



How Useful Is The Information Ratio To Evaluate The Performance Of Portfolio Managers

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Summary : Free how useful is the information ratio to evaluate the performance of portfolio managers pdf download - inhaltsangabe abstract i do not want a good general i want a lucky one napoleon bonaparte in contrast to napoleon investors typically do not want to pick a lucky person to administer their funds but both napoleon and the investor face a similar problem how to separate the lucky from the skilled historic data shows that five out of one hundred portfolio managers achieve an outstanding performance just by luck and statistics also reveal that luck in most cases does not persist over time the lucky managers will however always cite their superior skills as a reason for their success while the unsuccessful ones will place the blame on bad luck by assessing all active managers on the two dimensions luck and skill four groups are created the separation of the skilled and lucky from the unskilled but lucky managers and the separation of the skilled but unlucky from the unskilled and unlucky managers is of special interest to all stakeholders in the investment industry it is therefore the investor s task to apply understandable guidelines preferably on a quantitative basis when it comes to evaluating a portfolio manager on the other hand it is the fund administration s task to judge the performance of its managers objectively and to transfer the results into a variable remuneration scheme or to decide about the replacement of a certain manager the idea of comparing the performance of different risky investments for example investment funds on a quantitative basis dates back to the beginnings of the asset management industry and has been an important field of research in finance since then performance measures serve as valuable quantitative evidence for the portfolio manager s performance as well as for the evaluation of investment decisions ex post based on the idea of the capital asset pricing model capm proposed by treynor sharpe and lintner treynor developed the first quantitative performance measure intended to rate mutual funds the treynor ratio since then a large number of performance measures with very different characteristics have been developed besides academia the driving force behind the development of more

sophisticated performance measures has always been the investors this is understandable as the truly poor managers are afraid the unlucky managers will be unjustly condemned and the new managers have no track record only the skilled or lucky managers are enthusiastic by combining and applying the results of previous research to a new sample of nearly 10 000 mutual funds that invest in different countries and asset classes this thesis clarifies its central research question is the information ratio a useful and reliable performance measure in order to answer this central question it has been split up into the following sub-parts what are the characteristics of a useful and reliable performance measure what actually is good performance is the good performance a result of luck or of skilled decisions and does it persist over time how does the information ratio compare to other performance measures and what are its strengths and weaknesses this empirical study aims at answering all of these questions and provides a framework for performance evaluation by use of the information ratio the information ratio developed in 1973 by treynor black is one of the most important performance measures in the investment management industry it is a ratio for the excess return of a portfolio relative to a specified benchmark divided by the volatility of the excess returns the measure therefore is able to show how much additional return has been generated per unit of additional risk which is important information in the field of active management besides the interesting characteristics of the information ratio it is of special interest because it is founded on two different theoretical frameworks while the first framework goes back to the founders of the information ratio the second framework closely connects it to the fundamental law of active management which was developed by grinold the fundamental law of active management is a central framework for active managers and provides insight on how to use the rationale behind the information ratio to construct active portfolios for predefined risk budgets additionally the information ratio has not yet been analyzed in an extensive empirical study across different asset classes and countries which is therefore a supplementary motivation for this paper the empirical study is based on return data of nearly 10 000 funds in the timeframe from january 1 1998 until december 31 2008 and yields some important results which are summarized very briefly in this paragraph generally funds have been categorized according to their investment universe in 13 distinct classes for example equity us or money market eur in order to judge the value of a certain performance measure a quartile-based grading system with the four categories very good good below average and poor has been developed threshold values have been calculated that separate the very good quartile from the good quartile and so on using this method the threshold values of the information ratio are found to vary over time and also across

different asset classes so that it becomes necessary to recalibrate the framework annually the quality and reliability of the information ratio is dependent on certain factors of the data selection process firstly only one benchmark should be used for all funds in a fund category in order to allow for better comparability and the selection of this benchmark can heavily influence the threshold values the benchmark should optimally cover a large proportion of the market that is within the investment universe of the respective fund secondly data frequency should be as high as possible for example daily or weekly monthly data does not accurately represent the true volatility of returns within a calendar year thirdly non-normally distributed fund returns can affect the usability of the information ratio for example money market funds show strong non-normal returns and therefore cannot be reliably evaluated with the information ratio there are however other measures available that take higher moments of return distributions into account in order to separate lucky managers from skilled ones the track record plays an important role as luck generally is not persistent over time the final framework evaluates the performance of the active manager based on the quartile-based grade of the information ratio penalizes low active weights using an additional measure and incentivizes persistent skilled performance by looking at the manager's track record course of the investigation following the introduction and the motivation for the topic section 2 lays out the theoretical foundations of this paper firstly sub-section 2.1 explains different methods of fund performance management by describing the characteristics of reliable performance measures in part 2.1.1 and continues by presenting six widely-used ratios to evaluate fund performance in the mutual fund industry in parts 2.1.2 to 2.1.7 each performance measure is explained briefly and its advantages and disadvantages are outlined in order to get a good overview of the rationale behind these measures as the information ratio is at the center of interest of this study it is explained in detail in sub-section 2.2 in order to better understand the motivation behind active management sub-section 2.3 describes the fundamental law of active management this leads to a better understanding of the relevant parameters that influence the level of excess returns and clarifies the theoretical framework of the information ratio from a different perspective sub-section 2.4 presents agency problems in the fund management industry in general and special issues that are related to the information ratio section 3 elaborates on the composition and characteristics of the dataset that is used in the empirical study by explaining the selection of mutual funds 3.1 and benchmark indices 3.2 as well as by showing descriptive statistics of the different fund categories 3.3 the empirical study which is the central part of this thesis is presented in section 4 it starts in sub-section 4.1 by testing the information ratio for stability over

time and across different fund categories and continues in sub-section 4.2 by comparing the ranking order of the information ratio against several other performance measures. Sub-sections 4.3 and 4.4 provide information about the robustness of the information ratio against the selection of different benchmarks and data frequencies. Other influences that could possibly affect the quality of the information ratio such as non-normality of returns or survivorship bias inherent in the dataset are described and analyzed in sub-section 4.5 in order to separate lucky from skilled managers. The persistency of good information ratios over time has been researched in sub-section 4.6. The empirical part concludes with a summary and the development of a specific performance evaluation framework detailed in sub-section 4.7. Section 5 sheds light on the experiences and opinions of several practitioners with respect to performance measurement in general and the use of the information ratio in particular. This view will complement the results of the empirical analysis. The thesis concludes with section 6 where all findings are summarized and starting points for future research are presented.

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the selection and allocation of benchmarks for this study cf table 2 which are used to calculate the information ratios has mostly been done based on popularity of the indices and their ability to cover the price development of a certain market in fund management companies. The selection of a benchmark usually is the result of intense negotiations between the fund manager and the investors as the benchmark has a major impact on the alpha of the fund and on the influences of specific investment restrictions depending on style and country focus. One benchmark might be

more favorable to the fund manager than another therefore it is necessary and important to analyze the sensitivity of the information ratio toward the selected benchmark within this paper lehmann modest have shown that benchmark selection does have a very strong influence on the resulting alphas as well as their volatility while the standard poor s 500 index has been used throughout this paper in connection with equity us funds two additional indices the equally-weighted dow jones industrial average and the market-weighted russell 1000 index will be introduced to compare the resulting information ratios the dow jones industrial average is based on a basket of 30 large cap industrial companies in the us it has been quoted since 1896 and has a strong focus on manufacturers of industrial and consumer goods the russell 1000 index is a proxy for the large cap segment of the us equity market and is based on the 1 000 largest companies in terms of market value the russell 1000 covers about 92 of the us equity market has been calculated since 1984 and is in direct competition with the s p 500 figure 8 illustrates the development of the three indices over the 11-year observation period it can be seen that the indices move very similarly however all of them emphasize different market segments and show a different behavior in certain periods after having calculated three different information ratios based on the s p 500 the dow jones industrial average and the russell 1000 for all equity us funds from 1998 to 2008 the threshold values between the first 25 of the funds and the second 25 of the funds have been calculated again this threshold value separates the first quartile and the second quartile that is very good funds from good to poor funds the result is charted in figure 9 it can be recognized that the information ratios based on the s p 500 and the russell 1000 are closely related while the information ratios based on the dow jones industrial average behave differently and are far more volatile it seems that the dow jones industrial average does not cover the investment universe of the equity us funds very well this can be due to the fact that this index is only based on 30 companies differences that seemed to be little at first glance in figure 8 had a major impact on the threshold values of the information ratios as presented in figure 9 the difference of the threshold values has been tested for significance using the wilcoxon signed-rank test this test has been used because all three sets of information ratios are not normally distributed according to the lilliefors test and are assumed to be dependent on each other the z-values of the wilcoxon test are presented in table 8 and significantly different values are flagged with an asterisk firstly the information ratios based on the dow jones industrial average index were tested against those based on the s p 500 index secondly the information ratios based on the russell 1000 index were also tested against those based on the s p 500 index to conclude while some threshold values are quite close all are significantly

different from those based on the s p 500 using a 5 level of significance these results are in line with goodwin who also found that the selection of the benchmark has a strong influence on the resulting information ratios the results are confirmed when looking at the rankings based on the three different information ratios as illustrated in both scatter plots of figure 10 while there are noticeable differences between information ratios based on the dow jones industrial average and those based on the s p 500 the changes in rankings when using the russell 1000 versus the s p 500 are quite small the selection of an appropriate benchmark is therefore an important step during performance analyses in general still the results can only provide very limited guidance as to how to select the right benchmark one can however conclude that benchmark indices that cover a large part of the investment universe of the specific fund category for example the russell 1000 or s p 500 are superior to indices that are only based on a few securities and certain industry sectors for example the dow jones industrial average it should also be noted that the dow jones industrial average has been criticized for its equal weighting of stocks lack of revision of its constituents following changes in the market environment and a missing framework that describes admission criteria the final decision for or against a benchmark should always be based on the experience of the performance evaluator

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the sharpe ratio and the information ratio - cfa... - the sharpe ratio and the information ratio are ... tells an investor what portion of a portfolio's performance ... a sharpe ratio of zero. as useful as the ...

mutual fund ratios information ratio - mirae asset - the information ratio is ... the higher the information ratio, the better is the performance of the fund manager. information ratio is useful in ...

essential performance metrics to evaluate and interpret ... - essential performance metrics to evaluate and interpret investment returns ... tured by the portfolio. downside capture ratio is

evaluating absolute return managers final 130922 - nyu stern - evaluating absolute return managers ... the mixed performance of absolute return managers raises ... evaluating active portfolio managers the information ratio ...

portfolio performance evaluation - university of southern ... - portfolio performance, ... evaluate the performance of a sample of hedge funds using historical ... development should be useful.

fund manager characteristics and performance - proper measure of the quality of portfolio managers. the sharpe ratio, ... measure of comprehensive performance. first, the ratio ... serve as useful information for

evaluating stock screens with performance attribution - ... as information ratio or ... portfolio managers with a better understanding of the unintended tilts in a stock screen and hence better enable a user to evaluate ...

indian mutual fund performance evaluation - characteristics and performance evaluation of selected mutual ... managers' performance is examined in the indian context. ... α ; sharpe information ratio, σ ; ...

an evaluation of risk metrics - vanguard - an evaluation of risk metrics ... provides guidance to portfolio managers but can also ... sharpe ratio, information ratio, beta, ...

active portfolio management - brandeis university - notes: active portfolio management by zhipeng yan ... the information ratio ... managers. v. focus on value ...

evaluating managers: are we sending the right messages? - evaluating managers: are we sending the right messages? ... between portfolio managers and those charged with evaluating ... to frame the way we evaluate managers. the

hedge funds: theory and performance¹ - william goetzmann - vii.5 information ratio viii. ... different styles pursued by hedge fund managers, ... to evaluate hedge fund performance.

mutual fund performance evaluation with active peer benchmarks - mutual fund performance evaluation with ... active managers has evolved from simple sharpe ratio ... to evaluate her performance using the portfolio of ...

investment portfolio performance evaluation - investment portfolio performance evaluation ... and other proprietary measures for investors to evaluate their ... while all of this information is useful to an ...

the performance evaluation of hedge funds a comparison of ... - comparison of different approaches using european data ... be particular useful to evaluate some ... information ratio compares the performance of funds ...

evaluating absolute return managers revised 130922 - abstract one traditional measure of investment performance, the information ratio ... active portfolio managers the information ratio ...

and useful to study ...

a return on investment as a metric for evaluating ... - a return on investment as a metric for evaluating information systems: taxonomy and ... roi is a performance measure used to evaluate the ... or a ratio ("return on ...

different risk-adjusted fund performance measures: a ... - different risk-adjusted fund performance measures: ... traditional measures of portfolio risk and performance, ... investors with useful information about managers ...

investment analysis and portfolio management - bcci - investment analysis and portfolio management ... portfolio performance measures ... • to analyze and to evaluate relevance of ...

an intro to sharpe and information ratios - the sharpe ratio helps facilitate useful portfolio comparisons by ... (and the industry analysts who evaluate ... the performance of active investment managers ...

how to evaluate hedge funds or any new investment: alphas ... - how to evaluate hedge funds or ... ratio is one useful measure to ... this is why the concept of alpha plays a central role in performance evaluation and portfolio ...

performance attribution from bacon - the comprehensive r ... - performance attribution from bacon ... evaluate the performance and risk of portfolios that are included in ... (managers) > print(capm.epsilon(portfolio_bacon ...

sas p a random portfolios for evaluating trading - telenet - verifying if results obtained by well informed managers are ... • the problem is how to evaluate the ... o measure performance of a portfolio? o sharpe ratio

evaluating interest rate covariance models within a value ... - evaluating interest rate covariance models within a ... how should portfolio managers ... historical volatility forecasts contain additional useful information.

performance implications of active management institutional - performance implications of active management ... information ratio ... combination of costly active managers with performance chasing clients will ...

mutual fund performance evaluation using data envelopment ... - mutual fund performance evaluation using data ... managers of financial, banking ... indentify the closest efficient portfolio. the variables used to evaluate mutual ...

adjusting for risk: an improved sharpe ratio - edge fund - adjusting for risk: an improved sharpe ratio ... a sharpe ratio. suppose we have a portfolio, p, ... and can be very useful for performance evaluation after the event.

global asset management and performance attribution - global asset management and performance ... tional portfolio management, separate managers are often ... global asset management and performance attribution ...

evaluating interest rate covariance models within a value ... - evaluating interest rate covariance models ... how should portfolio managers choose among the large number of covariance ... contain additional useful information.

value factors do not forecast returns for s&p 500 stocks - value factors do not forecast returns for ... to compare the performance of a portfolio with the benchmark is ... portfolio managers). percentile information ratio 90 ...

asset management vs. property management: there is a ... - asset management vs. property management: there is a difference evaluate performance ... useful life quantifies ...

why maximising information ratios is incorrect - by clients or managers to improve risk-adjusted performance: ... m-cube to evaluate risk-adjusted performance also provides ... information ratio); (2) portfolio ...

your guide to the fund evaluation monitoring and methodology - your guide to the fund evaluation monitoring and methodology ... trailing performance 9 information ratio 9 ... the sharpe

ratio is a useful

random portfolios for evaluating trading strategies - random portfolios for evaluating trading strategies ... portfolio optimization, and to evaluate the ... objective is to maximize the information ratio with the ...

the benefits of concentrated portfolios - useful information that will stand the test of time, ... the benefits of concentrated portfolios. ... covered by experienced portfolio managers

enhancements in morningstar direct sm 3 - ... portfolio managers, traders, ... e.g., information ratio, sortino ratio, best 3-months ... functionality to allow users to efficiently evaluate user-

project management best practice benchmarks - pm solutions - ... portfolio performance). ... to be a truly powerful, credible, and useful function, ... project management best practice benchmarks
7

“performance, style and persistence of italian equity funds” - (information ratio). ... product ratio and chi squared test we examine persistence in the performance of mutual fund managers. ... useful to evaluate only the peer ...

mutual fund research process - raymond james - mutual fund research process ... in evaluating portfolio managers/fund performance, ... the sharpe ratio is useful as a

chapter 4 how do we measure risk? - nyu stern - chapter 4 how do we measure risk? if you accept the argument that risk matters and that it affects how managers and ... judgments as new data or information is made ...

fall 2013 quantitative finance and investments core ... - quantitative finance and investments core ... o achieve an information ratio of 0.6 or greater, ... evaluate whether this portfolio of managers is expected to meet ...

measuring performance of exchange traded funds - ... index fund, etf, information ratio ... there is an abundance of literature that compares the performance of active managers. ... measuring performance of ...

summary of key financial ratios - research at uvu - a summary of key financial ratios ... tax profits to form the numerator of the ratio since total assets are financed by creditors as well as by stockholders; ...

judging fund managers by the company they keep - judging fund managers by the company they keep ... of many funds to evaluate the performance of a ... measures are particularly useful in ranking managers.

evaluating the adequacy of the deposit insurance fund: a ... - evaluating the adequacy of the deposit insurance fund: ... a credit-risk modeling approach ... the risk/return profiles of the portfolio, evaluate the risk-adjusted ...

financial decision making and the techniques used in ... - financial decision making and the techniques used ... cial statements and ratio analyses, ... financial information. while managers have the most knowledge to make

country risk analysis - gwu - ... what makes the information faster ... performance has been ... assessments of near-term market risk typically emphasized by portfolio managers and longer-term ...

asset allocation: management style and performance measurement - asset allocation: management style and performance ... typical investor's portfolio. ... ranked according to the ratio of the most recently