

A Study on Transformations Undertaken by Small Active Asset Managers in regard to the Development of Exchange-Traded Funds

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Declaration:

I, Pierre Ketterer, declare that this research is my original work and that it has never been presented to any institution or university for the award of Degree or Diploma. In addition, I have referenced correctly all literature and sources used in this work and this work is fully compliant with the Dublin Business School's academic honesty policy.

Signed: Pierre KETTERER

Date: 10/05/2018

A handwritten signature in black ink, appearing to be the initials 'PK' or a stylized 'P' and 'K' combined, enclosed within a faint, light-colored rectangular border.

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Abstract

This document studies the transformations undertaken by small active asset management companies in regard to the development of Exchange-Traded Funds and passive asset management. So far, very little academic research has been done on the links between these two trends. This study aims to start bridging this gap. Primary data are extracted from several semi-structured interviews of professional asset managers.

First, the researcher found that the development of passive management is not considered by small asset management companies as a threat for their activity. They however associate ETFs with a new systemic risk.

Second, the study investigates the strategic decisions taken by these small structures in regard to the development of passive management. Contrary to their biggest counterparts who penetrated this new market, small companies tend to ignore the passive management trend. Instead, they choose to focus their resources toward their competitive advantages: generating superior management performances and bringing non-quantifiable yet valuable services to investors.

So far, existing literature has widely ignored the existence of non-quantifiable service to investor and solely focused on performances.

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1. Introduction

1.1– Broad introduction to financial markets from an individual investor perspective

Imagine M. Kelly.

M. Kelly is a worker who managed to save a significant amount of money. He now wants to generate financial return from his savings, and start study the various investment opportunities that are opened to him. Amongst many other possibilities, he sees investment on financial markets as a good opportunity for him to diversify his assets while generating a financial return.

M. Kelly now faces a new problem: he does not have neither the time nor the knowledge to build and efficiently manage his own stocks portfolio. In order to solve this problem, he could invest in a mutual fund. Such fund, run by professional fund managers backed by a team of financial analysts, offer investors the opportunity to access an actively managed and risk-diversified portfolio that will aim to generate alpha.

If M. Kelly initial plan was to invest in European stocks, then he could invest on a mutual fund that aims to generate an annual return superior to the one offered by the Eurostoxx 50, the reference index for European stocks.

Investing on a mutual fund often costs an annual management fee, to which is added an outperformance fee if managers are successful at beating their benchmark (hence increasing the return earned by investors in the fund).

This classic scheme to invest on financial markets is what drove the growth of mutual funds' assets under management (AUM) over the last century. People were seeing value in trusting asset managers with their money. However, studies show that even though actively managed funds generate, in average, a slightly greater gross performance than their benchmark, this performance often becomes inferior to the benchmark once fees are taken into consideration (Jensen, 1968 or Jones and Wermers, 2011). Researchers also realized that fund management often is not tax sensitive, which reduces even further the net return for investors (Dickson and Shover, 1995). Active asset management as a whole failed to deliver its promise of regular outperformance.

As a response, passive Asset Management (AM) has been created. Passive AM aims to closely replicate the performance of an index for minimum fees. Two types of products are prominent in this investment strategy: Traditional Index Funds (TIF) and Exchange-Traded Funds (ETF). The following research focuses on ETF.

1.2– The emergence of passive investing

Put briefly, an Exchange-Traded Fund is a basket of stocks that is freely traded during the day, as can be a regular stock.

The first experiment of a freely tradable basket of securities backed by a collateral was initiated by institutional investors from Los Angeles in 1989, but did not meet commercial success. They failed to make their *Index Participation Share* accessible to the public because the product got qualified as a type of future by a court ruling.

A second attempt to create a freely tradable basket of stocks was made in Canada by the Toronto Stock Exchange during the same year. Their product replicated the TSE 35 (Toronto's reference index) and quickly met commercial success amongst investors.

Such success was replicated in 1993 in Wall Street when the company State Street launched the Standard & Poor's Depository Receipts (SPDR) (Davidson, 2012). This ETF replicates the S&P 500, the largest national index in the world. The SPDR quickly became the largest ETF in the world, now capitalising about USD\$276 billion (Bloomberg, 2018). This ETF is far from being the only one issued. Over the years, more than 5000 ETF have been launched on international markets. There are now more ETF available than US stocks (Bloomberg, 2017)

In October 2017, total AUM on Exchange-Traded Products (ETP) topped \$4.5 trillion, to be compared with a \$3.5 trillion total AUM by the end of December 2016.

ETP is a term that includes more type of assets than ETF. While ETF are limited to equity, ETP also includes Exchange-traded debt products, derivatives or commodities. However, no or little distinction is, in practice, made between these two terms. ETF became the generic term for exchange-traded products of any type. The term ETF will be used through this study to qualify any type of ETP.

This exponential growth is expressed on the table below that shows the Global ETP's Assets from 2000 to October 2017 (Blackrock, 2017):

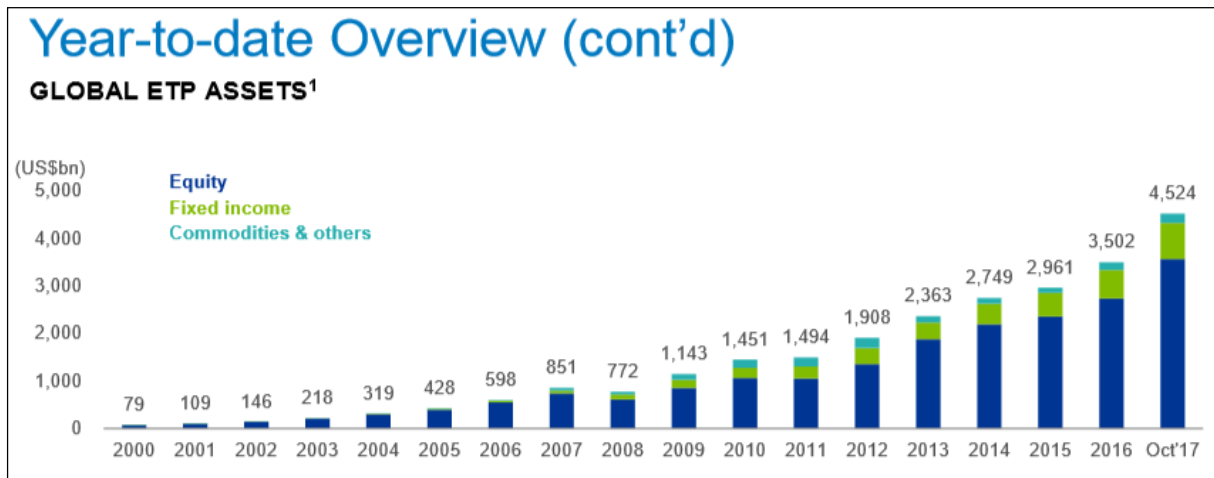


Figure 1: Global Assets on ETP

In term of geographic distribution, the USA is still the first market for ETF and ETP. Out of \$4.5 trillion of AUM by Oct. 2017, \$3523 billion (77.8%) were invested in US based ETF, while European held \$749 billion (16.5%) and Asia-Pacific accounted for \$402 billion (8.8%). The remaining assets were held between Canada, Latin America, Africa and the Middle East. (Blackrock, 2017)

Compared to the overall asset management industry, assets invested on ETF are still relatively modest. Pisani (2017) estimates that AUM on US-based ETF represent about 8% of US total AUM. A consultant study states that 6% of world AUM were invested in ETF in 2016. (PWC, 2017)

However, the growth rate reached by ETF is astonishing. The following graphic compares the growth rate of AUM on ETF and the growth rate of AUM on mutual funds from 2001 to 2014 (Pylypczak-Waylyszyn, 2015):

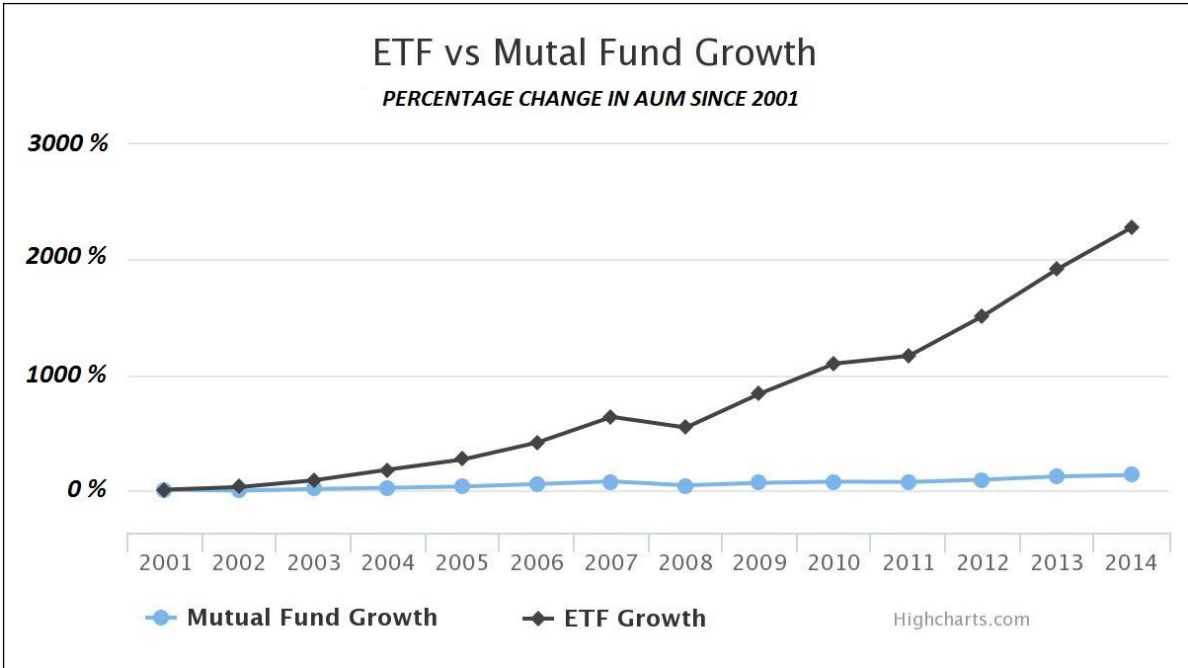


Figure 2: ETF vs Mutual fund growth in AUM 2001-2014

This exponential growth has for consequence to divert flows of assets from traditional mutual funds to passive investment products. A study issued by Bloomberg Surveillance for 2017 highlights inflows per fund types While ETF totalized inflows of \$467 billion over the year and index funds added \$255 billion, Hedge Funds only added a couple of billion dollars of AUM and traditional mutual funds saw a withdraw of about \$80 billion. (Bloomberg, 2017).

PWC’s study further estimates that 25% of asset will be passively managed in 2025. While ETF were first designed to replicate an index, increasingly complex strategy are becoming accessible through these products. For instance, investors can now access Smart Beta, actively managed portfolio, exposure to volatility or reverse leverage on commodities through ETFs products. (PWC, 2017).

1.3- How are active asset management companies reacting to this trend

Market opportunities offered by this new growing market segment obviously catch the attention of investment solution providers. Even though we opposed so far active and passive asset management, it is important to realize that most ETF providers also are active management solution providers. Even though the difference of these two trends in term of investment philosophies are clear, they often are offered by the same diversified asset management companies.

This study will pay a particular attention to the reaction of smallest active asset managers to the development of passive management. This focus on small companies is motivated by the fact that the reaction of the biggest asset management companies is simple to apprehend.

The table below lists the 20 biggest asset management companies in terms of AUM over the world. It also states if the company owns an ETF-provider division, and the name of such division. Green cells indicate that no proper ETF business has been started by the company. The table has been made by the researcher, using Relbanks (2018) data base and adding information from companies' websites and ETFdb (2018) data:

Rank	Company	AUM (US\$b)	ETF provider
1	BlackRock	6288	iShares
2	Vanguard Group	4900	Vanguard
3	UBS Group (1)	3101	UBS
4	State Street Global Advisors (SSGA)	2800	State street
5	Fidelity Investments	2448	Fidelity ETF
6	Allianz Group	2268	Alternative fee structure
7	J.P. Morgan Asset Management (JPMAM)	1900	JPAM ETF
8	BNY Mellon	1800	BNY Mellon ETF
9	PIMCO	1690	Pimco ETF
10	Amundi	1652	Amundi ETF
11	Capital Group	1600	Non-transparent ETFs
12	AXA Group	1405	AXA IM ETF
13	Credit Suisse	1387	Credit Suisse ETF
14	Prudential Financial	1366	Prudential PGIM ETF
15	Morgan Stanley	1300	MS ETFs
16	Legal & General Invest. Management (LGIM)	1282	LGIM ETF
17	BNP Paribas (4)	1230	BNPP AM ETF
18	Goldman Sachs	1128	GSAM ETF
19	Northern Trust	1100	Northern Trust ETF
20	Wellington Management Company	1021	Virtues

Figure 3: 20 biggest AM companies by AUM and their ETFs businesses

Out of the 20 biggest AM companies in the world, only 2 did not start a proper ETFs division. However, Capital Group started a partnership with Blackrock to evaluate opportunities in offering non-transparent, actively managed ETFs (Condon and Weiss, 2014), and Allianz changed the fee structure of some of its mutual funds to better compete against ETFs (Ricketts, 2018).

Typical reaction from big AM companies can be considered homogeneous: they integrate this trend and launched their own ETF division to become part of the market.

While the reaction of biggest asset management companies is homogenous, reactions from smaller asset management companies are much harder to determine.

First of all, a definition of a "smaller company" needs to be given. There is no commonly accepted definition of small, especially since this notion must be relativized within the industry's standards where the biggest company manages about \$6.3 trillion and the 20th biggest still has about one trillion dollars under management. To maintain a large enough scope, the researcher will consider as being "small" an asset management company managing less than \$10bn.

From this point, it became possible to research a sample of small active asset managers, to try to determine a typical reaction. Even though no proper research methodology had been implemented to conduct this research, none of the few small asset management companies studied seem to have done a single move toward setting up an ETF business.

1.4 – Research Question

These observations allowed the researcher to develop his research question.

As described by Saunders et al. (2009), a research question is a “key question the research process will address”. In this specific study, the researcher did not feel the need to breakdown these question into sub-research questions, because all the research objectives derived from this main question fit its scope. The study’s research question is as follow:

How are small active asset managers adapting to the development of passive asset management?

1.5 – Rationale of the Research Question

This study will have a different purpose according to the profile of the reader. Three different type of reader will find a different interest in this research.

Academics and economic science researchers reading this study will mostly be interested in its potential to start bridging the current knowledge gap between the literature focusing on active asset management and the literature focused on passive asset management. So far, only little academic research has been written on this relationship. However, it does not mean this link is of little interests, as professionals have seized the topic and wrote a lot research reports on it. Academics will also find an interest in the analysis of interviews of active asset managers, as these interviews allow the confrontation of theoretical ideas from the academic world with grounded opinions from experienced professionals.

Professionals of the asset management industry reading this study will be happy to find a study that emphasizes arising challenges, risks and opportunities created by the growth of passive management and by the development of ETFs. This study will also be of interest for them as it will help them to increase their awareness of reactions followed by small actors of the industry.

Finally, financial markets students and curious readers will see in this study an opportunity to better apprehend a new trend of the industry. They will particularly be interested in the linkage between theories and real-world practices. They will also be happy to learn more about small active asset managers, as few academic researches or newspaper articles are devoted to them.

As an MBA- Finance stream student, also holder of a Master degree in Financial Market and CFA I candidate who wants to career in the asset management industry, the researcher himself finds a great interest in pursuing this study. For him, this is a great opportunity to expand his knowledge of financial theories and discussions. In addition, contacts made during the interview process might eventually prove valuable in the future. Finally, by having a deep and critic understanding of such an important issue, the researcher aims to acquire a niche knowledge that can be valuable for a company. The all process of researching and redacting a dissertation also is by itself a proof of work rigor and research skills, which too is valuable for a company.

1.6 – Research Objectives

Answering the research question will be done through the completion of these four research objectives. Put differently, a reader can expect from this study to:

- Identify how small active asset managers apprehend the theoretical framework of financial markets, which tends to defend a passive approach
- Assess the extent of which small active asset managers feel endangered by the development of passive management
- Understand the point of view of small active asset managers on the strategies followed by both big and small active AM companies toward the development of ETFs.
- Discern the extent of which clients of smallest structures actually are interested in opportunities offered by passively managed investment solutions.

1.7 – Structure of the Research

The following study will be divided into seven sections.

Section I is this introduction.

Section II will critically evaluate literatures on financial markets, with a specific focus on active and passive management. A lean literature bridging these two trends is also discussed there.

Section III details the Research Methodology followed by the researcher. This study follows an interpretivism philosophy. It is an inductive, case-study research following a mono-method of qualitative data collection through in-depths semi-structured interviews to create a view of the topic over a cross-sectional time-horizon.

Section IV deals with the data analysis and the presentation of findings, organised following thirteen topics that have been discussed during interviews.

Section V discusses the data previously presented and links them with academic literature in order to extract meaning. Research objectives are fulfilled in this section.

Section VI concludes the study, gives recommendations according to the different profiles of the reader, discusses the limitations of this study and suggests ideas for further researches.

Section VII is the researcher's personal reflection on learnings that occurred through the overall MBA course.

2. Literature Review

2.1 Introduction to the Literature Review

After setting a general theoretical framework for financial markets, the following literature will review existing fundamental literature about active asset management and its limitations. A review of the literature about passive asset management will then be done. The aim of these five first sections is to give the reader a clear understanding of the state of the knowledge so far.

From this point, a focus will be made on literature focusing on competitive advantages of passive over active asset management, before finally moving to the lean literature that tries to bridge these two field of academic research in asset management.

2.2 Theme one – A theoretical framework for financial markets. Are they efficient?

Before focusing on the specificities of financial markets, the following broad definition of a Market given by the Business Dictionary (ND) constitutes a good starting point for this literature review. This definition states that a market is "A [...] place where forces of demand and supply operate, and where buyers and sellers interact (directly or through intermediaries) to trade goods, services, or contracts or instruments, for money or barter."

The definition later adds that "Markets include mechanisms or means for (1) determining price of the traded item, (2) communicating the price information, (3) facilitating deals and transactions, and (4) effecting distribution."

Consistent with this definition, a financial market is a specific form of market in which supply and demand of capital meet through the trading of securities (bonds, stocks, currencies, commodities, financial contracts...). Formation of prices is the result of this process.

Academician focused on studying the predictability of changes in security prices, with the underlying motivation of understanding if abnormal returns can be generated. Price changes are the result of changes in supply and demand, themselves influenced by the issuance of new information. The main academic question is thus about the efficiency of market to reflect all the information into price changes.

In essence, it exists two opposing views about this topic that can be simplified as follow: either financial markets are efficient in fully reflecting all available information, which make them unpredictable, or they are not, in which case informed investors can develop methods to

achieve abnormal returns. The view one accepts as correct will determine the choice one will follow toward either active or passive asset management.

This academic discussion finds its root in the late of the XIX century with Charles Dow (1851-1902). In addition of founding Dow Jones & Company, inventing the Dow Jones Industrial Average and founding *The Wall Street Journal*, Charles Dow redacted a series of 252 newspaper articles that constituted the basis of chart analysis (Nelson, 1903). Put simply, Dow stated that historical stock prices form identifiable patterns that can be used by investors to predict future changes in prices. Nelson (1903) summarized these articles that altogether got known as the Dow Theory in the first book related to technical analysis ever written. However, Dow's principles were best circulated thanks to the book written by his friend Hamilton (1922).

The field of fundamental analysis emerged around the same date. Horrigan (1968) conducted an extensive study about the origins of financial analysis and the use of ratios, focused on the USA. Ratio firstly appeared at the end of the XIX century, not long after the creation of financial statements. The issuance of financial statements generalized around 1910, allowing a significant growth in the quantity of financial information available to investors. Wall (1919) published the first financial analysis of several economics sectors, and such methodology was later made widely popular amongst investors by Foulke (1931), who published series of ratios for various industries.

However, a major milestone in fundamental analysis is attributed to the work of Graham and Dodd (1934). These non-academician investors and finance lecturers founded the basis of what was going to be known as value investing. The underlying idea behind value investing is that it sometimes appear differences between the fundamental value of a company and its market value. When a significant difference between these two values has been identified, called a "margin of safety", then it is time for the value investor to purchase the security.

Both technical and fundamental analysis are designed to help the investor make better informed decisions and try to predict the direction a security price should move toward. As such, both techniques assume that financial markets do not perfectly reflect all available information in stock prices. These views have been widely criticized by academicians.

The 1929 financial crisis opened a path of critic toward those defending that the market is predictable in some extent.

Cowles (1933) became a virulent critic against the ability of financial analysts to predict the direction followed by a stock or a market. He notably compared the performance generated

by following recommendations from professional stock analysts with randomly generated recommendations, and found out that the professionals were, in average, less able to predict future stock prices than randomly made recommendations. He also pointed out limitations of results on the 255 investment recommendations made following the Dow Theory by Hamilton in the Wall Street Journal over a period of 26 years (1902-1929).

The unpredictable, or randomness, aspect of financial markets has actually been documented before Cowles (1933) by Bachelier (1900). His study of stock returns establishes that they follow probabilistic laws, but this study has been forgotten for more than 60 years until Samuelson (1965) rediscovered it.

Both Samuelson (1965) and Fama (1965) independently developed the same notion of market efficiency. The Efficient Market Hypothesis (EMH) claims that financial markets perfectly reflect all the information available. There is no opportunity for arbitrage, and prices are unforeseeable. Speculation in such framework is thus a fair game, which means that its gross expected average return is null, and becoming negative after taking into account the trading costs. Using Delcey (2017) phrasing, "both Fama and Samuelson explain the random character of prices as the consequence of rational markets."

While they reached really similar conclusions, Fama (1965) used a Random-walk model, derived from the work of Bachelier (1900), while Samuelson (1965) suggested a Martingale model that was going to be more widely accepted by academicians, even by Fama (1970).

Fama (1970) further detailed the EMH. He stated three conditions that, if not respected, can be serious sources of market inefficiencies:

- The market structure should charge no transaction costs in trading securities, or at least the costs of trading should not deter participation.
- All market participants, or at least a "sufficient number of investors" must have a costless access to information
- All market participants must agree on implications of new information on the current price of a security. Disagreements between market participants do not implies market inefficiencies, unless some investors manage to consistently make better evaluation of these implications than others.

In addition to these conditions, Fama stated three classes of Market Efficiency, in order to temper the extent to which market reflect information.

The weak form efficiency is the random walk theory, as developed by Bachelier (1900). It states that all available past and present information is reflected on prices, and consequently past prices have no influence on future returns.

The semi-strong form incorporates the hypothesis of the weak form. In addition, it states that prices quickly reflect new available public information. Consequently, the use of fundamental or technical analysis to generate abnormal return is unnecessary and inefficient. Under this class of efficiency, only insider-trading (trading on non-public material information) can allow investors to generate superior returns.

The strong form of EMH incorporates both weak and semi-strong EMH assumptions, but adds that privately held information is also reflected in securities prices. Consequently, even insider traders cannot attain an abnormal return from the superior information they have access to.

Through his study, Fama tested these three hypothesis. He found sufficient supportive statistical evidence to hold the weak and semi-strong forms true, but also found two evidences of empirical deviation of the reality against the theory stated by the strong form.

From its inception, the EMH has been used by governments and international institutions as a theoretical framework to promote deregulation and liberal measures. Regulators heavily relied on the ability of financial markets to self-regulate as long as market participants have appropriate access to information. From this assumption, governments promoted transparency and information disclosure from private institutions while loosening their regulatory constraints (capital requirements, leverage limits...) (Ball, 2009).

However, the EMH started facing criticisms from the 1980s. Kahneman and Tversky (1979) introduced the prospect theory. By testing individual choices in situations involving uncertainty, the two psychologist showed that Humans do not always behave in a way that maximises their expected utility. Expressed in other terms, individuals do not always behave rationally when facing risk.

This experiment was a serious backlash against the fundamental assumption of market participants' rationality of the EMH. Later empirical observation of "substantial noise" (Shiller 2003) questioned further the relevance of the EMH in the real world (see Shiller (1982), West (1986) or Campbell and Shiller (1988)).

All these studies served as a basis for the work of De Bondt and Thaler (1985). They published a study on stock market overreactions that contradicts with the EMH. This study became the starting point of the field of behavioural finance. Many publications enriched this new field of economic during the 1990s and 2000s (see Sewell (2007) for an extensive literature review of this specific field until 2007) but behavioural finance really took ground after the 2008 Global Financial Crisis.

Behavioural finance is the result of the combination of economic with other social sciences, particularly with psychology. It states that even though markets are effective in setting prices, they can sometimes be inefficient because they are run by humans, who are subjects to flaws and behavioural biases.

For the Behavioural finance theorist, instead of sometimes being irrational, humans actually are predictably irrational, keen to make quick decisions based on emotions, and make bad choices (Montier, 2010). Active asset manager can exploit these behavioural flaws to generate abnormal returns. Such biases can be, amongst others, the anchoring bias (a tendency of investors to buy or sell at specific price level), the conservatism principle (Basu, 1997) that makes "bad news" being reflected on prices quicker than good news, or the Herd Behaviour, the tendency of individuals to copy a larger group, even though such group would go against their analysis.

In addition to these two famous EMH and behavioural finance hypothesis, many other theories try to explain the way financial market behave. However, while all these theories provide solid empirical justifications, none perfectly explain the behaviour of markets, nourishing the debate between the foundations of passive and active asset management.

2.3 Theme two – Active Asset Management, basics concepts

2.3.1 Sources of portfolio performance

A mutual fund aims to generate a return higher than the one provided by its benchmark.

Jensen (1968) developed Jensen's Alpha and gave a breakdown of a fund performance that goes as follow:

$$R_i = R_f + \beta_i(R_m - R_f) + \alpha_J$$

R stands for Return, i stands for portfolio, f stands for risk free and m stands for market.

Quantitative finance researchers studied this outperformance called Alpha. The Alpha completes the Beta, the propensity of an asset to replicate its benchmark.

Literally, this formula explains that the return of a portfolio is made of three components: the risk free rate (often the return rate offered by a short term Treasury bill), the market return rate multiplied by the portfolio's responsiveness to the market (the Beta), and the outperformance generated by the fund management (the Alpha).

Fama and French (1993) extended this model and incorporated two additional factors: SMB and HML. SMB measures the historical excess of return provided by stocks with small capitalizations over stocks with large market capitalizations (Small Minus Big), while HML measures the excessive return of Value stocks over Growth stocks (High Minus Low).

Carhart (1997) based his work on this model and developed the Carhart's four factor model to explain a portfolio return. This model further adds a momentum factor, which is the consideration that best performing stocks tend to outperform their benchmark over a short period of time. This factor is called UMD (Up Minus Down). The new model goes as follow:

$$R_i = R_f + \beta_{mkt}(R_{mkt} - R_f) + \beta_{SMB}SMB_i + \beta_{HML}HML_i + \beta_{UMD}UMD_i + \alpha_J$$

These three models have become the fundamental theoretical framework to explain portfolios' performances, especially since they have been backed by solid empirical evidences (Carhart, 1997). These models are now used to estimate expected future rates of return (Griffin, 2002) in the field of corporate finance.

In regard to our topic, these three models bring that performance of a portfolio finds its source in both the market return, through various factors, and on the alpha brought by the fund manager.

Fuller (1988) found three leverages for alpha generation: Superior information, Better information processes and the exploitation of the behavioural biases discovered by the field of behavioural finance, previously evocated (Montier, 2010)

The purpose of active AM is to maximize this outperformance over a benchmark, especially through alpha maximization, for a given level of risk. In other words, fund managers try to maximize the Sharpe ratio they offer to investors (Sharpe, 1966).

The Sharpe ratio (S) is calculated as follow:

$$S = \frac{R_i - R_f}{\sigma}$$

Where R_i is the return of an asset (or portfolio), R_f the risk free rate and σ the risk level of this asset (or portfolio).

2.3.2 Diversification to reduce risk

Goetzmann and Kumar (2001) conducted a study over the 1991-1996 time period on 40,000 Americans individual investors. They analysed the level of diversification of their portfolios to study the implication of diversification on their risk and return profile. Risk of an asset is measured by its level of volatility, which results from the variance of its quote price. The higher the variance, the higher the risk of the portfolio. These two researchers found the following relationship:

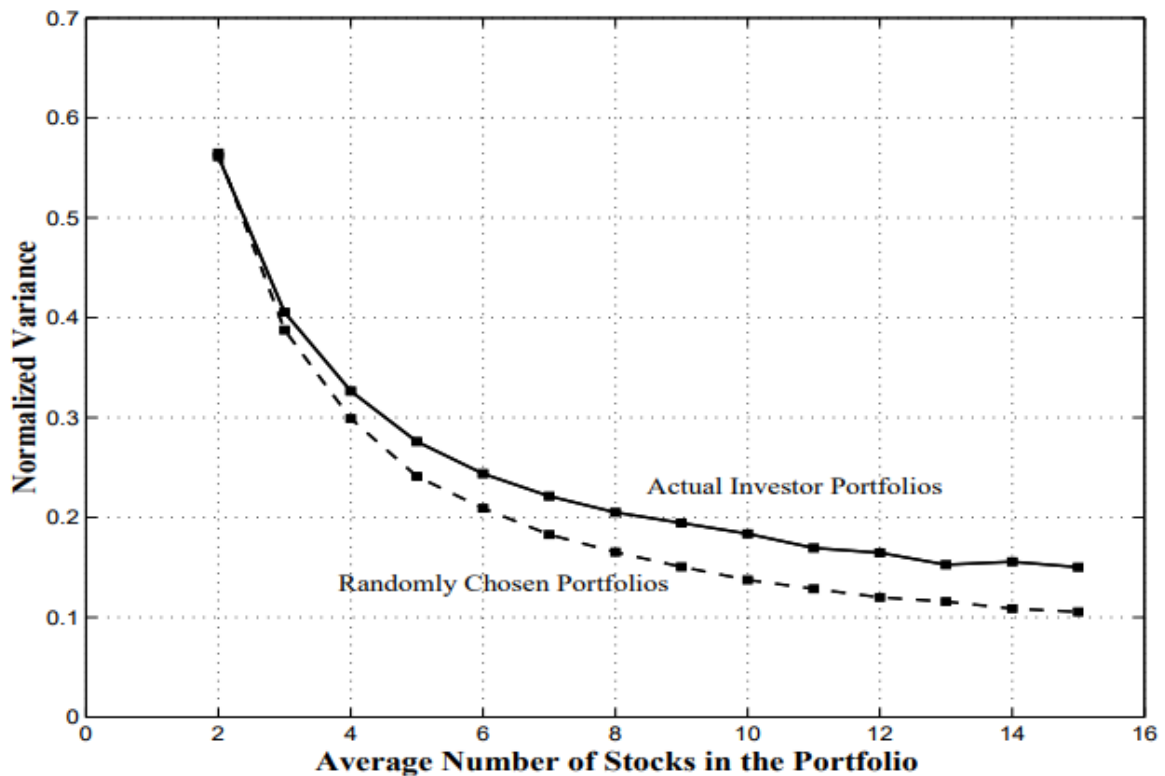


Figure 4: Variance of Investor Portfolios Relative to a Set of Randomly Chosen Portfolios (Goetzmann and Kumar, 2001)

The more stocks are held on a portfolio, the lower the risk of this portfolio. Diversification also allows the investor to increase his return for a given level of risk, or said differently, to increase the portfolio's sharp ratio, as shown on the following table:

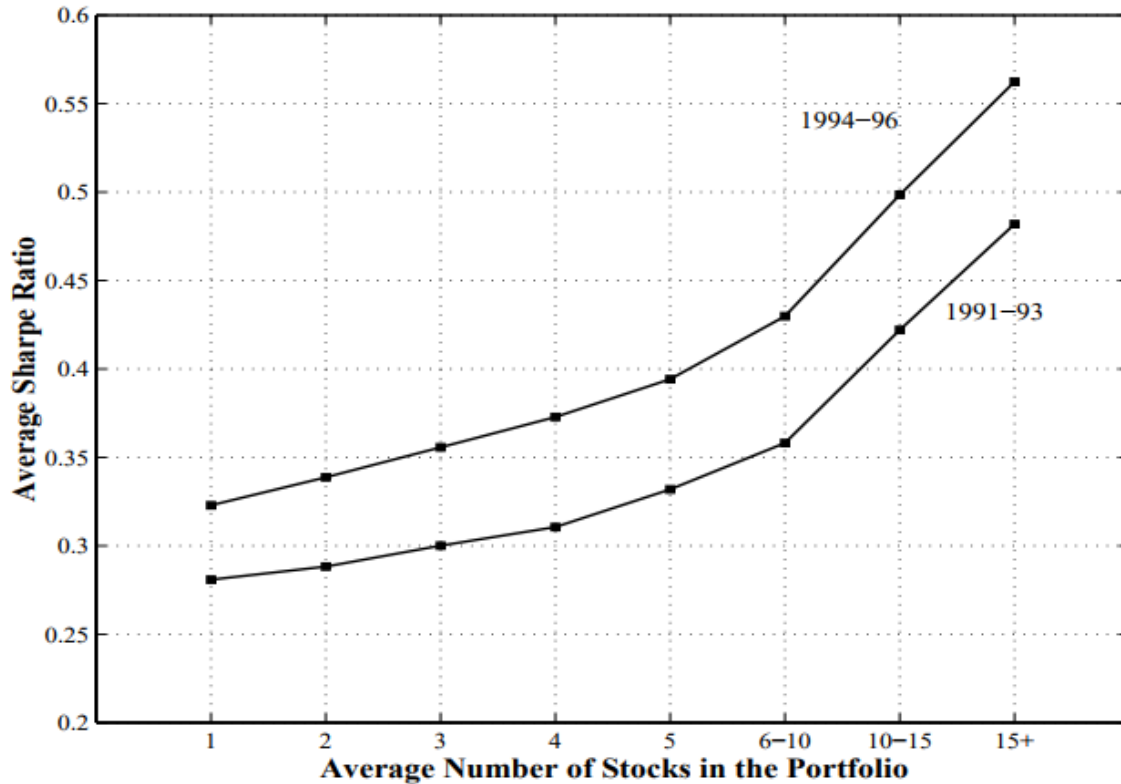


Figure 5: Diversification and Portfolio Performance

(Goetzmann and Kumar, 2001)

A diversified portfolio allows greater return for a similar level of risk. Unfortunately, individual investors do not diversify their portfolios enough. Several reasons are suggested to explain this lack of diversification: they may lack of understanding of the advantage of diversification, have portfolios of insufficient size to acquire enough stocks, use their trading accounts as “gambling accounts” or have a really low level of risk aversion. (Goetzmann and Kumar, 2001 and Kelly, 1995)

The foundation of Modern Portfolio Theory has been theorised by Markowitz (1952) who give general directions for investors willing to efficiently build their portfolios by taking into consideration the expected return and variance of each of the assets they can access.

A rational investor will optimize her portfolio by weighting each security in a way that positions it on the efficient frontier:

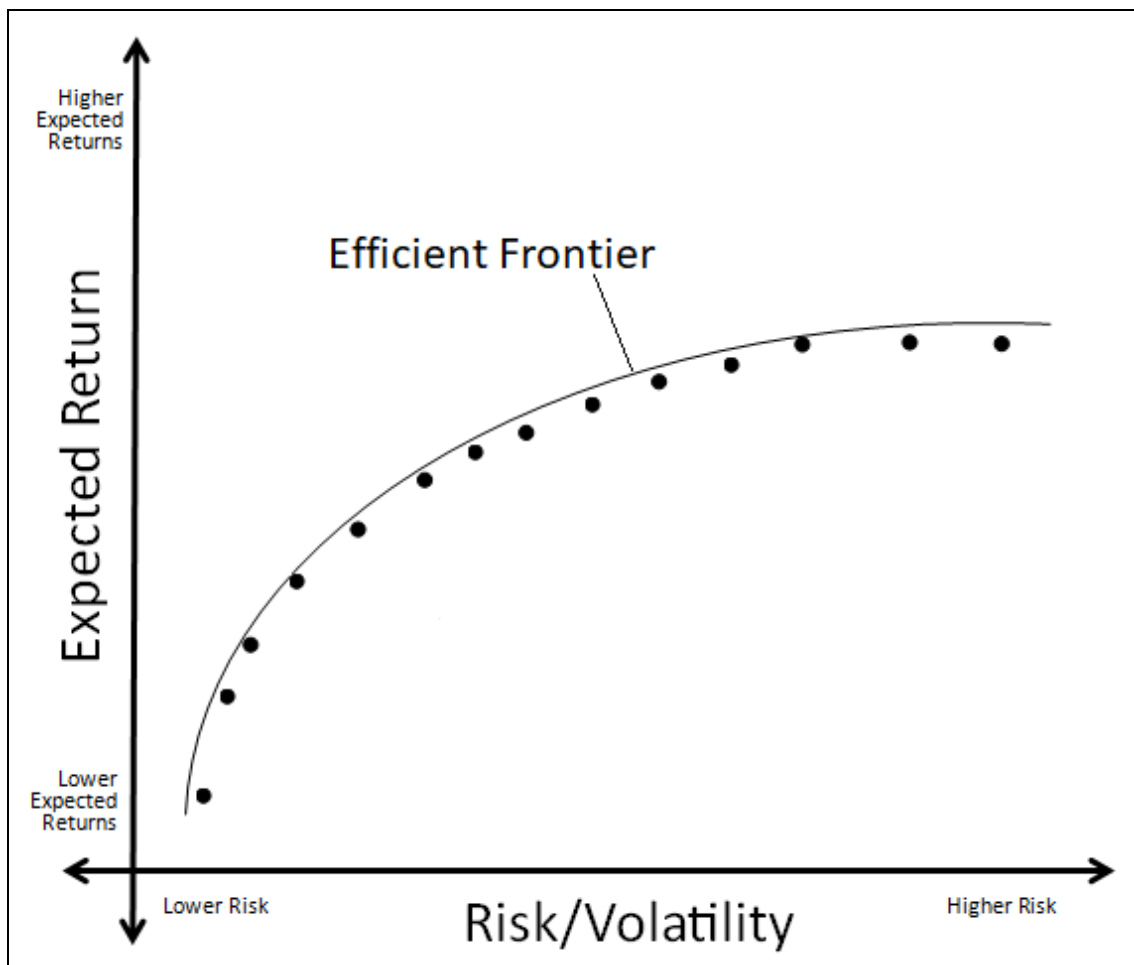


Figure 6: Efficient Portfolios

Based on Markowitz (1952)

Each black dot roughly represents a portfolio close to the efficient frontier. The Efficient Frontier is the maximum level of expected return one can attain for a given level of Risk, or also the minimum level of risk one can attain for a given level of expected return. For each level point, the Efficient Frontier represents the maximum Sharpe ratio an investor can aim for.

By offering individual investors access to a diversified portfolio, mutual funds can yield them greater return than if investors were investing on their own. The common mutual fund standard UCITS states the 5/10/40 rule, which determines maximum level of exposures per issuer. Investing in an UCITS-compliant mutual funds guarantees a minimum level of diversification, and consequently grand access to the benefits linked to it. (Dillon Eustace, 2008)

While the theory of portfolio management says that an investor should seek an efficient portfolio, Martellini (2012) studies the construction of benchmarks and indexes, and remarks that the traditional cap-weighted method does not result in efficient portfolios. Consequently, there is a potential for money manager to outperform their benchmarks by creating more-efficient portfolios.

In addition Jensen (1969) states as a conclusion of a study of 141 portfolios managed by US mutual funds that "Portfolios on the average are very well diversified (with an average r_i of .923)."

2.4 Theme three – Limitations of active AM

Many studies found that, despite having inefficient benchmarks according to Markowitz's (1952) definition, the average actively managed mutual fund does not succeed in constantly over-performing it over a period of several years.

Jensen (1968) brings that mutual funds, on average, are not able to outperform a simple buy-and-hold strategy. Over his study of 141 mutual funds, he concluded that "mutual funds on the average are unable to forecast future security prices". This study complements Sharpe's (1966) sampling 34 US mutual funds between 1954 and 1966. This study made him conclude that most of these funds (25/34) have a Sharpe ratio inferior to the one offered by their benchmark.

Jones and Wermers (2011) provide a literature review on the theme "Does active asset management add value?" They argue that because asset management is a zero sum game, it makes sense that the aggregated return of actively managed funds equals the market return minus trading fees. This is a strong limitation to active asset management if it cannot, as a whole, outperform the market. However, this zero-sum game brings winners, that these authors call Superior Active Managers (SAMs), and losers (Inferior Active Managers, IAMs). The real challenge for individual investors in active AM is consequently to be able to identify these SAMs in order to obtain persistent alpha generation.

Literature becomes contradictory on whether an investor can identify a SAM or not. Barras et al. (2006) argue that it is not possible for an investor to distinguish skilled from lucky fund managers, especially since a lack of persistence on return does not necessarily means a lack of skill from the manager. This remarks comes after observations that a manager can be constrained by independent factors to temporarily pursue new and diverging goals than maximising the return of a portfolio (e.g.: keeping cash to face fund redemptions).

Carhart (1997) finds various market-based explanations rather than superior stock-picking and skills to explain persistent returns, and says that over his sample, "the only significant persistence not explained is concentrated in strong underperformance by the worst-return mutual funds". Carhart could not identify skilled managers, but managed to identify one that was particularly lacking in skills.

On the other hand, Fund, Hsieh, Naik and Ramadorai (2008) managed to identify persistent alpha-producing hedge fund managers. This finding supports Bollen and Busse (2005)'s findings on the persistence of short term returns, and also corroborates Grinblatt and Titman (1992) study on performance persistence over the long-run. This last study is particularly interesting as benchmarks used to measure outperformance are constructed by the researchers in order to eliminate common biases in benchmark construction (such as construction favouring securities with high market capitalisation or high-dividend yields), and supposedly creates a more efficient benchmark than the commonly cap-weighted index. However, a strong limitation of these three studies is that only gross returns are taken into consideration, without adjusting them from risk.

Barras et al. (2006) suggested a statistical adjustment to better screen the mutual fund universe and better discriminate lucky and skilled managers. They statistically demonstrate that skilled fund managers can attain superior yields, even when corrected from a luck factor. Their findings state that 76.6% of the studied funds generated a zero alpha (once corrected from luck), 21.3% yield a negative performance and only 2.1% manage to deliver a positive alphas thanks to skills. This study was conducted on net yield.

Such measurement got confirmed by an independent study from Kosowski et al. (2006), who realised a similar study over the 1975 to 2002 period. They add that winning strategies cannot be statistically proved, as samples are necessary too small to be statistically relevant. Also, any winning strategies, which can be identified as a market inefficiency, will quickly be incorporated in competitors' strategies when it becomes public, and consequently being corrected. These researchers estimated that, in average, "true active management skills" of their sample created about \$1.2 billion of wealth for investor per year. In contrast, "truly underperforming" managers of the same sample destroyed about \$1.5 billion of wealth per year. Obviously, neutral-alpha one do not create nor destroy wealth for investors.

In addition, Dickson and Shoven (1995) study a panel of funds and various strategies, and conclude that most of the time, active asset managers fail to manage their capital gains in ways to optimize the taxation imposed on investors, yet without giving a magnitude of the asset loss in the process.

Many variables have been studied to identify SAMs, but no clear method to identify them as been identified. The only certainty is that finding an asset manager persistent in alpha-generation is not an easy task.

2.5 Theme four – Passive Asset Management

2.5.1 Efficient Market Hypothesis, the basis of passive investment

Considering all the difficulties brought by active asset management for an *in fine* after fees return that does not, in average, outperform the market, some investors are turning their back to this type of investment and invest on passive asset management products. If it is impossible to do better than the mean over a long period of time, a wise investor with a long-term perspective should invest on the benchmark to maximize his return.

Obviously, the Efficient Market Hypothesis (Fama, 1970) discussed earlier constitutes the theoretical framework that permitted the development of passive AM. But a theoretical support alone is not sufficient to create the emergence of a new asset class.

In finance, the correlation coefficient of a security or a portfolio in comparison to the market as a whole is called the Beta. This coefficient was first developed by Sharpe (1966) when he developed the Capital-Asset Pricing Model. This model is widely used in corporate finance and in financial analysis to determine securities' prices.

The purpose of a passive management product is to reach a beta of 1 with its benchmark, which would mean that an exact 1% variation in the benchmark's price creates an exact variation of 1% of the passive product's price.

Another measurement of this tracking ability is the tracking error. Tracking error measures the observed difference in price behaviour between the portfolio and its benchmark. This measure is more used by professional than beta, as it is more precise, but is simply a different way of presenting the same data.

2.5.2 Evolution of Passive Investing

Passive Asset Management is born in 1975, with the creation by the Vanguard Group of the first Index Mutual Fund (IMF) (the Vanguard 500 Index Fund).

Bogle (2015) gives a review of the history of index funds, which is closely linked to his own career as a founding partner of Vanguard. He also details the rationale behind passive investing: by reducing to a minimum the turnover of assets and the cost of research, an index fund is able to reduce its operational costs to a minimum, resulting in lower fees charged to the investor.

Also, by replicating instead of looking to over-perform an index, IMFs avoid all risk of value destruction and under-performance. Bogle calculates that these factors resulted in an average advantage of 1.6 percentage point per year in favour of the S&P500 over the annual return of large-cap funds over the 1975-2015 period, resulting in a cumulative advantage of 946% for the passive investor over 40 years. He explains that he already conducted the same study back in 1975 over the 1945-1975, granting the same results (an annual average advantage of 1.6 percentage point, yielding an extra 863 pps to passive investors over the period)

As previously stated, a new type of product enriched the Passive Investment family in 1990. Since this year, it exists two types of passive management products: Exchange Traded Product (ETP) and Index Mutual Funds (IMF).

Gastineau (2001) gives a complete history of the development of ETF products. He explains how, from the late 1970s, emerged demand for a product that would allow an investor to trade an overall portfolio with a single trade. He details the experiment of the Index Participation Shares in the late 80's, a hybrid product between a future contract and a stock. Even though it met commercial success, this product got qualified as a type of future by a federal court in Chicago, hence regulated by the CFTC, which widely reduced the product availability for not-institutional investors.

The Toronto Stock Exchange Index Participation (TIP) offered investors an efficient product to access an index through a single trade for a modest fee. However, the structure of the product created a net loss for the Toronto Stock Exchange, which ended up losing money on this product and had to liquidate it.

This led us to the development of the SPDR, the first so-called ETF that triggered a wave of financial innovation and the creation of a variety of new ETFs. This class

Both IMF and ETP share the same objectives of replicating an index with a small tracking error, but have differences in terms of means to accomplish these objectives.

Kostovetsky (2003) discusses differences in characteristics between these products, highlighting differences in fees structures, tax implications, bid/ask spread or history of tracking error. Without taking a favourable position for one type against the other, the author highlights substantial fee-savings when investing in ETFs rather than in IMF. This is mostly due to the structure of ETF that avoids the need for shareholders accounting at the fund's level, as opposed to mutual funds for which are in charge of this accounting. One should not forget, however, that the freely-tradable feature of ETF make them subject to bid-ask spread, brokerage fees and sometimes discount/premium to their Net Asset Value (NAV), which are costs for the investor that do not occur with IMF. Hills et al. (2015)

In addition, Malkiel (2013) found that while the average fee charged by a US-based passive investment product decreased from 33bp in average during the 1980's to 18bps in 2010, the fees charged by actively managed funds increased from 66bp to 90.9bp during the same time frame.

2.5.3 Specificities of ETF

Gastineau (2001) gives an explanation of the mechanisms of Exchange-Traded Funds and their main characteristics. Back in 2001, the ETF market was not as extended as of today, so some of the explanation given are a little out of date. For instance, Gastineau (2001) reports that "to date, all ETFs are based on equities and [...] the underlying markets have a high degree of liquidity."

However, as reported by Hills et al. (2015), ETF nowadays offer exposure to any asset class (fixed incomes, currencies, commodities). Similarly, they offer access to specific markets or sectors, which can be illiquid (e.g.: emerging countries equity, high-yield bonds...).

Contrary to a mutual fund, on which an investor can invest only at the end of the trading day, ETF are freely tradable during the day. This specificity gives investors the opportunity to profit from (or avoid loses during) high volatility periods. A consequence of this feature is that the

price of an ETF is variable according to the supply and demand on the market, so arbitrage opportunities can arise when the value of the ETF differs from the value of the underlying index. Another consequence of this tradability is that these products are easily accessible for any investors. Hills et al. (2015) note that this easy access has been one of the main driver to the exponential growth of assets invested in ETFs.

Shares of ETF are issued during the Creation process, and redeemed during the Redemption process.

During the creation process, an Authorized Participant (AP, often a large financial institution) trade a basket of securities representative of the underlying index with the ETF’s sponsor. As a counterpart, the AP received a block of shares of the ETF to distribute to brokers and/or to investors. (Gastineau, 2001)

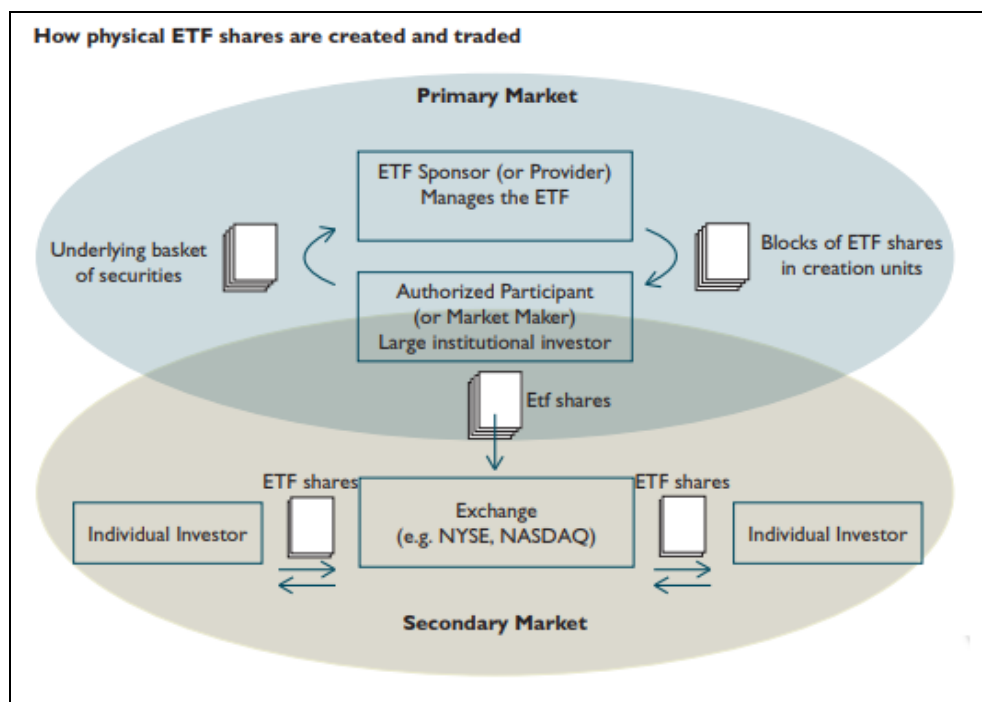


Figure 7: Physical ETFs creation and trading

Arnerich et al., 2012

Similarly, an AP can redeem shares, and trade a bloc of share of the ETF for a basket of securities representative of the index.

It is to be noted that the above explanation is for Physical Replication. Some ETFs, mostly those aiming to replicate costly-to-acquire assets such as commodities, might synthetically replicate the underlying price changes by using swaps. This process reduces costs and reduces the tracking error but induce a counterpart risk (Arnerich et al., 2012)

The Creation/Redemption process allows the AP to profit from arbitrage opportunities, and consequently allows the market price of the ETF to stick to its NAV.

If an ETF trades at a discount with its index, the AP will redeem ETF shares (priced at their market value) and obtain the basket of securities (that is the ETF's NAV). The AP will consequently make a profit from this transaction. By redeeming shares, the supply of ETF's shares on the market will decrease, hence increasing the price of the remaining shares. If an ETF trades at a premium with its index, the AP will create ETF's shares in exchange for the basket of underlying securities. By selling, at the market price, the newly created shares on the market, supply will increase for a constant demand, hence resulting in a decrease in the ETF price. (Gastineau, 2001)

Petajisto (2017) empirically studies the efficiency of this pricing process, and concludes that despite being efficient to arbitrage highly liquid ETFs, this Creation/Redemption process can result in economically significant pricing inefficiencies, or tracking error, for illiquid or alternatives ETFs.

However, contrary to what could be thought, ETF's tracking error actually is a factor that can create outperformance, as revealed by a study (Gerasimos, 2011). This researcher sampled 50 iShares ETF on the period 2002-2007, and revealed that the majority of these ETF outperformed the market despite displaying tracking error.

This tracking error factor is not one to be really considered, because its measures for ETF often is really low. A study over a 10 years period shows that the average monthly tracking error of ETF, over any asset class and geographic areas, is only 0.29% and can be as low as 0.17% for some ETF sponsors (Johnson et al., 2013)

In one hand, active asset management fails to generate, in average, a significant alpha. In the other hand, a passive investment strategy using ETFs is likely to yield investors returns superiors to the one offered by the market. In such conditions, the exponential growth in AUM invested in ETF is easily understandable, as investors are "likely to achieve far higher returns by employing a passive indexing strategy than they are likely to achieve from active portfolio management" (Malkiel, 2003)

2.6 Theme five – Where active and passive AM meet

All the ETF are not pursuing the same objective of replicating an index with a beta of 1. Some follow alternative investment strategy. For instance, an ETF can seek a leveraged or an inverse performance to its benchmark, which could result in a beta of 2, 3 or even a negative beta.

As previously seen, Fama and French (1993) and Carhart (1997)'s models explain the performance of a portfolio by a combination of factors more complex than a simple addition of Beta and Alpha. Instead, they give several sub-beta factors to explain this performance. Even though these two models are the most widely accepted by academic researchers, other models have been conceived, adding even more factors.

Fama and French (2015) reviewed their paper and added two additional factors (profitability and asset growth rate) to better consider stocks' quality, creating a five-factor model. However, other academicians considered a lot of other possible factors. Mclean and Pontiff (2013) listed and studied 97 factors that have been put forward by academicians to explain stocks return. Similarly, Hsu and Kelsnik (2014) evocate quantitative traders using up to 81 factors to build equity portfolios.

However, such factor-intensive models are subject to lot of critics. Firstly, academicians discuss the relevance of these factors and their lack of persistence, especially since academic publications attract sophisticated investor who will exploit and consequently correct some factors that turn out to be simple markets anomalies (Mclean and Pontiff, 2014).

Also, critics argue that a model should either be concise or exhaustive, but cannot "cherry-pick" factors, simply consider a sample of factors while ignoring any others that have been proved by academic research to impact a portfolio's performance (Van Vliet, Blitz, Hanaouer, 2015).

Despite critics, the point has been made clear that over-performance does not necessarily have to come from the generation of Alpha, made possible superior security selection decisions or better information or exploitation of behavioural biases. Also, as previously detailed, it is now assumed that the traditional cap-weighted index is not the efficient method of indexing (Martellini, 2012 or Amenc, Goltz, Tang and Vaidynathan, 2012)

This is where active and passive asset management meet. Alternative Beta investing, also called Smart Beta strategies (or custom indices), are on the rise for the last several years.

Smart Beta strategies chose a weight-formula that differs from the one followed by the benchmark. As an illustration, suppose a benchmark made of 4 stocks equi-weighted, each of them representing 25% of the benchmark. A Smart-Beta ETF on this benchmark could decide to emphasize the momentum factor, and then overweight the stock that outperforms its peers over the last year while under weighting the worst performing one. Such strategy does not generate alpha but enhance a specific beta, in this case the Beta UMD (Carhart, 1997). At the end, outperformance over the original benchmark is still generated. A Smart-Beta strategies resembles to a passive investment, but is the result of an active choice. (Jacobs and Levy, 2014)

Observations of asset management firms reveal that it exists other strategies where passive and active asset management coexist and collaborate rather than simply compete. As examples, we can cite actively managed portfolios of ETFs, shorting ETFs to hedge a bear market, using ETF as a way to invest on a specific thematic that otherwise would not be accessible by the fund's mandate... However, very little academic research on these topics has been conducted.

2.7 Conclusion of the Literature Review

This literature review started by setting up the theoretical framework of financial markets. Evolution of thoughts has been reviewed, from the first financial analysts (Dow in Nelson, 1903, Hamilton, 1922, Graham and Dodd, 1934) to the new field of field of Behavioural Finance (Shiller, 2003, Montier, 2010) passing by the unavoidable Efficient Market Hypothesis (Samuelson, 1965, Fama, 1965).

The second and third sections covered the existing literature on the principles of active asset management and its limitations. A focus has been made on Carhart (1997)'s four model factors. Limitations of active AM have then been highlighted. Active AM as a whole fails to persistently generate outperformance (Jones and Wermers, 2011), especially when considering net returns. Also, it is unclear if SAMs exist and how to identify them (Barras et al. 2006; Carhart, 1997; Fung et al., 2006).

Fourth section focused on passive asset management. Its advantages over active asset management have been highlighted, emphasizing the substantial fee-savings an investor can realize by investing on a passive product (Kostovetsky, 2003). Specificities of Exchange-Traded Funds have then been detailed, with special attention given to the Creation/Redemption process (Gastineau, 2001).

The last section reviewed the literature that bridges active and passive asset management, especially through the development of alternative beta strategies. (Jacobs and Levy, 2014)

3 Research Methodology

3.1 Introduction

The following chapter will give the reader an explanation of the research design chosen by the researcher to conduct the study. Sampling methods, data analysis procedures and research ethics will also be discussed. The last part of this section will focus on limitations of the research.

The structure of this section follows the Research Onion designed by Saunders et al. (2007):

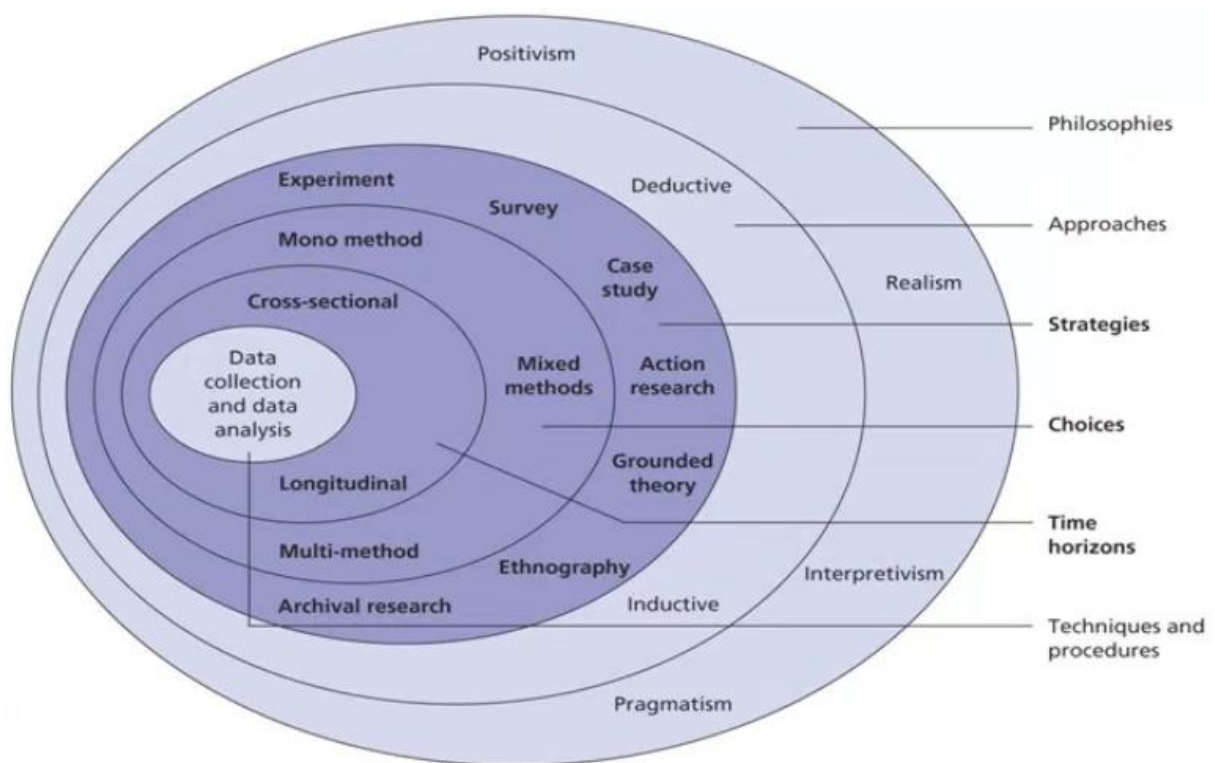


Figure 8: Research Onion (Saunders et al., 2007)

To conduct this study, an interpretivism philosophy has been chosen along with an inductive approach. The research follows a case study strategy, through in depth semi-structured interviews of professional active asset managers.

3.2 Research Design

3.2.1 Research Philosophy

Voluntarily or not, the researcher makes philosophical choices during the research process.

An important philosophical question about the nature of the truth quickly arises. This deep philosophic question is carried in the century-old debate between ontology and epistemology (Sekaran and Bougie, 2016).

Ontology, as stated by Saunder et al. (2009) "is concerned with nature of reality". Ontology studies beings, or things, around us that exists or are considered to exist. A researcher following an ontological philosophy will try to better understand the way our world works, by expanding our knowledge of things. In such a perspective, the research can either adopt a subjective approach in which she either expresses her perception of a topic, or an objective approach by staying external to the results stated.

In most cases, a research is subjective when it deals with intangible things, such as opinions or thoughts, and objective when it is related to physical things like resources needed. (Saunder et al., 2009). The following study aims to examine the transformation undertaken by a segment of the asset management industry in regard to the development of ETF. The findings will be subjective, as they will be the results of the analysis of thoughts and opinions, but will still be about a topic we consider as being the reality. An ontological approach with subjective findings is consequently appropriate for this study.

Epistemology asks a different question. It studies knowledge rather than things, and deals with the source of human knowledge. The main question an epistemology research tries to answer is "Do we really know the thing we think we know?" in order to discover the true origin and meaning of knowledge. Even though some lessons derived from epistemological studies can help the researcher to better grasp the topic, such as interrogations about the origin of knowledge, the purpose of this study is not to determine the source of our knowledge related to passive investing, and no question about the reality and existence of this topic will be asked. An epistemological approach is consequently rejected. (Cooper and Schindler, 2008)

Within this first framework, a choice between four Research Philosophies has to be made. No Research Philosophy is better than others, they just reach different goals. This choice depends on the nature of the research question asked and the nature of the findings.

The Positivism approach considers reality as a set of constant objectives rules, as are the laws of physics or the observed behaviours in the animal kingdom. Natural scientists study observable phenomena to produce reliable data and derive rules from them (Saunders et al., 2009). The following research, through the specific study of evolutions of companies within the active AM industry, ultimately studies human behaviour and consequently cannot generate an absolute, general and representative law. Instead of an explanation of facts with a strong prediction capability, the research aims to understand what is currently happening and to generate a meaning relative to the situation. The primary data generated can hardly be replicated to other case studies as it is widely impacted by personal opinions and values. The purpose of this study is not to determine *the truth* but rather to give an insight of what is happening. Consequently, a positivism approach cannot be followed through this study.

Realism also is a scientific method to develop knowledge (Saunders et al., 2009). However, it contrasts the positivist claim that the truth is unique and can be expressed through constant rule. The realist approach states that even though an independent truth exists, no human can objectively study it without personal biases. Consequently, truth becomes an object that cannot be completely uncovered (Sekaran and Bougie, 2016) and has to be apprehended within its social context. The realism philosophy truth is thus an objective but constantly evolving object. As stated before, our research does not aim to uncover the truth. The flaws of the primary data research are too numerous to be able to claim uncovering a global and objective truth, and the sample is not representative enough. Also, the research question cannot be answered with a clear and universal answer. This philosophy is consequently rejected.

Interpretivism philosophy is based on the observation that "knowledge is relative to the knower" (Hatch and Cunliffe, 2006). For the interpretivism researcher, the nature of reality is socially constructed. Reality is thus multiple as it depends on each individuals' own belief system and is constantly changing through a process of construction and reconstructions Pizam and Mansfeld, 2009). As people interpret and interact with the world surrounding them, these interpretations lead to constant adjustments of their behaviours and theories (Saunders et al., 2009).

The pragmatic researcher seeks not only to avoid this debate about the nature of truth and reality, but also to benefit from the best of interpretivism and positivism without being constrained in her research. Differences in points of view can produce different theories and explanation to a single reality, which ultimately help us to understand the world. The pragmatic researcher accepts no philosophical constraint to her research. (Saunders et al., 2009)

Both the interpretivism and the pragmatism philosophies seem to fit the frame of this study. Goldkuhl (2012) studies differences between these two philosophies and states that "as a qualitative researcher you either adopt an *interpretive* stance aiming for *understanding* that is appreciated for being *interesting*, or a *pragmatist* stance aiming for *constructive knowledge* that is appreciated for *being useful in action*."

His paper helped **the researcher to opt for an interpretivism** underlying epistemology rather than pragmatism, as the study will have an academic purpose more than a professional one and is consequently mostly destined to have an informative purpose. The paper will aim to help the reader broaden his knowledge of what people actually do, rather than set a course of action someone concerned by the issue should follow.

3.2.2 Research Approach

Choosing an appropriate research approach is crucial to make the study fits its purpose. It helps the researcher to make better decisions about the overall research design and to anticipate which research strategies are likely to work, or fail, to produce reliable data. Finally, it allows the research to better anticipate constraints that may prevent him to conduct his study. (Easterby-Smith et al., 2008). It exists two different types of approaches, the deductive and the inductive approaches.

The deductive approach aims to test a hypothesis or a theory in order to validate or invalidate it. The researcher using a deductive approach usually follows these steps: after formalizing a hypothesis based on a theory, he expresses it in measurable and testable terms and starts the experiment. After analysing the results of the experimentation, the outcome will either infirm or confirm the hypothesis. Based on these results, the underlying theory will be either proved right or will be invalidated and needs to be modified. (Robson, 2002).

As previously seen in the literature review, academics and economy researchers have developed an extensive theoretical framework concerning financial markets, but they have not specifically detailed hypotheses or theories about the transformations undertaken by the active asset management companies in regard to the development of ETFs. Because there is no hypothesis or theory to test, a deductive approach is not appropriate for this study. No theoretical frame yet established does not mean the topic is of little importance, as professional information media already seized the topic and dedicated entire teams to investigate it. The quickly changing nature of the passive management industry and the fact is a relatively new area of study are probably reasons why academics haven't seized the topic yet.

The inductive approach takes the other way around. Using empirical observations, the researchers tries to determine hypothesis or scientific models that will aim to theorise the research context. The inductive approach is about gathering elements to obtain a better understanding of the research context. (Robson, 2002)

When using an inductive approach, theories and hypothesis are the results of observations. Because the context may have such a big influence on the result of the study, Saunders et al. (2009) note that a small sample of subject can yield better results than a larger one.

Ultimately, the inductive researcher will try to generalize what has been observed on several particular cases. However, this generalisation is not essential. Creating a frame implies that it is the researcher's responsibility to generate meaning from the data collected. The inductive approach favours qualitative primary data collection over quantitative (Harrie, 2010).

The inductive approach perfectly fits this study. The existing literature do not focus on the relationships between active and passive asset management. As so, using empirical observations to try to formulate a new theory makes sense. This research will try to bridge an identified knowledge gap.

This dissertation is an exploratory study, aiming to assess a phenomena in a new perspective by giving new insights (Saunders et al., 2009). It is exploratory as it aims to give the reader a better understanding of the reactions undertaken by active asset managers in order to counterbalance the rise of passive management. New insights will be given to the reader because this study focuses on a very little discussed aspect of finance and conducts an original primary research.

In some aspect it also bears characteristics of an explanatory study, as relations between two phenomenon (passive AM and active AM) will be studied and tried to be explained.

However, this paper is not a descriptive study. Even though the situation of the asset management industry will be discussed and detailed, this industry is too wide to give an exhaustive review of it. Consequently, the overall picture given of the industry cannot be accurate enough to qualify the study as "descriptive".

3.2.3 Research Strategy

Research strategy covers the set of tools available to the researcher to efficiently answer the research question. The label attached to each tool is not important, the researcher should rather focus on how efficient are these tools to answer the research question. It is crucial to choose the strategy that will best answer the question. (Saunders et al., 2009)

Different types of research strategies are discussed below:

Experiment:

An experiment is the best tool for a deductive study. After having stated the initial theories and derived hypotheses from them, a researcher can conduct an experiment to study their validity. What often happens is that the research tests the implication of a variable on a second variable. To do so, she uses at least two samples: one used as a control group and one used as an experiment group. (Saunders et al., 2009)

By its deductive nature, an experiment is not a tool that fits our inductive study.

Surveys:

Surveys are often used in explanatory researches, and they tend to be popular amongst business studies. Surveys often take the form of questionnaires administered to a wide sample of people. This type of survey generates quantitative data to be quantitatively analysed, and usually best fits a deductive approach. It is to be noted that data generated by this type of survey often are of narrow perspective. (Saunders et al., 2009). These data often aim to analyse a small number of features for each of a large number of cases. Questionnaires are not a good fit for our inductive, explanatory study that will favour qualitative over quantitative data.

However, questionnaires are not the only type of survey. Interviews also are surveys. Interviews allow the researcher to obtain wider-ranging data. They can either be structured, semi-structured or unstructured.

A structured interview is a list of close-ended questions or multiple choices answer that the researcher asks to the interviewee. The data generated are of quantitative nature, and their use is really similar to the use of questionnaires. As so, they are not adapted to this study. Semi-structured and unstructured interview will be discussed in the next section. (Cooper and Schindler, 2008)

Case Study:

A case study is a study of a single case that will be looked into details. As defined by Cameron and Price (2009), a "case study is directed towards understanding a specific issue". Such issue is often related to a company or an industry. Yin (1994) notes that case studies often are used in explanatory researches that asks "how" and "why" question.

Contrary to surveys, case studies often aim to collect and analyse a large number of characteristics from a small number of cases. In order to do so, the researcher following a case study research strategy can collect both quantitative and qualitative data. (Thomas, 2017)

Case study is the research strategy that better fits the study and will consequently be followed by the researcher. The specific issue to be better understand is the reaction of active asset managers in regard to the development of passive asset management.

One of the tool the researcher can use to collect qualitative data in a case study is interviews, either unstructured or semi-structured. As said before, interviews are themselves a type of surveys. (Thomas, 2017)

Unstructured interviews generally take the format of a discussion between the researcher and the interviewee where open-ended questions are asked and some previously determined topics are covered. They usually generate wide-ranging qualitative data, but from which a structured interpretation can be hard to generate as the chat can lead away the point of discussion (Fisher, 2004). This type of survey would fit our study, but the researcher is not keen to use it because of the difficulty to generate comparable data from different interviews.

Semi-structured interviews are discussions guided by the researcher that follow a pre-determined list of themes to cover. They allow the generation of qualitative data, but in a structured form that makes further analyses easier than for unstructured interviews. This type of survey is what best suits an explanatory, inductive study, and will be chosen by the researcher as the data collection strategy. (Fisher, 2004)

Action Research:

Action research really fits a study that aims to improve a process. An action research constantly reappraises the research question in light of new developments brought by an action undertaken by the researcher. This type of research strategy, while qualitative, does not fit the scope of this survey and will consequently not be chosen. (Saunders et al, 2009)

Grounded Theory:

Grounded theory can be seen as the generation of theories from research. As so, it is often presented as the best way to build a theory (Saunders et al., 2009). Consequently, it is the best research strategy for an inductive study. However, to develop an empirical study of a phenomenon is a highly time-consuming activity, and the time frame allocated to this research is not sufficient enough to conduct this type of research strategy.

Ethnography:

Ethnography is an inductive method that aims to naturalistically study people, without influencing their behaviour. Following an ethnography research strategy implies to get into a group of participant and study them. Such process is time consuming and can yield narrow observations if it turns that the group is not representative enough of the overall population (Thomas, 2017). For these reasons, the researcher will not undertake an ethnographic research strategy.

This study will be a case study aiming to gather qualitative data by conducting semi-structured in-depth interviews of actors of the asset management industry, in order to gather a panel of thoughts, opinions and testimonies from professionals. Interviews will be semi-structured: they will follow a pre-prepared scheme of questions but can be adapted depending on the answers given and by the attitude adopted by the interviewee. This flexibility will allow the researcher to collect a larger number of features from each interviewee, which would not have been possible or realistic with other research strategies. Even though semi-structured interviews belong to the survey strategy, in this situation, the research strategy followed is a case study.

3.2.4 Research Choices

The next layer of Saunders et al. (2009) research onion is determination of the research choice. The researcher will now have to think about what type of data he should collect to best answer his research question.

Data can be of two natures. Quantitative data cover numerical data and data that can be put into statistics. Qualitative data are often of an exploratory nature and are used to gain an understanding of a topic by providing insights.

Three choices are open to the researcher (Saunders et al., 2009):

- A Mono Method only use one data collection technique to gather and analyse data of one single nature, either it be Quantitative or Qualitative.
- A Multi Method research can use several data collection techniques and may employ both qualitative and quantitative data.
- A Mixed-Method combines quantitative and qualitative data collection methods. It may transform data of one nature to the other nature. A qualitative data can be turned into a quantitative data, or a quantitative data can be turned into a qualitative data.

The researcher chose to follow a mono-method, gathering qualitative data through in-depth semi-structured interview, following a case study research strategy.

The researcher does not see potential added-value in adding numerical data in this explanatory study, especially since this study is conducted in part fulfilment of an MBA. This means the study has to be conducted within a limited time frame that does not allow the researcher to conduct an extensive range of research strategies. Consequently, both multi-method and mixed-method are *de facto* excluded choices because of time constraints.

3.2.5 Time Horizon

Time horizon is independent of the research strategy pursued. Defining a time horizon allows the researcher to further define what he wants his study to be: a picture of the state of the case at a given moment, or a view of it over a definite period of time (Saunders et al., 2009)

Cross-sectional:

When a cross-sectional time horizon is chosen, the researcher tries to determine a situation at a given, specific, moment in time. Cross-sectional study are often undertaken by researchers working under strict time constraint.

Longitudinal:

A study using a longitudinal time horizon will be an evolutionary study that often tries to evaluate change of a parameter can be implied by the incidence of another parameter.

The time period allowed to conduct the research is definitely too short to measure relevant evolution of the state of the asset management industry. Also, the research aims to be an overview of current practices and opinions of the industry, not an historical study of how these thoughts evolved. **For these reasons, a longitudinal approach is rejected and a Cross-sectional time-horizon is chosen instead.**

3.2.6 Data Collection

This study gathers two kinds of data: secondary and primary data.

Secondary data are those which had been originally collected for a different purpose (Saunders et al., 2009). Secondary data collection has been used during this study to gather information presented in Section I, II and III.

The reader can easily identify where this type of data has been used because they have been properly referenced using the Harvard Referencing System. Secondary Data are collected from various sources: Academic Journals, Textbooks, Websites or Newspapers. Using secondary data aims to better understand the topic and its key concepts.

Primary Data Collection covers all the data specifically collected for this research project. As explained above, Primary Data collected for this study exclusively are of qualitative nature.

Qualitative data collection will be done via semi-structured in-depth interviews of professionals of the asset management industry, selected with a non-probabilistic, snowball method. Interviews will preferably be conducted face-to-face, but could be conducted by phone or on the internet if needed. Interviews will be recorded for academic purposes.

As it is not realistically possible to collect qualitative data for all members of the asset management industry, it is necessary for the researcher to select a sample. Sampling is determined in terms of relevance, convenience and feasibility. Section 3.3 further discuss sampling choices.

Data collection involves ethical issues discussed in the following 3.6 Research Ethic section. These discussions are about data storage, confidentiality of respondents and limited use of data to academic purposes.

3.3 Sampling - Selecting Respondents

The four-point approach to sampling in qualitative interview based on Robinson (2013) is as follow:

The sampling universe is constrained to experts, qualified as so by the researcher depending on their professional occupation. They have been considered to be in capacity of sharing a relevant point of view about the topic. People from the active asset management industry have been asked to participate to the study in order to obtain a sample of opinions over the all industry.

The sample is made of 3 semi-structured individual interviews. This number was to be increased if the homogeneity of the sample was not sufficient (Guest et al., 2006).

Qualitative data collection followed a non-probability sampling sourcing method, based on convenience sampling. It took into consideration various criteria: size of the company the interviewee works or worked for, accessibility and proximity of the interviewee for the researcher, and relevance of the interviewee's professional occupation in regard of the topic.

Sample sourcing has been done through direct contacts via email, phone, social media or other appropriated means.

The sample is composed of:

- A founder of an AM Company and Portfolio Manager.
- A former Portfolio Manager.
- A founder of a Family Office and Portfolio Manager.

3.4 Data Analysis

3.4.1 Secondary Data Analysis

Secondary Data usually are numerous and easy to collect. However, they can give contradictory information as they can have been generated in different contexts for different purposes. The followed approach for secondary data analysis followed Saunders et al. (2009):

- Evaluation of the quality of data sources
- Evaluation of the quality, veracity and suitability of data to answer the research question. Particular attention has been given to the relevance of the information.
- Judgement whether to use the data or not based on a cost to benefit analysis. Cost mostly are the time needed by the researcher to analyse data and integrate them into the dissertation. Cost also cover the time, focus and energy needed by the reader to fully understand the value of the data. Benefits of a data are measured by the degree it will help answer the research question.
- Integration of chosen data into the study

3.4.2 Primary Data Analysis

Qualitative data analysis will be done following Burns' suggested methodology (Burns, 2000)

- Transcription of interviews on an informatics document, easily done as the interviews are recorded.
- Coding: classifying the information by themes and propositions
- Content Analysis: it is a form of classifying that emphasizes themes and extracts meaning from it, in order to reveal ideas.
- The all process is part of the analytic induction method: content is added up to interviews as long as they go on, as new themes or ideas emerge thanks to contributions brought by previous interviews.
- Integration of findings to the study.

3.5 Research Ethic

Research Ethics refers to the appropriateness of the researcher's behaviour. This study will follow a strict deontological view. No unethical behaviour will be used to answer the research question, and no unethical behaviour will be incorporated in the research design. The main feature of this view is that no harm of any sort will be purposely done during this study, either it be physical, psychological or cultural.

The researcher's own beliefs forbid him to use a teleological view, which states that the end justify all means (Saunders et al., 2009).

In regard to the secondary research, ethical considerations cover the appropriate in-text and bibliographical referencing of all data used. Also, a particular attention has been given to faithfully share ideas transmitted through these secondary data, and never arrange the meaning to better fit the study.

About the primary data collection, a particular focus has been made on ensuring that all interviewees freely accepted to participate to the study, after being fully informed about their rights and the objectives of the research. None of the subjects of this study are people that could feel pressure of taking part to the study because of their personal relationship with the researcher.

A second key point of Research Ethics is Confidentiality. All information provided by participants will solely be used for academic purposes. Spreading of information will be strictly limited to the researcher and the examiners. This research will not publish any internal material, including names, without expressed participant consents.

Any data gathered has been carefully stored offline in a password-secured environment (the researcher's personal computer and external hard drive) to avoid any risk of confidential data theft.

No data has been modified to better serve the purpose of the study. The declaration presented at the beginning of this document certifies the originality of this work and its compliance with Dublin Business School standards.

3.6 Limitations of Methodology

This study is subject to a number of limitations that both the researcher and the reader have to be aware of.

Firstly, this dissertation has been conducted over twelve weeks. Such a constrained period *de facto* limits the research strategies available to the researcher, and the number of interviews that can be conducted.

Consequently, the sample size is also a limitation of the dissertation. With only 3 interviews, the sample is not representative of the population and findings cannot be generalized. However, convergences and divergences of thought are highlighted and results still properly answer the research question, which has been adapted to the sample size.

An interpretivism approach often faces difficulties to generate primary data, as this method may be limited by the willingness of interviewees to properly answer questions. This is also a limitation of the data collection instrument: semi-structured interviews. However, participants of interviews usually gave extensive answers.

Personal biases from individuals' backgrounds also induce limitations. The researcher has an educational and professional background in Financial Markets and developed an educated guess on the topic before starting the study. Even though he tried to stay objective, his own interpretation of the findings is subject to biases. Similarly, interviewees belong to the Active AM industry, and are consequently keen to adopt a defensive view against Passive AM as this trend jeopardizes their activity. These limitations need to be taken into consideration by the reader.

4 Data Analysis and Findings

4.1 – Introduction

This section aims to present the findings of the qualitative data collection pursued.

As detailed before, the qualitative data collection for this study has been done through three in-depth semi structured interviews of professional active asset managers. Qualitative Data has been analysed following Burns (2000) methodology. After a transcription and translation of the interviews, the researcher went through a coding phase to classify data by themes. A content analysis phase followed in order to extract meaning and relationships from these classified data.

The next section gives a detailed presentation of the participants to the study. Details about the interview structure are given too.

The third section presents the findings, organized by themes.

4.2 – Semi-structured interviews

The first participant is Thibault FRANCOIS, CEO and founder of Fastea Capital in 2011. Fastea Capital is a French, Nantes-based active-asset management company operating in two businesses: collective asset management through the operation of two mutual funds together controlling approximately €19 million, and private under mandate asset management controlling an undisclosed amount of AUM. Mr FRANCOIS is the main asset manager of this company, and has a previous 7 years sales-broker experience.

The second interviewee is Axel DELLIERE, former portfolio manager for Fastea Capital. Mr DELLIERE has 3 years of professional experience with financial markets and holds a Master degree specialized in financial markets. As he recently left Fastea Capital, he was free from any professional constraint to independently express his opinion during the interview.

The third participant is Alan AUPIAIS, founder and financial investment managing director of Athémis Gestion Privée. Athémis is a French, Rennes-based family office established in 2010 with a strong focus on financial investment. They have a counsellor mandate for approximately 25 High Net Worth Families, for an undisclosed total amount of AUM. Mr AUPIAIS holds a specialised Master in financial markets, is a CFA II Candidate, has 6 years of experience as a bank treasurer where he especially experimented futures-trading, and has three additional

years of work experience as an under-mandate asset manager for clients of another French bank.

Interviews were conducted either face-to-face or on the phone, and consisted in about twenty questions prepared by the researcher ahead of the interview. As semi-structured interviews are an evolutionary process, questions have sometimes being added, modified or stated differently from an interview to another to better fit the flow of the conversation and the interviewee's specificities. Translated transcripts of interviews are available in the appendices.

The three interviews all followed the same structured and covered the same topics:

A brief presentation of the interviewee's educational and professional background has been given in the first section, to justify in what extent each participant fits the scope of the study.

The theoretical framework of financial markets has been discussed, with a focus on the EMH, the justification of an active AM style in this academic context and an opinion on behavioural finance.

The conversation then moved to the development of ETFs from an industry perspective. The origins, development and future of ETFs have been discussed, with a focus on transformations this trend brings to the industry's biggest and smallest companies.

The interview then adopted a narrowed scope to get a sense of the participant's company view on passive management. Clients' perception of ETFs have been discussed, which led the chat to fees and to the firm's competitive advantages over this new type of competition. The company's use of ETF has been discussed, along with the participant's opinion on newly developed complex ETFs.

4.3 – Presentation of Findings

4.3.1 Opinion on the EMH

The three interviewees share the opinion that the EMH does not perfectly describe financial markets.

Mr FRANCOIS sorts out the level of efficiency based on the time-horizon considered. While he tends to consider markets efficient on a long-term perspective, he acknowledges a strong lack of efficiency in a short-time timeframe.

Mr AUPIAIS brings a different analysis. He sorts the level of efficiency by type of markets. From his perspective, markets related to interest-rates (bonds markets) are really efficient in integrating information. Then, the less liquid the market, the less efficient it becomes. While Blue Chips, companies with large capitalization from developed economies, have a sufficient level of efficiency, financial markets for less liquid stocks such as small caps or emerging economies cannot be considered efficient. Commodities markets are integrating information even less efficiently.

Mr AUPIAIS considers the EMH as a first hypothesis to start understanding financial markets, despite being far from being perfect.

Mr DELLIERE as a much more ground-based view of EMH. From his experience, he observed many situations of insider trading, embezzlement from important actors or unfairly distributed information. In addition, he sees value in Technical Analysis, which is a form of market prediction rejected by the EMH. Also, Mr DELLIERE wonders if all past information really is reflected into current prices, as some news may have been hidden to market participants.

From these observations, he rejects the hypothesis that markets are efficient in reflecting information.

4.3.2 Justification of an active AM style, reflections on luck in alpha generation

Mr FRANCOIS justifies an active AM approach by stating that the continuous quotation system allows arbitrage opportunities that can be seized by dynamic asset managers to generate outperformance.

Mr DELLIERE adds that because AM is a zero-sum game, the average return of all asset managers will equal the market return, minus management fees. However, this systems allows some managers to be winners (and others losers). Great past performances of some mutual funds justify an active AM approach.

This observation corroborates Mr AUPIAIS' view. Performance is central, and it is really hard to justify an underperforming management. Underperformance obviously incentives clients to move their assets to ETFs products. However, he notes that most clients do not go through this thinking, as they do not have enough knowledge of financial markets to realize the distinction between a management outperforming or underperforming a benchmark. What matters for them is to make money in absolute terms. He also notes that they often have little real decision power about the support they invest on.

Mr FRANCOIS has a thought about luck in the management process. He sees luck as a driver for bad performances when a sectorial news impacts a stock with solid fundamental. He states that the deep understanding of the stock brought by the manager can help balance this bad luck effect. Mr DELLIERE adds that luck and risks are inseparable aspects of the game. A manager needs to know how to distinguish a "bad luck" moment from an error in his analysis. Recognizing an error involves hurting one's ego, which also is an important aspect of what brings performance.

4.3.3 Opinions on behavioural finance

Mr AUPIAIS explains that professionals and individuals investors do not behave the same. However, everyone suffers a moral hazard effect, consequence of behavioural biases. The professional's job is to be aware of this effect and try to offset it.

Mr DELLIERE uses an example he witnessed to illustrate a behavioural bias. Through this example, he showed that pride and ego are big players in the markets. He is convinced that it is easier to bear convictions than admitting an error.

Mr FRANCOIS also recognizes biases and the necessity to get out of the herd effect, but acknowledges that adopting a contrarian approach, betting against a trend, is a really risked decision. He recognizes a hard dilemma between the opportunity to profit from a trend and the risk of having a contrarian approach.

Mrs DELLIERE sees technical analysis as a tool to anticipate market irrationality. Both he and Mr AUPIAIS agree that behavioural aspects can only be a part of a broader analysis to make an investment decision. Mr DELLIERE believes the ability to recognize and profit from behavioural biases on the market only comes with experience.

Mr AUPIAIS states that the herd effect is interesting to study when 80% of French asset management companies are located within a 20km perimeters (around Paris).

4.3.4 Origins of the development of ETFs

Even though he has been trading specialised ETFs on commodities for about 10 years, Mr THIBAUT considers that ETFs replicating indexes really took off from 2015/2016. He believes regulation was a driver for this growth as ETFs fit new requirements in terms of transparency and low fees.

Mr AUPIAIS himself links the origin of this development with the 2008 financial crisis. Because asset managers were scared to increase the beta of their portfolio, passive management outperformed active management, giving ground to this new strategy. He also acknowledges a recent boost in attention in the last three years, which he associates with the development of fintechs and new opportunities in automatic investment. These two trends are complementary.

Mr DELLIERE considers to not be experienced enough to give an opinion on this topic.

4.3.5 Risks and opportunities

About the main advantages offered by ETFs, Mr FRANCOIS points out the replication process and really low fees. Mr DELLIERE considers ETFs as a convenient, time and expense-saving opportunity to diversify, to hedge specific risks or to access macro-economic strategies. He

adds that ETFs inflows and outflows also are a tool to better anticipate global trends. Mr AUPIAIS welcomes the fact ETFs allow access to financial markets with a low initial stake and give investors a greater number of investment opportunities. He considers ETFs a sane competition for mutual funds.

Concerning the downside of ETFs, Mr FRANCOIS claims that ETF are certain to replicate the benchmark minus fees, yielding an assured underperformance to investors. At least, active AM gives investors a chance to outperform. He also fears the systemic risk associated with passive management, and fears ETFs may be responsible for the next crisis.

Mr AUPIAIS pledges for a more homogeneous worldwide regulation of ETFs, especially to protect investors from the counterparty risk associated with synthetic replication. He is cautious about the future of ETFs if the economic cycle shifts before regulation gets set up.

Mr DELLIERE points that the automatic arbitrages system on which ETFs are based may exacerbates market movements, creating systemic risk. He also believes that algorithms-based products are not developed enough yet to be reliable for long-term investment decisions. Consequently, a human intervention is necessary to take these decisions.

4.3.6 Importance of this trend for the industry

None of the three interviewees point ETF as a crucial on-going topic of the asset management industry.

Mr AUPIAIS considers it a topic to monitor, as it will probably become more important in the future. But for now, others priorities affect the industry. For him, the most important issue is the end of the French retrocession system from mutual funds to wealth managers. The end of this system will force wealth manager to charge fees to their clients, and will force asset managers to reduce their management fee.

Mr THIBAUT shares this opinion. He does not see ETFs as a particularly important topic and is also worried about the shrinking of fees. He is also concerned with specifics aspects of the regulation mutual funds have to comply with that does not affect other investment-opportunities providers (banks, insurance companies, real-estate funds). This situation creates, to his view, unfair competition.

Mr DELLIERE thinks a “fashion effect” makes some markets segments, like ETFs, more appealing to investors than others. He however does not think ETFs are going to revolutionize the industry: a good active asset manager will stay good. He makes a parallel between ETFs and Bitcoin. The product itself is not going to change the world, but the underlying technology and shift in thinking is likely to have a big impact on our life.

4.3.7 Reaction of biggest structures

The three interviewees are aware of how the biggest AM companies react to the development of ETFs: they usually start their own ETF business.

Both Mrs DELLIERE and AUPIAIS recognize that these companies have the resources, infrastructures and technology to start their ETF business. Mr DELLIERE thinks that these structures are able to capitalize on their brand to attract volume to their ETFs.

Mr AUPIAIS observes that these big companies never present themselves as active managers, but just as providers of a “good-enough” management. They actually have troubles to outperform the market with their “active” investment solutions. This marketing is enough to convince 90% of the clients, those with little knowledge of financial markets and little understanding of differences between active and passive asset management.

Mr FRANCOIS has a slightly different thinking over the topic. He believes that skilled managers are leaving the biggest companies to create their own structures. This is why smallest structures usually outperform the market, while biggest ones adopt a benchmarked management style, specialized in flow products. They have no choice but to go to mass distribution.

4.3.8 Typical reaction of smallest structures

Mr FRANCOIS believes that small asset management companies do not particularly adapt their strategy to take into consideration the development of ETFs and passive investing. He acknowledges that ETFs are a set of new products that can be interesting for small active asset managers, but that about all the extent to which these small companies care about ETFs. He believes these structures have no interest in diverting their resources and

workforces, but are rather keener to focus them on their niche markets: on products of which they know the ins and outs.

Mr AUPIAIS shares this opinion. As smallest active asset managers usually outperform their benchmarks, they are not threatened by passive asset management. They however need to stay outperforming over time.

Mr DELLIERE believes that smallest structures will go against the biggest ones. Where big structures are trying to dehumanize asset management, small structures will get closer to their clients and emphasize the human bias they are bringing. Humans' skills, like a conviction-based management style, help the marketing's storytelling necessary to seduce new clients.

4.3.9 The future of ETFs

The three interviewees have diverging views about the future of ETFs.

Mr DELLIERE gave what he considered a "naïve" answer to the question. He thinks ETFs will keep growing because they are valuable for investors. They offer an easy access to investment and diversification. ETFs are linked with algorithmic trading. Both need volumes to be profitable, so trading volume might increase in the future. However, he thinks that because ETFs are complex and risked products, their access should be limited to sophisticated investors, just like derivatives are.

Mr AUPIAIS believes that ETFs have yet to be tested under a harsh market environment: a big market sell-off and difficult liquidity conditions. To prosper, ETFs have to be liquid and to be semi-efficient in all market conditions: bullish, bearish, flat, recovering... As long as no counterpart defaults and if liquidity is always assured, ETFs will grow. Mr AUPIAIS also believes that fintechs are a driver for additional growth in volume. However, if ETFs fail this trial, then they will lose ground and will not be able to develop further than replication of simple indexes.

Mr FRANCOIS has a more negative opinion about the future of ETFs. He wonders in what extent will bookkeeper be able maintain liquidity during the next crisis. He believes that ETFs will be dramatically reduced by such crisis. In addition, he is certain that generating yield will be much easier for asset managers when interest rates will be back to levels of 3 or 4%. ETFs will then lose ground.

Mr FRANCOIS does not see the point of having products increasing the liquidity of products that can already be bought by different means. However, he salutes ETFs helping the liquidity

of assets that cannot be bought differently, and see there an opportunity for further development.

4.3.10 How clients perceive ETF, does it creates pressure on fees

None of the three interviewee associated the rise of passive management with the increasing pressure on fees they undergo.

Mr FRANCOIS explains that this pressure comes from the low rates environment. With low rates, asset managers face troubles to generate yield and consequently need to shrink their fees to keep delivering performance to their clients.

Mr DELLIERE has a different reading, and believes pressure comes from a tighter regulation. He is convinced that clients going for an active asset management style are aware that they have to pay to access an expertise. They actually are keen to pay for these skills. However, a critic towards active asset management comes when a lower-than-the-market portfolio volatility offset a part of gains generated during a bullish markets. Clients complain to miss part of the trend, while they do not complain when such lower volatility offset a bearish market.

Mr AUPIAIS has a different fee-model. The only fee he charges is a 20% outperformance fee. Such model induces risk for the company, as the company needs to outperform to generate revenues. However, when outperformance is generated, it creates a win-win situation for both the client and the company. In such conditions, even though they have heard of passive management, clients do not see the point of such management-style and do not question fees. Mr AUPIAIS's company has consistently generated outperformance since inception.

4.3.11 Competitive advantages over other industry's participants

To keep their competitiveness, interviewees' companies focus on their competitive advantages.

Mr FRANCOIS states that Fastea is focusing on offering a controlled, lower than the market volatility, while staying consistent with the indexes. On top of that, they work toward delivering outperformance.

This is consistent with Mr AUPIAIS definition of a skilled asset manager: steadily generates outperformance over time while taking less risks than the market.

However, a crucial aspect is the reporting aspect to clients. Mr FRANCOIS explains how this represents a really important aspect of his job. He explains to his clients the company's strategies, the winning and losing bets, and details the reasons of such results. This is something a client would not have with an ETF, and would hardly access if he invested with a big asset management company. In addition, Mr FRANCOIS explains that Fastea sets up CSG criteria and does not use short-selling, which also is a distinctive characteristic of its funds.

Mr DELLIERE worked for the same company, and obviously brought the same points. He really emphasized the proximity between the company and its clients as a competitive advantage. He also notes that a company offering financial market investments opportunities based outside of Paris is something really uncommon, especially one with such infrastructure. In addition, he brought the dynamism of management as a strong strength of the company.

Mr AUPIAIS, distinctively, believes that reporting just is a secondary feature of his activity. In his view, clients appreciate it, but it is not something necessary nor distinctive. He really brings performances of the management as the number one competitive advantage. He also brings that the company's particular fee structure resonates with its clients, which are mostly CEOs and entrepreneur, with a high understanding of risk-taking.

4.3.12 Perception of new opportunities brought by ETFs

Mr FRANCOIS sometimes have use of ETFs in his asset management. He sees ETFs as an opportunity to invest on assets that otherwise would not be accessible, as they would not fit the mutual fund's investment mandate. In particular, ETFs grant access to commodities. Even though he cannot buy physical gold, he is now able to get exposed to variations in the price of gold through a specialized ETF.

Mr DELLIERE pointed the same argument, and gave the same example of gold. He added that using an ETF was a shortcut in terms of skills and process required to implement a strategy. For instance, about this example of gold, implementing this strategy without using an ETF would have required to buy a sample of mining companies over the world, requiring a deep expertise in each of these company to simply determine the amount they should invest into each of them. Buying a pre-made ETF saved time on this aspect.

Mr AUPIAIS sees ETFs as a complementary tool that allows him to hedge his portfolios against specific risks, in a tactical (short term) time horizon. So far, he has only included a single ETF in his management, a product that exactly offered the characteristics he was looking for (short position on Bunds).

Mr AUPIAIS sees an opportunities in ETF as hedging tools, especially since they are instantly buyable, while mutual funds are usually settled in Day+2, with an unknown price. ETFs allows him to benefit from short term prices movements. However, he does not see the point of using ETFs to simply replicate an index: his job is to outperform such index. For that, he would rather trust mutual funds' asset managers.

4.3.13 Opinion on newly developed complex ETFs

Mr FRANCOIS has little interest in most of the newly issued complex ETFs, as he has troubles to understand the economic value of such products. He has a particular harsh stand against products allowing to short sell a stock. As an entrepreneur himself, he does not like the idea of betting against a company. If an investor considers a stock overvalued, he should simply not invest on it rather than trying to bring the company to the floor. He himself would not short sell a stock, so he is really critical toward these type of products.

Mr DELLIERE also has a negative view on these complex products, but for different reasons. He does not adhere to the "smart beta" approach and consider it as a disguised manner to sell an actively managed product. He would not include such product in a portfolio, and even find it "a bit irrespective to say that such product can bring the same skills and same results as a human being."

Mr AUPIAIS, once again, might be interested in such product for hedging purposes. An ETF allowing the replication of a highly specific benchmark might be of interest for him, if it permits him to stay invested in various market conditions. This goes back to the constraint previously stated, that he cannot instantly buy or sell mutual funds and hence need to find tools to

hedge. However, he only sees ETF as a temporary solution, because his own investment conditions do not allow him yet to use option or other derivatives products. If he could, he would have no use of such product.

5 Discussion

5.1 – Introduction

This section aims to link the primary data and findings of this study presented in Section IV – Data Analysis and Findings with the secondary research conducted through the document. The purpose of this section is to discuss these new findings in light of the previously existing knowledge, and shade the literature review with opinions from on-field market participants.

Secondary research has been conducted in both Section I – Introduction and in Section II - Literature Review.

As previously mentioned, this research aims to start bridging an existing gap in knowledge about relationships between active and passive asset management. Consequently, this study's findings do not always match a theme discussed by academicians and researchers.

The structure of this discussion will follow the four research objectives highlighted in Section I. As stated before, completing the four research objectives will provide an answer to the research question.

5.2 – Small active asset managers' views on the theoretical framework of financial markets, which tends to defend a passive investment approach

The most commonly discussed framework for financial market is the Efficient Market Hypothesis (Fama, 1965 and Samuelson, 1965). While this Hypothesis has been widely accepted by academicians to explain how markets operate, professionals struggle to observe it on a daily basis. Section 4.31 discusses this point and highlights several limitations to efficient markets. Markets can have a different form of efficiency based on the time horizon considered. The longer the perspective, the more efficient markets tend to be. This opposes to theory, which does not distinguish different forms of efficiency based on time periods.

Also, observations of markets can reveal situations where information have manifestly not been fairly communicated to all participants, even though regulatory requirements are set up to facilitate that. In addition, technical analysis might be of value in reading the market. These two point further question the relevance of the EMH, even in its weakest form.

Another point of view would be that all asset classes do not have the same level of efficiency. This actually corroborates the EMH, as liquidity is one of the condition for market efficiency. The less liquid the market, the less efficient it is.

A student of financial market must remember that these theoretical models are just starting points to get a sense of how markets operate, and are not actually thought to be taken for granted.

Despite Jensen (1968)'s claim that asset management does not, in average, outperforms a benchmark after fees, it is possible to justify an active approach to client because this measurement is based on an average (Section 4.3.2). Some managers can easily justify an active approach based on past returns. This view corroborates Jones & Wernmers (2011)'s study on SAM (Superior Asset Managers). It is also to be noted that most investors do not have enough financial knowledge to have a fully rationale behaviour and favour an approach over another depending on generated outperformance. This irrationality further contradicts the EMH.

Carhart (1997) developed his four-model factors, following the assumption that emphasizing some beta-factors can generate an outperformance. This later led the development of complex ETFs and smart Beta strategies. The added value of these products is hardly understood by active asset managers, a respondent even considers them as a disguised active asset management product.

Also, contrary to what Barras et al (2006) tried to do, interviewees cannot distinguish luck from skills for an asset manager. Both aspects are so intrinsically linked to performance that controlling his chance is a skill an asset manager absolutely needs.

This introduces the notion of behavioural biases discussed in behavioural finance theories (De Bondte and Thaler, 1985 and Montier, 2010). While the EMH struggles to find grounds with professionals, behavioural finance ideas are of much more interest to them (Section 4.3.3).

Market participants are sensible to biases and to moral hazard. This is the professional's responsibility to work to reduce their sensibility to these biases, to leave the herd effect and to conduct an independent thinking.

Most of the academic literature tends to give rationales on why a passive management approach should be favoured over an active approach. This literature served as basis for the development of passive management and ETFs products. However, professionals generally do not observe nor agree with assumptions resulting from these theories. They easily develop a counter argumentation to justify an active approach.

5.3 – The extent of which small active asset managers feel endangered by the development of passive management

When asked about the time period ETF really became an important trend of the AM industry (Section 4.3.4), the interviewee that situated this point the further back in time could not recall it being important before the 2008 financial crisis.

However, literature has been published on ETF and on passive investing much before this event: Bogle (2015) recalls the origin of passive investing in 1975, the first ETF has been issued in 1990, and one of the first book to discuss differences between these products has been written by the beginning of the 21st century (Gastineau, 2001). How can we explain such dichotomy between answers given and literature? Are the interviewees not experienced enough, or were passive and active AM simply disconnected trends in the mind of investors before the 2008 financial crisis? Further explanations tend to defend the second hypothesis.

2008 was an interesting period. In one hand, the crisis questioned the usually accepted EMH: If markets were efficient in proceeding information, the immediate and strong correction should not have happened. This theoretical backlash should have undermined ETFs. However, the crisis also was a serious critic against active asset management: active managers failed to anticipate the crisis and later got scared to increase the beta of their portfolios to ride the following upward trend. The result was that ETFs, with a beta of 1, ended up outperforming active asset management. Consequently, both trends were seriously compared for the first time. This is the moment when passive management started to influence the active management industry.

ETFs can endanger small active asset managers in two ways: they can compete with them, offering more aggressive fees, or induce systemic risk that jeopardizes not only asset managers but the all financial system.

All interviewees acknowledge that ETFs allow an investment for insignificant fees. This corroborates Malkiel (2013)'s observations of a significant decrease of fees for passive management products over time. This study also points an increase of fees for active management until 2013, which matches an interviewee comment: "It is obvious that some asset management company had a really good life, charging lot of fees". However, this trend seems to have reversed (Section 4.3.10) not because of an increased competition provoked by ETFs, but because of changes in regulation. None of the interviewee directly linked passive AM and increased pressure on fees. Consequently, we can conclude that these small active structures do not feel their activity threatened by this trend.

However, all three interviewees are aware of potential systemic dangers induced by ETFs.

As most ETFs synthetically replicate their benchmark through the use of derivative, it introduces a counterparty risk. Such risk has been discussed in Arnerich et al. (2012). The three interviewees wonder what would be the impact of a 2008-like scenario on which a big counterpart (such as Lehman Brother) goes bankrupt and stop ensuring liquidity for ETFs (Section 4.3.5). One interviewee pointed that ETFs' liquidity would probably be problematic in such scenario, especially since Authorized Participant do not even hold the physical assets to ensure liquidity. Such critic relates to what was found in the literature review: Petajisto (2017) pointed inefficiencies in the arbitrage process when liquidity on the market is low. This risk can be exacerbated by the potential of ETFs to worsen market movements, consequently increasing the spill-over risk from one product to various asset classes.

To prosper, all three participants agree that ETFs have to be tested in harsh market conditions.

5.4 – Interest of clients from smallest structures for opportunities offered by passively managed investment solutions

The literature review and other secondary data collected did not give much hypothesis of how interested might clients of small structures be by passively managed solutions.

An indicator of interest is obviously the rate of growth and quantity of asset flowing into ETFs. Pylypczak-Waylyszyn (2015)'s study on rate of growth of ETFs compared to mutual fund is a great indicator of interest. Similarly, the PWC (2017) study on perspectives for ETFs shows that this product resonates with clients. Interviewees gave explanations to understand this keen interest (Section 4.3.4): low fees, accessibility as ETFs trade like shares, access to a variety of investment strategies.

However, all interviewees adds that despite being aware of ETFs, clients are not keen to switch to passive management as they are satisfied by active asset management. An interviewee however acknowledges that an active asset manager underperforming its benchmark will have troubles to keep his clients.

Also, an investor following Markowitz (1952) Modern Portfolio Theory will be interested in investing in assets offering the best yield for a given level of risk, in order to bring her own portfolio closer to the efficient frontier. Consequently, if ETFs allow, in average, a superior return than active asset management, investors should be interested in investing in them. This would not hold true if such superior return was obtain for a superior volatility, put differently, if active asset management was, in average, less risked than the market.

This focus on returning a better Sharpe ratio than the market (Sharpe, 1966) has been expressed by all interviewed as a skill brought by asset managers (Section 4.3.11). This contrasts with literature that often solely focuses on performance with no consideration of risk (Jensen, 1968; Carhart, 1997).

5.5 – Point of view of small active asset managers on strategies followed by both big and small active AM companies toward the development of ETFs.

The three interviewees have been unanimous in recognizing the reaction followed by big asset management companies toward the development of ETFs (Section 4.3.7).

They interviewees acknowledge that big companies seized the trend by directing their resources, infrastructures and technologies to start their own ETF activity. They have the resources to enter this new, fast growing market. These opinions are consistent with what have been expressed in the introduction, based on Relbanks (2018) data and companies websites. Out of the 20 world biggest asset management companies sampled, 18 have opened their own ETF business, one has set up an actively-managed ETF business, and one has adapted its fee structure to better compete against ETFs.

These big asset management companies benefit from their strong brand to attract assets.

The integration of passive management solutions and the fact they feel threatened enough by ETFs to adapt their fees justify one of the interviewee's comment on these structures: they do not present themselves as outperformers, but as structures delivering a "good enough" management to investors. This corroborates the view that skilled managers often leave big companies to create their own structure. With a shortage of skilled managers but plenty of resources, these big AM companies find interesting to focus on volume with benchmarked investment products.

Concerning smaller structures, no secondary data about their reaction in regard to ETFs has been found during the elaboration of this study. What can be extracted from the findings is that these smallest companies usually are the one created by asset managers leaving the biggest structures. With skilled managers, they manage to outperform their benchmark. (Section 4.3.7).

Small structures do not particularly adapt their strategies to the development of passive management further than integrating ETFs in their set of investment supports.

To keep their client and convince new ones, they capitalize on their two competitive advantages: their management performances and their proximity with clients.

Outperforming the market is a topic that have been previously discussed. While academic researches usually focus solely on performances to compare passive and active asset management, managers have a strong bias to reduce volatility.

In order to keep their performance edge, small active asset managers chose to not divert their resources and workforce on products they do not have a deep expertise on, but rather focus them on niche markets they already are specialists.

Small asset management companies also capitalize on their human bias and developed close relationships with their clients. This is something bigger companies are not good at, and consequently try to dehumanize management to get rid of this point. By giving clients explanation of the market, of strategies followed and of the economic environment, small asset managers bring them a non-quantifiable service. This new aspect is completely ignored by the literature published on asset management. For instance, Jones and Wermers (2011) study on "Does active asset management add value" solely focuses on alpha generation and does not evocate this service aspect.

6 Conclusions and Recommendations

6.1 – Overall Conclusion

The purpose of this study on transformations undertaken by small asset managers in regard to the development of ETFs was to answer the following question:

How are small active asset managers adapting to the development of passive management?

To do so, the researcher first looked for answers in this existing academic literature, which was summarized in the literature review. Because secondary data were not giving a satisfactory answer, the collection and analysis of primary data was required. Section III detailed the methodology followed, Section IV presented the findings extracted from this data collection and Section V linked these findings with the secondary data collected.

A really naïve answer to the research question would be: They do not react.

Actually, small AM companies are well aware of the development of passive management and ETFs, but they simply do not give as much importance to this trend as what secondary data was suggesting us.

About the perception of small active asset managers on the theoretical framework of financial markets:

In a general sense, the sampled professionals have troubles to observe and apply the theoretical framework of financial markets developed by academics to the real-world they experience daily. These theories only are basics ideas to understand markets, but no model is successful in fully capturing the complexity of financial markets.

Even though they understand the theoretical rationale favouring a passive approach over an active investment style, small active asset managers easily develop counterarguments and do not see the point for them to modify their strategy accordingly.

The extent small active asset managers feel endangered by the development of passive management:

Small active asset managers do not feel their activity endangered by the development of passive management because they are able to retain their clients and convince new ones, thanks to their own particular competitive advantages: a better performance than biggest active AM structures, and a particular proximity with clients.

Nonetheless, small active asset managers see an opportunity in ETFs as these products offer new investment opportunities. ETFs are easily accessible, cheap, and offer access to a wide variety of strategies. Small managers are keen to integrate some of these products to their management.

However, the additional systemic risk carried by ETFs is clearly seen as a threat by these managers. Because of the synthetic replication process using derivatives, ETFs include a new systemic counterparty risk. In addition, worldwide regulation is heterogeneous and often fails to anticipate this risk. To prosper, ETFs will need to prove the solidity of this model in any type of market conditions.

Perception on strategies followed by both big and small active AM companies toward the development of ETFs:

From the perspective of small asset managers, biggest AM companies seem to really apprehend the development of passive management. They seem to see it both as a threat for their existing activity, and as an opportunity as a new market to conquer. Consequently, these big structures often start their own ETF business. Small asset managers are well aware of the strategy followed by their biggest competitors. They explain it for two reasons: first, these big companies have the resources, the technology and the marketing power to capture this opportunity. Second, their active management division is facing troubles to deliver value to their clients. A shortage of skilled manager is one of the reason brought to explain this last point.

Because Small active asset managers are usually better in delivering value to investors, they do not feel threatened by the growth of passive investing. Smaller structures do not see the point of diverting their resources to a new business they do not have expertise on. Rather than developing an ETF business as their biggest counterpart, small active asset managers

would rather invest their resources to develop their competitive advantages and foster their expertise in niche markets.

Interest of clients in the opportunities offers by passively managed investment solutions.

Clients of small asset management companies do not seem to have much interest in opportunities offered by passive management. They seem to be satisfied by the management and service provided by small AM companies, and consequently do not consider switching to a passively managed investment solutions. Clients are loyal to small asset managers thanks to their two biggest competitive advantages:

First are the management performances themselves: small AM companies often are successful in outperforming the market while taking an inferior risk than it. Also, these structures are often specialised in specific asset classes and really bring their client a deep expertise in this market section.

Second is a non-numerical competitive advantage. These small companies often developed a proximity with their clients that their competitors struggle to maintain. Small companies bring a human bias, and are keen to give their clients information about the market and the strategy they follow. This aspect is widely ignored in academic work, but seems to be of value for investors.

Performance is likely to stay the main factor in an investment decision in the future. However, while big AM companies are trying to dehumanize management, smallest structures may have an edge by emphasizing the human bias and the proximity with their clients.

6.2- Recommendations

Recommendations to be drawn from this study obviously depend on the profile of the reader. As mentioned in the introduction, this study primarily aims three types of readers: Academicians, Professionals of the AM Industry, and Student of Financial Markets

Concerning academicians and researchers, the most important recommendation that can be draw from this study is that they should really increase research efforts focused on relationships between active and passive asset management. As mentioned before, markets observers have seriously started to compare these two trends since the 2008 financial crisis, and yet really little research has been published on relationships between these topics.

Several axes for further researches are discussed in the next part of this section. A second recommendation the writer could make to academicians is to be less dogmatic in their researches. They need to acknowledge that no model perfectly explains the operation of financial markets and that any model suffers flaws. Consequently, they should not be systematic in their conclusions. This particularly holds true for analysis assuming the efficiency of market or the rationality of individuals. Another remark that can be made is that academicians should better consider the risk/return relationship in their analysis rather than focusing solely on performances. Non-quantifiable services provided by small AM companies should also be taken into consideration when comparing the added value of different investment providers, even though this qualitative factor is hard to compare with quantitative data.

Professionals of the AM industry should study their own competitive advantages and ask themselves how they can capitalize on them. This reflection must include the non-numerical value they bring to their clients. Small active asset managers should not underestimate the trend toward passive management: this is an important topic that will have a transformative impact in the future, ignoring it today may jeopardize their future activity. Similarly, big asset managers should not overestimate it neither, this trend is still a topic under development and will take time before really transforming the industry. As of today, other issues are probably more urgent to be dealt with.

Also, ETFs so far have only experienced bullish market conditions, with little correction time-periods. To prosper, they need to pass the "harsh market condition" test, which means that some of the product existing now may not survive. Being overenthusiastic in new product development bears risks that should not be understated by adventurous AM companies.

Concerning Financial Markets students and curious readers, the main recommendation the author can make to them is to not forget that theoretical models are just basis points to start understanding markets. Reality is much more complex than these assumptions. The author's hope is that this study successfully highlighted the complexity of this one-amongst-others topic. With this study, readers should be even more convinced than before of the necessity to develop a deep understanding of topics and keep a critical mind toward pre-conceived opinions. Truth is always more complex than what can be thought at first.

6.3 - Limitations and suggestions for further Researches

This study aimed to give the reader a better understanding of how small active asset managers are adapting to the development of passive management. The author believes the study successfully completed this goal by providing new insights and valuable perspectives.

However, this study is subject to limitations that the reader has to be aware of.

First of all, the researcher faced difficulties to collect more primary data. Even though many people have been contacted to take part to this research, only a few actually accepted. As a result, the size of the sample, only made of three respondents, is a big limitation of the study. As so, the view expressed cannot be considered as exhaustively representative of the asset management industry.

It is to be noted that the three of them are French active asset managers from small companies. This homogeneity in profile might induce biases. Nevertheless, these respondents have been selected because their professional experiences qualify them as experts of their industry. As so, their opinion is highly valuable.

It is to be noted that the three interviewees were really keen to give exhaustive explanations and opinions on the topics. The interviews conducted were of really high quality.

The time constraint of this study, realized over a twelve weeks period, also limited the choices possible to the researcher. Consequently, some topics have been purposely excluded of the scope of this study. For instance, relationships between asset managers and corporate governance might become an interesting issue to study if passive management was to keep growing exponentially. Because of time-constraints, the researcher chose to not cover this topic.

This study opens the path for further researches. The researcher believes topics to be urgently studied are the systemic risk carried by ETFs, the efficiency of the arbitrage process in low-liquidity environment (even though some studies (Petajisto, 2017) have already been recently conducted), and the impact of ETF-flows on the underlying asset. Another field of interest to be studied is the new perspectives offered by fintechs and automatic investment, which is closely link to the growth in ETFs' volumes.

Also, as stated before, further researches could focus on the non-quantitative value added by asset managers to their clients.

7 Reflection on Learnings

7.1 – Introduction

This final chapter aims to appraise the learning experience occurred during the overall MBA program.

The first part will concentrate on learnings during the two semesters of lectures. A focus will be made on how the researcher learned during this period, using the Learning Circle model developed by Kolb (1984). As a complement, Honey and Mufford (1992) Learning Style will be used to determine what type of learner is the researcher. The following image summarizes these two concepts:

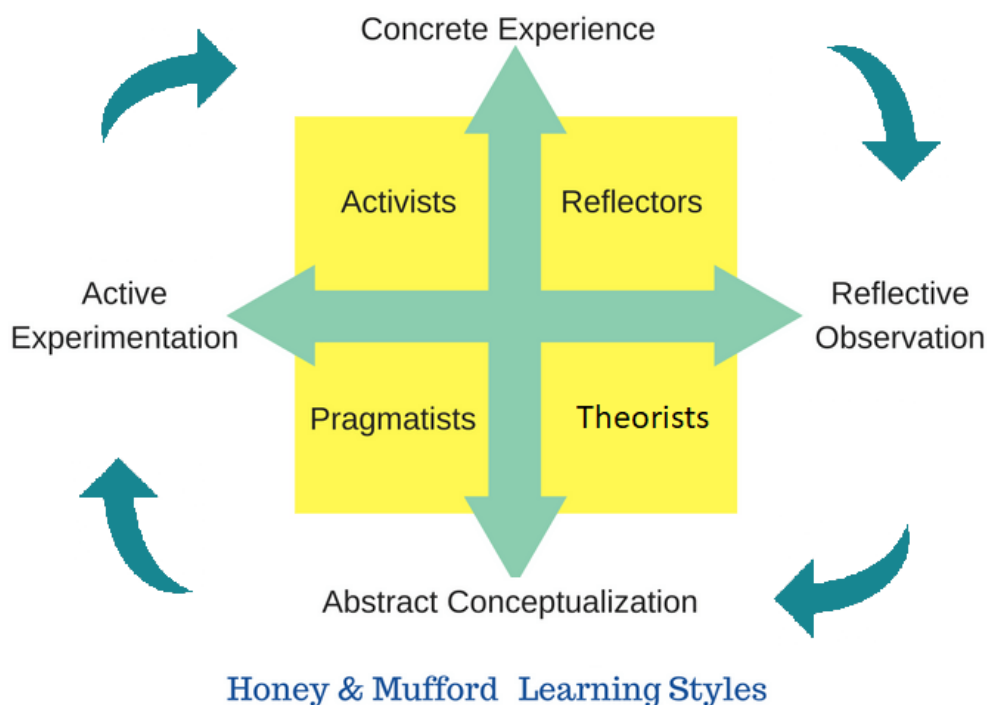


Figure 9: Learning Circle and Learning Styles

Based on Kolb (1984) and Honey and Mufford (1992)

A second section will review the process of writing the dissertation and assess how acquired skills have been employed. The last section will describe how the researcher plans to use these skills throughout his future career.

As this chapter is a reflective thinking, the author will employ the first person from now.

7.2 – Undertaking an MBA at Dublin Business School

Before enrolling for the MBA Finance Stream program at Dublin Business School, I had already passed a Master Degree in Engineering and Financial Markets, at ISEG Business and Finance School in Paris. A partnership between DBS and ISEG allowed me to move to Dublin to undertake this new challenge. I knew from feedback from alumni that DBS' MBA program was different than the teaching at ISEG.

Even though I already felt ready to start working after my first master, which really was a hand-on practical teaching and work-oriented, I also felt that I needed to strengthen my academic and theoretical knowledge to be fully prepared for my career. I also was enthusiastic with the prospect of spending a year abroad, to meet people from different cultures and improve my English.

As expected, despite having chosen the Finance Stream, lectures given during the MBA were less technical but broader than the ones given during my previous master. Lectures were of three natures: Business-focused (Business Strategy, Management, Marketing), Finance-focused (Financial Analysis, Corporate Finance, Operation of Financial Markets) and oriented toward the making of the dissertation and the requirements in term of academic writings (Personal and Professional Development, Research Method, Writing for Graduate Study).

This MBA covered Business and Finance topics I already studied during my Master. Consequently, the practical value added of these lecturers was marginal. However, the angle of study was original for me as it really focused on theoretical perspectives. Also, the requirements in terms of academic writing was something new that I never experienced before. I am convinced this MBA really developed my ability to efficiently read research papers, extract meaning from them, critically evaluate them and then summarize the findings. I believe that, apart from progress made in using the English language, these academic abilities are the most important skill I developed during this MBA.

Kolb (1984) learning circle is a great tool to better understand the effective learning underlying the acquisition of this skill. From the first assignment due for the Personal and Professional Development course to this final dissertation, I have submitted about a dozen of other documents written using an academic-style.

For this specific skill, my own Kolb's circle started on the "Abstract Conceptualization" stage when the first lecture was given on "Writing for Graduate Studies". Requirements lecturers were going to expect for assignments have been detailed during this first lesson, but I did not quite seized them before going through the other stages.

The first active experiment I encountered was planning the writing of my first assignment. An active experimentation happens when the learner apply new ideas to real world.

A concrete experience is the result of this experimentation. In this case, the concrete experience was the first final document I submitted. Even though I believed to have redacted a document of sufficient quality, the grade and feedback obtained from it showed a difference between my understanding and the actual requirement expected. This first round of the learning cycle was then completed.

Additional "Writing for graduate" lectures combined with additional preparation of assignments allowed me to complete the circle again and again over the two semesters. By the end of the academic year, my writing skill got refined and improved by the process until eventually reaching a sufficient level allowing me to write this dissertation.

During the process of refining this skill over and over, I realized what type of learner I was according to Honey & Mufford (1992) Learning Style. Different types of learners learn best at different stages of the Kolb's Circle.

I realized that I am an Activist Learner, which mean I learn the most when I got involved and play an active role in an experience. I learn best between the "Active Experimentation" and "Concrete Experience" phases, when I really got my hand in the work. I learn by experiencing.

I also feel a Pragmatic Learner. Applying studied concepts straight to my work helps me to improve my skills. This was especially true with advices we had on how to efficiently read academic documents and to better organize our researches. I have been able to immediately apply these ideas to a marketing assignment I was working on.

However, I do not fell a theorist learner at all. I feel it hard to extract valuable knowledge and skill improvement by linking the different feedbacks and observations of my works to new theories. I find it hard to generalize into rules feedbacks from a specific assignment. Also, I tend to forget the concepts I study if I cannot directly apply them to a real-case situation.

I am not feeling much of a Reflector learner neither. A reflector will particularly best learn by reflecting on the work he has done, especially by discussing with other people. On the contrary, I tend to forget about a work once completed, and quickly move forward.

7.3 – The process of redacting the dissertation

Over two semesters of lectures, I acquired the ability to efficiently read academic documents, extract meaning from them, critically evaluate different points of view and summarize these findings in a document written with an academic tone.

This skill acquired through the MBA was central to the redaction of this dissertation. It actually intervened in every phase of it, from the very early stages to the very end.

Defining the topic of my dissertation employed this skill. Even though I knew from the beginning that I wanted to focus on financial markets, as I am passionate by them, narrowing the topic to a specific area was a complicated task. This field is full of interesting topics that regularly make the headlines of newspaper, so actually picking one out of a wide variety of topics was difficult. To do so, I went through a lot of reading, I gathered opinions and thoughts, and picked the topic that I believed might have the most transformative impact on this industry. Also, as I myself ambition to career as an active asset managers, I felt that learning more about ETFs and passive management was valuable as this new trend has the potential to threaten the existence of the job I want to do.

Once the topic defined, I had to go through a lot of reading of academic papers, summarizing ideas and opinions in order to determine a knowledge gap. I firstly realized the gap in term of studies on relationships between active and passive asset management. Only later in the process, I noted that the reaction of biggest companies was homogenous while no secondary data was available on the reaction from smallest structures, which gave an additional, narrower angle to my study. Such analysis has been greatly helped by my ability to efficiently read and compile data.

Analysing the secondary data through Section I – Introduction and Section II – Literature Review obviously required the use of this specific skill. The Section II is about going through an important quantity of academic papers, summarizing ideas and analysing points of concordance and divergence between authors. In some way, going through Section III –Methodology also used this skill, even though sources were less academics and more Research Study Handbooks. Section IV – Data Analysis and Finding was also about summarizing and discussing data, though from a different source. Finally, the all process of redacting this dissertation using an academic tone was obviously an application of this skill.

Academic sources are incredibly rich in term of contents and ideas. However, efficiently going through them is a hard and complex exercise. The MBA taught me how to write using an academic tone and how to go through academic research papers, summarizing and confronting views to extract new ideas. I am now much more confident in using this skill in my professional life, and I feel more ready than never to finally start my career.

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Appendices – Transcript of interviews

INTERVIEW 1 – Thibault FRANCOIS

Pierre Ketterer:

This interview will be structured into four parts: First, a quick question about your career, how did you arrive here. Then, we will discuss the theoretical framework of financial markets, the EMH etc.... After that, we will focus on passive management from a global perspective, from the perspective of the industry. Finally, we will be more specific and see how you react to that.

Could you please walk me through your career, your studies, and what made you create Fasted? Also a word about your activity and your clients.

Thibault François

Alright. I started studying accountancy, before going to more specialised studies in financial risk management at ENSAI. Then, I became a Sales in a brokerage company during 7 years, working with both stocks and bonds. I created Fasted in 2011, with the goal of bringing asset management outside of Paris, which was something that did not really existed.

Fastea has two main businesses. First, we offer private asset management through seven different management mandates. Second, we offer collective asset management through two mutual funds. Our clients are individuals and companies, and we will soon be open for wealth managers.

Pierre Ketterer:

Thank you. What is your opinion about the Efficient Market Hypothesis? Are markets efficient, and if so, in which form? You probably know that there are three forms of efficiency: strong, semi-strong and weak. What do you think about these hypotheses?

Thibault François

It all depends on the time horizon. From a short term perspective, markets are not efficient. Middle term, they become a bit more efficient, but become much more efficient on a longer term. I would even say that they become completely efficient... It all depends on the time horizon.

Pierre Ketterer

After fees, in average, it has been observed that asset managers do not outperform their benchmark. Consequently, how can an “active” investment style can be justified over the long term?

Thibault François

Continuous quotation generates, every seconds, arbitrage opportunities. These opportunities allow the creation of added value. On a daily basis, the dynamism coming from the asset manager allows him to regularly outperform the market. Indeed, daily and middle-term performance are drivers for long term value creation.

Pierre Ketterer

This brings us to the next question. Three researchers from HEC Geneva studied a sample of 1300 mutual funds, studied their performances and corrected them from the « luck » factor, in order to

determine the « real alpha » brought by the management team. They realized that 77% of the mutual funds do not generate after-correction alpha, while only 2% generate a positive alpha.

From your experience, are these results realistic? Are these results you empirically observe? And also, how can a mutual fund manager be skilled?

Thibault François

Indeed, there is a lot of luck in asset management, but there is as much good luck as there is bad luck. Do this study determines the part of bad luck in most of the mutual funds? Management is skill and also luck...

Sadly, or luckily, we do not manage on a daily basis the companies or the assets we are invested in. We consequently have a “random” factor that is quite important. So yes, we have no control over a news that can affect a whole industry or a competitor, we have absolutely no control over that.

Over the questions of market timing, companies can suffer from bad news coming from a competitor despite themselves publishing good results. A stock that should, fundamentally, be going up can undergo some negative momentum. There is this uncertainty aspect that is really important in asset management. The way to solve that is by having a deep understanding of companies we invest in.

Pierre Ketterer

So, your main skill is this deep understanding of your companies?

Thibault François:

Exactly. But the good/bad luck always stays something really important.

Pierre Ketterer

What are your thoughts on behavioural finance, which comprises all the behavioural biases humans are sensible to? Is it a source of outperformance?

Thibault François:

Indeed, this is something really human to stay invested in a company that we like, and the opposite, quickly cutting some stocks we don't like that much... The thing is to be able to get out of the herd effect. We have to get out of the “I need to buy this asset because everybody else bought it”, and we have to be able to get against the trend. That's also how we generate return.

Pierre Ketterer

To use this behavioural aspect to generate outperformance. Do you really, regularly, see situations where markets become crazy and create arbitrage opportunities?

Thibault François

Yes, I know, lot of managers really want to catch the trend, by investing when markets are going up. Also, getting out of the market when they are rising is a really strong management move, but most of the time, such move pays.

Pierre Ketterer

In 2016, about 4% of worldwide assets were invested in ETFs. By 2025, about a quarter of these assets should be passively managed. What do you think of these numbers? Would you imagine a world without active asset managers?

Thibault François

The thing is that the next world crisis will come from ETFs and Real Estate Funds... quoted products or not...

ETFs are good: they charge low fees and replicate the CAC40 minus fees (so underperforming it each year), without any hope for additional gains. At least, active asset management gives the investor hope to beat the index. Maybe, over the long run, I don't know if we always bet on the right horse, but when it comes to ETFs, we know for sure that we are going to underperform our index.

However, the big advantage of ETFs, at least for us asset managers, is that they allow us to invest on assets that otherwise wouldn't be accessible, or could hardly fit within our management mandate. We now have access to assets, such as commodities, that could interest us. For instance, we cannot buy physical gold, but we can always buy a tracker that replicates the price of gold.

Pierre Ketterer

ETFs, are they an opportunity or a threat for active asset management?

Thibault François

I would say that they mostly are an opportunity for us.

Pierre Ketterer

From which point on time would you say that ETFs really became a topic?

Thibault François

We have been using ETFs for a very long time on specific asset classes, especially commodities, for at least ten years. I remember having bought a lot of ETFs on wheat about ten years ago. Today, since two or three years only, we talk of ETFs for stocks and indexes. Maybe regulation favours that, as ETFs allows to be more transparent and to reduce fees...

Pierre Ketterer

So it's been ten years on commodities and about two or three for indexes... Would you say that the 2008 financial crisis favoured the development of ETFs? Did you feel a "crisis effect" on these products?

Thibault François

Not really no... But in each crisis are born new products, which ultimately will be responsible for the following crisis.

Pierre Ketterer

This growth of passive asset management is one of the long-term trend of the overall Asset Management Industry, but this is not the only one. There are other trends, such as a tougher

regulation, requirements for more transparency... How important is this redeployment of assets toward passive management? What is the most important long-term trend of the industry?

Thibault François

Oh no, ETFs are not a particularly important topic.

The most transformative trend of the market would rather be the end of under-mandate asset management. Because of increased constraints, because of overlapping fees and because of increased transparency requirements for asset management that other actors, such as banks or insurance companies, don't have to respect... What happens is that a few companies specialized in under mandate management are merging. As a result, discretionary management is disappearing both for individuals and for companies...

Pierre Ketterer

More regulation and transparency requirement, which competitors do not have to follow...

Thibault François

That's actually not really for all asset managers... Today, we are much more transparent than real estate asset managers for instance...

France is a real-estate country and not one of financial assets, which are really regulated and have high transparency requirements. Real estate still is opaque on its overall fees... Everyone can make a lot of money in the real estate business, but much less in the financial segment. We could even consider starting a real estate fund that would earn us lot of money. Clients wouldn't earn much, but at the end, we would be profitable...

Pierre Ketterer

During my researches, I realized that most of the big asset management companies had a similar reaction in regard to this passive management trend while smaller companies had more diverse reactions. Consequently, I chose to focus my study on smaller companies. Would you say that this focus makes sense? Also, do you have an idea of how are big asset management companies are reacting?

Thibault François

Why are small structures existing? Simply because skilled managers from big companies leave, in order to create their own structure.

How do these big companies react? They have to manage assets with less skilled managers than smaller structures, and consequently focus on doing benchmarked management "for the people". They specialize in flow products, in opposition with much smaller structures looking for alpha. Indeed, big companies go toward a mass distribution rather than toward specialized products.

Pierre Ketterer

This is exactly what I've seen, and this is actually the answer I was waiting from you. Big companies are starting their own passive management business, by creating their own trackers and index funds, to follow this growing market.

Even though you previously brought elements to answer, how would you say smaller structures are reacting to this trend?

Thibault François

They don't.

Actually, these structure have now access to some interesting products, but there is not much more reactions in regard to this topic. A specialized company, let's say specialized in convertible bonds or in bond wealth management, will stay in its niche market. Multiplying funds while we don't have the skilled workforce does not make any sense. However, it makes sense for a bigger structure, as managers do not necessarily have skills to manage very specialized products.

Pierre Ketterer

This is what your do with your company. You stay in your domain of expertise.

Thibault François

We work with products we know ins and outs. That's something absolutely necessary.

Pierre Ketterer

Do you feel pressure on your fees? And can you identify these pressures as coming from passive management?

Thibault François

Yes, we have a lot of pressure on fees... But I absolutely cannot assimilate it to passive asset management.

Pierre Ketterer

Alright. Do you have any feedback from your clients? Do they spontaneously talk about investing on a tracker or on an ETF?

Thibault François

No, absolutely not, zero. This really is not a problematic for us. Today, ETFs have less fees than most of other funds, but our funds already are advertised. We have no questions about fees. However, because interest rates are really low, it is hard to generate yield. Consequently, to create this performance, we have to reduce our costs and look for expenditures we could reduce. When rates will rise to 3 or 4% over the next few years, it will become easier to create yield... No one will talk about ETF then.

Pierre Ketterer

So ETFs are just a trend that may really well be over soon?

Thibault François

I am convinced that they will disappear with the next crisis, especially if it is a liquidity crisis. Or anyway, ETFs will be consequently reduced, just like Real Estate Funds...

Pierre Ketterer

ETFs are still relatively liquids. Biggest ETFs are really liquids and traded a lot.

Thibault François

No... Well, the thing is that liquidity issues arise when everyone want to go out at the same time. Yes, true, we can quickly buy and sell on a daily basis, a spread is set up... But if everyone go out at the same time, the spread is about to dramatically increase. The bookkeeper, usually a bank or an insurance company, will not be able to guarantee this liquidity. They often don't even hold the physical assets. How can they ensure liquidity if flows only are sellers?

Yes, if conditions are normal, we can buy and sell shares on the market. What if conditions become abnormal?

Pierre Ketterer

So the point is that ETFs haven't been tried in a difficult situation yet.

Thibault François

Absolutely not! We will see how it goes if we undergo a new 2008-like crisis.

Pierre Ketterer

Why would an investor choose a fund from your company? What are your competitive advantages over other asset management companies, and over ETFs?

Thibault François

A lower volatility and our management performances... The goal is to control volatility and generate a regular performance consistent with our indexes. On top of that, we try to outperform each year. If we underperform, we must be able to explain why. This reporting aspect is crucial, we have to explain to the client why our management style works, or not. Anyway, fees are not an axis to work on for our clients or leads.

Pierre Ketterer

Do you really believe this reporting aspect is important?

Thibault François

I believe yes. This is 90% of my job, and it is also what is interesting. Why is the market flat since the beginning of the year while 80% of stocks composing it are down? It is interesting to see which industries performed and why.

Pierre Ketterer

This ability to explain... This really is your strength, and something a client cannot access if he buys a tracker.

Thibault François

Exactly! He would not have the information. Some things work well, other don't. It is important to see what outperform, what underperform, and how everything makes sense. This is something really appreciated by the final client.

Pierre Ketterer

You have a direct contact with your client. This contact is something a bigger asset management company, like Blackrock or Vanguard, may not have.

Thibault François

The client will have to go through several layers of sales people yes. Each sale person will be in charge of a type of client... Another layer yes.

Pierre Ketterer

Do you use ETFs in your management?

Thibault François

Yes, we do use some.

Pierre Ketterer

May I have your opinion on complex ETFs, those offering smart beta or a specific indexing... These new products that are getting tested, like ETFs offering to replicate an actively managed portfolio for instance... What do you think of that, would that be products you may use?

Thibault François

There is frankly no interest... These are features that already existed on warrants. We saw that 20 years ago, it was said to be something exceptional that was about to replace active asset management. After the first crisis, everyone stopped using them... We had options, now ETFs... One can clone everything, but what is the purpose of that... I really have troubles to see the interest of such products.

If some people use them... why not? But ask the CEO of a listed company the interest of having short-seller on the company's stock. What is the economic interest of short-selling a company from the CAC40 or a small or medium company...? Except speculation?

Pierre Ketterer

Theoretically, this is arbitrage. When a company is over-valued by markets, short sellers will allow the price of the asset to go back to its theoretical value... This is how short-selling is justified.

Thibault François

But what is the economic interest? I mean, the guy who doesn't like the asset, simply doesn't buy it... He goes to another investment...

Pierre Ketterer

Yes, this is clearly going against the company.

Thibault François

It is betting that the company will go down, there is no economic interest... Either we are a country of entrepreneurs; in which case we go toward that, or...

Pierre Ketterer

Do you have this « social responsibility » bias? As an asset Management Company, is your purpose to invest in company rather than going against it?

Thibault François

We set up CSR criteria, it does belong to our specifications and investment process. We are not going to... Anyway, as long as I am president, we will never short-sell a stock in a Fastea capital' funds.

Pierre Ketterer

Alright... This is really interesting. Actually, it exists some CSR ETFs that use short selling.

Thibault François

Societal Criteria and ETFs? I don't really see...

Pierre Ketterer

More and more ETFs are complying with CSR criteria. For instance, they can comply with constraints set up by the Norwegian sovereign fund, which follows a really strict ethical framework. Such ETFs may replicate this fund constraints or portfolios, and consequently are presented as "ethical". They especially won't invest in companies producing tobacco or fire weapons for instance.

Thibault François

How not investing into tobacco is ethical?

Pierre Ketterer

Yes, we could obviously discuss how relevant are these criteria.

I have two last questions. What is the future of ETFs? We discussed that already, and it seems that you do not see a really bright future...

Thibault François

No, there may be a future for ETFs...

Make liquid something that we couldn't buy, why not. However I do not see the point of making liquid something that could be otherwise bought.

Pierre Ketterer

Thanks. Finally, would you see any aspect of the topic that we did not discuss? Anything to add?

Thibault François

No, not really...

Pierre Ketterer

Many thanks for your time, you helped me a lot.

INTERVIEW 2 – Axel DELLIÈRE

Pierre Ketterer

This interview is structured in four parts: A first section about your education before working with asset management, a second part about the theoretical framework of financial markets. We will then discuss ETFs from a global perspective, before moving to more specific questions about the company you worked for.

To begin with, could you tell me about your studies and about the company you were working for?

Axel Dellière

I passed a Master II about Financial Markets in Clermont-Ferrand. It was specialized on asset management and on all the jobs operating on financial markets, from sell-side jobs to brokerage or even asset manager.

After that, I have done an end-of-study internship in Fastea for 6 months as a manager assistant. My main goal was to set up management tools, especially a stock screening system and market screens. It was a lot of VBA programming. I have been in contact of passionate professionals, with whom I learnt a lot.

Following that, I have been offered a job in September 2015 in the continuation of my internship's activities. I became manager assistant. I was helping the asset managers in their daily activities.

I took a position as junior asset manager in December 2016, and I started to focus on collective management, while before that my focus was both on individual and collective management. From this point, I only intervened on private management as a support for sales people to give clients a technical and cyclical explanation. I also was presenting the company's investment themes.

Pierre Ketterer

You were in contact with client, supporting sales people.

Axel Dellière

Yes, it really was a support activity. My main activity truly was collective management, with a special focus on bonds. The company has two mutual funds: A first one investing in French stocks, the second is diversified. I was in charge of the "bonds" department, mostly for the diversified fund but also sometimes for the equity mutual funds with the selection of convertible bonds.

Private management offers several types of mandates, from a dynamic one to a treasure management mandate. This required a quite active bond management, especially since interest rates were in a very special situation these last months or last years.

All of this went until March 2018, when I left the company.

Pierre Ketterer

Can you tell me your opinion about the Efficient Market Hypothesis? Do you believe in it, if yes, in which form? You know there are three levels of efficiency: the strong form, the semi strong form and the weak form. What do you think of all of that?

Axel Dellière

To be honest... This is beautiful on paper, but incredibly difficult to implement in a real world situation... Could you remind me about differences between these three forms?

Pierre Ketterer

The weak form integrates all past information, including past prices, which makes technical analysis useless. The strong form states that all information, either past, present or futures, public or private, are reflected into prices. In this situation, insider trading cannot be used to create abnormal performances. Semi-strong form is between these two forms: technical and fundamental analysis are useless, but insider information can create outperformance.

Axel Dellière

The market is theoretically supposed to be efficient. All regulatory elements to make this efficiency possible are in place. The problem is that in practice, we realize that there is a lot of insider trading. This is not even a secret. You just have to study stock prices the day before the publication of an important news that was supposed to stay private. We can observe links between stocks, we can see mutual arrangements between friends on large equity movements, and we can perceive rivalries between major players in stocks prices... Also, we see a lot of privileged information.

This is only half-true to believe that fully efficient markets can be established. Today, we are in an environment where each sell-side will try to favour some of its customers to bring them information coming from outside of the market.

These are things we need to be able to see and anticipate. Even though each participant do not access the same level of information, we can anticipate some stuff. Sometimes, meeting an investor relationship officer can bring a lot of information...

Pierre Ketterer

Information that are not available elsewhere on the market.

Axel Dellière

Yes, not available... It happens sometimes that investor relationship officers make an error during their smoke break...

Pierre Ketterer

So we can discuss the weak form of efficiency, but strong and semi-strong forms are excluded.

Axel Dellière

We can discuss weak form, even though technical analysis... Even past information...Is all past information really available..? Lot of companies have light investor relationships website, very very light... Some websites do not even publish the date they plan to publish their results, and we cannot have the information if we do not meet the people in charge of investors-relationships.

From a practical perspective, EMH is hard to see...

Pierre Ketterer

Some researchers and academicians studied a lot of funds, and realised that after fees, the average asset manager is unsuccessful in outperforming his benchmark... In such context, how can an active approach can be justified?

Axel Dellière

Precisely because it is an average! There will always be people that will outperform. Some are good, some are not, if you do the mean of everyone's performance, we reach the market's performance...

How to justify an active management-style... At least with past performance, even though they are no guarantee of future results, they at least give an idea of the quality of management.

Depending on the asset manager, an active approach can be completely justified. It is actually really hard to say that active asset management is irrelevant when we see the outperformance generated by some mutual funds.

Pierre Ketterer

Is it a question of skills?

Axel Dellière

It is about skills and people before everything else. We have to be able to dive into the market at the right time, know how to find the person that will generate outperformance, and from that will be justified active asset management.

Pierre Ketterer

It is a story of people... This leads us to the next question. Other researchers studied a big sample of about 1300 funds, and tried to correct the performance from the "luck" factor in order to determine the true alpha generate by each fund.

The result of this study is that about 75% of funds do not generate performance by themselves, about 23% generate a negative performance, destroy value for investors, and only between 2 and 3% of managers actually create a positive alpha. Are these results realistic to you? Did you observe similar results? And also, how can an asset manager bring skills?

Axel Dellière

A definition of chance has to be given... Honestly, if we don't take risks, if we don't put ourselves in a situation that requires luck to outperform, we are not going to do anything. Breaking down performance to see luck... I consider that the all performance is part of luck, this is a bet... This is a zero-sum game. When we buy, someone in front of us bought being convinced he did the best operation he could. There are so many unknowns that it always ends up being about luck, but we need to be able to create luck. Some people are better in that than others.

It brings us back to the manager's skills: A skilled manager would be someone who knows how to take calculated risks without getting over excited, a manager that stays consistent with his management

style, knows how to read the market and is able to gather all needed information before taking a decision.

An example that could be linked to this topic... We had the firm CGG [*a French oil-related stock undergoing structural difficulties*] that is undergoing a debt restructuring process. Some investors which were already holding part of the firm's debt came to buy additional debt, while the restructuring was already announced. They strengthened their position, going for a really dangerous bet.

We can think that at first, these managers took an investment decision after analysing all the information needed, because they were seeing such operation as safe. They got unlucky once with the debt restructuring announcement... Until this point, the risk they took was measured, but since they stayed on their initial analyses and kept investing, the management team seems to have taken risks that probably were not adapted to their clients... And here, we are back to a matter of person.

Pierre Ketterer

This is a behavioural bias. This is all about ego.

Axel Dellière

There is indeed huge behavioural biases, yes. Pride and Ego are big players in the game. We need to have our convictions, to be able to bear them and we need to be sure of what we do. But also, we sometimes need to be able to question ourselves. Theoretically, we should reset all our analyses every single second, each time a new information comes to the market.

Pierre Ketterer

Next question is linked to what we just discussed. It deals with behavioural finance. Do you consider it at an opportunity, a way to generate outperformance, or on the contrary would you rather see it as a risk asset managers have to be really careful of? I imagine the answer will be mixed.

Axel Dellière

This is obviously a risk... The herd behaviour is something we often observe on markets. Many people invest in an outperforming stock for the only reason that it is a performing stock, which pushes it even higher. It can become dangerous as people get excited, and the opposite holds true in a stress and oversold situation. There is a part of behavioural finance. However, it also is an opportunity. If we note such irrational excitement, either up or down, then we can invest against.

It is dared to say so, but these are things we can anticipate. Put simply, technical analyse may be seen as an anticipation of these investment biases.

Pierre Ketterer

Asset managers need to know how to detect these biases.

Axel Dellière

Absolutely yes! And this perception is something I have already seen implemented in the company I used to work for... But it comes with a great experience. One needs to have lived it beforehand to be able to anticipate it... and often needs to have been trapped into one before.

This is still something really impressive to witness. It happened that we arrived to the office a morning, expecting something great to happen on a special stock, but nothing actually happened... And we then

realized that only a behavioural bias prevents the stock from performing this day. In such case, we just have to commit for it, and wait for other actors, namely analysts and other fundamentalists' managers, to realise about the stock potential and also commit. This is when it becomes really interesting and impressive!

Pierre Ketterer

Let's move to another topic: ETFs and passive management from a global perspective, from the perspective of the industry. In 2016, about 4% of world assets were invested in ETFs, and it is estimated that by 2025, about a quarter of world asset will be passively managed. What comment could you give of these figures? And, could we imagine a world without active investors?

Axel Dellière

We cannot make it without active investors. At some point, it is necessary that somebody makes a decision. Investing is not only algorithms and logical thinking, there is a really important underlying human factor, especially when it comes to risk taking. It will be long before we create a machine in which we can entirely rely on.

For sure, there is a lot of algorithmic trading as of today, but this trading is based on simple thinking. It is something extremely hard to implement when it comes to a long term investment. At least, according to the publications I read, I really perceive a reluctance in going toward algorithm-based long term investing.

Concerning ETFs... I think we must consider them as an opportunity, but we should not forget all risks associated.

As of today, ETFs give investors an opportunity to diversify and to instantly cover their positions in regard to some specific risks, all of that in a convenient and easy to access supply-demand driven market. We must keep in mind that ETFs are often based on a derivative and on automatic processes that could make markets accelerate their momentum, either upward or downward. We've experienced that once in 1987 and we since set up protective measure. However, nothing guarantees that we will never go through a similar event that would have been made possible by out-of-control machines because of their complexity.

Pierre Ketterer

You answered a part of this question already, but do you consider ETFs as an opportunity or a threat for active asset management?

Axel Dellière

I think ETFs are an opportunity for active asset management. It creates new products and new markets, and gives a much easier access to some macro-economic strategies. If, for example, we want to invest in the gold industry, we are now able to find an ETF linked to all stocks of the gold industry, for instance all mining companies in the world. If we wanted to access such strategy without an ETF, it would require important brokerage fees and induces research costs.

Pierre Ketterer

And it even exists ETFs that directly replicate the price of gold, without going through mining companies. It suppresses another layer.

Axel Dellière

Absolutely, this is why ETFs are a real opportunity. They open a colossal range of tools for asset managers.

Pierre Ketterer

I saw a couple of months ago that the funds you were working for bought an ETF on the VIX; this is another asset that would not be easily accessible using another mean.

Axel Dellière

Exactly yes, it would have been really complicated to implement such product for a mutual funds; it would have required skills that we did not necessary have, but of which we have a deep enough understanding to anticipate the ins and outs of future price movements. We knew where this asset could go, we initiated a position, we took our gain and we simply moved on. It really is a new opportunity.

Also, ETFs became a tool for asset managers to see inflows and outflows on asset classes, which gives a feeling of what the market anticipates. It is really interesting, and we increasingly perceive it. Many financial journalists regularly comment on ETFs flows for instance.

Pierre Ketterer

I read on this topic a while ago. Flows are actually calculated on flows going to or out of the ETF provider [*the Authorized Participant*]. However, freshly issued shares of an ETF can then be short-sold. This is something to be careful about, a positive flow does not necessary translates into a positive market feeling.

Axel Dellière

True, especially since there is no legal requirement to disclose short selling. But this is still an indicator. ETF will give you an almost instant picture of where money is going worldwide, for instance toward south-Korean bonds. We will broadly be able to determine flows of capital.

Pierre Ketterer

I am not sure whereas you have enough experience to answer this question or not, but do you have an idea of the point when everyone started to talk about ETFs? After a special event or a special year?

Axel Dellière

I am probably not experienced enough as I started to work in 2015...

Pierre Ketterer

You might be able to underlying question though, that was: did the 2008 crisis increased the use of ETFs? In a way that this crisis questioned the legitimacy of asset management and its ability to outperform an index.

Axel Dellière

I probably don't have enough insight from these times... But numbers are here, you talked about 4% in 2016... Today, ETF are really spreading and becoming a tool for managing assets thanks to their ease. I don't know if, back in the day, they already were that easy to access.

Pierre Ketterer

Alright. We talked about diversification of flows toward passive management. This is one of the big trend of the industry, but it is not the only one. Lot of things are changing: regulation is getting tighter, there are new requirements in terms of transparency... Would you say this ETF phenomenon is the main trend of the industry?

Axel Dellière

I don't believe I have enough information to answer you. I think there is a fashion effect that makes some market segments more appealing to investors than others.

Pierre Ketterer

In your company, were you talking a lot about ETF and diversification of flows?

Axel Dellière

We talked a lot about ETFs as we were seeing there a lot of opportunities and threats. For that, it was a recurring, increasingly discussed theme of which people start to get the ins and outs. Just as some new currencies got analysed when they appeared.

Pierre Ketterer

So you consider ETFs as a new product rather than as a transforming trend of the industry.

Axel Dellière

To make a parallel... I am not sure that Bitcoin itself will change the world. However, the underlying technology, the Blockchain, is really like to have a major impact in our lives in the coming years.

ETFs are bringing new tools and new perspectives, but I am not convinced the industry will really transform because of it. The good active asset manager will stay good in his job.

Pierre Ketterer

While researching for this study, I realised that all big asset management companies, such as Blackrock or Amundi, were having a similar reaction toward this topic. On the contrary, I couldn't determine a typical reaction from smaller structures, so I focused my study on them. Do you agree with this approach, and do you have an idea of what is the typical reaction from biggest structures?

Axel Dellière

Biggest structures became ETFs providers. This is a market segment that is really cheap to penetrate. Passive management... We set up the algorithm, we wait, and people come in, out and in again. Everything is automatic. It does not particularly requires skills, or only for the person in charge of initiating the product.

This is an opportunity for biggest structures, those with enough resources to set up the required infrastructures. They then just have to wait, it clearly is the goose that lays the golden egg.

Pierre Ketterer

This is exactly what I observed. All the biggest structures start their ETFs business, either by buying an ETF provider or by creating their own in-house division. They all take position on this growing market.

Axel Dellière

And also, it requires another typology of jobs. They will need a strategist or an economist to bring the key of the algorithm, and then, only a developer is needed to set everything up. Once this is done, this is done, no need to change anything, the ETF operates by itself.

These products are designed to work by drawing volume in. To do so, they have to be presented with the best in the market, and this is why big companies are in this business. They have the ability to attract flows and volume.

Pierre Ketterer

What about smaller structures? How do they react?

Axel Dellière

I believe that they will try to get closer to the client. Where biggest companies try to dehumanize asset management, smaller companies probably have an edge in being close with their clients. They bring explanations to investors, they bring an additional human factor, and they can justify a management style guided by convictions.

Asset management often is a beautiful story we tell the client to convince him to invest with us. We try to prove him we are right, that we know what we do and that he should trust us. We bring a human bias in order to seduce clients. Biggest companies are going to lose these clients.

Pierre Ketterer

Which leads us to the next question. Was the company you worked for taking this trend into consideration?

Axel Dellière

I don't know if Fastea is big enough to ask itself such question. The company is now in an aggressive development phase. This commercial aggressiveness is part of the company's DNA, and will probably take a couple of years before blurring.

Also, this specific relationship with clients: proximity, accessibility and independence, are part of the company's DNA, they are its best's arguments. These are elements we do not always find with competitors. If the client picks up her phone, we can promise her she will be in touch with the manager within two minutes. These services will become even more necessary with time, even for big companies. I believe smaller structure have a real market opportunity on this point.

Pierre Ketterer

We know ETFs offer particularly low management fees. Was your company undergoing pressure on its fees?

Axel Dellière

Yes, especially since last January. Regulation created an almost excessive transparency on fees. Now, any client is able to read the entirety of fees, he now knows what he pays for, while he used to pay a global, more opaque fee. From now, clients are able to compare and to look for similar information for competitors. It creates a war on fees that requires reductions in expenditures.

Pierre Ketterer

This war on price comes from a tighter regulation rather than from the development of passive management

Axel Dellière

Yes. Actually, I think that someone going toward active asset management know that the service is going to cost him.

Also, it would be complicated for clients to invest on ETFs without having any knowledge or anticipation of financial markets. I am afraid that Mr X, who has no specific knowledge of financial markets, will experiment troubles to select which ETF to buy as we would not be able to read all the information. I am doubtful in comparing these two trends. Obviously, some will say that passive management costs ludicrous fees, but this argument can easily be balanced with knowledge, human quality and service that comes with active management.

Pierre Ketterer

ETF is more a service for the asset management company than for the individual investor.

Axel Dellière

I believe so. I am even thinking that it should be regulated to become a tool only accessible to sophisticated investors, just like derivatives are. Accessible to client who ask themselves the right questions.

Pierre Ketterer

Did you meet client that spontaneously talked about ETFs and opportunities offered by such products?

Axel Dellière

Well, I am certainly not the best person to answer you... However, people talked about it. Private clients but also sometime companies looking for active treasury management. They talked about it, but their argument often was erased by what we talked about: this story about the skill of anticipating.

At the end, we all have our own job... If clients want to go to an ETF because it's cheaper...

Pierre Ketterer

So fees were the number 1 argument brought by clients?

Axel Dellière

It often was fees.

But a second argument was stated: active asset management often soften markets' price movements, either it be prices increases or decreases. A mutual funds will have difficulties to outperform a market that stays bullish over the entire year.

However, during a regular year, with ups and downs, with volatility, sometimes without trend but with opportunities, the fund will manage to soften this volatility. A client often do not understand why we didn't take all the gains, while he perfectly understands why we avoid to take some losses.

Pierre Ketterer

It is true that some clients do not really apprehend what a Sharpe Ratio is...

Axel Dellière

Exactly. They accept that we only ride a part of the market losses but do not accept only a part of market rises.

Pierre Ketterer

In this kind of situation, how easy is it to justify fees?

Axel Dellière

Same topic, this is about paying for a skill. If you call an individual for plumbing work, you should not expect the same service as if you call a professional. It is that simple. You cannot expect the same service and same price in a bar or in a public vending machine. There is a question of skills, of service given...

A lot of elements can justify the price. However, it is obvious that some asset management company had a really good life, charging lot of fees. Client do not always realise that, but this is the price to pay for a service.

Pierre Ketterer

We talked about competitive advantages of Fastea over ETFs. What about competitive advantages over other competitors?

Axel Dellière

Proximity, human scale structure, dynamism... This is a company that is really well positioned to seduce local private clients. But not only local anymore, as some of the clients also come from all over the country and from over the borders.

As of today, Fastea is a company that perfectly answers the needs of its clients. It can offer tailor-made offers, and is always available for its clients. This is part of the company's DNA, and I am convinced the manager succeed in catching this opportunity. This truly is a real success.

Pierre Ketterer

This is the only company of this type in the all area.

Axel Dellière

We can find other purveyors of investment opportunities related to financial markets, but finding someone as specialised as Fastea, with the same infrastructure... It is something complicated. I'm convinced the firm's positioning is really good.

Pierre Ketterer

Is Fastea using ETFs in its management? How?

Axel Dellière

Yes, in an opportunist way. A global macro-economic analysis leads to an ETF investment. This also is an investment that allows diversification. We talked earlier about gold... Investing in an ETF specialised

in gold-mining stocks avoids a long process. We would have needed to go to the English market, to the American market, we would have needed to invest in stocks of which we did not had a deep enough understanding to quickly invest on, at least on question about optimal weighting.

Pierre Ketterer

What is your opinion on ETF said to be complex, those offering smart beta, the particular replication of an actively manage portfolio, leverage...

Axel Dellière

I will be really frank with you... This is commercial bullshit. This is marketing. I see them as disguised active asset management products. I might be wrong though, if you ask me the question again in five years, I might say that I was completely wrong. We will see.

Pierre Ketterer

Alright. I bet these are not products you would include in a portfolio...

Axel Dellière

No. I even think it is a bit irrespective to say that such product can bring the same skills and same results as a human being.

Pierre Ketterer

Last question. What is the future of ETFs? I know this is a vast topic. An interviewee told me he believes no one will talk about ETFs within 5 years. Is it an opinion you share?

Axel Dellière

I will give a naïve answer and say that ETFs will still be around within five years, but they may not be as omnipresent as today. It will still be a product that offers a service: an easy access to investment and diversification.

We can also add the development of algorithmic trading to this answer. It is taking an important market share, I believe 30% of volume in Paris and about 70% of the American equity market. ETFs are products offering arbitrage opportunities. When an ETF replicates a basket of securities, a divergence between the price of these security and the price of the ETF may arise. An algorithm can then detect and arbitrate this divergence. These two trends are linked, and both earn money with volume, they both need volume. Volume might increase in the coming years.

Pierre Ketterer

It brings us back to the very first question... 25% of asset passively managed by 2025. Is this a realist anticipation?

Axel Dellière

It all depends on the happening of a crisis or not. Will such crisis bring human's skills back to the core of investing? This is something hard to say, but I think such crisis could be a lifesaving event for the market, or at least for keeping humans in investing.

We are in a euphoric phase. Markets are getting higher and higher for months, historical record in valorisation are broken, and we still don't see the end of this bull market. The market seems deaf to geopolitical variations. For instance, the American president is setting up commercial tariffs, but this drives the price of European exporting companies up... As long as it goes up, everyone is happy. The day this market will break, people will start asking questions to understand why did we invested in this or that stock. They will ask about the way portfolios are built as soon as these portfolios will stop earning money.

25% of world asset invested on ETFs... Why not, it would mean that we are living in a beautiful pink world, and that we are heading toward fabulous growth levels... At the same time, last data showed that unemployment in the USA is getting up, and business activity in Germany is slowing down. At some point, we will have to ask ourselves the right questions. We will see.

Pierre Ketterer

There are some aspects we haven't discussed yet, such as the manager societal responsibility. In a world without active asset managers, there is no force left to counter-balance the power of companies' management team.

Axel Dellière

There is obviously a strong shareholding aspect in active asset management. We give our trusts to men. It happened that we decide to trust the management of some companies facing difficulties over the cold numbers or over the overall market feeling. We try to avoid falling into this psychosis of seeing everything in black, but rather trust people in order to get out of the herd behaviour.

This trust is something passive management will struggle to integrate. Active asset management gives a chance to companies, which is something that would not happen with passive management.

Pierre Ketterer

Active asset management still has bright days ahead.

Axel Dellière

I believe so yes. Especially if markets are to become volatile again, as it would be in such moment that active asset managers will stand over passive management.

There is another problem with this huge volume of passively managed funds. They are a big mammoth on the market. It is so big that the underlying asset is sometimes impacted by capital inflows and outflows. We particularly see that happening with the price of gold, some movement are clearly linked to flows on gold-related ETFs. This is a very opaque topic, hard to perceive and study... Gathering data on this topic requires to monitor markets every day, and some data even are hidden. But maybe a day will come when we will talk about it, the day where we will realise how ETFs played a passive role in a bear market.

Pierre Ketterer

Thank you for these answers, you help me a lot.

INTERVIEW 3 – Alan AUPIAIS

Pierre Ketterer

This interview will be breakdown into four parts: I will start by asking you about your career and your company, to show how you fit into the frame of this study. Then will follow a couple of questions about the theoretical framework of asset management, mostly about the EMH and behavioural finance. We will then discuss ETFs from a global standpoint, before finally going to your reaction to this trend.

To begin with, can you tell me about your studies, your career course and your company?

Alan Aupiais

My studies: I passed a scientific A-level with a mathematic speciality. I pursued with economic sciences in the University of Rennes. Back in the days, I had the opportunity to specialise into finance from the Bachelor level. We had a common basic program of theoretical economy and analytical accountancy, and I could, in addition, apprehend what is related to financial markets. For instance, I studied the efficient frontier that we are probably going to discuss. I also studied different ways to value premiums, I studied various financial products, and also correlation matrix. All the basis of financial market from a bachelor level! I then pursued with a master degree.

I have been really lucky after my studies. I got the luck to be at the right place, at the right moment. I randomly applied for positions related to financial markets, while I was living outside of Paris. Luckily, I manage to get a job as a capital managers inside the trading room of *Crédit Mutuel*. I integrated this trading room, and it was great! We had the possibility to touch virtually every type of asset classes. Obviously, our job was to manage the bank's treasury so we were using MTN (Medium Term Notes) and NDC (Negotiable Certificate of Deposit) depending on the bank's needs, to face the loans it was making to clients. After a while, I became treasurer and got the opportunity to do some in-house trading using derivatives: futures and options. We were going for interest rate products, mostly on the German interest curve as we were looking for liquidity. So we mostly used futures on Schaezle, Bobls and Bunds for rates, but we were also trading futures CAC40 (the French stock market) and S&P500. We used futures either as a product to hedge, or as a speculative tool with leverage. I joined *Crédit Mutuel* in 2001, and left in 2007. Six years there.

I was a bit bored of having a single client, the bank. So I took the position of Responsible for Asset Management for a subsidiary of BNP Paribas, the *Banque de Bretagne*. There, I was in charge of doing management under mandate. Instead of having a single client, I had about a thousand, and almost €750 million under management. A really nice job indeed, however my freedom was... I was free in my management choices as long as I was a better performer than other BNP's managers, they were my direct intern competitors...

Then, I co-founded a wealth management company. In 2010, we created Athémis Gestion Privée: we obtained several status: CIF Status (Financial Investment Advisor), broker in insurance, Real-Estate professional qualification, appropriate legal expertise... We now have all the necessary leverages and certifications to offer our clients a service of Family Office. We are not regular asset managers, we go well beyond. In some way, we could qualify our activity as very high-end wealth management.

I once had the willingness to create my own mutual fund. But since regulation recently became much tighter for this type of structures, we will continue to capitalize on our existing company, by progressively increasing the asset we manage.

Pierre Ketterer

Could you please remind the size of Athémis and the typology of clients?

Alan Aupiais

Typology of clients: We follow about 25 families on all legal and financial topics. I am in charge of the finance part. I take care of these 25 families, to which are added some legal entities. I do a lot of treasury management for big retailers, some congregation and some foundations.

Pierre Ketterer

Do you offer a wide array of management mandates? From a safe “treasury” profile to more dynamics ones?

Alan Aupiais

First of all, I got to correct something. I am neither a bank nor an asset management company [*Alan does not run a mutual funds, but rather invest his clients’ money into a variety of mutual funds, given them a broader exposition to the world financial markets*]. . Consequently, the term “management mandates” is not appropriated. You should use the term “arbitrage mandate” which covers other possibilities.

I can directly manage my clients’ assets located in insurance companies: insurance-based life insurance or capitalization contracts. When it comes to banks’ products: Share Saving Plans (PEA) or trading accounts, banks legally have a monopole and so I cannot directly manage these funds. I have a consulting agreement with my clients, which means I need my client’s signature before doing an arbitrage.

Pierre Ketterer

Alright. I wasn’t sure about precise terms. You define yourself as an active asset manager.

Alan Aupiais

Yes.

Pierre Ketterer

My first question is: What is your view on the Efficient Market Hypothesis?

Do you consider markets efficient? If they are, in which form?

Alan Aupiais

This completely depends on the type of market and on asset classes. The most efficient markets will be those dealing with rates-related products. As soon as you start looking for something more risky, a bit more volatile, risk becomes stronger. The first step is large-cap developed countries, the Blue Chips. There, we can still consider the market to be efficient. But if you look for small cap from emerging countries, we completely leave the frame of efficient markets. This really is a theoretical framework that helps us to better understand the market. We indeed need to start somewhere, with hypothesis.

If you are an active manager, you will end up in a low volume market, either it be on commodities, emerging countries or small caps...

Pierre Ketterer

Actually, having a liquid market is a condition for the EMH.

Alan Aupiais

Exactly. The idea of efficiency really is a theoretical concept that could be applied to interest rates products, either sovereign bonds or even corporate bonds without much problems. But if you go to equity markets and reduce transaction volumes, this notion completely loses ground with reality.

Pierre Ketterer

Several studies conducted by academicians, based on empirical observations, conclude that in average, the active asset manager fails to outperform his benchmark on a regular basis. In such condition, if, in average, there is no outperformance, how can an active asset management be justified to a client?

Alan Aupiais

I completely agree. If we cannot justify an average outperformance compared to an index, we will end up to ETFs, or if the client can engage more money, futures can be appropriated.

I am fighting all the time to justify to my clients that I am always outperforming the market. Since the beginning of Athémis, the deal has been really clear with my clients. There is no fee, except for outperformance fees. I have to beat an index, and the index I established is systematically beaten.

If an Euro Zone equity manager is not able to generally outperform the CAC40 or the Eurostoxx 50, after or before re-investment of dividends, he will clearly have trouble to justify himself to his clients.

However, a large part of banks' clients do not even go that far. The thing is that the bank suggests, or almost imposes, in-house-made investment supports. Clients will never verify if these products outperform.

Pierre Ketterer

This is a really interesting point. The client actually has little interest in knowing if the asset manager creates alpha.

Alan Aupiais

The client does not always have the information. And he does not always know how to verify neither. To put things simply, there is the theoretical speech, and reality.

Why do we have active asset management while in average, these managers do not outperform their benchmark? Simply because three quarters of AUM are invested in supports imposed to the clients, who do not control the outperformance. It is really important to realize that clients often are not rational.

Pierre Ketterer

How can an asset manager be skilled?

Alan Aupiais

How is he skilled? He has to... Well, I try to focus on two aspects. First, I have to outperform an index, and second I have to be less volatile than it.

An asset manager will be skilled if he is better than the market. Even more skilled if he beats it while taking a lower risk. And even better again if he manages to keep this outperformance over time, because it creates a really interesting capitalization effect.

This is not about doing a one-shot. Some managers will be really performing during a bull market thanks to an over-exposition of their portfolios... But what will be the results if the market heads south?

Pierre Ketterer

With a high beta...

Alan Aupiais

That's it! The manager has to be really dynamic, and adapts his management to the environment. Some mutual funds are said to be actively managed, but actually only are long in Euro-Zone equity. The asset manager has to stay invested.

When we reach the asymptote of the economic cycle, when finance starts to take the advantage over the craze and indexes suffer a correction, this long-only managers will suffer the entire correction. He will not be able to hide into the basement. He will not be able to sell, to hedge with options, because it does not fit the initial contract of the mutual funds, with the prospectus. Most of Euro-Zone equity funds do not allow the manager to hedge.

Pierre Ketterer

They have a restricted access to hedging product such as option or futures.

Alan Aupiais

They just can't hedge. It becomes complicated. If you do not want to bias your analysis, you need to analyse mutual funds with a flexible management style. You cannot say to a not-truly-active asset manager: "look, you are not a skilled manager because you kept a high beta in a bear market". He will answer you: "take a look at my funds' information document, and you will understand that I cannot really do anything else."

Pierre Ketterer

I got your point. However, some managers have a mandate that allow them to marginally use derivatives and complex products, but refuse to do so. They stick to equity.

Alan Aupiais

These ones are not really good. If they do not use the tools at their disposition...

Pierre Ketterer

Being able to even partially hedge one's portfolio gives the potential to realise some additional outperformance.

Alan Aupiais

Yes indeed. Once again, analysing an active asset management makes sense from 20/80. I mean, from the point the asset manager is able to integrate 20% of derivatives and 80% of equity, it becomes interesting.

Pierre Ketterer

What is your opinion on behavioural finance? As a manager, would you rather consider that as a source of outperformance, a bias you can exploit, or as a factor that could jeopardize your performance?

Alan Aupiais

I have a theoretical interest in it. I set up quite a lot of things about that, but in an intuitive way.

I believe behavioural finance is a tool we have to apprehend, analyse and integrate into our management style. What I explain to my clients is that someone who knows nothing about the stock market will usually, probably, have about 80% of moral hazard and 20% of fundamental analysis as he eventually got interested into this or that particular company. This persons actually stays completely passive to financial markets and will stick to any bull or bear market.

What I try to do is to reduce this part of moral hazard, all those biases. I cannot quantify if my management style include 60%, 40% or 30% of moral hazard, but what is certain is that this number entirely is the result of behavioural finance.

This is a topic I am really looking forward to work on. It is really interesting to combine Human's psychology as an individual and as a community. Also, it is interesting to think about the herd behaviour in light of the fact that 80% of French asset management companies are located within a 20 km perimeter.

Behavioural finance is an additional tool, but only a part of the analysis. I usually try to adopt a contrarian approach.

A large part of world AUM are located in portfolios belonging to people who will not have the same analysis as a professional of financial markets. Regular people directly manage a part of world's assets, and these people have completely different behaviours than markets operators.

Pierre Ketterer

Thank you for this really complete answer.

Alan Aupiais

Well, I can discuss that for hours.

Pierre Ketterer

From a global perspective, at an industry's scale rather than at your company's scale.

By the end of 2016, 4% of world assets were invested in ETFs I is anticipated that in 2025, about a quarter of these will be passively managed. These obviously only are predictions, but a growth from 4% to 25% within 10 years is significant. What comment can you do of these numbers? Can you imagine a world without active investors?

Alan Aupiais

I will answer to your last question. No, I cannot imagine. I understand the interest for a large part of the industry to go toward this passive use of ETFs. It goes with history, especially when we consider the figure you were giving saying that an average active manager do not outperform his benchmark.

An ETF allows an access to financial market with a low initial stake. This is the first point. Secondly, it can be interesting to combine ETFs with new technologies to implement a systematic management. This would for instance include fintechs. Fintechs and ETFs, from my perspective, are going together.

Anyway, the asset management industry will go through, and actually is already going through, a phenomenon of concentration. We will see a shrinking in the number of active asset manager, but the remaining managers will be managing monsters in size.

In parallel of that, a lot of fintechs are going to offer passive management solutions using ETFs. I am convinced this will be a future major development.

Is it good or not... I have my own opinion about it.

Pierre Ketterer

This is actually the next question. The growth of ETFs... Is it an opportunity or a threat for active asset management?

Alan Aupiais

Both my captain!

It is an opportunity for some of my wealth manager's colleagues. They will go towards ETFs to justify having independent managers. If they are independent, they cannot be paid retrocessions by mutual funds. Not having access to retrocession will incentive them to look for new tools allowing an equivalent or slightly better performance. They have no interest anymore to invest in mutual funds.

For mutual funds, this is a sane competition. It allows a wide number of investors to access finest management, especially via fintechs. It goes on the right direction.

As with any development, we need to stay careful. ETFs should not develop too much with being regulated, especially on the liquidity aspect. Do you know about the two types of ETFs?

Pierre Ketterer

Yes I do, some ETFs do a physical replication of the underlying index while some use derivative to implement a synthetic replication.

Alan Aupiais

Yes, that's it. Synthetic replication is interesting as it allows to better replicate an index. However, it induces a third counterpart, through the famous performance swap that allows the replication.

What if a problem appears on this counterpart? Imagine a new Lehmann Brother... Quid of ETFs as a whole if a big player stop providing liquidity? Especially since, as you said before, 25% of AUM are invested on ETFs...

Pierre Ketterer

Is this risk correctly integrated, or anticipated, by regulators?

Alan Aupiais

I am not a specialist of this topic, but I believe that in Europe, a consequent number of protective measures have been implemented. However, this is not something usual at all. If Europe sets up protective measures but is not followed by the rest of the world, it may become really complicated.

This development is an opportunity. It is really good, it is a sane competition. But we need to be careful about the legal and regulatory aspect around it. We must not create a new systemic risk like a Damocles Sword over our head.

What if the economic cycle shifts? For now, everything is beautiful. But it has been 10 years that the USA are in a growth cycle, the EZ is on top of its economic cycle too...but we do not know how long it will last. At some point, this trend will shift, and we don't know what will happen for this ETF industry, especially if it is not regulated.

Pierre Ketterer

When did we start talking about ETFs as an important trend? Is it a theme that has always been around, or did it recently appear, maybe a couple of years ago?

Alan Aupiais

I think that ETFs started to develop from 2007/2008, after subprimes and Lehmann. We realized that active asset management was not giving the expected returns when the market was in a recovery situation. Lot of asset managers were frightened, we should not forget that the lowest point on the CAC40 index was reached in February 2009...

I remember that lot of managers back then were little experienced. They just took a majestic slap in the face, and were not confident in increasing the beta of their portfolio to better stick to their index. Obviously, all these ETFs were giving performances that had nothing to compare with active management. I really think we started to take this trend into consideration from this point.

Also, it's been two or three years that the development of fintechs further pushes the mediatisation of ETFs. To explain that, we need to consider that fintechs will only be able to prosper if they manage to avoid direct fees. ETFs with their really low fees are consequently used by fintechs, contrary to mutual funds.

I really think the ETF's rocket has two different layers.

Pierre Ketterer

Alright, two distinctive time-periods then. This is a good thing that you bring technology here. Our next question is about the different trends of the industry. The trend of diversification of assets toward passive management is not the only important trend, the industry also goes under new regulatory constraints, new transparency requirements, and technologies that aim to automate investment processes... A lot of other deep-rooted trends.

Amongst all of them, would you say that the ETF trend is one of the major trend? Is it a crucial topic, or simply one amongst others?

Alan Aupiais

This is one amongst others. This is not a crucial topic, I only monitor it. I may have an interest to use these tools in my management, but so far, it is only a developing topic. It will become more important, but just not now.

Pierre Ketterer

Alright. What would be the main trend of the industry then?

Alan Aupiais

In my specific sector, the main topic is the end of retrocession. This is a really French topic, but I will talk about what I know.

This is a really important topic because wealth managers are paid with these retrocessions. Banks too. Because of that, there is a bias for wealth managers to go towards riskier mutual funds, as they paid back higher retrocessions. The end of retrocession will force wealth managers to become a little bit more performing, a little bit more financial analysts, and a little bit less sales people. They will now have to charge, and explain fees.

The end of retrocession means the setting up of a counsellor fees system. At some point, this system will be linked to the performance or outperformance generated. That's something I set up in my company since 2010, so I am not really impacted by this new regulation, but I am certain that it is a game-changer for 80% of my colleagues. They will have to become technicians, and most of them are not ready for that. This increased regulation is the big topic for Financial Advisors.

For mutual funds, the issue is the reduction of management fees. As they will not be able to pay retrocessions, they will have to lower their management fees. In addition, they will have to justify their research, either in-house or outsourced. They will also have to formalize this fundamental or mathematical financial analysis... Many companies have, for now, a quite intuitive management style. These are not really likely to survive.

Pierre Ketterer

While doing researches for my topic, I studied the way the biggest companies reacted to the growth of ETFs, and I realized that they all had similar reactions. I decided to focus on smaller structures.

Would you have an idea of how these biggest structures react to the development of passive management?

Alan Aupiais

I think they increasingly try to integrate it. These big companies have an active interest for the topic, and if interested, they have the ability to integrate it in-house and use their client-related data-bases. In some way, they have everything ready to integrate it. They have enough resources to set up the technologic aspect of ETFs, so, if they realize that they have the means, they are going to integrate it.

This is also why this aspect of asset management is going to develop. Biggest companies have the technology and resources to allow this development.

Pierre Ketterer

What is the reaction of smaller companies, those who do not necessarily have the resources to start or acquire an ETF/passive management business?

Alan Aupiais

They do not give a darn about it. Do you know why?

Simply because these smaller structures often offer a management style that outperform. Passive management is not a problem. If you take small structures like H2O, Dorval or Mandarine Gestion, they systematically outperform their benchmarks. On the opposite, big companies like Amundi, Axa IM or others are useless. They do not outperform, and will consequently be interested in integrating ETFs.

Pierre Ketterer

You were previously talking about the phenomenon of concentration of assets in biggest companies, which were ultimately be able to grab a large part of active management. If these big structures stick to the market and are not able to outperform it, can we still say that they are active asset managers?

Alan Aupiais

No. But they do not communicate about that neither. They do not communicate about being the best, they just advertise a good-enough management style. If you dig into information documents, you realize that only smaller structures brag about “beating the CAC40 every year for 15 years”. You will never see that coming from Amundi, they don’t present themselves as active managers.

You should not forget that the average person, 90% of the population of any country, do not see any difference between these two types of management.

Pierre Ketterer

We will now be a bit more specific and talk about how your company and how you perceive this trend. Some questions may be a bit repetitive though.

Do you, as an asset manager, take this trend into consideration?

Alan Aupiais

No, not really, at least I didn’t so far. As of today, I have only incorporated a single ETF in my management. This ETF hedged me against a stronger than expected increase in long term interest rates, in order to protect the corporate-treasury portfolios from a higher than expected rebound of inflation. Such event would have brought an increase in long term rates.

I found the perfect support, which perfectly matched what I wanted. However, ETFs are not precise enough yet for my management-style. I can consider them as a hedging tool, as I do not have access to futures nor options. It may be interesting for me to integrate some types of ETFs, just like this example that allowed me to short sell the Bund.

Pierre Ketterer

So you use ETFs to go on really specific market segments, but a more generic ETF as one allowing to replicate the CAC40 has little interest for you.

Alan Aupiais

Has no interest at all. In such strategy, I will be active and select a mutual fund investing in specific companies or specific industries. I will trust active asset managers with the stock selection, but I still analyse each mutual funds to ensure that what their choices match my investment convictions. For that, ETFs have absolutely no interest because I want to outperform my benchmark.

Pierre Ketterer

Do your clients spontaneously talk about passive management?

Alan Aupiais

Absolutely not. I am sure they have heard of it, but, you know... I may sound a bit pretentious, but I have been consistently outperforming my benchmarks since the inception of my company. For instance, on my equity-based saving accounts, I systematically outperform the CAC40 with reinvested

dividends. Consequently, my clients have little interest in a product that will simply replicate the index. They don't see the point and would rather trust me with their asset to beat this index.

Pierre Ketterer

Do you have questions about your fees? I imagine that your outperformance helps to justify the fees, especially since these are directly linked to your performance.

Alan Aupiais

I do not have any question about my fees.

Pierre Ketterer

Why would an investor come to see you rather than someone else? Do you bring them something in addition to this management performances?

Alan Aupiais

In addition to outperformance... I believe that is the most important aspect for my client. I do not know any other company that says « I link 87% of my revenues on the outperformance I will generate for you from now until next 31st of December. » No one else do that. When I talk with different actors here or there, with banks like Rothschild or Lazard, they do not dare to take such risk.

I am able to take this risk, because I am the owner and director of my company. I set it up, and I decide its business model. Asset managers do not decide anything. In addition, when companies have an important size, they suffer from high fixed costs and consequently need to have automatic incomes. Offering an asset management with high fees allows the structure to cover its costs. We are still a small structure, even though we have a lot of AUM, and so we can risk to have bad performances for a year. Obviously, we cannot be bad managers for a long time, but it is a risk I am ready to take.

Also, 90% of my clients have their own company. They know what risk-taking is, and they perfectly understand the point: "I am willing to do my best to have the best performance I can, because I only get pay on the money I make you earn." We really are in the same boat, that's a win-win situation.

Pierre Ketterer

This particular business model really is Athemis' main competitive advantage over its competitors.

Alan Aupiais

It is for sure. This was the point I used to make. Now, I have something else to say, that is my performance history. I could not present my history from when I was working in *Banque de Bretagne*, but since 2010 it is now 7 years of history.

When presented in an Excel Tab, presenting the compound effect, we realize that within 5 years, we doubled the value of equity savings accounts, or we yield 5% annually for corporate treasuries, while short term deposits yield about 0.5%. This is really nice to see the compound effect, and I now present my history as an argument.

Pierre Ketterer

I know that you are close to your clients: you often meet with them and regularly present them the macro-economic situation... How important is that for your clients? What would happen if you were to stop this communication?

Alan Aupiais

For a large part of my clients, it would not really be a problem. A lot of my client appreciate to have an annual feedback, and know that I would give them a call if something important was to happen in financial markets. They really trust me.

Nevertheless, some of my client would not be happy if I were to stop these regular macro-economy summaries. But it's only a small part of my overall clients. Most of them would not be worried if I stopped to call them, as long as I keep delivering return.

Pierre Ketterer

Can I have your opinion on complex ETFs, those offering smart beta, those replicating an actively managed portfolio or a specific benchmarking method for instance. Would you be keen to integrate them into a portfolio?

Alan Aupiais

Yes, I could integrate ETFs based on particular indexes, or those replicating volatility for instance. I might integrate hedging ETFs to benefit from a change in the interest rate curve, but once again, as hedging ETFs. When I talk about hedging, other managers would not consider that as hedging but simply as being long on this management style... I stick to actively selecting mutual funds, but I do not have access to the tools to efficiently hedge my portfolios. My management style is binary, if I turn bearish, I will have to sell mutual funds and hide inside the basement. Very often, it means going back to cash positions.

You know how I manage a portfolio...I have a distinction between strategic trend, long term, and tactic movements, shorter terms. I usually manage to catch bullish trends, but I often only partially captures bearish movements. If I could find an ETF that allows me to stay long... Using a really technical ETF to make money at a given point while markets are going down would be great! Especially since ETFs are negotiated as a stock, instantly, while I buy mutual funds at an unknown price, in Day+2.

How am I supposed to manage a one week market correction while we already are in D+2, the movement is almost over when my order is executed, and I end up selling my mutual funds at the lowest point...?

Pierre Ketterer

ETFs are products to be tactically used, because you have no access to a more complex product.

Alan Aupiais

Because I do not have access to options... If I had access to the option market, I would do everything I want... I still have hope though, I keep asking my custodian banks to allow such possibility, but it is complicated.

Pierre Ketterer

A last question to open the topic. What is the future of ETFs? Where will be the market within 5 years?

Alan Aupiais

5 years?

I see a market that can grow if we don't undergo the systemic risk we discussed earlier. The ETFs market does not have to be efficient, but at least semi-efficient, in all type of trend: in a really bullish market, in a recovery phase, in a bear market, whatever. It has to stay liquid and efficient.

This market must not induce big counterpart risks. If it manages to stay stable, strong, everything will go well. If we observe that some ETFs cannot be traded because of a 15% sell-off in the S&P500, then it will become really complicated. Best case scenario there is that ETF will stay really basic and stick to replication of really simple indexes.

Pierre Ketterer

If the SPDR stops trading because of a sell-off in the S&P, it will be the end of ETFs.

Alan Aupiais

I believe so, yes. Or at least, a large part of ETFs will disappear or be reduced to a role of marginal, complementary tools for banks' clients. Anyway, they would not have the growth they are currently living.

Pierre Ketterer

So, for now, we are waiting for this trial by fire to see if this product really has a future, or if it is only a widget of our era.

Alan Aupiais

Take a look at their history. ETFs developed while markets has been bullish for 10 years. We didn't get the big slap yet. Only after that would we be able to say "Alright, ETFs are solid, they can start to really develop."

Pierre Ketterer

Do you see any other point we did not discuss?

Alan Aupiais

I think it was a really exhaustive discussion, wasn't it?

Pierre Ketterer

Ha-ha, I think it was yes, but we never know. Thank you for your answers, this is always really interesting to have the opinion of a professional like you, thanks for sharing your experience.