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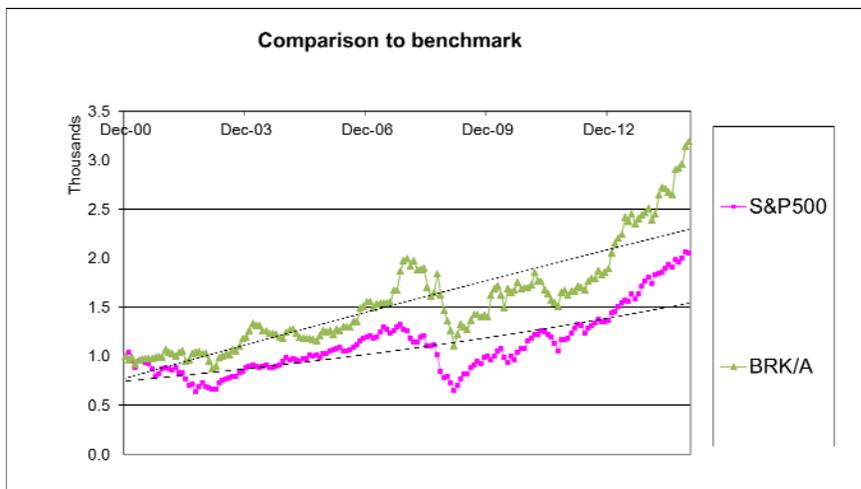
Berkshire Hathaway Intrinsic Value - Update

By Max J. Rudolph, FSA CFA CERA

Full disclosure: I am long Berkshire Hathaway and look forward to the release of Mr. Buffett's annual letter at the end of February each year. This post updates the analysis I initially did in March 2013.

Many investor friends know that I follow Berkshire Hathaway fairly closely and ask if I think it is valued appropriately. Starting with the 2012 annual report Mr. Buffett included information that he said was what he would use to value BRK, so I took it as a challenge to develop a detailed process that was repeatable. The first two years I found the shares to be undervalued by 14% and 13%, respectively, but the strong growth in shares during 2014 has left the shares only 1% undervalued in my calculation this time.

So is it a buy? There are quite a few analysts who will tell you no, it is not. Your follow-up question should be, when was the last time you had a buy recommendation on BRK? The shares were \$19 in 1965 and over \$200,000 now. When did you last (formally and publicly) think they were a good deal? While there have been better times to buy, it is the classic "buy a great company at a fair price" argument. You can see in the following chart that BRK has outperformed over the past 15 years, but had an especially nice run last year.



Succession planning has been joined by reputation risk as the major risks for Berkshire. Mr. Buffett and Charlie Munger, Berkshire's long-time vice chairman, are not getting any younger, but today they have in place a strong team of operational managers and

investment professionals. The reputational risk stems from the rebranding efforts of several of the subsidiaries, adding a reference to BH in their names. I also have some concern that Tracy Britt Cool is in over her head and there will be repercussions at some point. I am very comfortable and impressed with Todd Combs and Ted Weschler.

To make it easy for me to update this post in the future I will continue to refer to the page numbers in the 2012 report where I found the information. I will include the most recent three years of data.

In the 2012 Berkshire Hathaway annual report there are a lot of clues to help you calculate the firm's intrinsic value. On page 6 there is even a section titled Intrinsic Business Value. In addition to that page, I pulled information from pages 7, 9, 15, and 26.

	<u>2,012</u>	<u>2013</u>	<u>2014</u>	
per share investments	113,786	129,253	140,123	
per share pretax earnings from non-insurance businesses	8,085	9,116	10,847	
underwriting profit from insurance over 10 years	18.6	22.0	18.9	billion
underwriting profit from insurance	1.625	3.089	2.668	billion
insurance goodwill	15.5	15.5	15.5	billion
total common stocks carried at market, cost	49.796	56.581	55.056	billion
total common stocks carried at market, market value	87.662	117.505	117.470	billion
class A equivalent common shares outstanding	1.643	1.644	1.643	million
class A equivalent book value	114,214	134,973	146,186	
tax rate	35%	35%	35%	
P/E non insurance subs	12	12	12	
P/E insurance subs	10	10	10	
ability of long term uw profit to continue	50%	50%	50%	
current year profit growth	10%	10%	10%	
<u>Intrinsic value</u>				
per share investments	113,786	129,253	140,123	
adjust for capital gains taxes	8,066	12,970	13,296	
per share after tax investments	105,720	116,283	126,827	
per share after tax value of non-insurance businesses	69,369	78,215	93,067	
per share after tax value of insurance businesses	4,047	4,784	4,116	
Intrinsic value BRK (\$billion)	294.3	327.6	368.0	
Intrinsic value "A" share	179,136	199,282	224,011	
Intrinsic value "B" share	119.42	132.85	149.34	
actual market price, end of February	102.16	115.78	147.41	
percent undervalued	14%	13%	1%	

While the focus here is on the relative value, the intrinsic value grew 12% and the market price 20% over the two years. Any investor would be pleased with these returns.

Since underwriting profit tends to cycle, I have included the average over multiple years. Initially Mr. Buffett included 10 years, but in 2014 changed that to 12 years (shows trend, and is conservative since the float is growing).

Acting as a floor, Mr. Buffett will consider share repurchases at 120% of book value. At year-end 2014 per-share BRK book value was \$146,186, resulting in a floor of about \$175,000 per share. Since year-end, Berkshire Hathaway “A” shares have traded above \$215,000. Last year the market value grew by 27.0%, while the S&P grew by 13.7%.

In my analysis there are three components of value for Berkshire Hathaway; investments, underwriting profit, and profit from non-insurance subsidiaries.

Investments

The annual report shows the amount of investments per share and the basis for a block of investments.

Investments per share – tax rate x (market value – basis)/number of shares = value from investments

$\$140,123 - 35\% \times (117.470 \text{ B} - 55.056 \text{ B}) / 1.643 \text{ M} = \$126,827$ value per share (after tax)

This number has grown 20% over the past two years, driven by strong market returns.

Underwriting Profit

Underwriting profit from insurance operations cycles depending on competitive pressures. Buffett is known to drop out of the market periodically when he (or Ajit Jain) feels premiums are insufficient, changing the rate of growth of float.

A sustainability factor reflects the ability to earn this level (mean over 12 years) of underwriting profit over long periods of time. The P/E works from future earnings so a growth factor is needed to project profits forward one year.

12-year average underwriting profit per share x (1-tax rate) x P/E x sustainability factor x 1 year growth rate = value from underwriting profit

$1.89 \text{ B} / 1.643 \text{ M} \times (1 - 35\%) \times 10 \times 50\% \times (1+10\%) = \$4,116$ value per share

This reflects a small 2% increase over two years. BH Reinsurance, Ajit Jain’s line, is not steady and had a strong year in 2013 while regressing in 2014 despite growing float 14%.

For most companies U/W profit is negative, so this is a bonus due to BRK's efficiency, high rating and reputation. When it entered the structured settlement market it assumed risk-free rates for pricing, and something similar is likely used for casualty risks (or zero investment returns). It can charge more for many types of insurance than others can due to its rating and perceived strength. There are more arbitrary calculations here so results will vary by analyst, but the value is small relative to other components. The goal is to keep U/W profit positive and grow float for the investment compounding magic to work. If you can earn 15% on equity while ignoring investments then the asset returns are free money.

Profit from Non Insurance Subsidiaries

This is the most straightforward calculation.

Profit per share x (1 – tax rate) x P/E x (1 + growth rate) = value from non-insurance subs

$$10,847 \times (1 - 35\%) \times 12 \times (1 + 10\%) = \$93,067$$

As Berkshire buys more companies outright the impact is seen here. Over the past two years it has grown by 34%.

Totals

In total the value as calculated is \$224,011, in the range of the actual price in early March 2015. There is both uncertainty and conservatism around this calculation. It is most likely lower than a true intrinsic value with insider information. Historically, the actual market price rarely gets as high as my calculated value, so anything over 90% might be considered ripe for a correction. We have seen this over the past quarter as the price retreated from a high of \$229,300 in mid December.

Warning: The information provided in this newsletter is the opinion of Max Rudolph and is provided for general information only. It should not be considered investment advice. Information from a variety of sources should be reviewed and considered before decisions are made by the individual investor. My opinions may have already changed, so you don't want to rely on them. Good luck!