

EVENT-DRIVEN HEDGE FUND METHOD AND SYSTEM

Field of the Invention

The present invention relates to the field of financial engineering; more specifically, it is a method and system for generating event-driven hedge fund trading strategies for dividend-based equities.

Background

Albert Winslow Jones is widely believed to have invented the term 'hedge fund' in 1949. It refers to an actively managed portfolio of investments that involves both conventional (i.e., long) and unconventional investment strategies (e.g., short). The correlation of returns from hedge funds with the broader markets such as Standard & Poor's (S&P) 500 and the Dow Jones Industrial Average (DJIA) tends to be low.

Hedge funds are characterised by the use of alternative investment strategies, such as Equity Market Neutral (relative value), Special Situation (event driven), Short Selling (directional/trading) and Country or Geographical Area Specialists (long/short equity). An event-driven hedge fund strategy involves opportunities that arise during a company's life, which may include mergers, acquisitions, liquidations, reorganisation, bankruptcies, share buybacks, special dividends and legal disputes.

There exist many investment and trading methods with the objective of improving the returns in equities. Dividend-based stocks are equities of corporations that issue dividends to its shareholders. Typical forms of dividend payments are cash, stock shares or a combination of both. Some of the known dividend-based stock trading methods and strategies are described below.

The Dogs of the Dow is an investment strategy popularised by Michael O'Higgins in 1991, which proposes that an investor annually select for investment the ten DJIA stocks whose dividend is the highest fraction of their price. Basically, at the end of every year, the investor buys the ten highest-yielding stocks of the 30 in the DJIA, put equal amounts of money into the 10 issues, hold the stocks until the end of the following year and repeat the process.

In the Puppies and Pigs investment strategy, an investor buys the five lowest-priced stocks (the 'Flying Five') among the 10 highest yielders on the Dow, keeps them for a year, and

then, like the Dogs of the Dow, sells those that no longer qualify and buys the new Flying Five.

The Unit Investment Trust and Mutual Funds Based on the Dogs is an investment strategy that operates the Unit Investment Trust and Mutual Funds based on the Dogs of the Dow.

The S&P 10 Highest Dividend Yielders is a variation of the Dogs of the Dow, where the top 10 highest yielding stocks are 'among the 100 largest-cap stocks in the S&P 500'.

Geraldine Weiss's Strategy is another investment strategy, which 'focuses on buying blue-chip stocks whose dividend yields are near the high of their historical ranges and selling them when they drift lower'.

The Relative Dividend Yield is a variation of Geraldine Weiss's Strategy devised by Anthony Spare. Instead of using the historical ranges of the stock itself, it makes the comparison with the S&P 500 index: 'If a stock's yield is considerably higher than that of the index, the stock is buy'. Furthermore, '[a]s in the Dogs of the Dow strategy and Ms. Weiss's approach, most of Spare's stocks with buy signals are depressed and the companies are encountering difficulties, usually temporary'.

The Goldman Sachs Dividend Strategy is an investment strategy that involves investing in 'stocks of companies with low yields and high dividend increases' instead of "with high yields and dividend cuts'.

The 25% Cash Machine is another investment strategy, which is a basket of 'special-case, high-yield securities . . . which deliver around 10 percent income and 15 percent (at least) capital gains annually'. Furthermore, in terms of the time frame of stock ownership, 'this strategy is that it is not meant to be a trading account. You will not be looking to book short-term gains in 30, 60 or 90 days after you enter a position. . . . What you should be looking to do is hold each and every position you have for years to come'.

In the *Journal of Financial Economics*, Karpoff and Walkling wrote about dividend capture in NASDAQ stocks. Dividend capture is the practice of buying a stock shortly before its ex-dividend day and selling it soon after.

In addition, US Patent Application No. 20090157564 ('564) describes a computerised method of selecting a security for purchase and for sale: '564 patent application discloses an invention that uses dividend yield for generating investing strategies'.

One drawback of the above investment and trading strategies is that dividend strategies suitable for investing purposes come with a time frame of several months to years. A second drawback is that there are no explicit Enter and Exit trading signals. A third drawback is that, securing profits are based on the expectation of receiving dividends and capital gains from the invested stocks; securing profits from the payment of dividends is improbable.

It is an object of the present invention to provide a method and system of generating trading strategies for dividend-based stocks, wherein the trading signals (from buy to sell or short-sell to buy cover) are in days.

It is a further object of the present invention to provide a method and system of generating trading strategies for dividend-based stocks, wherein specific Enter and Exit trading positions in terms of relative dates (e.g., one day after Dividend Declaration Date, two days after Ex-Dividend Date, etc).

It is yet a further object of the present invention to provide a method and system of generating trading strategies for dividend-based stocks, wherein the invention can secure profitable trades involving (i) dividend captures, (ii) dividend payout—when the invention recommends a short position from at least one day before Ex-Dividend Date to the Ex-Dividend Date and (iii) no dividend.

Other objects and advantages of the present invention will become apparent from the following description, taken in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

Summary of the Invention

In accordance with a first aspect of the present invention, there is provided a method of generating hedge fund trading strategies for dividend-based stocks, comprising the following steps: providing a system for generating trading strategies for dividend-based stocks for each of a plurality of dividend-based stocks; loading a first database containing basic stock

information and a second database containing financial stock information into the system computing maximum trading days of the stock; mapping the first and second database of the stock to a trading day and an alternative trading day; computing the maximum number of trading pairs based on the maximum trading days of the stock; if trading long computing historical returns of all trading pairs; computing buy/sell differences, actual trading dates and price of all trading pairs; if trading short, computing historical returns of all trading pairs; computing short/cover price differences and actual trading dates and price of all trading pairs; and ranking a list of trading pairs based on one or more corresponding ranking criteria for trading long and trading short.

In accordance with a second aspect of the present invention, there is provided a method of generating trading strategies for dividend-based stocks, comprising the following steps: providing a system for generating trading strategies for dividend-based stocks for each of a plurality of dividend-based stocks; loading a first database containing basic information of the stock and a second database containing financial information of the stock into the system; computing maximum trading days of the stock; mapping the first and second databases of the stock to a trading day and an alternative trading day; computing the maximum number of trading pairs based on the maximum trading days of the stock; if trading long, computing historical returns of all trading pairs; computing buy/sell differences, actual trading dates and price of all trading pairs; computing descriptive statistics and risk-performance measurement for each trading pair; if trading short, computing historical returns of all trading pairs; computing short/cover price differences, actual trading dates and price of all trading pairs; computing descriptive statistics and risk-performance measurement for each trading pair; and computing a summary of long trading signals and short trading signals; ranking a list of trading pairs based on one or more corresponding ranking criteria for trading long and trading short; computing a visualisation of the ranking criteria of the trading pairs for long trading signals and short trading signals in a graphical format.

In accordance with a third aspect of the present invention, there is provided a system for generating trading strategies for dividend-based stocks, comprising a memory storage medium for loading a first, second and third database of the stock, as well as a processor and a processor-readable storage medium in communication with the processor, wherein the processor-readable storage medium contains one or more programming instructions for generating trading strategies for dividend-based equities.

Brief Description of the Drawings

The embodiments of the present invention will be discussed hereinafter in detail with reference to the accompanying in-line drawings. In addition, the general principles defined herein may be applied to other embodiments and applications without moving away from the spirit and scope of the invention. Consequently, the present invention is not intended to be limited to the embodiments shown, but is to be accorded the widest scope consistent with the principles and features disclosed herein.

By way of example and illustration only, an embodiment of the invention is described more fully hereinafter with reference to the accompanying drawings in which:

Fig. 1 illustrates a block diagram of the present invention.

Fig. 2 illustrates a flow chart of the present invention.

Fig. 3 illustrates some examples of the input data.

Fig. 4 illustrates a maximum trading days period.

Fig. 5 illustrates a tradingdate to tradingday mapping.

Fig. 6 illustrates the generation of maximum trading pairs.

Fig. 7 illustrates historical returns for a long trading strategy for all trading pairs and each historical ex-dividend date.

Fig. 8 illustrates a buy/sell price difference and actual trading dates and price for all trading pairs.

Fig. 9 illustrates a computation of various descriptive statistics and risk-performance measurements for each trading pair based on a long strategy.

Fig. 10 illustrates historical returns for a short trading strategy for all trading pairs and each historical ex-dividend date.

Fig. 11 illustrates a short/cover price difference and actual trading dates and price for all trading pairs.

Fig. 12 illustrates a computation of various descriptive statistics and risk-performance measurements for each trading pair based on a short strategy.

Fig. 13 illustrates a summary of both long and short trading signals.

Fig. 14 illustrates a list of trading pairs and their corresponding average returns for both long and short strategies.

Fig. 15 illustrates a visualisation of the average returns for both long and short strategies and their corresponding trading pairs in a graphical format.

Detailed Description

Figure 1 illustrates a block diagram 100 in a preferred embodiment of the present invention. As shown, three sets of input databases or datasets are required:

- First Database or Stock Dataset 112: comprises Stock Symbol (SS), Trading Date, Trading Date's Closing Price.
- Second Database or Financial Dataset 114: comprises SS, SS Dividend Declaration Date (DD), SS Ex-dividend Date (ED), SS Dividend Amount.
- Third Database or Configuration Dataset 116: configuration data, comprising a listing of Non-Trading Dates. It is submitted that the Configuration input dataset 116 is optional.

The main steps of the invention are within the system 120 (also known as the Quantitative Dividend System), which has outputs of a Trading Signals Summary 132, Recommended Trading Signals 134 and Trading Strategies 136.

Within a financial market such as the stock market, there are stocks that pay dividends and those that do not. For stocks that pay dividends (herein abbreviated as 'DIVSTOCK'), there are three dates of relevance: a dividend's DD, ED and Record Date (RD). When a company announces a dividend, it sets the RD where the trader must be on the company's financial books as a shareholder in order to receive the dividend. The company may optionally also proclaim the DD and ED. The DD could be the same date as the announcement date or

later. When the RD has been set by the company, the stock exchange will fix the ED, which is typically two business days before the RD. The following are some trading scenarios for dividend paying stock traders:

- Traders will receive the dividend if they buy the DIVSTOCK before the ED and still own the DIVSTOCK on the ED.
- Traders who buy the DIVSTOCK before the ED and sell the DIVSTOCK on or after the ED are not entitled to the dividend.
- Traders who do not own the DIVSTOCK a day before the ED and buy the DIVSTOCK only on the ED are also not entitled to the dividend.
- Traders who sell short a DIVSTOCK before the ED and buy cover the DIVSTOCK on or after the ED are required to pay the dividend either to the company or the brokerage house.

In general, traders that buy and sell a stock are using a trading strategy called a long strategy (herein abbreviated as 'LONG'). On the other hand, traders that sell short and later buy cover a stock are using a trading strategy called a short strategy (herein abbreviated as 'SHORT').

Figure 2 contains the flow chart in a preferred embodiment of the present invention 200. More specifically, the new steps are 204 to 215. From steps 204 to 215, the essential parts are steps 204, 205, 206, 207, 208, 210, 211, 214 and the rest (optional parts) are steps 209, 212, 213 and 215.

Referring to Figure 2, processing commences in step 202.

In step 203, the first database or Stock Dataset 112, second database or Financial Dataset 114 and third database or Configuration Dataset 116 are loaded into the memory storage medium of the system 120. The system 120 further comprises a processor and a processor-readable storage medium containing one or more programming instructions relating to the generation of trading strategies for dividend-based equities. The programming instructions are installed in a computing program and a computing program product. It is submitted that the computing program comprises program code means for performing all the steps 202 to 216. It is further submitted that the computing program product comprises program code means stored on a computer readable medium for performing all the steps 202 to 216 when the program product is run on a computer.

More specifically, referring to Figure 3 for more details, 300 on the nature of Stock Dataset 112, Financial Dataset 114 and Configuration Dataset 116 in an example embodiment of the present invention. A stock dataset 112 containing basic information such as, an SS 305, SS's corresponding historical trading dates and closing price is shown in the first dataset 310. In another embodiment of the present invention, the closing price can be substituted with the opening price, high price, low price, average of high+low prices or average of high+low+open+close prices.

A financial dataset 114 containing financial information. such as the SS's DD 322, the ED 324 and Dividend Amount (DA) 326, is shown in a second dataset, 320. The ED of the stock is at least one day before the current date. The DD of the stock comes before the ED of the stock. The DD comes before the RD of the stock.

A configuration dataset 116 containing non-trading dates is shown in a third dataset 330.

In step 204, a first table 420 shows the maximum trading days (also known as the maximum trading days table) generated in an example embodiment of the present invention. More specifically, referring to Figure 4:

- i. As an option, at least one day before the DD is included (in Figure 4, ten days before the DD are included, i.e. from -1, -2, to ... -10, also denoted as -1dd, -2dd, ..., -10dd).
- ii. Also as an option, at least one day after the ED is included (in Figure 4, ten days after the ED are included, also denoted as 1ed, 2ed, ..., 10ed).
- iii. The number of days between DD and ED is determined by the maximum number of days between (exclusive) ED 324 and DD 322.
- iv. In this illustration 400, the maximum number of days between 324 and 322 is 10 (ten days) and denoted as 1dd, 2dd, ..., 10dd (SEQ1).
- v. Sequence 3i + "DD" + 3iv + "ED" + 3ii is categorised as Period1.
- vi. An equivalent sequence to SEQ1, relative to the ED is -10ed, -9ed, ..., -1ed, is categorised as Period2.

A trading day (herein symbolised as TradingDay) is defined as any of these records: -1dd, -2dd, ..., -Ndd, DD, 1dd, 2dd, ..., Ndd, ED, 1ed, 2ed, ..., Ned, -1ed, -2ed, ..., -Ndd, where N is a non-zero integer.

In step 205 and referring to Figure 5, a mapping for each record (SS, Trading Date and Closing Price) in the Stock Dataset 112 and its corresponding TradingDay 526 (also known as trading day) for Period1 and its corresponding TradingDayAlternative (also known as alternative trading day) for Period2 528 in an example embodiment of the present invention. In cases where the ED is later than the most recent Trading Date 524, a projection of dates can be done by taking into consideration non-trading dates from the Configuration Dataset 116. A second table 522 is an illustration derived from SS S2844737. The Closing Price could also be substituted with other prices from the trading date itself, such as Opening Price, High Price, Low Price, Average of High+Low Prices, Average of High+Low+Open+Close Prices, etc.

In step 206 and referring to Figure 6, a third table 620 showing the maximum number of trading pairs is generated 610 based on the first table 420 in an example embodiment of the present invention. Each TradingPair comprises two Trading Days, where:

- For LONG, the first TradingDay is a Buy signal, and the second TradingDay is a Sell signal, and
- For SHORT, the first TradingDay is a Sell short signal, and the second TradingDay is a Buy signal.

Using a simple example, if there are five trading days as shown below:

Trading Days	-1	DD	1	ED	1
Row 1	Buy	Sell	Sell	Sell	Sell
Row 2		Buy	Sell	Sell	Sell
Row 3			Buy	Sell	Sell
Row 4				Buy	Sell

The list of TradingPair (of Period1) for these five trading days would be:

- Corresponding to Row 1: -1dd|DD, -1dd|1dd, -1dd|ED, -1dd|1ed
- Corresponding to Row 2: DD|1dd, DD|ED, DD|1ed
- Corresponding to Row 3: 1dd|ED, 1dd|1ed
- Corresponding to Row 4: ED|1ed
- Steps 207 to 209 are for LONG,

Other methods which can be used to generate all possible trading pair combinations include the Monte Carlo simulation and Genetic Algorithms.

In step 207, referring to Figure 7, a fourth table 710 is generated based on the computed historical returns from each TradingPair 620 with respect to individual Trading Date 524 of the Trading Day 526 in an example embodiment of the present invention. The basic formula, Computed returns (%) or CR_L , where

$$CR_L = \left(\frac{\rho_2 - \rho_1}{\rho_1} \right) * 100\%$$

In cases where the first TradingDay is before ED and the second TradingDay is on or after ED, the computed returns include the dividend, the modified formula, Computed returns with Dividends (%) or CRD_L , where

$$CRD_L = \left(\frac{\rho_2 - \rho_1}{\rho_1} + \frac{\delta}{\rho_1} \right) * 100\%$$

where ρ_1 is the first TradingDay price, ρ_2 is the second TradingDay price and δ is the receiving dividend amount.

The representative date used in table 710 is the ED 324 of each record in the Financial Dataset 114.

In step 208, referring to Figure 8, a fifth table 800 is generated based on table 710 and the second table 522 in an example embodiment of the present invention. As shown, the buy/sell price differences and actual trading dates and prices for all trading pairs are computed.

In addition, the Absolute Price Difference (\$) is also generated. The basic formula, Absolute Price Difference (\$) or APD_L , where

$$APD_L = \rho_2 - \rho_1$$

In cases where the first Trading Day is before the ED and the second Trading Day is on or after the ED, the computed returns include the dividend, the modified formula, Absolute Price Difference with Dividends (\$) or $APDD_L$ where

$$APDD_L = (\rho_2 - \rho_1) + \delta$$

As the fifth table 800 is a lengthy table, the first few records for table 800 are shown in 810 while the last few records are shown in 811.

In step 209, referring to Figure 9, a sixth table 900 is generated based from table 800 for each TradingPair 620 in an example embodiment of the present invention. For each TradingPair 620, various statistical and risk-performance measurements are generated. Examples of statistical measurements include arithmetic mean, geometric mean, harmonic mean, median, mode, standard deviation, coefficient of variation, percentile, absolute deviation, variance, semi-variance, skewness, kurtosis, moments and L-moments. Examples of risk-performance measurements for returns include Sharpe ratio, Calmar ratio, Sortino ratio, Treynor ratio, Upside potential ratio, Jensen's alpha, beta coefficient, dividend payout ratio and dividend yield.

Steps 210 to 212 are for SHORT.

In step 210, referring to Figure 10, a seventh table 1000 is generated based on the computed historical returns from each TradingPair 620 with respect to individual Trading Date 524 of the TradingDay 526 in an example embodiment of the present invention. The basic formula, Computed returns (%) or CR_S where

$$CR_S = \left(\frac{\rho_1 - \rho_2}{\rho_2} \right) * 100\%$$

In cases where the first Trading Day is before the ED and the second Trading Day is on or after ED, the computed returns include paying of dividend. The modified formula, Computed returns with Dividends (%) or CRD_S where

$$CRD_S = \left(\frac{\rho_1 - \rho_2}{\rho_2} - \frac{\delta}{\rho_2} \right) * 100\%$$

where ρ_1 is the first TradingDay price, ρ_2 is the second TradingDay price, and δ is the dividend payment amount.

The representative date used in table 1010 is the ED 324 of each record in the Financial Dataset 114.

In step 211, referring to Figure 11, an eighth table 1100 is generated based on table 1110 and the second table 522 in an example embodiment of the present invention. As shown, the

short/cover price differences and actual trading dates and prices for all trading pairs are computed.

In addition, the Absolute Price Difference (\$) is also generated. The basic formula, Absolute Price Difference (\$) or APD_S where

$$APD_S = p_1 - p_2$$

In cases where the first Trading Day is before ED and the second Trading Day is on or after ED, the computed returns include the dividend, the modified formula, Absolute Price Difference with Dividends (\$) or $APDD_S$ where

$$APDD_S = (p_1 - p_2) - \delta$$

As the eighth table 1100 is a lengthy table and the first few records for table 1100 are shown in 1110 while the last few records are shown in 1111.

In step 212, referring to Figure 12, a ninth table 1200 is generated based on table 1100 for each TradingPair 620 in an example embodiment of the present invention. For each TradingPair 620, various statistical and risk-performance measurements are generated. Examples of statistical measurements include arithmetic mean, geometric mean, harmonic mean, median, mode, standard deviation, coefficient of variation, percentile, absolute deviation, variance, semi-variance, skewness, kurtosis, moments and L-moments. Examples of risk-performance measurements include the Sharpe ratio, Calmar ratio, Sortino ratio, Treynor ratio, Upside potential ratio, Jensen's alpha, beta coefficient, dividend payout ratio and dividend yield.

In step 213, referring to Figure 13, a further statistical and risk-performance summary are generated 1300 in an example embodiment of the present invention.

- The summary for the LONG trading signals 1310 is based on the data in the sixth table 900.
- The summary for the SHORT trading signals 1320 is based on the data in the ninth table 1210.

For each TradingPair 620, the statistical summary includes the average of the mean returns, the Monte Carlo simulation on the average returns, etc. Moreover, for each TradingPair 620, the risk-performance summary includes the average Sharpe ratio, average Calmar ratio,

average Sortino ratio, average Treynor ratio, average Upside potential ratio, average Jensen's alpha, average beta coefficient, etc.

In step 214, referring to Figure 14, a list of recommended LONG trading signals is generated in a tenth table 1410 in an example embodiment of the present invention. As shown, a list of trading pairs is ranked based on one or more corresponding ranking criteria of average returns for both long and short strategies are computed. In other embodiment, average returns may be substituted with other measurements. The ranking criteria can be from one or more of the statistical or risk-performance measurements in the sixth table 900.

In the tenth table 1400, the list of recommended LONG trading signals is ranked by the average returns (%) of its TradingPair.

Correspondingly, a list of recommended SHORT trading signals is also generated in an eleventh table 1420 in an example embodiment of the present invention. In the eleventh table 1420, the list of recommended SHORT trading signals is ranked by the average returns (%) of its TradingPair.

In step 215, the visualisation 1510 integrating the results from the maximum trading day table in Fig. 4 and the list of recommended LONG and SHORT trading signals in Fig 14 is shown in an example embodiment of the present invention.

From the list of recommended trading signals, the trader can now decide if he/she wants to proceed with the trading using any of the trading signals.

It is submitted that the commercial applicability of the present invention also includes hedge fund strategies, dividend policies decision-making, trading strategies and investing strategies.

CLAIMS:

1. A method of generating trading strategies for dividend-based stocks, the method comprising the steps of:
 - loading a first database containing basic information of the stock and a second database containing financial information of the stock into the system;
 - computing maximum trading days of the stock;
 - mapping the first database and second database of the stock to a trading day and an alternative trading day;
 - computing maximum number of trading pairs based on the maximum trading days of the stock;
 - if trading long computing historical returns for all trading pairs, computing buy/sell differences and actual trading dates and price of all trading pairs,
 - if trading short, computing historical returns for all trading pairs, computing short/cover price differences and actual trading dates and price of all trading pairs; and
 - ranking a list of trading pairs based on one or more corresponding ranking criteria for trading long and trading short.
2. The method according to claim 1, wherein the basic information of stock comprises the symbol of the stock, trading date of the stock and closing price of the trading date.
3. The method according to any one of the preceding claims, wherein the financial information of the stock comprises the symbol of the stock, ex-dividend declaration date of the stock and dividend amount of the stock.
4. The method according to claim 3, wherein the ex-dividend date of the stock is at least one day before current date.
5. The method according to claim 3 or claim 4, wherein the financial information of the stock further comprises of dividend declaration date of the stock.
6. The method according to any one of claims 3 to 5, wherein the dividend declaration date of the stock comes before the ex-dividend date of the stock.
7. The method according to any one of claims 3 to 5, wherein the dividend declaration date of the stock comes before record date of the stock.
8. The method according to any one of the preceding claims, wherein the dividend-based stocks further comprises a third database containing a list of non-trading dates.
9. The method according to any one of the preceding claims, wherein the trading pair comprises a first trading day and a second trading day.

10. The method according to claim 9, wherein the first trading day is a buy signal and a second trading pair is a sell signal in the long strategy.
11. The method according to claim 9, wherein the trading pair comprises a first trading day being a sell short signal and a second trading pair being a buy signal in the short strategy.
12. The method according to any one of the preceding claims, wherein each trading pair generates one or more statistical measurements and risk-performance measurements.
13. The method according to claim 12, wherein the statistical measurement may be any one or more of the arithmetic mean, geometric mean, harmonic mean, median, mode, standard deviation, coefficient of variation, percentile, absolute deviation, variance, semi-variance, skewness, kurtosis, moments and L-moments.
14. The method according to claim 12, wherein the risk-performance measurement may be any one or more of the Sharpe ratio, Calmar ratio, Sortino ratio, Treynor ratio, Upside potential ratio, Jensen's alpha, beta coefficient, dividend payout ratio and dividend yield.
15. A method of generating hedge fund trading strategies for dividend-based stocks, the method comprising the steps of:
 - providing a system for generating trading strategies for dividend-based stocks, for each of a plurality of dividend-based stocks:
 - loading a first database containing basic information of the stock and a second database containing the financial information of the stock into the system,
 - computing maximum trading days of the stock,
 - mapping of the first database and second database of the stock to a trading day and an alternative trading day,
 - computing the maximum number of trading pairs based on the maximum trading days of the stock,
 - if trading long, computing historical returns for all trading pairs, computing buy/sell differences and actual trading dates and price of all trading pairs,
 - computing descriptive statistics and risk-performance measurement for each trading pair,
 - if trading short, computing historical returns for all trading pairs, computing short/cover price differences and actual trading dates and price of all trading

pairs, computing descriptive statistics and risk-performance measurement for each trading pair,
computing a summary list of long trading signals and short trading signals,
ranking a list of trading pairs based on one or more corresponding ranking criteria for trading long and trading short,
computing a visualisation of the ranking criteria of the trading pairs for long trading signals and short trading signals in a graphical format.

16. The method according to claim 15, wherein the basic information of stock comprises the symbol of the stock, trading date of the stock and closing price of the trading date.
17. The method according to any one of claims 15 to 16, wherein the financial information of the stock comprises the symbol of the stock, ex-dividend declaration date of the stock and dividend amount of the stock.
18. The method according to claim 17, wherein the ex-dividend date of the stock is at least one day before the current date.
19. The method according to any one of claims 17 to 18, wherein the financial information of the stock further comprises of dividend declaration date of the stock.
20. The method according to any one of claims 17 to 19, wherein the dividend declaration date of the stock comes before the ex-dividend date of the stock.
21. The method according to any one of claims 17 to 19, wherein the dividend declaration date of the stock comes before record date of the stock.
22. The method according to any one of claims 15 to 21, wherein the dividend-based stocks further comprises a third database containing a list of non-trading dates.
23. The method according to any one of claims 15 to 22, wherein the trading pair comprises of a first trading day and a second trading day.
24. The method according to claim 23, wherein the first trading day is a buy signal and a second trading pair is a sell signal in the long strategy.
25. The method according to claim 23, wherein the trading pair comprises a first trading day being a sell short signal and a second trading pair being a buy signal in the short strategy.
26. The method according to any one of claims 15 to 25, wherein each trading pair generates one or more of the statistical measurements and risk-performance measurements.
27. The method according to claim 26, wherein the statistical measurement may be any one or more of the arithmetic mean, geometric mean, harmonic mean, median, mode,

standard deviation, coefficient of variation, percentile, absolute deviation, variance, semi-variance, skewness, kurtosis, moments and L-moments.

28. The method according to claim 26, wherein the risk-performance measurement may be any one or more of the Sharpe ratio, Calmar ratio, Sortino ratio, Treynor ratio, Upside potential ratio, Jensen's alpha, beta coefficient, dividend payout ratio and dividend yield.
29. A system for generating trading strategies for dividend-based stocks, comprising: a memory storage medium for loading a first database of the stock, a second database of the stock and a third database of the stock, a processor and a processor-readable storage medium in communication with the processor, wherein the processor-readable storage medium contains one or more programming instructions for generating trading strategies for dividend-based equities.
30. A computer program comprising program code means for performing all the steps of any one of the claims 1 to 28 when the program is run on a computer.
31. A computer program product comprising program code means stored on a computer readable medium for performing the method of any one of the claims 1 to 28 when the program product is run on a computer.