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VALUATION AND INVESTMENT PROFESSION

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Abstract:
Investment professionals, particularly financial analysts or security analysts evaluate securities and try to determine characteristics of securities and to identify mispriced securities. For that purpose they use different models to estimate the intrinsic value of the common stocks. Traditional valuation models based on the present value of future cash flows are affected by estimated growth rate of the variable used and by the investor's required rate of return. These models can be used for valuing fixed income securities, such as bonds and preferred stocks. However, in valuing companies with significant growth opportunities they have to expand traditional analysis with option valuation.

Keywords: investment professions, valuation, dividend discount models, free cash flow model, option value.

Jel Classification: G12, G13

INTRODUCTION

Procedures and techniques of security analysis are daily used in financial markets and financial institutions. Financial analysis as synonymous with security analysis is the activity focused on the foundation and management of value. Value is primarily determined through the economic concept which is based on the projected cash flows and risk-return trade-off (Orsag 2011). In a broad sense, financial analysis involves determining the levels of risk and expected return of individual financial assets, as well as groups of financial assets (Sharpe, Alexander, and Bailey 1999, 740). Modern approach to financial analysis integrates traditional internal and external approaches to corporate finance.

The investment profession comprises a wide range of activities. Brokers, investment advisers, financial analysts, financial planners, investment bankers, portfolio managers are all investment professionals. Investment professionals, particularly financial analysts or security analysts evaluate securities and try to determine characteristics of securities and to identify mispriced securities. For that purpose they use different models to estimate the intrinsic value of common stocks.

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Two basic models are used to estimate intrinsic values: dividend discount models (DDMs) and free cash flow approach (FCFs). The dividend discount model focuses on dividends, while free cash flow model focuses on sales, costs, and free cash flows (Brigham and Ehrhardt 2011; Bodie, Kane and Marcus 2010). An alternative approach is the use of the models based on price-earnings ratios (Sharpe, Alexander, and Bailey 1999; Bodie, Kane and Marcus 2010; Mayo 2011). Traditional stock analysis can be viewed in the classical work of Graham and Dodd *Security Analysis* in 1st edition that was published 1934 (Graham, Dood, and Cottle 1962). In this book one can learn most of the traditional uses of the capitalization concepts represented by the famous P/E multiplier.

Finally, the value of the firm can be calculated as the sum of the assets already in place, or the no-growth value of the firm, plus the net present value of the future investments the firm will make, which is the present value of growth opportunities (Bodie, Kane and Marcus 2010, 404).

Financial industry and investment profession provide significant efforts in the area of organization, professional ethics, education and professional licensing. The education of the financial analysts is important because of the very high professional requirements.

Stock valuation models have some limitations. In addition to stock valuation problems, one can also identify the problem of development assessment for the firm. Development designates the qualitative changes in the firm's business. Qualitative changes in the firm's future can improve flexibility of business operations and produce various strategic or real options. These qualitative changes usually can't be valued using the traditional financial analysis based on the discounted cash flow analysis. Discounted cash flow analysis can't capture the value of flexibility. In that sense, stocks of the firm with flexibility in the future will have additional value over the traditional value estimated with one of the traditional stock valuation models.

The second part of the paper describes the traditional stock valuation models, their characteristics and application problems. The third part of the paper deals with investment opportunities, option value and stock value. The last part of the paper describes the importance of investment profession and professional organizations, such as EFFAS - The European Federation of Financial Analysts Societies, ACIIA® - The Association of Certified International Investment Analysts® and/or CFA Institute and their role in global financial environment.

STOCK VALUATION MODELS AND APPLICATION PROBLEMS

As noted previously, two basic models of estimating the intrinsic value are the dividend discount models and free cash flow model. According to the dividend discount model the stock price should equal the present value of all future dividends, using a discount rate that reflects the risk of stock (eq. 1).

$$\hat{P}_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+r_s)^t} \tag{1}$$

The general model is not very useful because it requires from the analyst to forecast infinite stream of dividends, and this may be impossible task. With certain assumptions about expected dividends movement the model can be used. These assumptions focus

on dividend growth rates, and there are three dividend discount models: the zero-growth model, the constant-growth model and multiple-growth model (Sharpe, Alexander, and Bailey 1999; Bodie, Kane and Marcus 2010). The dividend discount models estimate the value based on the investor's required rate of return, the firm's dividends and the future growth in those dividends. Dividend discount models can't be used if the stock does not pay a dividend. For stocks that pay dividends, the major problem is to estimate the growth rate.

The free cash flow model or corporate valuation model (Brigham and Ehrhardt 2011) can be used to estimate the total value of a firm as the value of its operations plus the value of its non-operating assets. In other words, the value of the firm is the present value of its expected free cash flows discounted at the weighted average cost of capital, and the value of non-operating assets should be added to the value of the firm to find the firm's total value. The intrinsic value of common equity is the total value of the firm minus the value of the debt and preferred stocks. The intrinsic value per share is the total value of the equity divided by the number of shares.

According to Bodie et al. (2010, 418–419) one approach is to discount the free cash flow for the firm at the weighted-average cost of capital to obtain the value of the firm, and then subtract the then-existing value of debt to find the value of equity. Another is to focus from the start on the free cash flow to equity holders, discounting those directly at the cost of equity to obtain the market value of equity. This approach is particularly useful for firms that pay no dividends.

Free cash flow model and dividend discount models are significantly affected by estimated growth rate of the variable used (dividends, earnings, cash flow or sales) and are affected by the investor's required return on the stock (Reilly and Brown 2012, 313). Both of these variables must be estimated. Miller and Modigliani (1961) showed that the free cash flow model is consistent with the dividend discount model (see also Brigham and Ehrhardt 2011), however, in practice, analysts have to make simplifying assumptions and because of that the values from these models may differ (Bodie, Kane and Marcus 2010). See early papers of Durand (1957) and Miller and Modigliani (1961) for a discussion of the growth problem and stock valuation, or Michaud and Davis (1982) and Gehr (1992) for a discussion of a bias in dividend discount models.

Furthermore, the value of stock is derived from cash flows which are obtained from the real investments of the firm. Dividend discount models treat stock as financial asset with growing cash flows, and the growth of the firm's cash flows is not just quantitative problem. Growth is the outcome of the growth of business activities and development. Development includes many real options and discounted cash flow models are not applicable for real options valuation (Orsag and Dedi 2003). See also Beneda (2003) for a discussion of the discounted dividend model limitations.

Many security analysts use models based on price-earnings ratios. The dividend per share is the product of the earnings per share and the proportion distributed, or payout ratio. If an analyst has to forecast earnings per share and payout ratio, then he has implicitly forecast dividends. It means that in dividend discount models an analyst can substitute dividends for product of earnings and dividends per share (Sharpe, Alexander, and Bailey 1999; Mayo 2011). However, the problem of growth rate estimation and required return estimation is not resolved.

INVESTMENT OPPORTUNITIES, OPTION VALUE AND STOCK VALUE

Discounted cash flow method is not as helpful in valuing companies with significant growth opportunities or substantial intangible assets, also in valuing research and development. Research and development is almost all option value, and intangible assets' value is usually option value (Myers 1984, 135). Discounted cash flow method should be expanded with option valuation or real option approach. Real option approach is flexible and good "framework" for decision making process, and can be used for simple or complex investment opportunities. Option pricing methods explicitly capture the value of flexibility.

Bodie, Kane and Marcus (2010) showed that the P/E ratio is a useful measure of the market's assessment of the firm's growth opportunities. According to them, the value of the firm can be calculated as the sum of the assets already in place, or the no-growth value of the firm, plus the net present value of the future investments the firm will make, which is the present value of growth opportunities.

Option valuation can be applied to corporate securities that can be seen as packages of claims or options on the total value of the firm. In this case, the underlying asset is the total value of the firm's assets, and the various corporate securities, such as equity, debt, warrants and convertible bonds, can then be valued as claims contingent on the firm's assets (Trigeorgis 1996, 107).

Options can be found on the both sides of the balance sheet, the assets and the liabilities sides (Copeland, Koller, and Murrin 2000, 400). A Firm that has the option to shut down and restart operations, expand, or abandon them, is more flexible and therefore more valuable than the same firm without these options. Asset options affect the value of the firm that has them. Because of that asset options are important and should be properly valued.

Options on the liabilities side of the balance sheet are easy to recognize. Convertible bonds, for example, give their holder the right to exchange them for stock at a predetermined conversion ratio. It is an option that the bondholders have to buy part of the company from stockholders (Black and Scholes 1973). Similarly, the holder of a warrant has the right to buy the firm's stock (or other asset) on specified terms. A warrant is an option that is a liability of a firm (Black and Scholes 1973). Standard approach to valuation requires to that we subtract the market value of these liabilities from the value of the firm to estimate the value of equity. Liability options affect the weighted average cost of capital.

INVESTMENT PROFESSION AND PROFESSIONAL ORGANIZATIONS

The investment profession comprises a wide range of activities. Brokers (with varied roles, all the more dealing with various underlying assets), traders, investment advisers, financial analysts, financial planners, private bankers, investment bankers, portfolio managers, private equity investors, financial managers are all investment professionals. Dedicated professional organizations, such as EFFAS - The European Federation of Financial Analysts Societies, ACIIA® - The Association of Certified International Investment Analysts® and/or CFA Institute, represent and bring investment professionals together, and pool their business interests.

Set up in 1962 “as a professional association for nationally-based investment professionals associations in Europe”, the European Federation of Financial Analysts Societies - EFFAS “is a Pan-European grouping of the National Societies of Financial Analysts” across the “European Investment Community”, “bringing together leading experts from all of Europe's Equity and Fixed Income markets.” This “umbrella organization comprises 27 member organizations, representing more than 17,000 investment professionals”. “EFFAS provides a pan-European platform for the individual member societies aimed at promoting communication and building a network for investment professionals across Europe”. “The Federation represents the interests of the profession in Europe and is an authoritative counterpart for politicians and EU representatives/ legislative bodies in the fields of professional ethics as well as standards and qualification in investment research, asset and portfolio management, investment advice, etc.” In addition, “EFFAS is a strong partner in the achievement of an integrated European financial market”.

In line with its slogan, “continuing development for investment professionals”, “EFFAS promotes the development and dissemination of international professional standards in order to contribute towards a high level of quality in the professional practice of investment professionals”. “Ensuring that investment professionals receive the best possible training has always been a top priority at EFFAS.” In this context, it develops, recognizes and offers “designations that are appropriate for investment professionals”, which “are of two types-EFFAS Diplomas” (“CEFA - Certified European Financial Analyst”) “and EFFAS Certificates” (“Certified International Investment Analyst - CIIA®)” and “Certified International Wealth Manager - CIWM”). “As a founding member of the global training association ACIIA®, EFFAS “helped to develop the internationally recognized Certified International Investment Analyst - CIIA® - examinations”, “a veritable passport to the major financial markets of the world”, and “has successfully launched training toward the CIIA® degree in Europe”. “The CIIA® ensures tailor-made professional qualification by offering global, as well as local market, knowledge within its examination structure.”

EFFAS is “a member of the Association of Certified International Investment Analysts - ACIIA®, “established in 2000”, which “is the international umbrella organization for national and regional associations of investment professionals representing over 100,000 portfolio managers, analysts, investment advisers, asset managers and fund managers worldwide.” “In the United Kingdom the ACIIA has an awarding body status and the CIIA is recognized by FSSC (Financial Services Skills Council) as a Key 2 qualification”. EFFAS has also been organizing for several years among others a Summer School to “enhance the networking between existing EFFAS designation holders (e.g. CEFA, CIIA), CIIA candidates and other investment professionals”; it consists among others of “conferences, simultaneous plenary sessions (“with lectures on topics of interests given by professors and experts from various industry sectors”) and workshops” (“covering case studies on various topics”).

Dating from 1962 with “the CFA Program’s birth” and the incorporation of “The Institute of Chartered Financial Analysts - ICFA”, followed by its merger with “Financial Analysts Federation - FAF” to form “Association for Investment Management and Research - AIMR” in 1990, CFA Institute (changed name of AIMR since 2004) markets itself as “the global association of investment professionals” offer access to a global network of more than 100,000 professionals (…), including practitioners, professors, regulators, charter-holders, and employers. CFA Institute

"global community includes more than 130 local societies in 58 countries"; Its "member societies", located across "The Americas", "Asia Pacific" and "Europe, Middle East, and Africa", "ambassadors for CFA Institute", "[spread] the word about its mission and contribute to the expertise of their members " ("First CFA exam graders being from outside North America, [came] from London and Middle East" in "1985"; "ICFA President" "[spread] the word of the CFA Program" among "other international organizations" "to England, India, Singapore and Japan" in "1986"; "52 percent of CFA candidates" were "from outside North America" in "2004", "London becoming the largest test center in "2007", surpassing New York, which had been the largest since 1963"; and "CFA Institute opened a satellite office" in "Hong Kong" in "1997"). These societies "add a local dimension, offering members connections in their regional area for career growth, information exchange, and professional networking".

CFA Institute "ultimate goal" is "to serve the greater good by creating an environment where investors' interests come first, markets function at their best, and economies grow". The "collective identity of [its] global community of investment professionals" is "centered around a core of ethical best practice", with a "network of professionals committed to the highest standards of analytical rigor and ethical behavior". CFA Institute, markets itself as "a champion for ethical behavior in investment markets and a respected source of knowledge in the global financial community", "setting the standard for professional excellence". It is "committed to actively building fair and effective financial markets". CFA Institute "[belief is] "that fair and effective financial markets, led by competent and ethically centered professionals, drive economic growth". CFA Institute "broader mission begins with the gold-standard Chartered Financial Analyst - CFA designation" ("The Economist and the Financial Times (U.K.) named the CFA Program the "Gold Standard" of investment education in 2005"). This "graduate-level credential demand[s] that CFA charter-holders do right by their clients and demonstrate the highest level of professional integrity and expertise" with "more than 100,000 CFA charter-holders leading the investment industry in analytical rigor and ethical behavior". CFA Institute, with "more than 109,000 members around the world", is "committed to working with the global investment community to develop and uphold the industry's highest standards of individual and corporate practice". As an illustration, "the CFA Institute Integrity List" ("a collection of 50 tangible steps that investment professionals can take to restore trust in the industry"), "inspired by 'real-world' ideas from CFA charter-holders and members", has been "designed to help serve the greater good".

In practice, the Investment Profession and/or Investment Professionals have both common and variable practice and use of Securities Valuation. Indeed, during the last 30 years, financial theory has made major advances and has elaborated a robust conceptual framework for firm valuation. However, if finance theory provides tools and models, the implementation of valuation techniques allows considerable latitude to professionals (Bancel and Mittoo 2012).

Bancel and Mittoo (2012) presented the results of the survey on valuation practice, and according to the 416 questionnaires received, they concluded that: a) all valuation experts have a good knowledge of financial concepts required to value firms, b) when looking more carefully at implementation of valuation methods and especially estimation of parameters required to use the CAPM there is no consensus about the best practices, for example, parameters used to estimate beta or risk free rate are different from one expert to another and these differences between practices can lead to

very different firm and equity values, c) respondents consider that valuation methods present several advantages like standardization or ease to implement, d) experts do not always use the CAPM. They also consider normative rate of return or expected cost (using ex-ante approach), e) valuation experts consider additional premiums for size and country risk which is not in phase with teachings of CAPM (whereby only systematic risk has to be considered).

CONCLUSION

Investment professionals, particularly financial analysts or security analysts evaluate securities and try to determine characteristics of securities and to identify mispriced securities. For that purpose they use different models to estimate the intrinsic value of the common stocks. Dividend discount models (DDMs) and free cash flow model (FCFs) are two basic models. An alternative approach is the use of the models based on the price-earnings ratios. These models are significantly affected by estimated growth rate of the variable used (dividends, earnings, cash flow or sales) and are affected by the investor's required return.

Financial analysts and other investment professionals can use traditional financial analysis based on the discounted cash flow for valuing bonds, preferred stocks and even for valuing stocks paying regular dividends. On the other hand, in valuing companies with significant growth opportunities or intangible assets they should expand traditional financial analysis with option valuation. Similarly, they have to apply option valuation to corporate securities that can be seen as options on the total value of the firm.

Dedicated professional organizations, such as EFFAS - The European Federation of Financial Analysts Societies, ACIIA® - The Association of Certified International Investment Analysts® and/or CFA Institute, represent and bring investment professionals together, and pool their business interests. The European Federation of Financial Analysts Societies represents the interests of the profession in Europe and is an authoritative counterpart for politicians and EU representatives / legislative bodies in the fields of professional ethics as well as standards and qualification in investment research, asset and portfolio management, investment advice. In addition, EFFAS is a strong partner in the achievement of an integrated European financial market.

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