The Value of Stocks of a Company

By Sam Vaknin, Ph.D.

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The debate rages all over Eastern and Central Europe, in countries in transition as well as in Western Europe. It raged in Britain during the 80s: Is privatization really the robbery in disguise of state assets by a select few, cronies of the political regime? Margaret Thatcher was accuse of it - and so was the Agency of Transformation in the Republic of Macedonia. At what price should the companies owned by the State have been sold? This question is not as simple and straight forward as it sounds.

There is a gigantic stock pricing mechanism known as the Stock Exchange. Willing buyers and willing sellers meet there to freely negotiate deals of stock purchases and sale. Every day new information, macro-economic and micro-economic, determines the value of companies.

Greenspan testifies, the economic figures are too good to be true and the rumour mill starts working: interest rates might go up. The stock market reacts with a frenzy - it crashes. Why?

A top executive is asked how profitable will his firm be this quarter. He winks, he grins - this is interpreted by Wall Street to mean that they WILL go up. The share goes up frantically: no one wants to sell it, everyone want to buy it. The result: a sharp rise in the price. Why?

Moreover: the price of the stock prices of companies A with an identical size, similar financial ratios (and in the same industry) barely budges. Why didn't it display the same behaviour?

We say that the stocks of the two companies have different elasticity (their prices move up and down differently), probably the result of different sensitivities to changes in interest rates and in earnings estimates. But this is just to rename the problem. The question remains: why? Why do the shares of similar companies react differently?

Economy is a branch of psychology and wherever and whenever humans are involved, answers don't come easy. A few models have been developed and are in wide use but it is difficult to say that any of them has real predictive or even explanatory value. Some of these models are "technical" in nature: they ignore the fundamentals of the company. Such models assume that all the relevant information is already incorporated in the price of the stock and that changes in expectations, hopes, fears and attitudes will be

reflected in the prices immediately. Others are fundamental: these models rely on the company's performance and assets. The former models are applicable mostly to companies whose shares are traded publicly, in stock exchanges. They are not very useful in trying to attach a value to the stock of a private firm. The latter type (fundamental) models can be applied more broadly.

The value of a stock (a bond, a firm, real estate, or any asset) is the sum of the income (cash flow) that a reasonable investor would expect to get in the future, discounted at the appropriate discount (usually, interest) rates. The discounting reflects the fact that money received in the future has lower (discounted) purchasing power than money received now. Moreover, we can invest money received now and get interest on it (which should normally equal the discount). Put differently: the discount reflects the loss in purchasing power of money not received at present or the interest that we lose by not being able to invest the money currently (because we will receive it only in the future). This is the time value of money. Another problem is the uncertainty of future payments, or the risk that we will not receive them. The longer the period, the higher the risk, of course. A model exists which links the time, the value of the stock, the cash flows expected in the future and the discount (interest) rates.

We said that the rate that we use to discount future cash flows is the prevailing interest rate and this is partly true in stable, predictable and certain economies. But the discount rate depends on the inflation rate in the country where the firm is (or in all the countries where it operates in case it is a multinational), on the projected supply of the shares and demand for it and on the aforementioned risk of non-payment. In certain places, additional factors must be taken into consideration (for example: country risk or foreign exchange risks).

The supply of a stock and, to a lesser extent, the demand for it determine its distribution (how many shareowners are there) and, as a result, its liquidity. Liquidity means how freely can one buy and sell it and at which quantities sought or sold do prices become rigid. Example: if a lot of shares is sold that gives the buyer the control of a company - the buyer will normally pay a "control premium". Another example: in thin markets it is easier to manipulate the price of a stock by artificially increasing the demand or decreasing the supply ("cornering" the market).

In a liquid market (no problems to buy and to sell), the discount rate is made up of two elements: one is the risk-free rate (normally, the interest payable on government bonds), the other being the risk related rate (the rate which reflects the risk related to the specific stock).

But: what is this risk rate?

The most widely used model to evaluate specific risks is the Capital Asset Pricing Model (CAPM).

According to it, the discount rate is the risk-free rate plus a coefficient (called beta) multiplied by a risk premium general to all stocks (in the USA it was calculated to be 5.5%). Beta is a measure of the volatility of the return of the stock relative to that of the return of the market. A stock's Beta can be obtained by calculating the coefficient of the

regression line between the weekly returns of the stock and those of the stock market during a selected period of time.

Unfortunately, different betas can be calculated by selecting different parameters (for instance, the length of the period on which the calculation is performed). Another problem is that betas change with every new datum. Professionals resort to sensitivity tests which neutralize the changes that betas undergo with time.

Still, with all its shortcomings and disputed assumptions, the CAPM should be used to determine the discount rate. But to use the discount rate we must have what to discount, future cash flows.

The only relatively certain cash flows are the dividends paid to the shareholders. So, Dividend Discount Models (DDM) were developed.

Other models relate to the projected growth of the company (which is supposed to increase the payable dividends and to cause the stock to appreciate in value).

Still, DDM require, as input, the ultimate value of the stock and growth models are only suitable for mature firms with a stable and not too high dividend growth. Two-stage models are more powerful because they combine both emphases: on dividends and on growth. This is because of the life-cycle of firms: at first, they tend to have a high and unstable dividend growth rate (the DDM tackles this adequately). As the firm matures, it is expected to have a lower and stable growth rate, suitable for the treatment of Growth Models.

But how many years of future income (from dividends) should we use in a our calculations? If a firm is profitable now, is there any guarantee that it will continue to be so in the next year, the next decade? If it does continue to be profitable - who can guarantee that its dividend policy will not change and that the same rate of dividends will continue to be distributed?

The number of periods (normally, years) selected for the calculation is called the "price to earnings (P/E) multiple". The multiple denotes by how much we multiply the (after tax) earnings of the firm to obtain its value. It depends on the industry (growth or dying), the country (stable or geopolitically perilous), on the ownership structure (family or public), on the management in place (committed or mobile), on the product (new or old technology) and a myriad of other factors. It is almost impossible to objectively quantify or formulate this process of analysis and decision making. In telecommunications, the range of numbers used for valuing stocks oa private firm is between 7 and 10, for instance. If the company is in the public domain, the number can shoot up to 20 times the net earnings.

While some companies pay dividends (some even borrow to do so), others just do not pay. So in stock valuation, dividends are not the only future incomes you expect to get. Capital gains (profits which are the result of the appreciation in the value of the stock) also count. This is the result of expectations regarding the firm's free cash flow, in particular the free cash flow that goes to the shareholders.

There is no agreement as to what constitutes free cash flow. In general, it is the cash which a firm has after sufficiently investing in its development, research and (predetermined) growth. Cash Flow Statements have become a standard accounting requirement in the 80s (starting with the USA). Because "free" cash flow can be easily extracted from these reports, stock valuation based on free cash flow became increasingly popular and feasible. It is considered independent of the idiosyncratic parameters of different international environments and therefore applicable to multinationals or to national firms which export.

The free cash flow of a firm that is debt-financed solely by its shareholders belongs solely to them. Free cash flow to equity (FCFE) is:

FCFE = Operating Cash Flow MINUS Cash needed for meeting growth targets

Where

Operating Cash Flow = Net Income (NI) PLUS Depreciation and Amortization

Cash needed for meeting growth targets = Capital Expenditures + Change in Working Capital

Working Capital = Total Current Assets - Total Current Liabilities

Change in Working Capital = One Year's Working Capital MINUS Previous Year's Working Capital

The complete formula is:

FCFE = Net Income PLUS

Depreciation and Amortization MINUS

Capital Expenditures PLUS

Change in Working Capital.

A leveraged firm that borrowed money from other sources (could also be preferred stockholders) has a different free cash flow to equity. Its CFCE must be adjusted to reflect the preferred dividends and principal repayments of debt (MINUS sign) and the proceeds from new debt and preferred stocks (PLUS sign). If its borrowings are sufficient to pay the dividends to the holders of preference shares and to service its debt - its debt to capital ratio is sound.

The FCFE of a leveraged firm is:

FCFE = Net Income PLUS

Depreciation and Amortization MINUS

Principal Repayment of Debt MINUS

Preferred Dividends PLUS

Proceeds from New Debt and Preferred MINUS

Capital Expenditures MINUS

Changes in Working Capital.

A sound debt ratio means:

FCFE = Net Income MINUS

(1 - Debt Ratio)*(Capital Expenditures MINUS

Depreciation and Amortization PLUS

Change in Working Capital).

Sam Vaknin is the author of "Malignant Self Love - Narcissism Revisited" and "After the Rain - How the West Lost the East". He is a columnist in "Central Europe Review", United Press International (UPI) and ebookweb.org and the editor of mental health and Central East Europe categories in The Open Directory, Suite101 and searcheurope.com. Until recently, he served as the Economic Advisor to the Government of Macedonia.
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Trading Baskets Part I by Floyd Snyder

Q. What is a basket?

A basket is a group of up to 50 stocks that you can trade, manage and track as one entity.

In another article, I wrote about a rather conservative method of being in the stock market. See: "A Triple Dipper: How to Make 3 Profits on 1 Stock" at http://www.traderaide.com/Selected_Articles/Tripple_Dipper.html.

This time let's talk a little about trading "baskets". The definition above maybe needs to be expanded just a bit. You can trade baskets using longer term buy and hold strategies, a shorter-term swing trading approach or as a day trader. A basket of stocks is nothing more then any group of stocks that someone has grouped together for any of a number of reasons. They may be of the same sector, or they may be made up of a number of stocks in different sectors.

An example of a few baskets could look like what is sited below. To save time and space I'll use the stock symbols only. You can look them up later if you are interested. Let's say you see stem cell research as the thing of the future and wanted to be invested in it. If you don't know which stock is going to fair the best, you may want buy a basket of stocks that is made up of ASTM GERN and STEM. This would be a basket of stem cell stocks. Now let's say you think the Internet stocks look good and, again, you are not sure which ones will do the best. In your Internet basket you may want to pick up some shares of EBAY, YHOO and AMZN. Obviously your basket can contain any number of stocks you want. Many online brokers will actually allow you to set up baskets in your account, and you can put in a sell order all at once on the entire basket or pick and chose which ones you want to sell. I'm not recommending these stocks in any way, shape or form, but merely using them as examples.

Okay, that's pretty basic, but I'm sure you get the picture. The examples above would more or less be the type of baskets you would probably be thinking of holding for some time and not day trading.

Most day traders have an entirely different kind of basket of stocks. A day trader may have any number of stocks in his trading basket that he or she has been become very familiar with. They have studied them and even charted them for intraday movement (I hope) for some time and have learned the trading habits of the individual stocks. They have a fairly good idea of how the stock moves on a daily basis with or without news. They have knowledge of how it reacts to earnings, analyst upgrades, analyst downgrades and other events that may be reoccurring. They have also probably learned how they trade when hit by surprise events as well. They know which market makers to

watch the closest. They also know who the main market maker in the stock is, often referred to as the axe.

A day trader's basket may be any number of stocks. A good average could be somewhere between 25-50 stocks. But it may also be larger or smaller. I have known traders that traded one stock all day long and nothing else. I have known others that were able to watch 300 stocks. Personally, I think that is way too many.

When I was trading I had a basket of about 75 stocks. Some I knew were only going to be in play on news or when reporting earnings. Others were fairly reliable moves on a daily basis. And still others were extremely sensitive to any sort of news or event.

Today, if I was going to put together a basket of stocks, I would be looking at the following symbols: GOOG, TASR, TZOO, AIRT, QLGC, SYMC, PLMO, KMRT, EBAY, SINA, RIMM, RMBS, PCLN, and DCLK as well as other NASDAQ stocks. I would not over look New York Stock Exchange stocks, although many do. I would be looking at: MO, PFE, CAT, GE, GM, TYC, MRK, MOT, and others as well. Keep in mind, I am not recommending any of these stocks specifically for you to buy or trade. I am merely trying to give you an example of what a basket may look like. You have to decide yourself what stocks you would add to you your basket based on your own knowledge gained through experience and research on each stock.

I think every trader should have a basket of stocks he or she follows and trades. Day trading without your own basket raises the risk level and puts you in a position where you are always looking for something to trade. On slow days where the market is just not offering up much in the way of trading opportunities, you may have a tendency to jump on stocks, that under different circumstances, you would have passed on. Having your own basket of stocks will lower your exposure to risk. They may not move any better under slow market conditions, but at least you will have some knowledge of how they move.

In Part II I will tell you about a special trading basket technique I used during the early boom days of day trading. It may still be a valid concept today.

Floyd Snyder has been trading and investing in the stock market for three decades. He was on the forefront of the day trading craze that swept the nation back in the late1990's both as a trader and as the moderator of one of the Internet's largest real time trading rooms. He is the owner of http://www.TraderAide.com , Strictly Business Magazine at http://www.sbmag.org www.FrameHouseGallery.com and www.EducationResourcesNetwork.com

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