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FROM A SINGLE-PRODUCT TO OPEN-ARCHITECTURE: THE MULTI-MANAGER APPROACH IN THE ASSET MANAGEMENT INDUSTRY

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INTRODUCTION

Until the beginning of the 21st century, it was virtually unheard of for financial institutions to use and distribute products managed by another asset manager. However, over the past few years the situation has been transformed through the development of open architecture and sub-advisory funds. Briefly, “open architecture” is where an institutional investor sells an existing fund managed by another institution to its own customers. “Sub-advisory” refers to asset managers, banks, or insurance companies which outsource the management of a specific fund to a third-party asset manager. On one hand open architecture allows banks to distribute proprietary as well as non-proprietary investment products on a single platform which can accommodate multiple investment vehicles and account structures. On the other hand, sub-advisory may enable you to invest in institutional managers who are not usually marketed to retail investors. Complete open architecture can be beneficial because it provides access to the best funds, fund managers, and aid diversification. The rationale for open architecture is that in a specialist market environment it is difficult to find a financial institution that can provide the best funds in every sector, region and asset classes.

Many banks and insurance companies have been recently adopting open architecture and sub-advisory by introducing “Multi-Managers”: as investors buy single-products such as individual funds, they can also buy either portfolios that consist of different funds, like a fund-of-funds structure, or products of different asset managers, namely manager-of-managers structure.

The increasing demarcation of the set of core competences and skills required for the manufacturing and distribution of fund management products and the growing trend towards open architecture and specialization have boosted the blossom of multi-manager products.

This thesis attempts to set boundaries of the multi-manager business within the asset management industry. I am going to analyse the portfolio construction and implementation of a multi-manager fund, how these products can achieve a greater diversification than a single mutual fund, how the different style techniques are implemented.

I will develop the multi-manager approach giving an initial and generic overview of the asset management industry, highlighting the main characteristics of single-managed products. Then, I will examine the main advantages and characteristics of the open-architecture through a deep analysis of the multi-manager universe.

The thesis is divided in four chapters: the first one is dedicated to the asset management industry, how the investment companies are structured and how they act in different financial markets. Focusing especially on the differences between passive and active management, the first chapter highlights the main characteristics of the ample range of single-managed products, starting from the basics of the mutual funds, passing through the analysis of the exchange-traded fund (ETF) and index mutual fund, arriving to the segment of the alternative asset classes by examining the characteristics of the hedge funds and their relevant strategies.

The second chapter introduces and delves the multi-manager approach. It focuses on the main advantages of investing in multi-manager products, and pinpoints the difference between fund-of-funds and manager-of-mangers funds in terms of structure and organization. The chapter will finish with the study of the portfolio construction and funds selection through the quantitative and qualitative analysis.

The third and the fourth chapter conclude the analysis of the multi-manager approach. The first concentrates on the performance characteristics of the multi-manager funds, by introducing the main important models of evaluation of the performance of funds, defining the impact of fees by the results analysis and also gives a method of comparison through the peer group analysis.

The last chapter examines the due diligence process in all the aspects of the multi-manager approach, starting from manager evaluation due diligence arriving to delve portfolio construction disciplines, highlighting how to manage the risks inside the multi-manager funds by implementing risk monitoring process. This chapter will conclude with the analysis of how to prevent and handle operational risk and how to manage currency risk in multi-manager funds.

Passive versus Active Management

The implementation of strategies into equity portfolio can be placed through either a passive or an active category. In order to better understand the categories of management we have to decompose the total actual return that the portfolio manager attempts to produce:

Total Actual Return = [Expected Return] + ["Alpha"]
= [Risk-free Rate + Risk Premium] + ["Alpha"]

Passive (Risk-free Rate + Risk Premium)

Active (Risk-free Rate + Risk Premium + "Alpha")

The main difference between passive and active management is that passive portfolio only managers to capture expected return consistent with the risk level of their portfolios. On the other hand, active managers attempt to "beat the market" portfolios capable to produce returns that exceed risk-adjusted expect returns throughout capturing "alpha". Indeed, the *alpha* represents the amount of value that the active manager has added (if positive) or subtracted (if negative) to the investment process. It can be just defined as the difference between the actual and expected return of the portfolio.

Passive equity portfolio management holds stocks so that portfolio's returns will track those of a benchmark index over time. This approach to investing is generally referred to as *indexing*. Indexing is often thought to be a long-term buy-and-hold strategy, but occasionally is necessary to rebalance the portfolio as the composition of the underlying benchmark changes and cash distribution must be reinvested.

In contrast, in an *active equity portfolio management* the manager attempts to outperform an equity benchmark on a risk-adjusted basis. There are several strategies to add alpha, but we focus on two of these: *tactical adjustment* (e.g., equity style or sector timing) or *security selection* (i.e., stock picking).

When an investor decides to follow either an active or a passive strategy (or a combination of the two), he or she faces up to the trade-off between the low-cost but less-exciting alternative of indexing versus the potentially more lucrative alternative of active investing, which certainly will have higher trading costs and management fees. Historically, there is a great debate among this kind of trade-off. Sharpe (1991) argued the higher expenses will "always" make active management an inferior alternative. Samak, Sorensen and Miller (1998)[1] using pension fund performance data showed that the optimal allocation to indexing declines as managerial skill increases. Winkelmann, Jones, and Alford (2003)[2] supported this position by arguing that a disciplined approach to active management is likely to be the most effective method for investors. The debate is still open.

In this section, I will concentrate my analysis on the active management.

Methods of Index Portfolio Investing (Passive Management products)

There are at least two packaged ways to invest in passive investment portfolios: buying shares in an *index mutual fund* or buying shares in an *exchange-traded fund* (ETF). These tow packaged investment products are more convenient and less expensive for the small investor.

[1] Vele Samak and Eric Sorensen. *Allocating Between Active and Passive Management*, Financial Analysts Journal (1998).

[2] Andrew Alford, Robert C Jones, and Kurt D Winkelmann. *A Spectrum Approach to Active Risk Budgeting*, The Journal of Portfolio Management (2003).

In an **Index fund**, or index mutual fund, the fund manager attempts to replicate exactly the composition of particular index, this means that the manager will buy exactly the securities comprising the index in their exact weights and then change the position anytime the composition of the index is changed.

Like any mutual fund, index funds have several advantages and disadvantages to assess before investing. The main advantage of index mutual fund is that they provide an inexpensive way for investors to purchase a diversified portfolio that accentuates the desired market or industry within the context of a traditional money management product. In contrast, the disadvantages are that it is not possible trading intraday, indeed the investors can only liquidate their positions at the end of the trading day; usually index fund cannot short sell, and may have unwanted tax repercussion if the fund has an unforeseen need to sell a portion of its holdings, thereby realising capital gains. An outstanding example of an index fund is Vanguard's 500 Index Fund (VFINX), which is designed to replicate the S&P 500 index.

Exchange-Traded Funds are a more recent development in the world of indexed investment products than index mutual funds. ETF is a portfolio of securities that is placed on deposit at financial institution or into unit trust, which then issues a single type of certificate representing the ownership of the underlying portfolio. These certificates are depository receipts giving investors a pro rata claim on the capital gains and cash flows of the securities that are held by the financial institution.

The main advantage of ETFs over the index mutual fund is that they act as a common stock, thus they can be bought and sold through an organized exchange or in OTC[3] (over-the-counter) market. Moreover for ETFs it is possible to make short sells. In terms of costs, the expense ratios for ETFs are lower than those of average mutual fund. Other important advantages include: smaller management fee, the ability for continuous trading, and the ability to point in time capital gain tax realizations. Conversely, the disadvantages include the brokerage commission and the inability to reinvest dividends except on a quarterly basis. Notable example of ETFs are (1) Standard & Poor's 500 Depository Receipts (SPDRs or "spider" as they are commonly called), which are based on a basket of all the securities held in that index; (2) iShares, which recreate indexed positions in several global developed and emerging equity market; (3) sector ETFs, which invest in basket of stocks from specific industry sectors (e.g. consumer services, technology, energy, utilities, industrial, financial services, and cyclical/transportation)[4].

Hedge Funds

One of the most important developments in the asset management industry over the past 20 years has been the emergence of a global market for hedge funds. However, it is not easy to set the boundaries in defining hedge funds. They are usually defined as loosely regulated investment vehicles, they are structured as limited partnership and their compensation schemes are mainly based on performance fees. Most notably, hedge fund investments are far less liquid than mutual fund (or even closed-end fund) shares; they differ one from another in significant ways:

- There are several limitations on when and how often investment capital can be contributed to ore removed from a partnership. The average hedge fund permits investors to enter or exit on certain dates of a year (monthly and quarterly respectively) compared to the daily ownership adjustment allowed by mutual funds.

[3] Over-the-counter (OTC) or off-exchange trading is done directly between two parties, without any supervision of an exchange.

[4] Brown and Reilly (2009), *Analysis of Investments and Management of portfolios*, 9th Edition, p. 545.

- As I have mentioned above, hedge funds are *loosely regulated* investment vehicles. Generally, they are products less restricted in how and where they can make investments, which is perhaps the main reason on why the investors believe that these vehicles can produce abnormally large returns.

- There are no limits in the implementation of the investment policies. Hedge funds allow manager to use financial leverage, short selling, and derivatives.

Hedge funds are "active products". Their results tend to reflect directly the capabilities of the managers (*pure skill asset class*). Investors in hedge funds believe that their managers can generate returns with positive *alpha*, or above-market returns, which reflects the value added by a hedge fund manager's skills. Furthermore, hedge funds are intended to provide *lower volatility* than mutual funds. The returns of hedge funds are structured to be relatively uncorrelated with the returns of traditional asset classes because their portfolios are composed in such a way they are affected by different market events than are the returns of stocks and bonds. In this contest, hedge funds have the potential to achieve great level of *diversification*, and thus lower risk, compared to other investment vehicles.

The compensation scheme for the hedge fund managers is composed of two components: a regular *management fee* (between 0 and 2% of AUM) and a *performance fee*, which normally amounts between 15 and 20% of the fund's profits beyond a minimum pre-specified rate of return (i.e., *hurdle rate*). In calculating this performance fee is usually used the *high-water mark* method, which ensure that the manager does not get paid large amounts for poor performance. So that, if a manager lost money over a period, he or she must get the fund above the high-water mark before receiving a performance bonus.

Hedge Fund Strategies

It is difficult to distinguish between different hedge fund strategies. With respect to the hedge fund designation, several investment strategies can be implemented with considerably diverse risk and expected return profiles. We can distinguish five types of hedge fund strategies:

1) Equity-Based Strategies.
2) Relative Value Strategies.
3) Event Driven Strategies.
4) Opportunistic Strategies.
5) Multiple Strategies.

1) Equity-Based Strategies:

- *Long-short Equity*: long position in undervalued stocks and short position n overvalued stocks. This strategy attempts to generate returns from misvalued stocks.
- *Market Neutral*: limiting the overall volatility exposure of the fund by taking offsetting risk positions on both sides of the market (long and short). It involves the use of derivatives.

2) Relative Value Strategies:

- *Fixed-income arbitrage*: returns are generated by taking advantage of bond pricing discrepancies caused by fluctuations in the fixed-income market. Leverage is usually employed to enhance returns.

- *Convertible bond arbitrage*: purchasing of a convertible bond and short selling of the underlying stock. Returns are generated from disparities between the price of convertible bond and the price of the underlying stock.

3) Event Driven Strategies:

- *Merger arbitrage*: returns are dependent upon the magnitude of the spread on merger transactions, which are directly related to the likelihood of the deal not being completed.
- *Special situations*: returns arise due to the results of significant events that occur during the normal life cycle of a company.
- *High yield and distressed*: this strategy takes advantage in distressed situation. When companies are distressed, their shares can be purchased at large discounts. Usually investing in *emerging market*.

4) Opportunistic Strategies:

- *Global Macro*: returns are generated from changes in global economies, usually after a government turmoil, which impact on interest rates, currency and stocks. Massive use of leverage and derivative products in order to take hedge exposures.
- *Managed Futures*: taking long and short positions in a broad range of futures contracts. Returns are generated exploiting prices disparities between the contracts. High degree of financial leverage adopted.

5) Multiple Strategies:

- *Fund of Funds*: formally this is not a separate strategy. It is an investment vehicle that acts like mutual funds or hedge funds but, rather than investing directly into stocks, bonds, and other products, they hold portfolios of investment funds.
  There are several advantages to invest in fund of funds. Investors can access to managers that might otherwise be unavailable to them, but the primary benefit of this method is to achieve a great and well-diversified portfolio's allocation compared to other investment vehicles. On the other hand, the principal disadvantage is that there is an extra layer of fees necessary to compensate the fund of funds manager (about 3% of the AUM).
  Funds of funds strategies rely on using different approaches, they can concentrate in a particular strategy and then diversify across various hedge fund managers – the *multi-manager approach* – or they can diversify across different strategies – this is the multiple *strategy approach*.

THE MULTI-MANAGER APPROACH

The increasing demarcation among the distinct sets of core competencies and skills required for the manufacturing and distribution of fund management products and the growing trend towards open investment architecture has boost the growth of the multi-manager long only business.

Open architecture allows banks and intermediaries to distribute proprietary e non-proprietary investment products on a single platform that can accommodate multiple investment vehicles and account structures.

Institutional investors, dissatisfied with the returns they are getting from their traditional active equity and fixed-income managers, have been the primary drivers behind the launch of long-only strategies by fund of funds. "Long-only funds switch hedge fund managers from an absolute-return model to a relative-return model, and that is attractive" on a cash flow basis[5].

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[5] Gideon Berger, is a Senior Managing Director and Head of Technology and Risk Management for the Hedge Fund Solutions group. He serves on the Investment Committees for Blackstone Alternative Asset Management, Blackstone

The term *multi-manager* is used to describe assets invested in long-only traditional investment (this excludes fund of hedge funds and funds of private equity funds) and held in one of two types of vehicles: manager-of-manager products or fund-of-funds.

Starting from the *fund-of-funds*, they are structured as collective investment schemes that in turn invest carefully in shares of other publicly traded mutual funds; we have to distinguish fund-of-funds that invest in proprietary sub-funds, which are classified as *fettered*, from those that invest in non-proprietary sub-funds, i.e. *unfettered*. Conversely, *manager-of-managers* are products managed by multiple underlying sub-advisors managing their portfolios as separate mandate. Within manager-of-managers products we classify, (1) those structured as collective investment schemes – these schemes has hand out mandates to their sub-advisors as separate accounts – under local regulations, which are *retail manager-of-managers*; (2) other manager-of-managers vehicles tailor-made for institutional investors, and therefore organized as *institutional manager-of-managers* products.

Investing in a multi-manager fund is an easy way to diversify investments over different asset managers, without wasting time in finding, choosing, and monitoring funds yourself.

Conversely, multi-manager products faces two main hurdles in its expansion, first there is *reluctant to cede responsibility*, especially in the institutional manager-of-managers products where the clients want to retain direct power to hire or fire certain managers. Secondly, *pricing and performance issues*; nowadays, clients are more fee-conscious and therefore claim higher returns to the premium paid. Indeed, it is important to note that multi-managers funds are more expensive in fees than single manager funds as there are two tiers of fund managers to pay; those who select the funds and those who manage the selected funds. However, multi-manager is typically able to negotiate discounts through their ability to invest significant amount of money. The higher fees are the cost of having all the benefits of a multi-manager fund.

Prominent multi-manager providers are Frank Russell, AXA Multimanager, Aon, SEI, and Insight; on the other hand, global distributors include UBS, HSBC, CSFB, Citigroup and major insurance brands.

Underlying philosophy

Long-only manager of managers are not absolute return type vehicles. This approach compels them to be fully (abut 90%) invested and allow a limited use of hedging instruments – to achieve efficient portfolio and risk reduction through diversification. They are not allowed to "speculate" using derivatives. In this contest, we have to distinguish absolute return from the relative one. In short, *absolute return* is simply the return of whatever portfolio or asset over a certain period. On the other hand, *relative return* is given by the difference between the absolute return and the performance of the market represented by a benchmark or index. The notion of relative return is very important because allows to measure the performance of actively managed funds.

Behind the multi-manager approach there is a real philosophy on active management that it can be summarize in four points:

- Believe in active management means to believe in the ability of talented individuals to use skill and knowledge to add value over a benchmark or index.
- A belief that specialists will outperform generalists by finding and combining talented specialists into a portfolios combination.
- A belief that a better relationship can be achieved between risk and return by combining managers with different styles in any given asset.

Strategic Alliance and Blackstone Strategic Opportunities. Excerpt of the article *Funds-of-funds managers going long-only* by Christine Williamson (December 2013), www.pionline.com.

- A belief that, within this approach, products should be monitored on an on-going basis making timely and efficient changes when there is a need to change.

The most important factor of this philosophy is that multi-manager approach emphasizes the importance of people as opposed to organizations. This approach conducts a dense approach to seek out specialists that could add value over an index. When uncorrelated specialists are combined together this delivers a compelling long-term investment vehicle.

Common features to good multi-managers structures

As we have mentioned above, the multi-manager products are divided in two big categories: fund-of-funds and manager-of-managers. In this part, we are going to highlight the common characteristic followed by a multi-manager structure.

- *Use of specialists*. Most multi-managers prefer specialist investment managers in managing their portfolios rather than generalists. This is the result of the underlying philosophy followed by this approach, the belief that specialists can outperform generalists.
- *Through manager research*. A broad global research capability is needed to ensure that good manager are not overlooked, after which considerable analysis should be undertaken to understand each manager's investment process.
- *Portfolio construction and continuous review*. In order to build up a successful multi-manager fund, clear process are required for:
    - ✓ Determining the manager structure.
    - ✓ Actively monitoring the structure.
    - ✓ Controlling risk.
    - ✓ Making quick decision to improve the process.
- *Innovation*. Managers must always look for opportunities to improve their investment process. Example of innovative ideas are:
    - **Equitizing cash**. The best managers have small, but consistent, cash holdings for liquidity and hedging purposes.
    - **Transitions manager**. Multi-managers returns rely on the performance of the portfolio before, after and during a change in manager. The best multi-managers appoint a transition manager to buy and sell securities to turn the terminated manager's portfolio into the portfolio of the newly appointed manager[6].
- *Manager-of-managers fund versus fund-of-funds*. We discuss the main differences between these two products in terms of structure and organization in the following paragraphs; however, it is important to clarify that a fund-of-funds approach hires the pooled funds of preferred investment managers, while manager-of-managers fund hires investment managers and ask them to manage a new segregated account for them. By doing this, manager-of-managers can reduce costs by being able to negotiate better fees to pay the manager.

The role of multi-manager

The primary role of the multi-manager approach is to construct portfolios that meet client objectives by selecting from a broad range of investment options. Multi-manager funds draw on a specific set of skills that differentiate them from traditional fund management. The essential components in running a multi-manager approach are:

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[6] Sohail Jaffer (2006), *Multi-Manager Funds. Long-only strategies for Managers and Investors*, p. 40.

1. *Manager selection*. Multi-managers usually involve significant resources in identifying fund managers representing a range of asset classes. By doing this, multi-managers seek for managers that have information advantages rather than competitive advantages. Examples of information advantages are successful trading strategies and/or superior quantitative modelling capabilities. Giving these advantages, multi-.managers are able to combine strong investment and capital markets experience.
2. *Portfolio construction*. The aim of the portfolio construction is to capture market inefficiencies as they arise. Strategic and tactical asset allocation techniques are used to position portfolios in order to catch alpha.
3. *Monitoring*. Continuously monitoring, rebalancing and reporting changes to the portfolio.

These three components allow investors to benefit from market inefficiencies. The high level of efficiency in most markets suggests that fund managers must possess an information advantage with respect to their peers. A clear benefit for investors lies in a multi-manager's ability to gauge fund managers' strengths and weaknesses, to make the best possible use of the investment intelligence available to them and assemble a portfolio in line with investment objectives that can consistently take advantage of market inefficiencies.

Historically, investors believe that markets are inefficient only at the individual stock level, and efficient at regional or asset class level. Focusing only in active allocating on a stock basis lead investors to neglect important profitable opportunities to manage risk or increase returns through tactical asset allocation (TAA). Investors' behaviours consistently cause asset classes (especially equity and bonds) to deviate from their fair value. Through TAA, successful multi-manager funds can systematically identify these inefficiencies and add value in their portfolios. In this contest, the great innovation of this approach is that multi-manager portfolio construction can add value not only through tactical asset allocation across markets and asset classes, but especially *within* the markets and asset classes.

Impact of fees: the total expense ratio

In the multi-manager's universe, the impact of fess on the fund's performance is crucial for two main reasons. First, being an active product, active managers charge fees are higher than passive providers. Secondly, calculation of fees for multi-manager funds is inevitably more complicated than for single-manager funds.

The *Total Expense Ratio* (TER) is not only a method to calculate the overall fees for the management but it serves to gauge the total cash flows out of a multi-manager fund. The TER includes all annual operating expenses (including those for administration, custody, audit, and so on) plus the annual management fees. Exhibit 2.4 shows in detail the expenses included in the TER calculation. TER is expressed as a percentage of the related fund assets and it is usually calculated over a financial year.

Exhibit 2.4: Expenses included in TER calculation

1. Management and Performance fees.
2. Operating Expenses:
   - Custody and Trustee fees;
   - Audit fees;
   - Bank charges.
3. Value added taxes.
4. Liquidity costs.
5. Investment in other funds (upfront fees and exit fees).

Manager-of-managers funds versus Fund-of-funds: investment, management, and operational challenges

As I have already mentioned in the first part of the chapter, the multi-manager universe encompasses two distinct products: funds-of-funds and managers-of-managers. The two platforms differ significantly in their architecture; the first invests in funds, whereas the second invests in securities through the appointed managers. The aim of both products is basically the same trying to provide a diversified portfolio by combining managers with investment styles and objective investment characteristics in order to reduce the risk without scarifying returns. However, there are two different products and the differences between the two fund types can be summarized as follows.

- *Structure*. A fund-of-funds to achieve its investment objectives invests its assets in other funds, while a manager-of-managers fund directly selecting and engaging different portfolio managers that manage its assets in separate accounts. The manager of a multi-manager fund generally appoints an investment manager, which in turn picks a number of third-party portfolio managers (multiple managers structure) with discrete mandates in order to execute the actual investment of the fund's assets, individual benchmarks and fee arrangements. The main role of the investment manager is to select and blend portfolio managers for the relevant mandate and to remove the portfolio managers when no longer accomplish the fund's investment objective.
- *Segregation*. A fund-of-funds will generally be just one of many investors in the underlying funds into which it invests, whereas a manager-of-managers fund assets remain within the same scheme being managed on a separate account basis.
- *Control*. A fund-of-funds controls its own allocations across different funds, where allocations requiring redemptions and new subscriptions, but it has no control over the objectives or styles of management. Conversely, manager-of-managers set the parameters of the discrete mandates for each portfolio manager to whom assets are allocated and has fully control over objectives and styles of management.
- *Regulations*. Manager-of-managers funds are generally not regulated as such (other than prospectus disclosure) but the fund itself has to comply with its own applicable investment restrictions tailored for its investment objective. Fund-of-funds is specifically regulated by reference to the types of underlying funds into which investment may be made (UCITS, non-UCITS) and have to comply with the maximum permitted exposures to anyone underlying fund.
- *Portfolio information*. A fund-of-funds periodically receives portfolio information from its underlying funds, whereas a manager-of-managers fund is able to receive portfolio information from its portfolio managers all the time, which enable to greater compliance monitoring.
- *Fees*. Fund-of-funds is subject to the aggregate fees of each of the underlying funds in which it invests but it may be able to negotiate rebates. A manager-of-managers can easily handle the fund's expenses because the fees in a multi-manager scheme are negotiated on a portfolio manager-by-portfolio manager basis.
- *Size*. Small portfolios can readily be managed on a fund-of-funds basis, while manager-of-managers require larger funds in terms of asset under management size.

The asset management industry now recognizes the role of "manufacturers" and of "asset gatherers", leading to an open architecture offering. Indeed, fund administration is closely related to custody: the fund administrator keeps the books and the custodian takes care of the assets. The following part highlights the difference about the custody dimension between managers-of-managers funds and fund-of-funds.

Funds selection: implementing Quantitative and Qualitative analysis

The quantitative and qualitative analysis in multi-manager funds is the main phase leading to funds selection and portfolio construction. These two analyses are different, however they are used together because they are the principal driver in seeking and choosing funds.

Quantitative Analysis

Quantitative analysis is simply a financial analysis that investigates on behaviour by using mathematical and statistical modelling, measurement and research. This analysis plays a central role during the whole decision-making process in multi-manager funds.

As part of the selection process of third-party funds using quantitative techniques is mainly aimed to:

- Identify the funds of interest on which focusing the subsequent qualitative analysis (due diligence, meetings with managers, site visits, and so on)
- Highlight key features of the funds under analysis (exposure to specific risk factors, style analysis, and so on)

The starting point of the analysis is the availability of a large dataset, with returns time series of the funds on sufficiently long time horizons. The second step consists on the identification of asset classes (benchmark) to associate with the funds being analysed in order to obtain results that are sufficiently homogeneous and comparable. The data analysis and the construction of performance/risk benchmarks allow achieving a first screening and highlighting the funds on which focusing the next analysis. For each fund performance and risk indicators are calculated on multiple time intervals in order to classify the funds on a specific ranking (performance, risk, and overall).

The quantitative analysis is used to filter amongst something like 50,000 funds globally available, to reduce the screening to more manageable number of funds (150-200), and to monitor that performance and volatility are in line with the expectations. In order to define the universe of funds and the right associated asset classes, the investment team regularly use multi-manager database, filtering products by asset class (equity, bond), country (Europe, Japan, US, and so on), and style (small-cap, value, growth and so on).

The goal of the analysis is to assess a fund in terms of performance, return and risk over a different time periods (1-, 3-, 5-years, and quarterly).

Regarding the style, there are a number of ways a multi-manager examines style quantitatively. The major technique is to analyse the historical returns and compare these with the style indices. For example, if the returns show a higher correlation with the value index than the growth index, this suggests a value approach. A more accurate technique is to take in consideration the holdings of the underlying portfolio and look at the fundamental factors versus the index. A weighted average computation of the portfolio's fundamental factors (P/E ratio, price/book, yields, beta, alpha, and etcetera) can then be compared with the index. For example, if a portfolio presents higher P/E ratio and simultaneously has lower yield, we can state that the portfolio has growth characteristics.

The holdings are analysed in a historical way in order to avoid style drift or a market-oriented approach. Furthermore, looking at quarterly data over the last 12-quarter end periods allows to understand how much the portfolio moves around the style spectrum.

Regarding the portfolio construction, the multi-manager has to be aware of style compatibility between the selected managers and of achieving an effective diversification.

Multi-manager approach tends to use *concentrated portfolios* – a range of 30 to 50 stocks, which then are combined with other concentrated portfolios in order to maintain an acceptable active risk.

After the stock picking provided by the specialists, a three-manager structure will be composed of about 100 stocks, providing the multi-manager fund with effective and specialist diversification.

Although quantitative analysis is a powerful tool for evaluating investments, it must be used together with qualitative analysis to deliver the optimal solution.

Qualitative Analysis

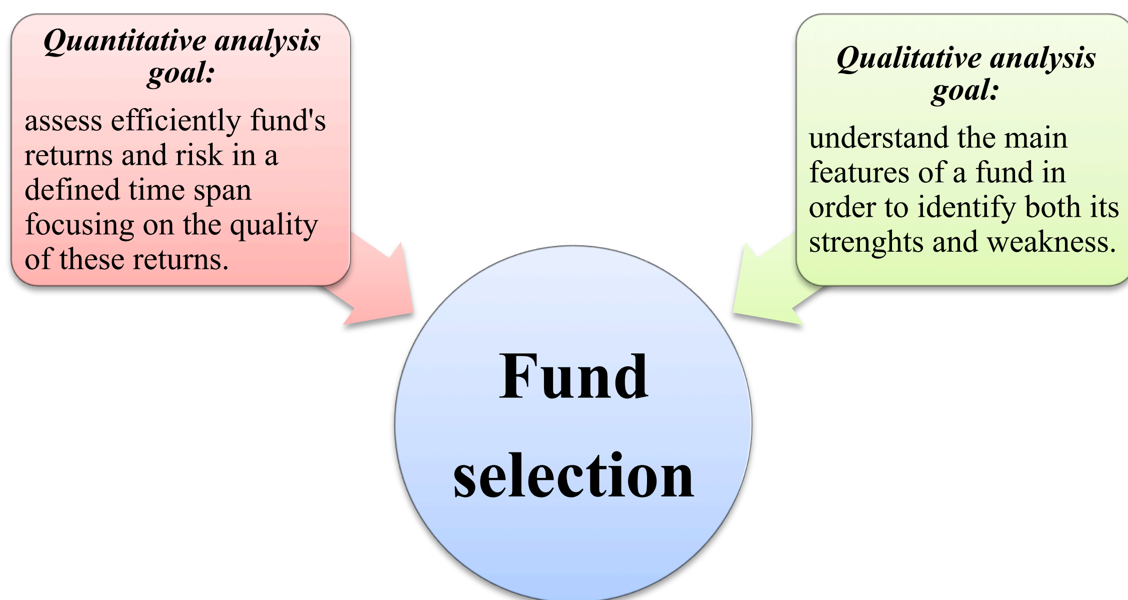
While most investors and analysts rely mostly on quantitative measure metrics, supplementing the analysis with qualitative analysis increases the insight into the company, or into the fund as in our case. Qualitative analysis is simply a securities analysis that employs subjective judgment based on non-quantifiable information.

The priority in selection is to be familiar and understand the main features of a fund in order to identify both its strengths and weaknesses.

- Understanding who are the people who generated the performances.
- Monitoring changes in the team and the organization structure.
- Evaluate stability of the feature of a fund over time.

The fund selector can conduct about 300 visits at the portfolio managers' premises In order to carry out the analysis. Indeed, when appraising a fund management company organization, it is essential to meet people who have actually managed the money.

Exhibit 2.13



As shown in Exhibit 2.13, the result of the two analyses, quantitative plus qualitative, leads to fund selection.

The key criteria in selecting the right fund can be summarized in these points.

- Comparing funds/managers performance over multiple periods (5-years, 3-years and even 1-year).
- Comparing the performances against the peer group and benchmark.
- Eliminating some of the noise from the data, use rolling measures to get a better perspective on the fund/manager's ability to provide consistent results in different market environments.

The fundamental part of the multi-manager process is the portfolio construction through the fund selection, which relies on the following objectives:

- Effectively diversify;
- Retain appropriate active risk;
- Monitor and rebalance to neutralize style risk;
- Continually ensure the best managers in managing the funds.

Once the funds are selected, they will then undergo constant monitoring in terms of risk data, correlation with the markets and style analysis. The managers monitor portfolio risk on a daily basis and verify the portfolios' coherence with the view expressed by the company's investment committee, which provide tactical asset allocation guidelines.

Multi-manager investing: one-way to beat an index

Multi-manager investing is a common practice among large institutional investors. As we have seen before, to pursue the investment objective in a multi-manager structure leads to have different exposure on multiple asset classes. In each asset class there are one or more managers, whom manage a portfolio against a benchmark specific to that asset class. In this contest, the key to success is to aggregate managers who are not benchmark-obsessed, those managers who provide low correlation with the governing benchmark, and therefore high tracking error. By blending such managers - individual managers who have relatively low correlation with each other and with the benchmark governing the aggregate portfolio - is possible to create a portfolio with acceptable levels of tracking error and furthermore avoiding the needs to place constraints on managers.

Multi-manager investing makes sense only when the underlying managers are willing to make bets away from the benchmark. These managers will display low correlation with the relevant index and higher tracking error. These types of managers are even called with the label *benchmark-unaware managers*.

Multi-manager investing is a species of active management at two different levels. The organization that is building the multi-manager portfolio is making active investment decisions in choosing managers and determining the allocations to those managers, and the manager universe within which the decisions are being made is a universe of active managers. In this contest, the skilled active manager does not merely provide the passive value portfolio, but he/she will attempt to outperform the passive portfolio by using his/her individual talent. The objective of the active manager is to capture *alpha*, but alpha is elusive because it is the aspect of the investment process that cannot be captured by a mechanical system of rules.

The multi-manager is the most suitable approach when there is expectation of a premium from active management. There are four main strategies:

- *Core/satellite***.** Hiring one core manager designed to generate modest incremental return with low TE, and then encircle the core manager with a team of satellite managers who are willing to make bets away from the benchmark.
- *Sector specialists*. Hiring a group of sector specialists where each manager attempts to add value through stock selection within its sector. For example, a EU equity portfolio may pool a technology specialist, a financial specialist, an industrial specialist, and so forth. The sector weights could be held close to those of the target benchmark, or could be allowed to deviate within predetermined ranges.
- *Style specialists*. This strategy is organized through a two-dimensional grid: large-, medium-, small-cap stocks versus growth, value and blended investment style. As in the sector specialists strategy, the weights of aggregate portfolio can be held close to those of the benchmark or can deviate within defined ranges.
- *Style specialists with sector bets*. The objective of this strategy is to hire style specialists who are willing to make large sector bets as a residual of their investment approach. A multi-manager portfolio could be constructed in which sector bets at the aggregate level could be held very close to those of the benchmark, but these bets must be monitored closely given both the state of the economy and of the market.

Multi-manager investing is a natural byproduct of the belief in active management.

Performance measurement and evaluation goals

As I have mentioned before, it is certain that past performance is no guarantee of future results, but in assessing the effectiveness of the investment managers performance, if carefully analyzed, it is one of the most powerful tools.

The ultimate goal of the performance measurement is to enable the decisions made. However, the performance analysis alone is not sufficient to make significant investment decisions. Performance analysis must be used along with other tools such as portfolio analysis, trading analysis and qualitative evaluation. The latter encompasses the evaluation of the organizational

structure, the intellectual resources of the investment management, the decision-making process, and last but not least the ethical standards and principles of the organizational structure.

Performance attribution

Performance attribution is a data intensive analysis and it is generally used with the purpose to describe the returns relative to a benchmark. One objective could be to separate returns generated by an investment manager and attribute the pieces to the various decisions made by the portfolio manager. Alternatively, performance attribution can separate the returns and attribute the pieces into various categories of risk the manager is taking.

This analysis requires full holdings data and fundamental, descriptive and performance data for individual securities. Moreover, if used appropriately, it is one of the most powerful tools to link quantitative data to qualitative views and notions. Indeed, if used among the decision tree, the performance attribution helps to answer questions of whether or not an investment philosophy works and whether the manager is adding value.

The first step comprises the separation of the returns according to the investment process exploited by the investment manager. For example, in the case of equity attribution, which is appropriate in evaluating sector-based strategies, sector-neutral strategies, and top-down/bottom-up processes, the attribution is executed by economic sectors. Similarly, in the case of attribution relative to benchmark, this compares the portfolio's sector allocations over some time period with those of the benchmark. The analyst measures returns generated by each sector within the benchmark. The manager is deemed to have added value by overweighting sectors that performed well. Then, the analyst compares the average performance of each of the sectors of the portfolio to those of the benchmark.

In analysing sector rotation strategy, depending on the manager's specific strategy, stock selection might be expected to be either consistently near to zero, if manager was neutralising his individual holdings; random, if the manager makes active selection decisions which are ineffective; and positive, if the manager specifically attempts to add value through stock selection within sectors.

Performance attribution in designing and monitoring a multi-managed portfolio is run by using numerous slices including sectors, countries, price/cash flows (P/CF), price/book (P/BV), quintiles of P/E, earning growth rates, market capitalization and many other features. The result of performance attribution will be random over time because of the greater diversification in investment techniques implemented in a multi-managed portfolio. In the analysis, the various slices are considered risk factors, which appears to be a persistent source of value added or detracted, it leads to questioning of the structure of the portfolio or the fit of the managers.

CONCLUSIONS

The dissertation proposed aims to provide an overview on the multi-manager approach in the whole context of the asset management industry. Starting with a global overview of the main products delivered by the asset management industry, we have pinpointed the advantages and the limits of single-managed products such as mutual funds, passing from passive to active management through the analysis of the hedge funds and the implications of the main strategies. Indeed by analysing the hedge funds and their branches of strategies that get to the point of the fund of funds, which instead of being a formally strategy, it is properly an investment vehicle that acts like an individual investment fund but with the main difference that rather than investing directly into stocks, bonds, and other instruments, it holds portfolios of investment funds.

The thesis of multi-managers approach is an extension of modern portfolio theory. The great innovation beyond these products is that there is a real philosophy on active management, where, believing in active management means to believe in the ability of talented individuals to use knowledge and skills to add value. The result is that the multi-manager approach emphasizes the

importance of people as opposed to organizations. Multi-manager investing is a natural byproduct of the belief in active management.

By deep analysing the multi-manager, we have seen what are the key drivers that explain the shift of investors, above all institutional investors, from a single product to open architecture. The key factors of innovation and success can be measured in terms of diversification. Indeed, compared to the asset class diversification of a common mutual fund, multi-manager extends to diversifying style risk by including both growth- and value-oriented equity management within a core portfolio, and manager risk by hiring sub-advisors with similar styles beyond the assumption that some will compensate for the fact that at least one is likely to underperform. The great advantage of the multi-manager fund is to combine uncorrelated specialists and investment styles to achieve a greater diversification. Investing in a multi-manager fund is an easy way to diversify investments over different asset managers.

Conversely, it is important to note that multi-managers products are more expensive in fees than a single manager funds as there are two tiers of fund managers to pay, the cumulative effect of the annual fees can be conspicuous over-time triggering the drag effect. This is perhaps the principal disadvantage in investing through multi-manager, especially in an environment where the clients are more fees conscious and therefore claim higher returns to the premium paid. However, looking at their structures, multi-manager is typically able to negotiate discounts by measuring the impact of fees through the analysis of the total expense ratio, and we can state that the higher fees are the cost of having all the benefits of a multi-manager fund.

Looking at the tactical asset allocation side, multi-manager approach can rapidly adjust the portfolio composition compared to a single mutual fund, in order to anticipate bull and bear trends of the market by combining managers within different geographic regions, asset classes, and style buckets as we have seen in the pooling structure of manager-of-managers funds. Through the tactical asset allocation, successful multi-managers funds can systematically identify market inefficiencies and anomalies, such as price momentum, earnings quality, and value versus growth stocks, which are perceived as opportunity factors and therefore try to add value in their portfolios. In this context, multi-manager portfolio construction can add value not only through tactical asset allocation across markets and asset classes, but especially within the markets and asset classes.

Making a comparison between the multi-manager approach and the hedge funds, we have seen how the former can provide a better understanding to investors of the trade-off between expected rate of returns and risk relative to the latter. Indeed, multi-manager universe offers investors products that best match their needs by first evaluating the client's risk and return profiles. Depending on the client's risk aversion, multi-manager approach tends to use concentrated portfolios that are combined with other concentrated portfolios in order to maintain an acceptable active risk. Differently from hedge funds, which are investment vehicles that offer large returns but at the same time involve great volatility exposure, multi-manager products offer portfolios with the capability to minimize the risk exposures by implementing "market neutral" or "style neutral" portfolios. That is another perceived benefit of the multi-manager over other investment vehicles.

In the early 2000s firms began to search for managers with high competence and skills to gain success in manufacturing fund management products. Indeed, in those years financial services industry focused on specialization and outsourcing, where the fund management of different segments of a portfolio is outsourced to different managers. The move towards specialization and outsourcing has been the main driver of the multi-manager market.

Nowadays, looking at the equity markets, globalization has strongly increased the correlation among equity markets. The result is that traditional risky assets are not able to produce big benefits of diversification. This combined with market demand and the search of higher returns, have boosted the implementation and the use of the multi-manager approach.