DOES THE CFA DESIGNATION ADD VALUE TO COMPANIES, MANAGED FUNDS, THE MARKET AND THE CHARTERHOLDERS THEMSELVES?

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Abstract

In the finance industry, job opportunities are so competitive that many may wonder what they could do to separate themselves from the rest of the competition. One tool of self-promotion is to obtain a Charter Financial Analyst (CFA) charter. Studies show that charterholders increase returns and reduce expenses for investment management firms, provide superior forecasting for investment banks, and add value to the stock market because their presence increases investor confidence. In addition, the global prestige and higher employability makes the required rigor of the program well worth it, and the increased compensation makes the CFA charter more valuable to the individual than obtaining an MBA degree. The CFA charter is the gold standard among financial analysts, and through the consolidation of research, data, and opinion, this paper presents a complete and comprehensive argument for why any person seeking a career in financial analysis should, without a doubt, seek to obtain a CFA Charter.

Table of Contents

Introduction

According to *U.S. News*, those employed in the financial analysis profession keep their hands on the very pulse of the overall United States economy (n.d.). This is due to their role of assisting clients with investment recommendations, keeping current with macroeconomic and microeconomic trends, and writing reports to share their analysis with colleagues who may be non-experts in the field of finance. The work is very rewarding as *U.S. News* reports an average salary of $78,380 in 2013 (n.d.). However, the drawback of the profession is that an analyst can expect to put in fifty hours of work a week, sometimes even more.

Despite the drawback, jobs in financial analysis remain in fierce competition. Christina Granville, an experienced professional in the field and writer for the *Financial Times Executive Briefing Series* and *Investopedia*, calls the profession “one of the most coveted careers” in the financial services industry (Granville, n.d.). This is most likely due to the fact that financial analysts receive good compensation and are considered of high prestige among finance professionals and other peers. Additionally, these jobs are scarce. According to the Bureau of Labor Statistics, of the almost 198,000 jobs added per month in the United States economy (2015, pg 2), roughly 13,000 of those jobs added belonged to the financial activities sector of the economy (2015, pg 12), which would be about 156,000 jobs per year. And with hundreds of thousands of recent college graduates, international candidates, and experienced professionals seeking to get those jobs, one may wonder what he or she could do to differentiate himself from the rest. One option is to consider earning a Chartered Financial Analyst (CFA) credential.

The CFA charter is administered by the CFA Institute (n.d.). In order for a candidate to obtain a charter, he or she must successfully pass three levels of examinations and have four years of related industry experience. However, though it may sound simple to pass three tests and work for four years, obtaining the charter is not easy. These examinations cover extensive material across the financial analysis realm and require self-study and practice as the Institute does not offer any classes to teach CFA candidates the material. To indicate the level of intensity of these examinations, the Institute recommends that a candidate studies 300 hours per test. Also, the Level I test is offered only in June and December. However, Levels II and II are only offered in June. So in order to obtain the charter, a candidate must learn through self-study a wide range of financial analysis material to take exams that are only offered once or twice a year. This means a candidate must put in 900 hours of studying, over the course of at least two and a half years, all while maintaining their own jobs and daily lifestyles. Also, the bill will total over $2,000 when all three examinations are taken. These facts cause many to wonder two questions. Is obtaining the charter is worth the time, energy, and money? And, would companies provide any incentive to pursue the charter?

The answer to both questions is yes. This paper seeks to show how Chartered Financial Analyst charterholders add value to companies, managed funds, the market and their own personal selves. The impact of CFAs to companies, managed funds and the market will be determined through the compilation of published studies and works. And the impact that the charter has on the charterholder will be determined through a present value of cash flow analysis. Once the value to the charterholder is determined, this paper will then compare it to the value of another instrument of self-promotion, an MBA degree. While current research examines professionalization, performance enhancement and favorable compensation amounts, no research consolidates all of this data and opinion into one document. Through the consolidation of research, data, and opinion, this paper will present a complete and comprehensive argument for why any person seeking a career in financial analysis should also seek to obtain a CFA Charter.

Literature Review

History of the CFA Charter

The very first examination of the Chartered Financial Analyst program took place in 1963 when the Institute of Chartered Financial Analysts (ICFA) administered the exam to 284 professionals in the financial analysis profession (CFA Institute, n.d.). The ICFA merged with the organization that created it, the Financial Analysts Federation (FAF), to create the Association of Investment Management and Research (AIMR) in 1990. Then in 2004, AIMR changed its name to the CFA Institute.

While the CFA certification is administered by the CFA Institute today, it actually has its roots in a certification that was proposed in 1942 called the Qualified Security Analyst (QSA) certification (Zee, n.d.). The QSA was the first time the idea of the certification of financial analysts through examination appeared on the scene. The idea was pitched by Benjamin Graham, who was considered to be the “Dean of Wall Street” (Morris, 1996, pg 77) and the “Father of Securities Analysis” (Fridson, 1998, pg 88), to the New York Society of Security Analysts (Graham and Hooper, 1992, pg 6). Graham saw three reasons for the need of this certification: “an indication to investing clients the attainment of minimum requirements on knowledge and professional competence, additional prestige for the analyst, and the possibility of increased financial reward and employability" (Zee, n.d.). However, though the New York Society of Security Analysts formally approved of the QSA certification, the idea of financial certification through examination just did not get off the ground until 1963 when the ICFA administered the first CFA exams. But once it did, it grew substantially.

This growth was not only domestic, but international. A Toronto Society began this trend by joining the FAF in 1954, which was called the National Federation of Financial Analyst Societies at the time (CFA Institute, n.d.). A Singapore Society joined FAF in 1987 and actually created the first member chapter outside of the United States. Switzerland joined in 1996. But then in March of 1997, AIMR published a four year study that created the Global Investment Performance Standards (GIPS) (Price, 1998). The result of this study showed that "investors and managers must be able to assess investment performance on a global basis" (Price, 1998, pg 10). AIMR then created the GIPS Committee to "standardize the presentation of investment performance on a global basis" (Price, 1998, pg 10). This effort to create global standards opened the flood gates as 52 international societies joined FAF or AIMR from the time span of 1997 to 2008, with the majority of the member growth occurring from 1999 to 2004 (CFA Institute, n.d.). Today, what began with less than 300 people is now over 135,000 members in over 150 countries/territories and member societies in over 70 countries/territories (CFA Institute, n.d.).

Why Was the CFA Created?

With the thousands of charterholders of the CFA and the several CFA societies that reside in various places around the world, one may wonder why the CFA began in the first place. Part of the answer lies in Ben Graham's original reasons for the QSA certification which were: an indication of knowledge and competence, additional prestige, and increased compensation and employability (Zee, n.d.). However, there is a reason the QSA idea never got off the ground. Graham's idea of the QSA was one of certification, but the need of the investing world was deeper than certification. It needed professionalization. And while Graham proposed the QSA as a way to issue a rating of professionalism (Graham and Hooper, 1992, pg 6), the QSA idea did not meet the needs of professionalization, but the CFA does.

It was in the time period of the 1940s through 1960s that the finance world sought professionalization for analysts. Prior to this period, the position of the securities analyst was relatively new and was professionalized by self-declaration (Sheppard, 1967, pg 39), which was unacceptable by many. C. Stewart Sheppard, who was the ICFA Executive Director and FAF Executive Secretary at the time, listed the rigorous terms of true professionalization as: "the acquisition and application of a body of technical and substantive knowledge capable of objective testing; an abiding sense of morality underlying a formalized code of ethics; and a continuing close identification with fellow specialists who view their cooperative services to the general public as something more than a vocational organization" (1967, pg 39). Thus, the CFA designation was created and made to address each of these terms.

The first term of Sheppard's professionalization requirements is to acquire through training a developed and continually enlarged body of technical skill and knowledge (Sheppard, 1967, pg 39-40). The "continuing challenge of the C.F.A. program is to revise constantly the required study materials to reflect changing emphases and knowledge horizons in the enlightened practice of financial analysis" (1967, pg 40). In fact, Sheppard promotes the ICFA over the FAF, which were separate organizations at the time, by saying, "It is in this area of professionalization that the Institute of Chartered Financial Analysts, by means of its C.F.A. program, goes beyond the requirements of its parent body, the Financial Analysts Federation" (1967, pg 40). The CFA program achieves this through the constant revision of its body of knowledge. In fact, in 1994 AIMR created a Global Body of Knowledge Task Force to conduct research to make sure that CFA tested material incorporated global knowledge standards (CFA Institute, n.d.). But what makes the CFA unique is that its body of knowledge doesn't only cover technical skills, but also ethics, law and morality.

Sheppard's second term of professionalism is abiding by a formalized code of ethics. "Certainly investors are entitled to expect some public warranty that those to whom they are entrusting their financial resources are individuals possessed not only with technical competency but also with a moral and ethical sense of responsibility. If this public warranty of efficiency and good faith is expected of medical practitioners, lawyers, and public accountants, then no less should be expected of investment advisors" (Sheppard, 1967, pg 40). This means that just as professionals in medicine are trusted with life and health, lawyers are trusted with interpreting law and fighting for their clients, and public accounts are trusted with auditing and book keeping, financial analysts are trusted with resource management. And as doctors, lawyers and accountants are held to ethical standards, so should financial analysts. The importance that is stressed on ethics can be summed up in four words: “Ethics is good business” (Caccese, 1997, pg 9). The world has seen what a lack of ethics does to companies, such as Enron. The fallout from unethical conduct is never good, thus all precautions should be taken to avoid ethical breaches. It is actually in this area that Graham’s QSA idea faltered as the certification would have been created without an established code of ethics (Graham and Hooper, 1992, pg 9). However, the CFA Institute takes precaution by making ethics a part of its body of knowledge and requiring CFA charterholders to accept its code of ethics. In fact, the Institute can revoke its charter if a charterholder breaks its code of ethics (CFA Institute, n.d.). Another way the Institute keeps its members accountable is by requiring charterholders to become members of the CFA Institute and recommending that they join a CFA society.

Sheppard’s third term of professionalism is to identify with like-minded individuals. “True professionalism must grow out of community of interests born of personal convictions, unhampered by exigencies of formalized occupational organization. Organizational structures are needed as vehicles of logistical cohesion and movement, but in the absence of an inner spirit of commonalty they will not in and of themselves assure a condition of professionalization” (Sheppard, 1967, pg 40). By requiring charterholders to join, the CFA Institute can be, in a sense, a watchdog over its charterholders and keep them current on industry trends. And by recommending they join a society, charterholders can stay connected to individuals with similar mind sets.

Through this, the CFA Institute maintains a structure where individuals of commonality are allowed to operate unheeded by too much big organization structure.

What Does It Take to Earn a CFA Charter?

As shown, the CFA program meets all three needs of Sheppard's professionalization terms and presents itself as the solution to the needs of the financial analysis industry. Because of the emphasis on professionalization, the requirements to become a CFA are as follows: agree to follow the Code of Ethics and Standards of Professional Conduct, have at least four years of related industry experience, join the CFA Institute, join a local society (not required but strongly recommended), and pass all three levels of the CFA exams.

While the other requirements of the CFA charter are simple completion and acknowledgement, those three exams are anything but simple. "The exams, curriculum materials, and seminars designed for the CFA (Chartered Financial Analyst) Program are based on knowing what is important to practicing financial analysts" (Block, 1999, pg 86). W. Scott Bauman, the Executive Director of ICFA to follow Sheppard, tells the two purposes of the CFA's exams. Those purposes are to "induce financial analysts to study and master a defined body of knowledge" and to "identify and recognize professionally those analysts who have passed" (Bauman, 1976, pg 60). In other words, Bauman is saying that these exams were intentionally made to challenge candidates because if a person can pass them, it means they are a cut above the rest. In 1980, the CFA body of knowledge was organized into seven topic areas which were: ethical and professional standards, accounting, quantitative techniques, economics, fixed income security analysis, equity security analysis and portfolio management" (Broome, 1980, pg

71). But in 1991, the CFA body of knowledge was revised into four categories: Ethical and Professional Standards, Tools and Inputs for Investment Valuation and Management, Investment Valuation, and Portfolio Management (CFA Institute, 1991, pg 16), and it has kept this structure ever since. Because ethics is the core of the CFA program, as evidenced by Sheppard's second term of professionalization, the category of Ethical and Professional Standards is a part of each level's examination. However, each exam has a different focus, moving from the testing of basic knowledge to the application and implementation of that knowledge.

The CFA program begins with the Level I exam which emphasizes the second category of the body of knowledge. The purpose of this exam is to test "the candidate's knowledge of financial instruments and institutions, the basic principles of financial analysis, and financial accounting" (Sheppard, 1967, pg 40). It focuses on the "tools and concepts that apply to investment valuation and management" (CFA Institute, 1991, pg 16). In order to pass, a candidate must possess "a working knowledge of financial accounting, macro and microeconomics, and quantitative methods" and "demonstrate a basic understanding of investment analysis and management, financial markets and instruments, fundamental investment valuation, and the portfolio management process" (CFA Institute, 1991, pg 16). The Level I exam tests the basics of financial analysis and provides a foundation for the Level II and Level III exams.

The Level II exam emphasizes the third category of the body of knowledge as its focus is on securities valuation (CFA Institute, 1991, pg 16). Candidates are expected to apply Level I curriculum, understand capital market theory and industry and company analysis, value equity, fixed income, and other types of investments, and compare alternative investments and make recommendations based on the comparison (pgs 16-17). This level tests the “practical application of investment principles, industry analysis, economic fluctuations, and monetary and fiscal policies” (Sheppard, 1967, pg 40). Just like the Level I curriculum, the Level II curriculum prepares a candidate for the Level III curriculum as it is impossible to be able to understand Level III criteria without first knowing how to value investments.

The Level III exam stresses the fourth category of Body of Knowledge, which is portfolio management (CFA Institute, 1991, pg 17). Similar to Level II, candidates must apply Level I curriculum to the portfolio management process, develop different strategies for portfolios comprised of different types of assets and understand and apply performance standards and techniques (pg 17). This level tests the implementation of investment research, and the determination of goals, timing and balance (Sheppard, 1967, pg 40). A candidate who passes this level can now be considered a trusted expert in investment research, analysis and management.

However, passing is the separating factor as few can do it. The Institute has recently updated its website with the June 2015 exam pass rates, and the statistics are despairing (n.d.). The Level I pass rate is 42% (n.d.). The Level II exam had a 46% pass rate (n.d.). And Level III exam takers did the best as this year’s pass rate is 53% (n.d.). The data tell us two things. One, these exams are not a cake walk as less than half of the exam takers passed the exam they attempted. Truly, passing a CFA exam is a dauntingly challenging task. Two, it gets better as the level of exam increases. This could mean that the tests are relatively easier as the level increases. It could also mean that higher level exam takers better prepare themselves for the CFA exam, and perform better as a result, which is probably due to the increased motivation of passing a higher level exam and finishing the process.

What Does A Charterholder Gain?

With all of the rigor that is required to earn the charter, a person would expect to gain something substantial because of it. In fact, it is what a successful candidate gains that makes the CFA program a worthy trial. What a charterholder gains ties back to Ben Graham's original reasons for the QSA certification: additional compensation, global prestige, and increased employability.

Gaining additional compensation may be reason enough for some to make the decision to pursue the charter. Not to mention, the gain is substantial. CFA Society Chicago, in its published 2015 Financial Compensation Survey, tells us that those CFA charterholders that have a bachelor's degree had a median compensation of $154,025, while non-CFAs only has a median compensation of $85,875 (2015, pg 2). This represents a $68,150 annual difference just because a professional obtained a CFA charter! And the disparity is repeated when graduate degree holders are considered. Charterholders with a graduate degree have a median compensation of $215,542 while non-CFAs with a graduate degree have a median compensation of $160,000 (2014, pg 2). This means that those individuals that obtain a CFA charter in addition to a graduate degree will annually receive an average $55,542 more compensation! Clearly, CFA charterholders are compensated substantially for their efforts. And pay is not the only reflection of this fact.

The fact that CFA charterholders are respected around the globe is evident of the prestige the charter adds to the charterholder. Ashish Goyal, who is the Chief Investment Officer for Prudential Asset Management, in a CFA Singapore periodical tells us that “The pass rate and the rigor of the CFA program just tells you there is a stamp of quality on CFA members” (CFA Singapore, 2011, pg 7). And because of this reputation of quality, CFA charterholders experience the reward of increased employability.

The employability that is added by having the CFA charter is seen in the number of careers and sectors that charterholders are employed in. Careers fields where charterholders are employed is great in number. These fields include, but are not limited to: portfolio management, investment banking, accounting, auditing, buy-side research analysis, sell-side research analysis, financial advising, risk management, and trading (CFA Society Chicago, 2015, pg 4). And the sectors where charterholders are employed are just as numerous. These sectors are, but are not limited to: equities, fixed income, private equity, derivatives, hedge funds, real estate, commodities, foreign currency, indexed funds, and venture capital (CFA Institute, 2015, pg 15). It is thanks to this high employability that firms actively seek charterholders as they improve the firms they work for.

The Impact of CFA Charterholders

The CFA charter “is considered the gold standard for analysts” (Viñas and Stewart, 2012, pg 13) because of charterholders’ impact in the market and the firms that employ them. The impact charterholders have in the market is best seen in a study done by Christopher M. Brockman and Robert Brooks. The study notes that unethical behavior has a negative influence on the psychology of investors as it "diminishes the confidence they place in financial markets and obscures their perception of the risks that the market holds" (Brockman and Brooks, 1998, pg 81). This is significant because investor attitude is reflected in the willingness to participate in the buying and selling of a security, which affects the security's price (Perry, 1994, pgs 27-28). One approach to reduce this negative effect is to require professionals to be certified. In a study of real estate appraisal certifications, it was noted that the process of appraisal certification reduces the quantity of faulty appraisals, decreases the number of appraisers in the industry, does not impact the number of appraisals ordered, increases appraiser compensation, and increases the confidence of lenders in the appraisal (Lahey, Ott and Lahey, 1993, 413). In a study on apartment rental rates, it was noted that apartments managed by managers with some sort of professional designation have significantly higher rents (Sirmans and Sirmans, 1992, pgs 52-53). These studies suggest that professional certification holders increase people's confidence and add value to those who are impacted.

Based on these studies, Brockman and Brooks hypothesized that because the CFA chaterholder "is recognized worldwide as an investment professional with a firm educational background, excellent professional training, and a commitment to professional standards of practice" (1998, pg 82) that "investment professionals holding CFA designations provide some value to the financial markets by having a positive effect on stock prices" (1998, pg 83). Their rational for this hypothesis is that the stock market's integrity and competence is only as high as the competence and integrity of those involved in the market. A professional designation is an indicator of high competence and integrity, therefore as the number of CFAs in the market has increased, investors should have become more willing to pay for higher stock prices as perceived market risks should have decreased.

In order to test this hypothesis, Brockman and Brooks collected data on the level of the S&P 500 index and the number of CFA charterholders from 1972 to 1995 and performed a Granger causality test at a 0.05 confidence level. This allowed the assessment of whether or not the rise in the S&P 500 index was caused by the rise of CFA charterholders. At the selected confidence level, Brockman and Brooks were able to reject the null hypothesis that the increase in the S&P 500 from 1972 to 1995 was not caused by an increase in CFA charterholders. However, other statistical testing did not allow them to conclude that this rise in price was caused only by the rise in charterholders. Therefore, while they can't say the rise in the S&P 500 was only caused by the rise in the number of CFA charterholders, this rise in charterholders is definitely one of the reasons that explains why stock prices rose from 1972 to 1995 (Brockman and Brooks, 1998, pg 83).

Coupled with the impact charterholders have on the market is their impact on both types of investment firms: buy-side and sell-side. The difference between the two types of investment firms is very easy to remember. Buy-side firms are investment firms that specialize in buying things, and sell-side firms are investment firms that specialize in selling things. A. Constant Reader, an anonymous author who published an article in the *Financial Analyst Journal*, refers to buy-side firms as banks, insurance companies and mutual funds (Reader, 1981, pg 42). These are firms that pool together funds and make their revenue through buying and owning securities and lending investor funds.

And sell-side analysts are supported by investment banking fees (Groysberg, Healy and Chapman, 2008, pg 25). Investments banks make their revenue through selling securities and facilitating company purchasing transactions. As stated earlier, charterholders have an impact on both types of firms despite their different purposes.

There are five benefits that CFA charterholders give to organizations overall. The first is a level playing field. The CFA designation acts as a leveler if a firm makes it a requirement to obtaining the charter in order to be employed in certain positions (Capital Wave, Inc., 2010, pg 10). What this will do is weed out “B” and “C” level players and ensure that all employees of the applicable positions are of the highest knowledge and competency. The second benefit is leadership development. The CFA program has implied competencies which allow those individuals who complete the program to be or be developed into the leaders of firms (2010, pg 10). The third benefit is retention. Promotion is a tool of retention and charterholders know what positions they are interested in. Therefore, “With a high-grade certification like the CFA, there won't be much doubt from the organization or the individual when it comes to taking positions, staying in them, and getting promoted” (2010, pg 10). The fourth benefit is relevancy. “[T]he curriculum and the network that comes with the CFA designation will ensure that technical and functional competencies are introduced to the organization - and remain there in the form of retention, knowledge, and up-to-date information from around the world” (2010, pg 10). And the fifth benefit is favorable marketing. If a firm can say that a certain percentage of its employees are CFA certified, it will create credibility in the minds of customers and show potential employees that the firm cares about knowledge, ability and ethics on every level (2010 pg 11). And while charterholders provide these five benefits to firms overall, there are also specific benefits that CFAs provide to the two types of investment firms individually.

CFA charterholders impact buy-side investment firms in two major ways. The first of these is that funds managed by charterholders tend to get higher returns than funds managed by Non-CFAs. In 1994, Ravi Shukla and Sandeep Singh studied the returns of 223 equity funds over a 4.5 year, 54 month, period from July 1988 to December 1992 with one of the following four investment objectives: equity/income, growth/income, growth, or aggressive growth (Shukla and Singh, 1994, pg 68-69). The funds were then divided into two groups: CFA group and Non-CFA group. The CFA group is made of the funds with at least one manager that holds a CFA charter and the Non-CFA group is made of the funds without any CFA charterholders (1994, pg 69). This resulted in 110 firms in the CFA group and 113 in Non-CFA group.

The results of the study showed that the CFA group averaged higher returns than the Non-CFA group, but at the cost of more risk. The CFA group had an average monthly return of 1.179% and a monthly standard deviation of 4.301%, compared to an average monthly return of 1.065% and a monthly standard deviation of 4.007% for the Non-CFA group (Shukla and Singh, 1994, pg 69). Comparing the groups to the S&P 500 index during the period emphasizes the results. 44 of the 110 firms (40%) of the CFA group achieved a higher average monthly return than the S&P 500 during the same period, while only 27 of 113 firms (23.89%) of the Non-CFA group achieved the same feat (1994, pg 69). Also, 68 of 110 firms (61.82%) of the CFA group had a higher standard deviation than the S&P 500 index, while only 54 of 113 firms (47.79%) of the Non-CFA group had a higher standard deviation than the S&P 500 index. But, what one must consider before making any conclusions is whether or not the added risk of the CFA group is worth its superior return. This is best determined using Sharpe ratios, which measures the amount of excess return per unit of risk (1994, pg 70). It is calculated as $(r_p - r_f)/\sigma_p$, where r_p is the return of the portfolio, r_f is the riskless return, and σ_p is the standard deviation of the portfolio. By putting the two group's information in this calculation and the average 3-month treasury bill of the period, the Sharpe ratio for the CFA group was 0.15369 and 0.13529 for the Non-CFA group (1994, pg 70). This means that even though funds managed by CFAs are more risky, they are earning a higher return per unit of risk than funds managed by Non-CFAs. Unfortunately, due to other statistical testing, Shukla and Singh were unable to conclude that the superior performance of the CFA group over the Non-CFA group was due to one group having CFA charterholders. But they were able to say that the results suggest charterholders are of value in mutual fund portfolio management (1994, pg 73).

The second impact that charterholders have on buy-side firms is decreased expenditures. Kenneth Miller, Jr. and Christopher Tobe conducted a study to show this benefit. The study acknowledged the need for public pensions, specifically public employee and teacher retirement systems, to save hundreds of thousands of dollars by employing qualified investment managers, such as CFAs (Miller and Tobe, 1999, pg 21). This would require increasing compensation paid to managers as public pensions had on average 60% lower paid compensation than private pensions (1999, pg 21). The study seeks to answer the question if an increase in compensation to managers in order to employ qualified managers such as CFA charterholders would be worth it. The period of study was the fiscal year ended June 30, 1997 and administered through mailed survey with responses collected from 41 pension firms from 29 different states collectively managing $850 billion in assets (1999, pg 22).

The results of the survey are in favor of the firms who employ CFA charterholders. Public pensions that don't employ charterholders had expenses that were 20.61 basis points (0.2061%) of total assets, compared to 12.84 basis points (0.1284%) for public pensions that do employ charterholders (Milled and Tobe, 1999, pg 23). Given that the median firm in this study managed $14 billion in assets, the difference in expenditures means that the median firm that employs CFA charterholders will save $10.88 million (1999, pg 23)! This is due to two factors. First, public pensions with CFA charterholders were more likely to manage their funds internally instead of externally, where the managers employed passive management to reduce expenses (1999, pg 23-24). Second, the CFA managers employed a higher number of external managers and allocated less to each manager, thereby diversifying their assets more than Non-CFA managers, which led to lower external expenses (1999, pg 24). These two factors make the extra compensation that charterholders require well worth the cost. In fact, Miller and Tobe conclude their study by saying "[j]ust as an auditor's office needs to employ Certified Public Accountants and an attorney general's office needs to employ qualified attorneys, public employee and teachers' retirement systems need to employ CFA charterholders" (1999, pg 24).

To reiterate, CFA charterholders have a big impact on buy-side firms as they tend to earn higher returns and reduce expenses. However, while charterholders have two impacts on buy-side firms, they have only one equally significant impact on sell-side investments firms: better forecasting.

CFA charterholders provide better forecasts than Non-CFAs as their forecasts are timelier, lead to higher returns and are less risky. In a study by Gus De Franco and Yibin Zhou, a sample of 798,272 forecasts were analyzed to determine that those forecasts issued by CFA charterholders were timelier than those issued by Non-CFAs (De Franco and Zhou, 2009, pgs 388, 401). Other investigators also found that CFA analyst's recommendations lead to a 7.47% increase in abnormal returns (Kang and Su, 2011, pg 22) and an average 4.38% reduction in risk, which is due to CFA analysts being 15% more likely to report a negative outlook on an investment (2011, pg 25). Kang and Su also note that analysts seem to improve while going through the program, but further improvement stops after completion of the program (2011, pg 33). This means that the improvements seen in sell-side analysts are a direct result of going through the CFA program.

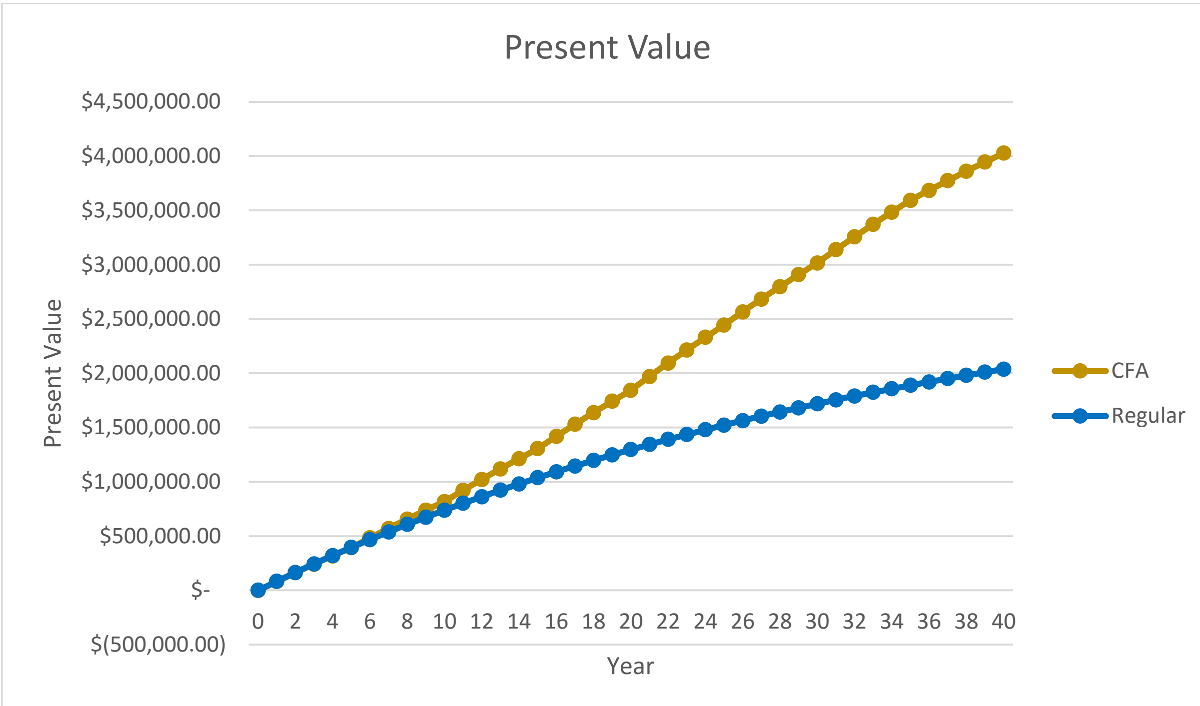
Overall, these studies have shown that CFA charterholders have nothing but positive effects for both buy-side and sell-side firms as charterholders save money, increase returns, and provide better investment recommendations. This means that it is completely worth it to firms to encourage their employees to undertake the toil of the CFA program. And it is completely worth it to the employees to comply with the request of their employer.

Analysis

CFA vs. No CFA

The benefits of charterholders to firms is clearly seen through the published studies discussed above, and shows why firms should encourage their employees to obtain the charter. However, candidates should obtain the charter because it also benefits them personally. As mentioned earlier, CFA Society Chicago, in its 2015 Financial Compensation Survey, stated that charterholders with only a bachelor's degree earned a median $154,025 in total compensation and Non-CFAs had a median of only $85,875. However, as any financial professional would know, the only way to truly measure the difference between these two groups is a present value of cash flow analysis.

In order to do the analysis, several conditions must be set. This analysis will be done from the perspective of a college senior. Therefore, year 0 will represent senior year of college, and compensation will be received starting in year 1. The average retiring age in the United States is 62 (Brandon, 2014). So, assuming the college senior is 22 years old, this analysis shall incorporate 40 years of working life. Registration for the exam requires a one-time $450 fee and $650 per exam, assuming early registration (CFA Institute, 2015, pg 20). The median compensation data provided by CFA Society Chicago does not take into account years of experience. Such data for professionals that have not pursued any professional development opportunities is not available, so the data provided by CFA Society Chicago will have to suffice. However, CFA Societies Canada, has collected median compensation data for CFA charterholders according to years of experience, which shall be used in this analysis for the CFA compensation amounts (See Index for amounts). And the discount rate used for this analysis will be the average daily 30 year treasury rate for 2015, which is rounded to 2.84% (U.S. Department of the Treasury) (See Index for daily rates). Also, because the CFA Institute requires four years of experience in order to be granted the charter, the CFA compensation data will not be used until year 5 in this analysis. Also, due to the fact of low pass rates, an analysis showing two failures will also be performed.

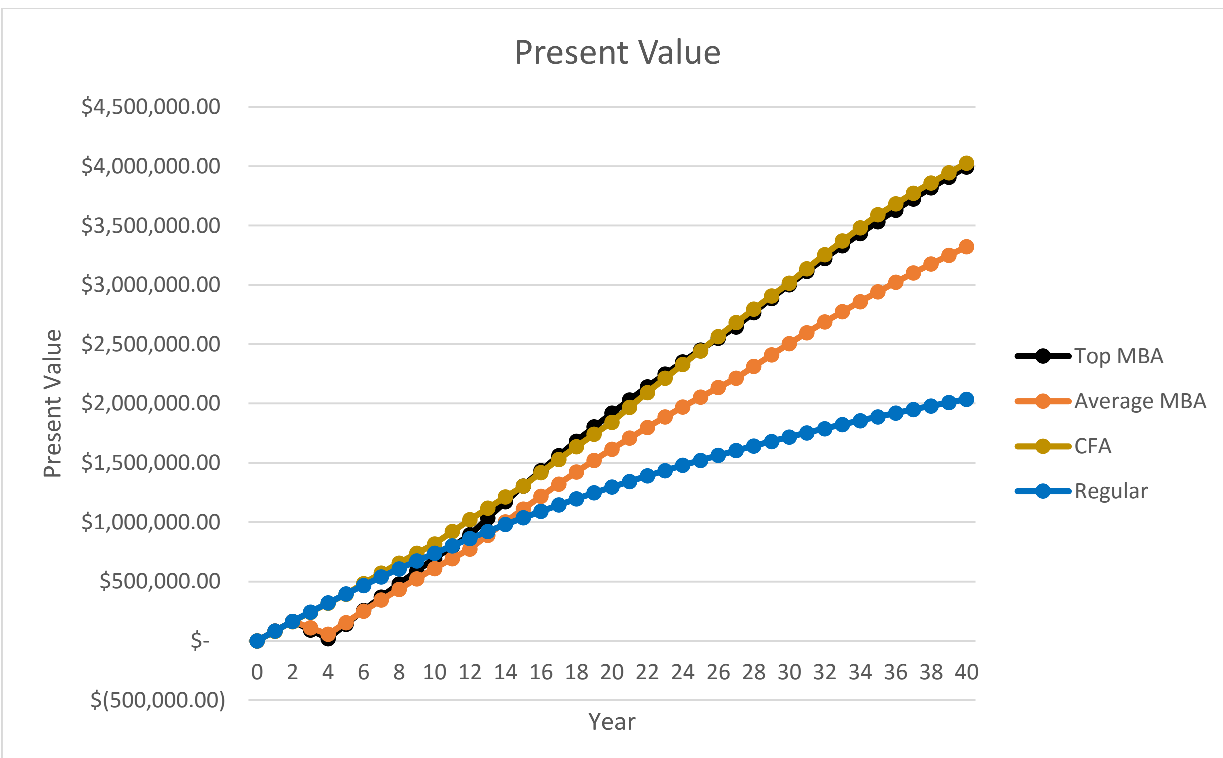


The analysis is in heavy favor of the CFA candidate. At the applied discount rate and number of working years, the present value of obtaining a CFA charter is $4,027,117.99, compared to $2,037,006.60 for choosing not to obtain the charter. Even with two failures, the CFA charter has a present value of $4,025,939.29. This means the option to obtain the charter is 98% more valuable than choosing not to obtain the charter! What is interesting to note is that choosing not to obtain the charter is actually the more valuable option until year 6. This is due to the expenses incurred by pursuing the charter and that a substantial compensation bump due to having the charter doesn't occur until year 6. Therefore, the option to obtain the charter becomes more valuable as soon as a person experiences the additional compensation, which will occur after obtaining a few years of experience.

CFA vs. MBA

To some, it may seem a little obvious that the decision to obtain the charter is more valuable than a decision not to obtain the charter. However, what about the decision to obtain a Masters of Business Administration (MBA) degree? Ever since the Harvard Business School instituted the first MBA program in 1915 (Top MBA, 2012), the degree has been considered a “must-have” for career advancement. Dean Thomas Robertson, the dean of the Wharton School at the University of Pennsylvania, considers the MBA "one of the best tools a businessperson can have" (All Business Schools, n.d.). Dean Robertson believes this because an MBA is taught to be adaptable in the economy where career switching and constant change is the norm. However, we live in a day where the CFA designation is called the “gold standard for analysts” (Viñas and Stewart, 2012, pg 13). And according to Dale Stephens, a writer for the Wall Street Journal, “Instead of relying on business school to succeed, [you should] deliberately practice the skills necessary to become a master in your chosen field” (Stephens, 2013). And since the CFA program is designed to certify a person as a master of financial analysis, Stephens might as well be saying that when faced with a choice between obtaining a CFA charter or an MBA, the CFA charter is the better option. However, there is only one way to truly tell which option is more valuable: a present value of cash flow analysis.

The analysis performed in this section is similar to the previous section. It will be done from the perspective of a college senior, with compensation beginning in year 1 over a 40 year working life period. The same discount rate of 2.84% will be used as well. For the MBA analysis, it will be assumed that two years of experience is gained before going to graduate school. The graduate program will last two years and no compensation will be earned during the program as the student is a full-time student. Two analyses will be performed, one showing an average of the top ten MBA programs by compensation earned and the other reflecting an average MBA (See Index for schools and amounts). The cost of the top MBA program for this analysis will be an average of these school's per year tuition costs, which is $60,111.70, plus $20,000 for books and boarding expenses (See Index for schools and amounts). For the average MBA, the cost will be $40,000 in tuition plus $20,000 in books and boarding expenses (Dumon, 2015). After the two years of education, compensation will begin at the reported amounts based on years of experience.



The analysis shows that the option to pursue the CFA charter is slightly more valuable than pursuing an MBA from a top institution. The MBA analysis yielded a present value of $3,995,228.21 for top programs and $3,321,663.21 for the average program, compared to the $4,027,117.99 present value for the CFA charter that was calculated in last section. This means that pursuing the CFA charter is about 1% more valuable to the individual than pursuing an MBA from a top institution, and 21% more valuable than the average MBA. There are several notes to be pointed out however. MBAs from top institutions receive a substantial amount of compensation right out of graduation. However, the CFA choice is the more valuable option up to year 15, due to the fact that charterholders maintain jobs while pursuing the charter. However, because of years of experience, the compensation earned by top MBAs causes the value to surpass the CFA value. But, this is only temporary as the compensation increase due to years of experience for charterholders causes its value to permanently surpass the value of a top MBA in year 26. Therefore, the CFA is a more attractive option due to the substantial increases in compensation with years of experience and the lack of value loss due to having to pay for school. This result may also be due to the fact that MBA data had to be pieced together while CFA data was more complete. Nonetheless, with the present data, the CFA is the more valuable option to the individual. However, this does not mean that getting an MBA is a waste of time as both analyses yield a present value that beats the present value of not doing anything, which is $2,037,006.60. Therefore, getting an MBA does provide extra value to the individual, and a top MBA provides even more value, but the CFA charter reigns supreme.

Conclusion

This paper shows that the CFA charter is, without a doubt, valuable to companies, managed funds, the market and the individuals that hold the charter.

Charterholders increase returns and reduce expenses for investment management firms, provide superior forecasting for investment banks, and add value to the stock market because their presence increases investor confidence. In addition, the global prestige and higher employability makes the required rigor of the program well worth it, and the increased compensation makes the CFA charter more valuable to the individual than obtaining an MBA degree.

Before the 1960s, the CFA charter did not mean anything. But today, we can say that the CFA charter means something. “A CFA designation means that the person has become qualified, can make reasoned recommendations and agrees to use certain standards in their analysis of securities” (Gillies et al, 1987, pg 502). What started with less than 300 candidates is now a global program that “is becoming more important for students seeking careers in investments-related fields” (Bracker and Shum, 2011, pg 1). The CFA charter is the gold standard among financial analysts, and without a doubt, should be pursued by anyone looking for a career in financial analysis.

Index

Reported CFA Compensation Data

CFA Compensation	
YE	Median Compensation
< 5	$ 86,875
5-9	$ 106,199
10-14	$ 140,000
15-19	$ 178,000
20-24	$ 229,000
25-29	$ 250,000
30-34	$ 290,472
35+	$ 252,000

YE = Years of Experience

Sourced from CFA Societies Canada, National CFA®

Charterholder Compensation Study 2015, pg 37

Top MBA Compensation Data

Top MBA Median Compensation				
Rank	School Name	0-10 YE Compensation	10-25 YE Compensation	25+ YE Compensation
1	Harvard Business School	$114,000	$190,000	$266,000
2	The Wharton School	$122,000	$182,000	$242,000
3	Stanford University Graduate School of Business	$118,000	$175,000	$232,000
4	MIT - Sloan School of Management	$131,000	$171,000	$211,000
5	UC Berkeley - Haas School of Business	$123,000	$169,000	$215,000
6	Columbia Business School	$104,000	$167,000	$230,000
7	Northwestern University - Kellogg Business School	$117,000	$164,000	$211,000
8	UCLA - Anderson School of Management	$103,000	$160,000	$217,000
9	University of Chicago - Booth School of Business	$122,000	$159,000	$196,000
10	Duke University - Fuqua School of Business	$102,000	$158,000	$214,000
Average Compensation		$115,600	$169,500	$223,400
Bonus		$22,857	$33,514	$44,172
Average Total Compensation		$138,457	$203,014	$267,572

YE = Years of Experience; 25+YE numbers derived from starting and mid-career compensation; Sourced from Find-mba.com; Bonus data is below

MBA Bonus

MBA Bonus		
School Name	Bonus	
Harvard Business School	$	20,000.00
The Wharton School	$	22,503.00
Stanford University Graduate School of Business	$	25,221.00
MIT - Sloan School of Management	$	24,583.00
UC Berkeley - Haas School of Business	$	21,752.00
Columbia Business School	$	23,333.00
Northwestern University - Kellogg Business School	$	23,679.00
UCLA - Anderson School of Management	$	22,924.00
University of Chicago - Booth School of Business	$	20,000.00
Duke University - Fuqua School of Business	$	24,574.00
Average	$	22,856.90

Sourced from Nerdwallet.com; This data is reflective of earnings straight out of college and was grown in proportion to increases in salary for future years.

Top MBA Cost

School Name	**Cost**
Stanford	$61,875.00
Harvard	$58,875.00
U. Penn. (Wharton)	$62,424.00
U. Chicago (Booth)	$61,520.00
MIT (Sloan)	$63,454.00
Northwestern (Kellogg)	$61,596.00
U. Cal. Berkely (Haas)	$54,066.00
Columbia	$63,148.00
Duke (Fuqua)	$58,000.00
U. Cal. LA (Anderson)	$56,159.00
Average	$60,111.70

Sourced from U.S. News Education

Average MBA Compensation

		0-10 YE Compensation	10-25 YE Compensation	25+ YE Compensation
Average MBA Total Compensation		$113,730	$166,758	$219,786

Sourced from Nerdwallet.com, beginning compensation grown at same rate of growth as Top MBA compensation to create median and end career pay.

30 Year T-Bill Data (2015)

2.69	2.52	2.61	2.58	2.88	3.20	2.90	2.95	2.89	3.00		
2.60	2.58	2.51	2.66	2.89	3.19	2.83	2.95	2.92	3.00	average (2015)	2.841%
2.52	2.57	2.54	2.63	2.88	3.08	2.89	3.06	2.87	3.00		
2.52	2.58	2.50	2.62	2.94	3.04	2.81	3.08	2.87	2.98		
2.59	2.63	2.51	2.61	3.02	2.99	2.84	3.02	2.90	2.91		
2.55	2.73	2.46	2.68	3.11	3.11	2.86	2.93	2.87	2.91		
2.49	2.70	2.50	2.76	3.03	3.20	2.84	3.02	2.86	3.07		
2.49	2.73	2.60	2.75	3.11	3.21	2.81	2.94	2.87	3.01		
2.47	2.73	2.53	2.82	3.11	3.20	2.87	2.95	2.96	2.95		
2.40	2.66	2.55	2.88	3.15	3.13	2.81	2.91	2.93	2.97		
2.44	2.60	2.54	2.90	3.22	3.11	2.76	2.96	2.95	2.97		
2.39	2.56	2.47	2.98	3.11	3.08	2.74	2.87	3.00	2.98		
2.44	2.63	2.53	2.90	3.10	3.10	2.73	2.85	3.00	2.87		
2.46	2.60	2.49	2.90	3.09	3.08	2.84	2.87	3.01	2.96		
2.38	2.68	2.57	3.03	3.06	3.04	2.94	2.85	3.09	3.00		
2.40	2.71	2.52	3.02	3.09	2.98	2.93	2.82	3.12	3.02		
2.40	2.72	2.53	3.07	3.14	2.96	2.92	2.90	3.10	2.94		
2.29	2.71	2.61	3.03	3.05	2.93	2.95	2.88	3.09	2.90		
2.33	2.83	2.58	2.93	3.16	2.96	2.93	2.89	3.06	2.92		
2.25	2.80	2.58	3.02	3.20	2.99	2.97	2.96	3.07	2.96		
2.25	2.73	2.54	3.05	3.16	2.96	2.95	2.94	3.04	3.00		
2.37	2.69	2.55	3.06	3.16	2.92	2.89	2.89	3.04	2.96		
2.39	2.69	2.56	2.98	3.25	2.86	2.97	2.84	3.00	2.95		
2.42	2.70	2.51	2.99	3.09	2.90	2.96	2.87	3.02	3.04		
2.51	2.67	2.56	2.89	3.11	2.94	2.98	2.87	3.00	3.04		
									3.01		

Sourced from the U.S. Department of the Treasury

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