http://finance.yahoo.com/news/guru-francis-chou-answers-readers001331315.html

INTRINSIC VALUE (1996, Berkshire Hathaway's Letter to Shareholders)
Now let's focus on two terms that I mentioned earlier and that you will encounter in future annual reports.

Let's start with intrinsic value, an all-important concept that offers the only logical approach to evaluating the relative attractiveness of investments and businesses. Intrinsic value can be defined simply: It is the discounted value of the cash that can be taken out of a business during its remaining life.

The calculation of intrinsic value, though, is not so simple. As our definition suggests, intrinsic value is an estimate rather than a precise figure, and it is additionally an estimate that must be changed if interest rates move or forecasts of future cash flows are revised. Two people looking at the same set of facts, moreover - and this would apply even to Charlie and me - will almost inevitably come up with at least slightly different intrinsic value figures. That is one reason we never give you our estimates of intrinsic value. What our annual reports do supply, though, are the facts that we ourselves use to calculate this value.

Meanwhile, we regularly report our per-share book value, an easily calculable number, though one of limited use. The limitations do not arise from our holdings of marketable securities, which are carried on our books at their current prices. Rather the inadequacies of book value have to do with the companies we control, whose values as stated on our books may be far different from their intrinsic values.

The disparity can go in either direction. For example, in 1964 we could state with certitude that Berkshire's per-share book value was $\$ 19.46$. However, that figure considerably overstated the company's intrinsic value, since all of the company's resources were tied up in a sub-profitable textile business.

Our textile assets had neither going-concern nor liquidation values equal to their carrying values. Today, however, Berkshire's situation is reversed: Now, our book value far understates Berkshire's intrinsic value, a point true because many of the businesses we control are worth much more than their carrying value.

Inadequate though they are in telling the story, we give you Berkshire's book-value figures because they today serve as a rough, albeit significantly understated, tracking measure for Berkshire's intrinsic value. In other words, the percentage change in book value in any given year is likely to be reasonably close to that year's change in intrinsic value.

You can gain some insight into the differences between book value and intrinsic value by looking at one form of investment, a college education. Think of the education's cost as its "book value." If this cost is to be accurate, it should include the earnings that were foregone by the student because he chose college rather than a job.

For this exercise, we will ignore the important non-economic benefits of an education and focus strictly on its economic value. First, we must estimate the earnings that the graduate will receive over his lifetime and subtract from that figure an estimate of what he would have earned had he lacked his education. That gives us an excess earnings figure, which must then be discounted, at an appropriate interest rate, back to graduation day. The dollar result equals the intrinsic economic value of the education.

Some graduates will find that the book value of their education exceeds its intrinsic value, which means that whoever paid for the education didn't get his money's worth. In other cases, the intrinsic value of an education will far exceed its book value, a result that proves capital was wisely deployed. In all cases, what is clear is that book value is meaningless as an indicator of intrinsic value.

## 1985

Historically, Berkshire shares have sold modestly below intrinsic business value. With the price there, purchasers could be certain (as long as they did not experience a widening of this discount) that their personal investment experience would at least equal the financial experience of the business. But
recently the discount has disappeared, and occasionally a modest premium has prevailed.

The elimination of the discount means that Berkshire's market value increased even faster than business value (which, itself, grew at a pleasing pace). That was good news for any owner holding while that move took place, but it is bad news for the new or prospective owner. If the financial experience of new owners of Berkshire is merely to match the future financial experience of the company, any premium of market value over intrinsic business value that they pay must be maintained.

Management cannot determine market prices, although it can, by its disclosures and policies, encourage rational behavior by market participants. My own preference, as perhaps you'd guess, is for a market price that consistently approximates business value. Given that relationship, all owners prosper precisely as the business prospers during their period of ownership. Wild swings in market prices far above and below business value do not change the final gains for owners in aggregate; in the end, investor gains must equal business gains. But long periods of substantial undervaluation and/or overvaluation will cause the gains of the business to be inequitably distributed among various owners, with the investment result of any given owner largely depending upon how lucky, shrewd, or foolish he happens to be.

Over the long term there has been a more consistent relationship between Berkshire's market value and business value than has existed for any other publicly-traded equity with which I am familiar. This is a tribute to you. Because you have been rational, interested, and investment-oriented, the market price for Berkshire stock has almost always been sensible. This unusual result has been achieved by a shareholder group with unusual demographics: virtually all of our shareholders are individuals, not institutions. No other public company our size can claim the same.

You might think that institutions, with their large staffs of highlypaid and experienced investment professionals, would be a force for stability and reason in financial markets. They are not: stocks heavily owned and constantly monitored by institutions have often been among the most inappropriately valued.

Ben Graham told a story 40 years ago that illustrates why investment professionals behave as they do: An oil prospector, moving to his heavenly reward, was met by St. Peter with bad news. "You're qualified for residence", said St. Peter, "but, as you can see, the compound reserved for oil men is packed.

There's no way to squeeze you in." After thinking a moment, the prospector asked if he might say just four words to the present occupants. That seemed harmless to St. Peter, so the prospector cupped his hands and yelled, "Oil discovered in hell." Immediately the gate to the compound opened and all of the oil men marched out to head for the nether regions. Impressed, St. Peter invited the prospector to move in and make himself comfortable. The prospector paused. "No," he said, "I think I'll go along with the rest of the boys. There might be some truth to that rumor after all."

Indeed, the formula for valuing all assets that are purchased for financial gain has been unchanged since it was first laid out by a very smart man in about 600 B.C. (though he wasn't smart enough to know it was 600 B.C.).

The oracle was Aesop and his enduring, though somewhat incomplete, investment insight was "a bird in the hand is worth two in the bush." To flesh out this principle, you must answer only three questions. How certain are you that there are indeed birds in the bush? When will they emerge and how many will there be? What is the risk-free interest rate (which we consider to be the yield on long-term U.S. bonds)? If you can answer these three questions, you will know the maximum value of the bush $3 / 4$ and the maximum number of the birds you now possess that should be offered for it. And, of course, don't literally think birds. Think dollars.

Aesop's investment axiom, thus expanded and converted into dollars, is immutable. It applies to outlays for farms, oil royalties, bonds, stocks, lottery tickets, and manufacturing plants. And neither the advent of the steam engine, the harnessing of electricity nor the creation of the automobile changed the formula one iota $3 / 4$ nor will the Internet. Just insert the correct
numbers, and you can rank the attractiveness of all possible uses of capital throughout the universe.


#### Abstract

Common yardsticks such as dividend yield, the ratio of price to earnings or to book value, and even growth rates have nothing to do with valuation except to the extent they provide clues to the amount and timing of cash flows into and from the business. Indeed, growth can destroy value if it requires cash inputs in the early years of a project or enterprise that exceed the discounted value of the cash that those assets will generate in later years. Market commentators and investment managers who glibly refer to "growth" and "value" styles as contrasting approaches to investment are displaying their ignorance, not their sophistication. Growth is simply a component $3 / 4$ usually a plus, sometimes a minus $3 / 4$ in the value equation.


Alas, though Aesop's proposition and the third variable $3 / 4$ that is, interest rates $3 / 4$ are simple, plugging in numbers for the other two variables is a difficult task. Using precise numbers is, in fact, foolish; working with a range of possibilities is the better approach.

Usually, the range must be so wide that no useful conclusion can be reached. Occasionally, though, even very conservative estimates about the future emergence of birds reveal that the price quoted is startlingly low in relation to value. (Let's call this phenomenon the IBT $3 / 4$ Inefficient Bush Theory.) To be sure, an investor needs some general understanding of business economics as well as the ability to think independently to reach a well-founded positive conclusion. But the investor does not need brilliance nor blinding insights.

At the other extreme, there are many times when the most brilliant of investors can't muster a conviction about the birds to emerge, not even when a very broad range of estimates is employed. This kind of uncertainty frequently occurs when new businesses and rapidly changing industries are under examination. In cases of this sort, any capital commitment must be labeled speculative.

Now, speculation $3 / 4$ in which the focus is not on what an asset will produce but rather on what the next fellow will pay for it $3 / 4$ is neither illegal, immoral nor un-American. But it is not a game in which Charlie and I wish
to play. We bring nothing to the party, so why should we expect to take anything home?

The line separating investment and speculation, which is never bright and clear, becomes blurred still further when most market participants have recently enjoyed triumphs. Nothing sedates rationality like large doses of effortless money. After a heady experience of that kind, normally sensible people drift into behavior akin to that of Cinderella at the ball. They know that overstaying the festivities $3 / 4$ that is, continuing to speculate in companies that have gigantic valuations relative to the cash they are likely to generate in the future $3 / 4$ will eventually bring on pumpkins and mice. But they nevertheless hate to miss a single minute of what is one helluva party. Therefore, the giddy participants all plan to leave just seconds before midnight. There's a problem, though: They are dancing in a room in which the clocks have no hands.

Last year, we commented on the exuberance $3 / 4$ and, yes, it was irrational $3 / 4$ that prevailed, noting that investor expectations had grown to be several multiples of probable returns. One piece of evidence came from a Paine Webber-Gallup survey of investors conducted in December 1999, in which the participants were asked their opinion about the annual returns investors could expect to realize over the decade ahead. Their answers averaged $19 \%$. That, for sure, was an irrational expectation: For American business as a whole, there couldn't possibly be enough birds in the 2009 bush to deliver such a return.

Far more irrational still were the huge valuations that market participants were then putting on businesses almost certain to end up being of modest or no value. Yet investors, mesmerized by soaring stock prices and ignoring all else, piled into these enterprises. It was as if some virus, racing wildly among investment professionals as well as amateurs, induced hallucinations in which the values of stocks in certain sectors became decoupled from the values of the businesses that underlay them.

This surreal scene was accompanied by much loose talk about "value creation." We readily acknowledge that there has been a huge amount of true value created in the past decade by new or young businesses, and that there is much more to come. But value is destroyed, not created, by any business that loses money over its lifetime, no matter how high its interim valuation may get.

What actually occurs in these cases is wealth transfer, often on a massive scale. By shamelessly merchandising birdless bushes, promoters have in recent years moved billions of dollars from the pockets of the public to their own purses (and to those of their friends and associates). The fact is that a bubble market has allowed the creation of bubble companies, entities designed more with an eye to making money off investors rather than for them. Too often, an IPO, not profits, was the primary goal of a company's promoters. At bottom, the "business model" for these companies has been the old-fashioned chain letter, for which many fee-hungry investment bankers acted as eager postmen.

But a pin lies in wait for every bubble. And when the two eventually meet, a new wave of investors learns some very old lessons: First, many in Wall Street $3 / 4$ a community in which quality control is not prized $3 / 4$ will sell investors anything they will buy. Second, speculation is most dangerous when it looks easiest.

At Berkshire, we make no attempt to pick the few winners that will emerge from an ocean of unproven enterprises. We're not smart enough to do that, and we know it. Instead, we try to apply Aesop's 2,600-year-old equation to opportunities in which we have reasonable confidence as to how many birds are in the bush and when they will emerge (a formulation that my grandsons would probably update to "A girl in a convertible is worth five in the phonebook."). Obviously, we can never precisely predict the timing of cash flows in and out of a business or their exact amount. We try, therefore, to keep our estimates conservative and to focus on industries where business surprises are unlikely to wreak havoc on owners. Even so, we make many mistakes: I'm the fellow, remember, who thought he understood the future economics of trading stamps, textiles, shoes and second-tier department stores.

Lately, the most promising "bushes" have been negotiated transactions for entire businesses, and that pleases us. You should clearly understand, however, that these acquisitions will at best provide us only reasonable returns. Really juicy results from negotiated deals can be anticipated only when capital markets are severely constrained and the whole business world is pessimistic. We are 180 degrees from that point.

