Investor Ratios

CCT224 Assignment 2: Financial Ratios

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("P/E Ratio")

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Introduction

Investor Ratios also known as Market Value Ratios demonstrate an observable market value such as stock price and book values obtained from the firm’s financial statement. Investor ratios include Earnings Per Share, Price-Earnings Ratio, Price/Cash Ratio, Dividend Yield, Book Value per Share, Market Value per Share and Market/Book Ration.

Earnings Per Share

Summary:

Earnings per share (EPS) are an indicator of a company’s profitability. It shows how much of a company’s profit is allocated to each outstanding share of common stock; therefore it shows how much money each outstanding share makes (can be per year or per quarter). This is an important tool for investors and can often determine the value of a stock.

It is calculated as:

Earnings Per Share (EPS):

\[
\text{Net Income} - \text{Dividends on Preferred Stock} \\
\text{Average Outstanding Shares}
\]

Importance to “Performance Assessment”:

One aspect of performance assessment is to assess efficient use of resources for maximizing return on investment, and so the ratio of “earnings per share” can demonstrate how profitable the company is. This ratio is important because every company or business seeks to make profit, otherwise it will go bankrupt. So earnings per share can measure how much profit is earned per outstanding share of common stock. This information can be used by performance assessors to improve business.

Media Stories:

“Rim shares tumble on weaker earnings”
In this media story of September 16, 2011, Research In Motion’s stock dropped by 20% and closed off at $23.50. With a significant drop due to 2000 job cuts and less-than-expected sales, RIM announced a low earnings per share of $5.25 - $6.

Useful Resources:

This website gives a clear definition of EPS and a formula:
http://www.investopedia.com/terms/e/eps.asp#axzz1b6RsOhiM
This describes what preferred stocks are, in relationship to the formula of EPS: http://www.investopedia.com/terms/p/preferredstock.asp#axzz1b6RsOhiM

This shows RIM’s analyst estimates, including quarterly EPS and yearly EPS: http://finance.yahoo.com/q/ae?s=RIMM+Analyst+Estimates

Interesting Facts:

Investors can look at “passing” or “failing” EPS characterized by increasing growth or decreasing. Increased EPS from previous years is equal to a pass. If the EPS decreased this year or quarter, it fails.

Price Earnings Ratio

Summary:

An assessment ratio of a businesses current share price compared to its per-share earnings. The price earnings ratio takes the share price of a company and divides it by earnings per share. Earnings per share is the businesses net profit or earnings, divided by the quantity of shares in issue.

It is calculated as:

\[
\frac{\text{Market Value per Share}}{\text{Earnings per Share (EPS)}}
\]

The price earnings ratio shows the relationship between the price of the share and the company’s recent performance. If the prices of the shares and company’s profit increase, the ratio stays the same. The ratio only moves as price and profits become disconnected.

Importance to “Performance Assessment”:

The price earnings ratio is important for investors to look at a company's growth and establish whether a company's stock price is overvalued or undervalued. A higher price earning ratio compared to a lower price earning ratio proposes that the public is anticipating the company to develop further in the years to come.

For example, high-technology businesses such as, Google can have a price earning ratio of around 70, while another well established business such as, Wal-Mart frequently have a lower price earning ratio of around 20. The price earning ratio “essentially tells you how many years of earnings it would take for a company to equal its present value.” In accordance, “Wal-Mart would need about 20 years, and Google 70”. The reasoning behind this is that Google’s income is expected to increase more quickly and due to this will ultimately take fewer than 70.
Media Stories:

A popular media story reported a few years back by the BBC was regarding the Enron scandal where the success of the company was found to be a complex scam. “Enron’s 2000 corporate annual report reveals poor financial performance, low earnings growth … Enron was grossly overvalued at a P/E multiple of 65.” Investors were overpaying for stocks in belief that the company was very successful.

Useful Resources:
This article explains how to use a price earning ratio to tell a stocks future:
http://www.investopedia.com/articles/00/092200.asp#axzz1b6H9JT0h

Examples of 8 fast growing apparel stores with low P/E ratios:
http://seekingalpha.com/article/300134-8-fast-growing-apparel-stores

Provides a well written definition and calculation of the ratio:
http://www.investopedia.com/terms/p/price-earningsratio.asp#axzz1b6H9JT0h

BBC article on the Enron Scandal:
http://news.bbc.co.uk/2/hi/business/1780075.stm

Interesting Facts:

Investors must keep in mind that companies with a high price earnings ratio typically have growth stocks, which are stocks that have faster then average gains. The “relatively high multiples” do not imply that the stocks are overpriced and are not a good investment. Also, it is important to keep in mind that although the Price Earning Ratio is an excellent tool to help investors make investment decisions, it has limitations. Firms can manipulate stock price by stock splits or repurchase programs, thus, when investing it is important to look beyond ratios.

Price/Cash Ratio

Summary:

Price/Cash ratio is also known as price/cash flow ratio. It is a ratio that measures the company’s market value in relevance to its cash flow (Investopedia.)

It is calculated as:  
\[
\text{Cash/Flow Ratio} = \frac{\text{Share per Price}}{\text{Cash Flow per Price}}
\]

Cash flow is the cash going in and out of a business. There are 3 different types of cash flow:
1. **Operation**: Cash used for running the business
2. **Investment**: Cash used for investing
3. **Financing**: Cash used to pay expenses

Taking into consideration the specific type of cash flow can play a role when trying to calculate the price/cash ratio.

**Importance to “Performance Assessment”:**

It is important to know price/cash ratio from an investor’s perspective to know how the company is doing. For example, company’s take loans all the time. If a company has poor cash flow and are unable to pay their loans back how will they survive? That is why it is important to keep track of all the cash going in and out of your business and not only focus on either the buying and selling aspect. It is important not to confuse between price/cash ratio and price/earnings ratio.

As stated by Marc Lichtenfield, a general rule is:

“But like earnings, you can get an idea whether a stock is cheap or expensive by using cash flow. And it’s quite simple…

If you’re looking for a bargain, a good rule of thumb is to try to find a stock with a price-to-cash flow (P/CF) ratio below 10.” (Marc Lichtenfield, Investment U, June 23, 2010)

Even if a company has strong earnings but weak cash flows, it could potentially cause problems.

**Media Stories:**

Some of the “media stories” that I came across were from reading Marc Lichtenfield’s article where he looks at companies that have strong earnings but weak cash flows (Gafisa) and companies with strong earnings and strong cash flows (Dr. Pepper Snapple Group),

“Gafisa S.A. (NYSE: GFA): This Brazilian homebuilding company has grown its revenue, operating income, net income and earnings per share every year since 2003. In 2009, the company earned $106 million or $0.67 per share” (Marc Lichtenfield, Investment U, June 23, 2010)

“Dr. Pepper Snapple Group (NYSE: DPS): The soft drinks manufacturer did a good job weathering the recession and grew both its earnings and cash flow from operations in 2009. In fact, the company has increased cash flow from operations each year since 2007.” (Marc Lichtenfield, Investment U, June 23, 2010)

The Enron scandal is a famous case which is fairly known among a lot of people. One of the things they did was they changed around the figures of the price/cash ratio.
“As you know, Enron manipulated its earnings so its share price would stay high. That’s because earnings reports can be manipulated. But cash flow is much more difficult to tinker with. In 2001, Fortune magazine’s Bethany McLean broke the Enron scandal when she found “erratic cash flow,” despite the company’s supposedly strong earnings. In fact, starting in June 1997, Enron reported positive earnings in 15 out of 16 quarters, yet cash flow was positive in only three quarters” (Marc Lichtenfield, Investment U, June 23, 2010)

Useful Resources:

8 companies with low price/ cash ratios:

Price/Earnings Ratio vs. Price/Cash Ratio (so you don’t confuse the two, scroll down the article as well as other related topics on price/cash ratio):

More on price/ cash ratio (with examples and figures to help understand the calculation better):
http://www.investopedia.com/university/ratios/investment-valuation/ratio3.asp#axzz1b5T6Plst

More examples in the technology sectors with companies with low price/ cash low ratio (*Remember low = good when dealing with P/C ratio):

Interesting Facts:

The most important thing I learned and yet at the same time is common sense when you think about it, is the importance of analyzing a company’s p/c ratio especially when you want to invest in it. Even if a company is making a lot of earnings, poor cash flow can easily lead to bankruptcy. While researching on this topic (I actually have never heard of the price/ cash ration before either), I learned that knowing the significance of a price/ cash ratio might actually be more important than the price/ earnings ratio. Enron was a good example because they manipulated the price/ cash ratio to show investors that they have an excellent cash flow making people believe they can manage the money properly and a lot of people invested in that company which shows how important cash flow really is.

Dividend Yield

Summary:

Firstly, we need to understand the meaning of a dividend. Dividends are cash distributions that companies pay regularly to shareholders out of their excess earnings. A company that
is willing and able to pay steady dividends can indicate a its’ financial well-being. However, dividends are not guaranteed. A company can decide to reduce or eliminate its dividend during a financial hardship or even to strategize.

It is calculated as:

\[
\text{Dividend Yield} = \frac{\text{Annual Dividend Income per Share}}{\text{Current Share Price}} \times 100
\]

A dividend yield is expressed as a percentage and is a crucial number for equity investors.

But how can you tell if the dividend yield is good? There is no exact percentage that represents a good dividend yield. Comparing the percentage to the sector of the industry is the first good indication. For example, you can use the FTSE10 Index which is a share index of the top 100 UK companies that are most likely capitalized to compare the dividend yield to other top companies (Bloomberg.)

*Importance to “Performance Assessment”:

A dividend yield is one of many signs of a company’s financial health. Companies that pay the dividend yield are usually already established and more stable, not fast growers. Investors are particularly interested in tracking a company’s dividend yield. If a company has a low dividend yield compared to other companies in its sector, it can mean one of two things. First, the share price is high because the market believes that the company has impressive prospects and isn’t too worried about its dividend payments. Second, the company is financially unstable and cannot afford to pay reasonable dividends.

*Media Stories:

HMV is a large global record label. HMV “had everything you want in an investing story: they were trading at a low level, had a bumper dividend the firm was committed to and a convincing recovery tale was being peddled”(Lambert.) At one point, their dividend yield was around 10%. So numerous people asked themselves, why would you turn down 10% a year as compared to a 3% dividend yield from another company? A high dividend yield is not always good. HMV is struggling and some of its core rivals are out of business due to online competitors. Therefore, you must always ask yourself:
1. Why am I being offered it?
2. Will the company deliver?


Another media story focuses on Microsoft, which demonstrates the relationship between dividends and growth. When Microsoft was in excellent financial health, Bill Gates paid no dividends. Instead, he reinvested all its earnings to fuel further growth. When it reached a point where Microsoft can no longer grow at the maintained rate, the company began to
use dividends to keep the interest of investors. “The cash distribution plan put nearly $75 billion worth of value into the pockets of investors through a new 8 cent quarterly dividend” (Investopedia).

http://www.investopedia.com/articles/fundamental/03/102903.asp#ixzz1apJHp6vq

Useful Resources:

A great media story that helps you to understand the consequences behind a high dividend yield: <http://blogs.thisismoney.co.uk/2011/01/hmv-shares-and-the-art-of-losing-money.html>

A video that clearly defines a dividend yield: <http://www.youtube.com/watch?v=0xBNXNXRvwU>.

This website ranks estimated dividend yields of companies in the FTSE 100 Index (UKX) (top 100 UK companies) as of today: <http://www.bloomberg.com/quote/IMT:LN>.

Interesting Facts:

It is interesting that companies that do not pay dividends are not necessarily without profit. A company that has growth opportunities may find it more beneficial to keep their profits and reinvest them into the business. Another interesting fact is that investors look at Electric Utilities and Tobacco because they are good sectors with companies that have strong dividend yields.

**Book Value Per Share**

**Summary:**

Book value per share is a measure often used by investors to determine the level of safety associated with a stock investment. If a company were to go out of business, book value indicates how much would be left for shareholders after a company liquidates.

Book value per share is calculated by subtracting total liabilities from total assets. You then divide that total by the number of common shares outstanding.

**Book Value Per Share = Total Assets – Total Liability / Common Shares**

**Importance to “Performance Assessment”:**

Book value is most useful when evaluating firms with liquid assets (banks, financial institutions) or hard assets (capital-intensive companies, like manufacturers). Generally, a company that is a viable and growing business will be worth more than its book value due to its ability to generate earnings and growth.
Comparing the market value to the book value can indicate whether or not the stock is overvalued or undervalued. Book value per share should be carefully examined when it is believed the market price per share is approach or below book value. When this happens the company might be considered undervalued and could offer an attractive investment opportunity.

During bull markets the stock price is more likely to trade significantly higher than book value, and in a bear market the two values may be close to equal.

Market and book value have nothing in common. Book value is considered to be the accounting value of each share, different than what the market is valuing the stock at. Market value is based on the expectations of the investor community and book value is based on costs and retained earnings.

Also, book value is a long-term thing that is hard to ‘cook’ or hide.

Media Stories:

Book value per share is not very helpful by itself. Book value per share is most useful when you compare it with market value per share to assess a company. It is usually one of the many ratios used to assess a company.

Here’s a recent article that lists many ratios of a company, including book value per share, to show how well the company is doing.

“Citi Sneaks Past Earnings Estimates, Huge Discount To Book Value (C, JPM)”

Useful Resources:

Definition of book value per share. Contains a calculator to calculate the ratio. The site also has calculators for other important ratios. Includes limitations:
http://www.stockresearchpro.com/book-value-per-share-includes-calculator

A slightly different equation to calculate book value but means the same thing. Assesses the usefulness of book value per share:
http://www.investopedia.com/university/ratios/bookvaluepershare.asp#axzz1az7wXwLA

Warren Buffet and Benjamin Graham’s definition of book value per share:

Interesting Facts:

“Book Value Per Share – More Useful Than Earnings Per Share?”
Kind of reassuring that Benjamin Graham and Warren Buffett, two of the wealthiest investors on the planet believe book value per share the most useful measure of a company as a potential investment.

**Market Value per Share**

*Summary:*

Market value per share is used to determine a company’s assessed market value dividend by the total number of shares held by stock owners in the company. Calculation of Market Price per Share

There are several steps you must take in order to calculate the market price per share. The first step is to determine the date on which you want to calculate the market price per share. The second step is to find the price on that particular date. You can look at the company's monthly, quarterly, or annual report to get the stock price on that particular date. Third, you must consider the preferred stock, if any, that this company owns. If the company owns and has paid dividends on its preferred stock, subtract those dividends from the stock price you have found from the financial report. Fourth, determine the number of shares of stock outstanding by looking at the company's quarterly or annual report.

\[ \text{Market Price per Share} = \text{Net Income} - \text{Preferred Dividends/Number of Shares of Common Shares} \]

**Importance of "Performance assessment":**

Knowing the market value per share (and market value more broadly) of a business is a legal necessity in many situations. This includes situations involving the transfer of shares as a result of inheritance or divorce.

Used in determining whether to buy a company’s shares.

**Media stories:**

The news about Starbucks Corporation adding a lighter-roast coffee as the company tries to reach a wider base of consumers. This attempt rose Starbucks Share by 2.3 per cent. This is the rise of Starbucks’ company’s Market value per share.

**Useful Resources:**

How to calculate market price per share of common stock

Starbucks unveils lighter roast coffee to appeal to more drinkers:
http://ca.finance.yahoo.com/news/Starbucks-unveils-lighter-capress-2351659059.html;_ylt=AkBGUhphtq2K_xg.pl5tnq8EzppG;_ylu=X3oDMTE2NGtjc2htBHBvewM0BHNlYwN0b3Ate3RvcmlldwRzbGsDe3RhcmJ1Y2tzdW52?x=0
Market Value per Share:
http://www.ehow.com/facts_5828277_market-value-per-share-defined.html

Interesting Facts:

Market price per share of common stock is a useful analytical tool when determining if an investment in a company is worthwhile. In other words, The market price per share is a financial metric that investors use to determine whether or not to purchase a stock. It is useful to the owners of a firm (BOD) because it gives them an outlook on company performance from which they can draw up conclusions on past performances and anticipate future performance. A firm’s market analysts can use this information to determine which aspects consumers like of a firm (with an increase in the ratio) and which aspects of a firm consumers dislike (with a decrease in the ratio). The BOD can use these reactions to determine and influence their future decisions.

Calculation: The Company’s net income, after adjustment for preferred stock dividends, is divided by the number of common shares outstanding.

Market/Book Ratio

Summary:

Market/book ratio, sometimes known as price-to-book ratio, measures the relative value of a company in comparison to its stock price market value. To calculate market / book ratio, we take the current price per stock and divide it by the book value per stock:

\[
\text{Market Price per Stock} \div \text{Book Value per Stock}
\]

Importance to “Performance Assessment”:

Market / book ratio is useful to investors because it measures a company’s performance and it helps in making comparisons with competitors. Investors and analysts can quickly see if the company is under or overvalued. If a business has a low market / book ratios, it is considered a good investment opportunity, but of course other ratios need to be looked at as well.

Media Stories:

Looking at two competitors such as Apple and RIM’s (research in motion) price/ book ratio we see that Apple has a 5.64 and RIM has a 1.27 price/book ratio, now this could mean that either RIM’s stocks are undervalued or the company is doing poorly, thus we need more information to be able to invest in one of these companies.

Useful Resources:
Price/book ratio information:
http://www.investopedia.com/articles/fundamental/03/112603.asp#axzz1b5WZXLkV

Price/book ratio information:

Apple Price/Book Ratio:

RIM Price/Book Ratio:

Interesting Facts:

What I found to be the most interesting about price/book ratio was how important it is to consider when looking at companies to invest in. I also learned that not by only looking at the price/book can you make a concrete statement about a company’s investment opportunities. A company with a low price/book ratio could either have undervalued stocks or could be doing poorly. Another interesting fact that I learned about price/book ratios is that they are most useful when valuing knowledge-intensive companies, where the physical assets may not accurately reflect the value of the company. Technology companies and other businesses that don’t have a lot of physical assets tend to have low price/book ratio.
Case Study

This is a case study on Research In Motion Limited (otherwise known as RIM or RIMM on the NASDAQ). It is a Canadian global telecommunications company stationed in Waterloo of Ontario. It focuses on designing, manufacturing, and marketing wireless solutions for mobile communications. It has given solutions for access to e-mail, voice, instant messaging, short message service, Internet, and many more browsing applications. This company was founded in 1984 and some of its most well known products include Blackberry, Blackberry enterprise server, Blackberry internet service, and QNX (a microkernel-based operation system).

RIMM has a market/book ratio of 1.18, a price/cash flow ratio of 2.8, a market value per share of $22.31, a price earning ratio of 4.1, an earnings per share of $5.48, book value per share $18.92, and the dividend yield is 0%.

For the purpose of this case study, we will investigate the investor ratios and their significance and practicality in relationship to RIMM’s market. The seven ratios we will cover include market/book ratio, price/cash flow ratio, market value per share, price-earning ratio, earnings per share, book value per share, and dividend yield.

How can investor ratios help to understand stocks?

Market/Book Ratio (Price/Equity) of RIMM: 1.18
Means it is over valued by 18%. It is calculated by market value divided by book value per stock. With a 1.18 ratio, the market value is greater than its book value. A higher P/B ratio implies that investors should want management to create more value from a given set of assets. P/B ratios do not, however, directly provide any information on the ability of the firm to generate profits or cash for shareholders. The book value does not include intangible assets (intellectual property, goodwill, and brands) and so the book-value may not be an appropriate measure for many firms.

Price/Cash Flow Ratio: 2.8
In theory, the lower the price/cash flow ratio is, the better value the stock is. (not sure about this one)

Market Value per Share: $22.31
(12billion market value divided by 524million shares out) The market value per share is important as this is the price the stock can be sold or exchanged at. It is the value of the stock.

P/E Ratio: 4.1
In general, a high P/E suggests that investors are expecting higher earnings growth in the future in relationship to companies with a lower P/E.
The P/E shows how much investors are willing to pay per dollar of earnings. So RIMM investors pay $4.1 for $1 of earning over a 12month period.

Earnings per share: 5.48  
This means over the course of a year, each share has earned $5.48.
Earnings per share (EPS) are an indicator of a company’s profitability. It shows how much of a company’s profit is allocated to each outstanding share of common stock, so it shows how much money each outstanding share makes (can be per year or per quarter). This can often determine the value of a stock and is an important tool for investors.

Book Value per Share  $18.92  
Were the company to liquidate, common share holders would still receive $18.92 per stock which is relatively high since the market value of the stock is only $22.31 per stock.

0% dividend yield  
RIM has a 0% Dividend Yield. This may be because the technology sector has a rapidly growing environment and it is more beneficial for the company to reinvest into the business. Also there may be fear that the business may turn dramatically for the worse down the road. What is happening now is investors are bailing as they believe that the future of RIM will be worse for earnings and growth than is being experiences now.
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