

Overview ISFA Equity

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1. Introduction

ISFA Equity is a performance evaluation tool, specifically designed for equity analysts from both, the buy- and sell-side. In principle, ISFA gives answers to the three main questions which naturally arise in examining investment performance.

1. What was the performance of the equity analyst(s)
2. Why did the analyst(s) produce the observed performance?
3. Is the performance due to luck or skill?

The *performance measurement* part enables the measurement of financial analysts' performance according to the specific mandate(s) they receive. Due to its accurateness and transparency many institutes use ISFA also as its bonus evaluation tool.

Depending on the analyst's mandate the selected portfolio can be capital or equally weighted. An alternative function gives the option to measure with self-defined weights (for example in order to mirror the time an analyst researches a specific stock). ISFA differentiates three types of recommendation interpretations: relative, absolute, and risk-adjusted.

In the *performance attribution* part ISFA investigates the sources of the measured performance. This happens relative to the selected and client specific customized or standardized benchmarks. Finally, the *performance appraisal* part supports if the performance is due to luck or skill. Various instruments within ISFA allow processing Peer Group Analysis: either by institutes, analysts or securities.

The measurement methodology is based on the ISFA-standard which has been written by ISFA in cooperation with a group of experts.

2. Who uses ISFA?

ISFA is in use with many buy-side and sell-side institutes worldwide.

The Head of Research uses ISFA to oversee the performance of the analysts and its department regularly. ISFA is responsible for the quantitative and objective part of the bonus evaluation.

The Performance Measurement department controls the performance of the research and evaluates analyst styles and behaviour.

The Controller/MIS evaluates the performance and figures out weaknesses.

3. Strengths

ISFA concentrates on accurate and transparent performance measurement. It is ISFA's objective to measure in a fair and transparent manner – many institutes in Switzerland and abroad trust ISFA's measurement methodology and base the internal performance measurement on its system.

A few of ISFA's advantages:

- ISFA is a *performance measurement system* which is used to measure - mainly internally - the performance of the 1) institute, 2) the analyst teams or 3) individual analysts.
- ISFA's measurement methodology is *transparent*, scientific and practical. The methodology is public and has been validated by a *group of experts*. ISFA strongly believes that only a transparent methodology should measure analysts internally and can be used for their bonus evaluation.
- ISFA is used by *Buy-Side institutes*, which can enter their recommendations/EPS-forecasts in a local DB and measure them. These results can then also be compared with Sell-Side analysts.
- ISFA is a *MIS* usually used by the Head of Research or by the Performance Measurement Department to identify strengths and weaknesses and to analyse the behaviour of the analysts. For the regular team meetings a powerful *reporting tool* allows to extract the results of the whole department easily.
- ISFA's results can be interpreted and explained in detail. The *performance attribution and statistics* section explains up to the very last basis point for each day, how much performance was contributed by which recommendation and when.
- *Flexibility*: ISFA offers a system which allows the client to execute calculations according to its own parameter settings. ISFA is very flexible and the user adjusts the measurement to the analyst's mandate (any time period, any index and interpretation [absolute, relative, risk-adjusted]).
- ISFA measures against *standardized and/or customized indices* (the user can create his own indices).
- ISFA also takes into account *risk*
- ISFA measures strategists as well (recommendations on sectors, countries, etc).

4. System

The software is an intranet-based Java application and can be licensed from Information System for Analysts AG, Bülach, Switzerland or accessed via web.

5. Data Feed

The data feed is client specific and adjustable to the clients needs. ISFA maintains close contact with the major data providers and offers also tailor-made solutions.

6. Measurement Process

a) Benchmarks

The user can select from a number of various benchmarks. Depending on the analyst's mandate they can be

- absolute return
- custom security-based
- market indices (depending on the data provider)

benchmarks.

The custom security-based benchmark is defined and created within the system automatically based on the recommendations. This avoids the usually expensive construction and maintenance of indices. An additional tool offers the possibility to create security-based benchmarks directly by the user. The securities will be either equally or capital weighted or, when specified by the user, weighted ad-hoc.

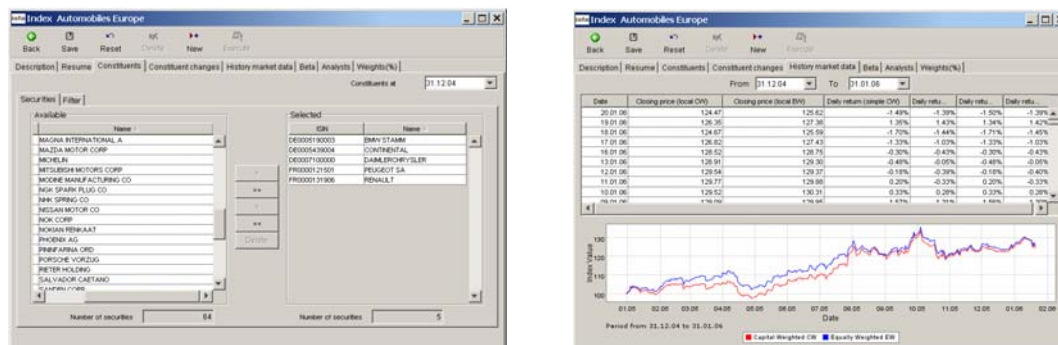


Fig.1/2: Example of a custom security-based benchmark (Europe/Automobiles):

b) Interpretation of Recommendations

ISFA offers 3 options to measure the performance:

- absolute
- relative
- risk-adjusted

Absolute Interpretation

In the "absolute" case a "Buy"-Recommendation is financed by cash. The active position will be a long position in the security which was bought and a short position in cash (i.e. a loan is taken). In case of a "Sell"-Recommendation the security is sold and the proceeds invested in cash.

Relative Interpretation

In the "relative" case a "Buy"-Recommendation is financed by selling the index. The active position will be a long position in the security which was bought and a short position in the index. In case of a "Sell"-Recommendation the security is sold and the proceeds invested in the index.

Risk-Adjusted Interpretation

By measuring with “risk-adjusted” settings, the analyst can not “bet” with the beta of the security anymore. In this case, the active position is automatically adjusted to the risk of the security. A “Buy”-Recommendation is financed by selling the index times beta. The active position will be a long position in the security which was bought and a short position in the index. In case of a “Sell”-Recommendation the security is sold and the proceeds invested in the index.

c) Results

ISFA calculates the Value Added and its corresponding Information Ratio. In particular the Information Ratio allows comparing various analysts or institutes respectively.

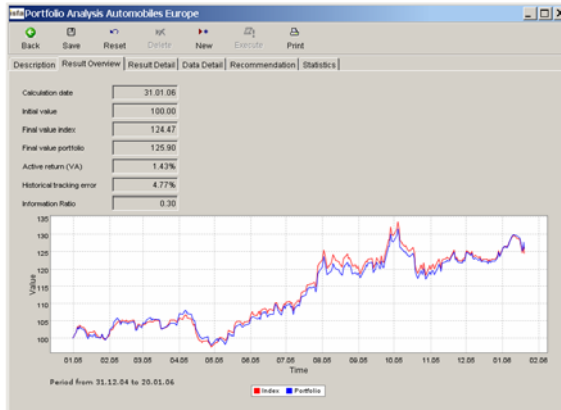


Fig.3: Example of a Portfolio Analysis of Automobiles Europe.

In the “Result Detail”-view the results are presented for each individual security. Additionally, the FX-effect is separated from the contribution for the securities since ISFA assumes that the analyst issues the recommendations only in local currency.

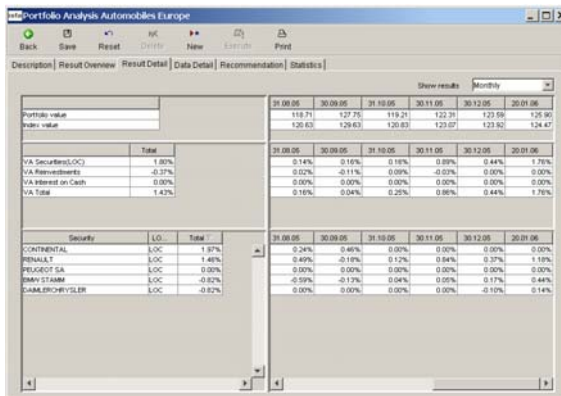


Fig.4: Example of Result Detail-Tab

All the performance results can either be displayed daily, weekly or monthly.

d) Statistics

ISFA includes a statistics section which creates a full performance attribution. “Recommendation weights” calculates the distribution of the recommendations measured over the defined time-period, “security excess return” displays the over- or underperformance of every security against the benchmark for the respective recommendation type, and “value added” attributes the value created for every security to the respective type of recommendation.

Recommendation Weights								
	Strong Buy	Buy	Hold	Reduce	Sell	Total	Coverage	Return
BMW STAMM	0.00%	39.79%	46.35%	13.87%	0.00%	100.00%	99.64%	
CONTINENTAL	66.47%	-0.00%	33.27%	-0.00%	0.00%	100.00%	94.91%	
DAIMLERCHRYSLER	0.00%	44.42%	43.02%	12.41%	0.00%	100.00%	99.64%	
PEUGEOT SA	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	94.91%	
RENAULT	0.00%	11.27%	0.00%	47.09%	41.64%	100.00%	100.00%	

Security excess Returns								
	Strong Buy	Buy	Hold	Reduce	Sell	Sub-Total	Hold-Return	Total
BMW STAMM	0.00%	-12.79%	0.00%	-4.74%	0.00%	-14.25%	0.04%	-14.29%
CONTINENTAL	3.02%	0.00%	11.60%	-0.00%	0.00%	25.15%	0.88%	30.25%
DAIMLERCHRYSLER	0.00%	-8.42%	12.96%	-0.31%	0.00%	-3.07%	-0.42%	2.98%
PEUGEOT SA	0.00%	0.00%	-20.04%	0.00%	0.00%	-20.04%	-0.11%	-20.36%

Value Added								
	Strong Buy	Buy	Hold	Reduce	Sell	Total		
BMW STAMM	0.00%	-1.40%	0.00%	0.59%	0.00%	-0.82%		
CONTINENTAL	1.97%	0.00%	0.00%	0.00%	0.00%	1.97%		
DAIMLERCHRYSLER	0.00%	-0.86%	0.00%	0.04%	0.00%	-0.82%		
PEUGEOT SA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
RENAULT	0.00%	1.41%	0.00%	2.01%	-1.96%	1.46%		
Total	1.97%	-0.84%	0.00%	2.63%	-1.96%	1.80%		

Fig.5: Example of Statistics-Tab

e) Reporting

For the monthly reporting meetings ISFA has developed a separate form which allows printing and downloading all the results easily with one-mouse click. For all the analysts under observation ISFA produces an overview and gives the option to save the results in an excel-sheet. The Head of Performance Measurement or the Head of Research can immediately see which analysts performed well and which didn't – and this for any time period.

7. Earnings per Share (EPS)

Sell-Side institutes can measure their EPS-forecast skills either for a single security or a set of securities. Based on the analyst's EPS estimates of a company and the true realised value, a score is calculated which rates the forecasting ability of the analyst/institute. ISFA calculates immediately the scores and enables to compare them with its peers.

Name	Aggregate Score	Rank
CITIGROUP	0.34241	1
WILLIAMS DE BROE	0.23149	2
GOLDMAN SACHS & CO.	0.14562	3
TEATHER & GREENWOOD LTD.	0.13297	4
LEHMAN BROTHERS	0.11333	5
CHEUVREUX	-0.04513	6
J.P. MORGAN (INTL)	-0.07801	7
SO SECURITIES	-0.11330	8
DEUTSCHE BANK SECURITIES	-0.14044	9
MORGAN STANLEY	-0.14628	10
HSBC	-0.15029	11
MERRILL LYNCH (INTERNATIONAL RESEARCH)	-0.18737	12
WESTLB EQUITY MARKETS	-0.26371	13
UBS	-0.29724	14
ABN AMRO	-0.35729	15

Fig.6: Example of EPS-Ranking (2004 / FTSE100)

8. Strategist

A separate form within ISFA Equity allows measuring the performance of the institute's strategist(s). Recommendations on sectors and countries as well as recommendations on self-defined sub-indices can be measured according to the ISFA methodology. In comparison with the measurement of the equity analysts, the strategist is free to define the weights of the recommendations.

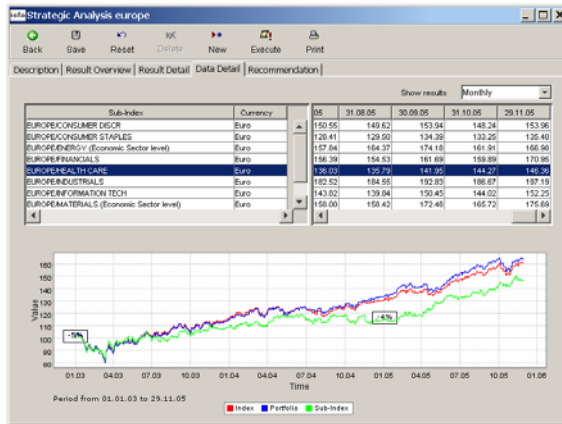


Fig.7: Example of strategist-measurement

Bülach, 07 March 2007