



August 2009

Northfield News

A Newsletter for the Friends and Clients of Northfield Information Services

Special Points of Interest:

- ▶ **Main Article: Recent Variation in Forecast Risk Models**
- ▶ **Europe and Asia Seminars Announcement**
- ▶ **Tech Support Tip: Reshaping Alpha as a Cross-Sectional Forecast**

Inside This Issue:

- ▶ **Venice, Italy Annual Conference Wrap-up**
- ▶ **New Staff Members in Asia and Europe**
- ▶ **Staff Speaking Engagements**
- ▶ **Partner Update**

Recent Variation in Forecast Risk Values

By Dan diBartolomeo

Over the past two years, financial markets around the world have exhibited extreme levels of volatility. While all reasonably well developed financial risk models have adjusted to this new information to some degree by increasing risk forecasts, the heightened volatility has accentuated the differences in risk forecasts between the past and the present, between different risk models supplied by Northfield, and between different models provided by Northfield and other vendors. This article is meant to explain the reasons for the differences and provide some new information in terms of the reasonableness of the increases.

Time Horizon

It has always been the custom of the investment field to describe security and portfolio volatility in annual units. For example, we might say that “the volatility of this stock is 30%”, or that the tracking error of a portfolio is forecast at 3%. What we are really saying is that the volatility of the stock is 30% *per year* or that the tracking error of a portfolio is 3% *per year*. Unfortunately, this implicit description is not really enough. Even if we happen to put volatility in annual units as a convenience of communication, no one believes that volatility levels in financial markets are constant over time. As such, we must always be explicit about the time horizon of a risk forecast. Are we really talking about an estimate of volatility from today to one year from today (an *annual* forecast), or are we talking about the *annualized value of volatility over some shorter horizon*, such as the next day, week or month. Obviously, if we believe that volatility levels are trending upward or downward, the annual forecast and the annualized forecasts over some shorter horizon could be very different.

Northfield now provides three different time horizons for different types of investment activities. Our normal models are meant to provide a longer term forecast consistent with *annual* risk. Recently, we started to offer a “near horizon” version of all of our risk models, where the risk values represent the *annualized value of a two week forecast horizon*. For more information on the methodology of the near horizon models, see the related article in our October 2008 newsletter, <http://www.northinfo.com/documents/312.pdf>. Our US Short Term model is designed to provide the *annualized risk values over a two to three trading day forecast risk horizon*. It should be noted that we currently engaged in a substantial research project to add a number of enhancements to the US Short Term model based on methods developed for the “near horizon” models.

Treatment of Kurtosis

One aspect of the Northfield models that has perplexed some clients during the recent period is that a lot of the increases in forecast risk are showing up in security specific risk, while conventional thinking would suggest that security correlations increase during

(Forecast Risk, continued on page 3)

Recent and Upcoming Events

Northfield European Seminar

London • November 6, 2009

Northfield will be hosting a one day seminar on November 6, 2009 at the Institute of Directors Business Centre located in the heart of London's West End. The purpose of the seminar is to showcase research on various topics in investment and risk management to our European clients.

Further details will be posted to <http://northinfo.com/events.cfm> as the agenda becomes finalized. Contact Northfield's London office for further details, +44-(0)-20-7801-6260, rupert@northinfo-europe.com, david@northinfo-europe.com or george@northinfo-europe.com.



Institute of Directors Centre

Northfield Asia Seminar Series – Research on Investment Management and Risk

Hong Kong • Singapore • Sydney • Tokyo • November 16, 18, 24, and 26, 2009

Northfield will be hosting four one day seminars in Hong Kong, Singapore, Sydney, and Tokyo. The purpose of the seminars is to showcase our research on various topics in investment and risk management to our growing list of Australian and Far East clients and prospects. The Hong Kong seminar will take place on November 16th at the Landmark Mandarin Hotel. The Singapore seminar will be held on November 18th at the Fullerton Hotel. The Sydney event will take place on November 24th at the Quay Restaurant and Tokyo will be held at the Mandarin Oriental Hotel on November 26th.

Further details will be posted to <http://www.northinfo.com/events.cfm> as the venues and agenda become finalized. Contact Nick Wade in Tokyo if you would like to attend, +81 3 5403 4655 or e-mail: nick@northinfo.com.

2009 Northfield Annual Research Conference Wrap-up

The Grand Hotel Excelsior, Venice Lido Resort • Venice, Italy • June 1-3, 2009

Northfield's 22nd annual research Conference took place at the The Grand Hotel Excelsior in Venice, Italy. Venice was the host city of our first Annual Research Conference over twenty years ago. The Grand Hotel Excelsior is located on the Lido in Venice and offered the best of both worlds: the wonders and history of Venice with all of the comforts of a beachfront resort.

The conference presented recent research and technical advances to an audience of Northfield clients and friends. The agenda consisted of eleven presentations from speakers from around the globe. Topics included: "The Earnings Estimate Dispersion Effect in International Stock Returns," "Stress Testing: Black Swans of Shades of Grey," "Is Quant Investing Dead? A Formal Debate," "The Relationship Between Market Volatility and Investment Style," "Structure for Retirement Investing," "Diversification Effects Associated with Global Value Investing," "The Triangle of Guidance, Revisions and Surprise From A Practitioner's Perspective," "Ensuring Trading Fairness in Asset Management," "Tax Adjusted Portfolio Optimization and Asset Location," "The Rocky Ride of Break Even Inflation Rates" and "Market Mayhem, Mortgages and Madoff."

The conference started on Sunday evening with a welcome reception cocktail party and dinner. Monday afternoon was reserved for recreational pursuits. Some of the choices available to conference attendees included a walking tour of Venice, a tour of the secret passages of the Doge's Palace, excursion to the islands of Murano and Torcello and gondola racing. Monday evening featured the traditional Northfield elegant "black tie" gala. Guests were serenaded by a Tenor during dinner. Following dinner, the party kicked into high gear with music, drinks and dancing.

The final evening on Tuesday was a special Venice themed "Carnival" evening that featured a tour of St. Mark's Basilica. The tour included the lighting of the gold, a tour of the crypts and a performances by two choirs.

The Complete seminar proceedings have been posted at <http://www.northinfo.com/papersearch.cfm>. Pictures of the festivities which were taken by several Northfield staff members have been posted to <http://www.northinfo.com/emailimages/venice.pdf>.

(Forecast Risk, continued from page 1)

periods of economic stress, meaning that security specific risks should decline as a fraction of the total.

The short answer to all this is that it is the custom of our industry to use tracking error and other measures of standard deviation to measure risk. This is legitimate, if and only if, the distribution of security returns is normal and has no serial correlation. To the extent that kurtosis or serial correlation is present in the returns, we need to adjust our risk estimates to compensate for the presences of “fat tails” in the return distribution. *This adjustment shows up as a large increase in specific risks, but we are NOT asserting that specific risks have gone up massively of late (and hence security level correlations are lower). We are asserting that the distribution of returns is non-normal and we have to compensate for that in some fashion.* Given the extreme volatility that we’ve experienced lately, we believe that correcting risk assessments for “fat tails” is of critical importance. The lead article in our March 2008 newsletter was devoted to this point, <http://www.northinfo.com/documents/285.pdf>.

In addition, we must not mistake forecasts of *future specific risk* with “residual” risk, which is the amount of return variation that the respective models did not explain during the historic sample period over which the model was estimated. These two concepts are equivalent only under the most simplistic statistical assumptions, which to our knowledge are not used by any commercial risk vendor.

We now must take one of three choices as to how to deal with the “fat tailed” nature of security returns. We can ignore the fat tails entirely and vastly underestimate the likelihood of extreme moves. *This seems silly given how many extreme events have been occurring, and the obviously fragile nature of the global financial system.*

A second alternative would be to estimate much, much more complex models that explicitly includes both a times series process to capture serial effects, and estimates the skew and kurtosis of security return distributions in addition to variance. This is easy to do for a small number of assets (i.e. a simple asset allocation problem) if you are willing to live with purely historical parameters. However, to our knowledge no model of this type has ever even proposed for individual stocks in the finance literature.

What we have chosen to do is keep the traditional mean-variance framework and adjust the magnitudes of the variances of stocks to compensate for the fat tails and serial correlation. We do this in various ways in our models, including the Parkinson type volatility adjustments. We also use RMS^2 as variance rather than $STDEV^2$ as variance

for factors. The rationale for this is described in diBarotomeo (1999), while the adjustments for serial correlation are presented in Shah (2008).

If the usual portfolio theory assumptions of normal distributions and no serial correlation were true, the adjustments we make would have no effect. If those adjustments are having a large effect, then we know that observed returns are not exhibiting the characteristics of normal distribution and no serial correlation.

The Northfield models use the Parkinson (1980) volatility method to adjust the forecast specific risk values to compensate for kurtosis and serial correlation in the distribution of security returns. To the extent that recent past returns have been more frequently extreme in magnitude, this will be manifested as kurtosis in the return distributions. We ramp up the specific risk forecasts to capture the potential for “fat tail” events. The Parkinson approach uses the magnitude of the range between high and low prices for a security to estimate its volatility. To the extent that the price range derived risk estimates do not match the traditionally obtained estimates, it is evidence of kurtosis or serial correlation in the security returns. A similar approach is presented in Garman and Klass (1980).

It should be noted that our Fundamental model uses a simpler formulation of the Parkinson method than our Single Market Models (which were created much later), and that the sample period of the Parkinson calculation is much shorter. This makes the current Fundamental model more sensitive to recent large volatility events than our other models. Now that the “near horizon” models are available to address shorter term risk concerns, we expect to change the Fundamental model to conform to the more complex formulation at some point later this year to be methodologically consistent with our other models.

An alternative method for compensating for kurtosis would be use the Cornish Fisher expansion. However, this approach requires that we explicitly choose a quantile of the distribution as our key point. For example, we might want to use this method to get tail mass beyond 95% probability corrected for kurtosis. For more information on the Cornish Fisher approach, see : <http://www.jaschke-net.de/papers/CoFi.pdf>.

The Influence of Bankruptcy Risk

There is another way to make the observed large increases in forecast security specific risk intuitive. Given the instability of the global economy, there is a more substantial than usual likelihood of any particular company going bankrupt. There are obvious US examples in GM, Chrysler

(Forecast Risk, continued on page 4)

(Forecast Risk, continued from page 3)

and all the banks being bailed out, with other firms in trouble all around the world.

The effect of a potential bankruptcy on expected specific risk is very extreme. Let's take a typical hypothetical stock X, that has annual volatility of 50 (variance 2500), and the variance is equally split between factor and specific. The annual specific risk is 35.35 (square root of 2500/2). Now let's assume that there is a 1% chance that the company X goes bankrupt, with the process unfolding over the next 30 days. The arithmetic return on X would be roughly -1200% per annum (negative 100% in a month).

The new total variance value would be approximately:

$$.99^2 (2500) + .01^2 * (-1200^2) = 2450 \\ + .0001*1440000 = 2450 + 1440 = 3890$$

The new specific variance would be approximately:

$$(3890-1250)^.5 = 2640^.5 = 51.38$$

So just a 1% chance that a company would go bankrupt increases the expected specific volatility from 35.35 to 51.38, a roughly 45% increase. The 1% per month bankruptcy probability value is fairly realistic. During the height of the financial crisis, yields on non-AAA corporate bonds were averaging about 4 to 5% per annum above the yield on Treasury bonds. Historically, the salvage value of defaulted bonds is about two-thirds. So if a company goes bankrupt, a bond investor is likely to lose about one third of their investment. If an investor demands 4% more annual return to offset a 33% potential loss, they must believe that the probability of loss is about 12% (4%/(1/3)) per annum, or about 1% per month. This simplified analysis ignores the reverse compounding effect of bankruptcies over time, as a company that has gone bankrupt cannot go bankrupt again immediately. As such, the actual event probabilities per unit time are higher in the near term, and decline into the future.

Typical factor models don't explicitly deal with bankruptcy risk because they rely on the relationship of firm characteristic to returns. Obviously, once a firm no longer exists, it drops out of the sample of firms used to estimate the factor relationships. As discussed in our January 2009 newsletter, <http://www.northinfo.com/documents/323.pdf>, we are working on structural models of credit risk that explicitly link estimates of equity risk and corporate bond default risk. This information can be used to improve estimates of equity risk as well as bond risk.

Adjustments for Outliers

Some other commercially available models assume a Bayesian framework forecasting for security specific risk. Essentially, they forecast the median value based on an assumption that volatility is cyclical and to some degree predictable. Individual specific risk forecasts are then "shrunk" toward to median values in order to reduce potential for outliers. These methods try to ensure that specific risk forecasts seem reasonable at the individual security level. Northfield assumes that investors are holding reasonably diverse portfolios, so most specific risk is diversified away. *In our approach, the more important role of specific risk is to act as means by which we adjust for kurtosis and serial correlation.*

To the extent that our specific risk forecasts are not "softened" by a similar Bayesian process, we have added facilities to the Optimizer to do this task on a portfolio specific basis. This Optimizer function has to do with potential errors in the expected covariance among securities. It is derived from Ledoit and Wolf (2004). As described in diBartolomeo (1998), every factor risk model has a mathematically equivalent full covariance matrix. The risk models that Northfield provides forecast the future matrix of asset covariance much more efficiently than simply using the historical sample values. *However, even a more efficient forecast can be subject to some errors or statistical outliers*, particularly when we consider the many millions of possible pair-wise covariance values arising from a universe of thousands of securities.

Within this new function, the user can blend in their chosen weighting of three alternative assumptions to the full covariance matrix implied from the factor model in use. The first alternative is that the covariance among securities can be described as a single-index model (market beta only) as described in Sharpe (1964). The second alternative is that the correlation among securities is constant and equal across all pair-wise relationships. The third alternative is that the covariance among securities is constant and equal across all pair-wise relationships. By blending in these alternatives with the factor model representation, the user can reduce the influence of outliers on risk forecasts and optimal portfolios.

Empirical Comments

During the recent period of volatility, we have had several occasions where clients have asked us for comments on the differences on the risk values coming from our different models, and to a less extent the risk assessments of other vendors. In the context of the foregoing discussion, the observed differences were very intuitive. Our various Sin-

(Forecast Risk, Continued on page 5)

(Forecast Risk, Continued from page 4)

gle Country models produced risk values more in line with other vendors because the Parkinson kurtosis adjustment is based on a sixty month sample period, while the turbulent period has thankfully been much shorter.

On the other hand, the recent extreme events have impacted the Fundamental model much more since the kurtosis adjustment is based solely on the last 12 months. Given the potential impact of bankruptcy risk on concentrated portfolios, the risk levels forecast by the Fundamental model seemed reasonable as we progressed through the crisis period. *While the magnitude of the kurtosis adjustment in the Fundamental model may seem extreme, it is in keeping with tail probabilities in the presence of even moderate kurtosis. Please see our March 2008 newsletter, <http://www.northinfo.com/documents/285.pdf>, particularly the table at the top of page 6.* It should be recalled that Northfield recommends our Fundamental model for more concentrated US portfolios, and the US Single Country model for more diverse portfolios. The reasoning underlying this preference is described in our November 2004 newsletter, <http://www.northinfo.com/documents/73.pdf>.

Since April, the “near horizon” versions of our models have persistently shown greater risk for the near couple of weeks than for the upcoming year as a whole. Given the goings on in financial markets this seems intuitive. Many indicators of market stress such as the yield spread between Treasury bills and Eurodollar CDs have moderated greatly (long term average is 25 bps, current is around 90 bps, while the peak value was over 400 bps). A similar pattern is observed in a direct indicator of expected equity volatility, the VIX contract. The trend is toward risk levels having peaked and moderating somewhat going forward.

At the May 2009 London Quant Group seminar, Taher Kahn of Millienium Investors made a presentation about “kurtosis adjusted” volatility estimates (KAVE). His methods are similar to Cornish-Fisher. Among his empirical results were that huge spikes in expected volatility as measured by the VIX contract were both justifiable and predictable. In addition, he finds that expected kurtosis adjusted volatility levels were increasing at particular points in time when many other financial market participants asserted risk levels were decreasing.

References

Ledoit, O. and Wolf, M. “Honey I Shrank the Sample Covariance Matrix”, Journal of Portfolio Management, 2004.

diBartolomeo, D. “Optimization with Composite Assets Using Implied Covariance Matrices”, Northfield Working Paper, 1998, <http://www.northinfo.com/documents/58.pdf>.

Sharpe, William F. "Capital Asset Prices: A Theory Of Market Equilibrium Under Conditions Of Risk," Journal of Finance, 1964, v19(3), 425-442."

Parkinson, Michael. "The Extreme Value Method For Estimating The Variance Of The Rate Of Return," Journal of Business, 1980, v53(1), 61-66

Garman, Mark B. and Michael J. Klass. "On The Estimation Of Security Price Volatilities From Historical Data," Journal of Business, 1980, v53(1), 67-78.

Shah, Anish. “Short Term Risk from Long Term Models”, Northfield London Research Seminar, October, 2008, <http://www.northinfo.com/documents/286.pdf>.

diBartolomeo, Dan. “Fat Tails, Tall Tales, Puppy Dog Tails”, Professional Investor, Autumn 2007.

Northfield Partner Update

Algorithmic Trading Management

Algorithmic Trading Management (ATM) is a provider of quantitative algorithms and sophisticated order routing tactics to institutional market participants. ATM and Northfield are partnering to deliver unique trading technology solutions to the financial services industry. The new product is a comprehensive automated solution tailored to portfolio execution that dynamically optimizes and executes the efficient scheduling and routing of a trade list. The interface provides the trader with a rich set of pre-trade, real-time, and post-trade analytics in conjunction with the ability to interact with the execution at a portfolio and individual instrument level. The product is designed to reduce trading costs while minimizing the risks to the portfolio manager’s newly rebalanced portfolio during execution of the trade list.

The execution optimization reflects the risk and return characteristics of the portfolio manager’s holdings, adjusts to the risks to account for differences in the investment horizon of the portfolio manager versus the trader, and adapts to the round trip information of real-time market data and execution. The partnership will blend the analytics of Northfield’s portfolio analytics and short horizon risk model, ATM’s real-time execution models, and the trade scheduling and market impact models of both companies.

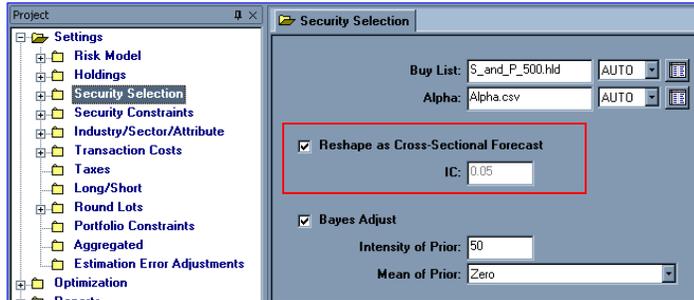
The new product will be provided as a client-hosted installation and will be available later this year. It will function with or without an existing order/execution management system, and allows for multi-broker access. The new product will be integrated with the Northfield portfolio optimizer; however, use of an optimizer for rebalancing is not a prerequisite to leverage the value of this innovative financial technology solution.

Please contact Russ Hovanec, russ@northinfo.com, at Northfield for more details.

Technical Support Tip: Reshaping Alpha as a Cross-Sectional Forecast

By Mike Knezevich and Anish Shah

The previous newsletter introduced the Optimizer’s recently added enhancements to account for estimation error in risk and return forecasts. This article, the first in a series describing the new functionality in depth, covers the Reshape as Cross-Sectional Forecast adjustment appearing under the Security Selection node.



We illustrate the functionality via an example: A large cap value manager – let’s call her Manager V – is benchmarked against the S&P 500, (for simplicity) invests only in S&P 500 constituents, and rates companies from 1-99 based on revenue/price. Manager V’s forecasts run from 1-99; the optimizer expects forecasts in units of annual % return. She doesn’t believe her top rated companies will return 99% and decides it beneficial to convert the alphas to annual % return using the Optimizer’s alpha conversion tool.

There are three parts to the formula for reshaping alpha as a cross-sectional forecast:

$$\text{Alpha} = (\text{IC}) \times (\text{Z-Score}) \times (\text{CSD})$$

IC: Information Coefficient is the correlation between forecasts and realized benchmark-relative returns. It scales information proportionate to its reliability. The number is user supplied with a default of .05 and reasonable range between .01 and .20.

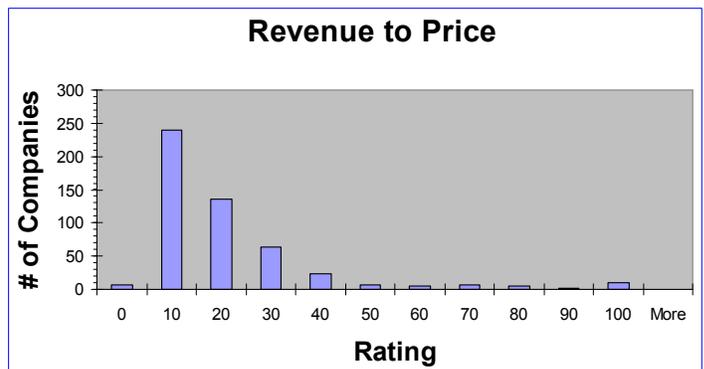
Manager V conducts a performance attribution to determine the correct information coefficient given her historical performance and alphas over time:

Sharpe Ratio	Information Ratio	R-Squared	IC	Eff IC	Transfer Coeff
.84	.58	.95	0.05	0.08	1.62

From the analysis, she sets **IC = .05**

Z-Score: Managers express preferences between securities in different ways, e.g. forecast % return; percentile (1-99) or decile (1-10); qualitative order: 1=strong sell, 3=hold, 5=strong buy. Whatever the form, Reshape as Cross-Sectional Forecast uses only the order of companies to convert the preferences to a normally distributed Z-score.

Manager V’s revenue to price ratings are plotted in the histogram below:



The distribution clearly is not normal. To see how alphas are transformed, we focus on four assets from our investable universe:

ID	Name	Industry	BETA	CAP	Rating
WEC	Wisconsin Energy	Electric Utilities	0.25	0.72	22.45
XEL	Xcel Energy	Electric Utilities	0.26	1.09	97.98
BBBY	Bed Bath & Beyond	Retail Hard Goods	0.89	1.04	9.55
LOW	Lowe’s Companies	Retail Hard Goods	0.96	1.98	0.00

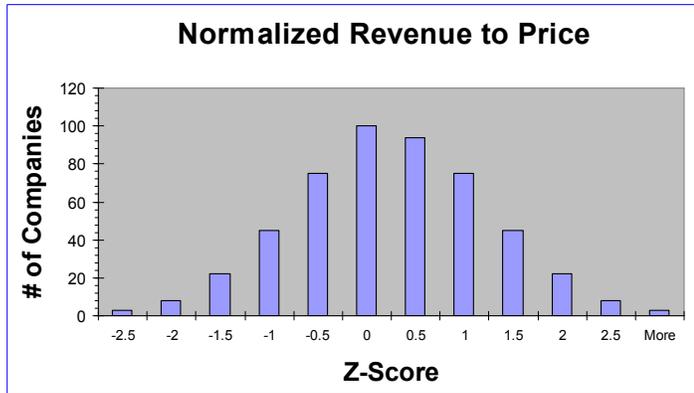
The optimizer converts ratings to normally distributed Z-Score values by:

- 1) Sorting the ratings from lowest to highest
- 2) Converting rank order to percentile: Percentile = Rank / (Number of entries + 1)
- 3) Mapping percentile to the value of a standard normal distribution at the same percentile

Normalized revenue to price scores are illustrated in the histogram at the top of the next page:

(Tech Support Tip, continued on page 7)

(Tech Support Tip,, continued on page 4)



The normalized scores of the sample assets are:

ID	Name	Rating	Z-Score
WEC	Wisconsin Energy	22.45	0.84
XEL	Xcel Energy	97.98	2.10
BBBY	Bed Bath & Beyond	9.55	-0.06
LOW	Lowe's Companies	0.00	0.00

CSD: Cross-sectional standard deviation is the square root of the expected equal weighted cross sectional variance of all securities in the optimization (portfolio, benchmark, or buy list, excluding cash) as forecasted by the risk model.

$$CSVariance \approx VarA - VarM$$

Where:

- VarA is the average stock variance. It can be had from the Total Risk column in the Main Table. Total Risk shows standard deviation; variance is the number squared.

ID	TotalRisk_StDev	TotalRisk_Var
A	78.861	6219.06
AA	121.126	14671.51
...
ZION	122.537	15015.32
ZMH	60.4033	3648.56
VarA		5804.34

- VarM is the variance of the equal weighted universe. It can be calculated in the Optimizer as the equal weighted total portfolio variance. In our example the equal weighted portfolio variance of the S&P 500 for May 31, 2009 is 822.99.

Finally we calculate the cross sectional variance as:

VarA	5804.34
-VarM	822.99
CS_Var	4981.35

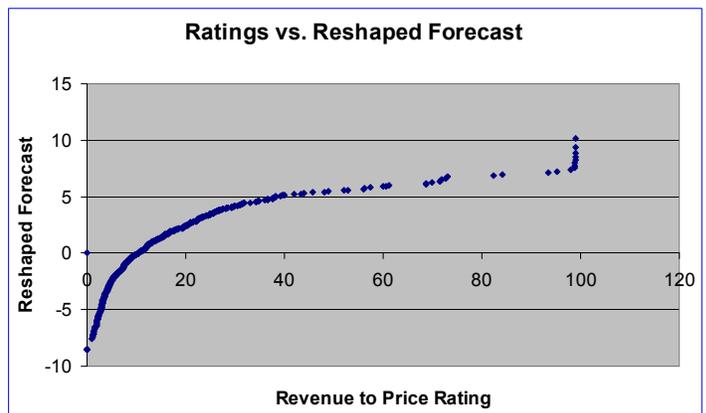
The square root of this number is the cross sectional standard deviation:

$$CSD = 70.58$$

Multiplying the three parts (IC, Z-Score, Cross-Sectional Standard Deviation) together yields the cross-sectional return forecast:

ID	Asset Name	IC *	Normal -ized Rank *	CSD =	Alpha (%)
WYNN	Wynn Resorts	0.05 *	0.84 *	70.58 =	2.98
EK	Eastman Kodak	0.05 *	2.10 *	70.58 =	7.40
CL	Colgate-Palmolive	0.05 *	-0.06 *	70.58 =	-0.20
KMB	Kimberly-Clark	0.05 *	0 *	70.58 =	0

Though changed to a form suitable for the optimizer, the reshaped forecasts retain the information content (relative preferences) of the original ratings.



Rank correlation between rating and reshaped forecast = 1
Correlation between rating and reshaped forecast = 0.83

By enabling Reshape As Cross-Sectional Forecast, a user can enter security preferences in his/her familiar form and the software will convert them to be compatible with portfolio optimization while retaining their information

For further inquiries, contact Technical Support in Boston: support@northinfo.com or call 617.208.2080. European clients can contact: support-europe@northinfo.com or call +44-(0)-20-7801-6260. In Asia, call +81(0)3 5403 4655 or +61(0)2 9238 4284 or support-asia@northinfo.com.

Neil Gallacher Joins Northfield in London

Neil Gallacher, has joined Northfield full-time in our London office to help with technical and sales support. A mechanical engineering graduate from the University of Liverpool, Neil has spent the last couple of years working for a head-hunter where he has demonstrated both energy and enterprise. He is easy to talk to and will get you the answers you need. He has already tested the latest versions of the NERO and NEBAA Northfield Excel add-ins which will be available with the next update. He looks forward to helping you get the best from them and all the Northfield services.

Neil's arrival means that Rupert remains in a minority, as George is Greek and David is Scottish. Rupert is offering a bottle of wine for the first client to correctly guess where Neil is from having spoken to him!

Neil can be reached at neil@Northinfo-Europe.com, +44-(0)20-7801-6250.

Yasuhiko Nakase Joins Northfield in Tokyo

Yasuhiko Nakase has joined Northfield in an advisory role consulting to Northfield Asia Ltd., Yasuhiko will be helping Northfield to market NIS products in Japan and improve our Marketing Materials.

Yasuhiko previously worked for SSGA Japan for 13 years. He held multiple positions there, most recently as head of performance evaluation and IT, and previously head of passive equity in Tokyo. He holds an MBA in finance from Hitotsubashi University Graduate School of International Corporate Strategy, and a BS in mathematics from Tokyo University. He is also a CFA charter holder, and a member of the board of directors in CFA Society of Japan.

Yasuhiko can be reached at yasu@northinfo.com, +81-3-5403-4654.

Northfield Staff Speaking Engagements

Northfield President Dan diBartolomeo will be speaking at the London Quant Group Conference, in Cambridge England on September 15th. The topic will be "Market Mayhem: Madoff and the Mortgage Securities Crisis." Visit <http://www.lqg.org.uk/> for more information.

On September 16th, Dan will be speaking at the Danish Shareholders Association Conference in Copenhagen. The topic is still to be determined.

At the CFA Institute's GIPS Conference in Boston on September 22nd, Dan will be speaking on Performance Measurement after Madoff.

The September 25th Northfield/Clarifi Joint Seminar in San Francisco will feature two presentations from Dan; "Twelve Questions Your Risk System Can Answer for You and Your Clients," and "The Effective Information Coefficient Approach to Performance Evaluation."

Dan will be presenting at the CFA Society of Philadelphia Private Wealth Conference in Philadelphia on October 15th. The topic will be "High Net Worth Investing under Extreme Market Volatility."

Dan will be speaking at the New York QWAFEFW on October 27th. The topic is still to be determined.

Dan will be presenting at a New York University Courant Institute event in New York on October 28th. The topic will be "A State Variable Approach to Equity Risk Assessment." The event is being held jointly with the MIT Finance Association.

Northfield's Yasuhiko Nakase is going to be presenting "Twelve Questions Your Risk System Can Answer for You and Your Clients," at the FactSet Plan Sponsor seminar in Tokyo, on August 27th. A Japanese language version of the presentation will be available.

Boston Office

77 North Washington Street, 9th Floor
Boston, MA 02114
Phone: 617.451.2222
Fax: 617.451.2122
Sales: 617.208.2050
Tech Support: 617.208.2080

London Office

Shakespeare House
168 Lavender Hill
London, SW11 5TG
Phone: +44-(0)-20-7801-6260
Fax: +44-(0)-20-7801-6261

Tokyo Office

Shiroyama Trust Tower
4-3-1 Toranomon
Minato-ku
Tokyo 105-6016
Phone: +81 (0)3 5403 4655
Fax: +81 (0)3 5403 4646