%	10%	3%	2%
3	70%	30%	15%	35%	20%	15%	10%	5%
4	50%	50%	10%	25%	15%	25%	15%	10%
5	30%	70%	10%	15%	5%	30%	20%	20%
6	15%	85%	5%	5%	5%	30%	30%	25%
7	0%	100%	0%	0%	0%	30%	35%	35%

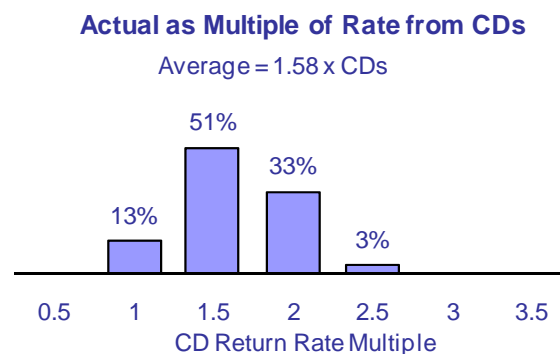
The indices chosen were:

- Cash: 3-months Treasury Bill Total Return Index
- Bonds: Ten Year Canadian Government Bond Total Return Index
- International Bonds: J.P. Morgan Global Government Bond Index. For the period prior to the commencement of this index in 1976, a proxy based on 10 year US Government Bonds was used.
- CAN Stocks: S&P/TSX Composite Total Return Index
- US Stocks: S&P 500 Total Return Index
- International Stocks: MSCI World Total Return Index
- Bankers Acceptance: 1-month Bankers Acceptance Rate
- Inflation: Canadian Consumer Price Index

In order to test a portfolio's actual performance against the return expectations revealed by the Risk Profiles Research, the performance needs to be expressed as a multiple of the rate for Certificates of Deposit.

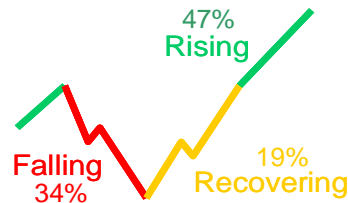
There are 301 120-month rolling periods in the Study Period, the first being January 1, 1973 to December 31, 1982, the second being February 1, 1973 to January 31, 1983 and so on.

For each of these rolling periods, the annualized rates of return for the portfolio and for an investment in CDs were calculated. The former was then expressed as a multiple of the latter. By way of example, Portfolio 4's performance was,



To test volatility it is not sufficient to consider just fixed time periods, even rolling periods. A fall can start at any time and has no fixed length. Investors experience falls as they happen, not on any fixed schedule.

To emulate reality as experienced by investors, the value of each portfolio was tracked month-by-month with each month being categorized as Falling, Recovering or Rising, e.g., the chart below shows the frequency of each over the Study Period for Portfolio 4.



The 'Top Ten' Rises by Height were identified, along with the month in which the Rise began, the duration of the Rise and the month in which the Rise ended, e.g. Portfolio 4's 'Top Ten' Rises were,

Height of Rise	Started Rising	Months in Rise	End of Rise
39.7%	Aug-82	11	Jun-83
29.8%	Aug-84	13	Aug-85
23.8%	Oct-85	9	Jun-86
20.2%	Nov-92	10	Aug-93
16.5%	May-80	7	Nov-80
16.1%	Mar-78	7	Sep-78
12.2%	Dec-97	7	Jun-98
11.8%	Nov-86	6	Apr-87
11.6%	Aug-96	4	Nov-96
11.4%	Feb-95	6	Jul-95

Then all of the falls in the Study Period were identified, counted and classified by duration and severity (in terms of the range of falls in Q 14), e.g. Portfolio 4's 57 falls, categorized by Length of Fall and Depth of Fall were,

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	=> 50%	
1	37					37
2	6					6
3	4	1				5
4-6	6					6
7-12	1		1			2
13-24						
>24		1				1
Total	54	2	1			57

Finally, the 'Top Ten' Falls by Depth were identified, along with the month in which the Fall began, the duration of the Fall, the duration of the Recovery and the month in which Recovery occurred, e.g. Portfolio 4's 'Top Ten' Falls were,

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-20.3%	Nov-73	11	8	May-75
-16.2%	Sep-00	31	10	Jan-04
-13.3%	Sep-87	3	13	Dec-88
-9.9%	Apr-81	6	1	Oct-81
-8.1%	Jan-90	4	8	Dec-90
-7.4%	Jul-98	2	2	Oct-98
-6.8%	Mar-80	1	1	Apr-80
-5.7%	Jul-75	3	3	Dec-75
-5.6%	Feb-94	5	7	Jan-95
-5.6%	Dec-81	7	1	Jul-82

Expectations versus Actual Performance

Armed with the results of the research studies as discussed above, comparing client expectations, individually and collectively, with actual historical performance patterns is a straightforward exercise, as is demonstrated under “Working with Clients” in the body of this guide.

Where, an adviser is intending to recommend an asset allocation different to that of any of the seven FinaMetrica portfolios, a guide to its historical performance can be obtained by considering the closest FinaMetrica portfolio(s).

Risk Group 1 (Score Range 0 to 24)

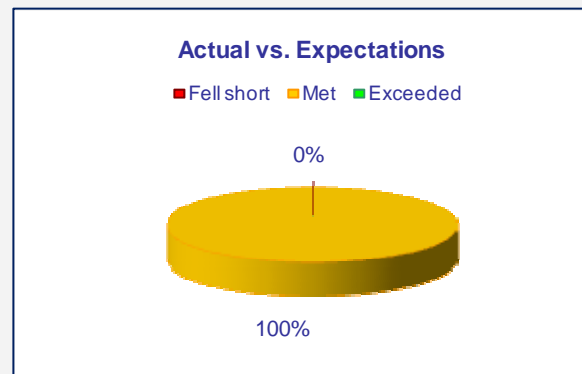
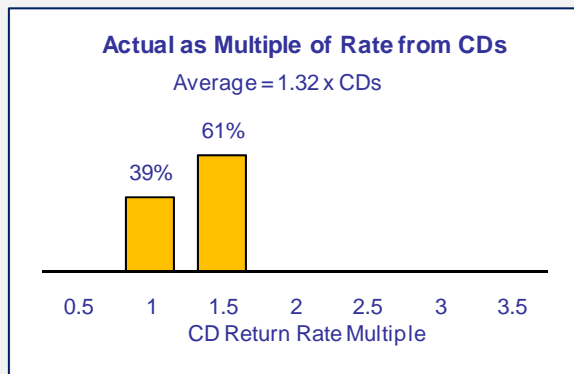
Members of Risk Group 1 typically make the following choices,

- Preferred Portfolio? (Q16):** 100% Low, 0% Medium, 0% High (Portfolio 1)
10 yr Return Expectations? (Q21): Ten year return of 1 to 1.5 times CD rate.
Sensitivity to Volatility? (Q14): The investor would begin to feel uncomfortable with any fall in the total value of investments.

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look realistic but the volatility expectation of no falls was never going to be realistic. However, the falls were small and mostly short-lived, suggesting that any discomfort would have been minor.

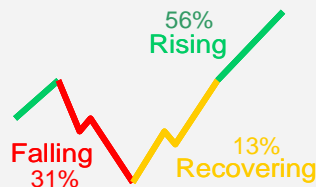
Historical 10-year Returns for Portfolio 1

The actual annualized return from Portfolio 1 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 1

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 52 periods, of one month or longer, where the portfolio was falling.

Height of Rise	Started Rising	Months in Rise	End of Rise
24.2%	Dec-75	25	Dec-77
20.7%	Jul-82	6	Dec-82
18.2%	Mar-85	10	Dec-85
17.2%	Dec-92	14	Jan-94
16.9%	Jul-84	7	Jan-85
12.4%	Jul-91	8	Feb-92
11.2%	Oct-90	8	May-91
9.6%	Feb-95	5	Jun-95
9.4%	May-92	6	Oct-92
9.1%	Apr-98	7	Oct-98

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 20%	20% to 33%	33% to 49%	>= 50%	
1	26					26
2	9					9
3	5					5
4-6	9					9
7-12	2					2
13-24	1					1
>24						
Total	52					52

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-6.2%	Aug-79	7	1	Mar-80
-4.6%	Feb-94	5	7	Jan-95
-4.2%	Jan-99	13	4	May-00
-4.2%	Apr-81	4	2	Sep-81
-3.8%	Apr-87	6	0	Sep-87
-3.6%	Mar-74	4	3	Sep-74
-3.5%	Jul-80	4	1	Nov-80
-3.3%	Mar-07	4	4	Oct-07
-3.3%	Jan-90	4	0	Apr-90
-2.7%	Nov-01	5	2	May-02

Risk Group 2 (Score Range 25 to 34)

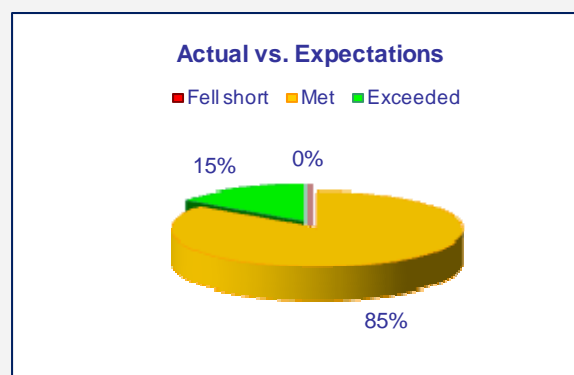
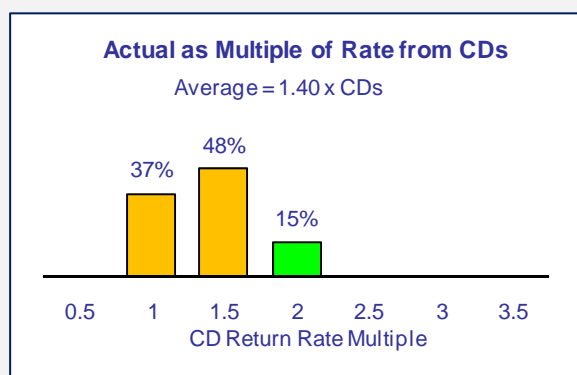
Members of Risk Group 2 typically make the following choices,

- Preferred Portfolio? (Q16):** 70% Low, 30% Medium, 0% High (Portfolio 2)
- 10 yr Return Expectations? (Q21):** Ten year return of 1 to 1.5 times CD rate.
- Sensitivity to Volatility? (Q14):** The investor would begin to feel uncomfortable with any fall in the total value of investments.

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look realistic but the volatility expectation of no falls was never going to be realistic. However, the falls were small and mostly short-lived, suggesting that any discomfort would have been minor.

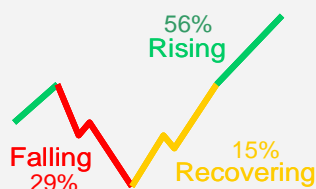
Historical 10-year Returns for Portfolio 2

The actual annualized return from Portfolio 2 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 2

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 62 periods, of one month or longer, where the portfolio was falling.

Height of Rise	Started Rising	Months in Rise	End of Rise
23.5%	May-92	16	Aug-93
22.2%	Aug-82	5	Dec-82
16.4%	Jul-84	7	Jan-85
14.8%	Dec-75	13	Dec-76
11.6%	Mar-89	10	Dec-89
11.3%	Jul-91	8	Feb-92
11.1%	Oct-90	8	May-91
10.2%	Sep-97	11	Jul-98
10.2%	Mar-85	6	Aug-85
10.1%	Jul-96	5	Nov-96

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	>= 50%	
1	35					35
2	13					13
3	6					6
4-6	7					7
7-12	1					1
13-24						
>24						
Total	62					62

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-6.9%	Nov-73	10	4	Dec-74
-6.0%	Apr-81	6	1	Oct-81
-5.3%	Feb-94	5	7	Jan-95
-4.9%	Jan-90	4	1	May-90
-4.2%	Oct-79	6	0	Mar-80
-3.5%	Dec-81	2	1	Feb-82
-3.3%	Feb-84	4	1	Jun-84
-2.6%	Feb-01	5	1	Jul-01
-2.5%	Sep-87	3	1	Dec-87
-2.5%	Jul-75	3	2	Nov-75

Risk Group 3 (Score Range 35 to 44)

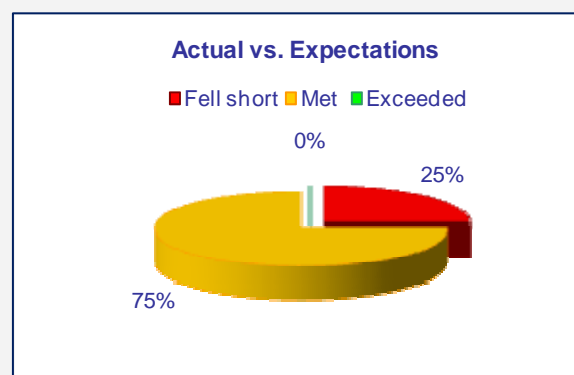
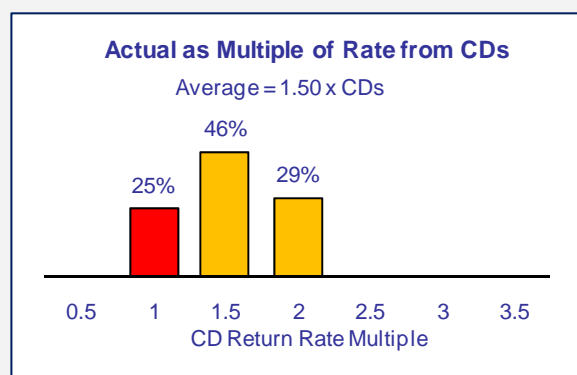
Members of Risk Group 3 typically make the following choices,

- Preferred Portfolio? (Q16):** 50% Low, 40% Medium, 10% High (Portfolio 3)
10 yr Return Expectations? (Q21): Ten year return of 1.5 to 2 times CD rate.
Sensitivity to Volatility? (Q14): Total value of investments could fall by 10% before the investor would begin to feel uncomfortable.

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look somewhat unrealistic (25% of actual returns fell short and none exceeded) but the volatility expectation would have always been satisfied except for one fall (13%) outside the comfort zone.

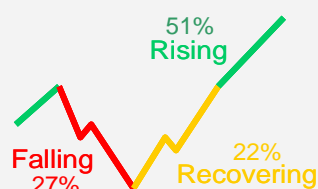
Historical 10-year Returns for Portfolio 3

The actual annualized return from Portfolio 3 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 3

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 58 periods, of one month or longer, where the portfolio was falling. The fall outside Risk Group 3's 'comfort zone' is shown in red.

Height of Rise	Started Rising	Months in Rise	End of Rise
37.9%	Aug-82	11	Jun-83
25.7%	May-92	16	Aug-93
21.5%	Oct-85	9	Jun-86
17.0%	Aug-84	6	Jan-85
12.3%	Sep-97	10	Jun-98
12.2%	Mar-78	7	Sep-78
11.0%	Aug-96	4	Nov-96
10.9%	Mar-85	6	Aug-85
10.6%	Nov-90	7	May-91
10.5%	Feb-95	6	Jul-95

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	>= 50%	
1	37					37
2	10					10
3	3					3
4-6	6					6
7-12	1	1				2
13-24						
>24						
Total	57	1				58

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-13.0%	Nov-73	11	4	Jan-75
-8.2%	Apr-81	6	1	Oct-81
-7.5%	Sep-87	3	10	Sep-88
-6.4%	Jan-90	4	2	Jun-90
-6.1%	Sep-00	10	22	Apr-03
-5.6%	Feb-94	5	7	Jan-95
-5.0%	Feb-80	2	0	Mar-80
-4.4%	Aug-90	2	1	Oct-90
-4.3%	Oct-79	1	2	Dec-79
-4.2%	Jul-75	3	3	Dec-75

Risk Group 4 (Score Range 45 to 54)

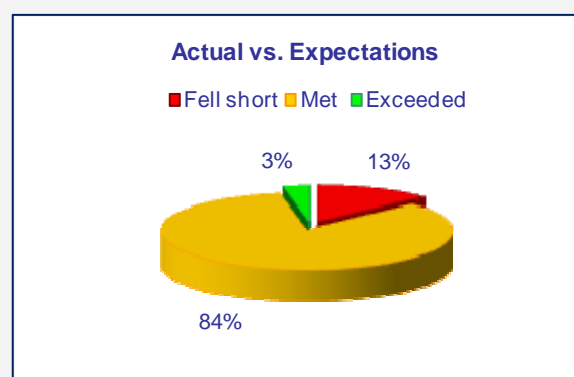
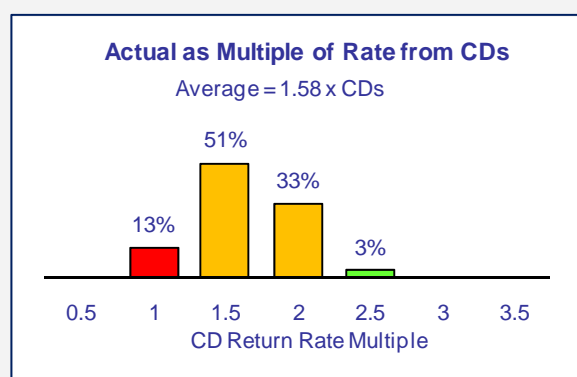
Members of Risk Group 4 typically make the following choices,

- Preferred Portfolio? (Q16):** 30% Low, 40% Medium, 30% High (Portfolio 4)
10 yr Return Expectations? (Q21): Ten year return of 1.5 to 2 times CD rate.
Sensitivity to Volatility? (Q14): Total value of investments could fall by 20% before the investor would begin to feel uncomfortable.

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look close to realistic (the 13% of actual returns that fell short being partly offset by the 3% that exceeded) and the volatility expectation would have always been satisfied except for one fall (20.3%) which was only just outside the comfort zone.

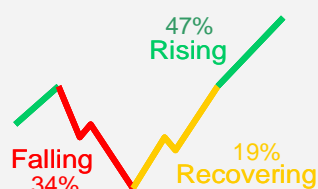
Historical 10-year Returns for Portfolio 4

The actual annualized return from Portfolio 4 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 4

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 57 periods, of one month or longer, where the portfolio was falling. The fall outside Risk Group 4's 'comfort zone' is shown in red.

Height of Rise	Started Rising	Months in Rise	End of Rise
39.7%	Aug-82	11	Jun-83
29.8%	Aug-84	13	Aug-85
23.8%	Oct-85	9	Jun-86
20.2%	Nov-92	10	Aug-93
16.5%	May-80	7	Nov-80
16.1%	Mar-78	7	Sep-78
12.2%	Dec-97	7	Jun-98
11.8%	Nov-86	6	Apr-87
11.6%	Aug-96	4	Nov-96
11.4%	Feb-95	6	Jul-95

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	>= 50%	
1	37					37
2	6					6
3	4	1				5
4-6	6					6
7-12	1		1			2
13-24						
>24		1				1
Total	54	2	1			57

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-20.3%	Nov-73	11	8	May-75
-16.2%	Sep-00	31	10	Jan-04
-13.3%	Sep-87	3	13	Dec-88
-9.9%	Apr-81	6	1	Oct-81
-8.1%	Jan-90	4	8	Dec-90
-7.4%	Jul-98	2	2	Oct-98
-6.8%	Mar-80	1	1	Apr-80
-5.7%	Jul-75	3	3	Dec-75
-5.6%	Feb-94	5	7	Jan-95
-5.6%	Dec-81	7	1	Jul-82

Risk Group 5 (Score Range 55 to 64)

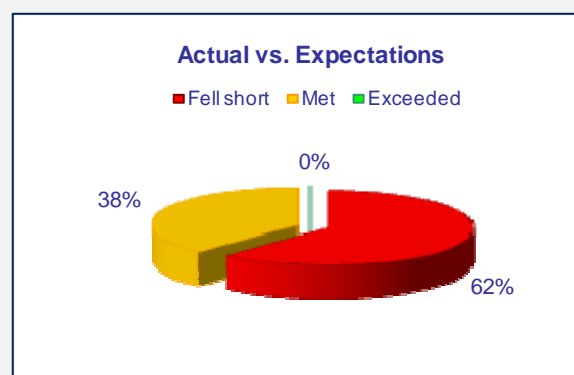
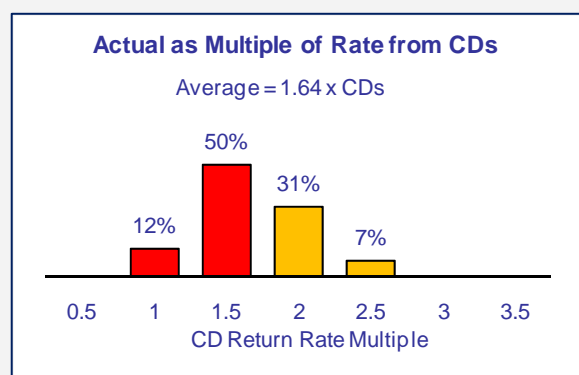
Members of Risk Group 5 typically make the following choices,

- Preferred Portfolio? (Q16):** 10% Low, 40% Medium, 50% High (Portfolio 5)
10 yr Return Expectations? (Q21): Ten year return of 2 to 2.5 times CD rate.
Sensitivity to Volatility? (Q14): Total value of investments could fall by 20% before the investor would begin to feel uncomfortable

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look unrealistic (62% of actual returns fell short and none exceeded) but the volatility expectations would have been satisfied most of the time, with two falls (28.2% and 27.3%) outside the comfort zone.

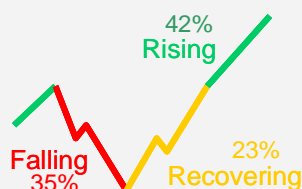
Historical 10-year Returns for Portfolio 5

The actual annualized return from Portfolio 5 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 5

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 55 periods, of one month or longer, where the portfolio was falling. Falls outside Risk Group 5's 'comfort zone' are shown in red.

Height of Rise	Started Rising	Months in Rise	End of Rise
35.6%	Oct-82	9	Jun-83
29.2%	Aug-84	13	Aug-85
27.2%	Oct-85	9	Jun-86
23.8%	Nov-86	10	Aug-87
19.9%	Mar-78	7	Sep-78
19.2%	Feb-93	7	Aug-93
19.0%	Jun-80	6	Nov-80
14.1%	Dec-97	7	Jun-98
13.8%	Apr-97	4	Jul-97
12.4%	Feb-95	6	Jul-95

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	>= 50%	
1	39					39
2	5	1				6
3	1	1				2
4-6	3					3
7-12	1	1	1			3
13-24		1				1
>24			1			1
Total	49	4	2			55

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-28.2%	Sep-00	31	32	Nov-05
-27.3%	Nov-73	11	15	Dec-75
-18.4%	Sep-87	3	16	Mar-89
-12.0%	Jan-90	9	4	Jan-91
-11.1%	Dec-80	20	2	Sep-82
-10.6%	Jul-98	2	2	Oct-98
-8.8%	Mar-80	1	2	May-80
-5.9%	Oct-79	1	1	Nov-79
-5.4%	Feb-73	4	3	Aug-73
-5.0%	Feb-94	5	1	Jul-94

Risk Group 6 (Score Range 65 to 74)

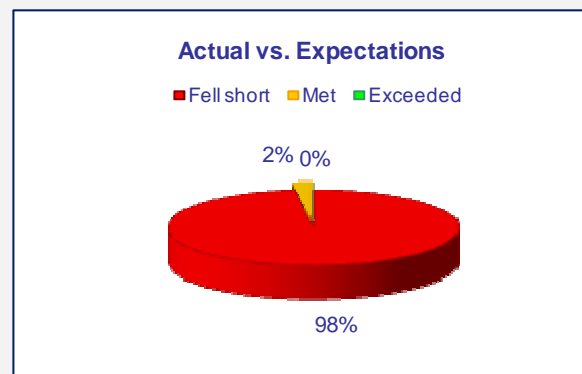
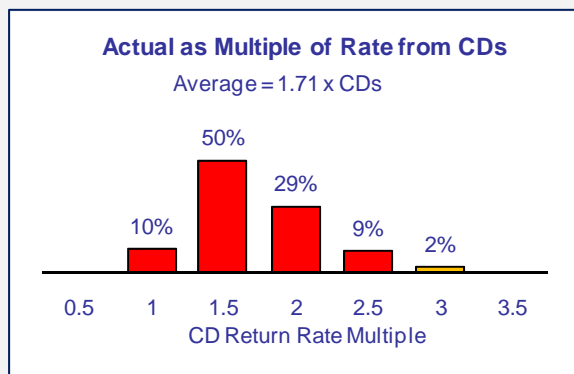
Members of Risk Group 6 typically make the following choices,

- Preferred Portfolio? (Q16):** 0% Low, 30% Medium, 70% High (Portfolio 6)
- 10 yr Return Expectations? (Q21):** Ten year return of at least 3 times CD rate.
- Sensitivity to Volatility? (Q14):** Total value of investments could fall by 33% before the investor would begin to feel uncomfortable

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look grossly unrealistic (98% of actual returns fell short) but the volatility expectations would have always been satisfied except for one fall (35.5%) outside the comfort zone.

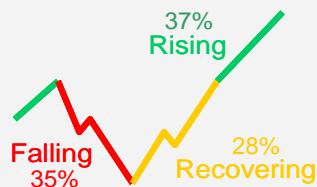
Historical 10-year Returns for Portfolio 6

The actual annualized return from Portfolio 6 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 6

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 54 periods, of one month or longer, where the portfolio was falling. The fall outside Risk Group 6's 'comfort zone' is shown in red.

Height of Rise	Started Rising	Months in Rise	End of Rise
32.8%	Oct-82	9	Jun-83
30.3%	Aug-84	13	Aug-85
27.8%	Jan-87	8	Aug-87
26.2%	Oct-85	6	Mar-86
22.7%	Mar-78	7	Sep-78
22.0%	Jun-80	6	Nov-80
20.2%	Feb-93	7	Aug-93
17.0%	Dec-97	7	Jun-98
16.2%	Apr-97	4	Jul-97
15.1%	Nov-95	7	May-96

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	>= 50%	
1	37					37
2	6	1				7
3	1		1			2
4-6	3					3
7-12	1	1	1			3
13-24		1				1
>24				1		1
Total	48	3	2	1		54

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-35.5%	Sep-00	31	43	Oct-06
-32.7%	Nov-73	11	20	May-76
-22.1%	Sep-87	3	19	Jun-89
-15.1%	Dec-80	20	2	Sep-82
-14.4%	Jan-90	9	4	Jan-91
-11.7%	Jul-98	2	2	Oct-98
-9.4%	Mar-80	1	2	May-80
-6.5%	Feb-73	4	4	Sep-73
-6.2%	Oct-79	1	1	Nov-79
-5.5%	Oct-78	1	2	Dec-78

Risk Group 7 (Score Range 75 to 100)

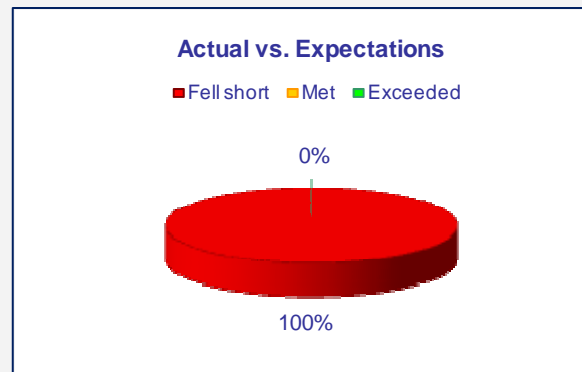
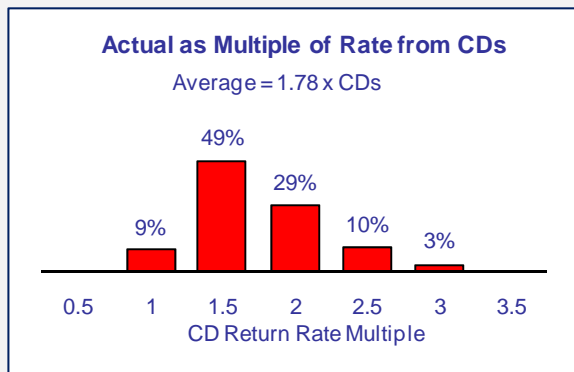
Members of Risk Group 7 typically make the following choices,

- Preferred Portfolio? (Q16):** 0% Low, 0% Medium, 100% High (Portfolio 7)
10 yr Return Expectations? (Q21): Ten year return of more than 3 times CD rate.
Sensitivity to Volatility? (Q14): Total value of investments could fall by 50% before the investor would begin to feel uncomfortable

The sections below provide an historical 'reality check' on these choices over the period 1st January, 1973 to 31st December, 2007. In summary, return expectations look grossly unrealistic (all actual returns fell short) but the volatility expectations would have always been easily satisfied.

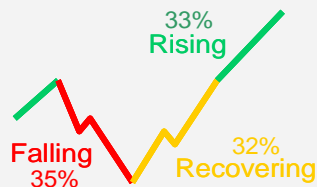
Historical 10-year Returns for Portfolio 7

The actual annualized return from Portfolio 7 was expressed as a multiple of the return from 12 months Certificates of Deposit for each 120-month rolling period. The bar chart shows the frequency of actual returns expressed as a multiple of the rate of return from CDs. The pie-chart shows how often actual returns fell short of, met or exceeded expectations.



Historical Volatility of Portfolio 7

The value of the portfolio was tracked month-by-month, with each month being categorised as Falling, Recovering or Rising, with the frequency of each being as follows.



Opposite is a table which shows the 'Top Ten' Rises. Below are tables showing occurrences by Length and Depth of Fall (left) and the 'Top Ten' Falls by Depth (right.) There were 52 periods, of one month or longer, where the portfolio was falling. All falls were within Risk Group 7's 'comfort zone'.

Height of Rise	Started Rising	Months in Rise	End of Rise
32.2%	Jan-87	8	Aug-87
30.3%	Oct-85	6	Mar-86
29.3%	Nov-82	8	Jun-83
25.7%	Mar-78	7	Sep-78
24.5%	Jun-80	6	Nov-80
24.4%	Nov-84	10	Aug-85
22.0%	Feb-93	7	Aug-93
18.6%	Apr-97	4	Jul-97
16.9%	Dec-97	5	Apr-98
16.7%	Nov-95	7	May-96

Length of Fall (Months)	Depth of Fall					Total
	< 10%	10% to 19%	20% to 32%	33% to 49%	=> 50%	
1	34	1				35
2	5	1				6
3	2		1			3
4-6	3					3
7-12	1	1		1		3
13-24		1				1
>24				1		1
Total	45	4	1	2		52

Depth of Fall	Started Falling	Months in Fall	Months to Recover	Completed Recovery
-42.5%	Sep-00	31	45	Dec-06
-38.2%	Nov-73	11	26	Nov-76
-25.3%	Sep-87	3	19	Jun-89
-19.9%	Dec-80	20	3	Oct-82
-17.8%	Jan-90	9	7	Apr-91
-13.1%	Jul-98	2	2	Oct-98
-10.4%	Mar-80	1	2	May-80
-7.4%	Feb-73	4	4	Sep-73
-6.6%	Oct-79	1	1	Nov-79
-6.5%	Jun-07	7	0*	Dec-07*

* Fall not completed