Investment Management and Chartered Financial Analyst (CFA®) Option (FCFA)

The Investment Management Option focuses on coursework that teaches students how to analyze and value investments, including stocks, bonds and derivatives. The skills acquired through this option can be used for careers managing investments at large financial institutions (mutual funds, insurance companies, etc.), selling investments on behalf of financial institutions, and working for Wall Street firms in jobs such as sales, trading, capital markets and investment banking. At Virginia Tech, students who enroll in the Investment Management Option are provided the opportunity to prepare for and take Level I of the Chartered Financial Analyst (CFA) exam after they graduate. The CFA designation is recognized globally throughout the investment management profession. To obtain the CFA designation, one must pass three-level series of exams (you are limited to taking one level per year).

The information below covers different potential career paths for the Investment Management and Chartered Financial Analyst (CFA®) Option (FCFA).

Investment Management (Asset Management)

One of the most important roles for finance majors is managing investments and investment portfolios on behalf of individuals, corporations, governments and other institutions. In this career path, finance professionals evaluate potential investments, analyzing them to determine whether or not they should be bought. They also manage existing investment portfolios, deciding which investments in the portfolio to buy more of and which ones to sell. Institutions that manage large investment portfolios include mutual funds, pension funds, insurance companies, hedge funds, and institutional money managers. Many of these manage billions of dollars of investments on behalf of a large number of investors. That money is usually invested in hundreds of different investments that must constantly be monitored and managed to ensure that the investors receive sufficiently high returns on their invested dollars.

The Finance Department's Investment Management/CFA Track provides excellent preparation for a career in investment management (also frequently called asset management). Students take coursework that covers stocks, bonds and derivatives, three of the most common asset classes for asset managers, as well as international finance. This track also prepares students to take Level 1 of the Chartered Financial Analyst examination upon graduation. Chartered Financial Analyst is a professional certification that asset management firms encourage their finance professionals to obtain. The CFA certification process requires applicants to study for and pass three rigorous exams over the course of three years. Virginia Tech is a CFA Program Partner of the CFA Institute, the professional organization that oversees the CFA exam process.

Students interested in the Investment Management career path should also try to join either SEED or BASIS, the Finance Department's two student-run investment funds. Each fund manages approximately $5 million of the university's endowment funds, which are invested in the stock and bond markets, respectively. Another student organization that introduces students to investing in the stock market is the Society of Individual Investors.

The major types of institutional entities that manage large investment funds include the following:

Mutual Funds

These are funds that collect money from individuals, pool it together, and invest it. Most mutual funds specialize in a certain segment of the market, such as US stocks, US corporate bonds, municipal bonds, US treasury bonds, international stocks, European government bonds or Asian stocks. Other mutual funds invest in multiple market segments, with the mix of assets adjusted to take advantage of market conditions. Well-known companies that operate large families of mutual funds include Fidelity, Franklin Templeton, and Blackrock.

Institutional Money Managers

These are similar to mutual funds, however they typically are investing funds from companies, governments and institutions (non-profits, university endowments, etc.) instead of receiving funds directly from individuals. As a result, they tend to have a smaller number of investors, but each investor is, on average much larger than is the case for a mutual fund.

Insurance Companies

Insurance companies take the money that individual policyholders pay each year for the policies and invest that money into the markets so that it grows in value to enable the insurance company to have sufficient cash to cover any future payments that must be made. Insurance companies tend to be somewhat conservative investors, since they are highly regulated and need to make sure that they are always able to make the payments that they have promised to their policyholders. Insurance companies with very large investment portfolios include Prudential, MetLife and Northwestern Mutual.

Pension Funds

These are funds that are set up to invest money for companies and government entities that have promised pension payments to their employees after they retire. Like insurance companies, pension funds tend to be somewhat conservative in their investments, because they want to make sure that the promised pension payments can be made in the future.

Many large companies (especially older ones) have pension funds to support their employees after they retire. These funds may become very large over time, often totaling many millions or even billions of dollars. Finance professionals are involved in many aspects within the management and administration of these funds. First, the existing money in the fund must be managed effectively, by investing it into stocks bonds and other investments that earn a solid rate of return without taking excessive risk. Finance professionals monitor the funds' existing investments and make decisions regarding which ones should be added to and which ones should be sold. They also seek out and analyze potential new investments that can be added to the fund's existing investments. Finance professionals in this role should have a strong understanding of investments and markets, as well as strong accounting skills (to analyze individual investments). The Finance Department's CFA Track is an excellent preparation for this role. Another role for finance professionals that is related to pensions is in determining how much money needs to be invested in the pension funds (including additional amounts that the company needs to provide) in order to satisfy the future payouts that have been promised to retirees. This is an extremely complicated analysis that is performed every year that requires numerous assumptions and is usually done in conjunction with actuaries and accountants. For companies with 401-K retirement plans, finance professionals are required to choose and monitor the various investment options that are offered to the employees, such as index funds and actively managed mutual funds. Companies want to offer not only an attractive group of investment options, but also a group of investment options that enable employees to achieve appropriate levels of diversification. Finance professionals monitor the existing managers of the various funds offered in the 401-K and their performance (including how they compare to other comparable funds) to ensure that they are delivering proper value to the employees who invest in them. If warranted, they may also seek out and analyze alternative funds in which the employees can invest.

Hedge Funds

These are investment funds that have been set up to invest money in the markets for wealthy individuals and institutions who are willing to take higher risks. Hedge funds generally have fewer restrictions than mutual funds in terms of what they are allowed to invest in. They also trade more frequently and can go short (bet against something) as well as long (own it). This is the most lucrative area of asset management in which to work but is also by far the riskiest. Hedge funds generally do not hire many people straight out of college, but instead tend to hire experienced professionals.

Within each of the institutions above, there are many applicable roles for finance professionals. These include the following:

Research Analyst

This is the most common entry level job. Research analysts analyze individual investments (stocks, bonds, etc.) and determine whether they are attractive enough to be in the fund's portfolio. They look at both new potential investment opportunities and at existing investments that are already in the portfolio. Their analyses included both quantitative analysis of the company's financial results (past, present and future) and qualitative analysis of the company's business, markets, management and strategy. This is an excellent job for individuals who are analytical by nature. It also requires solid accounting skills, since analysis of financial statements is an integral part of evaluating stocks and bonds. Research analysts are evaluated based how their recommendations perform relative to the rest of the market. In other words, did their value increase by more than the market (or similar types of investments in the market.

At many asset management firms, research analysts are required or are highly encouraged to take and pass the CFA (Chartered Financial Analyst) exams. The CFA has three levels of tests which require a minimum of three years to complete. The Finance Department's Investment Management/CFA Track prepares students to take the first level of the CFA exam upon graduation. This track also provides an excellent overview of stocks, bonds and derivatives, as well as international finance, preparing students to be able to analyze and make recommendations on a broad variety of investments.

Portfolio Manager

The Portfolio Manager is the person who is responsible for the overall management of an investment portfolio or fund. Most portfolio managers start off as research analysts. As an analyst, they learn about how to analyze the investments that they will one day be managing. Portfolio managers interact extensively with research analysts, who are constantly giving recommendations to them on what to buy and sell. The portfolio manager must assess these recommendations and make decisions (buy, keep holding, or sell) based upon them. The portfolio manager must also monitor external risks to the portfolio and adjust the portfolio's holdings accordingly. External risks include the economy, interest rate changes, currency exchange rate movements, regulatory changes, market movements, and liquidity. The portfolio manager must also ensure that there is also ways cash available in the fund to pay investors who may want their money back for various reasons. Portfolio managers are well paid, but their job security depends upon performance.

Trader

Asset management firms employ traders whose job it is to buy and sell the stocks, bonds and other individual investments for the portfolio managers. The traders' job is to execute the trades in a timely manner for the portfolio manager and to get the best price available in the market. This is another job that is sometimes available to more junior-level professionals.

Operations

These individuals process the trades, maintain the systems to track all of the trades and the holdings in the portfolios, and monitor and facilitate the flows of funds between the asset management firm and its clients. These jobs require a variety of skills, including quantitative skills, analytical skills and programming skills. Roles in the operations area of asset management firms are good starting points for students who are double majoring in BIT (Business Information Technology) in addition to finance.

Sales (Wholesalers)

Many asset management firms employ teams of sales professionals whose job is to promote the asset management firm's investment funds and other services to institutions. A wholesaler is successful if brokerage firms, wealth management firms, pension funds or 401K funds start channeling their clients' money into the mutual fund (or other type of fund) being marketed by the wholesaler. These jobs require selling skills, but they also require that the wholesaler understand the financial products and funds that they are selling.

Wall Street

The term "Wall Street" is used by many people as a collective nickname for the nation's investment banks. Most of the largest investment banks are located in New York City. However, there are also many investment banks that are located outside New York, including Wells Fargo in Charlotte, BB&T in Richmond, Robinson-Humphrey in Atlanta, and UBS in Connecticut. Most investment banks have a variety of finance jobs and career paths. These can be grouped into four broad categories: Investment banking, sales and trading, research, and operations. All contain opportunities for finance majors, but have varying levels of compensation, workload and pressure.

Investment Banking

Investment bankers perform two primary functions: they help companies raise money and they provide advice about buying, selling and merging businesses. The Capital Markets group within an investment bank consists of groups of professionals who specialize in raising certain types of capital for businesses, including both equity (common stock) and debt (bonds and loans). Each group within Capital Markets specializes in a certain type of transaction, such as bonds for financial institutions. Other capital markets professionals arrange more exotic types of financings, including derivatives, mortgage-backed securities and collateralized debt obligations.

The capital markets group works with the company issuing capital to help it prepare the necessary documents, get the necessary government approvals, market the deal to potential investors, set the price a level that is reasonable for the market. Since capital markets professionals specialize in a specific type of transaction, they are experts on that segment of the market. The Mergers and Acquisitions group within an investment bank specializes in providing advice and other assistance to companies that are buying or selling businesses or are selling out to or merging with other companies. They help companies to find buyers or sellers of businesses and help them analyze businesses to determine their quality. Once a target buyer or sell has been found, they help to determine the right valuation, structure the transaction, prepare the necessary documents, obtain the necessary government and shareholder approvals and raise the necessary financing.

In addition to having professionals who specialize in certain types of transactions (Capital Markets and Mergers and Acquisitions), investment banks also have groups of professionals who specialize in specific industry areas, such as healthcare, media, energy, financial institutions, real estate and technology. These industry specializations are important because each industry has its own unique regulations, valuation metrics, technology and competitive dynamics. For most transactions, the team working on the deal will consist of a combination of professionals from the relevant industry group combined with professionals from the relevant Capital Markets group or the Mergers and Acquisitions group.

Investment banking is a career path that provides very challenging assignments and pays very well. However, jobs are hard to get (usually only available to students with high grade point averages) and the work hours are very long (up to 100 hours per week). The Corporate Financial Management Track prepares students well for the challenges of an investment banking career. Key courses that students interested in investment banking should take include FIN 4234 (Venture Capital and Investment Banking) and FIN 4244 (Asset Valuation). For students interested in Capital Markets, the Investment Management/CFA Track also provides excellent preparation.

Sales and Trading

Sales and Trading is the market-making area of an investment bank. The group's primary function is to make markets for and trade financial products, including stocks, bonds, loans, derivatives, commodities and currencies. The sales and trading group of an investment bank is organized into "desks", which are groups of professionals who specialize in a certain type of investment product (corporate bonds, metals, preferred stocks, etc.). Each individual desk has traders and salespeople, and many also have analytical professionals. Traders are responsible for making markets (setting the prices at which things are bought and sold) and for negotiating and executing trades with the buyers and sellers. They are trying to make a profit on every trade (sell at a price that is slightly higher than the price that they paid), but also incentivized to do a significant number of trades, helping their investment bank's clients to trade stocks, bonds and other investments that they want to buy or sell. Traders' jobs are very stressful, as they generally are trading millions of dollars of investments every day and they often required to make decisions to buy or sell very quickly.

Sales professionals are the primary point of contact with the "buyside" – the institutions that manage investments, such as mutual funds, pension funds, insurance companies, hedge funds, etc. Each salesperson usually specializes in selling a specific type of investment product (corporate bonds, mortgage-backed securities, stocks, etc.). They are typical assigned to cover a number (10-30) of buyside institutions that invest in their specific type of investment product. Each day, they are responsible for calling those institutions and trying to accomplish a number of objectives: find out what the institutions want to buy and sell, provide investment advice and ideas based on work done by the firm's research analysts, convince the institutions to buy or sell what the traders on the desk want to sell or buy, convince the institutions to buy new issues of stocks or bonds that the investment bank's capital markets group is working on, and satisfy requests for other resources from the investment bank that the institutions need (research advice, financing, etc.). Sales positions require a mix of people skills, selling skills, and knowledge of investment products. They also require a high energy level and the ability to handle rejection (clients don't always say yes).

Many trading desks also employ investment analysts (called "desk analysts") to help the salespeople and traders analyze the investment products that are available in the market and which they are buying and selling. The desk analysts are responsible for determining which specific investment products provide good value (and should be bought) and which ones don't (and should be avoided or sold). The desk analysts provide these opinions and analyses to the traders and salespeople on the desk, as well as to their buyside clients. This job requires analytical and accounting skills, combined with the ability to do the analyses quickly and accurately under time pressure. Desk analysts are also required to have communications skills, since they must clearly communicate their opinions.

The Investment Management/CFA Track provides excellent preparation for sales, trading and desk analyst positions. Students interested in sales should also take a selling elective from the Marketing Department. In addition, students who are serious about pursuing careers in this area should try to join BASIS or SEED, the Finance department's two student-run asset management groups.

Research

Research analysts are responsible for analyzing individual company stocks and bonds, as well as industry sectors and asset classes, and then making recommendations to investors as to whether the investors should buy, sell or hold those investments. Most research analysts focus on specific industries and asset classes; examples would be automotive company stocks or telecommunication company bonds. The research analyst's job is to become an expert on that industry and that specific group of investments. The analyst constantly monitors that industry/investment sector and do research on it, trying to find the best investment opportunities (the "buy" recommendations) for their firm's investor clients (both individual investors and large institutional buyside investors such as mutual funds, pension funds and hedge funds). Research analysts also try to warn investors about stocks or bonds that are overvalued and may decline in price (the "sell" recommendations). Some research analysts (called "Strategists") are more "big picture" focused, analyzing entire market segments, asset classes or countries, instead of individual companies within those segments. They also provide buy and sell recommendations to investors, but their analyses and recommendations are more focused on factors and trends that impact broader market segments (instead of individual companies) and how investors can adjust their portfolios to benefit from those factors and trends.

The Investment Management/CFA Track within the Finance curriculum is also highly recommended for students interested in research-oriented career path. Specific courses that students should take included FIN 4224 (Fixed Income Securities), FIN 4244 (Asset Valuation), FIN 4274 (Equity Securities) and FIN 4264 (Derivatives). Another important course for this career path is ACIS 4194 (Analysis of Financial Statements). Membership in BASIS or SEED, the Finance Department's two student-run investment portfolio management groups, also provides excellent preparation.

Operations

Investment banks require highly sophisticated databases and information systems to perform their day-to-day tasks, such as trading and research. They also need large numbers of professionals to maintain these systems and databases. Another key operations area of an investment bank is that of processing trades, which involves recording trades and making sure that the cash and product (bond, stock, etc.) involved in each trade are processed (get from the buyer to the seller) and are entered into the records correctly. This is an excellent opportunity for students who are double-majoring in Finance and BIT (Business Information Technology). It is also a good way to learn the process behind trading and to learn about the details of many financial products that are being traded. Individuals who are ultimately interested in working on a trading desk can sometimes start in operations and migrate to a sales or trading role after becoming experts in the operations supporting a trading desk or product.

Venture Capital

Venture Capital is the area of finance that involves providing funding for new businesses. New businesses generally are not profitable early on and therefore often have significant up-front needs for funds to purchase equipment, hire employees, and fund the business' initial operating losses. These funds are usually provided by three groups of investors: the entrepreneur's friends and family, wealthy individuals (nicknamed "angel investors"), and venture capital funds.

Venture capital funds are pools of money raised from individuals and institutions that are willing to take significant financial risks in order to obtain high rates of return. The venture capital funds invest money into young companies that have recently started up. Venture capitalists are the finance professionals who manage these venture capital funds. A key part of their job is analyzing potential investments - determining if the business makes sense, looking at its cash requirements and projected financial performance, and the potential threats to it, and then determining how much the business could eventually be worth. They also must negotiate the terms of each investment and then monitor the investments once they have been made, frequently serving on the boards of directors of companies in which their funds have invested. Although many venture capital startups fail to succeed, some do become highly profitable, examples include; Facebook, Google and Twitter.

Venture capital job opportunities are rare, especially for new graduates. Many professionals who work in venture capital have a technical degree (engineering, computer science, biochemistry, etc.) or experience in addition to their finance skills.

Real Estate Investing

There are numerous financial institutions, companies and wealthy individuals that invest in existing real estate. Their goal is to buy buildings and land, earn income from them, and then sell them at a profit in the future. Institutions which do this include real estate investment trusts (REITs), corporations, pension funds, and hedge funds.

These institutions employ finance professionals to evaluate properties that are potential investments and choose the ones that can provide attractive returns. Finance professionals also assist in the acquisition process and then monitor real estate assets after they have been acquired. In evaluating real estate investments, finance professionals must perform valuation analyses, including forecasting the projects' revenues, costs and cash flows. Once a decision has been made to proceed with a property acquisition, they must also often deal with financial institutions from which they are borrowing money to finance the purchase. Once real estate projects have been bought, the real estate finance professionals must monitor and evaluate their ongoing financial performance (revenues, costs and cash flows), interact with the financial institutions that provided the financing, and periodically update the projects' valuations in case opportunities arise to sell at a profit.

Government

Knowledge of investments and markets is also useful for career paths in the public sector. There are many entities affiliated with the federal and state governments that participate in the capital markets and manage billions of dollars of investments. In addition, many government agencies regulate financial markets and financial institutions. Finance professionals often start at a government agency, gain significant experience, and then transition to the private sector. The following are career paths in the government sector for which the Investment Management Option is appropriate:

Regulatory Agencies

Federal and state agencies regulate businesses, financial institutions and financial markets. These agencies require finance specialists who understand the entities and financial products that the agencies are regulating. Financial institutions that are regulated include banks, insurance companies, broker-dealers, asset managers, and investment banks. Financial products that are regulated include stocks, bonds, derivatives and mutual funds. In addition, corporations are subject to regulations regarding financial reports and transactions such as stock and bond offerings and mergers and acquisitions.

Major financial regulators at the federal (US) level include the Securities and Exchange Commission (SEC), the Federal Deposit Insurance Corporation (FDIC), the Commodity Futures Trading Commission (CFTC), the Office of the Controller of the Currency (OCC), and the Federal Reserve. At the state level, each individual state has regulatory bodies that regulate corporations, insurance companies and banks.

Finance professionals also play important roles in agencies that regulate non-financial segments of the economy. Industries that are heavily regulated at the state and federal level include utilities, telecommunications, broadcasting, transportation, weapons manufacturing, and healthcare. The regulatory agencies overseeing these industries require people who can monitor the financial condition of the companies being regulated and analyze the financial ramifications of various regulatory changes. Finance professionals within these agencies review and analyze financial documents, market data, and internal company reports and data to ensure that laws and regulations are being complied with. They are also trying to protect investors, prevent market abuses, and prevent the entities that they are regulating from taking excessive risk. These jobs may provide an excellent way to learn about a market, its financial products, its risks, and its regulations. People in these positions often later transition into a career in the private sector. Financial institutions often like to hire professionals with a government regulatory background for positions in compliance and risk management.

Government Financial Institutions

There are financial institutions in the public sector that provide a variety of funding services for government entities, as well as for private sector companies and individuals. The most important of these is the Federal Reserve, which is the central bank of the United States. The Federal Reserve sets the monetary policy for the country, provides backup liquidity to the US banking system, and acts as the bank for the US Government. Other major financial institutions affiliated with the US government include Fannie Mae and Freddie Mac. Each of these institutions has a variety of finance jobs. Fannie Mae and Freddie Mac provide opportunities for students who are interested in the fixed income (bond) markets, since they are both major issuers of mortgage backed securities. The Federal Reserve has excellent opportunities for students who are interested in the big picture of how the US financial system and economy work. A career with the Federal Reserve is ideal for students who are double majoring in Finance and Economics.

Financing

Many government agencies issue bonds to provide funding for their operations. At the Federal level, the Treasury Department is the largest issuer of government bonds. However, billions of dollars of government bonds are also issued every year by state and local government agencies. In addition, there are bonds issued each year by agencies affiliate with the US government, such as the Tennessee Valley Authority and the Federal Home Loan Banks. Professionals within these agencies work with investment banks to structure and market the bond issues. They also put together and provide financial information to investors who purchase the bonds, and they then continue to provide information to bondholders over the life of the bonds.

International

Both the State Department and the federal intelligence agencies utilize finance experts as part of the US Government's international activities. The State Department employs officers who promote trade and improved economic relations with countries around the world. The intelligence agencies have professionals who analyze the economies of individual countries and the impact of various policies and world events. Many of these professionals are based in the countries that they are dealing with, with assignments often changing every few years. International government jobs are ideal for graduates who want to see the world and get to learn about different countries and cultures. A key success factor (in addition to finance skills) is the ability to learn languages and quickly adapt to different cultures. These jobs are often excellent preparation for careers with multinational corporations. Downsides associated with these career paths include the need to relocate frequently and security risks associated with being in countries with higher than average risks.